



# Channeling the Power of Data to Achieve Your Procurement Goals

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Roundtable | March 26, 2024



Discuss **best practices for collecting, analyzing, and activating data** to achieve procurement goals



Share procurement data transformation **successes key insights, and lessons learned** from peer governments.

# PEN Pulse Poll



Which of the following most closely aligns with **how your department is using data to improve procurement practices?**



What **data** does your government collect that can provide insights into **the current state of procurement operations?**

# How can you engage in this session?



Please use the  
**“Raise Hand”**  
function on Zoom



Look out for  
**discussions and  
resources**  
in the Zoom chat



Actively participate  
in the **Community  
Roundtable  
Breakout Rooms**

What can your government gain from using data and metrics to inform your procurement operations?

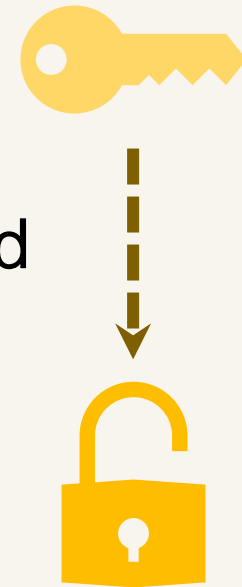
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# Data can be the key to more effective procurement

## Using data in your procurement operation is the first step to:

- Diagnosing bottlenecks in the procurement process
- Facilitating proactive decision-making and prioritization
- Understanding where contract outcomes can be improved
- Maximizing the impact and value of contracts
- Advancing economic development goals
- Advocating for more staffing capacity



# Data is valuable – but what is challenging about it?

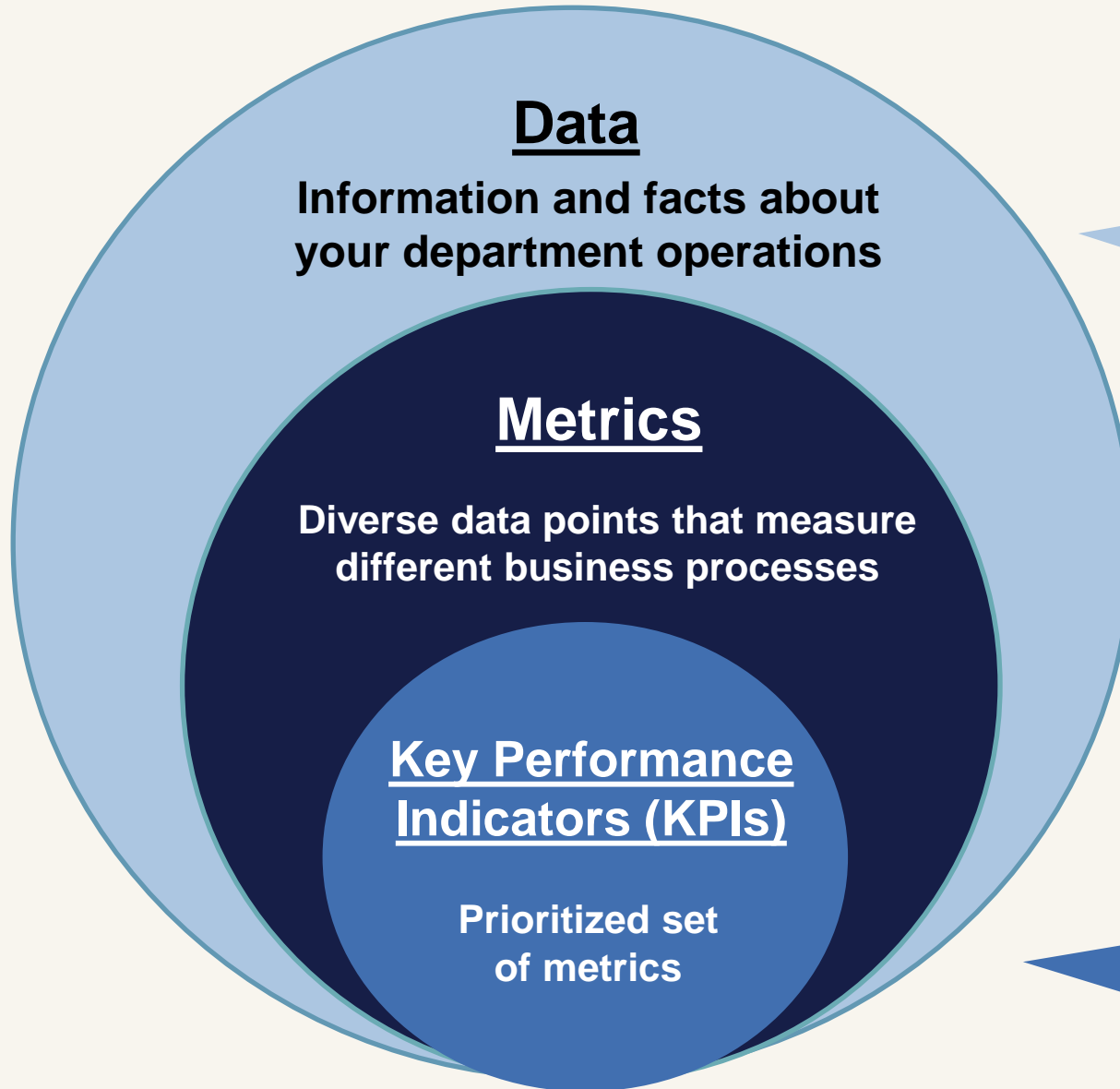
*“Data is fragmented and siloed across my government – if only I had insight into what type of data is available!”*

*“There is a **lack of data literacy**. How can we invest in our staff and upskill them to analyze and leverage data for our procurement operations more effectively?”*

*“Slow adaptation of emerging data technologies is common - we are **using outdated technology** on outdated infrastructure!”*

**What challenges have you encountered regarding using data to improve procurement and contracting in your government?**

# Data, Metrics & KPIs...oh, my!



Data can come from many sources – think creatively about how to capture useful information in your organization.

Create a robust menu of metrics that can be used to assess the health of the procurement process!

KPIs are your department's **VITAL** signs to measure efficiency and productivity outcomes – **choose wisely!**

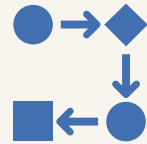


# Characteristics of Quality Metrics and KPIs



## Relevant

Does the metric tell us something important about service delivery?



## Actionable

Are we able to make changes in response to this metric?



## Comprehensible

Is the metric simple enough to explain to a broad audience and use on a regular basis?







## Timely

Will we be able to see changes in this metric on a regular basis?

**Remember: If you can't track it, collect data on it, or explain it, it's not a quality metric or KPI!**

# Examples of Commonly Used Procurement Metrics

Use Case		Sample Metrics	
	<p><b>Efficient</b></p> <p>Make procurement processes faster</p>	<ul style="list-style-type: none"> <li>• Average cycle time</li> <li>• # of cancellations</li> <li>• # of Rebids</li> </ul>	<ul style="list-style-type: none"> <li>• Contract \$ saved</li> <li>• Staff satisfaction rate</li> <li>• Vendor/bidder perception rating</li> </ul>
	<p><b>Equitable</b></p> <p>Increase vendor diversity</p>	<ul style="list-style-type: none"> <li>• Total response rate</li> <li>• # of new vendors</li> </ul>	<ul style="list-style-type: none"> <li>• # of Contract outcomes met</li> <li>• Vendor satisfaction rate</li> </ul>
	<p><b>Results-Driven</b></p> <p>Promote high-quality contract responses and performance</p>	<ul style="list-style-type: none"> <li>• % increase of diverse vendor participation</li> <li>• # of contracts that achieve equitable service outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Total diverse contract spend</li> <li>• # of RFP/contracts with equity-related goals and metrics</li> </ul>
	<p><b>Strategic</b></p> <p>Improve staff knowledge &amp; skills</p>	<ul style="list-style-type: none"> <li>• # of Staff trained</li> <li>• # of staff requiring retraining</li> </ul>	<ul style="list-style-type: none"> <li>• # or % of forecasted/planned procurements</li> </ul>

*...and more! This list is not exhaustive; there could be many ways to measure improving procurement.*

# Regular data reporting can reveal critical problem areas to focus strategic attention

## Step 1. Understand your goal.

- *Why* are you using data?
- Is there a change to make or a question to answer?

## Step 2. Pick the right indicators.

- Are these indicators feasible to track?
- Will they make progress toward department goals?

## Step 3. Collect and analyze data.

- What are the available data sources?
- How often will you analyze it?

# Take steps to build an actionable, problem-driven data plan

**Goal** - *What you are trying to accomplish*

**Ex. Get more responses to solicitations**



## Key Performance Indicator (KPI)

*Ex. Goal: Get more or better responses to solicitations*

- ✓ **Response rates:** average number of responses (proposals or bids received) per solicitation
- ✓ **Rate of competitive solicitations:** percentage of solicitations with more than 3 responses
- ✓ **New vendors awarded contracts:** number or percentage of new vendors awarded contracts



## Data Source

*KPI: average number of proposals or bids received per solicitation*

- ✓ **E-procurement software**
- ✓ **Staff procurement records** (excel logs, paper records, etc.)

How can governments create a data-driven culture and empower staff to use procurement data as a tool for change?

