# Channeling the Power of Data to Achieve Your Procurement Goals

Procurement Excellence Network
*Peer Roundtable*

March 26, 2024

In the chat, please share **your name and government!**

# Learning Agenda & Objectives

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.

**Community Roundtable:** Discussing **procurement data challenges** and **promising solutions.**

# 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!

Join the post-event **Q&A Conversation + Data Visualization Workshop!**

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

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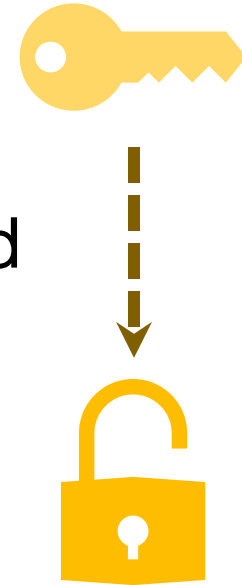
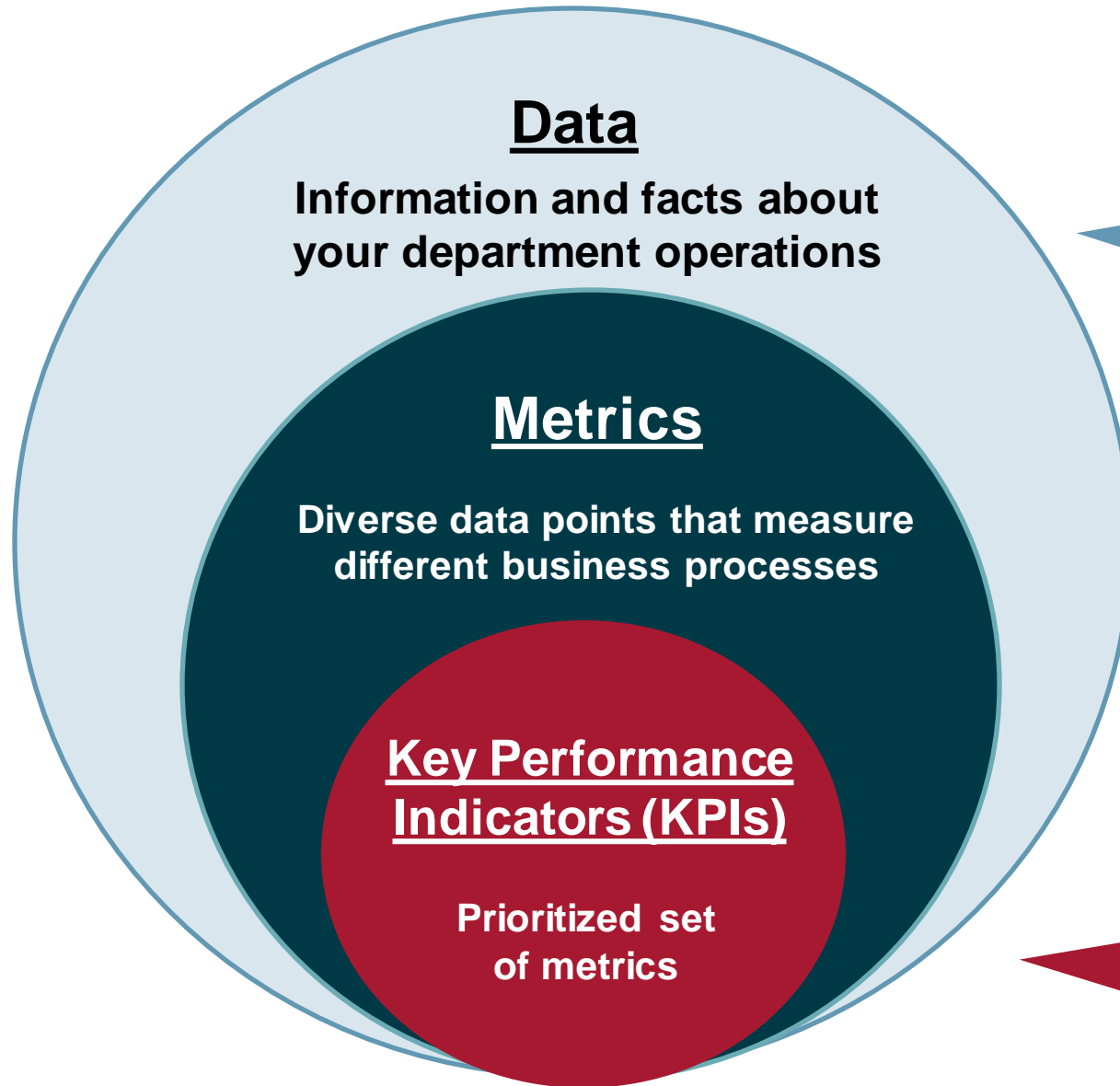# Data is valuable – but what is challenging about it?

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"***Slow adaptation of emerging data** technologies is common - we are **using outdated technology** on outdated infrastructure!*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

**Information and facts about your department operations**

**Metrics**

**Diverse data points that measure different business processes**

**Key Performance Indicators (KPIs)**

**Prioritized set of metrics**

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

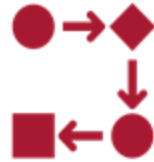**Create a robust menu of metrics** that can be used assess the health of the procurement process!

**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 | |
|---|---|---|
| **Efficient** <br> Make procurement processes faster | • Average cycle time <br> • # of cancellations <br> • # of Rebids | • Contract $ saved <br> • Staff satisfaction rate <br> • Vendor/bidder perception rating |
| **Equitable** <br> Increase vendor diversity | • Total response rate <br> • # of new vendors | • # of Contract outcomes met <br> • Vendor satisfaction rate |
| **Results-Driven** <br> Promote high-quality contract responses and performance | • % increase of diverse vendor participation <br> • # of contracts that achieve equitable service outcomes | • Total diverse contract spend <br> • # of RFP/contracts with equity-related goals and metrics |
| **Strategic** <br> Improve staff knowledge & skills | • # of Staff trained <br> • # of staff requiring retraining | • # or % of forecasted/planned procurements |

***...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?

# 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?

# Let's try it together!

**New Message**

**To** **Citylandia Purchasing Managers**    Cc Bcc

**Subject** **URGENT: Cycle Time Trends**

For years, cycle times for Requests for Proposals (RFPs) have been variable. Effective March 26, 2024, the Citylandia Central Procurement Department has introduced a new department goal to **reduce cycle times to less than 6 months** to improve efficiency.
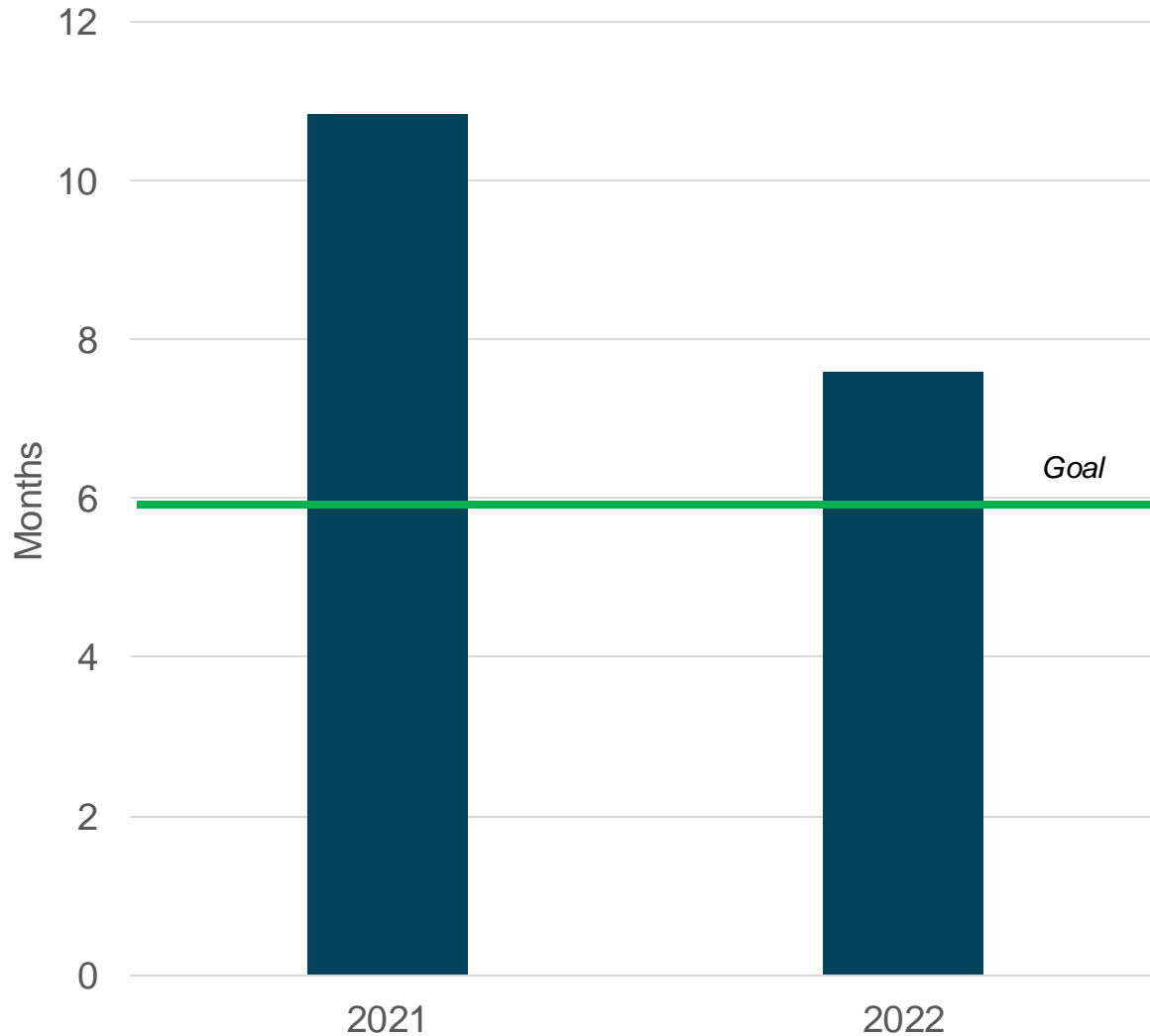
In preparation for an upcoming meeting, please collectively analyze data from FY2021 & FY2022 and provide insights into the following:

