CITY OF HOUSTON

Office of the Mayor

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To: Houston City Council Members

From: John Whitmire
Mayor

Date: February 11, 2025

Subject: Release of City of Houston Efficiency Study: A Path to Restoring Trust in Houston's Government

Over the past several months, my team and I have taken a close look at how the City of Houston operates. Today, I'm sharing the results of that work—our comprehensive assessment of city operations, spending, organizational structure, and risk management. This is a critical first step toward fulfilling one of my core commitments: restoring trust in how our city government works for its residents.

This assessment is not just a report; it's a reflection of my administration's goal to make city government more transparent, more efficient, and more accountable to the people we serve. We took a hard, honest look at what's working, what isn't, and where we can do better—and I want you to see that same picture.

What We Found

Houston has some incredible strengths, but we also uncovered areas that need immediate attention if we're going to rebuild confidence in our government. Here are some highlights:

1. **Performance and Accountability:**

   o   Houston is already ahead in tracking progress through performance measures, but we need to shift from just measuring outputs to tracking real outcomes that matter to residents—like faster emergency response times and reducing disparities across communities.

2. **Operations and Efficiency:**

   o   Too many employees are bogged down in unnecessary administrative tasks, while outdated structures and narrow spans of control leave us struggling to fill vacancies and retain talent.

3. **Spending and Procurement:**

   o   Our current approach to procurement is ripe for improvement. We found duplicative contracts, inconsistent vendor practices, and opportunities to save money by managing spending more strategically.

Council Members: Amy Peck   Tarsha Jackson   Abbie Kamin   Carolyn Evans-Shabazz   Fred Flickinger   Tiffany D. Thomas   Mary Nan Huffman   Mario Castillo   Joaquin Martinez   Edward Pollard   Martha Castex-Tatum   Julian Ramirez   Willie Davis   Twila Carter   Letitia Plummer   Sallie Alcorn

Controller: Chris Hollins

4. **Financial Controls and Risks:**

   o   We identified vulnerabilities in how we manage city resources, like procurement card (P-Card) usage and emergency purchase orders. Strengthening these controls will be key to ensuring every dollar is spent wisely and responsibly.

What This Means for Houston

This assessment confirms what many of us already knew: We have work to do to build a government that truly earns the trust of its residents. But the good news is that we have a solid foundation made up of thousands of dedicated employees who are frustrated by the current inefficient system—and a clear path forward.

I believe that by acting on these findings, we can create a city government that is more transparent, efficient, and focused on delivering results. We can show Houstonians that their government works for them and that every decision we make is rooted in accountability and service.

What's Next

Here's how we're turning this assessment into action:

- **Focus on Results:** We'll revamp how we track and share progress through updated performance dashboards that are visible to the public.

- **Streamline Government:** We're redesigning our organizational structures to reduce unnecessary bureaucracy, create clear career pathways, and ensure our teams have the resources they need to deliver.

- **Improve Spending Practices:** We'll strengthen procurement processes to eliminate waste, find cost savings, and ensure vendors meet the high standards expected of those serving Houston.

- **Strengthen Financial Oversight:** We're implementing stricter controls and monitoring systems to safeguard taxpayer dollars and reduce risks.

This is just the beginning. In the coming months, I'll work closely with City Council, department leaders, and community members to bring these plans to life. Together, we'll build a city government that doesn't just serve its people—it earns their trust every step of the way.

This effort represents our commitment to restore confidence in how Houston is governed. I encourage you to review the full assessment, share your feedback, and join us in this important work. Houston deserves nothing less than a government that is accountable, transparent, and focused on delivering for its people. Thank you for your partnership in building a better future for Houston.

Sincerely,

John Whitmire
Mayor

City of Houston

Enterprise Assessment Report
Final

December 2024

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Executive Summary | Project Overview

The City has undertaken an enterprise assessment focused on the following key areas:

| Performance	Organizational	Financial (Spend)	Forensic Accounting

The goal of the assessment was to provide actionable insights into key areas of the organization that will assist the City's new Administration in strategic decision-making and creation of a roadmap to mitigate risks and improve the City's overall operational efficiency, effectiveness, and service delivery.

The assessment included:

- a six-week period of performance
- a high-level review of all twenty-two (22) City departments
- a series of interviews, surveys, data analysis and benchmarking against peer cities

Detailed herein are the observations and opportunities identified by focus area for the City of Houston's consideration.
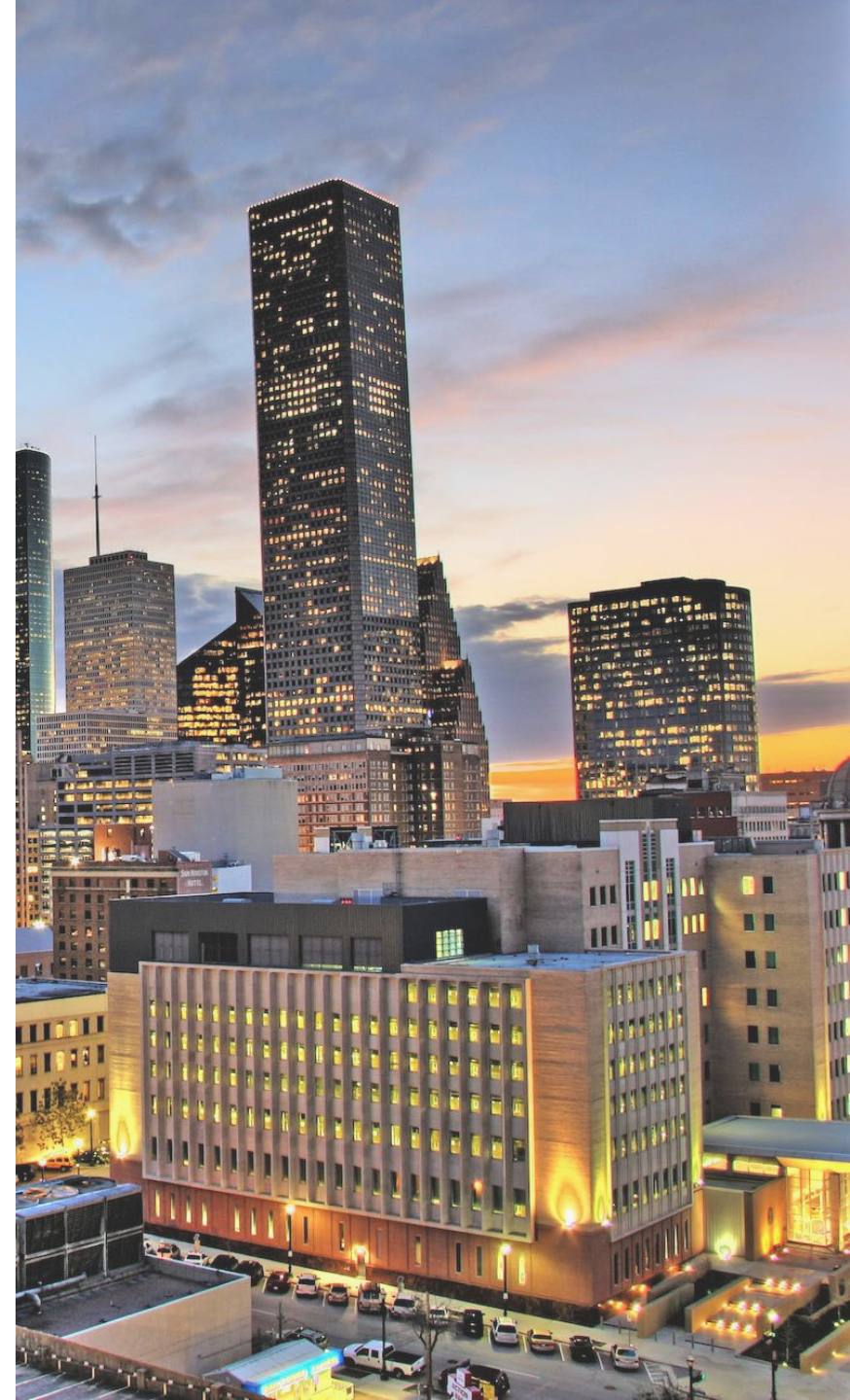
Executive Summary | Performance Analysis

The City of Houston appears to have a strong foundation in its existing performance measurement and management, including (i) a program budget with program-level KPIs, (ii) a robust collection of output, efficiency, and effectiveness measures across the 186 programs, (iii) an Office of Innovation and Performance with expertise in performance management and continuous improvement, and (iv) a history of proactively managing performance, including performance reporting, Outcome Budgeting, and 311 program.

Observations:	Opportunities:
1. KPIs tend to measure output, not outcomes: Only ~7% of the City's 606 program KPIs measure outcomes and equity. Only ~10% of 186 programs have KPIs covering more than 2 of the City's 5 performance components	**P1. Update and refine existing KPIs and targets:** Further review the City's program KPIs to confirm complete measurement of results, appropriate targets, and alignment with the Mayor's priorities and strategic objectives
2. Many City programs exceed their metrics: 105 KPIs (~17% of total) have outperformed targets for multiple years, suggesting that raising the targets may be warranted to promote continuous improvement. While two thirds of KPIs show improved performance, performance is declining for the rest of the KPIs.	
3. Good data quality and collection processes: Our review of 50 randomly selected KPIs found that they use quality data that is well-documented and can be pulled with ease. Our review found areas to build on this foundation	
4. Houston lags peers on some priority indicators: Peers appear to perform better than the City on 16 of the 54 performance indicators benchmarked – including emergency response times for EMS and fire, crime rate, and income inequality and racial disparities	**P2. Assess areas of underperformance:** Further assess the peer benchmark findings to identify potential areas for improvement and use these findings to inform resource decisions
5. Good performance management foundation: The team identified opportunities to improve the City's current performance management process to better align with the core tenets of performance management: make it visible, talk about it, and innovate	**P3. Make performance more visible:** Create internal and external dashboards so that everyone can see performance progress **P4. Build data "muscles":** Strengthen data analysis skills across the City through training, hiring, and software **P5. Promote collaboration and learning:** Reintroduce cross-departmental meetings to promote collaboration, problem-solving, and action planning **P6. Drive innovation:** Encourage continuous improvement with centralized support and financial incentives for departments

Executive Summary | Organizational Analysis

Based on the rapid scan to develop a baseline understanding of the City's organizational metrics (layers, functions, span of controls) and identify organizational efficiency opportunities, below are the high-level observations and opportunities.

Observations:	Opportunities:
1. Employees spend over 30% of their time in operational and administrative activities: These include reading emails, handling service requests, participating in meetings, and preparing reports.	**O1. Streamline time spent on operational and administrative tasks by CoH employees:** Enhance operational and administrative efficiency by optimizing processes, leveraging technology, and aligning resources effectively.
2. HR, Finance and IT departments have shadow positions across multiple departments: These shadow groups have varying levels of maturity leading to loss of efficiency and increased labor for alignment to standard practices and policies.	**O2. Review the support functions operating model:** Reevaluate the centralized x decentralized support system to identify and address existing gaps.
3. Organizational structure have excessive layers, narrow span of control (SOC) and 42% of leaders with 1-3 direct reports: Department structures have grown organically with top-heavy layers, misaligned talent, over 4K vacant positions, orphan positions and inaccurate reporting lines.	**O3. Redesign organizational structures and perform talent placement:** Assess and design a future-state organizational structure by reviewing departmental functions for enhanced service delivery and efficiency, aligning with successful models from comparable cities.
4. Lack of clear career pathways and overly general job descriptions hinder retention and recruitment efforts in City departments: Gaps in career pathways lead to fake promotions to manager roles without direct reports. Outdated, overly general job descriptions with misaligned qualifications fail to attract the right talent.	**O4. Revamp career pathways by defining job roles and families and developing targeted training curricula:** Enhance employee engagement and retention by creating transparent and well-defined career progression plans across all City departments. Establish new job families with entry-level positions and individual contributor roles.
5. Challenges in internal salary equity and competitive compensation practices impacts employee satisfaction: Some positions salaries are below market value, leading to difficulties in matching market competitiveness and leading to promotions to accomplish salary raises.	**O5. Review compensation & benefits framework:** Develop a new framework to bolster the City's capability in attracting and retaining talent, upholding equitable and legally compliant practices, adjusting to evolving market conditions, and supporting strategic objectives.
6. Absence of dedicated resources for change management and established Change Management Office: Currently there is a significant gap in change management capabilities to implementation and training for technology-averse employees.	**O6. Develop and implement a structured Change Management Office (CMO):** Establish dedicated change management roles to enhance the organization's adaptability and readiness for future transitions.

Executive Summary | Spend Analysis

The spend analysis workstream's objectives were to: (i) Analyze historical spending data (including contract, non-contract, and P-Card purchases) to identify trends and areas for potential cost savings or optimization. (Analysis should include a classification of historical expenses into relevant categories and subcategories based on vendor, type of goods or services, department, etc.); (ii) Identify areas where costs can be reduced through negotiation, consolidation, alternative sourcing, or process optimization; and (iii) Develop a prioritized list of recommendations to mitigate risk exposure and achieve cost efficiencies. The following seven (7) themes consistently emerged across the categories.

Observations:	Opportunities:
1. Contracting efficiency: The data indicates that many vendors across categories have numerous contracts (3 or more) likely impacting contract management efficiencies and non-standard terms and pricing	**S1. Review duplicative contracts** with the same vendors for variations in contract terms and pricing and identify opportunities for economies of scale. Identify opportunities to develop **multi-award Enterprise-Wide Contracts**
2. Non-contract spend: Some categories have greater opportunities for non-contract spend, meaning spend not tied to an outline agreement number; some of these vendors have existing contracts	**S2. Review non-contract spend** to determine if demand can be leveraged by an existing contracting vehicle for economies of scale
3. Supplier relationship management: The data indicates that while the majority of spend is consolidated among each category (5-7% of vendors account for 80% of spend), there is a long tail of vendors for the remaining 20% of spend	**S3. Review top vendors and vendor tail for opportunities** to better leverage more strategic suppliers. Explore developing strategic relationships with top suppliers that foster innovation, leverage price discounts, and establish a governance structure across all work.
4. Emergency POs: Emergency Orders (EOs) are a pain point identified by COH stakeholders; the data indicates that EO spend has remained consist FY22 and FY23 at 3% and up to 4% in FY24	**S4.** Conduct a **detailed analysis on recurring themes for Emergency Orders** (vendors, items, services, etc.) and develop contracting vehicles with standard terms and pricing
5. Department category strategy coordination: The data indicates that within each category, the majority of spend (greater than 70%) is generally aggregated across 1-4 departments	**S5. Incorporate principles of category management** amongst top departments, including preferred contracting vehicles and establishing short- and long-term category goals and strategies
6. Year over year trending: In FY24 spend increased by a total of $1b; there is an increase in spend across all categories	**S6.** Complete **additional analysis on historical data** given the spike in FY24 to understand repeating drivers and anticipate FY25 needs and strategies
7. Data quality: Data received lacked granularity in purchase card descriptions, impeding data categorization. Additionally, certain transactions were significantly high dollar and removed as anomalies per discussions with stakeholders	**S7. Establish a data & analytics team** to regularly synthesize a spend report, looking for and addressing anomalies, and sharing a consistent dashboard with relevant stakeholders

Executive Summary | Forensic Accounting Analysis

The forensics analysis workstream's objectives were to: (i) Identify, investigate, and quantify any and all abnormal contractual or financial activity over the past six (6) years. (ii) Evaluate risks for financial and contractual fraud, waste and abuse throughout the City's organization, and the sufficiency of the City's control processes against industry benchmarks. (iii) Develop a prioritized list of recommendations to mitigate risk exposure.. The following seven (7) themes consistently emerged across the categories. The following seven (3) themes consistently emerged across the categories.

Observations:	Opportunities:
1. Vendor master analytics: Obtained vendor master data from City and conducted vendor analytics to identify potential overlapping business interests. Based on vendor fuzzy matching and exact matching of certain vendor information, results indicate that there are instances of vendors with similar names and addresses, and vendors with the same phone number, fax number and tax ID. Discussions with the City anecdotally indicated that there are instances of multiple vendor records existing for a single vendor.	**F1. Perform sample testing:** Further tracing of contract and vendor invoices will help confirm understanding of patterns and trends. This will also assist in prioritizing subsequent medium-term opportunities. **F2. Enhance vendor master data:** Validate vendor master information for accuracy and completeness to provide the City with improved data for subsequent analysis and will better inform the City for future improvements.
2. High-risk transactions: Obtained SAP data from City and conducted preliminary analytics based on City feedback to identify high-risk transactions and trends. Based on analytics performed, results indicate instances of payments to vendors with residential addresses, payments to non-standard vendors (e.g., high-end retailers) and sequential invoicing across POs. Additionally, results also indicate instances of usage with multiple EPOs for similar scopes of work.	**F3. Conduct contract audits:** Perform additional audit procedures on vendors identified from sample testing to assess vendor adherence and compliance to agreed-upon terms with the City and determine if any remediation or corrective actions are needed. **F5. Enhance vendor systems and processes:** Leverage lessons learned from sample testing and vendor master data enhancements to improve current vendor systems and processes to prevent improper vendor payments, require approved business purpose/justification for vendor updates and clearly define owner department. **F6. Establish standardized vendor evaluation and monitoring processes:** Leverage lessons learned from sample testing and system/process enhancements to establish a standardized process for vendor evaluations and ongoing monitoring.
3. Noncompliant use of P-Cards: Obtained P-Card data from City and conducted analytics to identify anomalies and trends in P-Card utilization. Based on the analytics performed, results identified potential use of P-Cards to split payments that would otherwise be over transaction limits, large round dollar payments, purchases from prohibited vendors, such as Amazon, and use of payment applications, such as PayPal.	**F4. Implement system controls:** Assess risks and identify additional system controls to implement into P-Card system, based on results of P-Card transaction testing to detect and prevent improper or noncompliant use of P-Cards. **F7. Standardize P-Card monitoring and oversight.** Develop a checklist to standardize P-Card monitoring by administrators, centrally track P-Card use and corrective actions for increased governance over P-Card utilization

Activity	Jan. '25	Feb. '25	Mar. '25	Apr. '25	May '25	Jun. '25	Jul. '25	Aug. '25	Sept. '25	Oct. '25	Nov. '25	Dec. '25	Work Products
Performance: Turn the curve													
Update and refine existing City KPIs and targets								●					• Turn the Curve training and capabilities
Improve performance management practices for cross-collaboration and innovation					●								• Updated City KPIs
Use "turn the curve" to improve areas of underperformance												●	• Action plans to improve outcomes
Ongoing Monitoring & Support												●	• Enhanced City performance management program
Spend: Strategic Sourcing													• Analytics, Training and OCM
Review and confirm opportunities						●							• Opportunity backlog list
Develop implementation strategies							●						• Implementation strategies
Support aggregation of requirements (RFP packages)							●						• Requirements documentation
Support communication development of awarded strategies								●					• Communication messages
Spend: Category Management													• Category Charters
Develop training and train COH project leads on fundamental of Category Management			●										• Training guides (with processes and procedures)
Develop project plan and develop charters, governance, policies and procedures				●									• Category Strategic Plan
Establish Pilot Category Management Committee				●									• Opportunity documentation (market research, document requirements, Request for Proposal Package, etc.)
Identify and implement category initiatives											●		
Identify and set up additional Category Committees											●		
Review and identify SAP Ariba and Beacon Bid enhancements to enable category management							●						• Communication messages
Spend: Procurement Performance Management & Metrics													• Policies and procedures
Develop dashboards and track benefits realization											●		• Performance management / benefits dashboards
Identify procurement metrics										●			• Procurement performance management metrics
Develop baselines											●		• Documented calculation methodology
Set targets and goals											●		• Baseline and targets
Implement and monitor												●	
Spend: Analytics											●		• Refreshed spend analysis FY23-FY25
Coordinate to enhance spend in-house to COH							●						• Updated dashboards
Collect data and execute categorization logic										●			• New opportunities identified to support Category Management and Strategic Sourcing
Review and update category logic (as needed)											●		
Identify opportunities											●		
Create new visuals (as needed)												●	

Executive Summary | Additional opportunities identified by workstream for future action

The immediate next steps the City intends to undertake are comprehensively outlined in the roadmap. A detailed listing of further opportunities the City can strategically pursue in the future by workstream is provided below. These opportunities are specifically focused on areas within the assessment scope.

Performance	**Organizational**	**Forensics**
▶ Create internal and external performance dashboards to track performance progress and enhance visibility	▶ Streamline time spent on operational and administrative tasks by CoH employees	▶ Conduct sample testing of high-risk departments, vendors and transactions
▶ Enhance data analysis through training, hiring and software capabilities	▶ Review support functions operating model to identify any gaps	▶ Enhance vendor master data for accuracy and completion
▶ Promote collaboration through cross-departmental meetings and problem solving	▶ Redesign organization structure and perform talent placement	▶ Conduct contract audits to confirm adherence with agreed upon terms
▶ Drive innovation by promoting a continuous improvement environment with financial incentives to departments	▶ Revamp career pathways and developing targeted training curricula	▶ Implement P-Card system controls
	▶ Review compensation & benefits framework to bolster talent attraction and retention	▶ Enhance vendor systems and processes to prevent improper vendor payments
	▶ Develop and implement a structured Change Management Office	▶ Establish standardized vendor evaluation and monitoring process
		▶ Standardize P-Card monitoring and oversight

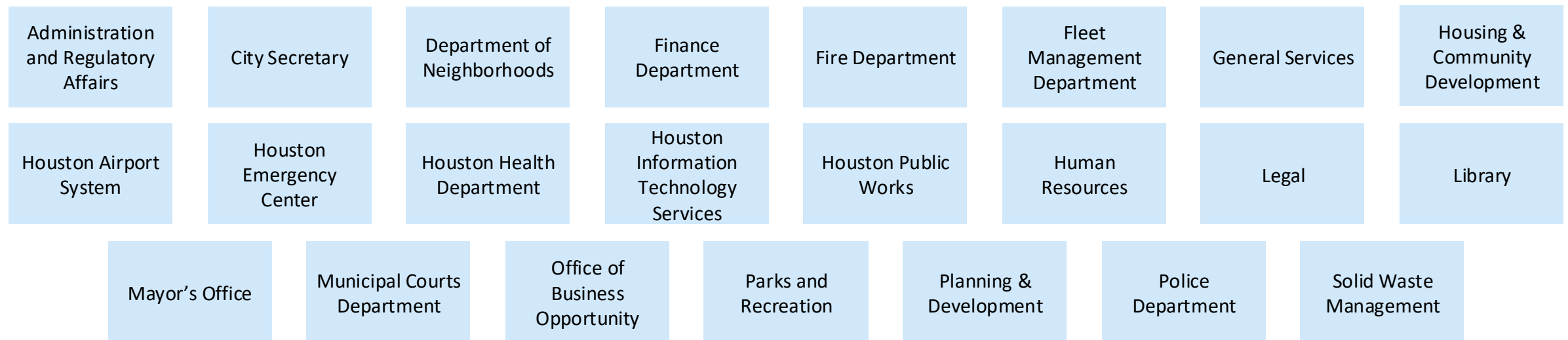# Performance Analysis

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1. Approach and methodology

Performance analysis scope and objectives

Analysis objectives

- Assess departmental key performance indicators ("KPIs") to seek to improve accuracy of reporting and identify historical performance trends

- Evaluate the City of Houston's ("City") performance management process, including data collection and reporting practices, against leading practices, and identify potential opportunities for improvement

- Benchmark key indicators against a set of peer cities and industry standards to identify areas where performance appears above or below peers

In-scope departments (n=23)[1]

Administration and Regulatory Affairs	City Secretary	Department of Neighborhoods	Finance Department	Fire Department	Fleet Management Department	General Services	Housing & Community Development
Houston Airport System	Houston Emergency Center	Houston Health Department	Houston Information Technology Services	Houston Public Works	Human Resources	Legal	Library
	Mayor's Office	Municipal Courts Department	Office of Business Opportunity	Parks and Recreation	Planning & Development	Police Department	Solid Waste Management

1. City Council, City Controller, and General Government, which includes city-wide costs that are not attributable to any single department as well as post-employment benefits and debt service payments, were considered out of scope for this assessment

Source: Houston City FY25 Budget

Performance analysis overview

Key elements of analysis				(Recommended)
Assess	**Evaluate**	**Benchmark**	**Report**	Next phase: Design and execute
• Developed a rubric to evaluate the existing 606 program KPIs in the Fiscal Year 2025 ("FY25") Budget • Compared actual and target data for each of the 606 KPI to assess historical performance and trends • Assessed a random sample of 50 KPIs on data validity, relevance for decision-making, and complexity	• Evaluated the City's data collection and reporting processes by interviewing key staff, leading a performance management workshop, analyzing relevant documents, and observing business processes • Reviewed the City's performance management protocols against leading practices	• Selected a set of six peer cities to conduct benchmarking analysis • Developed a set of 54 new indicators and performance measures for benchmarking against peer cities and industry standards • Identified key areas for potential improvement based on benchmarking analysis	• Identified areas in need of management focus to address performance measurement and management gaps based on key findings and observations of the City's current practices	• City to socialize report, as determined necessary • City to consider and implement recommendations starting with prioritized recommendations identified in the implementation timelines

Assess and evaluate: Key activities and steps

Activities	Key steps
Program KPI scorecard Key insights	1. Identified 606 existing KPIs in the FY25 Budget for the in-scope 23 departments and 186 programs 2. Categorized KPIs based on type (output, efficiency, effectiveness, outcome, or equity) 3. Assessed individual programs for KPI completeness based on their KPI mix and whether they are measuring all components of performance
Historical performance analysis Key insights	1. Reviewed historical budget files to identify performance from FY19 to FY25 for the 606 existing KPIs[1] 2. Assessed performance trends across the 606 existing KPIs, including whether actual performance met targets
Sample KPI assessment Key insights	1. Selected a randomized sample of 50 existing KPIs from in-scope departments and programs 2. Deployed a survey to 50 programs across 23 departments to assess the proxy, data, and communication power of the selected KPIs using pre-defined criteria 3. Validated survey findings by interviewing City staff
Performance management evaluation Key insights	1. Interviewed 20+ City staff to evaluate the City's data collection and reporting processes 2. Led a performance management workshop with three city departments to discuss current challenges and opportunities for improving performance measurement and management 3. Reviewed the City's performance management protocols against leading practices to identify opportunities for improvement

Assess (applies to first three rows)

Evaluate (applies to last row)

1. Many KPIs are new so performance data is not available going back to FY19

Benchmark: Approach for selecting peer cities

Benchmarking peer group

The Team worked with the City to identify 6 cities to include in the peer set to support our benchmarking analysis.

These cities were selected because they have similar demographics and trends for their economic futures. In addition, they all have a population greater than 1m residents and general funds over $1b, showing similar scale of governance.

Note: these cities were also utilized for the organizational assessment benchmarking peer group.

Peer group cities include:

- Chicago, IL
- Dallas, TX
- Los Angeles, CA
- Philadelphia, PA
- Phoenix, AZ
- San Antonio, TX

Chicago, IL
Philadelphia, PA
Los Angeles, CA
Phoenix, AZ
Dallas, TX
San Antonio, TX
Houston, TX
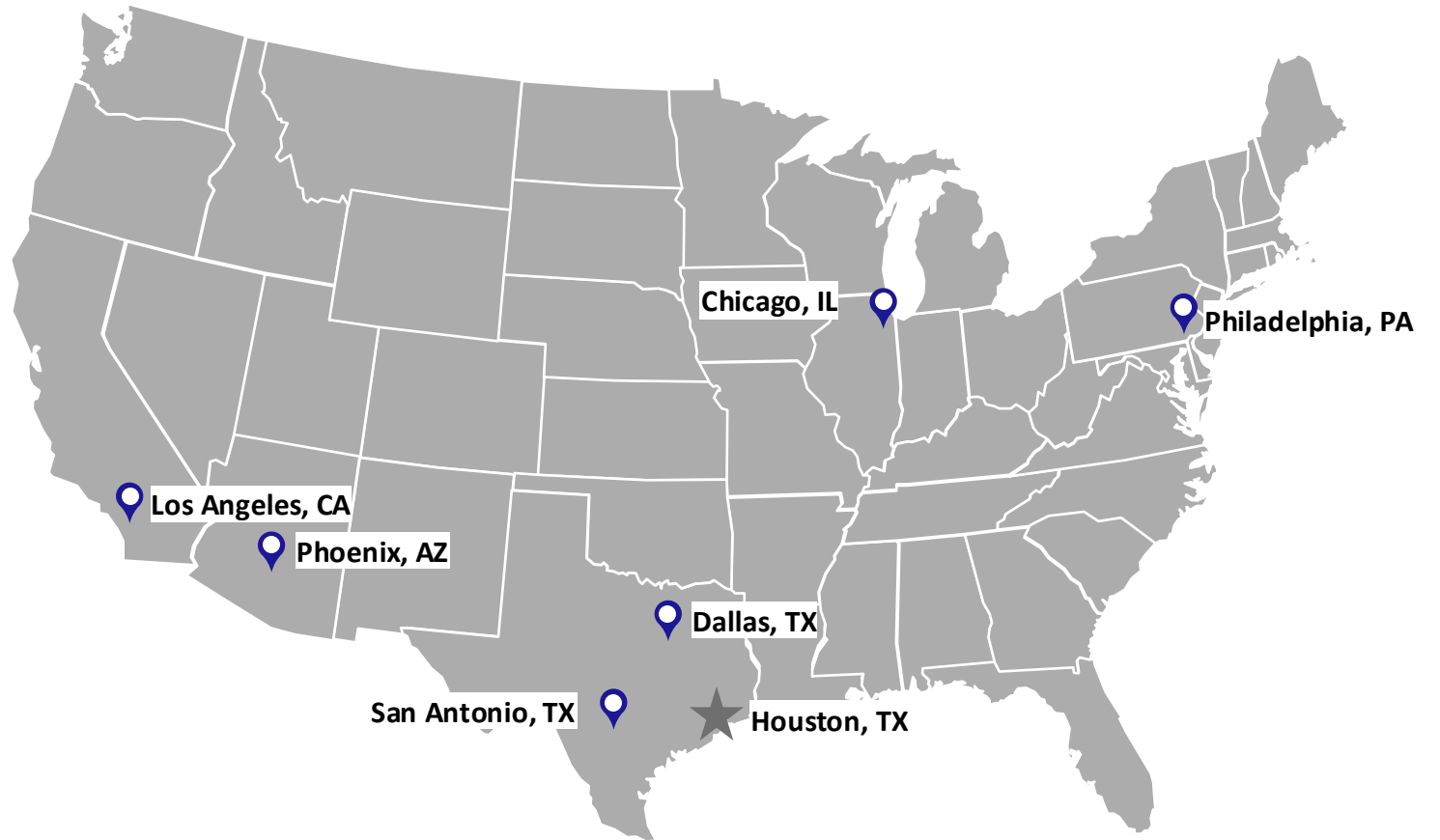
Benchmark: Approach for selecting new indicators to benchmark performance

New indicators selection process

The assessment team worked with the City to identify broad indicators based on the Mayor's priorities and strategic objectives to benchmark performance against peer cities

1. Mayor's priority

2. Strategic objectives

3. Broad performance indicators

Indicators for benchmarking
(n=54)

Number of new indicators by Mayor's priority

The team selected 54 new indicators across the four Mayor's priorities and strategic objectives

Priority	# of strategic objectives	Total # of indicators benchmarked
Public safety	7	14
Infrastructure	6	14
Government that works	6	15
Quality of life	4	11
		54

To complete the benchmarking analysis:

1. City data was prioritized, though MSA data was used if City data was unavailable

2. FY23 data was prioritized. However, if unavailable, the team used the most recent data

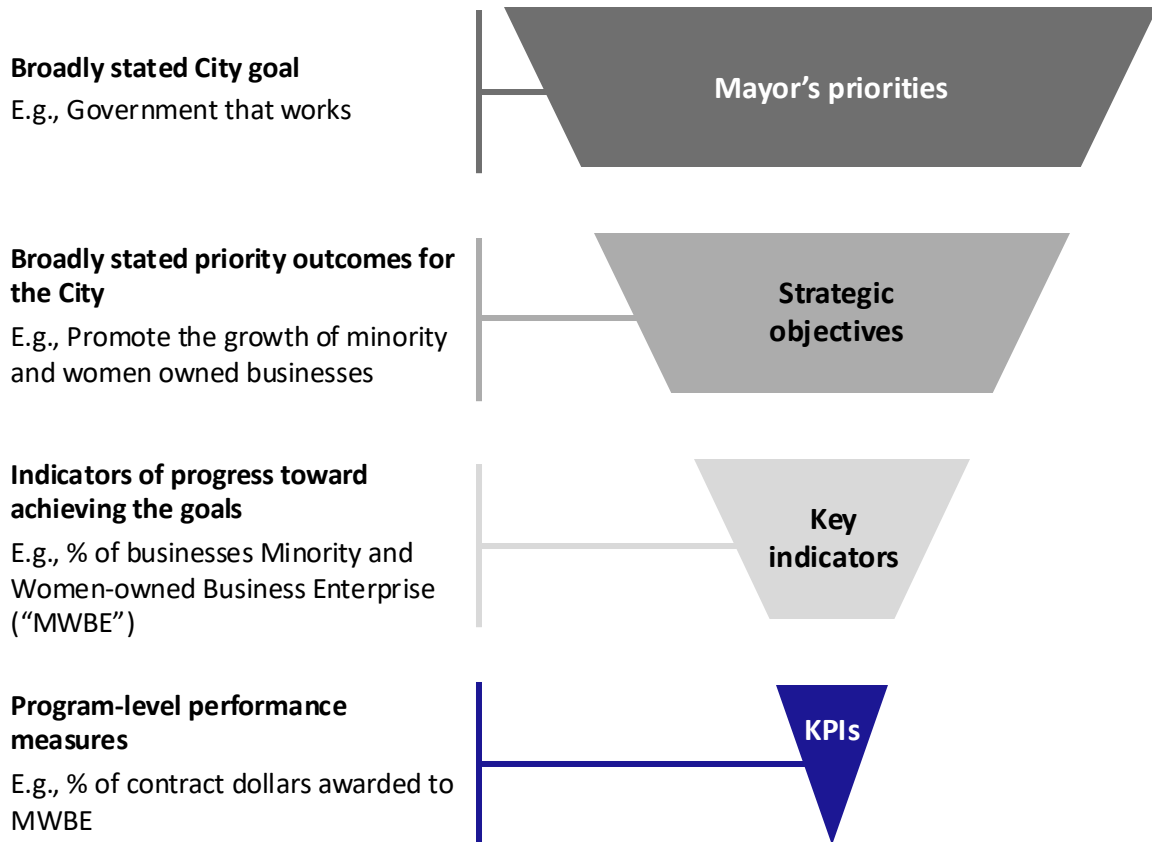3. If peer data was not available, benchmarks against industry standards or historical trends were utilized