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# The Importance of Data Democratization

**Data democratization** (*making data accessible to the end user*) increases productivity and efficiency for procurement teams by:

- Empowering, training, and **upskilling non-technical users**
- **Investing in technology infrastructure** improvements
- **Encouraging feedback loops** to discuss data challenges and innovations
- **Shifting organizational culture** to incorporate data in decision-making

**The process of democratizing data is ongoing –  
this should be a continuous practice!**

How can governments effectively analyze data to identify trends and accurately diagnose procurement challenges?

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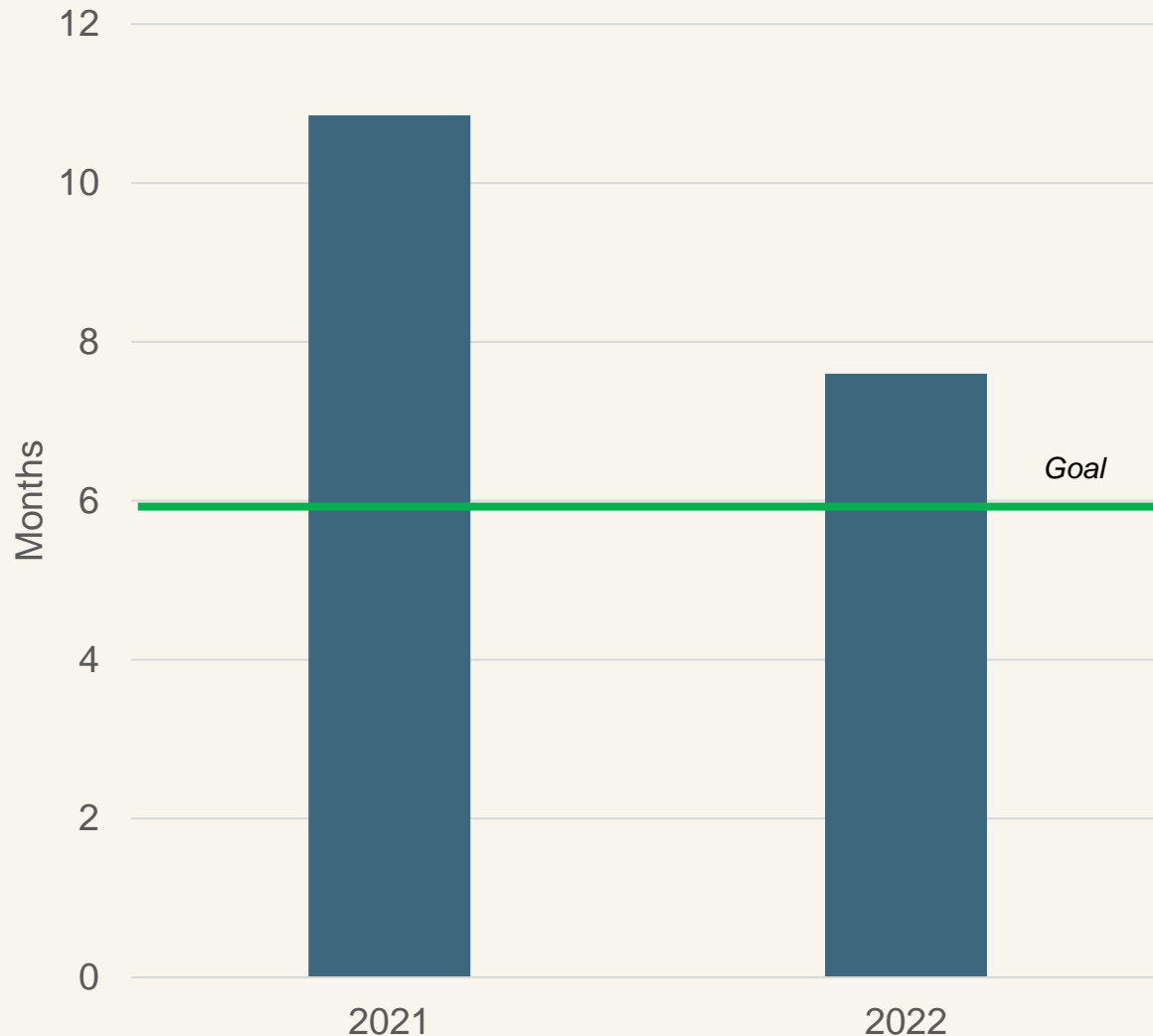
# Let's try it together!





# Citylandia Procurement Dashboard

## A. Average RFP Cycle Times

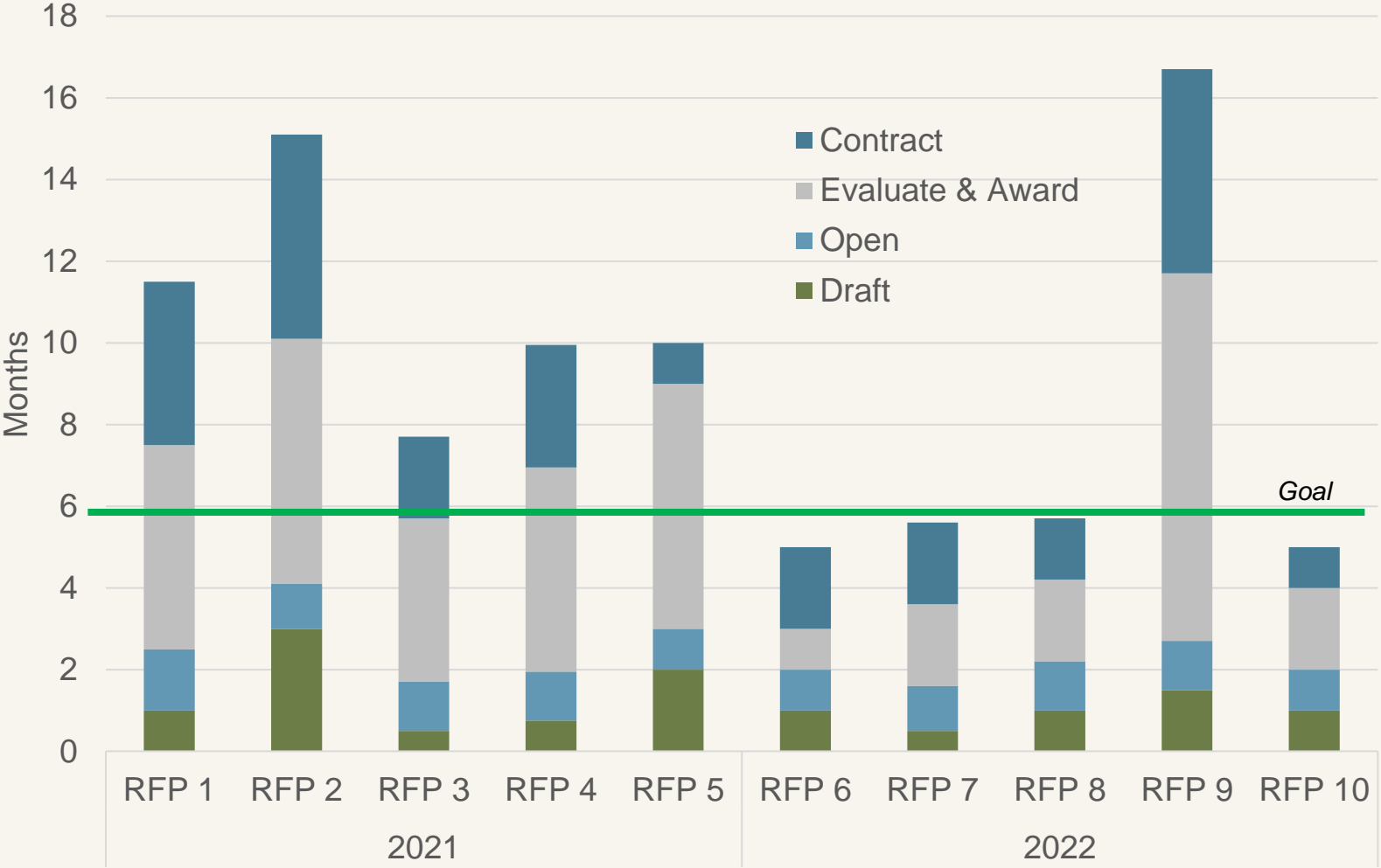


**Goal: Reduce cycle times to less than 6 months**

- What **story** is the data telling?
- What **questions** do you have about the data?
- What **additional data** is needed to help us **diagnose the problem**?

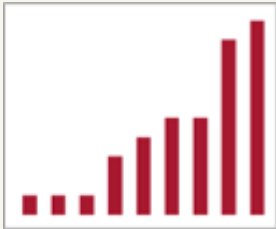

# Looking at the data a bit more in depth

### B. RFP Cycle Times



- What **story** is the data telling us now?
- What **actions** should we consider taking to get **closer to our goal**?