- **Average cycle times by month**
- **Cycle times by RFP stage**
- **Progress towards meeting goal**

Send

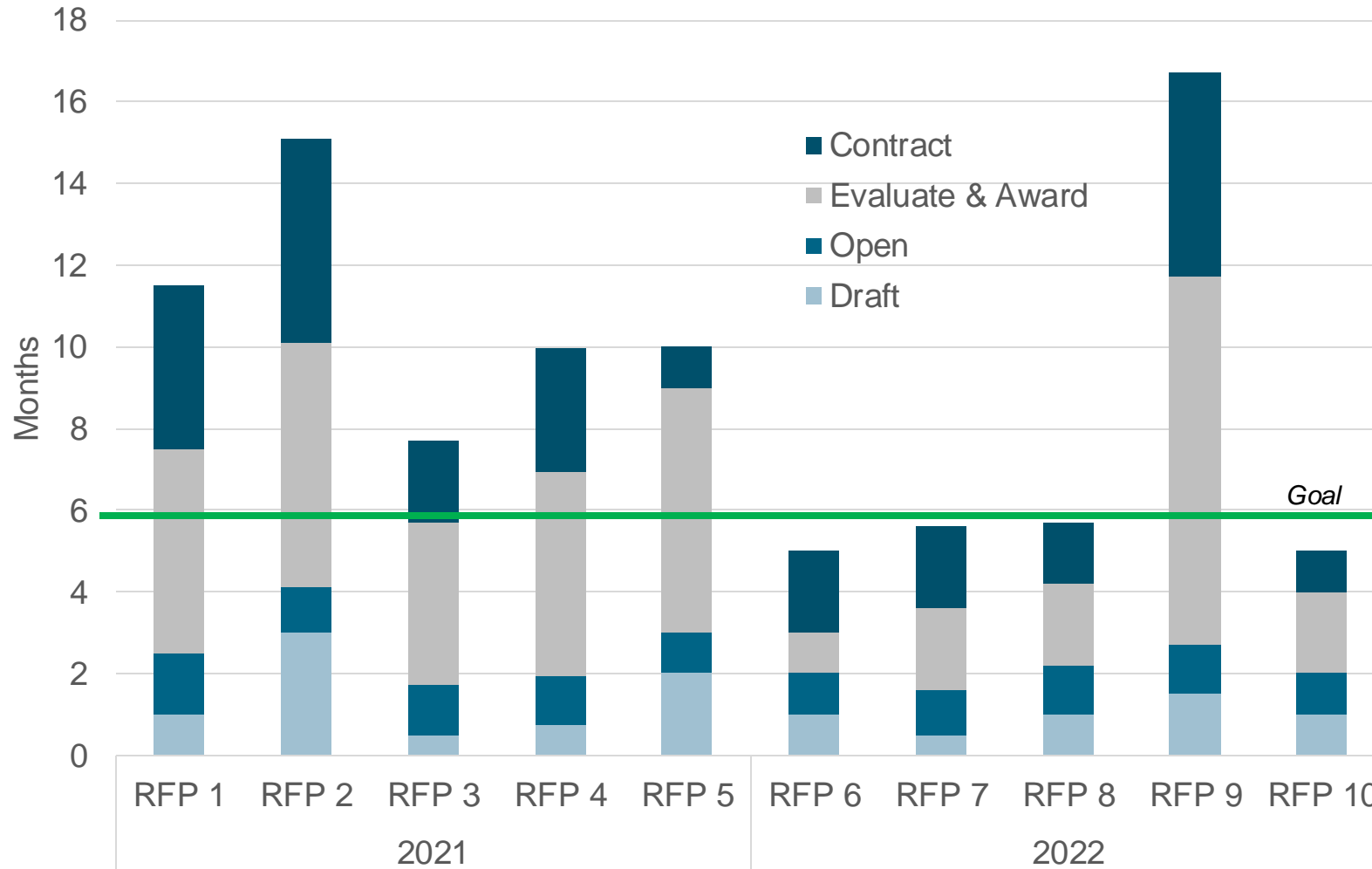# Citylandia Procurement Dashboard

**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?**
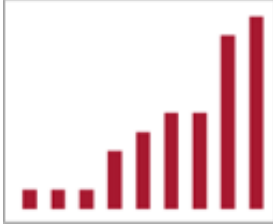
# Looking at the data a bit more in depth



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** |  | •Charts<br>•Tables<br>•Maps |
| **Disaggregate the data** |  | •Month, quarter, year<br>•Solicitation type<br>•Department<br>•Buyer<br>•Vendor<br>•Industry<br>•Good / service<br>•Process stage |
| **Create ratios** | **10:1** | •Unit costs<br>•Workloads<br>•Throughput |

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

# Data-Driven Governments

How have governments used data to address complex procurement challenges?

## Baton Rouge, LA

Using data-driven insights to improve payment processing

## Seattle, WA

Using data to increase transparency and trust with city departments

**Data-Driven
Procurement Processing**
BATON ROUGE, LA

# 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

- The **average number of business days** a requisition spends in each step of the procurement workflow