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2. Performance assessment

A. Program KPI scorecard

B. Historical performance analysis

C. Sample KPI assessment

Overview of leading practices for selecting program KPIs

KPIs should connect city-wide strategic goals to front-line service delivery

Broadly stated City goal

E.g., Government that works

Broadly stated priority outcomes for the City

E.g., Promote the growth of minority and women owned businesses

Indicators of progress toward achieving the goals

E.g., % of businesses Minority and Women-owned Business Enterprise ("MWBE")

Program-level performance measures

E.g., % of contract dollars awarded to MWBE

Mayor's priorities

Strategic objectives

Key indicators

KPIs

A program or service should have the right mix of KPIs (at least 5 in total) to measure all components of performance
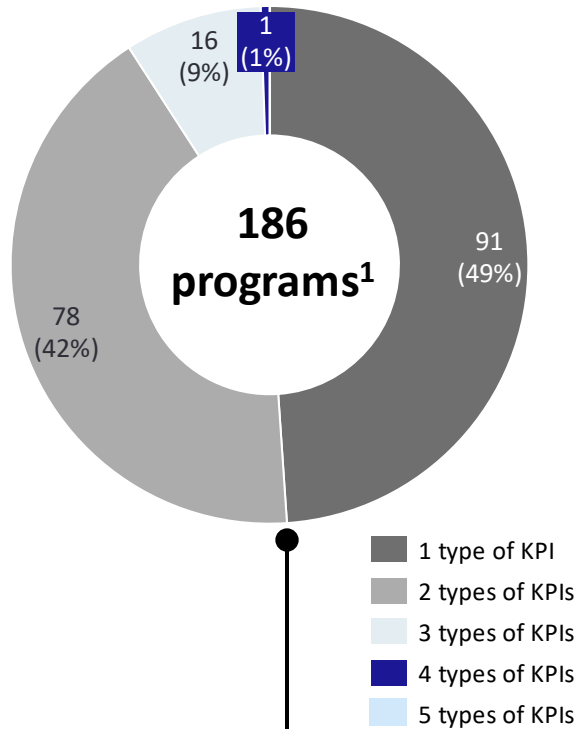
Output

- How much did we do?
- Amount of service delivered (e.g., Number of maintenance work orders completed)

Efficiency

- How well did we do it?
- Cost (in dollars or time) per unit of output or outcome (e.g., Number of daily building inspections per inspector)

Equity
Is everyone better off? (e.g., MWBE contract participation rate)

Effectiveness

- How well did we do it?
- How the service meets standards based on customer expectations (e.g., Curbside recycling on-time collection rate)

Outcome

- Is anyone better off?
- Amount of the intended end result that is produced (e.g., Percent of Anti-Gang Program youth who reoffend)
- Outcome KPIs may include customer acquisition, retention, or growth

Sources: Clear Impact; internal analysis

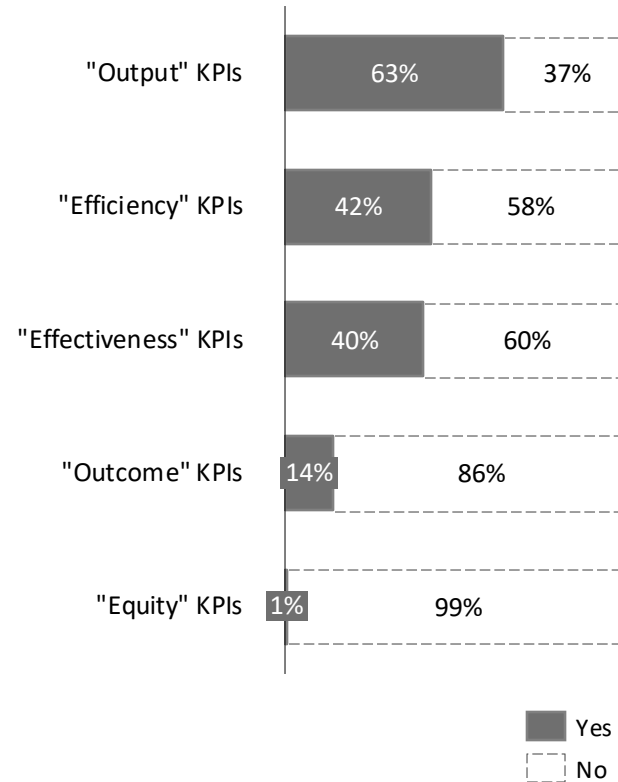# Findings and opportunities from the program KPI assessment

Observation: Based on our assessment, ~91% of the City's programs only have one or two types of KPIs to measure performance
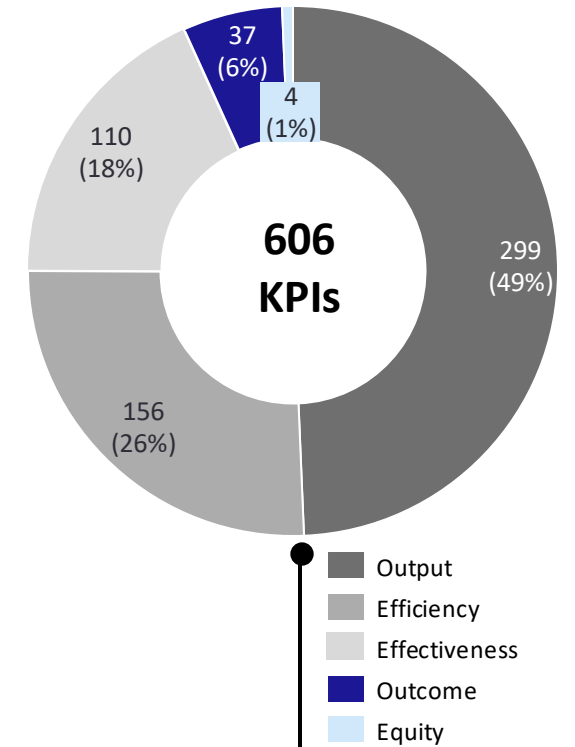
Programs by KPI types measured

186 programs[1]

- 91 (49%)
- 78 (42%)
- 16 (9%)
- 1 (1%)

Legend:
- 1 type of KPI
- 2 types of KPIs
- 3 types of KPIs
- 4 types of KPIs
- 5 types of KPIs

- Only ~**10%** of programs have KPIs that allow them to measure **at least three** components of performance

% of in-scope programs with at least one KPI type

KPI type	Yes	No
"Output" KPIs	63%	37%
"Efficiency" KPIs	42%	58%
"Effectiveness" KPIs	40%	60%
"Outcome" KPIs	14%	86%
"Equity" KPIs	1%	99%

- Yes
- No

Total KPIs by type

606 KPIs

- 299 (49%)
- 156 (26%)
- 110 (18%)
- 37 (6%)
- 4 (1%)

Legend:
- Output
- Efficiency
- Effectiveness
- Outcome
- Equity

- There may be an opportunity to refine the existing KPIs to prioritize measuring **outcome or equity**
- Output KPIs may be the easiest to measure, but may be the least insightful when measuring performance
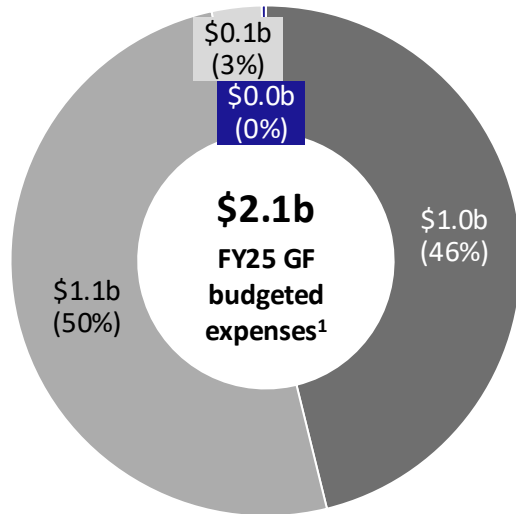
1. Includes departments under the Mayor's Office (excludes General Government, City Council, and City Controller). Includes programs that are not funded by GF but report to the Mayor (i.e., Emergency Center)
Sources: City of Houston FY2025 Proposed Budget; Internal analysis

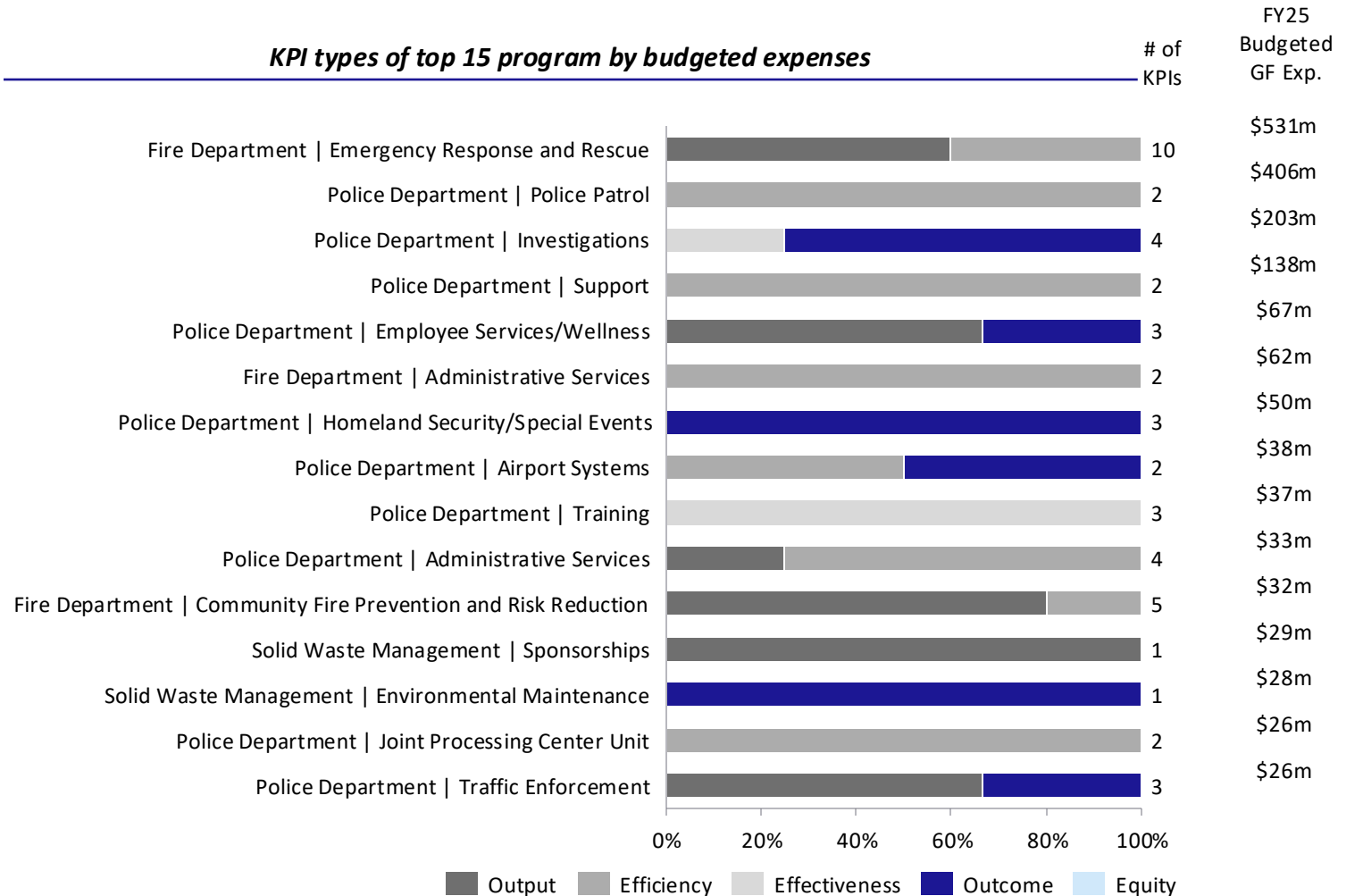# Findings and opportunities from the program KPI assessment

Observation: Programs accounting for ~96% of the General Fund ("GF") budget only have one or two types of KPI to measure performance

Programs by KPI types measured
(as a % of budgeted GF expense)

$0.1b (3%)
$0.0b (0%)
$1.0b (46%)
$1.1b (50%)

$2.1b
FY25 GF budgeted expenses[1]

- ■ 1 type of KPI
- ■ 4 types of KPIs
- ■ 2 types of KPIs
- ■ 5 types of KPIs
- ■ 3 types of KPIs

KPI types of top 15 program by budgeted expenses

Program	# of KPIs	FY25 Budgeted GF Exp.
Fire Department | Emergency Response and Rescue	10	$531m
Police Department | Police Patrol	2	$406m
Police Department | Investigations	4	$203m
Police Department | Support	2	$138m
Police Department | Employee Services/Wellness	3	$67m
Fire Department | Administrative Services	2	$62m
Police Department | Homeland Security/Special Events	3	$50m
Police Department | Airport Systems	2	$38m
Police Department | Training	3	$37m
Police Department | Administrative Services	4	$33m
Fire Department | Community Fire Prevention and Risk Reduction	5	$32m
Solid Waste Management | Sponsorships	1	$29m
Solid Waste Management | Environmental Maintenance	1	$28m
Police Department | Joint Processing Center Unit	2	$26m
Police Department | Traffic Enforcement	3	$26m

0% 20% 40% 60% 80% 100%

- ■ Output
- ■ Efficiency
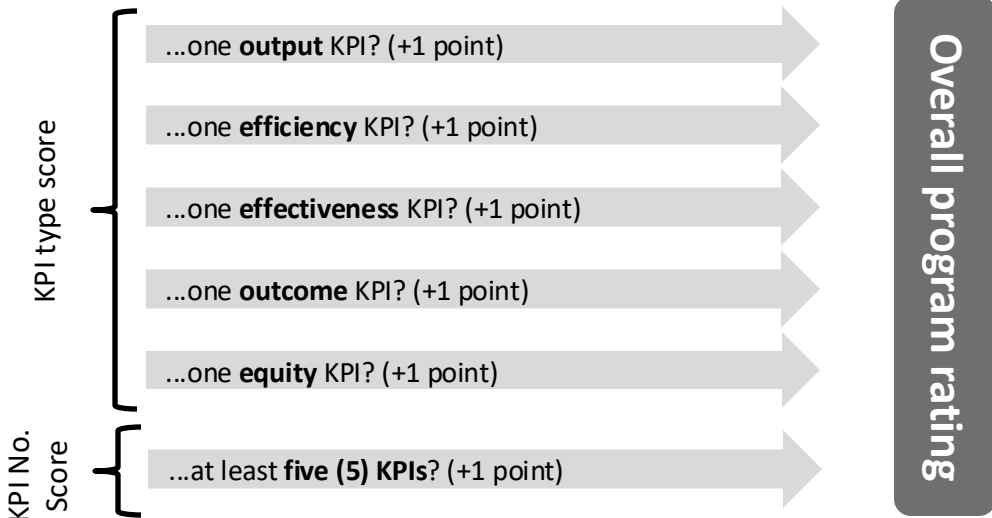- ■ Effectiveness
- ■ Outcome
- ■ Equity

1. Includes 118 programs under the Mayor's Office funded by General Funds only (excludes 68 programs that report to the Mayor but are not funded by non-GF). Excludes debt service and interfund transfers
Sources: City of Houston FY 2025 Proposed Budget; Internal analysis

Findings and opportunities from the program KPI assessment

Observation: Based on our ratings, ~80% of the programs assessed "need improvement" or "need significant improvement" to better measure performance

Rating methodology

Does this program have at least...

KPI type score
- ...one **output** KPI? (+1 point)
- ...one **efficiency** KPI? (+1 point)
- ...one **effectiveness** KPI? (+1 point)
- ...one **outcome** KPI? (+1 point)
- ...one **equity** KPI? (+1 point)

KPI No. Score
- ...at least **five (5) KPIs**? (+1 point)

Overall program rating

Total points	Rating*	# of programs
5-6	Excellent	1
4	Good	9
3	Okay	27
2	Needs Improvement	62
1	Needs Significant Improvement	87
	Total	**186**

Illustrative department and program scorecards[1]

Fire Department

FY2025 Department Budget *($ in thousands)*	
GF Budgeted Revenues	GF Budgeted Expenses[1]
$108,306	$636,205

FY2025 Department Budgeted FTEs	
GF FTEs	GF OT FTEs
3943.2	424.9

Number of Programs:	5

Total Number of KPIs	Average Number of KPIs per Program
26	5.2

Overall Department KPI Statistics

Output	Outcome	Efficiency	Effectiveness	Equity
18	0	7	1	0

Program:	Firefighter Health and Safety		

General Fund *($ 000s)*		Other Funds[2] *($ 000s)*		Total No. KPIs
GF Revenues	GF Expenses	Other Revenues	Other Expenses	
$0	$4,826	$0	$0	5

Number of KPIs per KPI Type

Output	Outcome	Efficiency	Effectiveness	Equity
4	-	-	1	-

Overall Program KPI Rating	**Okay**

1. Budgeted expenses include Debt Service and Interfund Transfers
2. "Other Funds" includes other non-major special revenue funds (excludes General Fund)
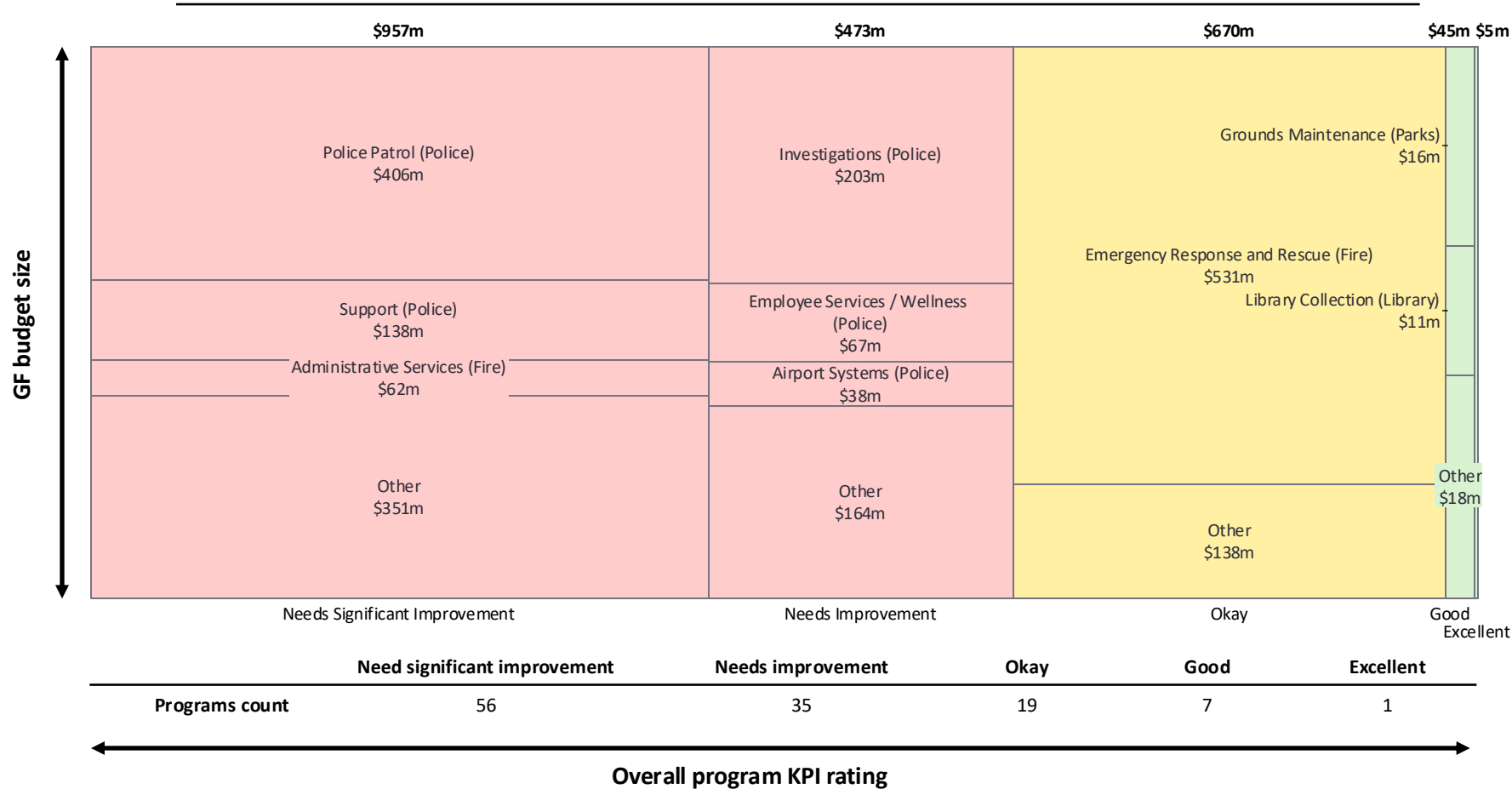
*Equity may not be applicable for all programs. Therefore, for some programs, the highest overall rating may be a five (5)

Source: Internal analysis

Findings and opportunities from the program KPI assessment

Observation: ~67% of programs funded by the General Fund ("GF") could improve the completeness
of their KPIs to more fully measure their performance and outcomes

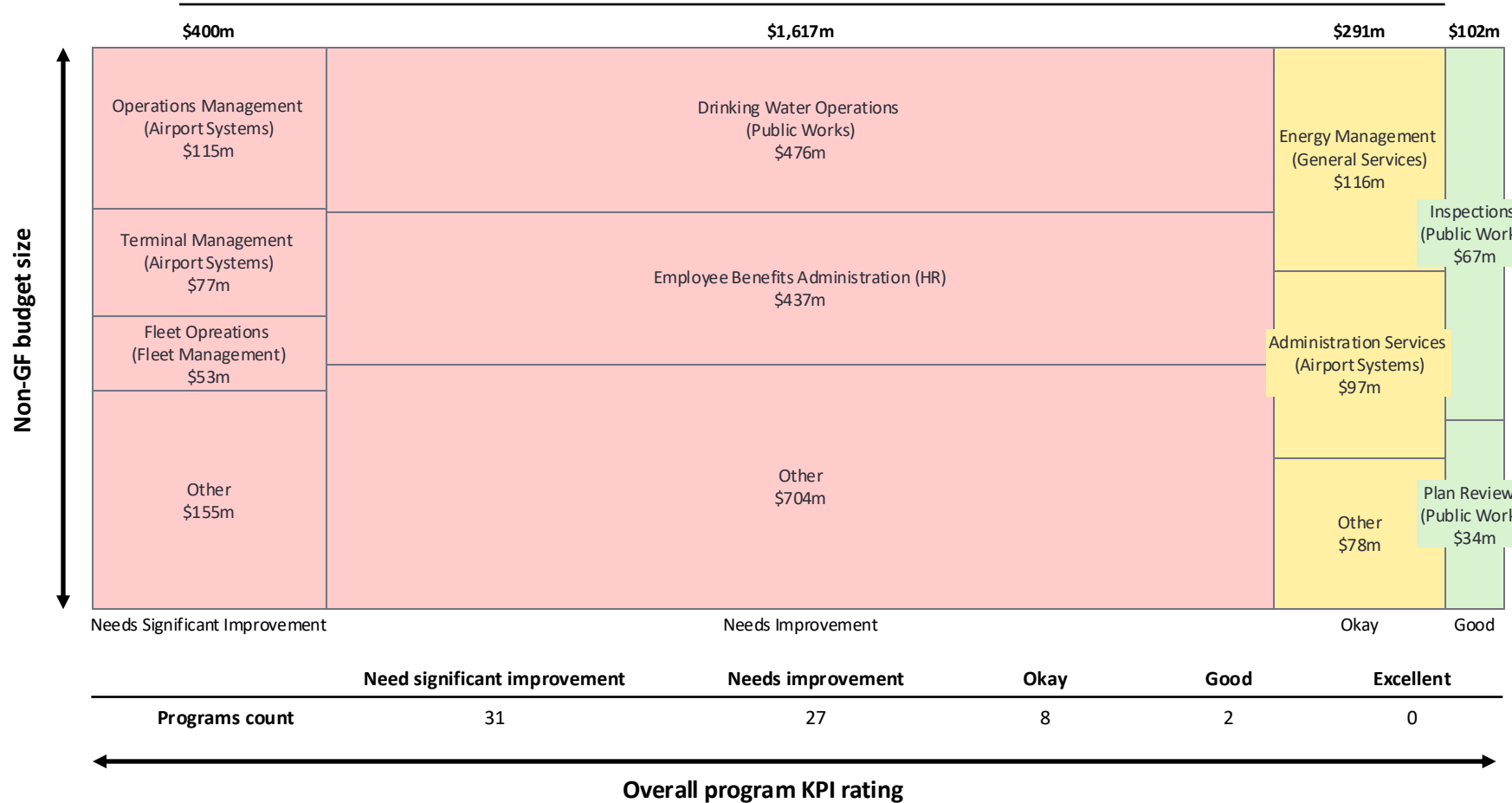*Assessment of in-scope program ratings as a function of General Fund budget[1]*

| | $957m | $473m | $670m | $45m | $5m |

- **Police Patrol (Police)** $406m
- **Investigations (Police)** $203m
- **Grounds Maintenance (Parks)** $16m
- **Emergency Response and Rescue (Fire)** $531m
- **Support (Police)** $138m
- **Employee Services / Wellness (Police)** $67m
- **Library Collection (Library)** $11m
- **Administrative Services (Fire)** $62m
- **Airport Systems (Police)** $38m
- **Other** $351m
- **Other** $164m
- **Other** $138m
- **Other** $18m

GF budget size

Needs Significant Improvement | Needs Improvement | Okay | Good Excellent

	Need significant improvement	Needs improvement	Okay	Good	Excellent
Programs count	56	35	19	7	1

Overall program KPI rating

- Based on our assessment, 91 programs funded by the GF "need significant improvement" or "need improvement" with their existing KPIs
  - These programs make up ~$1.4B (or 67%) of the $2.1B in-scope GF budgeted expenses
- Additionally, 19 programs (representing 32% of GF budgeted expenses) have an "okay" mix of KPIs
  - Only 3 programs rated as "okay" have outcome KPIs and only 1 program has equity KPIs
- Programs with "Good" or "Excellent" ratings make up ~2% of the in-scope GF budgeted expenses

1. Includes 118 programs that report to the Mayor and are funded (fully or partially) by the General Fund (excludes 68 programs that report to the Mayor but are not funded the GF). Excludes debt service and interfund transfers
Sources: City of Houston FY 2025 Proposed Budget; Internal analysis

Findings and opportunities from the program KPI assessment

Observation: ~84% of programs funded by non-General Fund money could improve the completeness of their KPIs to more fully measure their performance and outcomes

Assessment of in-scope program ratings as a function of non-General Fund budget[1]

| | $400m | $1,617m | $291m | $102m |

Non-GF budget size

- Operations Management (Airport Systems) $115m
- Drinking Water Operations (Public Works) $476m
- Energy Management (General Services) $116m
- Inspections (Public Works) $67m
- Terminal Management (Airport Systems) $77m
- Employee Benefits Administration (HR) $437m
- Fleet Opreations (Fleet Management) $53m
- Administration Services (Airport Systems) $97m
- Other $155m
- Other $704m
- Other $78m
- Plan Reviews (Public Works) $34m

Needs Significant Improvement — Needs Improvement — Okay — Good

	Need significant improvement	Needs improvement	Okay	Good	Excellent
Programs count	31	27	8	2	0

Overall program KPI rating

- Based on our assessment, 58 programs funded by non-General Fund "need significant improvement" or "need improvement" with their program KPIs
  - These programs make up ~$2.0B (or 84%) of the $2.4B non-General Fund budget
- Additionally, only 8 programs (representing 12% of the non-General Fund budget) have an "okay" mix of KPIs
  - Only 2 of these programs have outcome KPIs and none are measuring equity
- Programs with "Good" ratings make up ~4% of the non-General Fund budget

1. Includes 68 programs that report to the Mayor and are funded exclusively by non-GF budget, which may include Enterprise Funds. Excludes debt service and interfund transfers

Sources: City of Houston FY2025 Proposed Budget; Internal analysis

Illustrative examples of program KPIs measuring all components of performance

Department: Police Department
Program: Police Patrol

Current program KPIs[1]

Output
- N/A

Efficiency
- Maintain average response time (in minutes) for police calls for service (priority 1 calls)
- Maintain average response time (in minutes) for police calls for service (priority 2 calls)

Effectiveness
- N/A

Outcome
- N/A

Equity
- N/A

Illustrative updated KPIs

Output
- Number of police calls for service (priority 1 calls)

Efficiency
- Average response time for priority 1 calls (in minutes)
- Police call for service percentage

Effectiveness
- Total civilian complaints per officer

Outcome
- Violent crimes per 100k residents
- Property crimes per 100k residents

Equity
- Hate crimes per 100k residents

Department: Library
Program: Literacy and Educational Program

Current program KPIs[1]

Output
- Annual number of program attendees
- Annual number of students served for program
- Annual number of workforce literacy classes attendees
- Number of Early Literacy Support Program participants

Efficiency
- N/A

Effectiveness
- Program survey responses

Outcome
- N/A

Equity
- N/A

> This program provides different services (e.g., workforce literacy, early literacy support) so it should aim to fully measure performance for each service. KPIs for the early literacy support are illustrated below

Illustrative updated KPIs

Output
- Annual number of early literacy support program participants

Efficiency
- Cost per early literacy program participant

Effectiveness
- Percent of participants who are satisfied with the early literacy support programs

Outcome
- Percent of total participants with a passing grade on early childhood literacy assessments

Equity
- Percent of participants (by race and heritage) with a passing grade on early childhood literacy assessments

Department: Planning & Development
Program: Development Services and Design Review

Current program KPIs[1]

Output
- Number of commercial applications reviewed annually
- Number of plat recordation appointments provided annually
- Number of residential applications reviewed annually
- Number of subdivision plat applications reviewed annually

Efficiency
- Percentage of Major Thoroughfare and Freeway Plan amendments reviewed and processed annually
- Percentage of commercial projects reviewed in 13 business days
- Percentage of residential projects reviewed in 10 business days

Effectiveness
- N/A

Outcome
- N/A

Equity
- N/A

> This program provides different services, so it should aim to fully measure performance for each service. KPIs for residential review are illustrated below

Illustrative updated KPIs

Output
- Number of residential applications reviewed annually

Efficiency
- Percentage of residential projects reviewed in 10 business days

Effectiveness
- Percent of applicants rating the development services process "excellent" or "good"

Outcome
- Number of available residential units due to permitted residential construction

Equity
- Number of available low-income residential units due to permitted residential construction

1. The current program KPIs include the ones reported in the FY25 budget file, and does not reflect additional KPIs that may be tracked internally

Sources: City of Houston FY25 budget

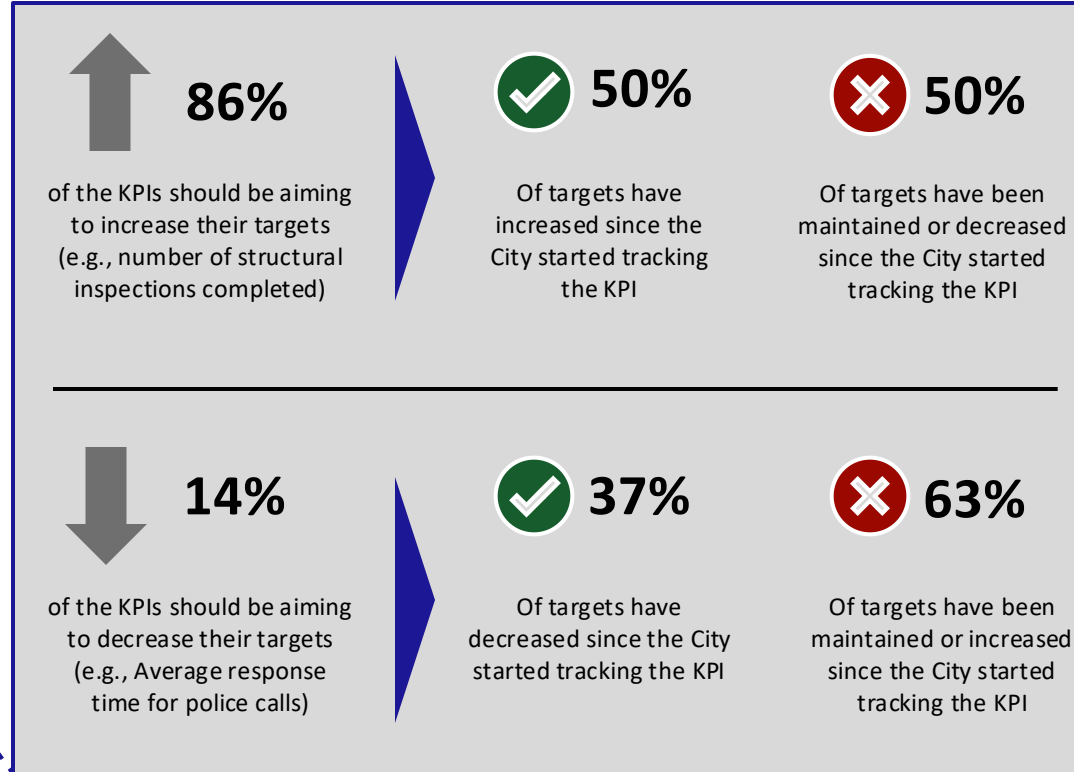# Findings and opportunities from the historical performance analysis

Observation: Performance appears to be improving for ~59% of KPIs compared to prior years, but there might be an opportunity to adjust targets for some KPIs to make them more ambitious

KPIs by historical performance
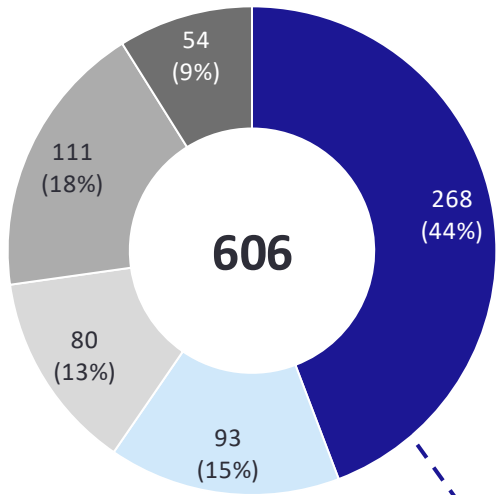
606

268 (44%)
93 (15%)
80 (13%)
111 (18%)
54 (9%)

- Getting better and meeting FY24 target
- Getting better but not meeting FY24 target
- Getting worse but meeting FY24 target
- Getting worse and not meeting FY24 target
- New KPIs

Target trends for 268 KPIs that are getting better and meeting FY24 targets

86% of the KPIs should be aiming to increase their targets (e.g., number of structural inspections completed)

✓ **50%** Of targets have increased since the City started tracking the KPI

✗ **50%** Of targets have been maintained or decreased since the City started tracking the KPI