# What's the real story the datasets are telling us?

Techniques to Reveal Patterns in Data		
Visualize the data		<ul style="list-style-type: none"><li>•Charts</li><li>•Tables</li><li>•Maps</li></ul>
Disaggregate the data		<ul style="list-style-type: none"><li>•Month, quarter, year</li><li>•Solicitation type</li><li>•Department</li><li>•Buyer</li><li>•Vendor</li><li>•Industry</li><li>•Good / service</li><li>•Process stage</li></ul>
Create ratios	<b>10:1</b>	<ul style="list-style-type: none"><li>•Unit costs</li><li>•Workloads</li><li>•Throughput</li></ul>

# How have governments utilized data to tackle complex procurement challenges?

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# Data-Driven Governments

**How have governments used data to address complex procurement challenges?**

## Baton Rouge, LA



## Seattle, WA



# Data-Driven Procurement Processing

BATON ROUGE, LA



BR

CITY OF BATON ROUGE  
PARISH OF EAST BATON ROUGE

# Government Spotlight: Baton Rouge, LA

The City-Parish procurement process is burdened by inefficiencies that result in prolonged wait times for purchase order and contract generation, ultimately delaying vendor payment and the procurement of goods and services.

## Context

### Who is impacted?

- Departments
- Vendors
- Residents

### What are the ideal outcomes?

- Reduced processing times
- Improved project timelines
- Enhanced vendor relations
- Revisions to internal policies

## Activating Data

### Who was involved in the process?

- MUNIS Workflow Working Group

### Data sources

- Purchase orders by department
- Contracts
- Requisition
- Workflow data in the MUNIS system

# Key Metrics

## Days Spent in Requisition Workflow

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- The **average number of business days** a requisition spends in each step of the procurement workflow
- **Identifies bottlenecks** within the procurement workflow
- Allows modification **impact validation**

## Holdings and Rejects in Workflow

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- The **number of rejects and holds in a workflow**
- Signals **missing information or errors** in processing
- Helps **identify** what **departments need additional training** on procurement policies

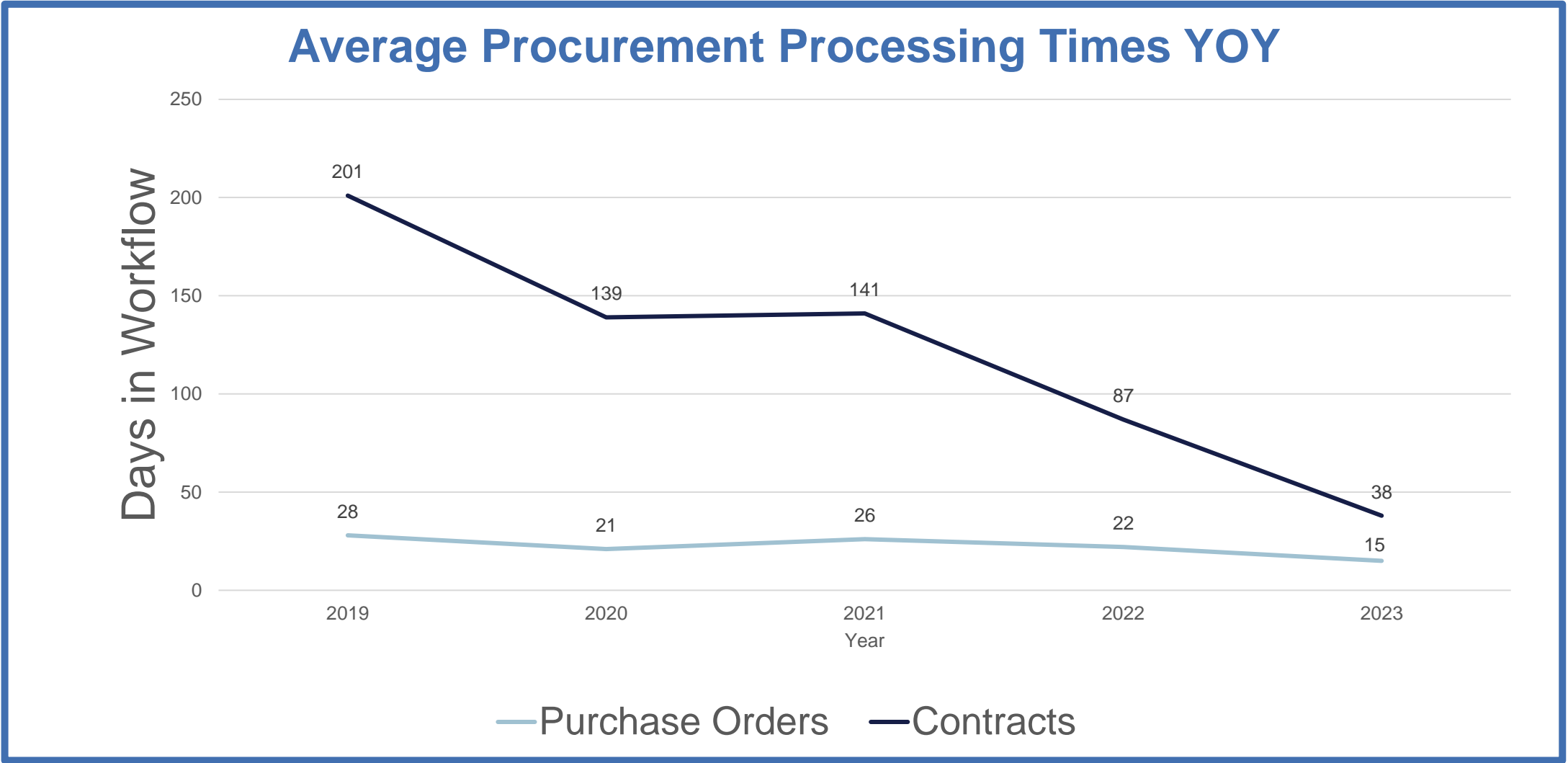
## Days to Create Purchase Order/Contract

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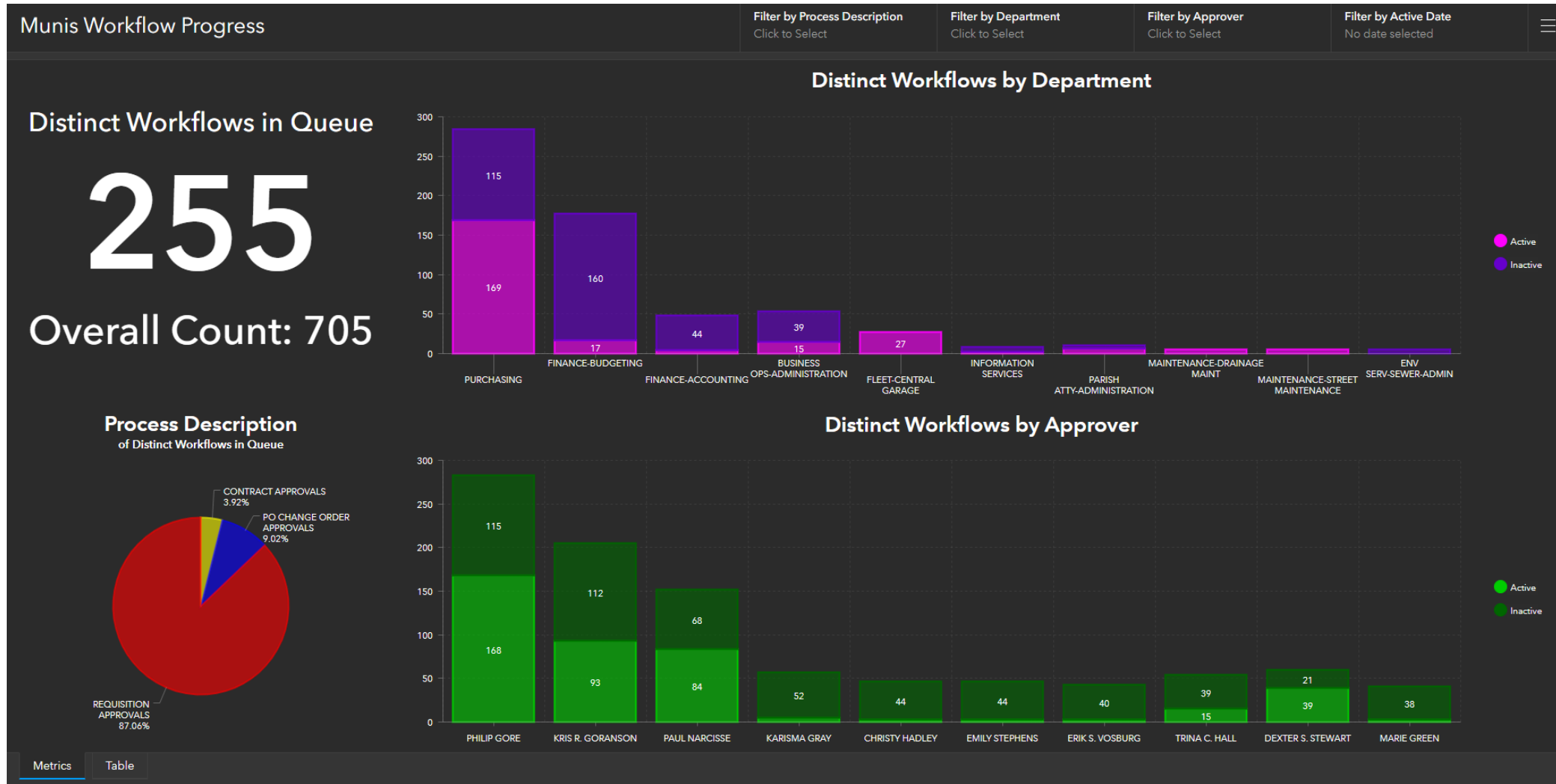
- The **average length of time to process a purchase order or contract**
- Allows insight into which types of **purchase orders or contracts** have the **longest processing time**