- **Identifies bottlenecks** within the procurement workflow

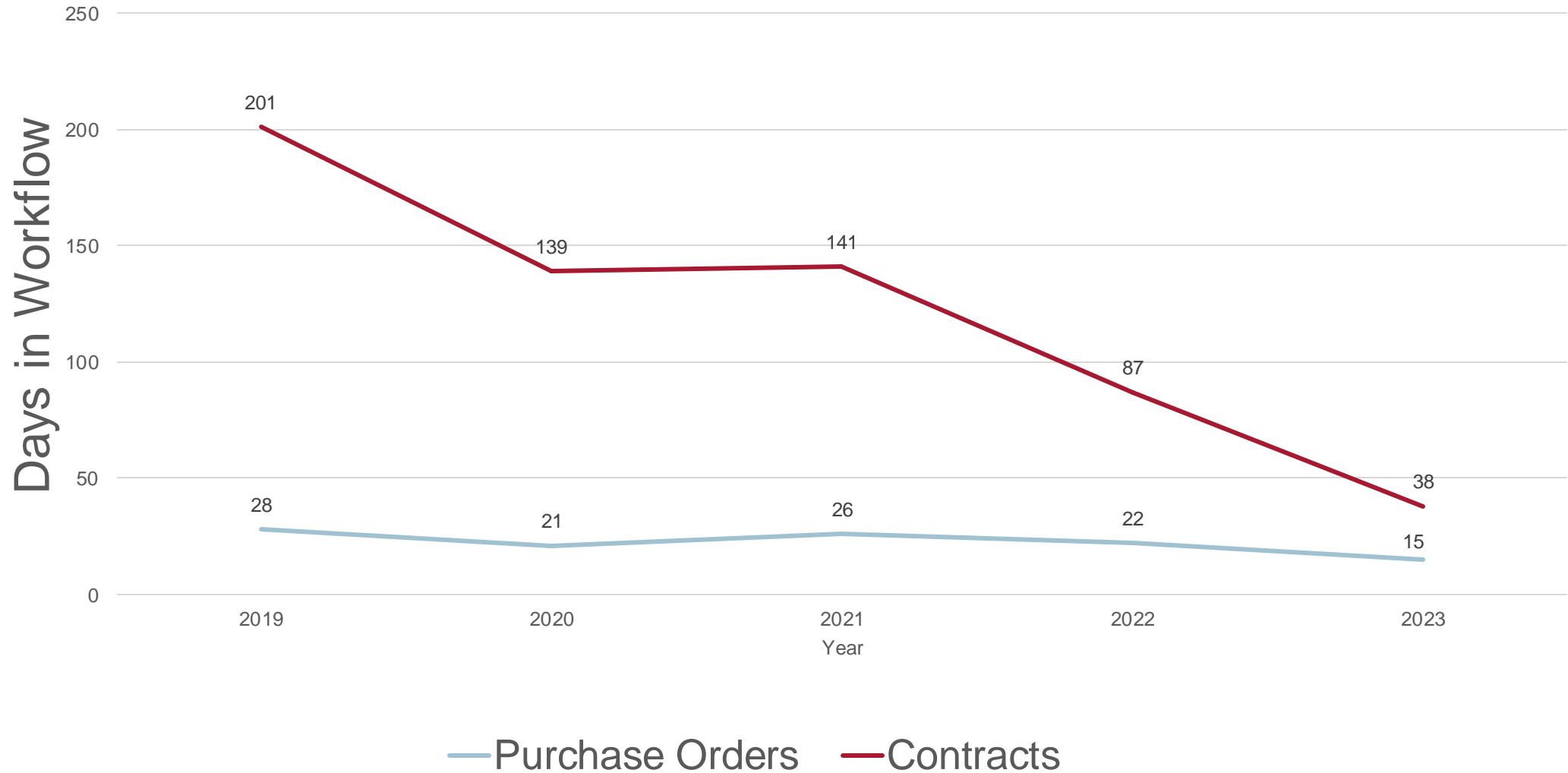- Allows modification **impact validation**

## Holds and Rejects in Workflow

- **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

- **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



**Average Procurement Processing Times YOY**

Days in Workflow (y-axis), Year (x-axis)

| Year | Purchase Orders | Contracts |
|------|-----------------|-----------|
| 2019 | 28 | 201 |
| 2020 | 21 | 139 |
| 2021 | 26 | 141 |
| 2022 | 22 | 87 |
| 2023 | 15 | 38 |

—— Purchase Orders  —— Contracts

# Munis Workflow Progress Dashboard
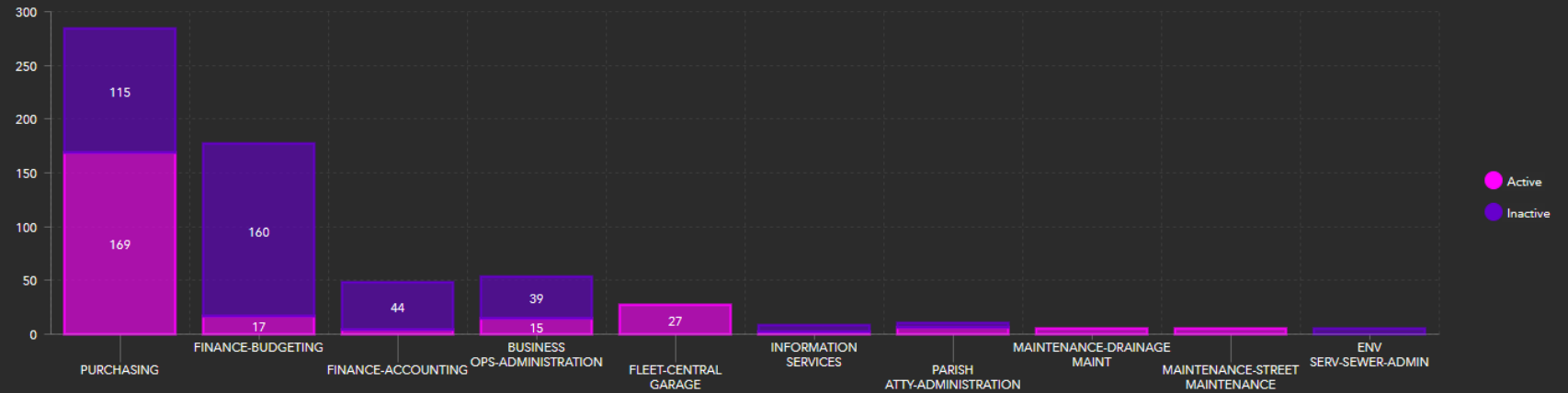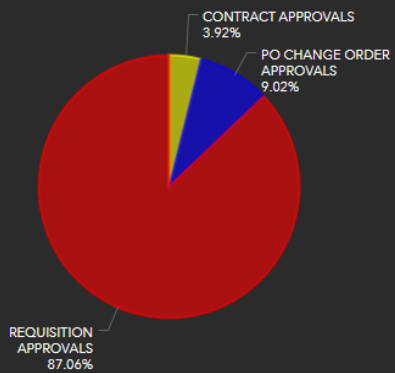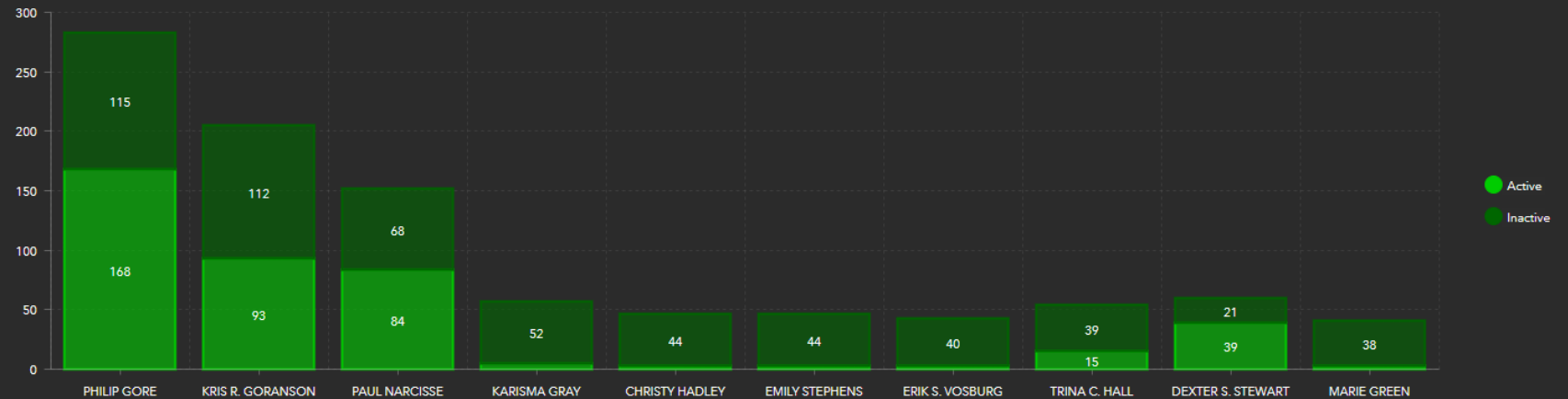
# Munis Workflow Progress Dashboard: Purchasing Department
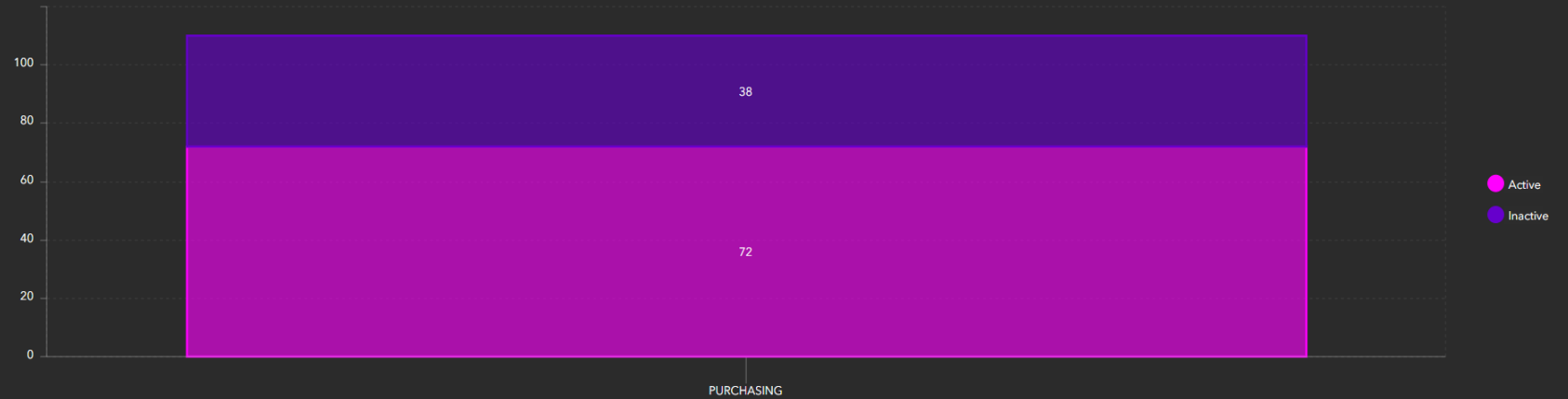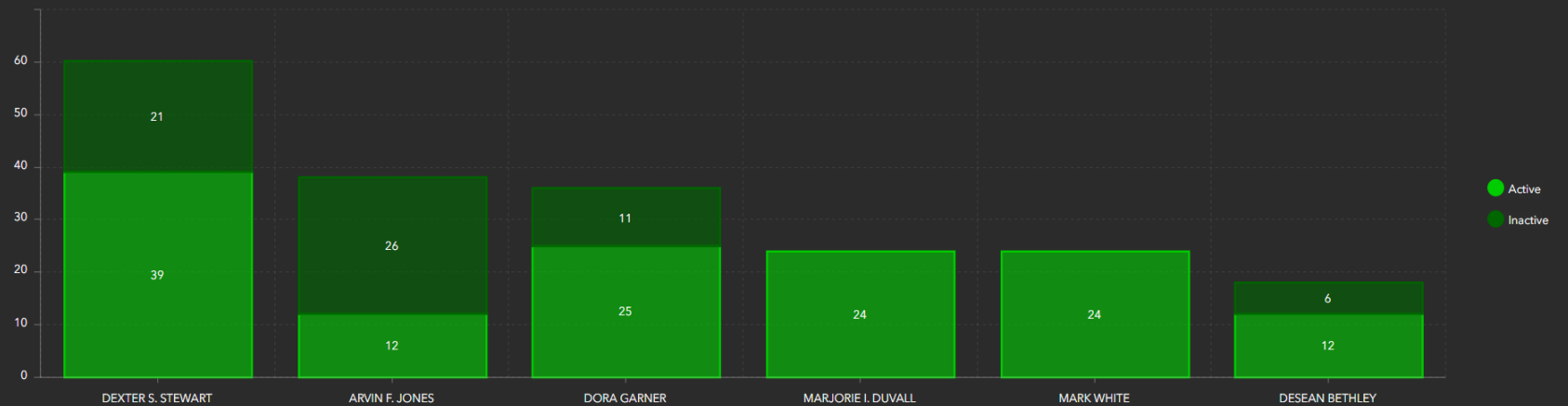
# Key Learnings & Insights