14% of the KPIs should be aiming to decrease their targets (e.g., Average response time for police calls)

✓ **37%** Of targets have decreased since the City started tracking the KPI

✗ **63%** Of targets have been maintained or increased since the City started tracking the KPI

A detailed historical performance analysis for the 606 KPIs is included the **appendix**

KPI targets

For **105 KPIs** (or 17% of total), the FY22, FY23, and FY24 performance was better than the FY25 targets

Illustrative examples:

Police: Maintain average response time (min.) for Police calls for service (Priority 2 calls)

FY22A	FY23A	FY24E		FY25T
11.7	11.4	11.4	<	12.0

Municipal Courts: Annual revenue collected through Internal One Call Solution Center

FY22A	FY23A	FY24E		FY25T
$1.3m	$1.4m	$1.3m	>	$1.1m

- Based on discussions with City staff, it appears that many programs may not be updating targets based on performance trends to make them more ambitious and promote continuous improvement
- City programs could assess whether the current performance for these 105 KPIs is a new "baseline," and adjust targets accordingly going forward
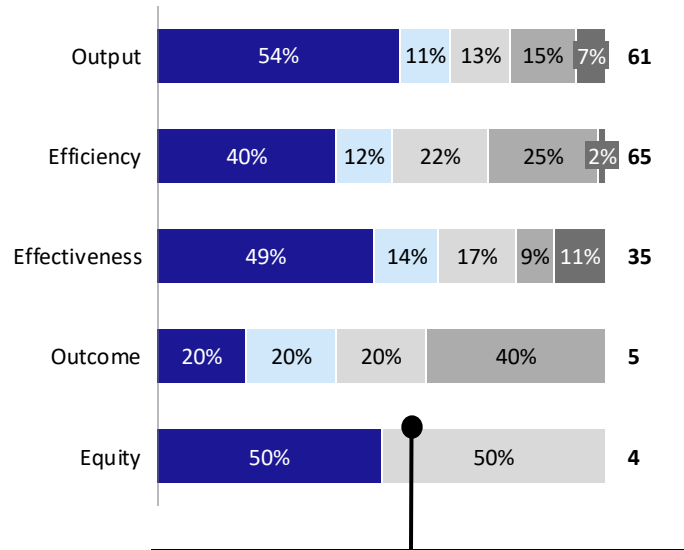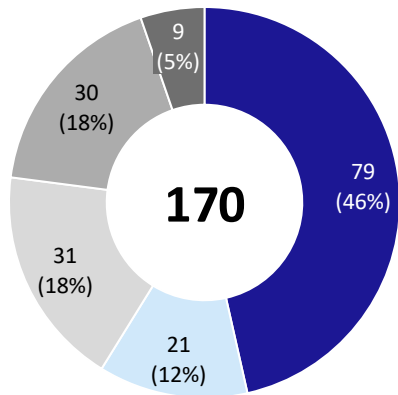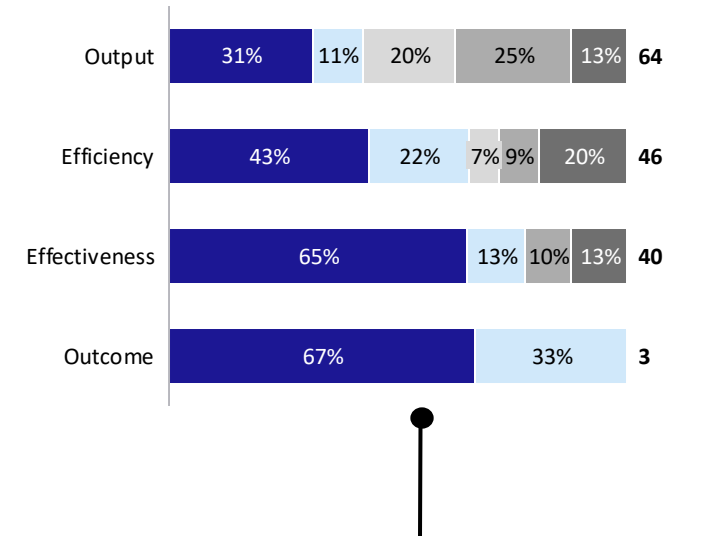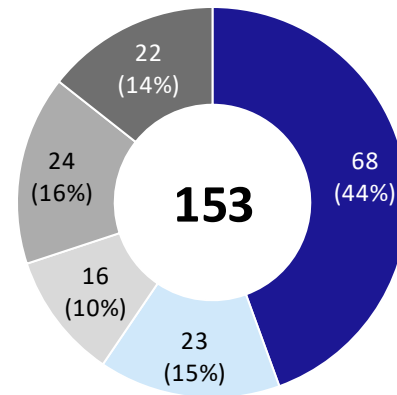
Sources: City of Houston historical budget files; Internal analysis

Historical performance analysis for "Government that Works" and "Infrastructure" priorities

Government that Works

KPIs performance by type

of KPIs

170
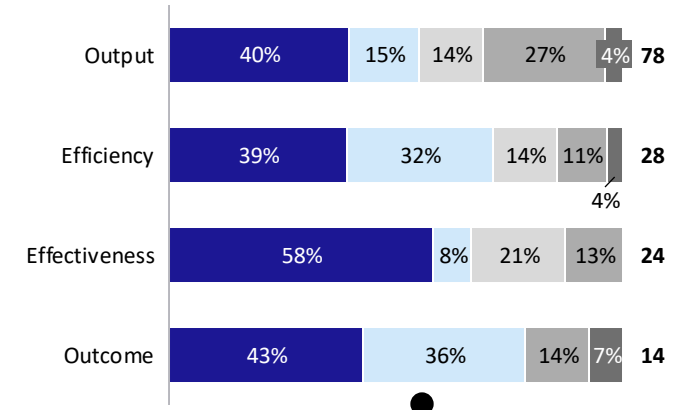- 79 (46%)
- 21 (12%)
- 31 (18%)
- 30 (18%)
- 9 (5%)

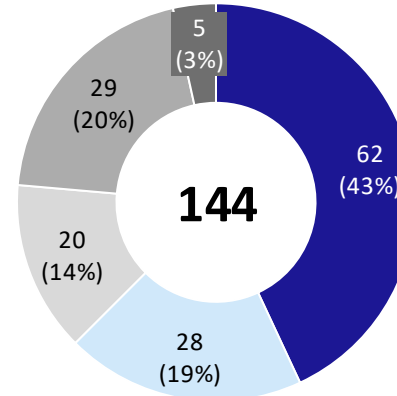| Type	Getting better and meeting FY24 target	Getting better but not meeting FY24 target	Getting worse but meeting FY24 target	Getting worse and not meeting FY24 target	New KPIs	# of KPIs
Output	54%	11%	13%	15%	7%	61
Efficiency	40%	12%	22%	25%	2%	65
Effectiveness	49%	14%	17%	9%	11%	35
Outcome	20%	20%	20%	40%		5
Equity	50%		50%			4

Legend:
- ■ Getting better and meeting FY24 target
- ■ Getting better but not meeting FY24 target
- ■ Getting worse but meeting FY24 target
- ■ Getting worse and not meeting FY24 target
- ■ New KPIs

- ~65% of output KPIs are performing better compared to prior years
- Similarly, ~52% of efficiency and ~63% of effectiveness KPIs are performing better
- Outcome KPIs appear to underperforming, with ~60% performing worse than prior years

Infrastructure

KPIs performance by type

of KPIs

153
- 68 (44%)
- 23 (15%)
- 16 (10%)
- 24 (16%)
- 22 (14%)

Type	Getting better and meeting FY24 target	Getting better but not meeting FY24 target	Getting worse but meeting FY24 target	Getting worse and not meeting FY24 target	New KPIs	# of KPIs
Output	31%	11%	20%	25%	13%	64
Efficiency	43%	22%	7%	9%	20%	46
Effectiveness	65%	13%	10%	13%		40
Outcome	67%	33%				3

Legend:
- ■ Getting better and meeting FY24 target
- ■ Getting better but not meeting FY24 target
- ■ Getting worse but meeting FY24 target
- ■ Getting worse and not meeting FY24 target
- ■ New KPIs

- ~45% of output KPIs are performing worse compared to prior years
- Efficiency, effectiveness, and outcome KPIs are performing better than prior years

Sources: City of Houston historical budget files; Internal analysis

Historical performance analysis for "Quality of Life" and "Public Safety" priorities

Quality of Life

KPIs performance by type
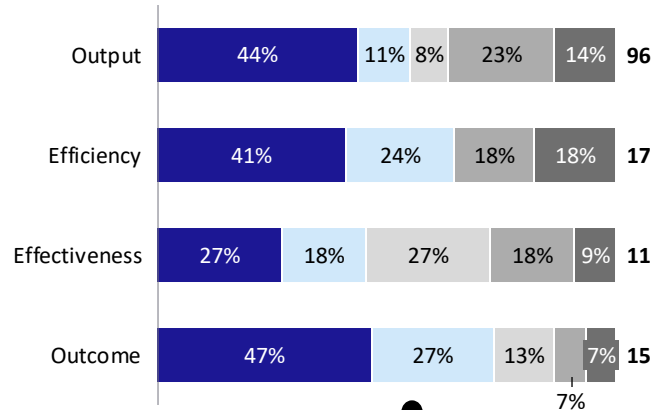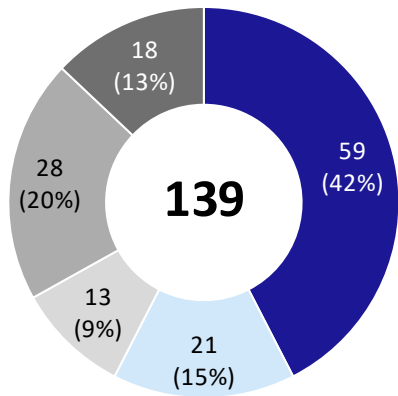
of KPIs

	Getting better and meeting FY24 target	Getting better but not meeting FY24 target	Getting worse but meeting FY24 target	Getting worse and not meeting FY24 target	New KPIs	# of KPIs
Output	44%	11%	8%	23%	14%	96
Efficiency	41%	24%		18%	18%	17
Effectiveness	27%	18%	27%	18%	9%	11
Outcome	47%	27%	13%	7%	7%	15

Donut chart center: **139**
- 59 (42%)
- 21 (15%)
- 13 (9%)
- 28 (20%)
- 18 (13%)

Legend:
- Getting better and meeting FY24 target
- Getting better but not meeting FY24 target
- Getting worse but meeting FY24 target
- Getting worse and not meeting FY24 target
- New KPIs

- Output, efficiency, and outcome KPIs appear to be performing better than prior years
- Effectiveness KPIs appear to be underperforming, with ~45% performing worse than prior years

Public Safety

KPIs performance by type

of KPIs

	Getting better and meeting FY24 target	Getting better but not meeting FY24 target	Getting worse but meeting FY24 target	Getting worse and not meeting FY24 target	New KPIs	# of KPIs
Output	40%	15%	14%	27%	4%	78
Efficiency	39%	32%	14%	11%	4%	28
Effectiveness	58%	8%	21%	13%		24
Outcome	43%	36%	14%	7%		14

Donut chart center: **144**
- 62 (43%)
- 28 (19%)
- 20 (14%)
- 29 (20%)
- 5 (3%)

Legend:
- Getting better and meeting FY24 target
- Getting better but not meeting FY24 target
- Getting worse but meeting FY24 target
- Getting worse and not meeting FY24 target
- New KPIs

- Overall, public safety performance has been improving compared to prior years
- A key area of underperformance is Fire response times, which are increasing and missing targets

Sources: City of Houston historical budget files; Internal analysis

Historical performance analysis for the Police Department

Police Department

FY25 GF budgeted expenses[1]	$1,043.7m
% of total FY25 GF budget	34%
Number of programs	12
Number of KPIs	35

KPIs by historical performance

35

- 17 (49%)
- 10 (29%)
- 2 (6%)
- 6 (17%)
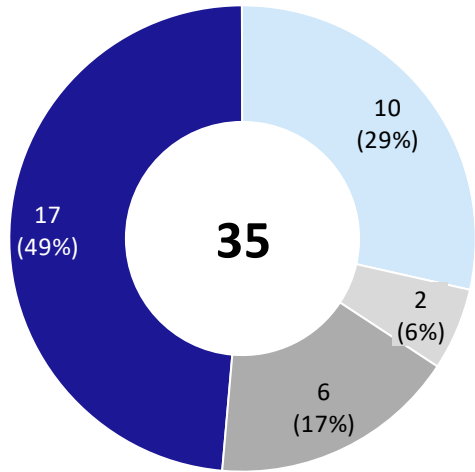
■ Getting better and meeting target
■ Getting better and not meeting target
■ Getting worse and meeting target
■ Getting worse and not meeting target

Key insights and trends for selected KPIs by program[2]

Investigations

64.1k
NIBRS crimes against persons
(FY24 Estimates)

⬆ vs. 69.4k in FY22
⬇ vs. 60k FY24 target

138.9k
NIBRS crimes against property
(FY24 Estimates)

⬆ vs. 146.2k in FY22
⬇ vs. 135k FY24 target

13.3k
NIBRS crimes against society
(FY24 Estimates)

⬆ vs. 47.3k in FY22
⬆ vs. 45k FY24 target

Mental Health

8.1k
Daily outreach to homeless individuals
(FY24 Estimates)

⬆ vs. 7.8k in FY22
⬇ vs. 9k FY24 target

5.3k
Annual calls taken relating to mental health crisis
(FY24 Estimates)

⬆ vs. 3.3k in FY22
⬆ vs. 5k FY24 target

4k
Annual officer responses to non-law-enforcement events
(FY24 Estimates)

⬆ vs. 4.4k in FY22
⬇ vs. 2k FY24 target

Police Patrol

6.1
Maintain average response times for priority 1 calls (in minutes)
(FY24 Estimates)

⬆ vs. 6.2 in FY22
⬇ vs. 5.5 FY24 target

11.4
Maintain average response times for priority 2 calls (in minutes)
(FY24 Estimates)

⬆ vs. 11.7 in FY22
⬆ vs. 12 FY24 target

⬆ Performed better prior year and/or FY24 target

⬇ Underperformed against prior year and/or FY24 target

1. Budgeted GF expenses include Debt Service and Interfund Transfers
2. For many of the KPIs, the goal is to reduce the number (i.e., response times), so a lower number is better
Sources: City of Houston historical budget files; Internal analysis

Historical performance analysis for the Fire Department

Fire Department

FY25 GF budgeted expenses[1]	$636.2m
% of total FY25 GF budget	21%
Number of programs	5
Number of KPIs	26

KPIs by historical performance
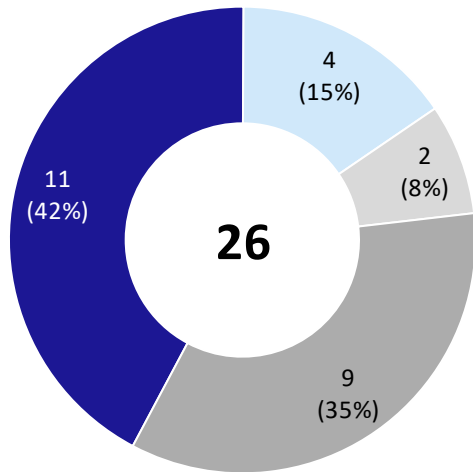
26

- ■ Getting better and meeting FY24 target
- ■ Getting better but not meeting FY24 target
- ■ Getting worse but meeting FY24 target
- ■ Getting worse and not meeting FY24 target

Key insights and trends for selected KPIs by program[2]

Community Fire Prevention and Risk Reduction

26%
Arson clearance rate
(FY24 Estimates)
⬆ vs. 22% in FY19
⬆ vs. 22% FY24 target

650
# of smoke alarm installs
(FY24 Estimates)
⬆ vs. 273 in FY21
⬇ vs. 1,500 FY24 target

26.4k
# of inspection activities
(FY24 Estimates)
⬇ vs. 29.9k in FY19
⬇ vs. 28.3k FY24 target

Emergency Response and Rescue

3:36
Call processing time
(FY24 Estimates)
⬆ vs. 3:37 in FY22
⬇ vs. 3:30 FY24 target

15:07
90th percentile response time for EMS 300 series
(FY24 Estimates)
⬇ vs. 13:08 in FY21
⬇ vs. 12:00 FY24 target

12:57
90th percentile response time for Fire 100 series
(FY24 Estimates)
⬇ vs. 9:56 in FY21
⬇ vs. 9:30 FY24 target

Firefighter Health and Safety

14.7k
Feet of ground ladders tested for safety compliance
(FY24 Estimates)
⬆ vs. 7.5k in FY22
⬆ vs. 14.7K FY24 target

330
Members seen by HFD psychologist team
(FY24 Estimates)
⬆ vs. 223 in FY22
⬆ vs. 280 FY24 target

416.5k
Feet of firehose tested for safety compliance
(FY24 Estimates)
⬇ vs. 488.5k in FY23
⬇ vs. 488.5k FY24 target

⬆ Performed better prior year and/or FY24 target

⬇ Underperformed against prior year and/or FY24 target

1. Budgeted GF expenses include Debt Service and Interfund Transfers
2. For many of the KPIs, the goal is to reduce the number (i.e., response times), so a lower number is better
Sources: City of Houston historical budget files; Internal analysis

Illustrative example of performance trends for a select set of KPIs as it relates to one of the City's strategic objectives

| **Mayor's priority:** Quality of life | | **Strategic objective:** Promote healthy, safe, livable, and connected neighborhoods |

KPI type	KPIs (as reported by the City)	Actual					Estimate	Target	Trend indicator
		FY19	FY20	FY21	FY22	FY23	FY24	FY25	
Output	Number of pedestrian accessibility review program/sidewalk repair applications reviewed and processed	N/A	N/A	N/A	84	111	100	100	🟢
	Number of health and wellness observance health promotion activities completed	N/A	N/A	N/A	12	12	12	12	🟢
	Number of neighborhood initiatives coordinated such as AMOS, Neighborhood Academy, University, etc.	N/A	N/A	N/A	218	222	206	232	🔴
Effectiveness	Increase On-Time Curbside Recycling Collection Rate	N/A	N/A	N/A	45%	45%	45%	68%	🟩
	Rate of voluntary compliance (as % of closed projects) [Code Enforcement]	84%	84%	89%	89%	71%	80%	85%	🟠
	Percent of Anti-Gang Program youth who completed program services	86%	86%	89%	81%	81%	84%	80%	🟠
Efficiency	Average days from request to initial inspection [Code Enforcement]	16	16	23	20	10	17	10	🔴
	Dollars saved by City of Houston and area non-profits via the use of volunteer labor	N/A	N/A	N/A	$3,988,088	$4,067,851	$400,000	$400,000	🔴
	Decrease Average Wait Time to Dispose of Waste at Neighborhood Depositories (in minutes)	N/A	N/A	N/A	60	60	20	15	🟩
Outcome	Increase community outreach program participation (annual participants)	N/A	N/A	N/A	76,200	82,600	133,170	100,000	🟢
	Reduce Citywide Recycling Contamination Rate	N/A	N/A	N/A	39%	38%	38%	34%	🟩
	Percentage of family cases that result in having a primary care clinic (medical home), health insurance and/or financial assistance	100%	99%	100%	100%	98%	98%	95%	🟠

🟢 Getting better and meeting target 🟩 Getting better but not meeting target 🟠 Getting worse but meeting target 🔴 Getting worse and not meeting target

Note: KPIs are mapped to Mayor's priorities, not to strategic objectives – so this table is shown for illustrative purposes only. Historical information going back to FY19 is not available for all KPIs (marked as "N/A"), as many of them were added in more recent years
Sources: City of Houston historical budget files; Internal analysis

Overview of existing KPI assessment survey

Method for selecting KPI sample

1 — *23 In-scope departments*

1 — Sample KPIs come from departments that report to the Mayor

2 — *2-3 programs per department*

2 — 2-3 programs per department were selected at random

3 — *1 KPI per program*

3 — 1 KPI per program was selected at random

4 — *50 KPIs sample set*

4 — A total of 50 KPIs will be assessed against a pre-defined criteria
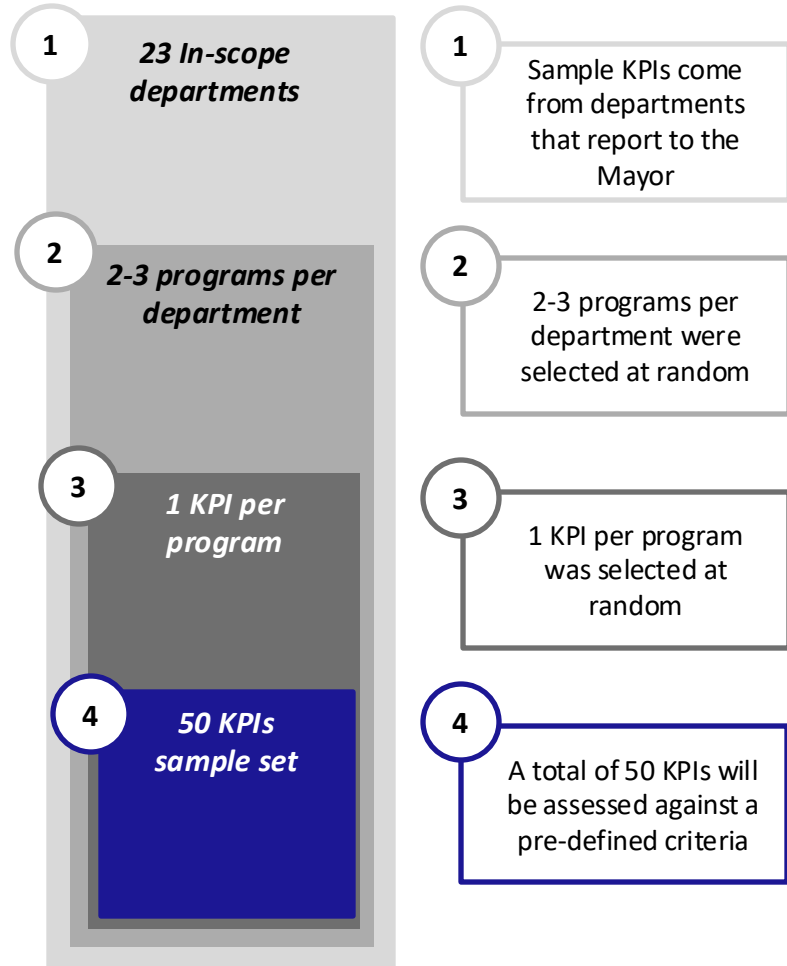
Survey overview (n=50)

Target audience	Department directors and program leads
# of questions	12 questions

Survey questions were drafted based on the assessment criteria

Communication power

Refers to the effectiveness of disseminating information and engaging stakeholders

Key criteria includes:

▶ **Clarity.** Well defined and easily understood by all stakeholders
▶ **Accessibility.** Easily accessible by all stakeholders
▶ **Timeliness.** Reported in a manner that reflects current performance levels

Proxy power

Refers to the ability of the KPI to accurately represent the performance it's intended to measure

Key criteria includes:

▶ **Relevance.** Aligned with the City's strategic goals and objectives
▶ **Validity.** Accurate in measuring what it is supposed to measure
▶ **Comparability.** Comparable over time and across departments, if relevant

Data power

Refers to the robustness and integrity of the data behind the KPI

Key criteria includes:

▶ **Measurability.** Accurately and consistently quantifiable
▶ **Feasibility.** Easy to measure and readily available data
▶ **Reliability.** Consistent and dependable collection methods

Findings and opportunities from the sample KPI assessment

Observation: Based on self-reported survey results, it appears that the sampled KPIs have strong communication, proxy, and data power

Survey results

Key insights

Communication power

| 10% | 17% | 19% | 52% | 2% |

- Based on self-reported results, the majority of KPIs appear to be frequently shared with stakeholders
- However, some department directors noted that they may not always get the right performance data in a timely manner, indicating that some data may not be reported beyond middle-management
- Additionally, based on survey results, it appears that the performance data may not always being reported to front-line workers

Proxy power

| 2% | 12% | 35% | 52% |

- City employees indicated that KPIs are well aligned with City and department goals
- However, based on our discussions with city staff, it appears that some employees may not be too familiar with the Mayor's priorities and strategic objectives – indicating that there may be an opportunity for better alignment, particularly around outcomes

Data power

| 21% | 46% | 33% |

- Many departments appear to rely on Excel to manually input performance data. These spreadsheets may not be consistent across different programs and departments, or readily available to every stakeholder group
- While data seems to be reliable overall, data usability appears to be limited to a small number of trained employees

Lower performance ⟵ ⟶ Higher performance

■ Very Low ■ Low ■ Neutral ■ High ■ Very High

Sources: KPI Performance assessment survey; Internal analysis

Findings and opportunities from the sample KPI assessment

Observation: ~56% of KPIs are reported monthly, with most KPIs being reported to department and program leadership

Stakeholder relevance

How many stakeholders are using the KPIs?
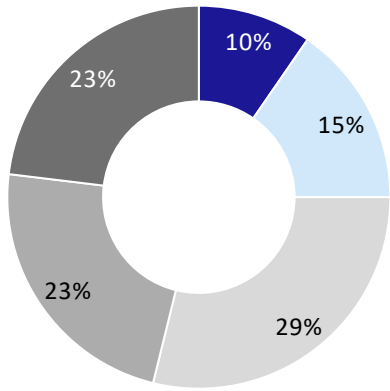
- One
- Two
- Three
- Four
- Five or more

10%
15%
29%
23%
23%

Stakeholder groups using the KPIs

Department leadership	96%
Program leadership	90%
City leadership	74%
Front-line workers	56%
Other	32%

90%

of KPIs are being reported to two or more stakeholders

Over 90% of KPIs are getting **reported** specifically to both **Program and Department leadership**
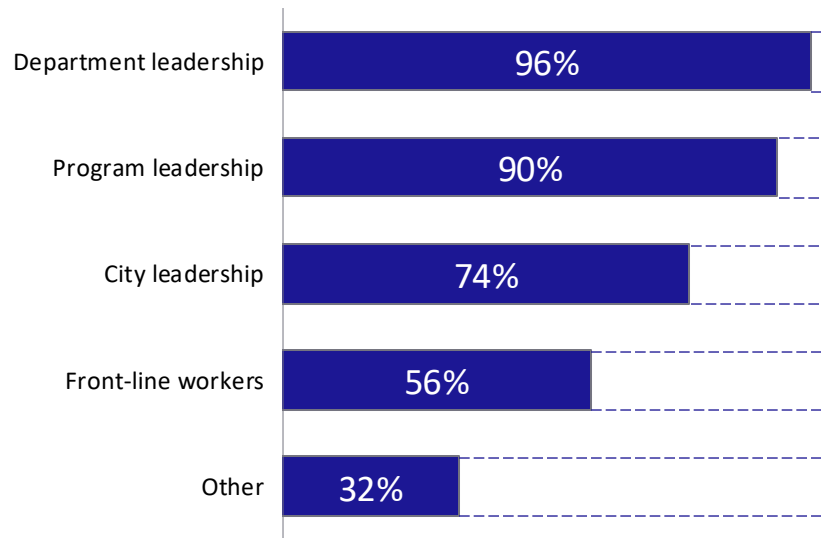
Frequency of reporting

With what frequency is KPI performance data reported to department leadership?
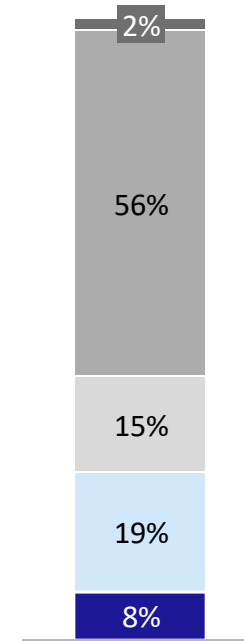
2%
56%
15%
19%
8%

Total

56%

of KPIs are reported at least once per month

19%

of KPIs are reported once per year

- At least once a week
- At least once a month
- At least once a quarter
- At least once a year
- Other

Findings and opportunities from the sample KPI assessment

Observation: ~82% of KPIs appear to be aligned to the Mayor's priorities and department goals, but ~40% of KPIs are not being used to make decisions or take corrective action

KPI alignment to the City's priorities and usage in decision-making

To what extent is the KPI aligned to the Mayor's priorities?

- 44% — To a very large extent
- 38% — To a large extent
- 12% — To some extent
- 6% — Not sure
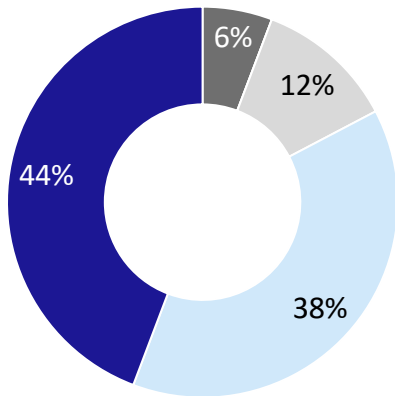
To what extent is the KPI used to make decisions or take corrective action?

- 31% — To a very large extent
- 31% — To a large extent
- 27% — To some extent
- 12% — Not sure
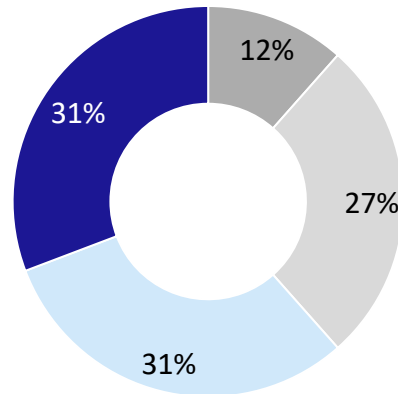
To what extent is the KPI aligned to the Department goals?

- 56% — To a very large extent
- 31% — To a large extent
- 12% — To some extent
- 2% — Not at all
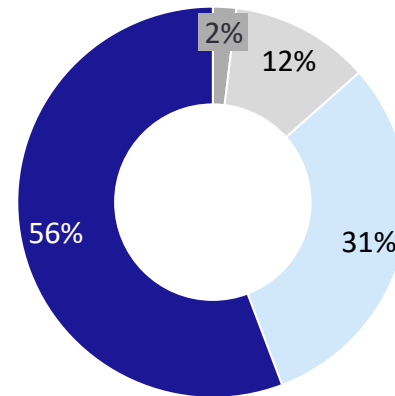
Legend:
- To a very large extent
- To a large extent
- To some extent
- Not at all
- Not sure

Key insight

- ▶ In the FY25 budget, program KPIs are mapped to one of the four mayor's priorities

- ▶ However, based on our analysis, many KPIs do not appear to be clearly aligned to specific strategic objectives

- ▶ Additionally, based on interviews with City staff, the team confirmed that in many instances the performance data is not being used to make decisions

Opportunity: The City could map KPIs to strategic objectives, not just Mayor priorities, to help employees understand how their day-to-day activities align to the broader priorities

Source: KPI Performance survey assessment

Findings and opportunities from the sample KPI assessment

Observation: The City appears to have the right data and tools to be able to report data in a timely and reliable manner, which may make it easier to revamp the existing KPIs

How well are the data sources and collection methods of this KPI documented?
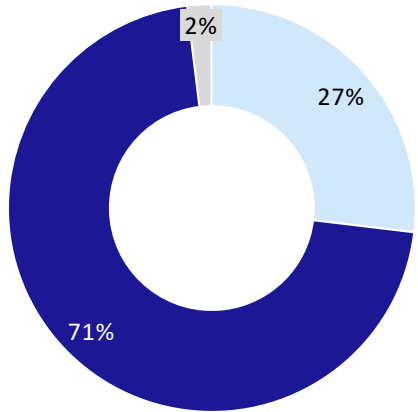
- Not clear
- Somewhat clear
- Very clear

- 71% of survey respondents identified that data sources and collection methods are very clearly documented

How frequently is the performance data being updated or collected?
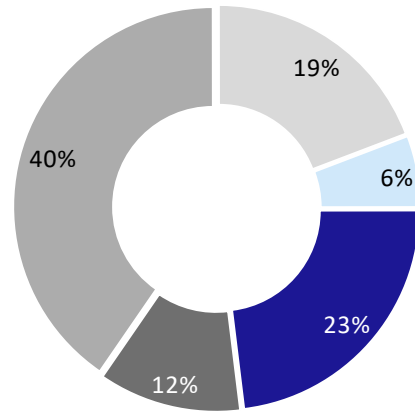
- At least once a week
- At least once a month
- At least once a quarter
- At least once a year
- Other

- 52% of KPIs are updated once a month or more, indicating that performance data may be continuously tracked throughout the year

How satisfied are you with the timeliness and ease of collection of data for this KPI?
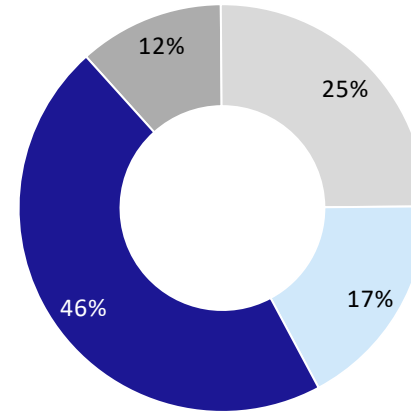
- Very dissatisfied
- Somewhat dissatisfied
- Neutral
- Somewhat satisfied
- Very satisfied

- Most KPIs appear to be collected in a sufficiently frequent and easy manner

How would you rate the quality of the data behind the KPI?
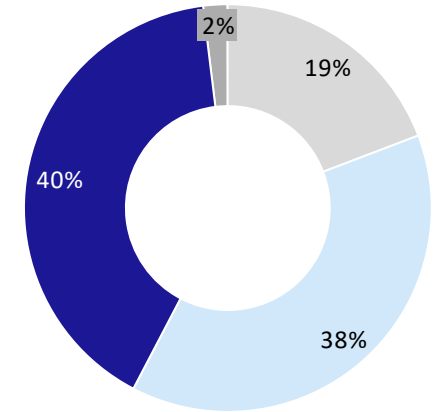
- Very poor
- Poor
- Neutral
- Good
- Excellent

- 78% of KPIs are measures using data with good or excellent quality
- Only 2% of KPIs are fed by poor quality data

Source: KPI Performance survey assessment

3. Performance management evaluation

A. Leading practices

B. "Turn the curve" assessment

i. What is the desired result?

ii. How are we doing?

iii. What is the story behind the curve of the baseline?

iv. Who are the partners that could help turn the curve?

v. What works to turn the curve?

vi. What do we propose to do to turn the curve?