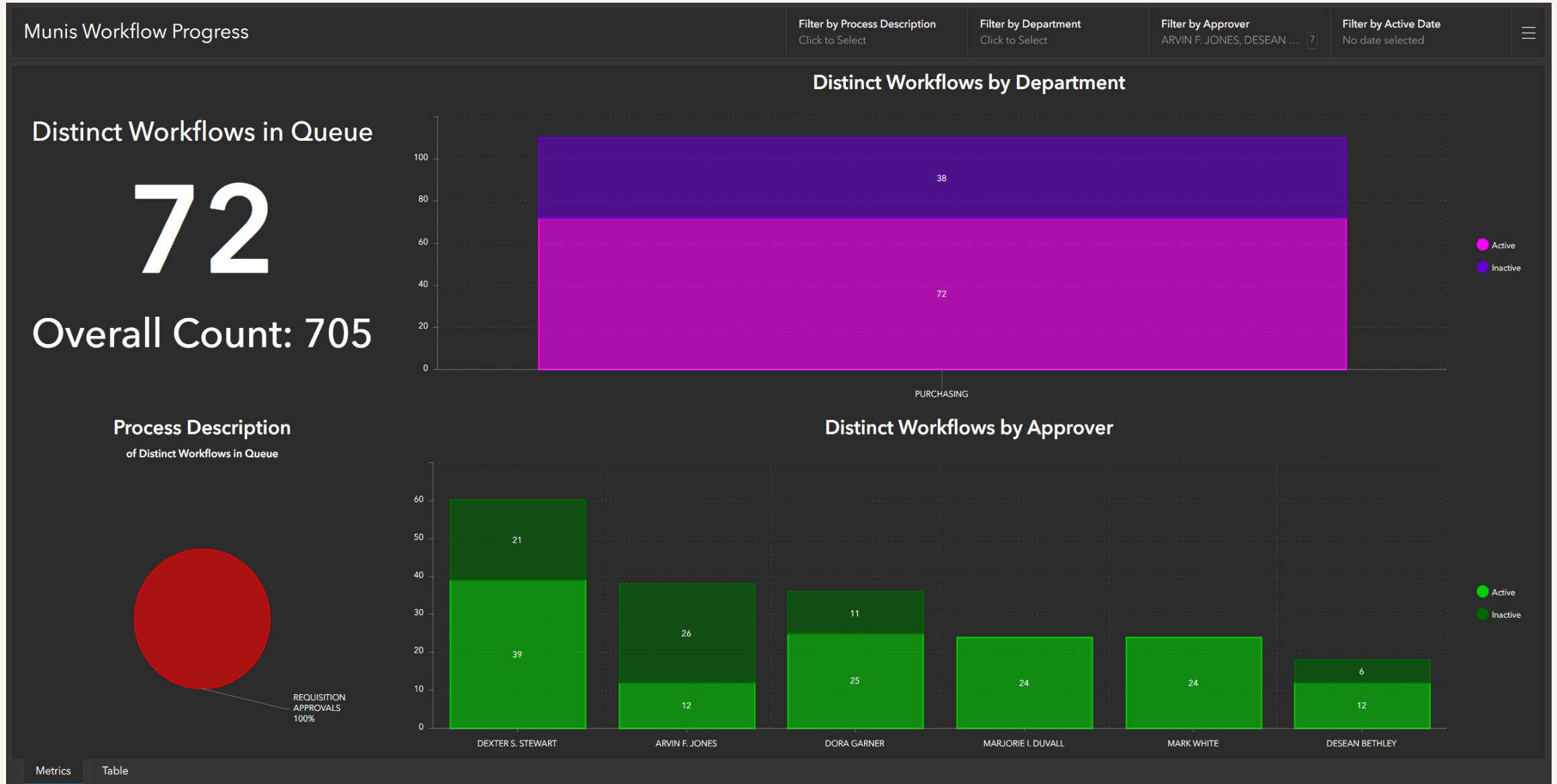
# Data Driven Workflow Improvements



# Munis Workflow Progress Dashboard



# Munis Workflow Progress Dashboard: Purchasing Department



# Key Learnings & Insights



## Peel the data onion!

Take the time to peel back the data – go **layer by layer** to see how each **step of the workflow can influence procurement processes.**



## Tech can't fix it all!

Technology can help identify issues, but it can't always solve them; **equip the people powering the data with the right tools** they need to succeed.



## Teamwork makes the dream work!

Maximizing efficiency for all departments **requires identifying gaps in resources and workflow** adjustments, without **singling out** any individual or department.



**Seattle**

**Seattle, WA**

**Using automated  
data visualization to  
increase efficiency**



# Government Spotlight: Seattle, WA

**Key Challenge:** Purchasing Manager did not have an easy way to manage her team's workload and allocate new requests to buyers.

## Context

- Seattle's Purchasing Manager **receives hundreds of requests** that she processes and allocates to her team
- **Tracking each buyer's current queue of requests was a manual process** run through pivot tables in Excel
- An **easily accessible, quickly digestible visual** snapshot of all requests

## Activating Data

- Identified **request allocation** as a recurring activity that took up bandwidth
- Worked with the Manager to **understand her needs and identify functions to be automated**
- Supported by a **City employee who has expertise** in Microsoft PowerBI

# Key Metrics

## Status of request

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- Current **stage of each solicitation** request, disaggregated
- **Increases transparency** for city departments and managers
- **Positive accountability measure** to complete outstanding tasks

## Buyer workload

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- Shows the **volume of each team member's workload** across a time series
- Used to **assess and allocate** new requests as they come in

## Turnaround time

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- **Number of business days** of the full life **cycle of a solicitation** (*from request submitted to awarded*)
- Seattle **sets specific targets for cycle time** to communicate realistic timelines to departments

# Data Dashboards

## FAS PC: Purchasing Performance Measures -- Active Requests

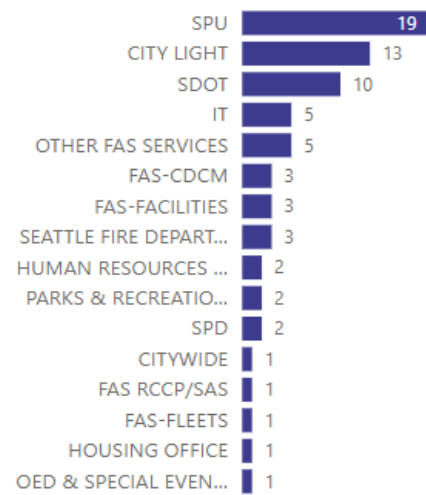
Data refreshed on: 03/25/24 04:01 PM

Total No. of Active Requests

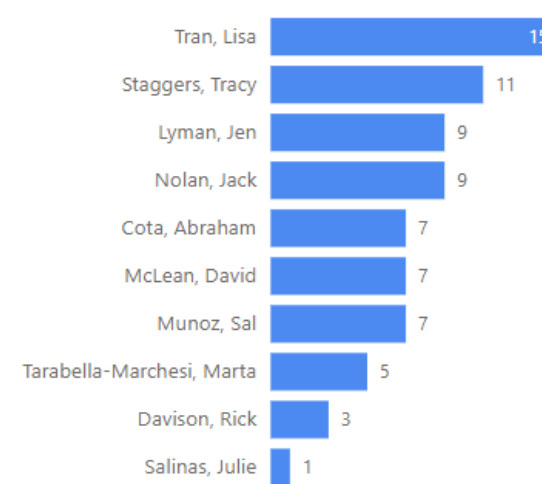
**73**

Status	No. of Requests
Pending Complete Request	5
Planning Phase	30
Draft in Development	16
Department Review	1
PC Management Review	5
Solicitation Phase	19
Bid/Proposal Evaluation Phase	1
Negotiation Phase	21
Contract Development	6

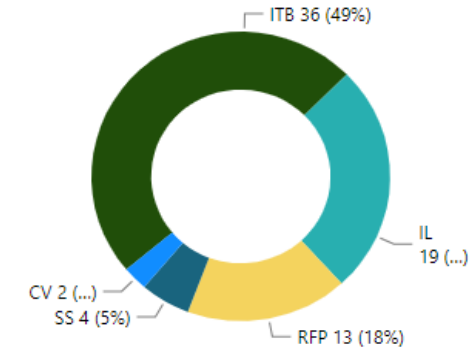
No. of Requests by Department



No. of Requests by Buyers



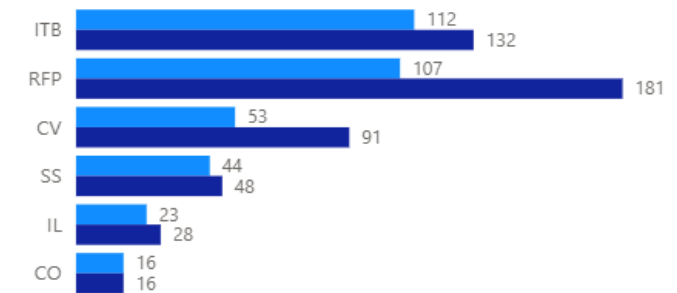
No. of Requests by Procurement Type



Requisition/ Contract Number	Project Description	Department- Business Unit	Status	Date Complete Package Received	Working Period (Business Days)	Contract Administrator	Type of Procurement
6045	Background Check	CL0	PC Management Review	01/13/22	573	Tran, Lisa	RFP
6039	Debris Removal and Hauling	SU0	Solicitation Phase	08/03/22	429	Munoz, Sal	ITB
6022	FAS - Janitorial - Customer Service Centers	FA1	Draft in Development	08/09/22	425	Tran, Lisa	ITB
6046	Outfall CCTV/Cleaning	SU0	Solicitation Phase	08/16/22	420	Nolan, Jack	ITB
6061	Fault Limiters	CL0	Solicitation Phase	09/09/22	402	McLean, David	ITB