## 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, 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

## Turnaround time

- **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

## Status of request

- Current **stage of each solicitation** request, disaggregated

- **Increases transparency** for city departments and managers

- **Positive accountability measure** to complete outstanding tasks

## Buyer workload

- Shows the **volume of each team member's workload** across a time series

- Used to **assess and allocate** new requests as they come in

# Data Dashboards



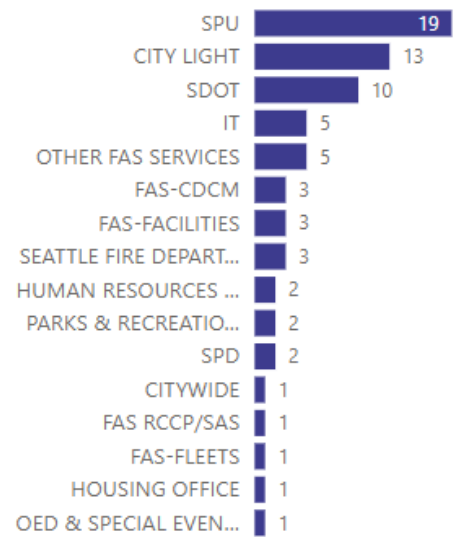## FAS PC: Purchasing Performance Measures -- Active Requests

Data refreshed on: 03/25/24 04:01 PM
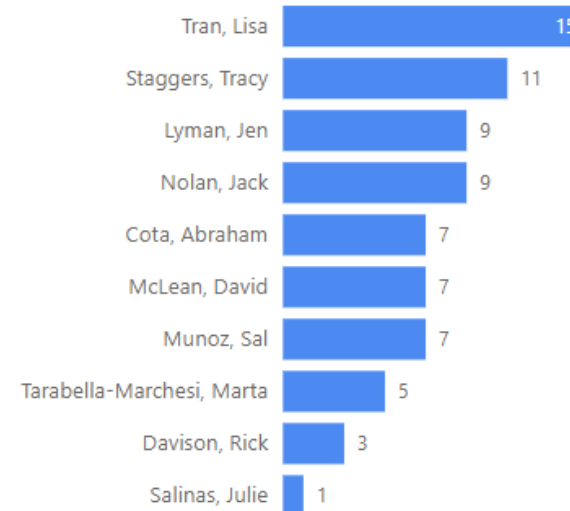
### Total No. of Active Requests

**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

| Department | Count |
|---|---|
| SPU | 19 |
| CITY LIGHT | 13 |
| SDOT | 10 |
| IT | 5 |
| OTHER FAS SERVICES | 5 |
| FAS-CDCM | 3 |
| FAS-FACILITIES | 3 |
| SEATTLE FIRE DEPART... | 3 |
| HUMAN RESOURCES ... | 2 |
| PARKS & RECREATIO... | 2 |
| SPD | 2 |
| CITYWIDE | 1 |
| FAS RCCP/SAS | 1 |
| FAS-FLEETS | 1 |
| HOUSING OFFICE | 1 |
| OED & SPECIAL EVEN... | 1 |

### No. of Requests by Buyers

| Buyer | Count |
|---|---|
| Tran, Lisa | 15 |
| Staggers, Tracy | 11 |
| Lyman, Jen | 9 |
| Nolan, Jack | 9 |
| Cota, Abraham | 7 |
| McLean, David | 7 |
| Munoz, Sal | 7 |
| Tarabella-Marchesi, Marta | 5 |
| Davison, Rick | 3 |
| Salinas, Julie | 1 |

### No. of Requests by Procurement Type

- ITB 36 (49%)
- IL 19 (...)
- RFP 13 (18%)
- SS 4 (5%)
- CV 2 (...)
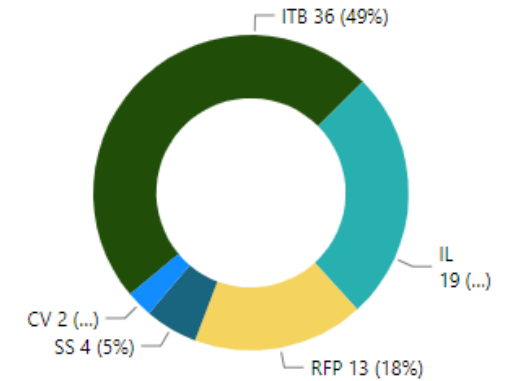
| Requisition/ Contract Number | Project Description | Department-Business Unit | Status | Date Complete Package Received | Working Period (Business Days) | Contract Administrator | Type of Procurement |
|---|---|---|---|---|---|---|---|
| 6045 | Background Check | CL0 | PC Management Review | 01/13/22 | 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)

| Type | Avg Completed Cycle Time (BD) | Avg Working Period (BD) |
|---|---|---|
| ITB | 112 | 132 |
| RFP | 107 | 181 |
| CV | 53 | 91 |
| SS | 44 | 48 |
| IL | 23 | 28 |
| CO | 16 | 16 |
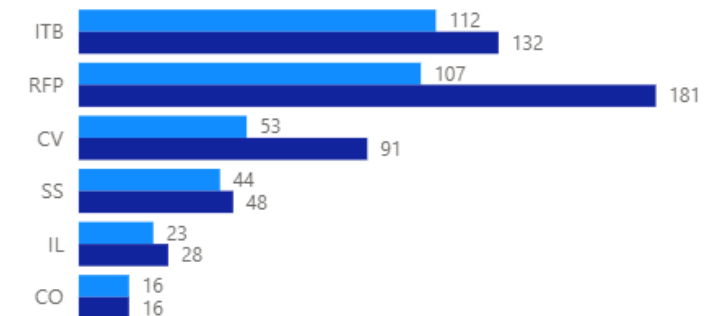
# Data Dashboards