Overview of Results-Based Accountability

There is opportunity for the City to meet community needs more effectively through implementing a results-based accountability framework for performance management

Overview of Results-Based Accountability ("RBA")	• RBA is a method for learning, planning, and taking actions to improve the performance of specific programs and services, and to improve quality of life for residents
	
	• RBA helps improve performance because it:
	   • Gets from talk to action quickly;
	   • Is a simple process that everyone can understand;
	   • Helps groups surface and challenge assumptions that can be barriers to innovation;
	   • Builds collaboration and consensus; and
	   • Uses data and transparency to promote accountability

RBA describes two levels of accountability that may work to improve outcomes:

Population accountability

- Begin by identifying a population (e.g., all children in the City)
- Next, ask what is the desired result (e.g., entering school fully ready)
- Then, ask **what "indicator" will be used to measure progress** (e.g., city-wide developmental assessment)

Performance accountability

- Begin by identifying the program or service to be measured
- Next, select the performance measures (or KPIs) that will allow the City to **track all components of performance**

Source: Clear Impact

Alignment of Mayor's priorities with indicators and KPIs

Illustrative framework for performance management alignment
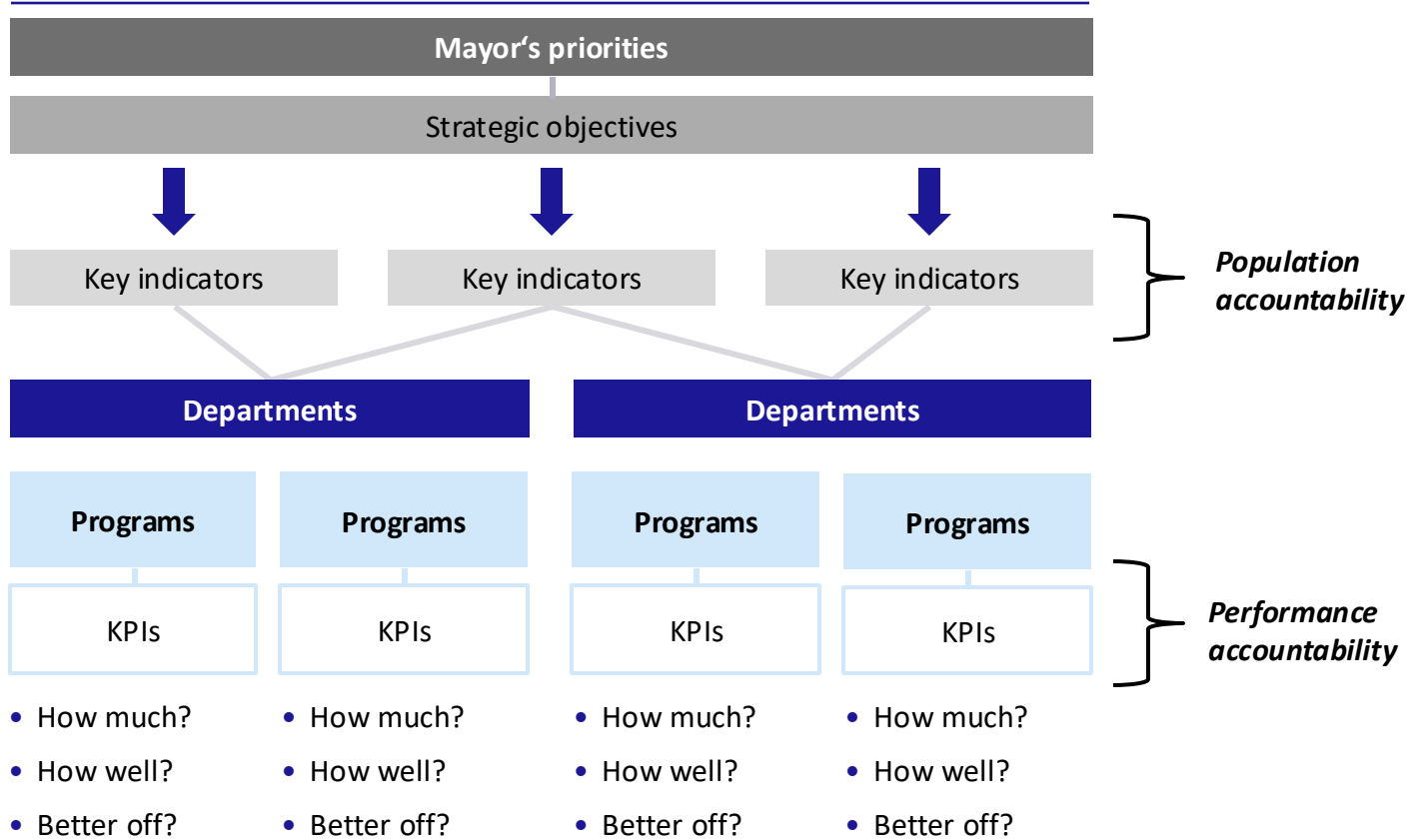
Key insights

- The city-wide priorities and strategic objectives should be communicated down from the Mayor

- The Mayor's Office may work collaboratively with other City departments to identify the right "indicators" to measure progress towards city-wide priorities and strategic objectives

- The key indicators could help inform City departments what outcomes they should be measuring and reporting, which would then translate to department- or program-level KPIs

- With a clearly defined framework, it may be easier to identify the right program KPIs and understand how they relate to city-wide priorities and objectives

Overview of "turn the curve" process

Results-Based Accountability provides a step-by-step process to get from ends to means - called "Turn the Curve" thinking. The team assessed the City's current performance management process through the lens of this leading practice

"Turn the Curve" process

1 — **What is the desired result?**

Choose an indicator or performance measure for a desired result, such as infant mortality rate or fleet availability rate

2 — **How are we doing?**

Understand the historic trend (or curve) and develop a baseline forecast for the indicator or measure. Consider targets for desired future results

3 — **What is the story behind the curve of the baseline?**

Explain the factors that influence the baseline performance

4 — **Who are the partners that could help turn the curve?**

Identify partners who might have a role in improving the baseline and achieving targets

5 — **What works to turn the curve?**

Determine what could work to improve the baseline, including a range of options - from low cost/no cost to blue sky

6 — **What do we propose to do to turn the curve?**

Determine what the City proposes to do to improve results, and agree on a concrete action plan

Source: Clear Impact

Leading practices, observations, and opportunities

1. What is the desired result?
Choose an indicator or performance measure for a desired result, such as infant mortality rate or fleet availability rate

Leading practices

Connect city-wide strategic goals to front-line service delivery KPIs

- Leading performance management frameworks include a set of city-wide outcome indicators, "headline" department KPIs, and KPIs for each program or service the City delivers
- As much as possible, these three tiers should connect so that employees can see how their work contributes to larger goals

Tell the full performance story

- Departments should have the right mix to KPIs to measure all components of performance
- KPIs should aim to have strong communication, proxy, and data power

Observations

Connect city-wide strategic goals to front-line service delivery KPIs

- Based on survey results related to the assessment of the 50 randomly selected KPIs, 77% of respondents noted that the KPIs are largely aligned with the Mayor's priorities
  - However, based on our assessment, many KPIs do not appear to be clearly aligned to specific strategic objectives under the Mayor's priorities, and are not measuring against the right indicators or outcomes
  - Additionally, many City staff may not be familiar with the City's strategic objectives, and may not understand how their work contributes to the City's larger goals

Tell the full performance story

- Ninety-nine percent of the City's programs do not have a full set of KPIs to measure all components of performance
- As a result, the City might not be able to fully explain how resources are being turned into results or use performance data to inform budget decisions

Opportunities

Training

- Hold performance management workshops for City departments to align on leading practices

Agree on key indicators for Mayor's priorities and align departments and programs to objectives

- Identify broad indicators to measure progress towards achieving strategic objectives
- Communicate these indicators (and broader goals) to City staff
- Map department and program services to these broad indicators to promote alignment across the City

Assess and refine program KPIs and targets to more fully measure performance

- Update KPIs so programs are measuring all components of performance
- Continuously refine KPIs and targets, as needed, to align with changing priorities or goals

Proposed implementation timeline for these opportunities detailed in the following slide

Sources: Clear impact; Internal analysis

Proposed implementation timeline

Nov. '24	Dec. '24	Jan. '25	Feb. '25	Mar. '25	Apr. '25	May '25	Jun. '25	Jul. '25	Aug. '25	Sept. '25	Oct. '25

Host PM workshops 🟡

Communicate priorities 🔵

Assess and refine program KPIs 🟡

Document process 🔵

Finalize program KPIs

Identify broad indicators 🔵

Update KPIs and targets (ongoing) 🔵

Ongoing support to departments from the Office of Innovation & Performance

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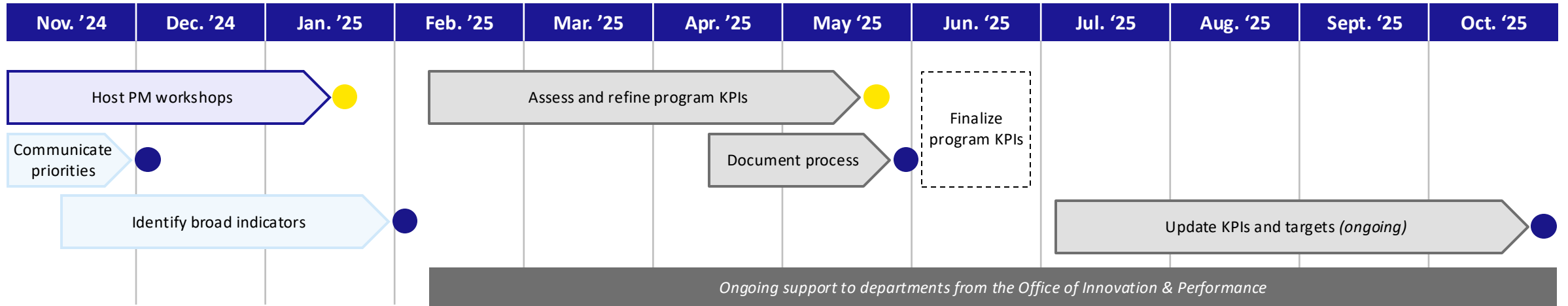
Training

Host performance management ("PM") workshops

(Owner: Office of Innovation & Performance with vendor support)

- Train City departments on the development of effective KPIs and the implementation of leading practices in performance management, including data analytics to make decisions

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Agree on key indicators for Mayor's priorities and align departments and programs to objectives

Communicate priorities

(Owner: Mayor's Office)

- Broadly communicate Mayor's priorities and strategic objectives with City employees to promote visibility and alignment

Identify broad indicators

(Owner: Mayor's Office and individual departments)

- Identify indicators that help measure progress towards achieving these broader strategic objectives. This includes further building on the 50+ indicators benchmarked
- Understand how department and program services or initiatives align to these indicators

---

Assess and refine program KPIs and targets to more fully measure performance

Assess and refine program KPIs

(Owner: Individual departments with vendor support)

- Update existing KPIs and targets (or add new ones) to be better aligned with broader indicators and tell the full story around service performance

Document process 🟢

(Owner: Individual departments)

- Document the process for collecting the data and reporting the KPIs using a pre-defined template

Update KPIs and targets

(Owner: Individual departments)

- Update KPIs and targets, as needed, to align with changing priorities and strategic objectives

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Legend – estimated level of support: 🟡 Vendor support for implementation   🔵 CoH team implementation   🟢 Illustrated in more detail in subsequent slide(s)

Illustrative example for documenting the data collection and reporting process for KPIs

Observations

- City employees have noted that in many cases, the process of collecting and reporting performance metrics is not well documented
  - Survey results indicate that almost 30% of KPI data sources, collection methods, and calculation methodologies are only somewhat or not very well documented
- This is particularly risky for metrics where there is only a handful of employees that know how to run the performance reports or where the reports require pulling data from multiple sources
- In these cases, business continuity may be negatively impacted if these employees retire or leave the City

Opportunity

- Programs could prioritize documenting the process of collecting and reporting data for their corresponding KPIs
- To be consistent across the City, the processes could be documented using a standard template
  - For example, HITS currently uses a template to document its processes, and this template could be rolled out to other City departments

Illustrative template to document KPI process

City of Houston | Key performance indicators | FY2025

Strategic objective (or indicator):

Name of KPI:

KPI goal (target):

Measurement description:

Calculation method (incl. formula):

Reporting period: *(Daily, monthly, quarterly, annually, etc.)*

KPI	Red	Yellow	Green	Target	Actual	Reporting Frequency
	<X%	X% - Y%	>=Y%			

Where is the data stored?

What are the data sources?

Who is responsible for providing the data?

Who is responsible for reporting the data?

By when does this data need to be reported?

Additional notes: *Explain any nuances or data considerations that others should be aware of when reporting this metric*

Leading practices, observations, and opportunities

2. How are we doing?
Understand the historic trend (or curve) and develop a baseline forecast for the indicator or measure. Consider targets for desired future results

Leading practices

- Data collection should be reliable, centralized, and automated, if possible, to support real-time reporting
- Cities should report the baseline performance for the selected KPIs, including a 5-year historic trend, if available
- The performance data should be easily accessible by all City employees, policymakers, and residents to drive accountability and transparency
- Performance should be presented using widely accessible and interactive visualizations where departments can provide real-time data on progress versus targets

Observations

- The City appears to have the right data to report performance in a timely and reliable manner. For example, based on the self-reported survey results, 64% of respondents are satisfied with the ease of collecting the data
- However, performance management appears to be disjointed, with some departments having a more robust process for reporting performance data than others
- Many departments manually collect performance data into an Excel. However, because these excel files may not be accessible to everyone in the department or the City, the data may not reach the necessary stakeholders
  - For example, there appears to be hesitancy by some employees to report underperformance, so departments may not be able to identify issues in a timely manner
- The City has a public 311 dashboard, and some departments or programs (e.g., HPD and permitting) have their own public performance dashboards
- Additionally, the City developed a dashboard to track performance measures by Mayor's priorities and departments. The City could further build on this foundation to continue to strengthen its internal and external reporting

Opportunities

Explore performance software
- The City could consider rolling out a strategic planning and execution software to automate, centralize, and better manage performance data

Launch public performance dashboard
- The City could consider expanding the performance dashboard tracking against the Mayor's priorities to include information about the KPI and historical performance trends going back 5 years

Improve internal performance reporting
- This software could be used to report performance to different stakeholder groups
- Programs may decide to report different sets of KPIs to different stakeholders, but the KPIs reported should be sufficient to allow for data-driven decision making

Proposed implementation timeline for these opportunities detailed in the following slide

Sources: Clear impact; Internal analysis

Proposed implementation timeline

Nov. '24	Dec. '24	Jan. '25	Feb. '25	Mar. '25	Apr. '25	May '25	Jun. '25	Jul. '25	Aug. '25	Sept. '25	Oct. '25

Explore software options

Finalize dashboard interface

Refine public performance dashboard

Launch public dashboard

Update dashboard with latest performance trends (ongoing)

Identify KPIs to report internally

Create internal reporting templates

In parallel, City programs are working on refining KPIs (as detailed in prior slides)
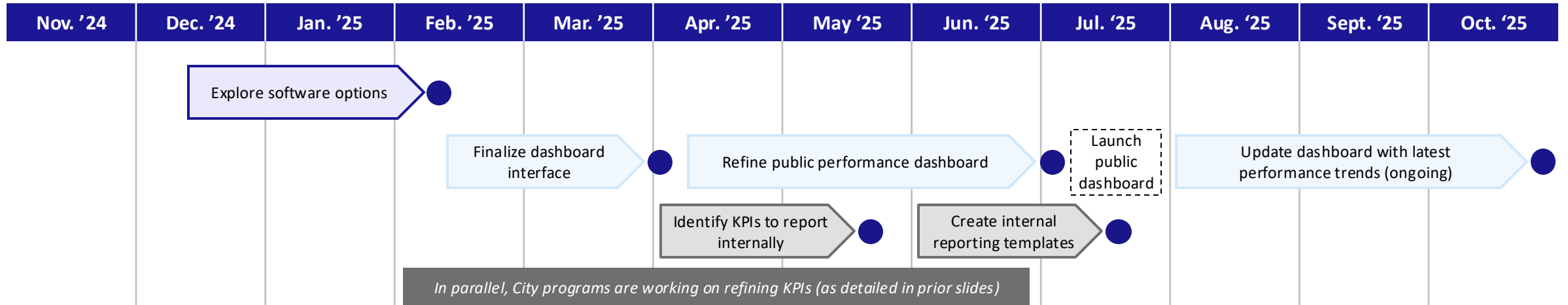
Explore performance software

Explore software options

(Owner: Mayor's Office and HITS)

- Assess different strategic planning and execution software options to better collect and report data

Launch public performance dashboard

Finalize dashboard interface

(Owner: HITS)

- Assess existing systems or tools (or considered a new software) for a public dashboard
- Update the interface for a user-friendly, interactive public dashboard

Refine public performance dashboard 🟢

(Owner: Mayor's Office and HITS)

- Identify city-wide indicators and program KPIs to report on for the different Mayor's priorities and objectives
- Update the public dashboard based on indicators and KPIs selected

Update dashboard with latest performance trends

(Owner: Mayor's Office, HITS, and individual departments)

- Continuously update dashboard to reflect performance trends across the different KPIs being reported

Improve internal performance reporting

Identify KPIs to report internally

(Owner: Individual departments)

- Identify the KPIs that should be reported to the different stakeholder groups (e.g., City leadership, departmental leadership, and front-line workers) based on departmental goals

Create internal reporting templates

(Owner: Individual departments)

- Create reporting templates for the different stakeholder groups
- Departments may be able to work with support functions (e.g., HITS) to develop robust reporting templates, as needed

Legend – estimated level of support: 🟡 Vendor support for implementation   🔵 CoH team implementation   🟢 Illustrated in more detail in subsequent slide(s)

Case study: City of San Francisco performance dashboard

Overview of portal

- San Francisco maintains a scorecards portal to provide timely information on the efficiency and effectiveness of the City government across eight service areas that are of greatest interests to the public

- The service areas currently highlighted include: (i) Streets, Parks, and Libraries, (ii) Transit and Street Safety, (iii) Public Safety, (iv) Sustainability and Climate Action, (v) Public Health, (vi) Homelessness Response System, (vii) Safety Net Services, and (viii) Economy and Finance

- The Controller's Office works with departments to collect data on a regular basis with the aim of providing citizens and policymakers with information that makes government smarter while delivering the best results for taxpayers

Performance dashboard system: PowerBI

Streets, Parks, and Libraries Scorecard example
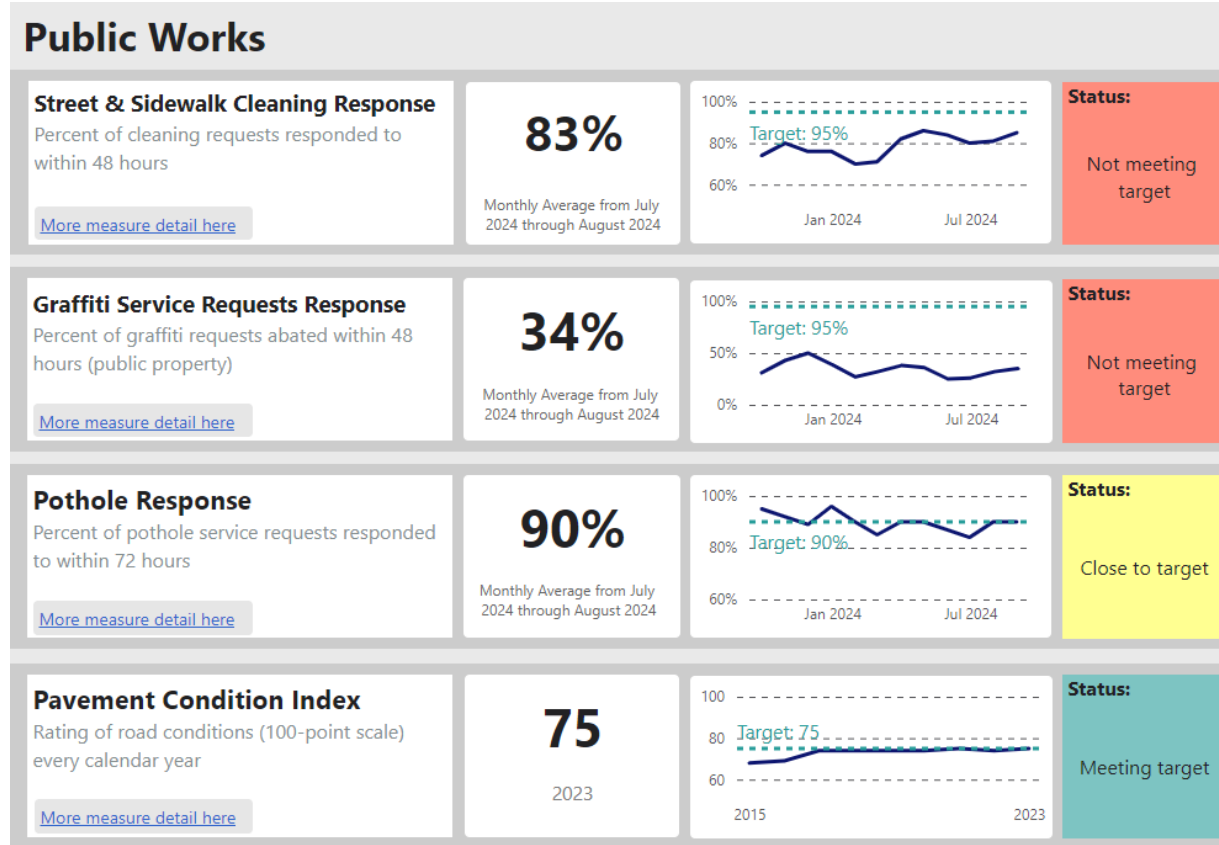
Key observations

- The scorecard presents data in a very user-friendly manner by highlighting performance and trends
- Users are able to double-click on the KPI to get additional information, such as:
  - Description of the measure
  - Explanation as to why the measure is important
  - Chart with historical performance going back multiple years
  - Description of the chart
  - Explanation of how performance is measured
  - Data sources

Source: San Francisco Performance Scorecards

Case study: City of Phoenix performance dashboard

Overview of portal

- The City Manager's Performance Dashboard was created to provide the public with easy-to-digest information about the City of Phoenix and includes over 160 KPIs across six key service areas

- The service areas currently include: (i) General Government, (ii) Public Safety, (iii) Transportation & Infrastructure, (iv) Neighborhoods & Livability, (v) Planning, Zoning, & Economic Development, and (vi) Culture & Recreation

- The performance dashboard provides timely data to the public, including historical trends and current performance vs. target

Performance dashboard system: ArcGIS Hub

Transportation & Infrastructure – Water Services Scorecard example

Transportation & Infrastructure - Water Services

Number of Water System Accounts*
448.5k
as of 07/31/2024
→ Measured each month
Current   Trend   Info

Calls Answered Within 2 Minutes
📞 67.7%
as of 08/31/2024
⊘ Below goal of 90%
Current   Trend   Info

Achieve Water Conservation and Efficiency Target (GPCD)*
164
as of 12/31/2023
✓ On-track to meet 2030 goal of 155
Current   Trend   Info

Continuously Meet or Exceed Drinking Water Regulations*
💧 100%
as of 12/31/2023
✓ Target: at 100%
Current   Trend   Info

Number of Main Breaks/Leaks per 100 Miles of Pipe
11.9
as of 08/31/2024
✓ Target: at or below 25
Current   Trend   Info

Annual Water Loss*
10.77%
as of 12/31/2023
⊘ Above goal of 10%
Current   Trend   Info

Key observations

- Users can click on one of the key service areas to access the corresponding KPIs

- KPI data is displayed in a user-friendly dashboard that provides current performance information, and whether the KPI is meeting target

- Additionally, users can look at historical trends going back multiple years, and get more information on what the KPI is intended to measure

Source: City of Phoenix City Manager's Performance Dashboard

Leading practices, observations, and opportunities

3. What is the story behind the curve of the baseline?
Explain the factors that influence the baseline performance

Leading practices

- In the most effective organizations, there is an ongoing assessment of performance data
- High-performing cities rigorously analyze performance data to identify factors that are contributing to progress, as well as those that are hindering it
- It is important to identify not just the most obvious factors, but also the more systemic ones
  - Performance analysis, including the factors impacting performance, is discussed in recurring departmental and cross-departmental meetings
- Additionally, performance data is integrated into the budget process to align resources with the city strategy, which is not a given with traditional, incremental budgeting

Observations

- Many city employees see performance measurement as a "check-the-box" exercise, and may not be analyzing the data properly
  - This may lead to departments not being able to identify the root causes of underperformance, and address those accordingly
- There appears to be a wide skills gap in data literacy and data analysis among city employees
- The lack of data literacy and analysis may be hindering the City's efforts of becoming a more data-driven organization
  - However, the City has made targeted efforts over the last couple of years to expand data literacy among its employees, including starting a Microsoft certification program

Opportunities

Roll out city-wide trainings

- The City could consider repurposing vacant positions to add data analysts who can assist departments to gain insights from data using mining, visualization, statistical, artificial intelligence ("AI") and other techniques.
- Additionally, the City could consider expanding its ongoing data literacy initiative to include data analysis as part of the curriculum
  - The data analysis curriculum could be designed to prioritize the biggest skillset gaps, as identified by the City. The curriculum could also include training on how to use AI to facilitate analysis
- The data analysis trainings may be a combination of in-person classes and online, self-paced trainings. For the online trainings, the City could continue to use its partnership with Microsoft ESI to offer relevant trainings
- For in-person trainings, the City may first decide to roll-out pilot programs, refine, and scale up according to demand
  - Department directors could identify people within their departments to attend the pilot programs – ideally individuals responsible of data analysis
- The City could also roll out trainings for department directors to discuss how to use data to find the needle in the haystack, identify problems, and optimize resources

Proposed implementation timeline for these opportunities detailed in the following slide

Sources: Clear impact; Internal analysis

Proposed implementation timeline

Nov. '24	Dec. '24	Jan. '25	Feb. '25	Mar. '25	Apr. '25	May '25	Jun. '25	Jul. '25	Aug. '25	Sept. '25	Oct. '25

Identify skillset needs

Identify capabilities

Design pilot program

Launch pilot program

Refine pilot program

Develop long-term curriculum

Expand trainings (ongoing)

These steps may be part of the ongoing data literacy efforts
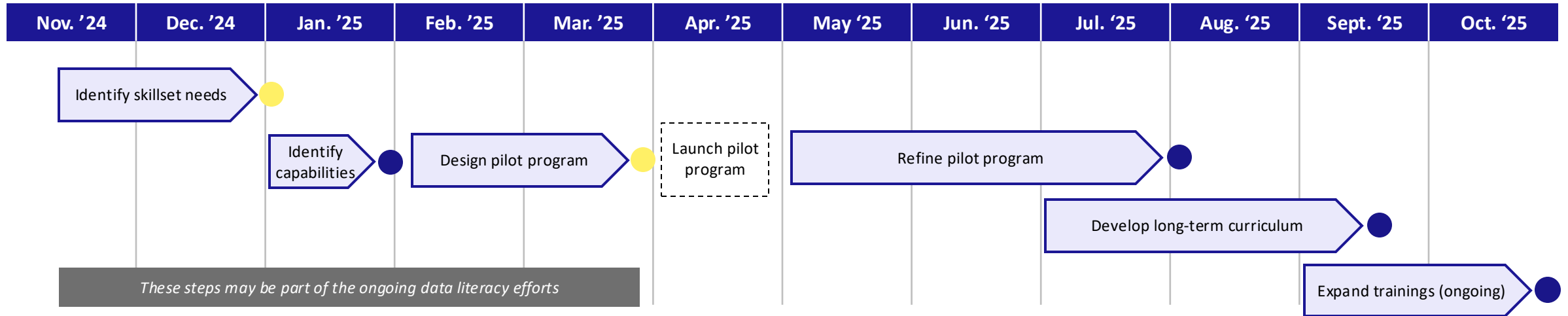
Roll out city-wide trainings

Identify skillset needs

(Owner: HR with vendor support)

- Survey City staff to identify what tools or skillsets they are most interested in learning about
- Work with the Mayor's Office and City departments to identify additional trainings that could be useful in promoting a data-driven culture

Identify capabilities

(Owner: HR)

- Assess resources needed to support city-wide data analysis trainings, and identify additional budgetary or personnel needs, if any

Design pilot program ●

(Owner: HR with vendor support)

- Work with the Mayor's Office to agree on the introductory classes to be offered

- Use Microsoft ESI to provide foundational learning, as applicable, and identify City staff to help lead additional in-person trainings

Refine pilot program

(Owner: HR)

- Refine trainings and offerings based on City staff feedback, as needed

Develop long-term curriculum

(Owner: HR)

- Further build on the pilot program by developing a long-term curriculum to support data literacy, which may include more advanced-level courses

Expand trainings

(Owner: HR)

- Continue to expand trainings to meet demand and offer additional trainings or workshops, as needed

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Legend – estimated level of support: ● Vendor support for implementation ● CoH team implementation ● Illustrated in more detail in subsequent slide(s)

Case study: San Francisco's Data Academy

Context

- In 2014, San Francisco's mayor appointed the City's first Chief Data Officer ("CDO")
- The need for trainings on the use of data was a common issue raised by the City departments to the CDO
- As a response, the CDO developed "Data Academy" as a collaboration between the Mayor's Office and the Controller's Office
- The Data Academy is a training program for City and County staff to enhance skills in data use, data management, and process improvement

In designing an effective program, the City focused on three principles

1 Leverage in-house teachers
Staff from the Controller's Office and the Mayor's Office did most of the teaching

2 Keep it lean
Classes were two- to three-hour workshops

3 Test the waters
Data Academy started with a few classes and scaled up according to demand

In identifying the courses, the City took both reactive and proactive approaches

Reactive approach
- The CDO instituted an annual survey to City analysts
- In the inaugural survey, analysts were asked to identify the tools in which they wanted more trainings, selecting Excel and Tableau

Proactive approach
- The City also proactively identified areas that employees should be trained in to most effectively engage in data-driven decision making
- This led to the creation of courses in data usability, information design, and business process mapping

To manage increasing demand, the City continued to grow the program

- The City allocated more employee hours to support additional workshops, and expanded the range of courses to offer advanced-level courses
- The City expanded existing training rooms to be able to hold larger workshops
- The City also introduced a "train the trainer" model to teach key personnel in departments with high demands for specific courses to become teachers themselves within their own departments

"Moving beyond data literatcy to data fluency opens not just new avenues of communication, but new avenues of thought"
– Controller analyst

Sources: Data Smart City Solution, Harvard Kennedy School; DataSF

Case study: San Francisco's Data Academy

Total Data Academy attendees since FY14

8,282

Data Academy classes taught since FY14

395

Participants that rate courses as "excellent" or "good"

88%

Number of employees trained by fiscal year

Fiscal Year	Number
FY14	80
FY15	403
FY16	681
FY17	831
FY18	1,171
FY19	1,494
FY20	1,269
FY21	48
FY23	620
FY24	1,367
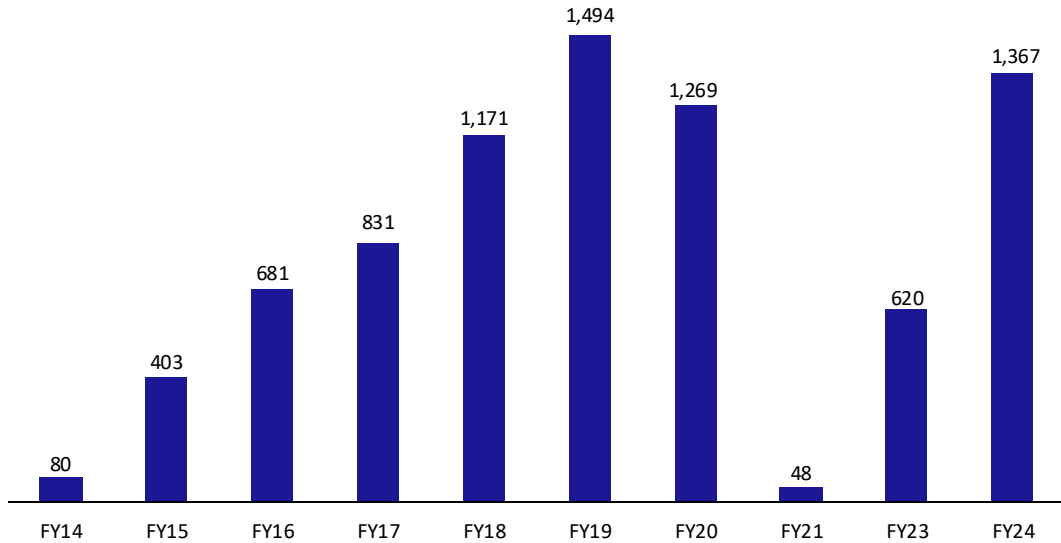
Number classes held, by course[1]

Course	Number
Intro to PowerBI	55
Intro to Tableau	34
Intermediate Excel	32
Lean 101	32
Intro to SQL	29
Intro to Excel	21
Leveraging the Citywide Data Platform and Open Data	15
Intermediate PowerBI	14
Intermediate Tableau	13
Basics of Information Design	11
Excel Shortcuts	11
Data Usability	10
Intro to R	10
Service Design in Government	10
Advance Tableau	9
Advance Excel	8
ArcGIS Pro	7
Intro to ArcGIS Online	7
Intro to Project Management	6
Lean Process Mapping	6
Leveraging the City's Open Data	6
Lead Leaders	5

1. List is not exhaustive and does not represent all the courses held by the City
Source: DataSF

Opportunity to use AI technology to support data analysis

AI for data analysis

- AI may allow for processing large volumes of complex data at high speeds, leading to quicker and more accurate business insights
- For example, generative AI offers a range of capabilities, such as:
  - **Exploratory data analysis:** Generative AI may help provide summary statistics and visualizations of new datasets, offering a better understanding of the dataset
  - **Automated analysis:** Generative AI may help automate routine data analysis tasks, which could free up the analyst's time for higher-order tasks
  - **Augmented predictive analytics:** Generative AI may help enhance predictive analytics, giving cities more precise forecasts. These tools may be used to analyze historical data to forecast future trends

58% of cities are exploring generative AI's potential applications for data analysis[1]

76% of cities are exploring generative AI's potential applications for data-driven policymaking[1]
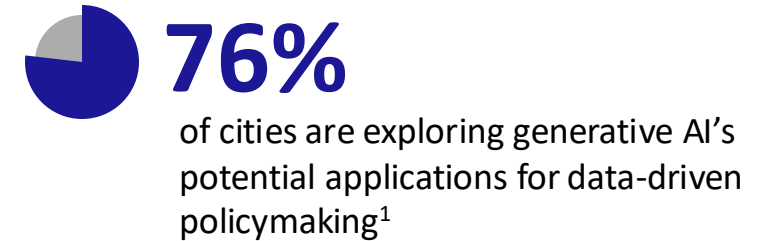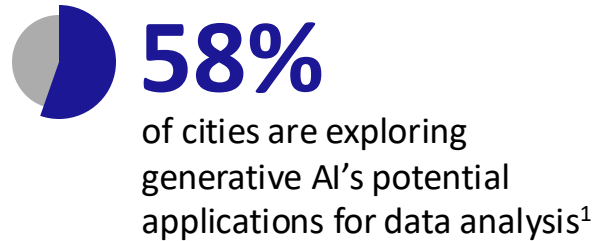
As city leaders continue to explore the applications of AI, they could:

1 Create clear guidelines

Cities could create clear roadmaps on how City staff could use AI tools responsibly, including protecting private and confidential information. Cities like Boston and Seattle have already began developing policies around using AI responsibly, with the aim of using these tools to improve outcomes for residents

2 Create community feedback loops

City leaders could create protocols to continuously collect feedback from different stakeholder groups, including residents. Robust community engagement may help gain buy-in and fuel long-term success that lifts everyone up

3 Conduct high-quality reviews of AI policies and practices

Cities could regularly review the use of AI to confirm the technology is being used in a fair and equitable manner. The City of San Jose, CA, for example, publishes a register of all the ways AI and algorithms are used in the city, which allows them to mitigate some of the equity risks that may exists with this new technology

Leading practices, observations, and opportunities

4. Who are the partners that could help turn the curve?
Identify partners who might have a role in improving the baseline and achieving targets

Leading practices

- City departments should identify and engage potential partners who may help them improve performance
- Strong performing cities hold regular performance management meetings to promote collaboration between departments, help break down silos, and encourage coordinated problem solving
- Stakeholders use these meetings to review performance data, discuss root causes, and develop action plans
- Discussions should emphasize learning first, not accountability

Observations

- Departments have described the City's performance management as siloed and disjointed, with limited collaboration between departments
- For example, many departments rely on support functions (e.g., HITS and HR) to be able to successfully deliver city services. However, these departments are not necessarily meeting on a regular cadence to address issues or needs
- Given that the Mayor's priorities and strategic objectives cut across different departments, collaboration may be needed to achieve these city-wide goals

Opportunities

- The City could consider establishing cross-departmental "stat" meetings on a regular cadence to further promote collaboration
- Meetings can be focused on individual departments, Mayoral priorities, or other cross-cutting issues. In all cases, support functions such as Finance, HR, and IT should be represented
- These meetings should be well-structured, and relevant materials (including performance data) should be shared well in advance
- Meetings should be focused on a limited number of KPIs that need improvement. Successes should be celebrated, but most of the time should be devoted to problem-solving and action planning
- Additionally, the meetings should be attended by all relevant stakeholders, and should have a clear goal of developing action plans with tangible next steps and owners to help drive performance improvement

Sources: Clear impact; Internal analysis

Case study: The City of Baltimore CitiStat

What is CitiStat?