### Procurement Types by Cycle Time and Working Period

● Avg Completed Cycle Time (BD) ● Avg Working Period (BD)





# Data Dashboards

## FAS PC: Purchasing Performance Measures

Data refreshed on: 03/25/24 04:01 PM

Department Name

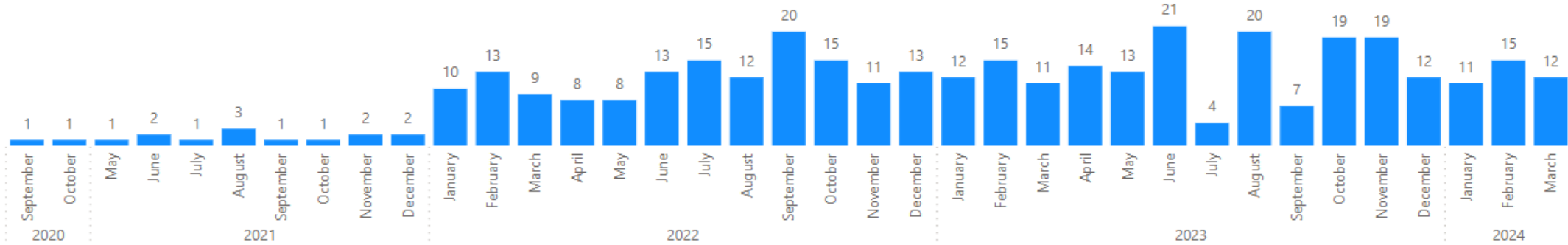
All

Status	No. of Requisition/Contracts
Bid/Proposal Evaluation Phase	1
Canceled	47
Completed	244
Contract Development	3
Department Review	1
<b>Total</b>	<b>363</b>

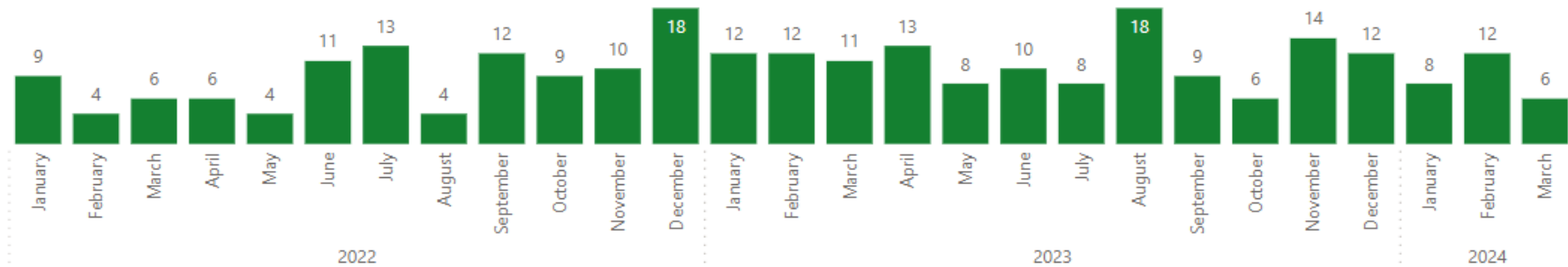
Type of Procurement	Average of Completed Cycle Time (Business Days)
CO	16
CV	53
IL	23
ITB	112
RFP	107
SS	44
<b>Total</b>	<b>51</b>

Type Award	No. of Requisition/Contracts
Blanket	153
Blanket Pool	23
No Award	22
Purchase Order	148
<b>Total</b>	<b>363</b>

No. of Requests by Year and Month



No. of Completed by Year and Month



No. of Active Requests



# Key Learnings & Insights



## **Collect data digitally!**

Begin with the end in mind and attempt to build automated processes, where applicable, to make data collection less intensive and sustainable.



## **Harness the power of subject matter experts!**

Assess the skillset across city departments and tap into the knowledge and expertise of tech-savvy staff before sourcing external resources.



## **Don't let perfect be the enemy of the good!**

Do not wait to use data – activate it as soon as possible to improve procurement operations. Your team can always pivot, refine and adjust over time.



# Excel Data Visualization Simulation

Post-Event Session

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March 26, 2024

# How can you engage in this session?



**Why are you joining this additional discussion?**



**What is your current skill level in Microsoft Excel?**



**Have you ever created an Excel data dashboard?**

# Data Visualization Steps

## Step 1:

### Clarify Dashboard Purpose

- Understand the **dashboard goals**
- Map out the "**data story**"
- Determine **target audience**
- Dashboard update frequency
- **Identify 2-4 KPIs** to start!

## Step 2:

### Data Planning & Manipulation

- Access, **verify, and validate data**
- **Interpret the data**
- **Ask additional questions**
- **Disaggregate** the data

## Step 3:

### Data Visualization & Analysis

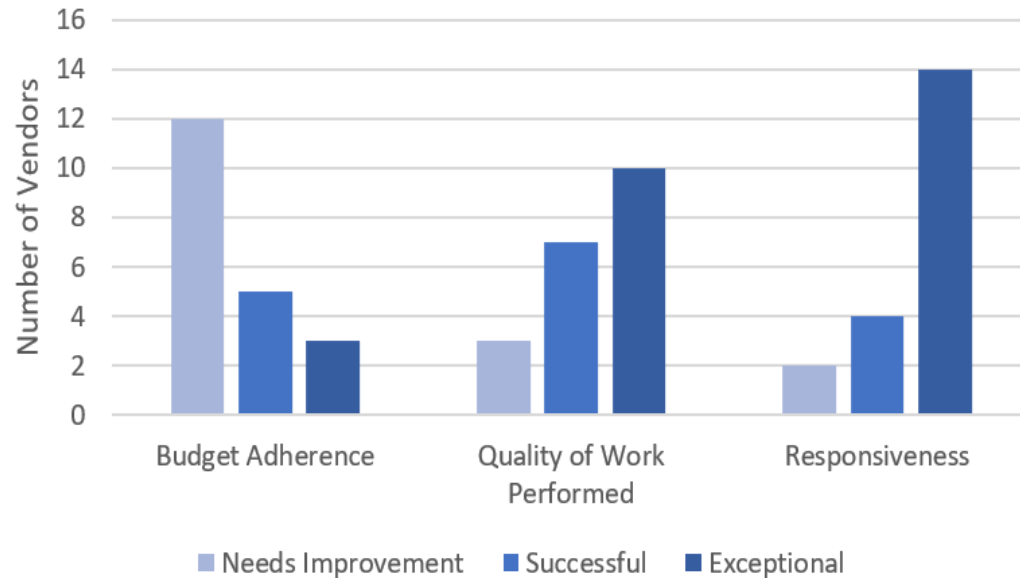
- **Create a graph/chart!**
- **Extract data insights**
- **Customize!**
- **Beta Test** the dashboard!
- Activate/**share the data**

**Pro-Tip: Use "Recommended Charts" Wizard in Excel for Data Visualization help!**

# Activity: Create Citylandia Procurement Dashboard

## Results-Driven

Vendors' Performance in Contract KPIs (2023)



## Diverse vendor participation for priority procurements

## Equitable

Vendor Classification	2022	2023	% Change YoY
Local Respondents	24	36	50%
MBE Respondents	12	24	100%
WBE Respondents	8	6	-25%

# Appendix

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# Data “menu” for managing procurement transformation



## Efficient & Fair

- **Cycle time**
- Cancellations
- Rebids
- **Staff time saved or reallocated**
- Contract \$ saved or reallocated
- **Staff experience**
- Bidder experience
- Vendor perception



## Results-Driven

- **% RFPs with results-driven goals, metrics**
- **Response rate**
- New vendors
- **Contract outcomes met**
- **Vendor performance**



## Equitable

- **Diverse vendor participation**
- **Diverse contract spend**
- RFP/contracts with equity-related goals and metrics
- Contracts that achieve outcomes for equitable service delivery



## Strategic

- **Staff trained**
- Trainers trained
- Staff reporting knowledge and readiness on results-driven contract
- **New strategic purchasing roles**
- Planned procurements
- Visibility & status of procurement as strategic function

*...and more! This list is not exhaustive; there could be many ways to measure improving procurement*



# Limited datasets? No problem!

Imagine you talked to your IT department and they can't pull the procurement data you want. What might you try to do instead?