## FAS PC: Purchasing Performance Measures

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

**Department Name**

All ▾

| Status | No. of Requistion/Contracts |
|---|---|
| Bid/Proposal Evaluation Phase | 1 |
| Canceled | 47 |
| Completed | 244 |
| Contract Development | 3 |
| Department Review | 1 |
| **Total** | **363** |

| Type of Procurement | Average of Completed Cycle Time (Business Days) |
|---|---|
| CO | 16 |
| CV | 53 |
| IL | 23 |
| ITB | 112 |
| RFP | 107 |
| SS | 44 |
| **Total** | **51** |

| Type Award | No. of Requistion/Contracts |
|---|---|
| | 18 |
| Blanket | 153 |
| Blanket Pool | 23 |
| No Award | 22 |
| Purchase Order | 148 |
| **Total** | **363** |

### No. of Requests by Year and Month
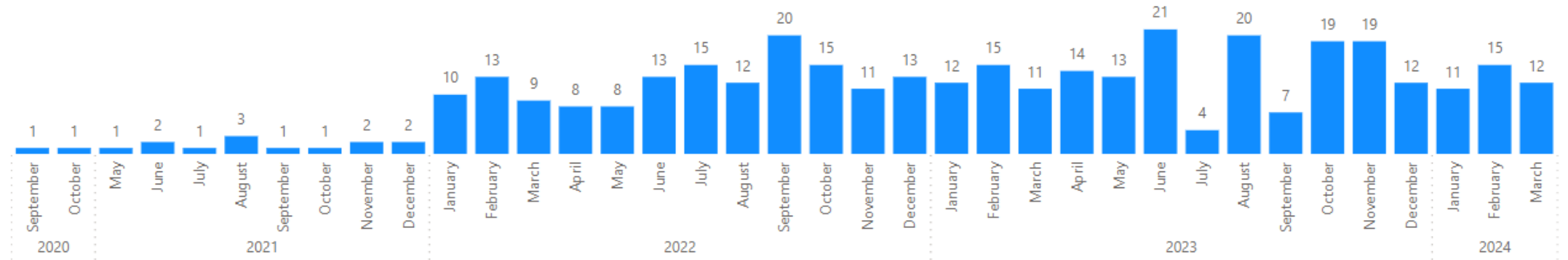


### No. of Completed by Year and Month



### No. of Active Requests



33
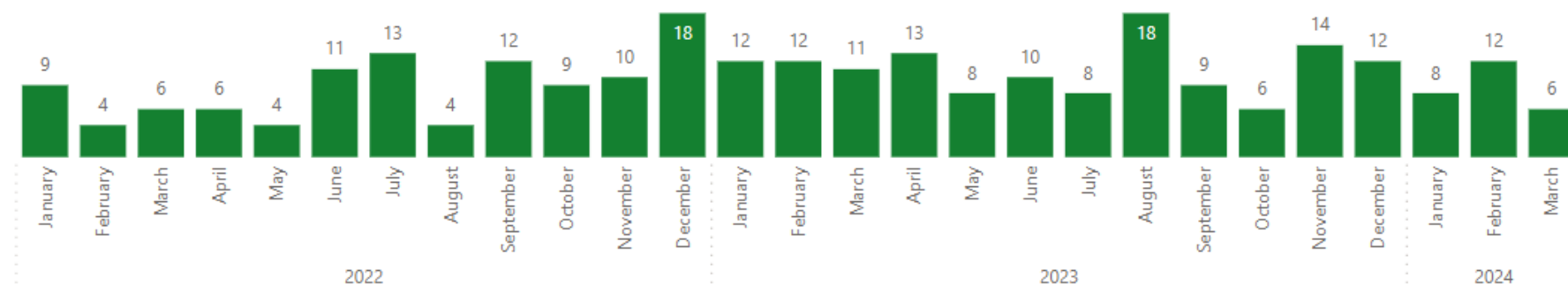
# Key Learnings & Insights

## 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.

# PEN Community Roundtable

# Community Roundtable: Let's talk about data!

Share **data challenges** your government experienced and any **promising practices or solutions.**

Share any interesting **metrics or KPIs your government is tracking** and why?

What **tools** does your government use to generate **dashboards, visualizations, or reports?**

Please use the **"Raise Hand"** function on Zoom or type feedback in the chat!

# Feedback Poll

# Join us for our next PEN event!



## Navigating the Challenges of Using Technology to Transform Procurement

### May 1, 2024 | 12:00-1:30 pm ET

Buying and implementing a **new technology can bring a wide variety of challenges.**

**Join us** for a **peer roundtable discussion** on how to set your government up for success when soliciting and implementing procurement-related technology.

# PEN Member Survey: Closing Soon!

**Calling all PEN members!** At the beginning of the month, we released a brief member survey that asks for your feedback and input. The survey is anonymous and should only take around **7-10 minutes** of your time.



**Your insights are extremely valuable to us and will play a crucial role in shaping the future of PEN.**

# Submit Materials to PEN Community Resource Library!

**Do you have a brag-worthy example of one of the items below?**

**Process Maps & Decision Trees**

**Vendor Surveys**
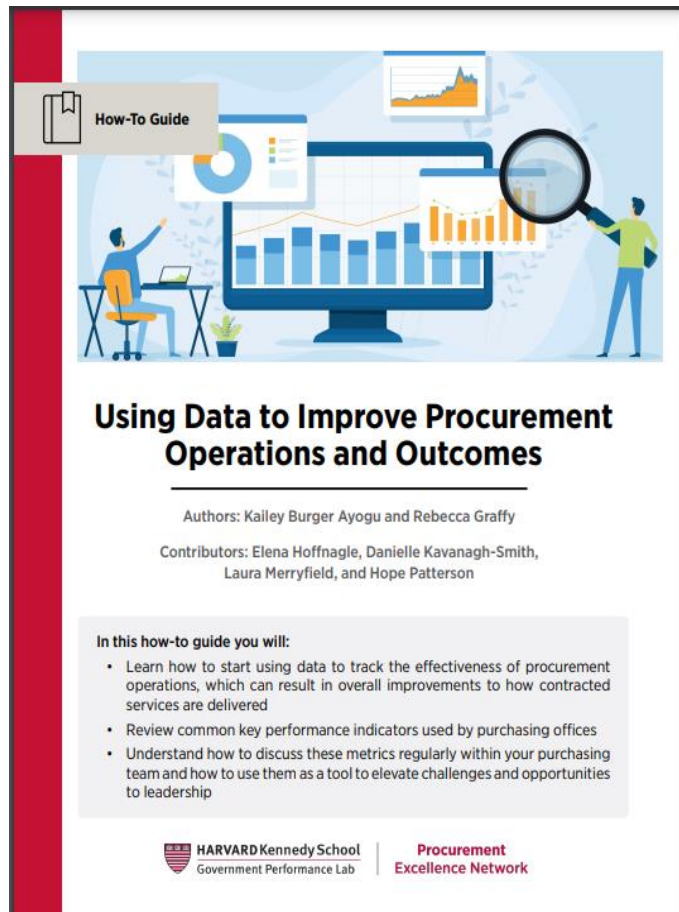
**Vendor Performance Evaluation Forms**

**Procurement Intake Forms**

**…then be on the lookout for the chance to submit it to our new Community Resource Library!**

# Check out these PEN publications!

**How To Guide: Using Data to Improve Procurement Operations and Outcomes**
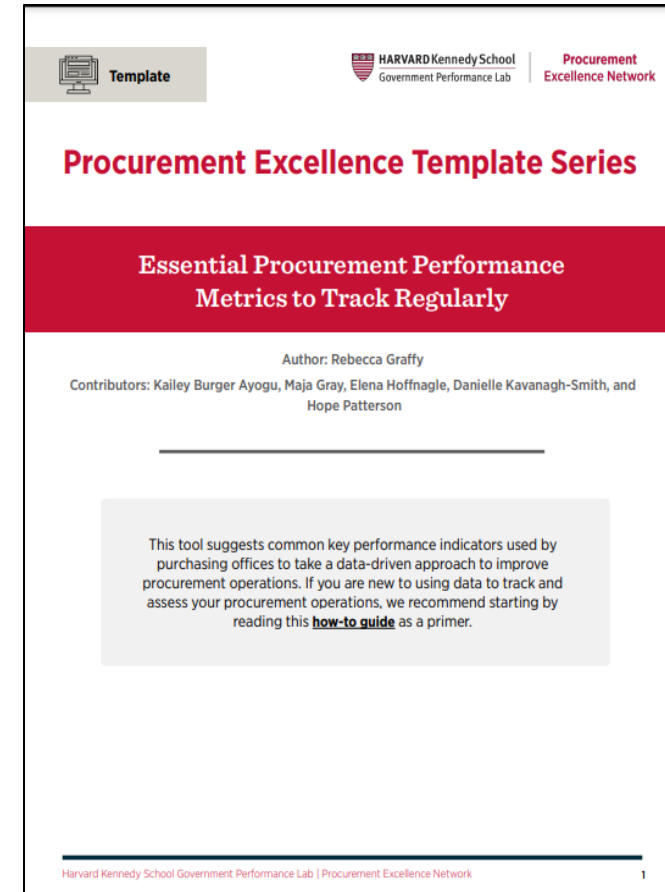
**Template: Essential Procurement Performance Metrics to Track Regularly**

# Data Visualization Simulation (Excel)

Procurement Excellence Network
*Post-Event Session*

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 KPI**s to start!