- CitiStat is an accountability tool based on the CompStat program pioneered by the NYPD
- Mayor O'Malley of Baltimore adapted this tool to promote accountability and drive action at the city level
- CitiStat allowed the city to develop and employ strategies, drive accountability, and measure results on a weekly basis

CitiStat's foundational principles

1. Accurate and Timely Intelligence

2. Effective Tactics and Strategies

3. Rapid Deployment of Resources

4. Relentless Follow-Up and Assessment

Overview of the initial process

- Agency leadership attended the CitiStat meetings every other week with the Mayor, deputy mayors, and key cabinet members
- Days before each meeting, agencies were required to submit data to the CitiStat team. The data covered a wide variety of information for a two-week period
- After data was received, the CitiStat team analyzed the numbers and prepared the presentation for the meeting
  - CitiStat's team was responsible for ensuring the data was true by taking a critical look at the information, conducting field investigations, and pulling cases at random
  - The CitiStat team also analyzed all data received, compared it to the report for the previous period and formulated questions designed to explain the data and highlight problem areas

As CitiStat evolved

- Meeting cadences were customized
- Focus was expanded from operational metrics to outcomes
- Meetings became more collaborative
- New stat sessions on cross-cutting issues were introduced, such as CleanStat and PoliceStat

CitiStat has been adopted by a number of cities across the country since it was first introduced in Baltimore

Considerations for scheduling recurring meetings to discuss performance issues

Meeting cadence

- Meeting cadence should be determined based on the urgency and complexity of issues. Quarterly meetings are the prevailing practice and preference
  - Meetings may need to be more frequent at first to align on goals and expectations
  - The cadence may be assessed and revised, as needed
- The City may consider structuring meetings around the Mayor's priorities or strategic objectives to promote collaboration across departments in achieving city-wide goals
  - Each meeting should have a clear and tightly focused agenda, and relevant materials should be shared prior to the meeting.
- Additionally, each department may consider hosting regular internal meetings to bring together all programs

Audience

- Meetings should be attended by department directors and relevant staff, as well as representatives from support functions such as finance, legal, and HR
  - The Mayor, or representatives from the Mayor's Office, should lead these meetings

Venue

- Preferably, the meetings would be in-person to promote a collaborative environment
  - The City could consider holding meetings on-site at the different departments in a room layout that facilitates collaboration (vs. interrogation)
- City and department leadership should promote cross-departmental collaboration and hands-on problem solving by discussing lessons learned from prior experiences

Action plans

- Meetings should end with clear action plans to help address the issues that are identified and discussed
- These action plans should identify the responsible parties and the anticipated timeframe
- Additionally, the different stakeholders should agree on a communication plan and escalation protocol to address roadblocks, if needed

Leading practices, observations, and opportunities

5. What works to turn the curve?
Determine what could work to improve the baseline, including a range of options - from low cost/no cost to blue sky

AND

6. What do we propose to do to turn the curve?
Determine what the City proposes to do to improve results, and agree on a concrete action plan

Leading practices

- Strong performing cities use performance data to help establish a culture of continuous improvement
- A culture of continuous improvement encourages streamlining (through lean methods such as process mapping and bottleneck analyses), experimentation, and innovation to bring about positive change
- Programs and departments should encourage all city employees to brainstorm opportunities for improvement
- These opportunities should be prioritized, and if pursued they must be made into specific, implementable strategies and actions

Observations

- Due to the lack of data analysis, City employees may not be actively identifying opportunities for continuous improvement
- The City has an Office of Innovation and Performance, but due to its limited resources, it may not be able to provide the support that departments need to be able to identify opportunities for innovation and execute accordingly
- The Office of Innovation and Performance offers a virtual training on Lean Six Sigma that City employees can access through the learning platform. However, the office may not have enough resources to support these trainings at a large scale

Opportunities

- The City could consider further investing in the Office of Innovation and Performance to help drive innovation across the City. With additional investment the office could:
  - Further support city departments with (i) identifying KPIs and setting goals, (ii) improving existing processes through Lean Six Sigma and other strategies, (iii) implementing project management leading practices, and (iv) analyzing data to support decision-making
  - Continue to partner with city departments to help promote a leaner and more efficient government
- Additionally, the City could consider establishing an Innovation Fund to promote city staff to share their ideas
- The City may also consider creating an "Idea Lab" to serve as a dedicated space for creative work

Sources: Clear impact; Internal analysis

Illustrative scoring matrix to prioritize opportunities

Programs and departments should establish a culture of innovation where employees are encouraged to suggest ideas - from low cost/no cost to blue sky ideas - to address performance issues. These ideas can then be prioritized based on feasibility and estimated fiscal impact

Illustrative scoring matrix to prioritize potential opportunities

Legend:
- Initial higher priority
- Initial lower priority
- Case-by-case evaluation

Y-axis: **Political and implementation feasibility** (More feasible / Less feasible)

X-axis: **Potential net savings or incremental revenue** (Lower value / Higher value)
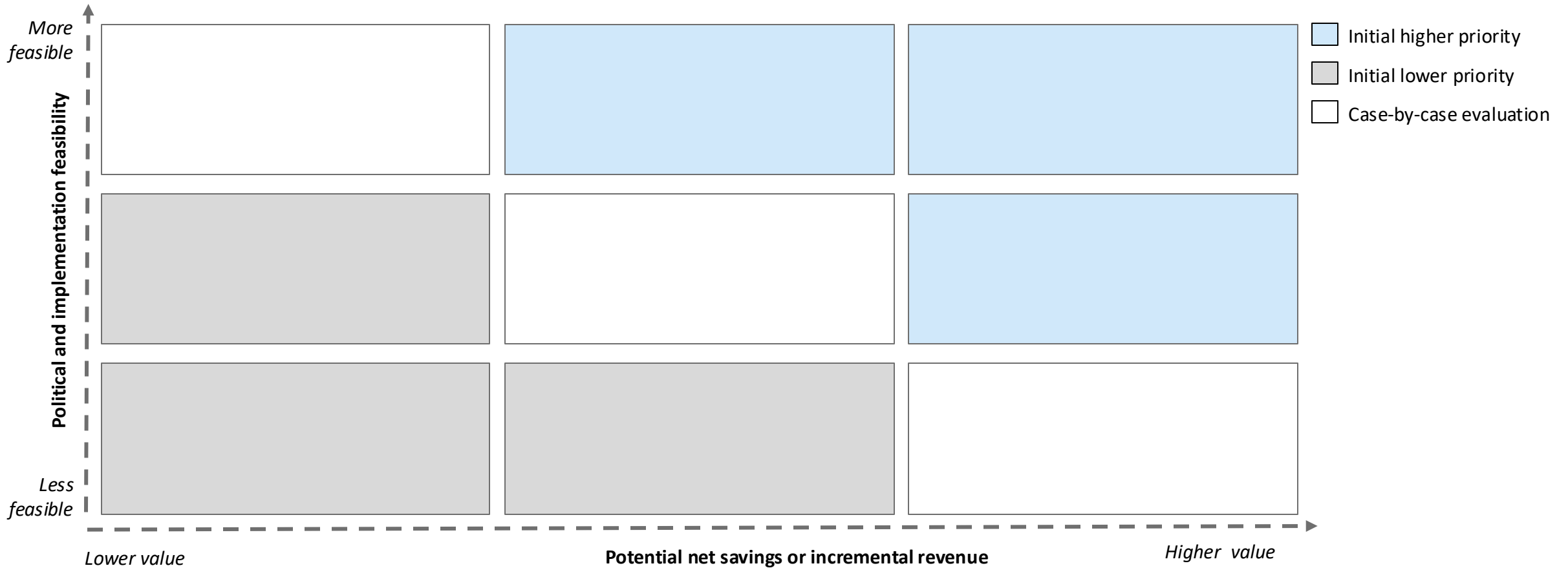
Case study: Montgomery County, MD providing departments with innovation support services

Overview of the Innovation Team

- The team supports county employees to better understand challenges and redesign how government serves people
- The team serves as a resource and advocate for employees making things more effective, efficient, and equitable by adapting tools from human centered design, process improvement, and behavioral science
- The Innovation Team currently acts in three areas – be an Accelerator, lead civic design, and open innovation
- For example, "Innovation Accelerator Courses" guide cohorts of local government workers through a structured problem-solving process to make small improvements a reality

Overview of "Innovation Accelerator Courses"

- The Accelerator is a project-based learning course that allows county employees to learn skills by putting those skills into action on actual projects for which they are responsible
- This course helps accelerate progress for teams that are already working on improving a process, designing a new service, or making something better
- The goal is to deliver innovations with no new budget, no new people, and no new technology (although it is strongly encouraged that employees use technology already in the county's portfolio), thereby allowing them to create change within their control

Past Accelerator projects include:

- Making it easier for residents to get fuel storage tank permits
- Improving the certification process for local small businesses to sell to the County
- Redesigning door hangers to get residents better information about tree services
- Avoiding unnecessary printing, processing of wasted paperwork, and unused reporting
- Simplifying leave request processes so employees can take the rest they need
- Creating a better onboarding experience for new teammates

Source: Montgomery County website

Case study: New Orleans providing departments with support to identify opportunities for improvement

- In New Orleans, the Office of Performance and Accountability ("OPA") partners with city departments to help them identify and deliver projects
- The analytics team uses data to generate new insights into city services and the needs they serve, applies these insights to improve service delivery, and helps departments work smarter – using existing data sources and in-house technology to achieve better results with existing resources

Case 1: EMS ambulance posting location optimization

Context

- The New Orleans Emergency Medical Services (NOEMS) worked with OPA to develop a data-driven ambulance placement protocol and promote faster and more reliable response times to health-related 911 calls
- OPA developed an optimization algorithm that ranked locations by potential impact

Results

- The result was a prioritized list of locations to place ambulances during day and night shifts
- Analysis of 911 data shows that since the new protocol was implemented, there are more equitable response times across districts, with the largest gains coming from an area of the City with the historically slowest response times
- In addition, the new protocol led to modest but statistically significant improvements in city-wide response times during the night shifts

Case 2: Blight courtesy letter

Context

- To improve the efficiency of its blight enforcement process, the City tested whether courtesy letters sent to property owners before an official inspection increased the rate of compliance

Results

- After seven months of testing, the City found that property owners receiving the courtesy letter were between 5 and 7 percentage points more likely to be compliant at the first inspection
- This difference represents significant cost savings for the City because if a property is found in violation during the first inspection, the Department of Code Enforcement must then expend taxpayer resources to bring the owner through a costly legal process
- As a result, courtesy letters are now sent to all property owners that have received a blight complaint through the 311 system

Source: Data Driven NOLA

Case study: City of Los Angeles innovation fund

Overview of Los Angeles Innovation Fund

- In 2015, the City adopted an ordinance to create an Innovation Fund to foster a culture of continuous improvement within the City
  - The fund is facilitated by the Innovation and Performance Commission ("IPC"), a nine-member appointed commission
  - The fund receives funding of $1M through the City's annual budgeting process
- All City employees and commissioners are invited to share their ideas for innovative pilot project ideas to improve any aspect of City operations
- The primary goal of the Innovation Fund is to provide short-term funding for creative, feasible, measurable, and innovative projects selected using a rubric-based assessment and implemented with guidance from the IPC

Ideas should:

A. **Be innovative and original.** Does the idea demonstrate how it keeps Los Angeles ahead of the curve and the creativity that is the hallmark of our City?

B. **Support greater efficiencies.** Does the idea improve a process, save time, increase collaboration among departments, provide the potential for long-term benefits, or generate revenue and/or cost savings?

C. **Emphasize priority outcomes and quality of life.** Does the idea help create a prosperous City, a livable and sustainable City, a safe City, and/or a well-run government?

D. **Be feasible and measurable.** Can the idea be executed and measured within six to 12 months of being funded? Does the idea need funding year after year or only one time?

Some examples of pilot programs funded by the Innovation Fund include:

Targeted procurement outreach program pilot *($250k investment)*

- Through this pilot, the Office of Budget and Innovation developed tools and technologies to diversify the companies bidding on City opportunities through targeted outreach, digital resource development, expanded support of the City's procurement ecosystem, and the creation of an education program for both vendors and City employees

LADOT digital platform *($100k investment)*

- LADOT developed on digital platform to improve its communications and transit services within the City while also making it easier for the public to provide feedback to the Department
- This project helped organize LADOT programs, reports, studies, manuals, and policies for the community that helped empower citizens to revitalize their neighborhood

Fire investigation software *($47k investment)*

- Through this pilot, LAFD piloted processing security camera footage and other digital media to assist in the investigation of accidental and intentional fires that occurred within the City

Source: City of Los Angeles website

Case study: City of Baltimore innovation fund

Overview of Baltimore's Innovation Fund

- Born out of the outcome-based budgeting process, the City of Baltimore's Innovation Fund started in FY2012

- The purpose of the fund is to provide seed money for one-time investments that will lead to improved results, increased revenue, and/or reduced ongoing operating costs for City services

- The Innovation Fund is meant to be self-sustaining with savings from the investments returned to the fund so that other projects may be funded

- Continuing this Fund is one way to keep City agency heads and staff focus on innovation and spur creative solutions on how to use limited resources

- Since its inception, the fund has loans almost $4.9m across 11 projects, four have now achieved repayment status and generate additional revenue
  - *Example 1:* Health Department's Environmental Health QMS System required a $140k investment to standardize and automate licensing, scheduling, inspections, and investigations, generating $2.1m+ ROI over 5 years for the Health Department
  - *Example 2:* Parking Authority's Meter Replacement project required an $886k investment to replace old parking-meters with "smart" meters to accept credit and debit cards as forms of payment and has resulted in $4.9m+ ROI over 5 years

Applying for a loan

- **Step 1:** Agencies submit a detailed description of their project idea, including an estimated budget, evaluation plan and measurements, and timeline and plan for project implementation

- **Step 2:** Proposals will be evaluated by a Review Team that includes staff from Bureau of the Budget and Management Research, CitiStat SMART, Baltimore City Information & Technology, and the Mayor's Office

Baltimore Innovation Fund Rating Sheet

Criterion	Not Demonstrated	Below Expectations	Meets Expectations	Exceeds Expectations	Points Earned
Describes project intentions clearly and resulting benefits	No clear intention for use of funds (0 points)	Intent unclear or uses jargon (5 points)	Intent clear and presents benefits (10 points)	Intent clear and benefits are Mayoral priority (15 points)	
Presents business case and how funds will be repaid	No business case and would result in a loss or increased cost (0 points)	Presents business case and unclear how funds will be repaid (5 points)	Presents business case and intends to repay with savings OR revenue (10 points)	Presents business case and intends to repay with savings AND revenue (15 points)	
Identifies and analyzes project risks	No evidence of risks or adverse results (0 points)	One risk or adverse result is given (5 points)	Two or more risks given (10 points)	Three or more risks given and a plan for mitigation (15 points)	
Defines and describes success with performance measures	No goals identified (0 points)	One goal identified, no performance measures (5 points)	Goals identified with prospective performance measures (10 points)	Goals and performance measures identified with discussion about outcomes (15 points)	
Explains how project impacts equity	No evidence of (or adverse) impact in the project (0 points)	Equity influences the proposal (5 points)	Equity is operationalized in the proposal (10 points)	Equity is a central tenet of the project (15 points)	
Outlines financial resources to achieve project goals	No evidence of financial plan or itemized costs (0 points)	Itemized costs are non-specific; no evidence of financial planning (5 points)	Itemized costs are specific; financial plan is clearly outlined (10 points)	Itemized costs and financial plan are supported with descriptions (15 points)	
Leverages City resources with partnerships	No evidence of partnerships (0 points)	Partnership identified within the City OR an external partner (1 points)	Partnership identified and external funding (3 points)	Multiple partners identified and external funding (5 points)	
Exhibits appropriate grammar, punctuation, and spelling	More than 5 grammar, punctuation, or spelling errors (0 points)	3–4 grammar, punctuation, or spelling errors (1 point)	No spelling errors, and not more than 2 grammar or punctuation errors (3 points)	No spelling errors, and not more than one grammar or punctuation error (5 points)	
				Total Points (100 max)	

Source: City of Baltimore website

4. Performance benchmarking

A. Overview

B. Public safety

C. Infrastructure

D. Government that works

E. Quality of life

Overview of performance benchmarking analysis

1 **Publicly-available data was used for benchmarking.** We used Federal and state datasets, industry reports, and City financial statements and budgets, to complete the benchmark analysis

2 **Indicators are aligned to strategic objectives.** The indicators were selected and refined based input from the City to align with the strategic objectives under each of the four Mayor's Priorities. These indicators were selected because they are more outcome-based

3 **Peer benchmarking is nuanced.** Though peer cities were selected based on similar characteristics, benchmarking is nuanced due to each city having its own unique circumstances. Thus, this peer benchmark analysis should be viewed as a directional analysis aimed to highlight potential areas for improvement (subject to additional internal analysis by the City)

4 **Existing programs have been considered.** For indicators where the City is performing below peers, the team conducted additional analysis to identify ongoing City initiatives or programs that could help improve the outcome of these indicators, as well as relevant case studies from other cities that could serve as a framework for improving performance

5 **Partnership with other stakeholders may be needed.** The City may need to work closely with external stakeholders, including the Houston Independent School District, the Metropolitan Transit Authority of Harris County, private companies, and other public entities to improve the performance for many of these indicators

Overview of "Public safety" priority

Public safety

confirm the safety and security of everyone that lives, works, and visits the City of Houston by a) improving collaboration with key stakeholders, b) addressing systemic issues with department operations, and c) recruiting and retaining talent

Strategic objectives

1. Increase number of police officers and firefighters

2. Improve police and fire retention and attrition rates

3. Strengthen Community Policing Programs

4. Equip first responders with skills to better address mental health situations

5. Provide programs that integrate former offenders back into the community

6. Increase the use of technology to enhance crime fighting

7. Collaborate with schools, nonprofits and businesses to increase youth engagement

Source: City of Houston FY25 Budget

Summary of Houston's performance compared to peer cities

Public safety	Infrastructure	Government that works	Quality of life

Public safety indicators by strategic objective

For indicators where Houston is performing below peers, we conducted supplemental analysis to explain the trend and outlined relevant case studies, if applicable

Strategic objective	KPI	Scoring
Increase number of police offices and firefighters	Average response times in minutes for police priority 1 calls	In line with peers
	Average response times in minutes for fire priority 1 calls	Below peers
	Average response times in minutes for EMS priority 1 calls	Below peers
Improve police and fire retention and attrition rates	Change in police officer FTEs	In line with peers
	Change in firefighter FTEs	Below peers
Strengthen Community Policing Programs	Total civilian complaints per officer	Above peers
	Police call per service percentage	Data not available[1]
Equip first responders with skills to better address mental health situations	Percentage of arrests without use of force	In line with peers
	Police mental health program coverage	In line with peers
Provide programs that integrate former offenders back into the community	Reentry program recidivism rate	Above state average
Increase the use of technology to enhance crime fighting	Homicide clearance rate	In line with peers
	Violent crime per 100k residents	Below peers
	Property crime per 100k residents	Below peers
Collaborate with schools, nonprofits and businesses to increase youth engagement	Percentage of population 15 to 17 enrolled in school	Below peers

Notes: "Above peers" indicates Houston is ranked 1 or 2 in that indicator compared to its peers; "In line with peers" indicates Houston is ranked 3,4 or 5; "below peers" indicates Houston is ranked 6 or 7
1. The data was not available for the City of Houston, but the City could consider tracking this indicator going forward

Strategic objective: Increase number of police officers and firefighters

Observation: Houston has longer response times than peers for fire priority 1 calls

Average response times in minutes for police priority 1 calls (2023)

A detailed breakdown of response times by call types is included in the appendix

| San Antonio | Phoenix | Houston | Philadelphia | Chicago | Los Angeles |
| 5.5 | 6.1 | 6.2 | 8.7 | 10.0 | 11.3 |

Higher performing → Lower performing
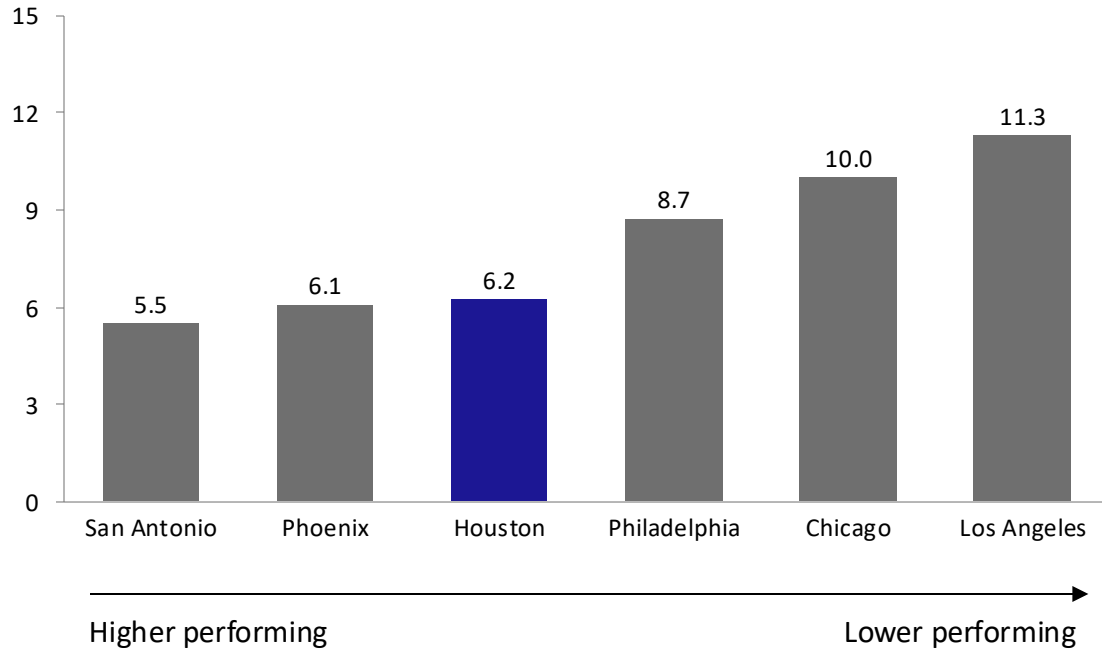
Measures the ability for the Police Department to respond to emergencies in a timely manner

Average response times in minutes for fire priority 1 calls (2023)

A case study on improving emergency response times is included in a subsequent slide

	Dallas	Los Angeles	Phoenix	Philadelphia	San Antonio	Houston
	5.3	5.5	5.6	6.8	7.0	9.5

Higher performing → Lower performing

	Dallas	Los Angeles	Phoenix	Philadelphia	San Antonio	Houston
FTEs per 1k residents[1]	1.6	0.9	1.1	1.8	1.2	1.6
FTEs per square mile[1]	5.5	7.0	3.4	19.6	3.5	5.5
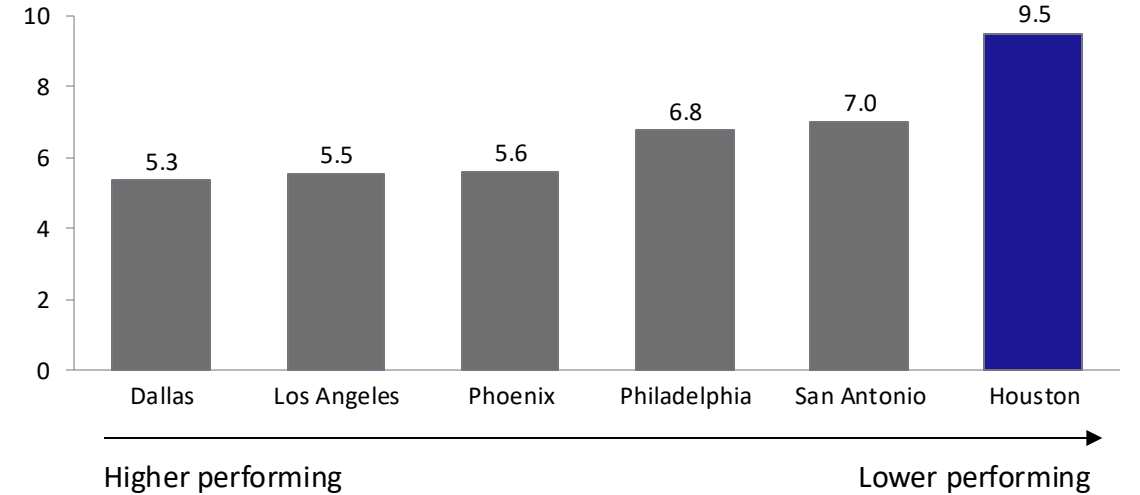
Measures the ability for the Fire Department to respond to emergencies in a timely manner

Strategic objective: Increase number of police officers and firefighters

Observation: Houston has longer response times for EMS priority 1 calls compared to peers

Average response times in minutes for EMS priority 1 calls (2023)

A case study on improving emergency response times is included in a subsequent slide

Phoenix 4.8 | Dallas 5.3 | Los Angeles 7.5 | San Antonio 8.6 | Philadelphia 12.3 | Houston 13.3

Higher performing ➞ Lower performing
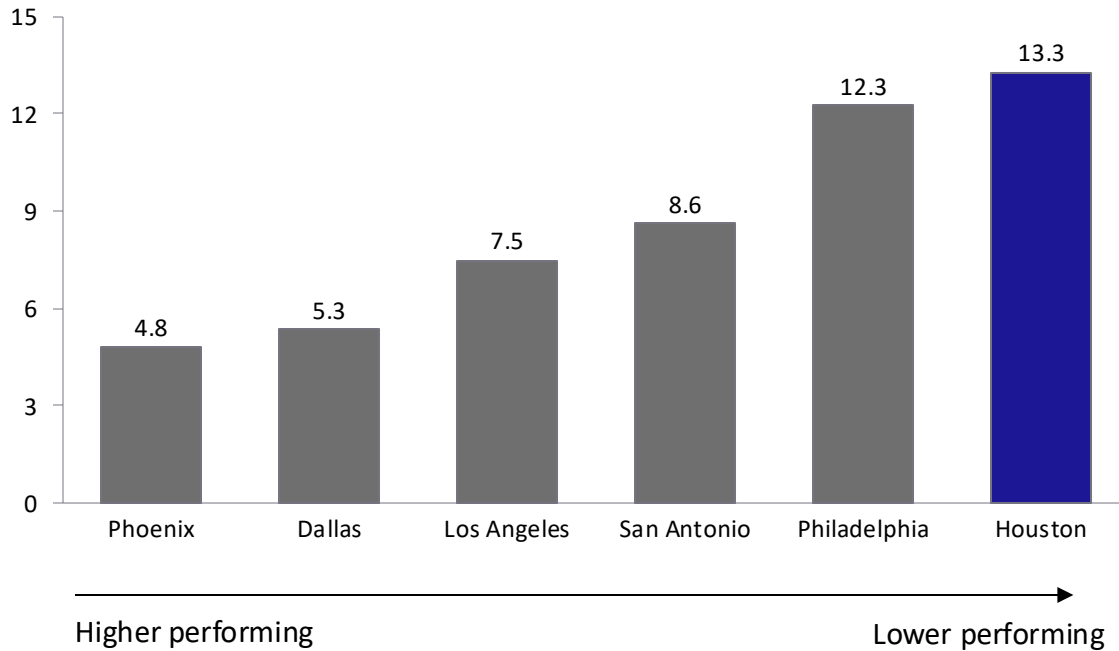
Measures the ability for EMS to respond to emergencies in a timely manner

Current programs or initiatives

▶ The City appears to be actively working on addressing its emergency response times by introducing new programs and initiatives, such as:

Program or initiative	Description
Federal grant to study emergency response times to traffic accidents	▶ The City of Houston will use a $3.4 million grant to help reduce the response times for fire and police by using upgraded technology, such as cameras, specialized software, and route planning
ETHAN program	▶ Mobile integrated healthcare initiative that uses video conference and community resources to triage and direct low-acuity 911 callers to appropriate primary care services to cut down on unnecessary emergency room transports

The City could also further analyze data to understand which neighborhoods have the slowest response rates, and refine staffing of emergency response services, accordingly. This opportunity is further explored in more detail in the subsequent case study

Sources: Houston Public Media; Journal of Emergency Medical Services; Internal analysis

Case Study: New Orleans improving emergency response times by optimizing ambulance posting locations

New Orleans EMS ambulance posting location optimization

In response to a rising number of 911 calls and worsening response times between 2014 and 2016, New Orleans used a data-driven optimization model to revise daytime and nighttime ambulance placement protocols

▸ The daytime map that was produced by the model largely confirmed existing strategy regarding the placement of ambulances

▸ However, the nighttime map suggested a significantly different set of locations than those previously utilized

▸ The initiative was most beneficial to regions that had the slowest emergency response times, especially during the night

1 During the testing period, response times were improved as much as 20% in one particular district

2 During the daytime, while there was no statistically significant change to overall response times, there was a smoothing overall for response times per district, improving equity

3 The new protocol led to modest but statistically significant improvements in citywide response times during the night

Considerations for Houston

▸ The city could consider a similar data-driven algorithmic analysis to incorporate a set of data points to reposition emergency service vehicles to improve response times

  ▸ The code used by the City of New Orleans has been published to open-source website

▸ The city could adopt dynamic posting strategies for EMS units, allowing for real-time adjustments based on predictive modeling of incident hotspots and traffic patterns

▸ Houston might benefit from implementing a continuous review and adjustment process for ambulance posting locations, incorporating feedback from EMS personnel and outcome data to enhance overall efficiency and effectiveness

▸ A similar analysis may also help optimize fire responses

Sources: City of New Orleans; DataDriven.NOLA.gov; GitHub.com; Internal analysis

Strategic objective: Improve police and fire retention and attrition rate

Observation: Houston's firefighter attrition rates were the highest among peers prior to the recent union negotiations

Change in police officer FTEs (FY19-FY23)

- 2.3% San Antonio
- (0.4%) Dallas
- (0.6%) Houston
- (6.0%) Los Angeles
- (8.4%) Philadelphia
- (10.6%) Phoenix
- (10.6%) Chicago

Higher performing → Lower performing
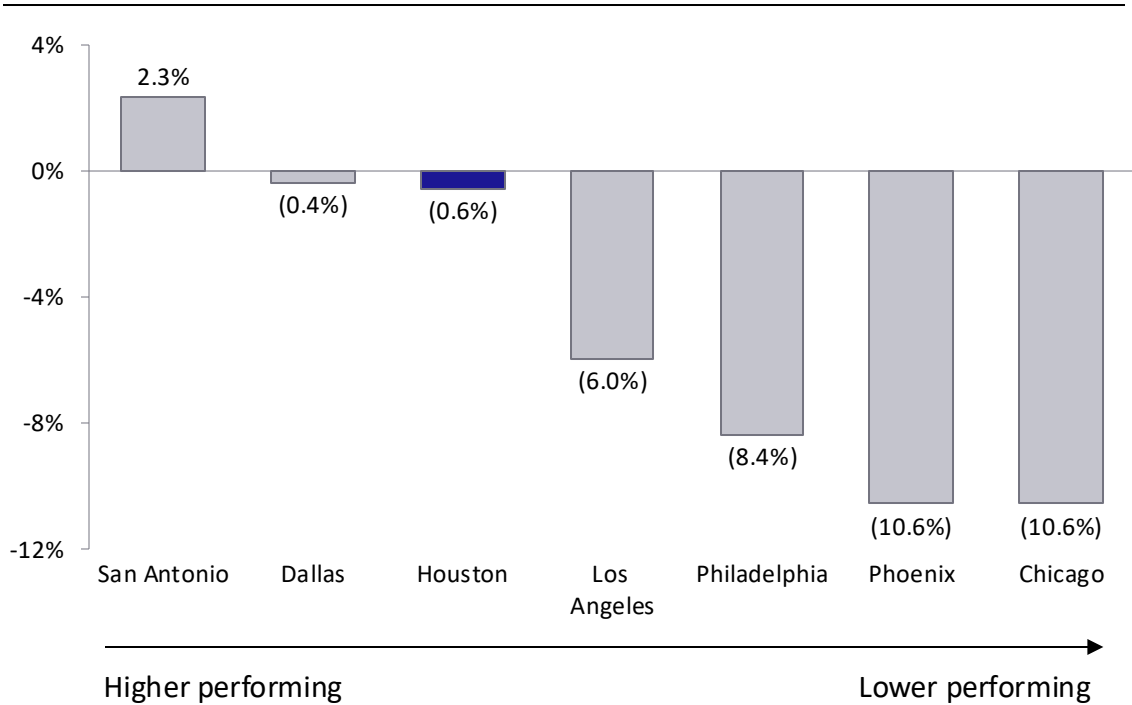
Measures the police officer attrition rate based on the change in police FTEs

Change in firefighters FTEs (FY19-FY23)[1]

- 5.8% Phoenix
- 5.0% Dallas
- 4.1% Los Angeles
- 3.2% Philadelphia
- 0.8% San Antonio
- (1.4%) Chicago
- (6.9%) Houston

Higher performing → Lower performing
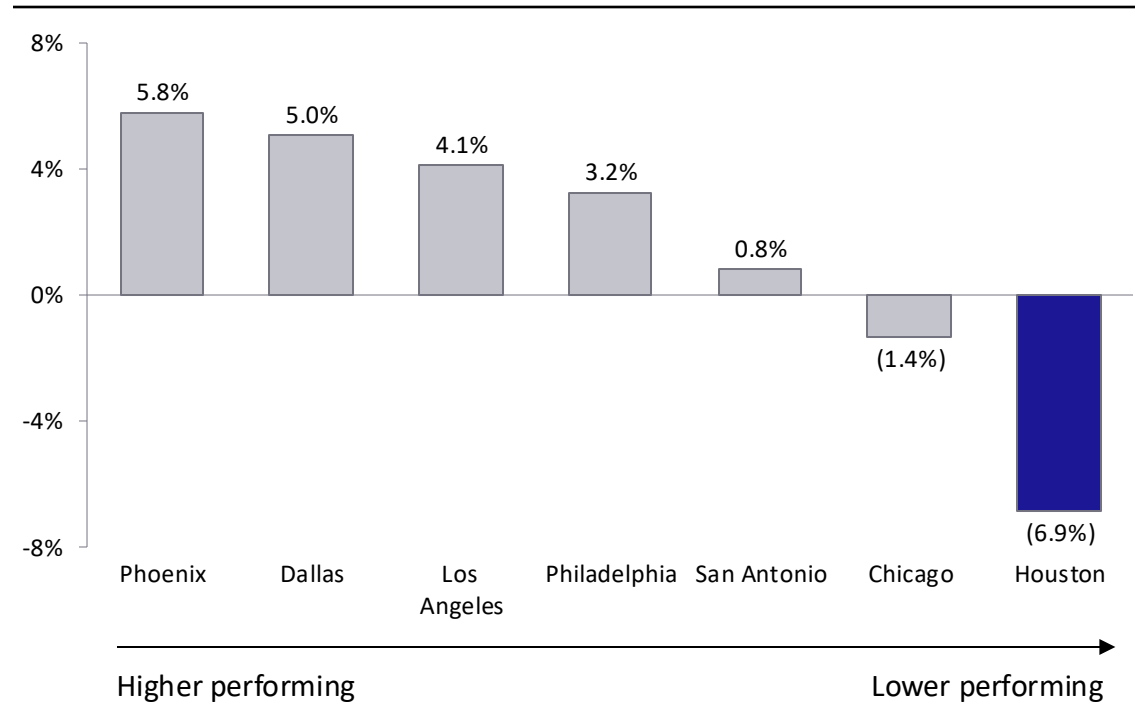
Measures the firefighter attrition rate based on the change in firefighter FTEs. Note that firefighter attrition may be improved due to the recent union negotiations, as described in the next slide

1. Change in FTEs includes EMS

Sources: Houston Landing; Police Executive Research Forum; Peer city government websites; Internal analysis

Overview of new firefighter's union labor agreement

Houston firefighter union labor agreement

MAYOR'S PRESS RELEASE

Financial Terms of Historic Houston Firefighter Agreement Announced
New collective bargaining deal structured to protect city budget

March 14, 2024 -- Mayor John Whitmire and the Houston Professional Fire Fighters Association announced today a historic deal to end an eight-year impasse. The $650 million settlement to finally resolve the city's looming liability addresses longstanding pay issues dating back to 2017 while also ensuring a five-year contract moving forward.