- **Start with what you have.** Choose two or three performance metrics that you can start tracking immediately!
- **Augment with qualitative data.** *Talking to people is data!* Qualitative data can often be a helpful starting point and complements insights from quantitative data.
- **Analyze a sample of data to draw insights.** Start by collecting or analyzing a smaller sampling of data to draw insights and build from there.
- **Align your vision with your available tools.** It might be your vision to create a data warehouse, but you can create magic in Excel!

# Data-Driven Procurement Processing

BATON ROUGE, LA



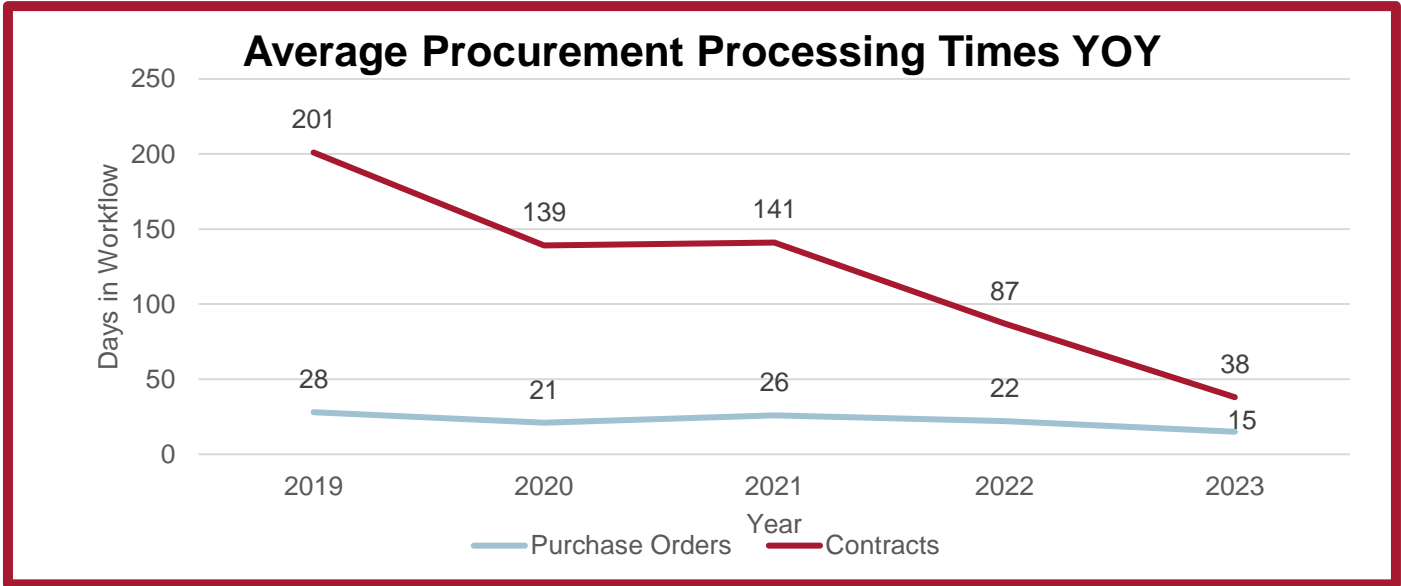
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CITY OF BATON ROUGE  
PARISH OF EAST BATON ROUGE

# Requisition Request Data

Requisitions	<5K	>=5K	<=25K	<=35K	<=50K	<=75K	<=100K	>100K
10,397 Total	9,482	915	606	683	758	816	840	75
Requisitions in Purchasing Manager Queue		915	309	232	157	99	75	0

Req. > 5k	Req. to PO	Step 60	<=25K	<=35K	<=50K	<=75K	<=100K
Average Days	15	7	10	9	9	9	8
Days Gained			5	6	6	816	7
% Improvement			33%	40%	40%	40%	47%



**Memphis, TN**

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**Data-Driven  
Case Study**



# Memphis faced common procurement problems

- Focused more on process compliance than outcomes



**Treated as a back-office,  
administrative function**

**Focused more on  
process compliance than  
outcomes**

**Unable to anticipate  
upcoming work or  
distinguish between high  
and low priority contracts**

# Memphis analyzed procurement data to improve operations and outcomes

## Approach

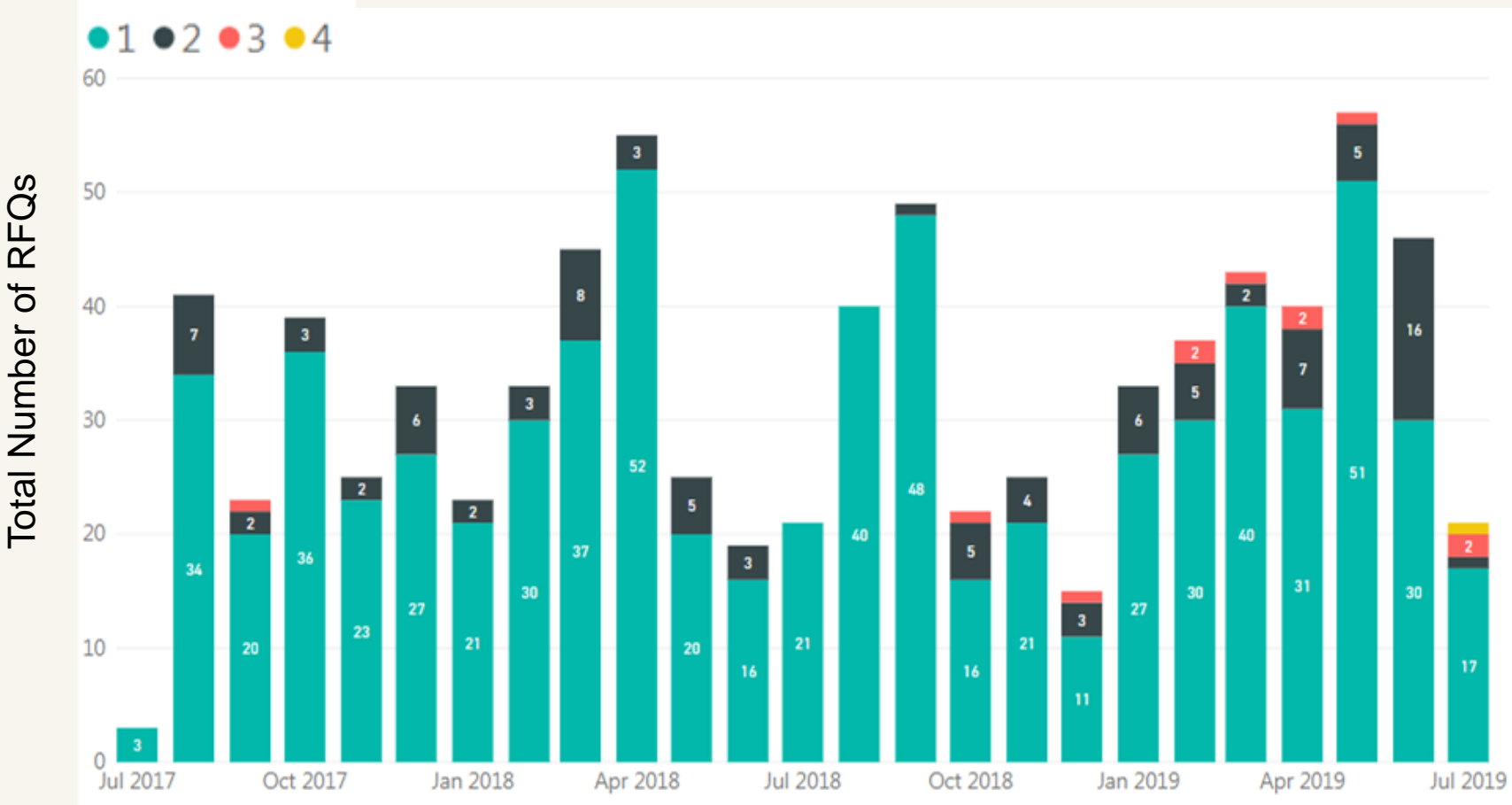
- Developed a dashboard to streamline procurement processes and prioritize contract performance
- Reviewed procurement data and priority procurements monthly with City leadership
- Met with leaders from City divisions with highest contracting volume to identify and plan for upcoming high priority procurements

# Memphis leveraged data momentum to improve and elevate procurement

## Opportunities

- New Chief Procurement Officer
  - Invested in addressing process challenges and turning procurement into a strategic function
- Data-driven management practices among senior leadership
  - Mayor's monthly Performance Review Meeting provided forum for cross-departmental collaboration and data-informed decision-making
  - Office of Performance Management supported analysis of procurement data