### Step 2:
### Data Planning & Manipulation

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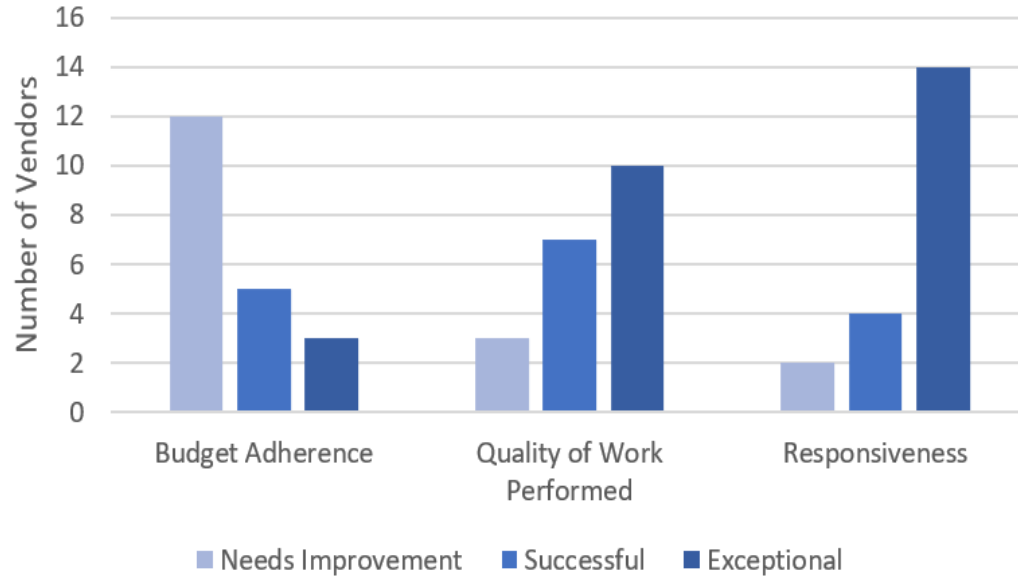- **Disaggregate** the data

### 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)



**Equitable**

## Diverse vendor participation for priority procurements

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

# Demo

# Appendix

# Data "menu" for managing procurement transformation

| Efficient & Fair | Results-Driven | Equitable | Strategic |
|---|---|---|---|
| • **Cycle time**<br>• Cancellations<br>• Rebids<br>• **Staff time saved or reallocated**<br>• Contract $ saved or reallocated<br>• **Staff experience**<br>• Bidder experience<br>• Vendor perception | • **% RFPs with results-driven goals, metrics**<br>• **Response rate**<br>• New vendors<br>• **Contract outcomes met**<br>• **Vendor performance** | • **Diverse vendor participation**<br>• **Diverse contract spend**<br>• RFP/contracts with equity-related goals and metrics<br>• Contracts that achieve outcomes for equitable service delivery | • **Staff trained**<br>• Trainers trained<br>• Staff reporting knowledge and readiness on results-driven contract<br>• **New strategic purchasing roles**<br>• Planned procurements<br>• 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

# 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% |

## Average Procurement Processing Times YOY



Contracts: 201 (2019), 139 (2020), 141 (2021), 87 (2022), 38 (2023)
Purchase Orders: 28 (2019), 21 (2020), 26 (2021), 22 (2022), 15 (2023)

Y-axis: Days in Workflow
X-axis: Year

Legend: Purchase Orders, Contracts
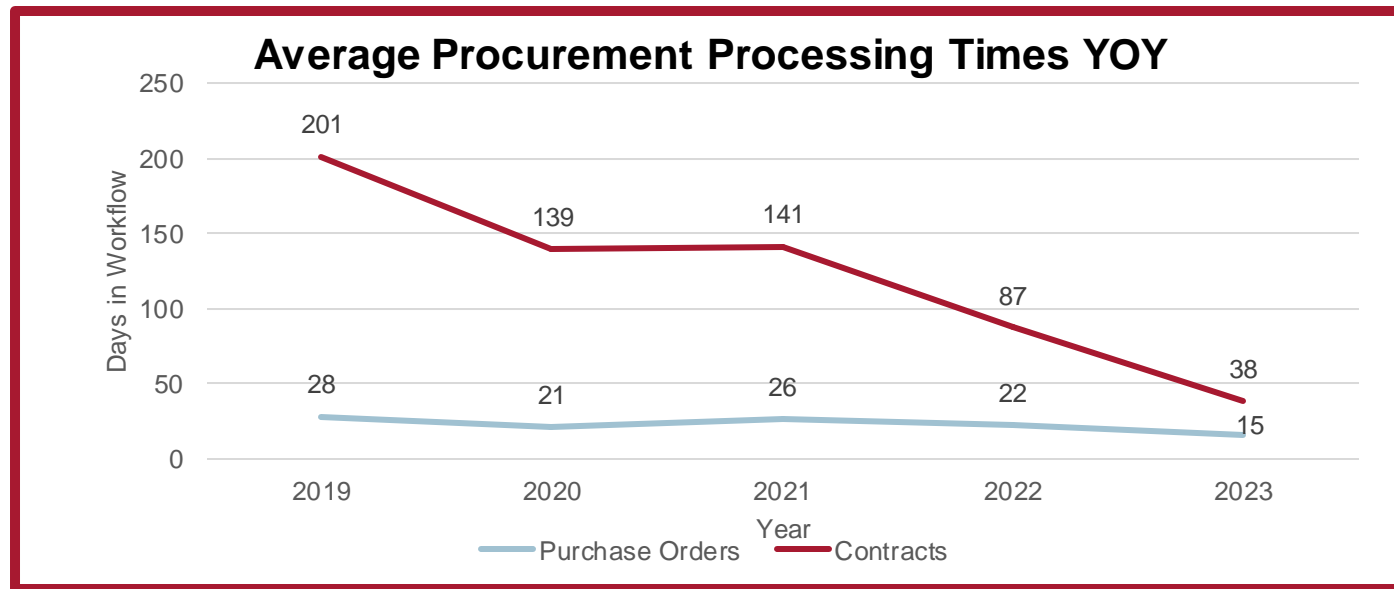
**Memphis, TN**

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**Data-Driven
Case Study**

# Memphis faced common procurement problems



**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

  o Invested in addressing process challenges and turning procurement into a strategic function

- Data-driven management practices among senior leadership

  o Mayor's monthly Performance Review Meeting provided forum for cross-departmental collaboration and data-informed decision-making