"I told the voters I would honor their decision to put public safety first and treat our brave paramedics and firefighters in the fair and equitable manner they deserve. I am proud to deliver on that promise," said Mayor John Whitmire. "An agreement of this nature is absolutely necessary to recruit and retain firefighters in the quality and numbers needed to serve the largest city in Texas. I want to reiterate that it helps avoid further unnecessary litigation costs, the uncertainty of multiple decisions by a court or an arbitration panel, and allows us to move forward together."

The decision ensures fiscal responsibility while prioritizing fair compensation for vital public safety personnel. Judgment bonds, issued by the City of Houston, will cover the back pay owed to firefighters for the eight years they worked without a contract. This approach rectifies past grievances and safeguards the City's financial stability by ensuring budgetary capacity for a new five-year contract with the competitive wages essential for firefighter recruitment and retention.

Per the settlement terms, all current firefighters, retired firefighters, and the families of firefighters who have died since 2017 will receive lump sum payments for the wages owed back to 2017. In addition to the back pay, the agreement makes permanent the temporary 18% pay increases awarded to firefighters in 2021 and mandates additional raises of 10% on July 1, 2024. With the subsequent pay hikes specified through 2029, total firefighter pay will increase by up to 34% over the life of the contract.

Firefighter labor agreement details

In March 2024, after working without a contract for eight years, the **firefighter's union reached a deal with the City for a new labor contract**

Outcomes of the new agreement include:

▸ $650 million in back pay to firefighters

▸ Salary hikes of up to 34% over the next five years

▸ Improved work conditions

▸ Resolved understaffing issues

Takeaway

The new agreement reached by the firefighter's union and the City of Houston may help improve attrition rates in the near-to-mid term

Sources: City of Houston website; Houston Public Media; Houston Chronicle; Internal analysis

Strategic objective: Strengthen community policing programs

> **Observation:** Houston has the lowest level of civilian complaints compared to peer police departments

Total civilian complaints per officer (2016-2021)

Higher performing → Lower performing
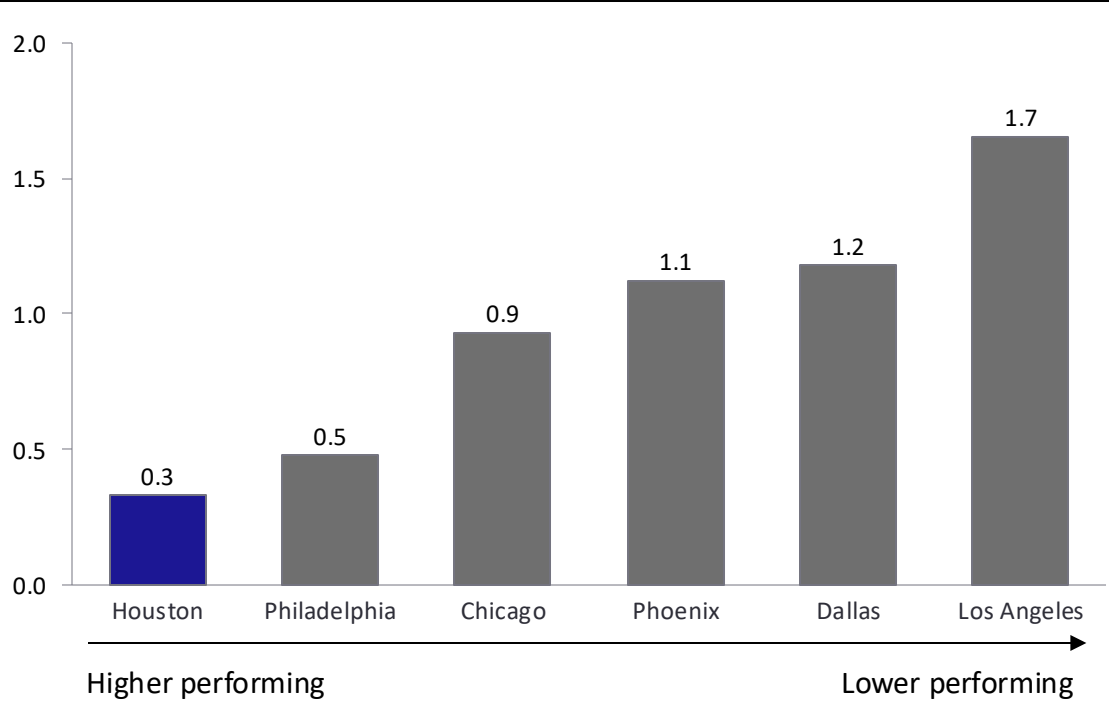
Measures the relationship between the police department and city residents based on complaints per officer

Police calls per service percentage

A potential way for Houston to track its level of community policing is by measuring its police calls per service percentage, which is the time spent servicing calls divided by the total available patrol hours

This key performance indicator measures:

▶ How much time patrol officers spend servicing calls relative to their overall time policing

▶ The amount of time available for officers to engage in proactive or community policing versus responding to dispatched calls

Sources: Police Scorecard; Internal analysis

Strategic objective: Equip first responders with skills to better address mental health situations

Observation: Houston is performing better than many of its peers on conducting arrests without the use of force, and has a similar number of alternative response programs to many of its peers

Percentage of arrests without use of force (2013-2021)

Higher performing → Lower performing
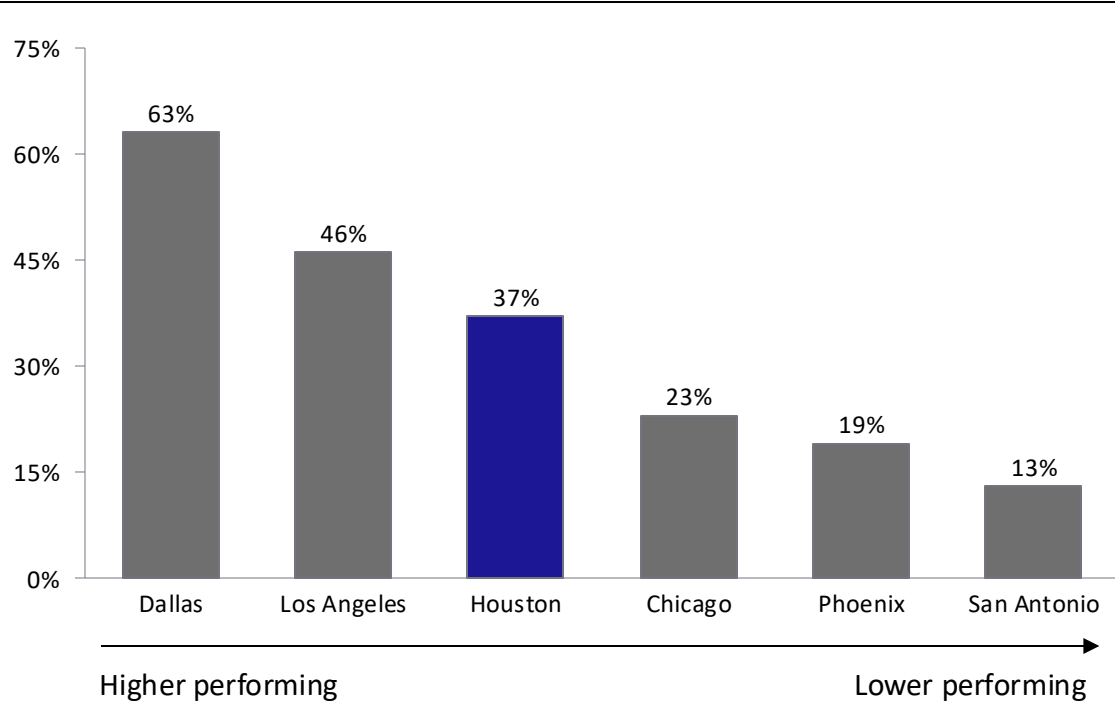
Measures the ability for officers to conduct policing without force based on the number of arrests made without use of force compared to total arrests

Police mental health program coverage (2021)

Program	Houston	Los Angeles	Philadelpia	Phoenix	San Antonio
Crisis intervention team	■		■	■	■
Co-responder Team	■	■	■	■	■
Pre-booking Diversion	■	■	■		■
Homeless outreach team	■	■	■	■	
Case management services	■				■
Mobile crisis team		■		■	■
EMS-based response team					■
Frequent utilizer program		■			■
Crisis stabilization units		■			■
Other police-led programs		■	■		■
Program count	**5**	**6**	**5**	**5**	**7**

■ = has program

Alternative response programs aim to improve individual and community policing outcomes by improving the quality of contact for people with behavioral health needs

Sources: Police Scorecard; Council of State Governments; Internal analysis

Strategic objective: Provide programs that integrate former offenders back into the community

Observation: Houston has a much lower prisoner recidivism rate compared to the state

Re-entry program recidivism rate (2024)
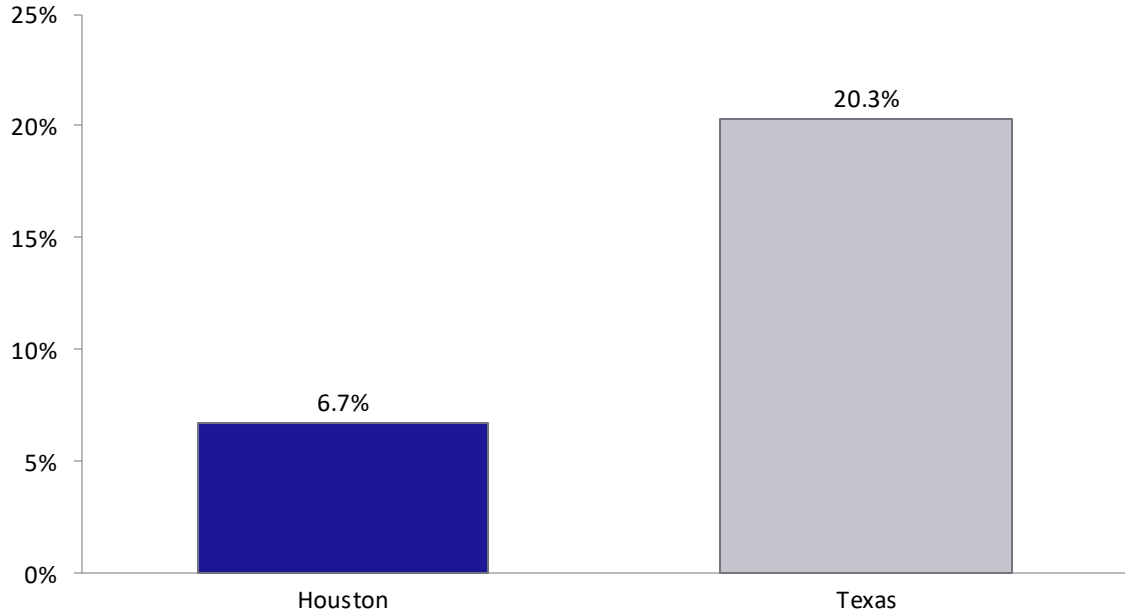
Measures the ability of former offenders to return to society based on the three-year prisoner recidivism rate

Performance for City programs *(based on internal KPIs)*

▶ The City has several rehabilitation and prevention programs to support its residents and reduce recidivism rates

Internal KPI	FY22 actual	FY23 actual	FY24 estimate	FY25 target
Percentage of participants convicted of a crime within 6 months of enrollment in the MBK ReDirect Program, excluding new clients	4%	<10%	6.7%	<10%
Number of unduplicated participants enrolled in the Community Reentry Network Program	447	500	450	500
Number of youth enrolled in the My Brother's Keeper (MBK) ReDirect Program	61	45	45	45

Sources: City of Houston internal data; Internal analysis

Strategic objective: Increase the use of technology to enhance crime fighting

Observation: Houston has a higher homicide clearance rate compared to many of its peers

Homicide clearance rate (2013-2021)
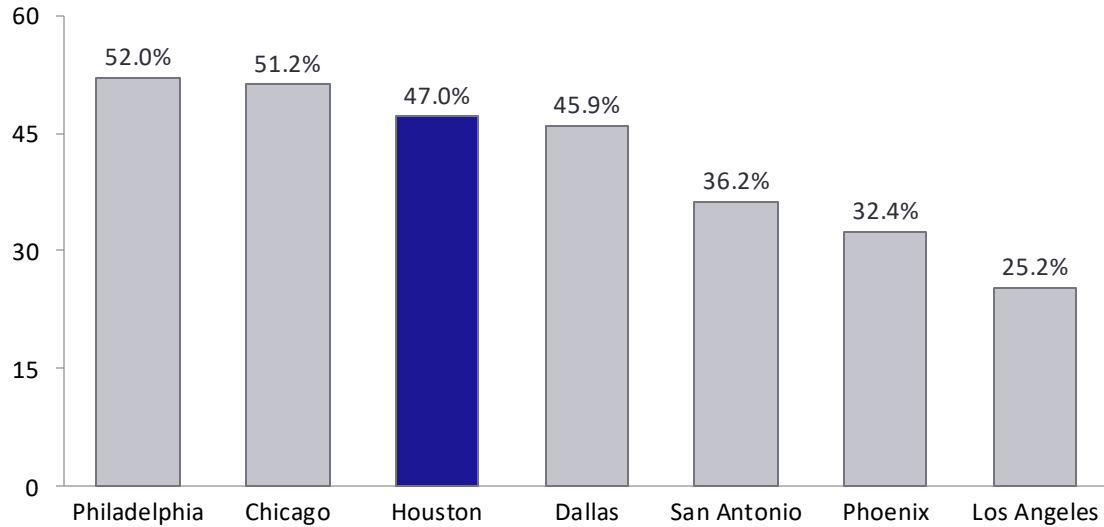
Measures the effectiveness at investigating and solving violent crimes

Current program and initiatives

Program or initiative	Descriptions
Expanded license plate scanners	▶ Houston leads the nation with more than 3,800 license plate reading cameras; the technology is showing promise in helping investigators close cases
Additional use of body cameras	▶ The city has budgeted $800,000 in 2024 to purchase additional body cameras

Strategic objective: Increase the use of technology to enhance crime fighting

Observation: Houston has higher rates of violent and property crimes compared to peer cities

Violent crime per 100k residents (2022)
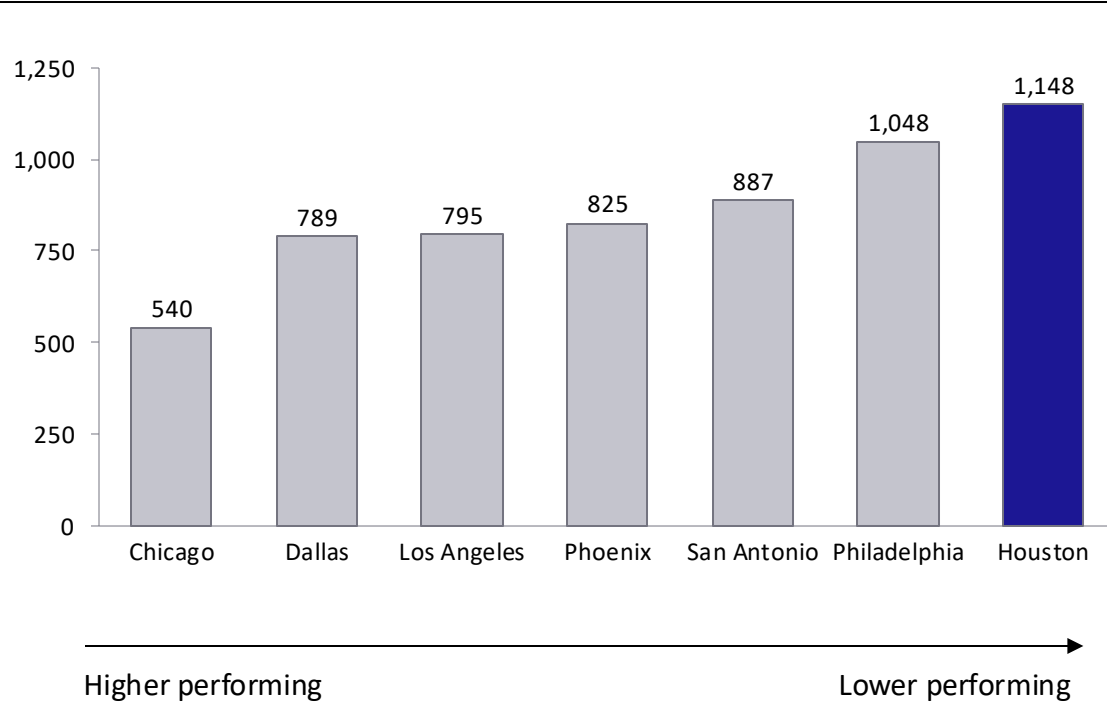
Measures the ability for residents to live without threat of violence based on the number of violent crimes per100k residents

Property crime per 100k residents (2022)

A case study for reducing crime is detailed in the next slide
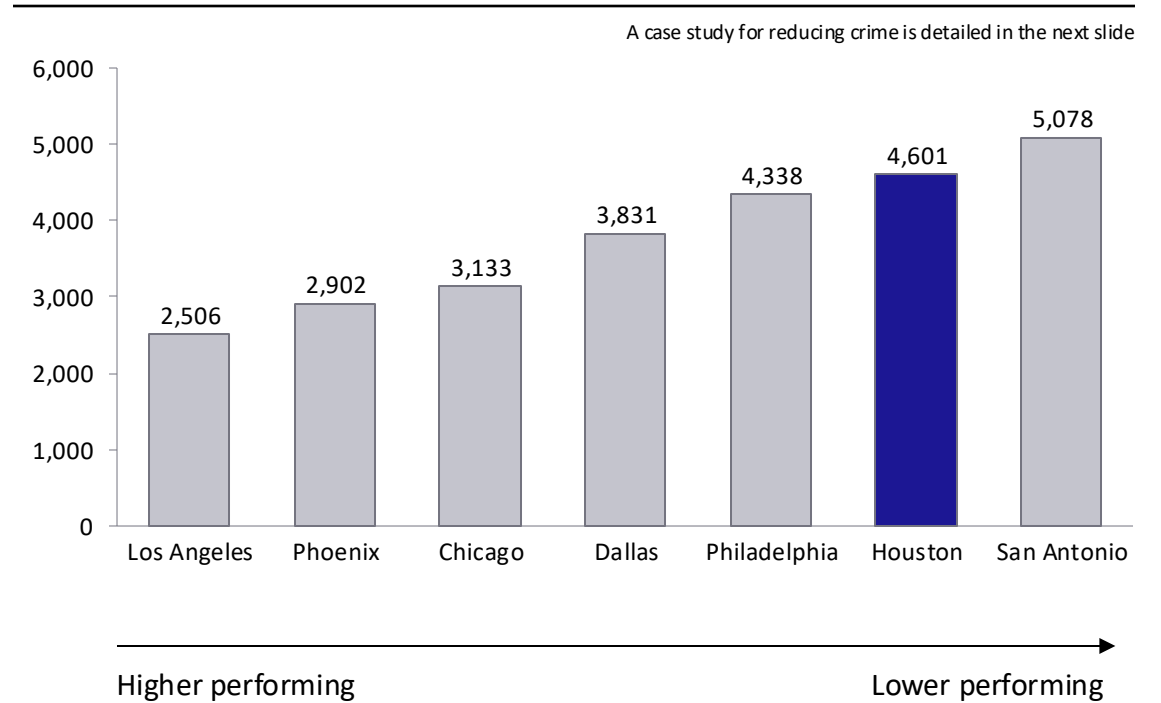
Measures the ability for residents to live without threat of property damage based on the number of property crimes per 100k residents

Source: US News and World Report

Case Study: New Orleans' "NOLA for Life" campaign has contributed to a decrease in homicide rates

NOLA FOR LIFE's comprehensive approach to reducing homicide rates

Understanding that the issue of murder cannot be resolved through law enforcement efforts alone, "NOLA for Life", launched in May 2012, aimed to reduce murder using five goals: stop the shooting, invest in prevention, promote jobs and opportunity, rebuild neighborhoods, and improve the New Orleans Police Department

▶ The campaign identifies populations that the data shows are most likely to commit or be victims of homicide with the goal of involving them in preventive measures

▶ NOLA for Life engaged with private sector partners and fosters cooperation among various federal and local law enforcement agencies

▶ NOLA for Life's re-entry initiative provides job and life skills training and social services for individuals who were recently released from prison

1 New Orleans homicides on a rolling 1-year basis were down ~19% in the 6 years in after the program was launched

2 New Orleans burglary and robbery on a rolling 1-year basis were down ~36% in the 6 years in after the program was launched

3 New Orleans crimes involving a weapon on a rolling 1-year basis were down ~16% in the 6 years in after the program was launched

Considerations for Houston

▶ Houston could further utilize data analytics to expand or deploy targeted preventive programs on high-risk individuals and neighborhoods

▶ The city could use the lessons learned from the U.S. Justice Department's two-year "Houston Violent Crime Initiative" to develop a comprehensive violence prevention strategies through a coalition of law enforcement, public health officials, and community organizations

▶ Houston could continue investing in its existing re-entry program to expand evidence-based re-entry tactics, such as community education and conflict resolution programs, to systematically reduce violent crime rates and recidivism

Sources: Governing.com; Houston Chronicle Axios; Biz New Orleans; City of New Orleans data

Strategic objective: Collaborate with schools, nonprofits and businesses to increase youth engagement

Observation: Houston's school enrollment is lagging peers

Percentage of population 15 to 17 enrolled in school (2023)

A case study for reducing high-school drop-outs is detailed in the next slide
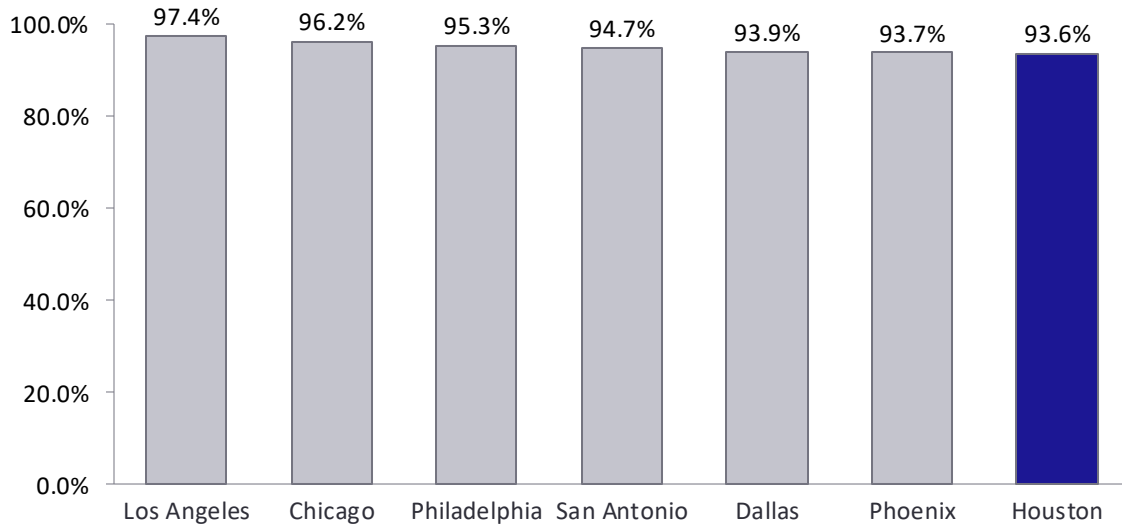
Higher performing   Lower performing

Measures the percentage of population 15 to 17 enrolled in schools as a proxy for chronic absenteeism and youth engagement

Note: increasing school enrollment will require the City to work closely with Houston Independent School District and non-for-profit organizations in the area

Percentage of Houston population 15 to 17 enrolled in school (2018-2023)
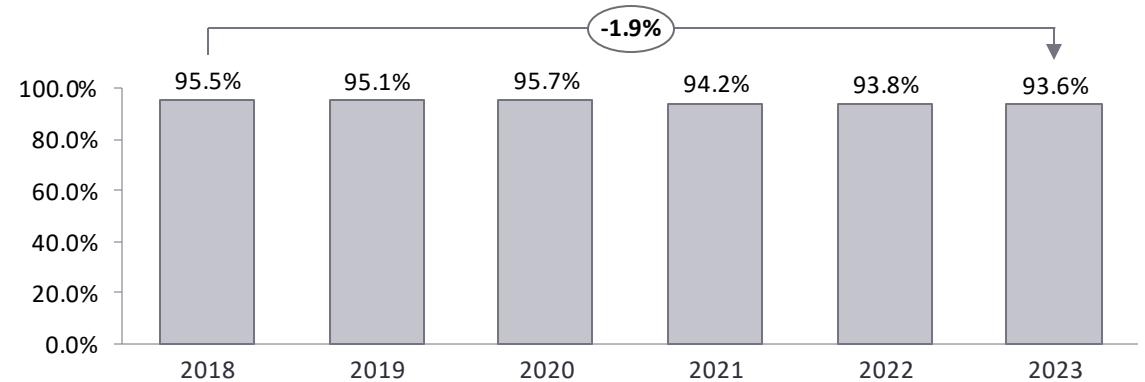
Current initiatives	
Program or initiative	**Description**
Sunrise Centers	▶ Sunrise Centers are equipped to provide its community with basic supplies such as dry food goods, hygiene items, and school uniforms
Mayor's Back to School Fest	▶ The Back to School Fest assists underprivileged Houston-area elementary students and families by distributing backpacks filled with school supplies and providing other services

Sources: US Census Bureau; Internal analysis

Case Study: Boston Public Schools' Re-Engagement Center contributed to a reduction in high-school dropouts

Boston Public Schools' Re-Engagement Center

Boston Public Schools ("BPS") launched the Re-Engagement Center ("REC") in 2008 in collaboration with the Boston Private Industry Council ("PIC") to help high school dropouts and struggling students resume their path to graduation

▶ The REC's approach is twofold:

1. Demonstrate the impact of education on students' desired lifestyles

2. Classify dropout reasons into academic, personal, and social/emotional categories to enable the REC to design a personalized strategy for each child

▶ REC services include transcript review, outreach via mail, phone, and door knocking, help with selection of a school or appropriate program, conducting of life skills and career preparation workshops

1 The REC's efforts influence over 300 students re-enroll in Boston high schools annually

2 BPS reduced its high-school dropout numbers from over 1,900 students in 2008 to less than 660 in 2017, representing a decrease of approximately 65%

3 The REC has discovered that dropouts are eager to return to school and can thrive with the appropriate support in place

Considerations for Houston

▶ Houston could explore establishing a cross-functional partnership with the Houston Independent School District ("HISD") and non-for-profit organizations in the area, mirroring Boston's program, to leverage each entity's resources and expertise to start a reengagement program of their own

  ▶ The status of HISD, both in terms of it being independent of the city government as well as controlled by the state government, means that the City may need to work closely with external parties to be able to achieve the desired outcomes

▶ Houston could potentially leverage the Sunrise Centers' existing infrastructure to provide in-person services dedicated to dropouts

Sources: Boston Public Schools, US Census Bureau; NextGenLearning.org; Houston Chronicle; Internal analysis

Overview of "Infrastructure" priority

Infrastructure

Enhance the City's existing efforts and seek opportunities with external and internal partners to address and mitigate the impact of natural disasters and chronic stressors on infrastructure, as well as help sustain the City's population growth

Strategic objectives

1. Repairing the City's aging water mains

2. Reduce traffic congestion and fix City streets

3. Confirm that the infrastructure accommodates growth and meets community needs

4. confirm the City is equitable, resilient, inclusive, and affordable

5. Remain a leader in climate adaptation and mitigation

6. Continue to grow the economy

Source: City of Houston FY25 Budget

Summary of Houston's performance compared to peer cities

Public safety	Infrastructure	Government that works	Quality of life

Infrastructure indicators by strategic objective

For indicators where Houston is performing below peers, supplemental analysis was conducted to explain the trend and outlined relevant case studies, if applicable

Strategic objective	KPI	Scoring
Repairing the City's aging water mains	Price of tap water per cubic meter	Below peers
	Total gallons lost per connection per day	In line with peers
	Total water gallons loss	Below peers
Reduce traffic congestion and fix City streets	Travel time index	Below peers
	Percentage of roads in poor conditions	In line with peers
	Percentage of commuters that take public transportation, bike, or walk	In line with peers
Confirm that the infrastructure accommodates growth and meets community needs	Housing permits issued per 10k residents	In line with peers
	Current city's drainage infrastructure initiatives	Spotlight[1]
Confirm the City is equitable, resilient, inclusive, and affordable	Gini coefficient of income inequality	Below peers
	Racial equity gap in poverty rate	Below peers
Remains a leader in climate adaptation and mitigation	Clean Energy Scorecard - Community energy infrastructure	In line with peers
	Clean Energy Scorecard - Local government operations	Above peers
Continue to grow the economy	Job growth rate	In line with peers
	Unemployment rate	In line with peers

Note: "Above peers" indicates Houston is ranked 1 or 2 in that indicator compared to its peers; "In line with peers" indicates Houston is ranked 3,4 or 5; "Below peers" indicates Houston is ranked 6 or 7
1. Given the different geographies of the peer cities, drainage infrastructure may not be as big a priority as it is for Houston. Therefore, the assessment team was not able to benchmark. However, as part of this analysis, some of the work the City is doing in this space has been highlighted.