# Procurement data revealed low procurement competition in Memphis

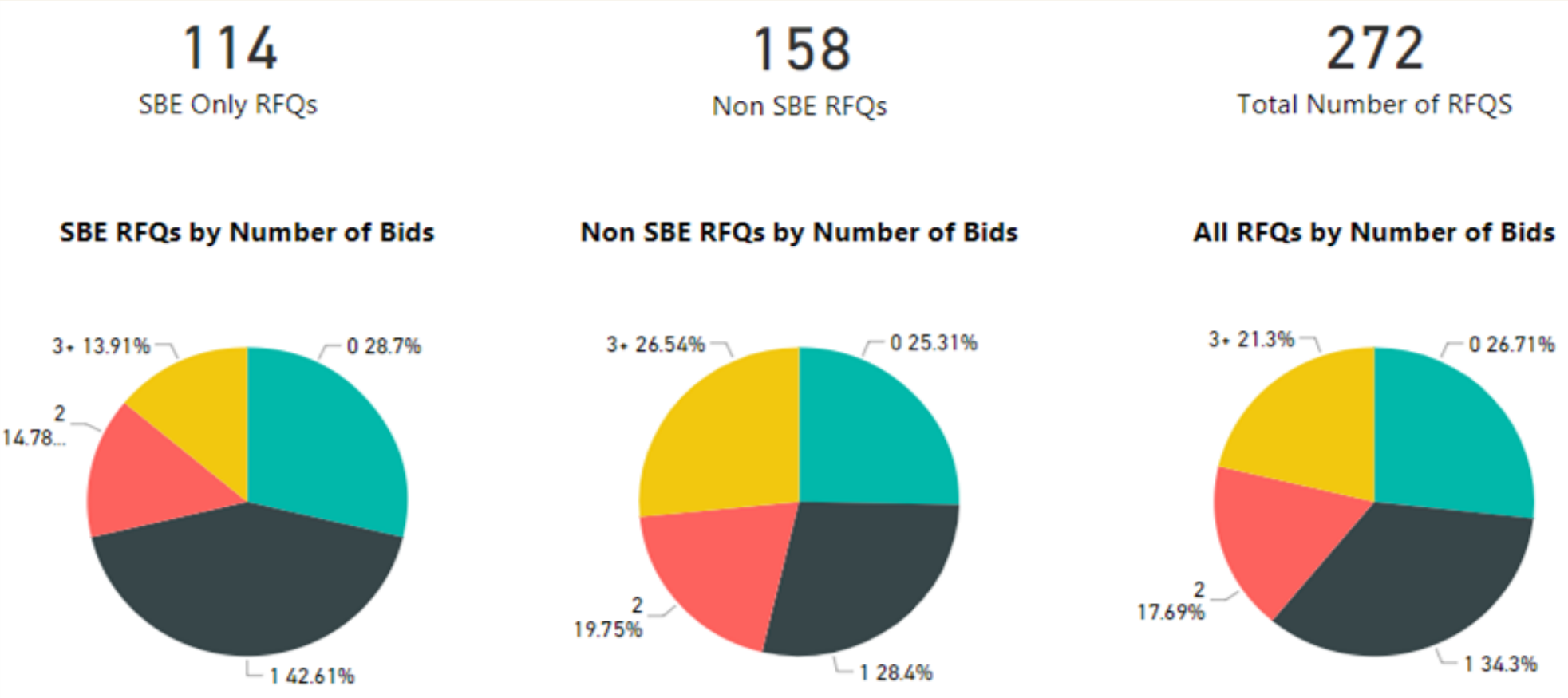


**20%**  
RFQs that were re-releases of earlier RFQs that received no responses

\*As of August 2019



# Low competition persisted across supplier target markets



\*As of August 2019

**60%**

RFQs that received zero or one response

Long Beach,  
CA

2020  
Extreme  
Procurement  
Makeover



# The City formalized its goals to be accountable for making measurable progress

## Model Procurement Plan | City of Long Beach

### Our Mission

Partnering with City departments and the business community to provide the best outcomes for Long Beach.

### Our Values

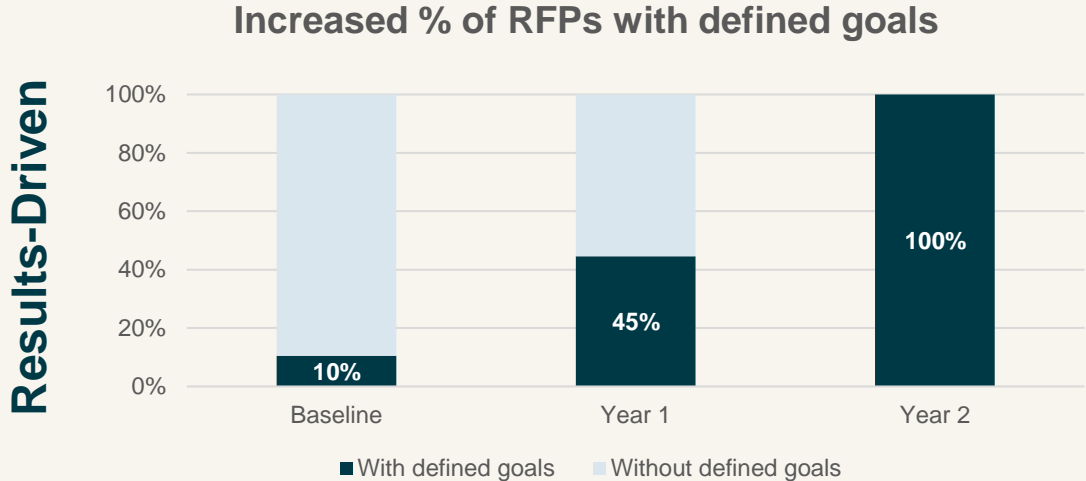
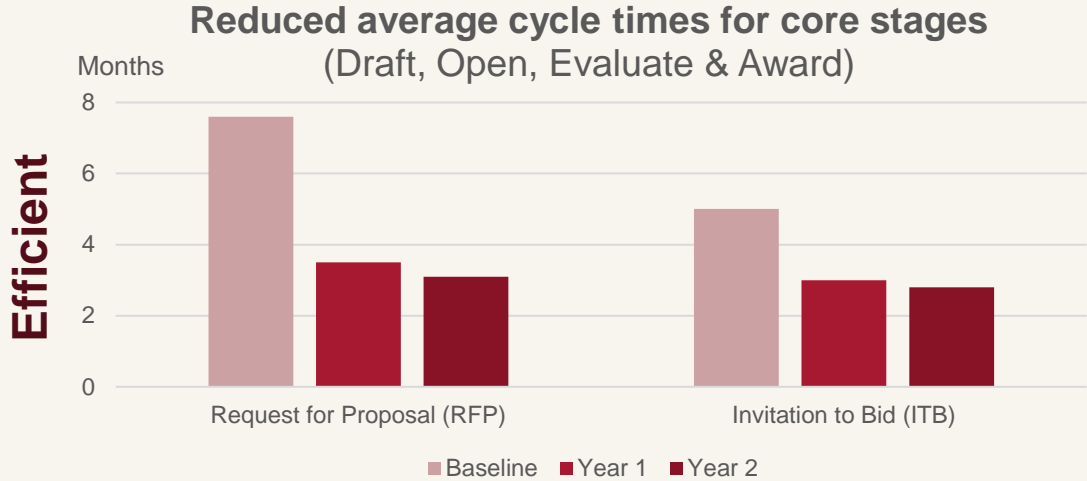
- Results-Driven.** Procurement and contracting practices enhance the impact of City programs.
- Best Value.** Goods and services are procured based on price *and* quality.
- Service.** City departments are supported to procure the goods and services required to meet the needs of the Long Beach community and taxpayers.
- Efficient.** Implement policies and remove barriers to ensure actions are meaningful and time, effort, and money are not wasted.
- Competitive.** Encourage a large and open pool of vendors, where everyone who wants an opportunity has an opportunity to be successful in the procurement process.
- Fair.** Decision-making and actions are always unbiased and without preferential treatment, in line with the City's code of ethics.
- Equitable.** Continuously engage a diverse set of vendors, and apply an equity lens to purchasing policies and practices.
- Transparent.** Information on the public procurement process is available to the public at large to promote trust and accountability.

### Our Goals

The Purchasing Division has set goals to ensure we are delivering against our values. The following key performance indicators (KPIs) will be reviewed quarterly along with metrics that inform the Division's management decisions.

- Results-Driven.** In 95% of high priority contracts strategic goals are defined; contract performance is managed and used to inform renewal decisions.
- Best Value.** >85% of citywide staff report procurement processes result in high quality goods and services, at competitive prices.
- Service.** >95% of citywide staff responsible for procurement functions are trained on procurement best practices and results-driven contracting strategies within six months of assuming the role.
- Efficient.** 30% reduction in cycle times for RFPs (<6 month average cycle time for RFPs and ITBs).
- Competitive.** >85% of solicitations are competitive (receive  $\geq 3$  responses).
- Fair.** No solicitations receive a protest that is substantiated by a neutral independent source.
- Equitable.** Small/ Local/ Diverse/ Disadvantaged vendors bid at rates that match availability.
- Transparent.** >85% of bidders believe the solicitation process is transparent.