  o Office of Performance Management supported analysis of procurement data

# Procurement data revealed low procurement competition in Memphis
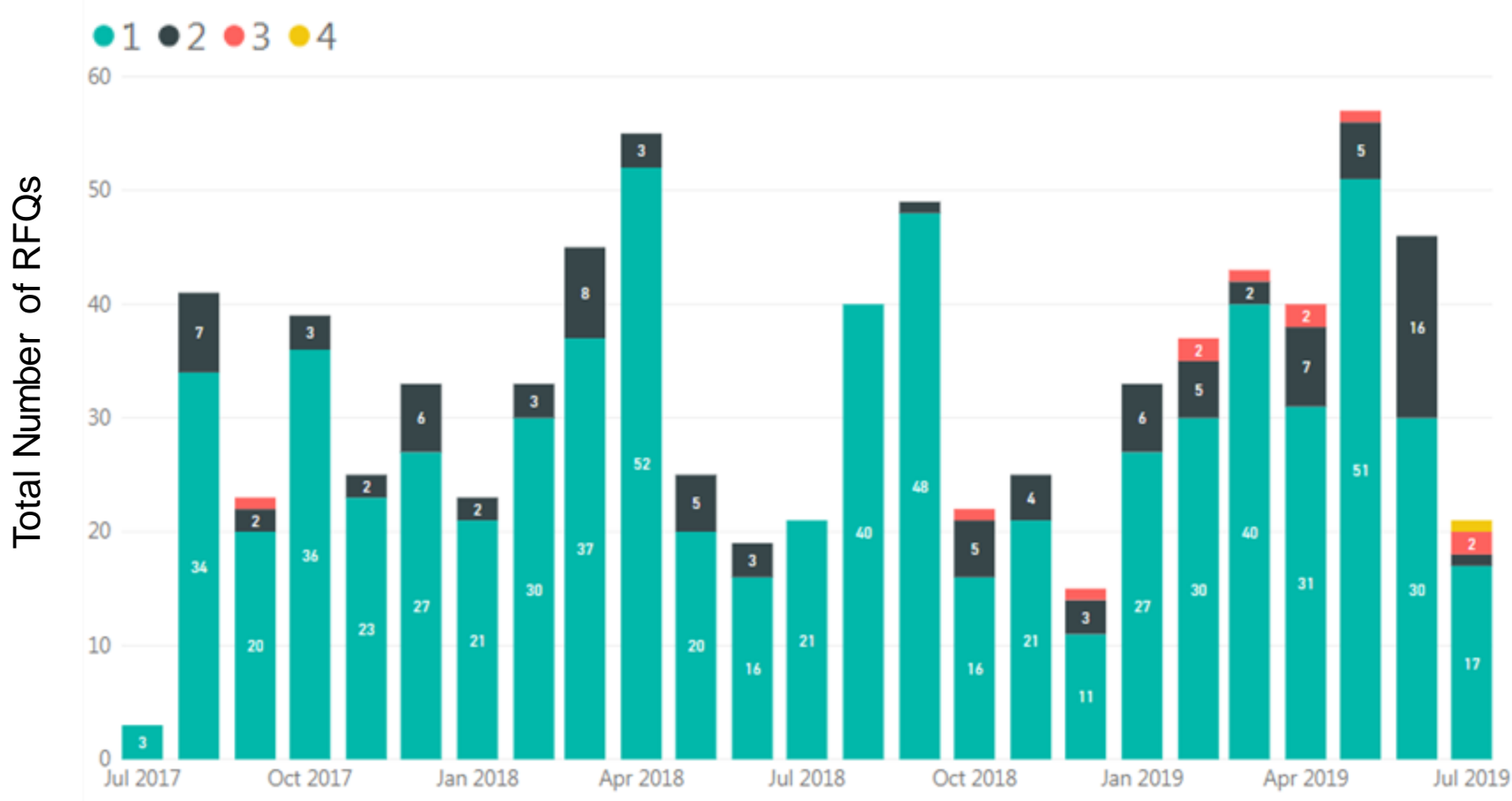


**20%**
RFQs that were re-releases of earlier RFQs that received no responses

*As of August 2019*

# Low competition persisted across supplier target markets

**114**
SBE Only RFQs

**158**
Non SBE RFQs

**272**
Total Number of RFQS

## SBE RFQs by Number of Bids

3+ 13.91%
0 28.7%
2 14.78...
1 42.61%
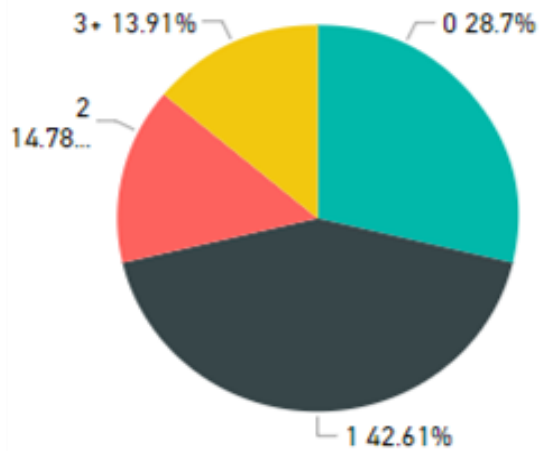
## Non SBE RFQs by Number of Bids

3+ 26.54%
0 25.31%
2 19.75%
1 28.4%
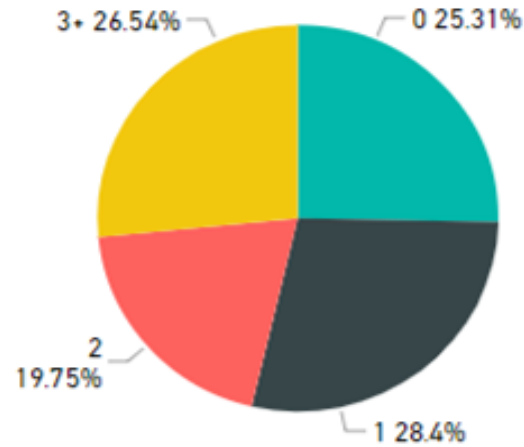
## All RFQs by Number of Bids

3+ 21.3%
0 26.71%
2 17.69%
1 34.3%
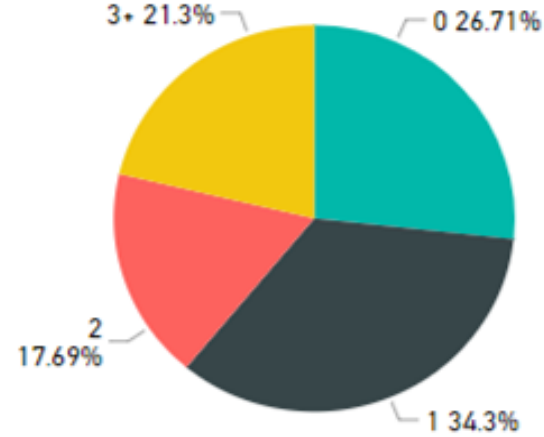
**60%**
RFQs that received zero or one response

*As of August 2019*

**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

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

## Efficient

### Reduced average cycle times for core stages
(Draft, Open, Evaluate & Award)



Months

Legend: Baseline, Year 1, Year 2

Categories: Request for Proposal (RFP), Invitation to Bid (ITB)

## Results-Driven

### Increased % of RFPs with defined goals



| | Baseline | Year 1 | Year 2 |
| With defined goals | 10% | 45% | 100% |

Legend: With defined goals, Without defined goals
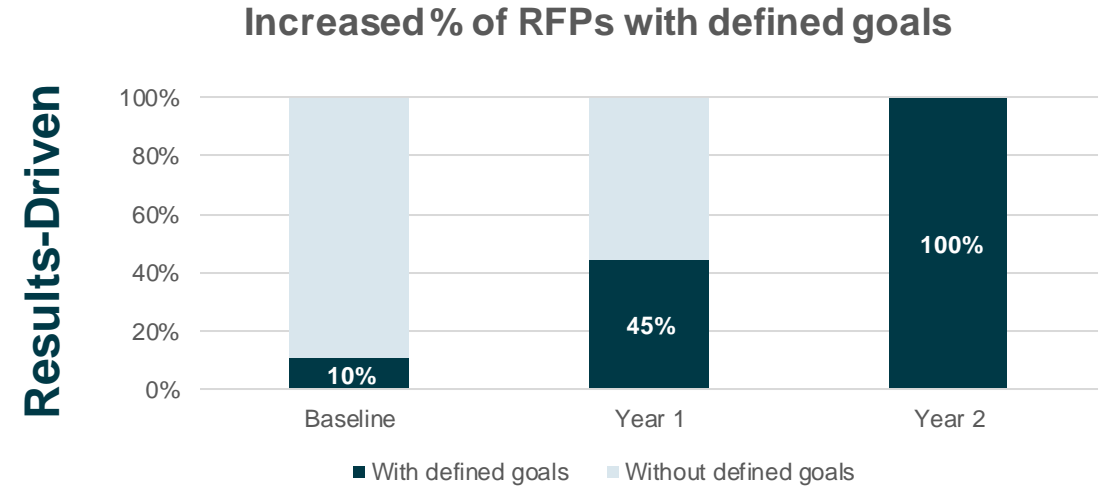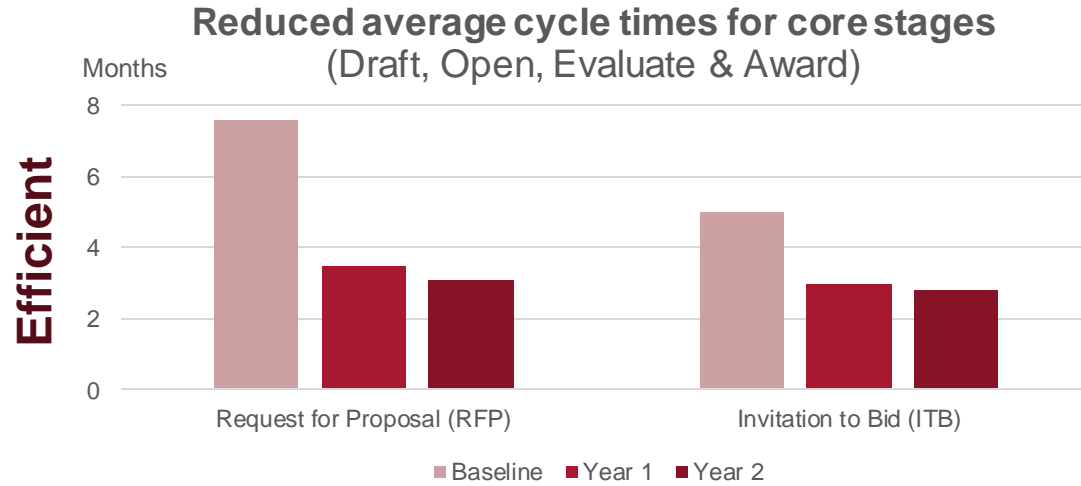
## Equitable