Strategic objective: Repairing the City's aging water mains

Observation: Houston's older water infrastructure may contribute to higher cost of tap water and water loss levels

Price of tap water per cubic meter (in USD) (2021)

Houston's aging water meter system, as well as water rate increases in recent years, may have led to a higher price in water compared to peers

Phoenix	Dallas	Chicago	San Antonio	Philadelphia	Houston	Los Angeles
$1.0	$1.3	$1.6	$1.6	$1.7	$2.7	$3.8

Higher performing → Lower performing
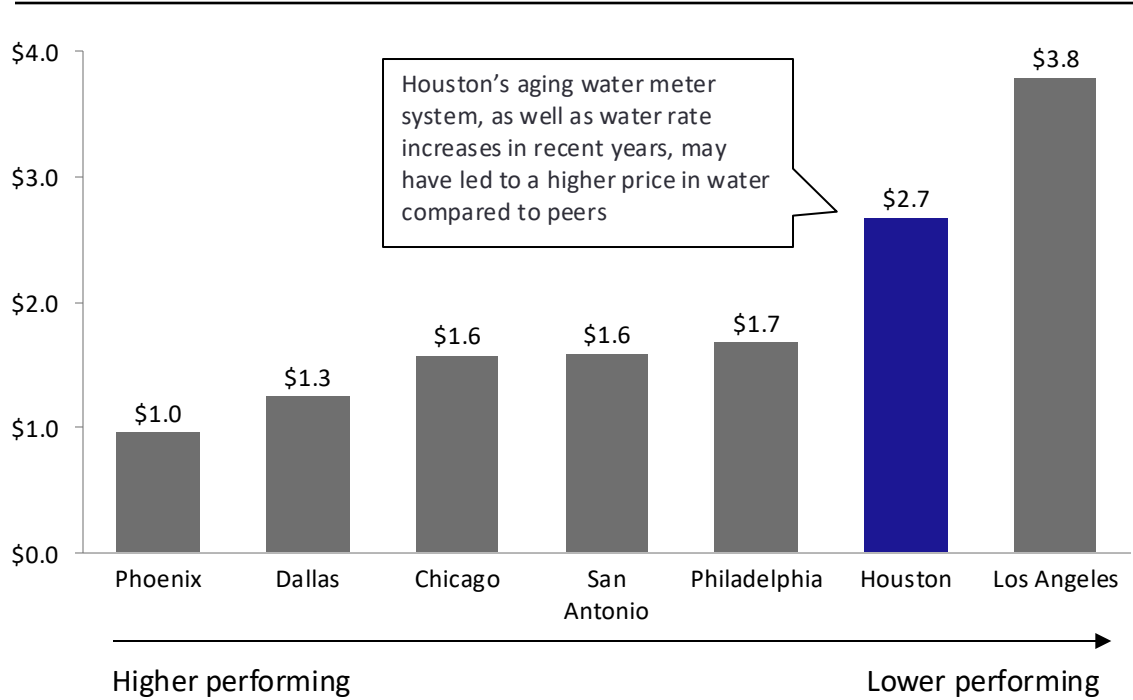
Measures the overall cost of water (per cubic meter)

Total water gallons lost per connection per day (2022)

Forth Worth	San Antonio	Houston	El Paso	Austin
56.4	62.4	66.4	86.2	93.0

Higher performing → Lower performing
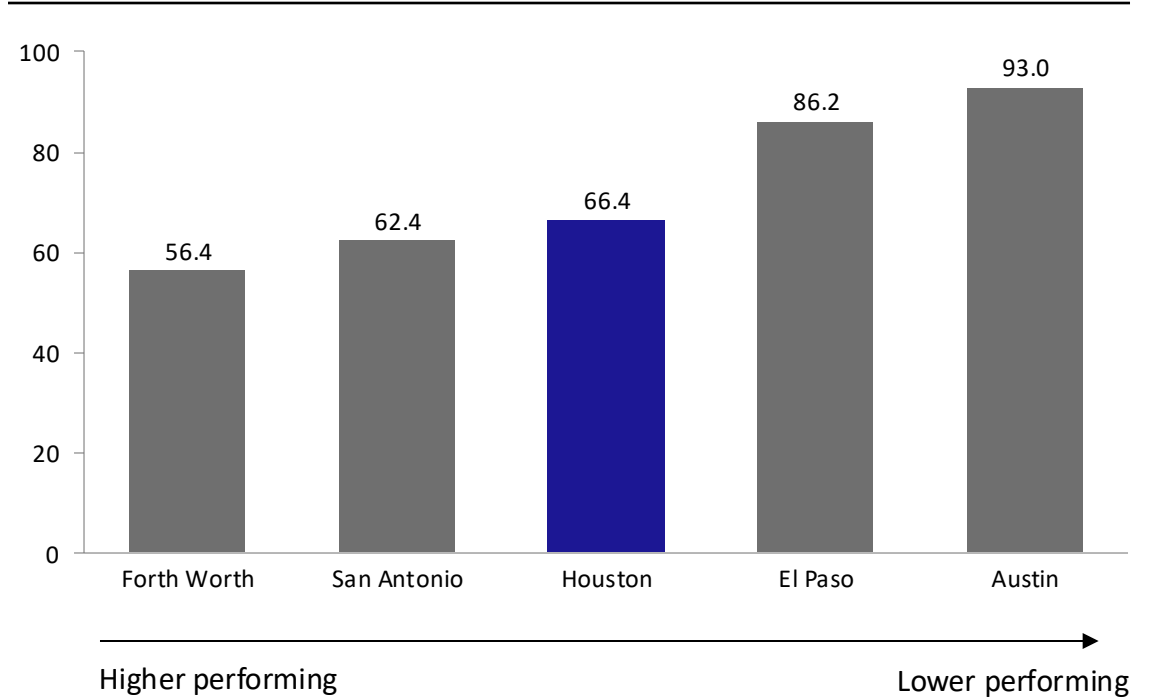
Measures the quality and efficiency of the water system based on the gallons lost per connection per day

Sources: Texas Water Development Board; Water Price Index

Strategic objective: Repairing the City's aging water mains

Observation: Houston has the highest total water loss compared to other cities in Texas, but the City appears to be taking action

Total water gallons lost *(in billions)* **(2023)**

A case study on improving water loss is detailed in the next slide
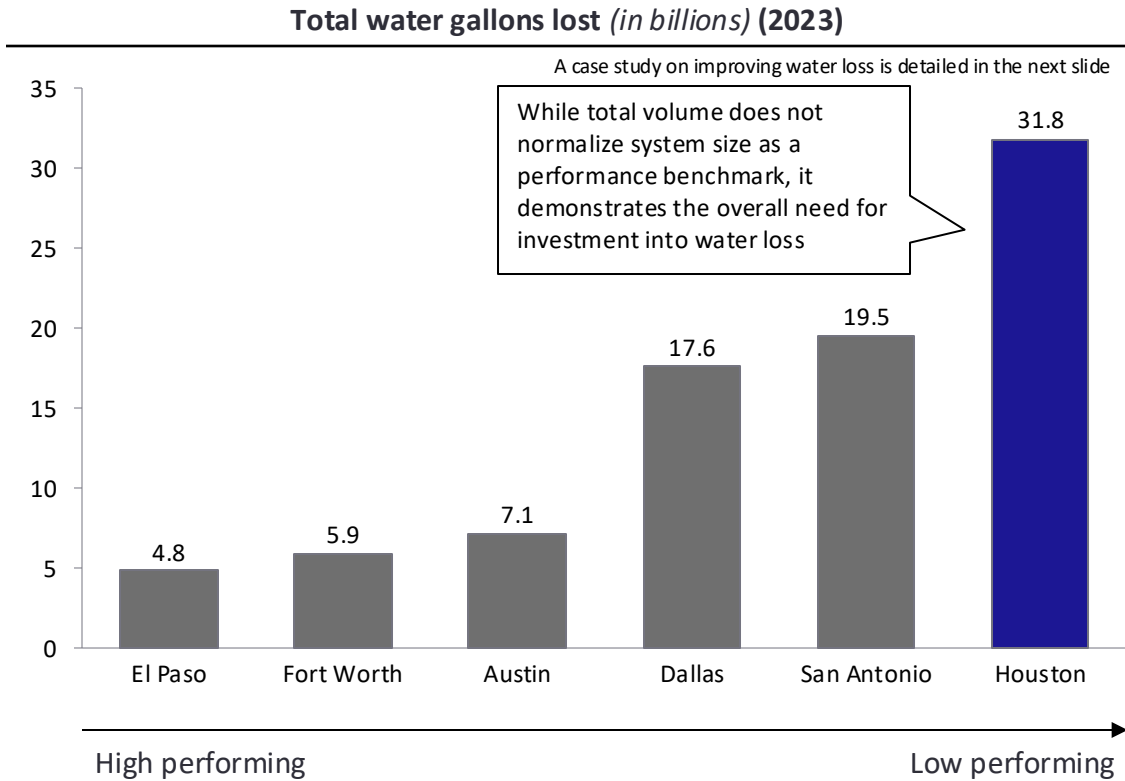
While total volume does not normalize system size as a performance benchmark, it demonstrates the overall need for investment into water loss

City	Value
El Paso	4.8
Fort Worth	5.9
Austin	7.1
Dallas	17.6
San Antonio	19.5
Houston	31.8

High performing → Low performing

Measures the quality and efficiency of the water system based on the total water gallons lost per year

Current initiatives

▶ Houston's Public Works is working on improving the City's water management and promote water conservation. Some of the current programs include:

Program or initiative	Description
Pipe replacement	▶ Houston is currently in the process of replacing its aging pipes, with a pipe replacement rate of 0.06% in 2023
State funding utilization	▶ The city is currently seeking state funding to address water infrastructure needs and prevent water loss
Houston Water conservation plan	▶ In August 2024, Houston Water presented a plan to address water loss by increasing the current rate of pipe replacement, as well as update its drought contingency plan

Sources: Texas Water Development Board; Houston Public Media; City of Houston website; Internal analysis

Case Study: El Paso, TX used detection loggers to reduce its water loss level

El Paso's water loss mitigation

El Paso has increased water resiliency through strategic investments in technology and system replacement

To mitigate water loss, El Paso:

- Allocated $2.2 million for leak detection loggers
  - These devices help sense disturbances in water mains, which helps the City proactively fix a leak before it becomes a break
- Committed $16.2 million for replacing aging water pipelines to minimize future leaks
- Is phasing in meter technology that has sensors to detect leaks on water lines

1 In 2023, El Paso **reduced water loss by 475 million gallons**, almost 10% of its total loss in 2023

2 In addition, El Paso was the **only major city in Texas to reduce its water loss** that year

3 With all these combined efforts, the City is on a better track to **reduce water loss by 44%**

Considerations for Houston

- ▸ The City could consider increasing the use of water detection loggers to proactively identify leaks
- ▸ This information may be used to further inform a water pipe replacement strategy, with the City potentially focusing its efforts in areas with more vulnerable infrastructure
- ▸ The city may continue to use state and federal funds, such as funds from the Infrastructure Investment and Jobs Act, Community Development Block Grants, and State Revolving Fund programs, to replace aging water pipes

Sources: Texas Water Development Board; Texas Tribune; City of El Paso website; Internal analysis

Strategic objective: Reduce traffic congestion and fix City streets

Observation: Houston has high levels of traffic congestion, though its roads remain in better condition than peers

Travel time index (2020)

A case study on leveraging AI to reduce congestion is detailed in the next slide

Phoenix	1.08
Chicago	1.10
Dallas	1.12
Philadelphia	1.12
San Antonio	1.12
Houston	1.15
Los Angeles	1.16

Higher performing → Lower performing
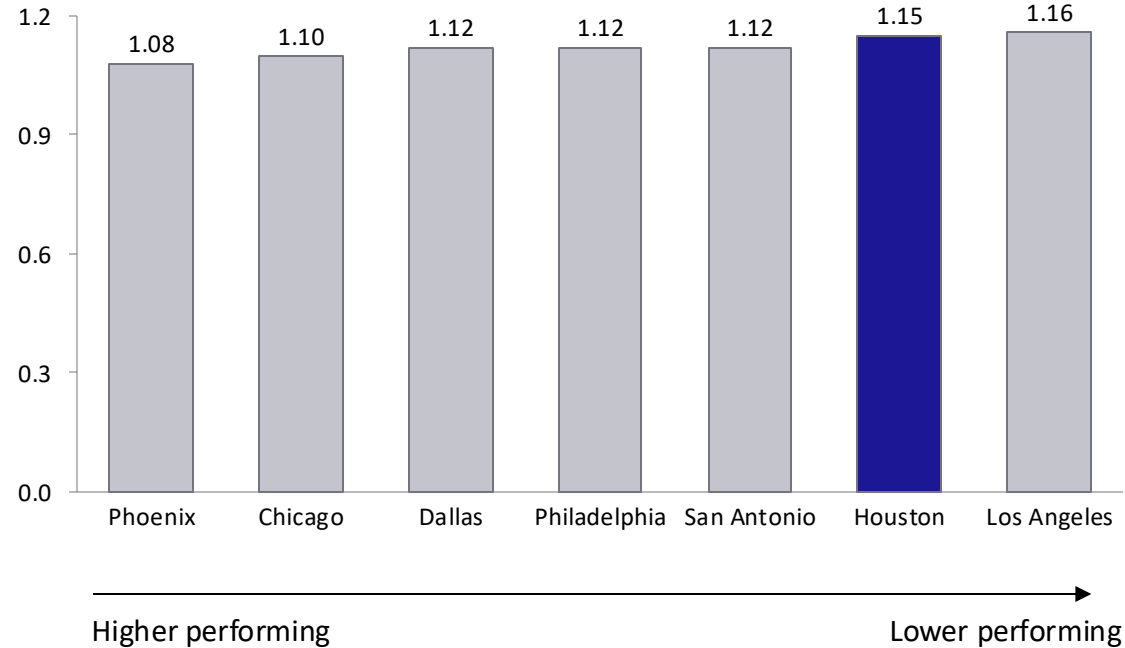
Measures the level of traffic congestion as the ratio of travel time during peak period vs free-flow speeds

Percentage of roads in poor conditions (2023)

Dallas	21.0%
Phoenix	23.0%
Houston	24.0%
Chicago	28.0%
San Antonio	29.0%
Philadelphia	43.0%
Los Angeles	57.0%

Higher performing → Lower performing
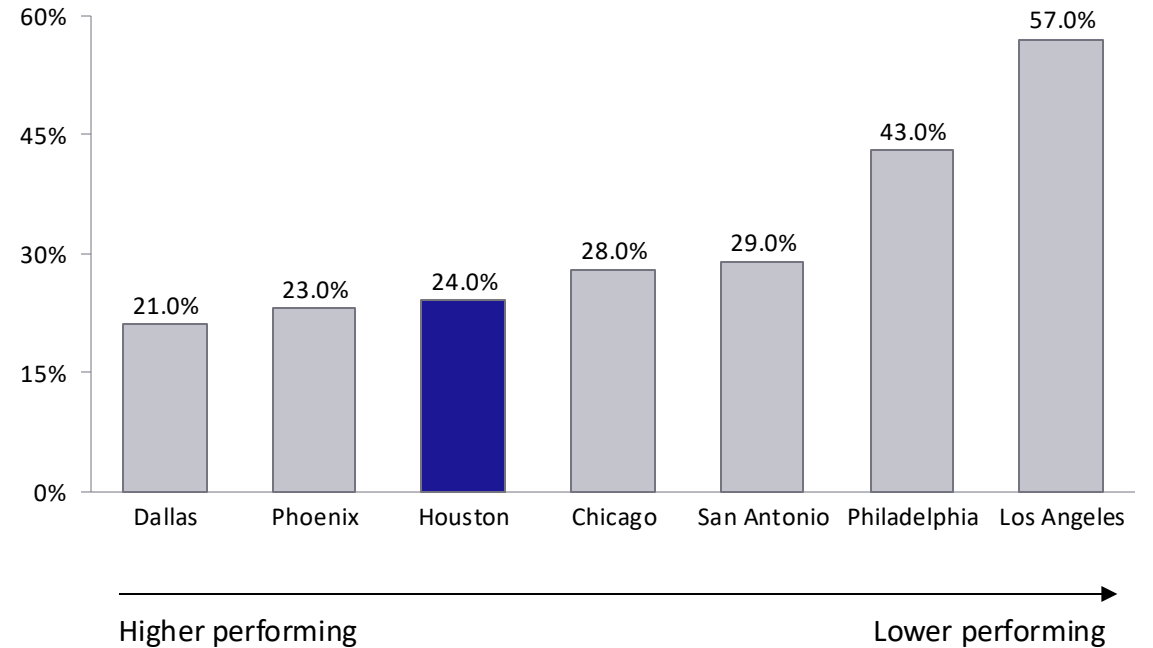
Measures the quality of the roads based on the percentage of city roads in poor condition

Case Study: AI solutions may help improve safety and reduce congestion

AI-enhanced transportation examples

Boston, Phoenix, and Sugar Land have begun to integrate AI into their transportation systems.

▶ In 2018, Phoenix's regional public transportation authority, Valley Metro, partnered with Waymo, a private company, to offer autonomous first and last-mile connections to public transit for people with disabilities and seniors over 65 years old

▶ Additionally, in 2020, Phoenix began a trial of an AI-driven traffic management system to autonomously optimize traffic light timing

▶ Similarly, in 2024, Boston partnered with Google's Project Green Light which uses AI to optimize traffic signal timing to improve traffic flow

▶ In 2024, Sugar Land City Council approved a $2.7 million contract to install artificial intelligence detection systems to improve flow of traffic and more quickly deploy police and fire to accidents

1 59% of the Valley Metro - Waymo partnership participants engaged in more out-of-home activities because they could use autonomous vehicles to get to public transport

2 Phoenix voters are considering Prop 479, including $12.5 million annually for emerging technologies, including an expansion of AI traffic management across the metro area

3 During the first seven months of its partnership with Google, Boston experienced over 50% reduction in stop-and-go traffic at intersections using Project Green Light technology

Considerations for Houston

▶ Houston recently collaborated with a Texas-based company to deploy Crosswalk Detection and Connected Vehicle technology, helping to protect pedestrians and bicyclists

▶ This partnership may position the City well for additional partnerships with private AI companies and expand into more comprehensive traffic monitoring and congestion-reducing AI systems, like the efforts being undertaken by Phoenix and Boston

▶ The City could also consider exploring a partnership with the neighboring city of Sugar Land to further roll-out the ongoing AI initiatives

   ▶ Houston may be able to use "lessons learned" from Sugar Land to help inform its transportation strategy

Strategic objective: Reduce traffic congestion and fix City streets

Observation: Houston has a low percentage of non-car commuters, but ongoing improvements to public transportation may change this

Percentage of commuters that take public transit, bike, or walk (2023)

High performing   Low performing
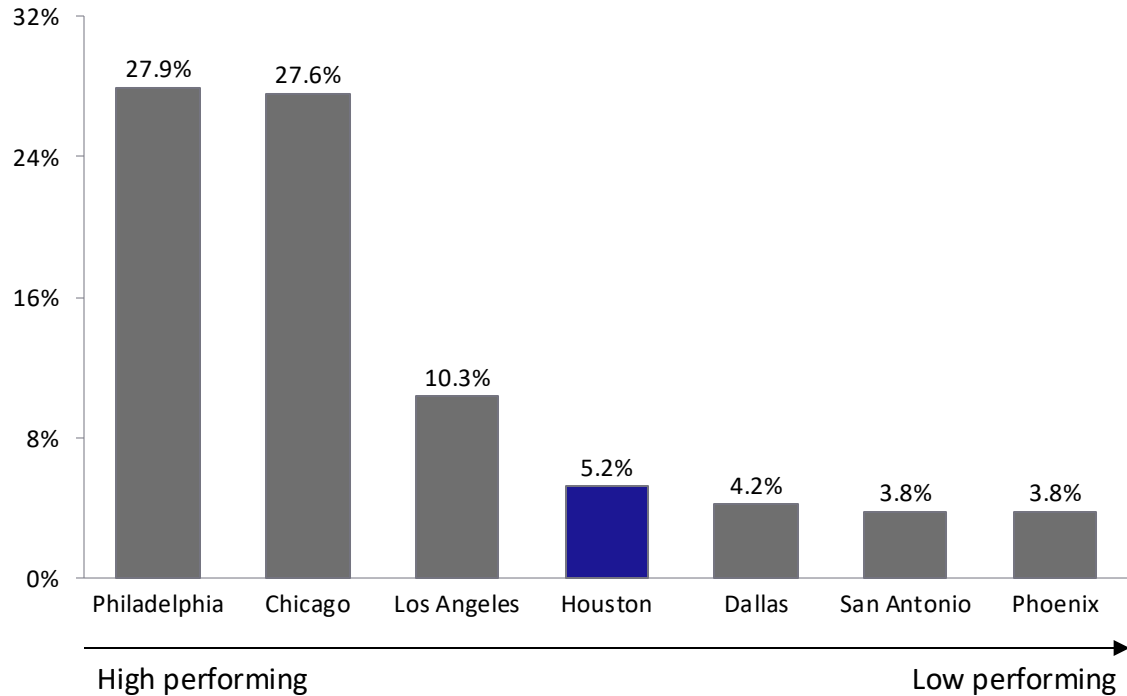
Measures the ability to access public transportation and non-car commuting options

Note: increasing the use of public transportation will require the City to work closely with the Metropolitan Transit Authority of Harris County ("METRO")

METRONext Moving Forward Plan

▸ The City of Houston is working closely with METRO to improve public transportation access and the overall ridership experience as part of the METRONext Moving Forward Plan

  ▸ The plan is designed to help ease traffic congestion by taking more cars off the road and give residents more ways to move around the region

  ▸ The plan creates new service and travel options by expanding several types of transportation and making investments in service and accessibility around our region - with no tax increase

▸ Proposed investments as part of this plan include:

  ▸ The expansion of the METRORail to serve more people and places – including the Red, Green, and Purple lines

  ▸ Improvements to 17 high-ridership routes and the addition of new bus services

  ▸ System enhancements, including new shelters, accessibility upgrades, and enhanced passenger information

  ▸ Regional express routes to facilitate access to existing and new transit centers and Park & Ride lots via two-way HOV lanes

The City and METRO could track how the ongoing improvements to public transportation impact traffic congestion, and may use this data to further inform future investments

Strategic objective: Confirm infrastructure accommodates growth and meets community needs

Observation: Houston issues more housing permits than peer median, and has continued to increase the number of housing units

Housing permits issued per 10k residents (2023)
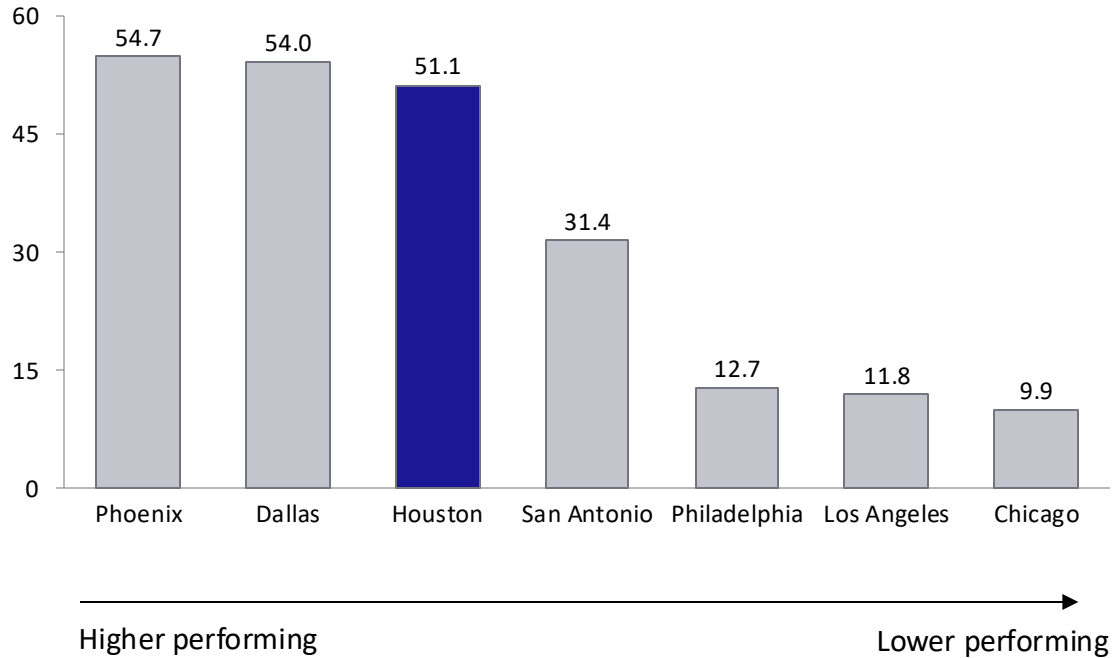
Measures the number of housing permits issued divided by 10k residents

Private housing structures authorized by building permits (2017-2023)
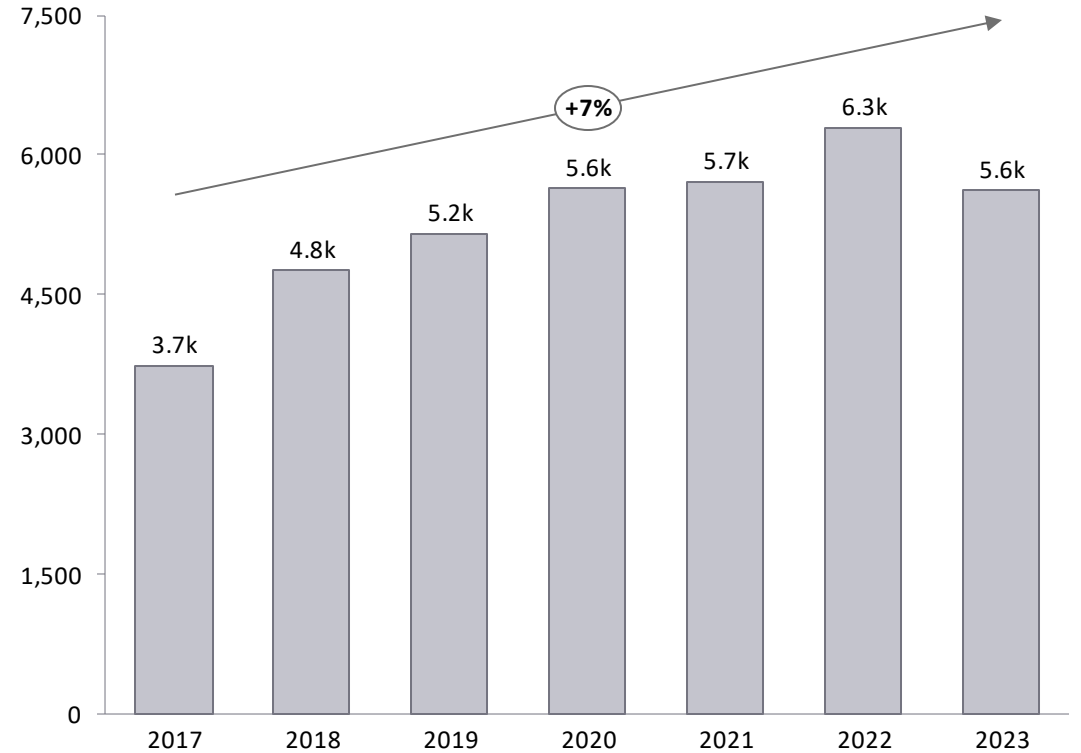
Strategic objective: Confirm infrastructure accommodates growth and meets community needs

Observation: In recent years, Houston appears to be making a concerted effort to mitigate flooding and improve drainage

Infrastructure projects	
Program or initiative	**Description**
Inwood Forest Stormwater Detention Basin	▸ $80 million project to protect over 4,400 structures, with completion expected in early 2026
TIRZ 17 Memorial City Area Detention Basin	▸ $54 million subsurface detention basin to reduce flooding for residents
Sunnyside Area Detention Project	▸ $10 million grant application for a multi-use detention basin to reduce flooding in the Sunnyside area

Regulatory and maintenance initiatives	
Program or initiative	**Description**
Floodplain regulations changed	▸ The City changed its floodplain regulations to make them more protective and restrictive regarding the regulatory standard for setting the height of house slabs
Federal funding utilization	▸ Several projects awarded to the City through federal grants to address flood mitigation
Culvert maintenance	▸ The City of Houston took back the responsibility from residents for maintaining open ditch culvert crossings — addressing a major concern with this flood control infrastructure

Sources: Baker Institute for Public Policy; City of Houston website; Internal analysis;

Strategic objective: Confirm the City is equitable, resilient, inclusive, and affordable

Observation: Houston appears to have a greater level of economic inequality compared to peers and a larger racial poverty gap

Gini coefficient of income inequality (2023)

A case study on streamlining city services to better support low-income individuals is detailed in a subsequent slide

Higher performing — Lower performing
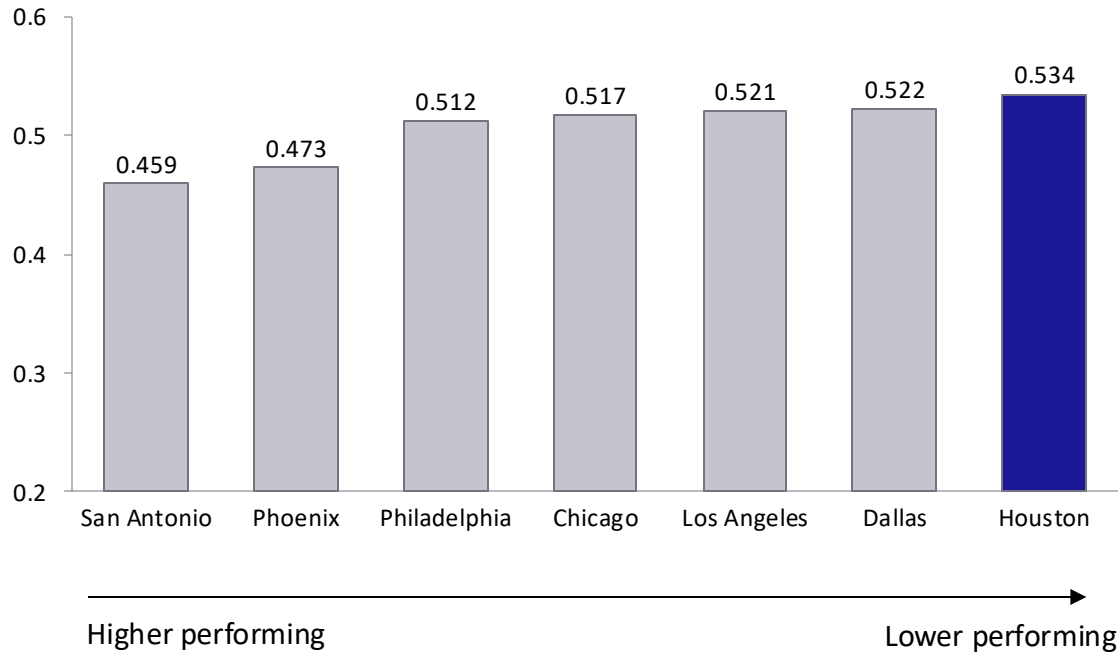
Measures the level of income inequality in a city based on a score ranging from 0 to 1, with 0 representing perfect equality and 1 representing perfect inequality

Racial equity gap in poverty rate (2023)

Additional analysis on the racial poverty rates is included in the next slide

Higher performing — Lower performing
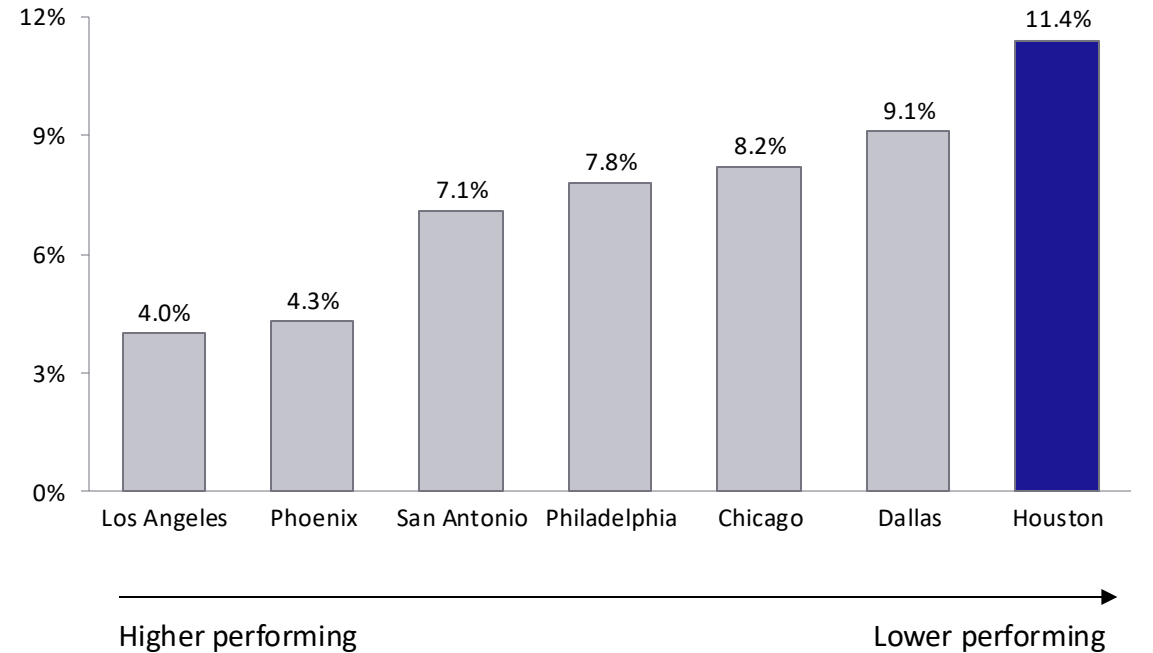
Measures the racial disparity for poverty as the gap between total poverty rate and white, non-Hispanic resident poverty rate as reported in the U.S Census

Source: US Census Bureau

89

Overview of the City's poverty rates by race and ethnicity

Houston poverty rate in 2023 *(by race or ethnicity)*
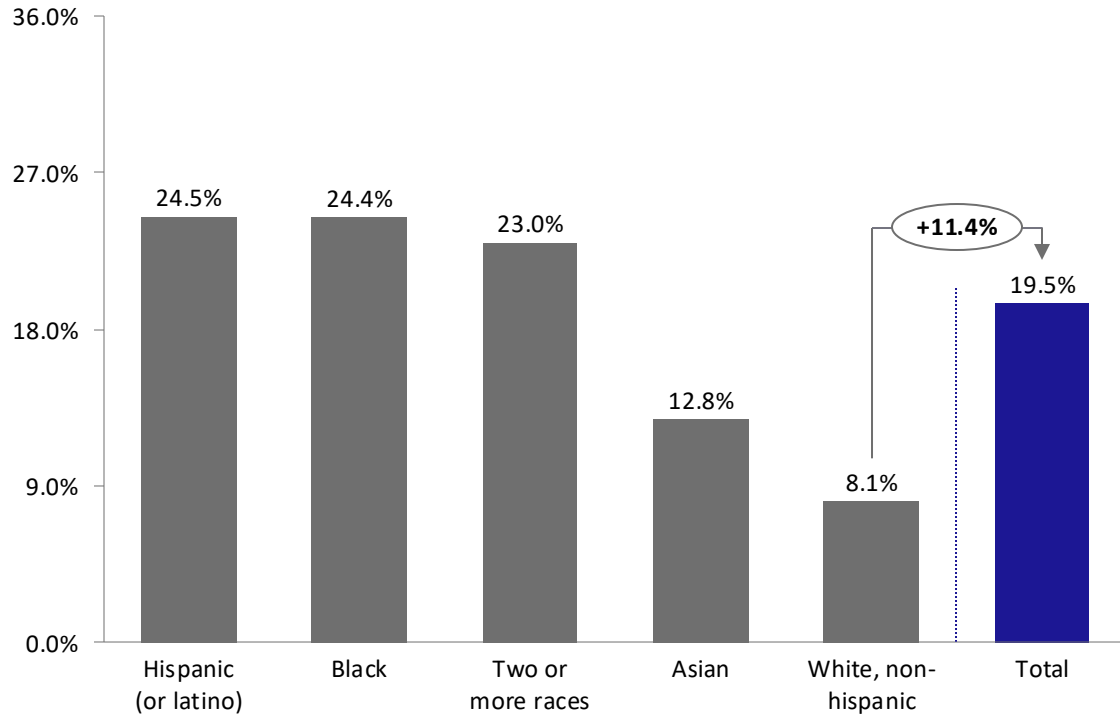
Measures the racial poverty disparity as the gap between total poverty rate and white, non-Hispanic resident poverty rate as reported in the U.S. Census