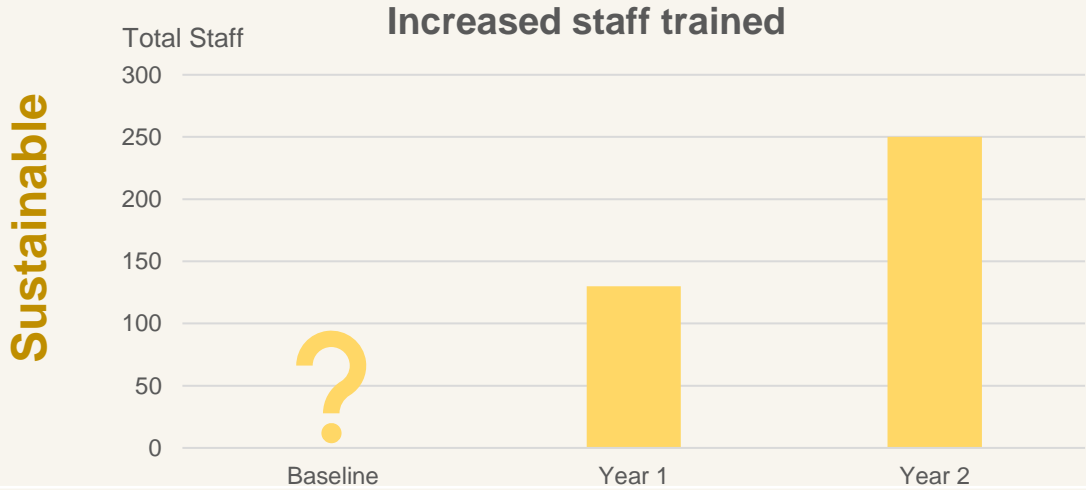
# Long Beach has achieved impact across all four pillars of procurement excellence



### Equitable

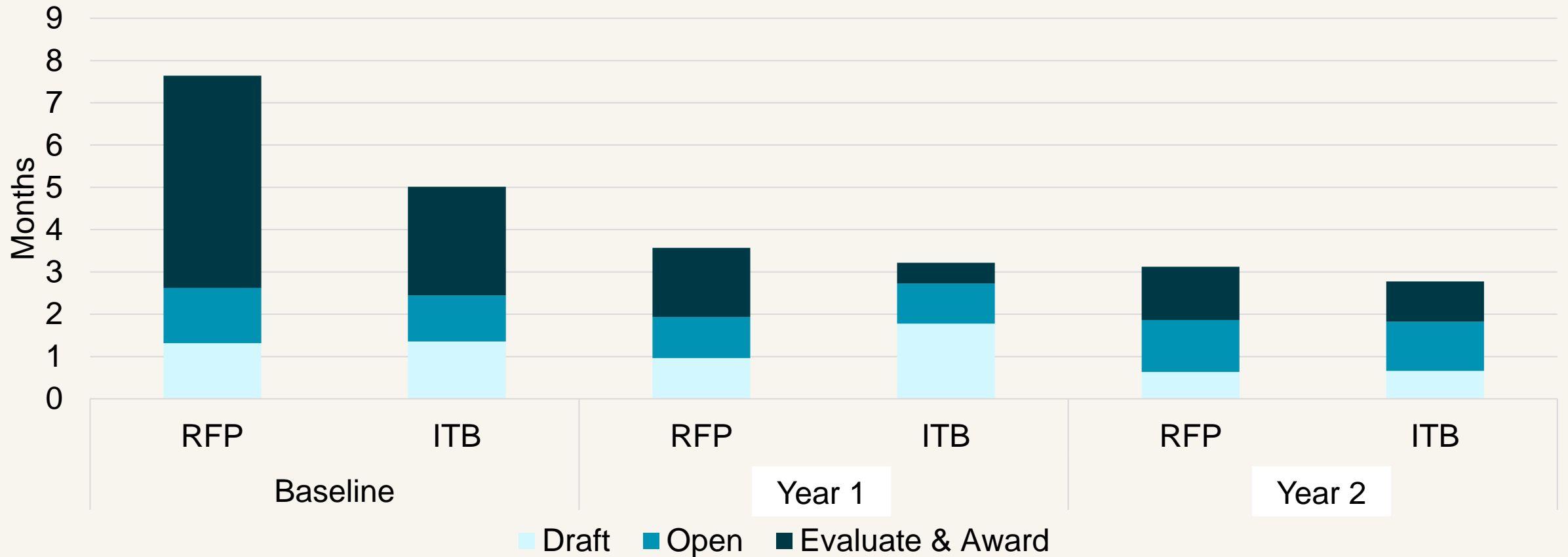
#### Increased vendor participation for priority procurements

% Increase*	
Vendors responding	114%
Local respondents	41%
MBE respondents	35%
WBE respondents	42%

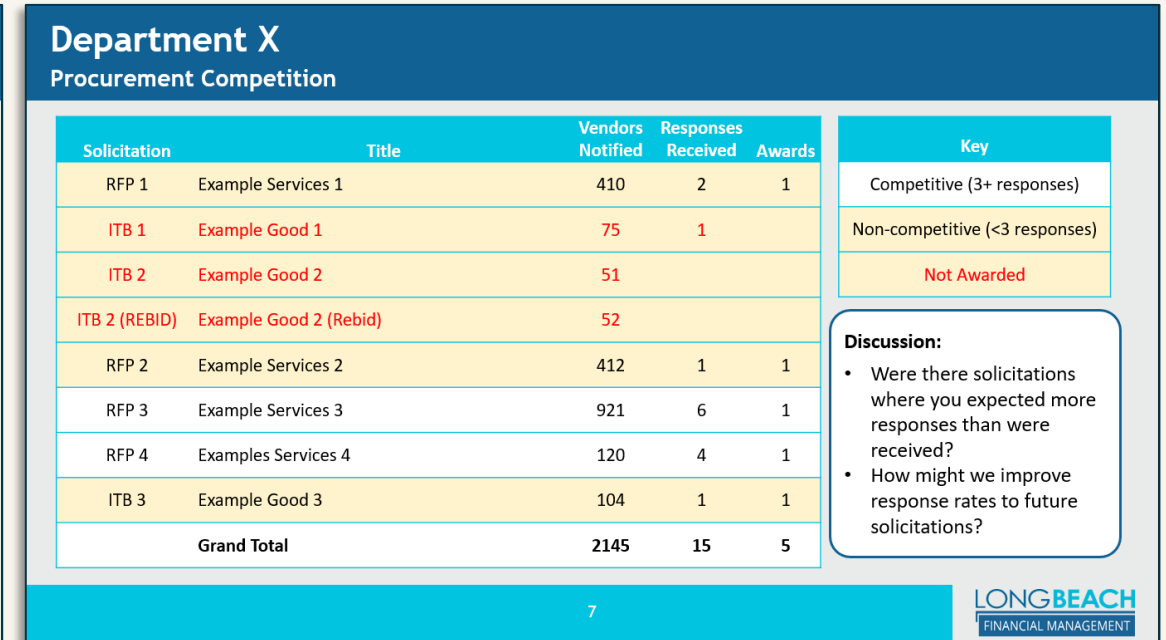
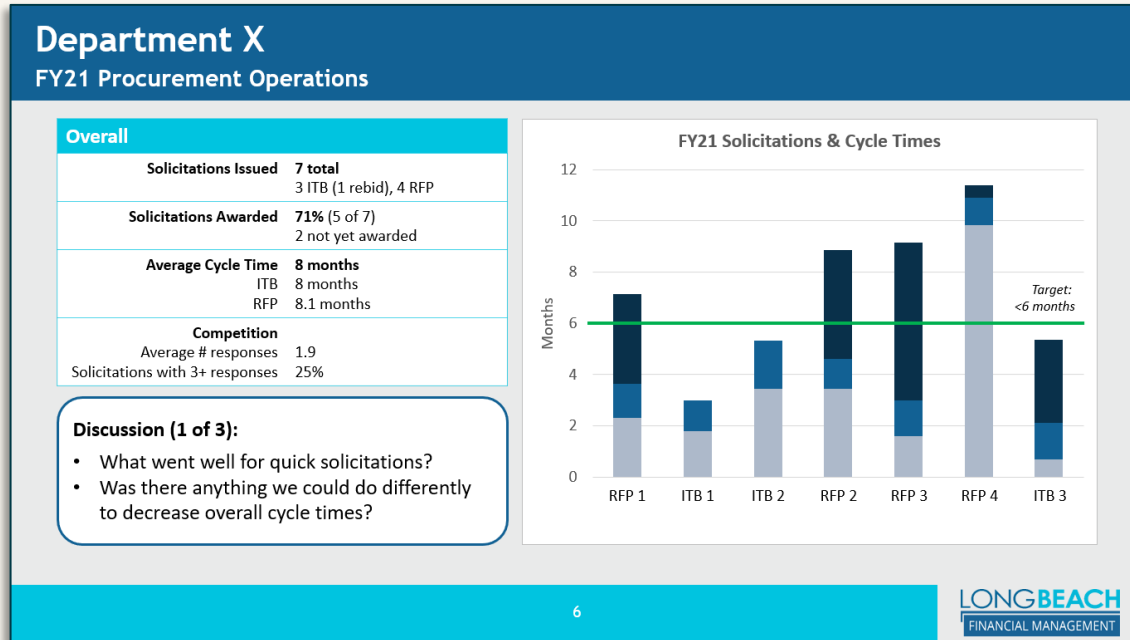


# The City has tracked a 60% reduction in core cycle times for RFPs

Average cycle times for core procurement stages\*



# Procurement data is reviewed annually with Department staff



Purchasing meets with each Department annually to review the past year's procurement data (# solicitations issued, % solicitations awarded, cycle times, vendor participation), identify areas for improvement, and plan for the year ahead.