### Increased vendor participation for priority procurements

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

## Sustainable

### Increased staff trained


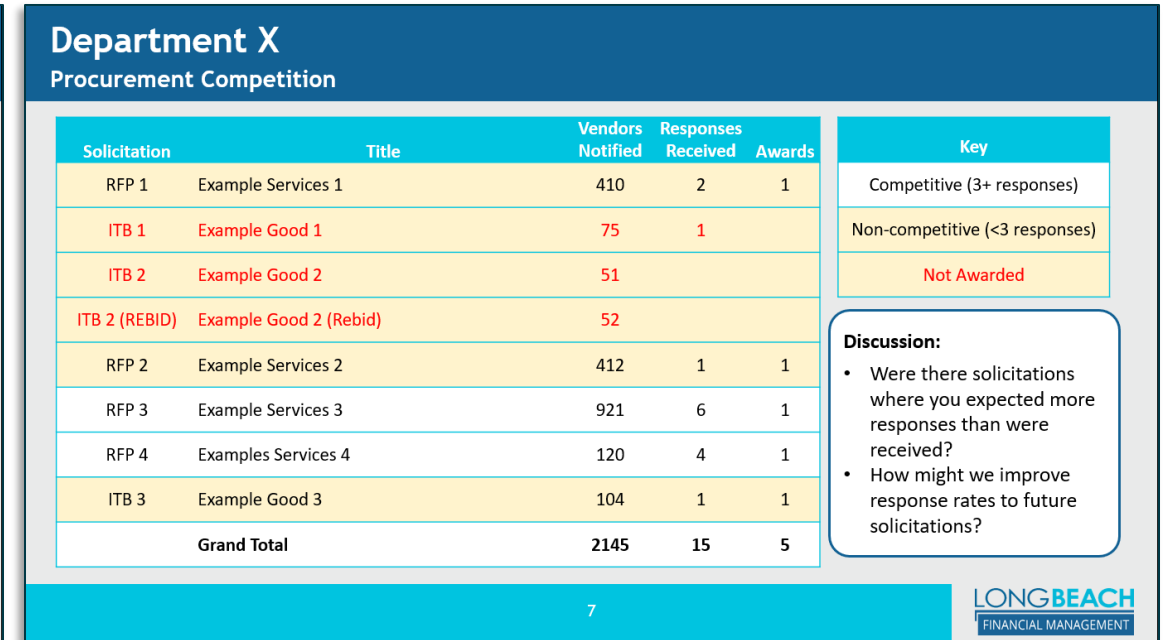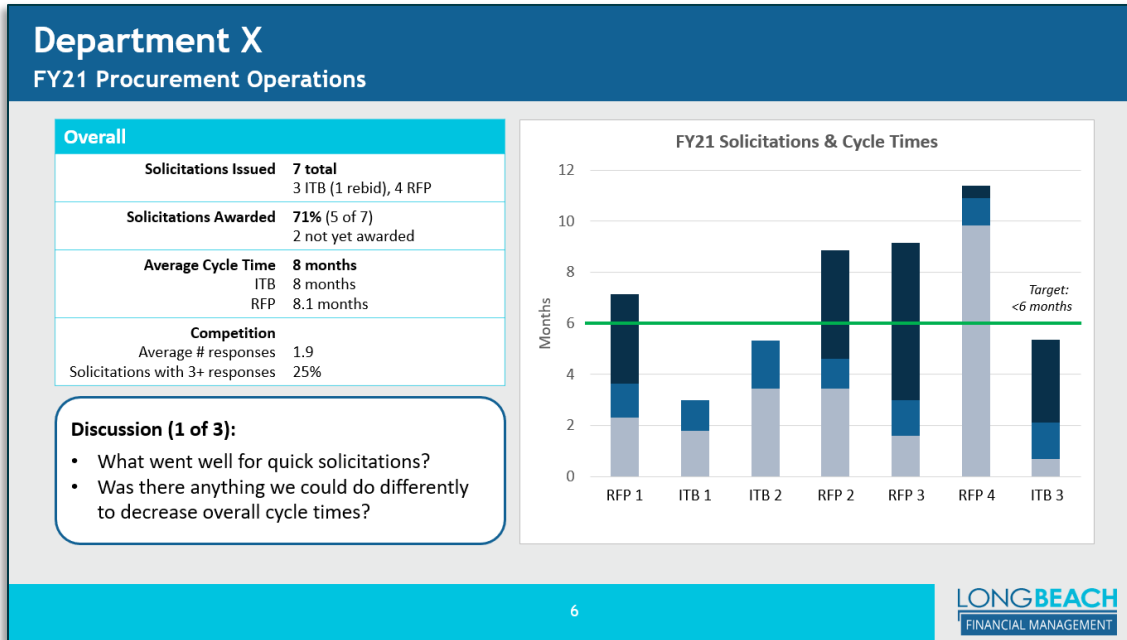
Total Staff

Categories: Baseline, Year 1, Year 2

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



Average cycle times for core procurement stages*
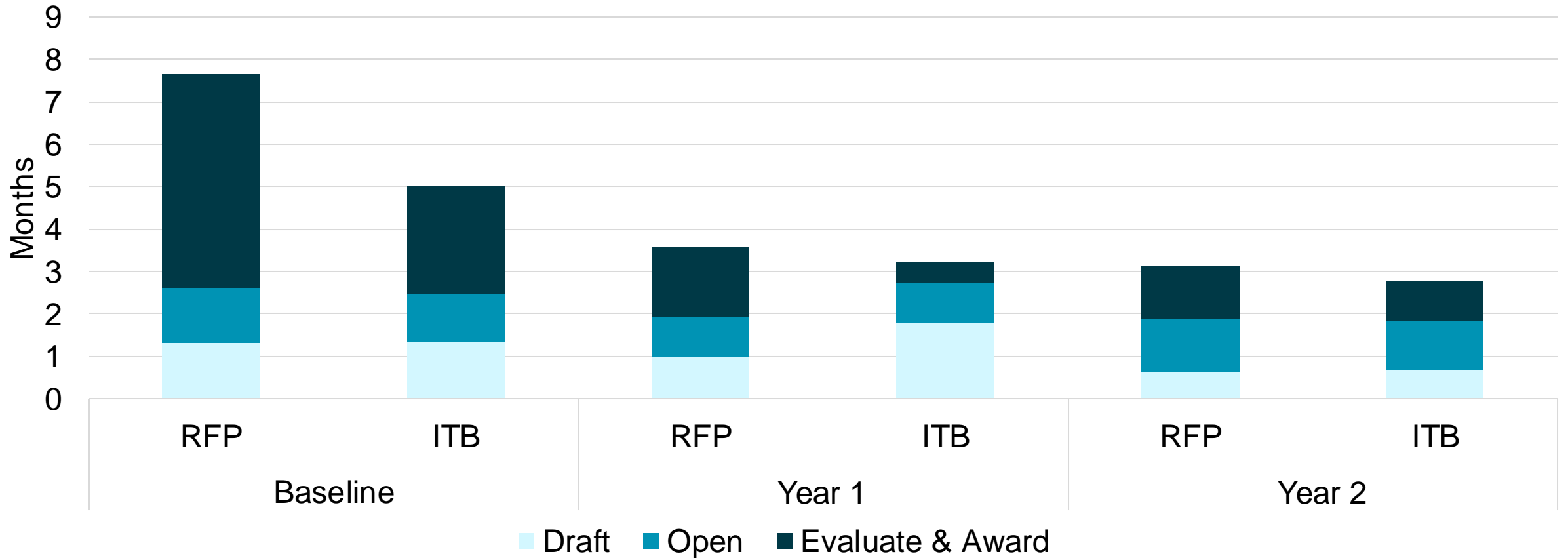
# Procurement data is reviewed annually with Department staff



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.