Current initiatives and policies

▶ The City has multiple initiatives and policies to support low-income residents and provide necessary resources

Program or initiative	Description
Housing First policies	▶ The City has taken significant efforts to combat homelessness through housing first policies, tackling a major indicator of poverty
Supportive Services	▶ The Department of Housing and Community Development provides resources for those experiencing poverty like food resources, legal aid, and shelter information

Sources: US Census Bureau; City of Houston Website; Governing; Texas Standard

Case study: Philadelphia uses city services to help low-income residents enroll in public benefits and assistance programs

Philadelphia's BenePhilly

BenePhilly is a comprehensive initiative in Philadelphia aimed at alleviating poverty by simplifying access to public benefits and empowering low-income residents to secure essential resources like food assistance and healthcare

▶ The program started as an initiative that helped low-income seniors apply for benefits over the phone

▶ It evolved into a hotline that residents could call to get paired with access to 19 different benefit types

▶ The program works by reducing duplicitous forms, opening in-person locations at trusted community organizations, and relying on powerful, open-source technology to assess eligibility

1 BenePhilly has **helped more than 110,000 residents**, both in and out the workforce, enroll in assistance programs

2 It has helped **unlock over $350 million in benefits** for residents, funds that may have otherwise not seen use

3 As a result, this has been a part of Pennsylvania's plan **to address systemic poverty**, one of the City's greatest issues

Considerations for Houston

▶ Houston could further assess which resources are needed most by the City's low-income residents

▶ The City could then map the existing benefits and assistance programs that could help address those needs

▶ To implement a similar service like Philadelphia, Houston could expand its 311 capacity to help connect low-income individuals with the right resources

▶ External stakeholders committed to data analysis and mitigation of regional poverty could be brought in to assist in the implementation

▶ Because Texas is ranked 46th nationally for SNAP participation rates by eligible recipients, services to increase enrollment and benefits are crucial

Sources: City of Philadelphia website; Harvard Kennedy School; Governing; Internal analysis

Strategic objective: Remain a leader in climate adaptation and mitigation

Observation: Houston leads the peer set in green energy investments for government operations

Clean Energy Scorecard - Community energy infrastructure (2024)

Higher performing → Lower performing
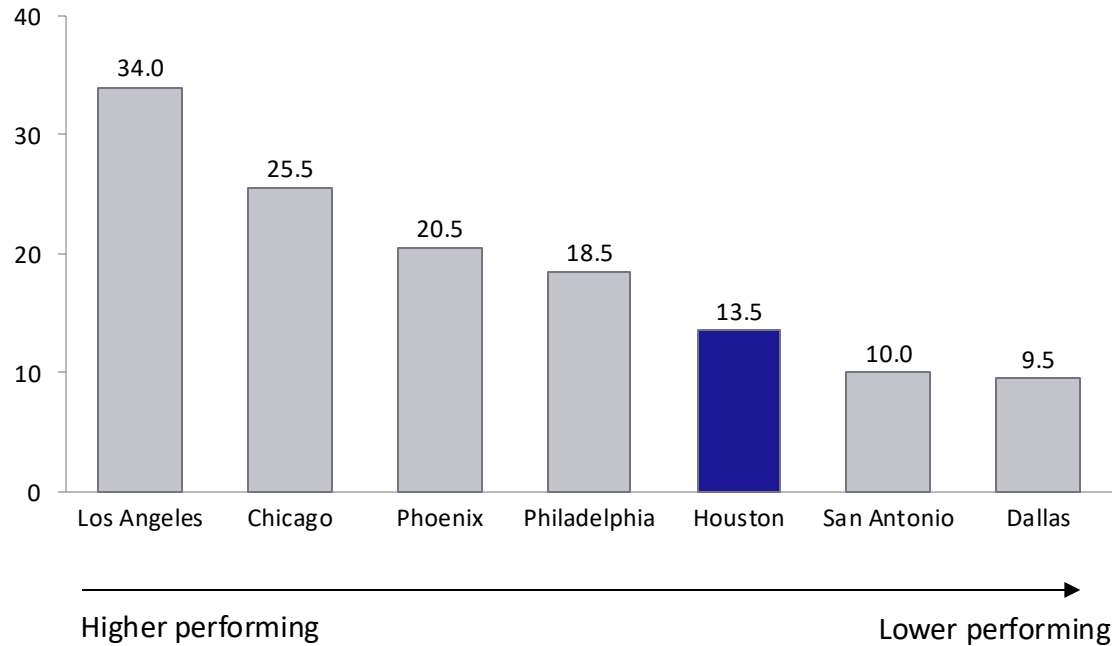
Measures the pursuit of initiatives to decarbonize the City's electric grid (based on a score out of 40)

Clean Energy Scorecard - Local government operations (2024)

Higher performing → Lower performing
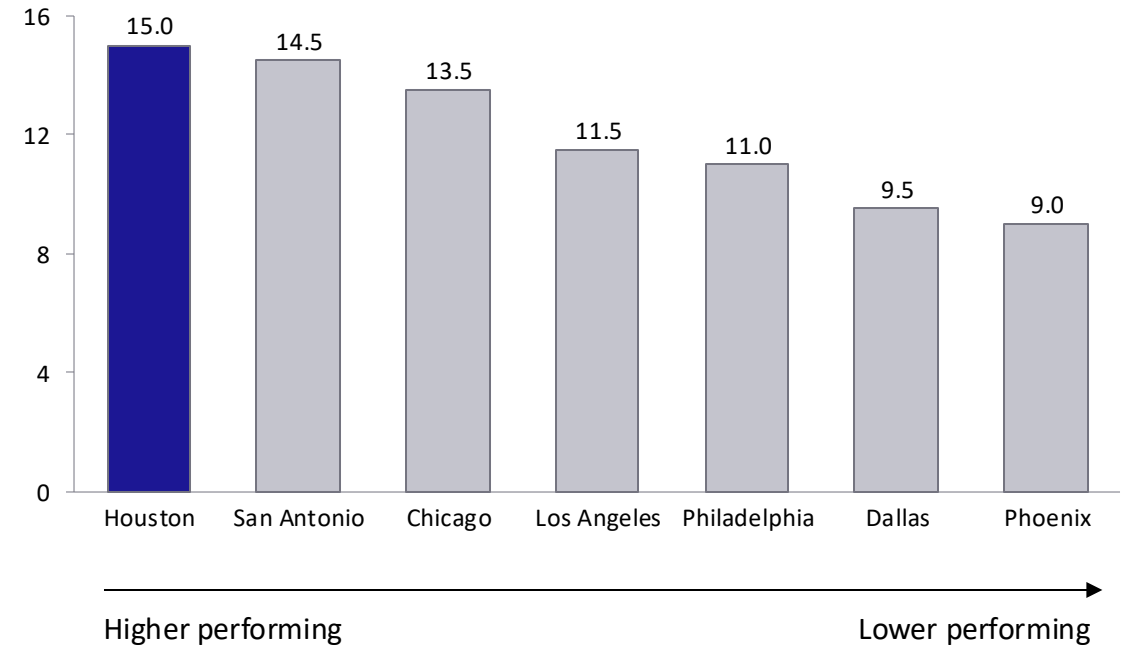
Measures the green energy investments into government operations (based on a score out of 25)

Sources: The American Council for an Energy-Efficient Economy; Internal analysis

Strategic objective: Continue to grow the economy

> **Observation:** Houston's job growth and unemployment rates appear to be close to the peer median

Job growth rate (2022-2023)

Dallas 3.3% | Philadelphia 2.7% | San Antonio 2.6% | Houston 2.3% | Phoenix 1.9% | Los Angeles 1.7% | Chicago 0.9%

Higher performing → Lower performing
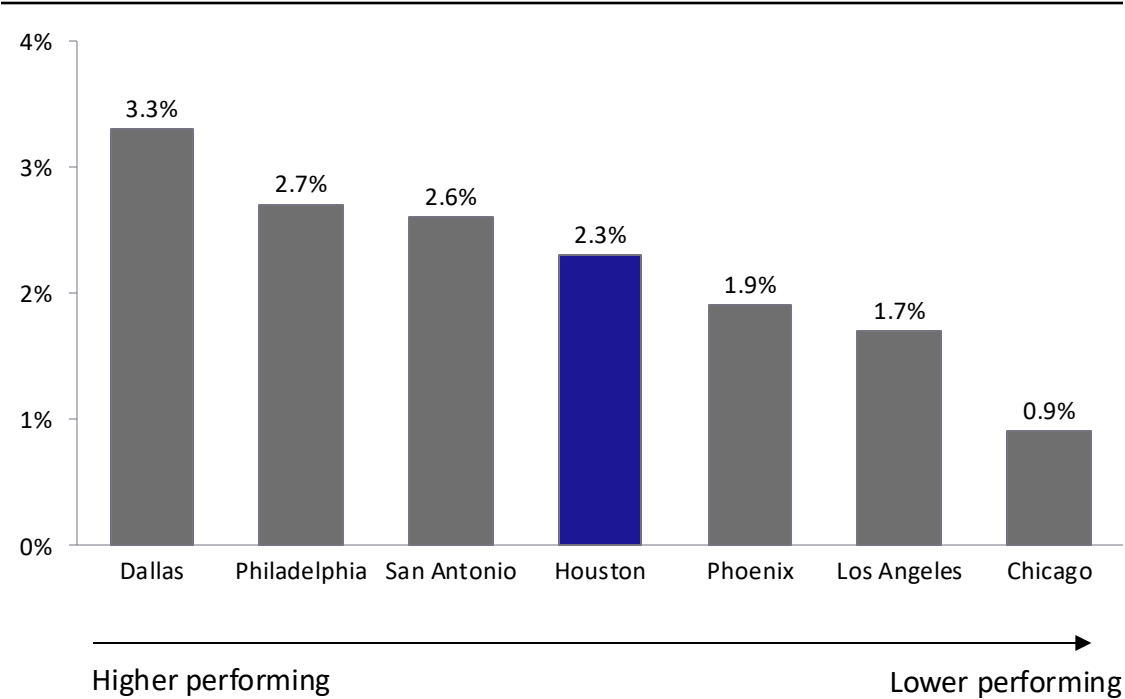
Measures the increase in job opportunities for residents based on the percent change in non-farm employment

Unemployment rate (2023)

Phoenix 3.5% | San Antonio 3.7% | Dallas 3.9% | Philadelphia 4.2% | Houston 4.6% | Chicago 4.7% | Los Angeles 5.3%

Higher performing → Lower performing
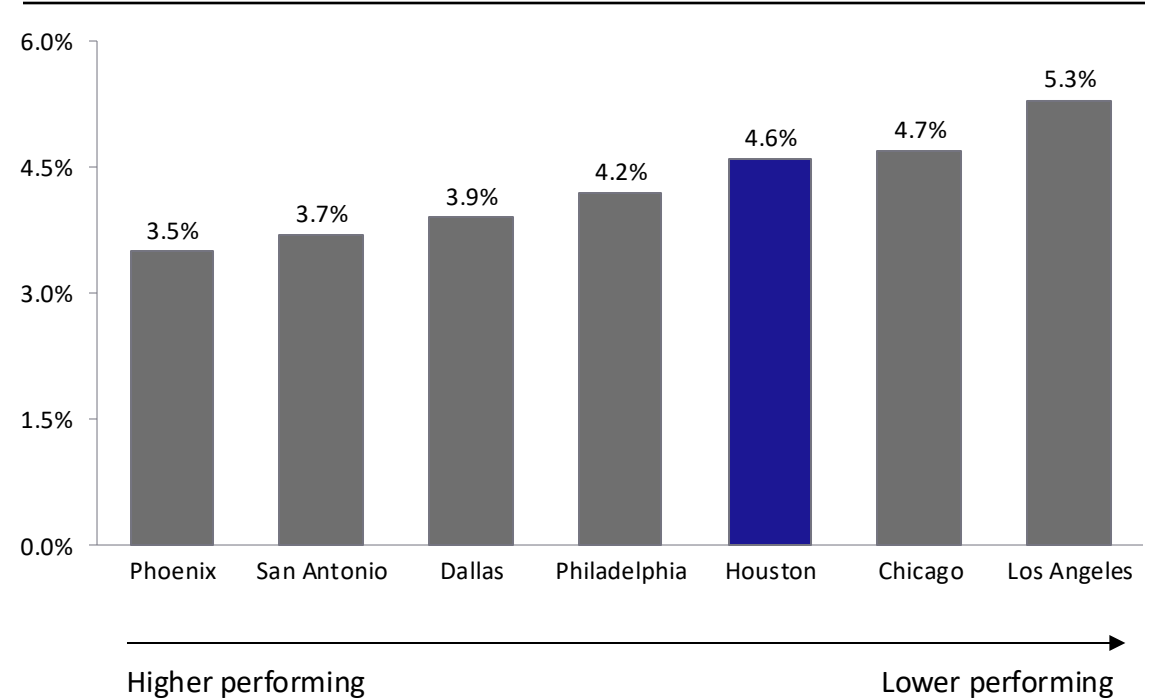
Measures unemployment rate in the City

Sources: Bureau of Labor Statistics; Internal analysis

Government that works

Deliver top-tier services performed at the highest ethical standards for Houstonians, and conduct City operations with fiscal transparency, accountability, and resiliency, to maximize resources and achieve desired outcomes

Strategic objectives

1. Move towards a structurally balanced budget by identifying expenditure reductions and new recurring revenue sources

2. Continue to reduce long-term liabilities

3. Effectively manage state and federal grant dollars and partnerships

4. Maintain a strong credit rating

5. Promote the growth of minority and women owned businesses

6. Embrace innovation in the delivery of City services

Source: City of Houston FY25 Budget

Summary of Houston's performance compared to peer cities

Public safety	Infrastructure	**Government that works**	Quality of life

Government that works indicators by strategic objective

For indicators where Houston is performing below peers, supplemental analysis was conducted to explain the trend and outlined relevant case studies, if applicable

Strategic objective	KPI	Scoring
Move towards a structurally balanced budget by identifying expenditure reductions and new recurring revenue sources	General fund surplus / deficit	Above peers
	General fund unassigned fund balance as a percent of GF revenue	In line with peers
Continue to reduce long-term liabilities	Outstanding governmental activities debt per capita	In line with peers
	City employee pension liability funded ratio	In line with peers
Effectively manage and leverage state and federal grant dollars and partnerships	Percent of total ARPA funds going to government services	Below peers
Maintain a strong credit rating	City credit rating and outlook	In line with peers
Promote the growth of minority and women owned businesses	Percentage of businesses MWBE-owned	Above peers
	New business applications per 1k residents	Above peers
Embrace innovation in the delivery of City services	Quality of services score	Above peers
	Ease of doing business score	In line with peers
	Solid waste on-time performance	Data not available[1]
	Houston average number of days to complete plan review	Spotlight[2]
	Average days to hire	Below average
	Average days for procurement	Below average
	Average days to pay invoices	Data not available[1]

Note: "Above peers" indicates Houston is ranked 1 or 2 in that indicator compared to its peers; "In line with peers" indicates Houston is ranked 3,4 or 5; "Below peers" indicates Houston is ranked 6 or 7

1. The data was not available for the City of Houston, but the City could consider tracking these indicators going forward; 2. Average number of days to complete plan review is reported differently across the peer sets, so benchmarking was not possible. In this analysis, a historical trend analysis of Houston's performance has been provided.

Strategic objective: Move towards a structurally balanced budget by identifying expenditure reductions and new recurring revenue sources

Observation: Houston has been able to maintain a general fund surplus and a healthy unassigned fund balance, but this may be due to the one-time federal ARPA dollars

General fund surplus / deficit (2023)

Higher performing → Lower performing
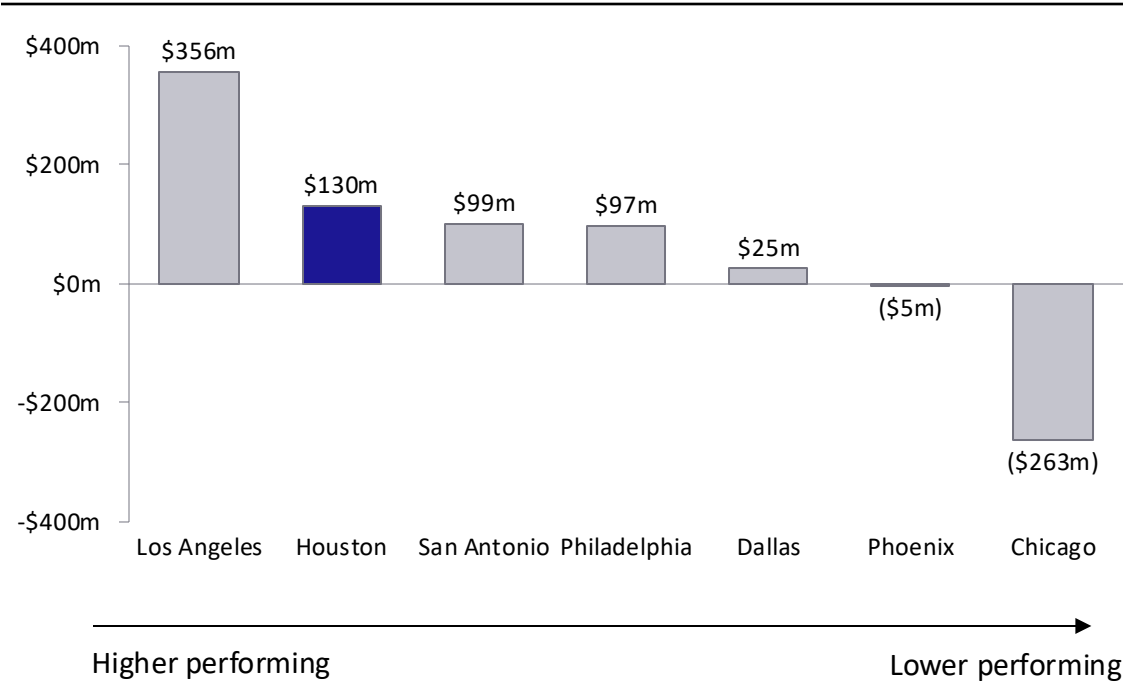
Measures the fiscal health of the City government based on the total general revenue minus general expenses and other financing sources

General fund unassigned fund balance as a percent of GF revenue (2023)

Higher performing → Lower performing
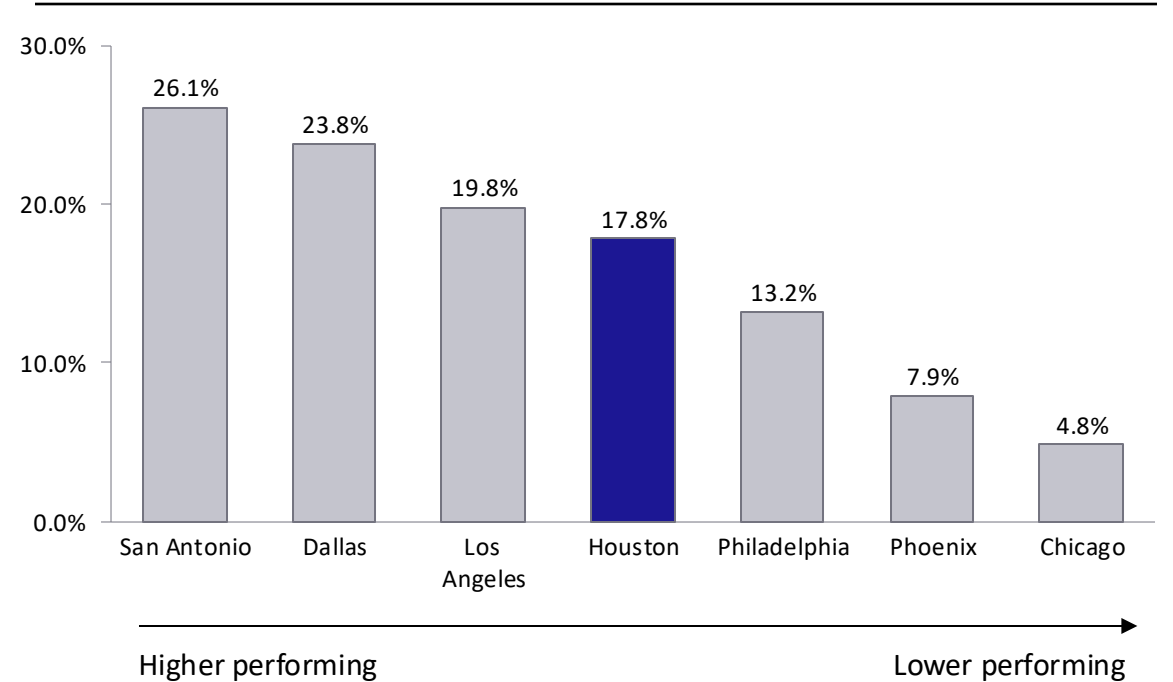
Measures the City's ability to react to an economic downturn based on the General Fund unassigned fund balance as a percent of total General Fund revenue

Strategic objective: Continue to reduce long-term liabilities

Observation: Houston's debt levels and pension funded ratio are in line with peer cities

Outstanding governmental activities debt per capita (2023)

- Los Angeles: $805
- Phoenix: $859
- Houston: $1,475
- Dallas: $2,116
- San Antonio: $2,289
- Philadelphia: $2,663
- Chicago: $4,395

Higher performing → Lower performing
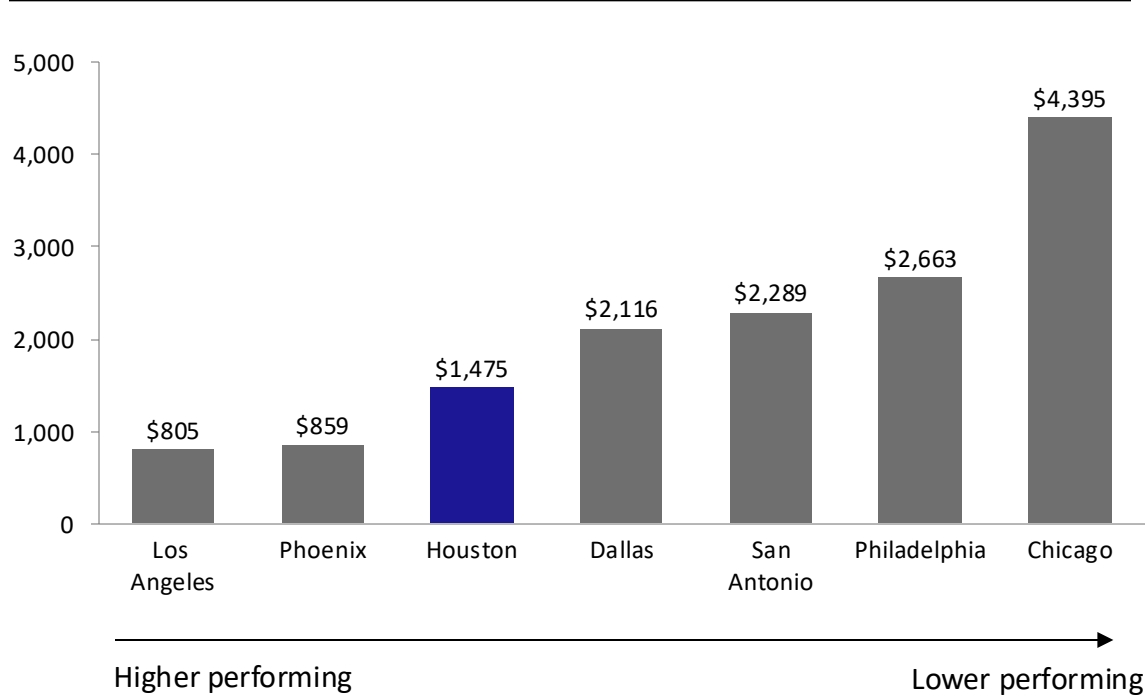
Measures the "governmental activities" outstanding debt per capita, as reported in the FY23 ACFRs

Note: *analysis is not reflective of the bond deal approved in FY24 to cover the back pay settlement with firefighters*

City employee pension liability funded ratio (2022)[1]

- Los Angeles: 73.3%
- Dallas: 73.3%
- Phoenix: 71.2%
- Houston: 65.8%
- Philadelphia: 57.6%
- Chicago: 22.8%

Higher performing → Lower performing
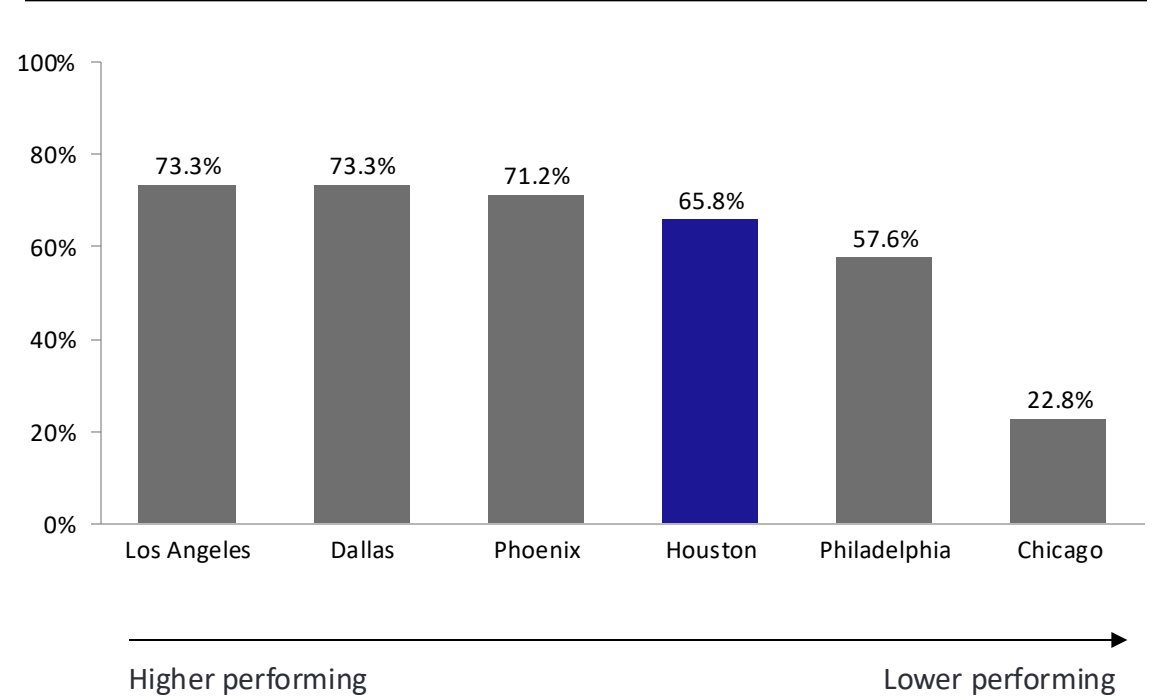
Measures the funding ratio for city employee pensions

Strategic objective: Effectively manage state and federal grant dollars and partnerships

Observation: Houston used a lot of its ARPA funds for revenue replacement, so the City may need to identify other sources to continue to fund City operations once these funds expire

Percent of total ARPA funds going to government services (2024)

Phoenix 15.4%, Dallas 18.7%, San Antonio 35.1%, Los Angeles 61.0%, Chicago 71.7%, Houston 80.6%, Philadelphia 100.0%

Higher performing → Lower performing
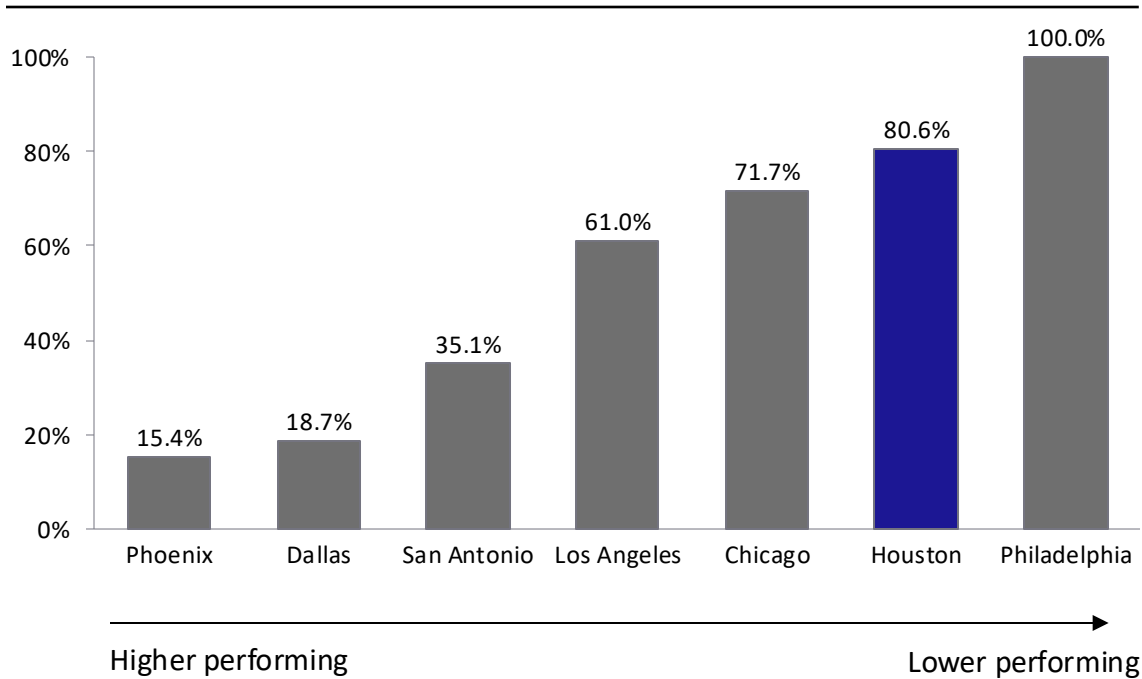
Measures the reliance on ARPA funds to operate the City government (percentage of ARPA allocation used for government operations)

Percentage of ARPA funds by use category

City	Houston	National average
Government operations	80.6%	41.0%
Public safety	10.4%	8.1%
Public health	6.7%	9.8%
Infrastructure	0.0%	13.1%
Housing	0.0%	11.1%
Economic and workforce development	0.0%	7.5%

Houston may need to identify incremental revenues or cost savings to help offset the ARPA dollars currently being used to fund a portion of the City's recurring expenses, as these funds will expire in FY25

Sources: National League of Cities; Internal analysis

Strategic objective: Maintain a strong credit rating

Observation: Houston's rating and outlook is in line with peer city governments, though its credit outlook has recently changed to negative

City government credit rating and outlook (2024)

City	Rating	Outlook	Rank
San Antonio	AAA	Stable	1
Phoenix	AA+	Positive	2
Los Angeles	AA	Stable	3
Houston	AA	Negative	4
Dallas	AA-	Stable	5
Philadelphia	A	Positive	6
Chicago	BBB+	Stable	7

Measures the government's ability to repay its financial obligations

Houston historical credit rating actions

Date	Action	Rating	Outlook
7/1/2024	Outlook revision	AA	Negative
1/18/2018	Outlook revision	AA	Stable
3/18/2016	Downgrade	AA	Negative
2/28/2014	Upgrade	AA+	Stable
12/18/2007	Upgrade	AA	Stable
11/15/2004	Outlook revision	AA-	Positive

▶ In July 2024, S&P Global Ratings changed its outlook on Houston's municipal bonds **from stable to negative** due to increased financial obligations from the firefighters' settlement

▶ The limited revenue-raising capacity from **restrictions on property tax increases** also factored into the outlook change

Sources: S&P Global Ratings; Internal analysis

Strategic objective: Promote the growth of minority and women owned businesses

Observation: Houston leads its peers in the number of minority- and women-owned businesses, as well as the number of new business applications per 1k residents

Percentage of businesses MWBE-owned (2021)

City	Percentage
Los Angeles	50.4%
Houston	46.9%
San Antonio	44.4%
Dallas	42.9%
Chicago	38.1%
Phoenix	33.8%
Philadelphia	32.5%

Higher performing → Lower performing
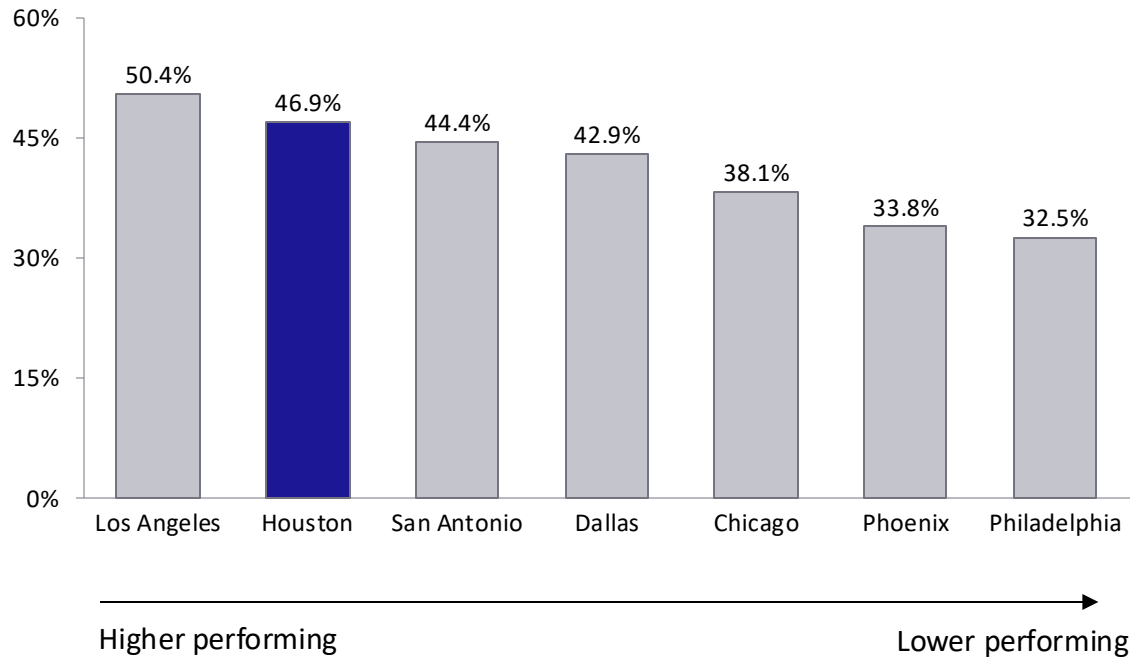
Measures the prominence of minority and women-owned businesses
(MWBE-owned businesses as a percentage of total businesses)

New business applications per 1k residents (2023)

City	Value
Houston	19.9
Dallas	19.3
Phoenix	19.1
Philadelphia	19.0
Los Angeles	17.9
Chicago	15.5
San Antonio	13.8

Higher performing → Lower performing
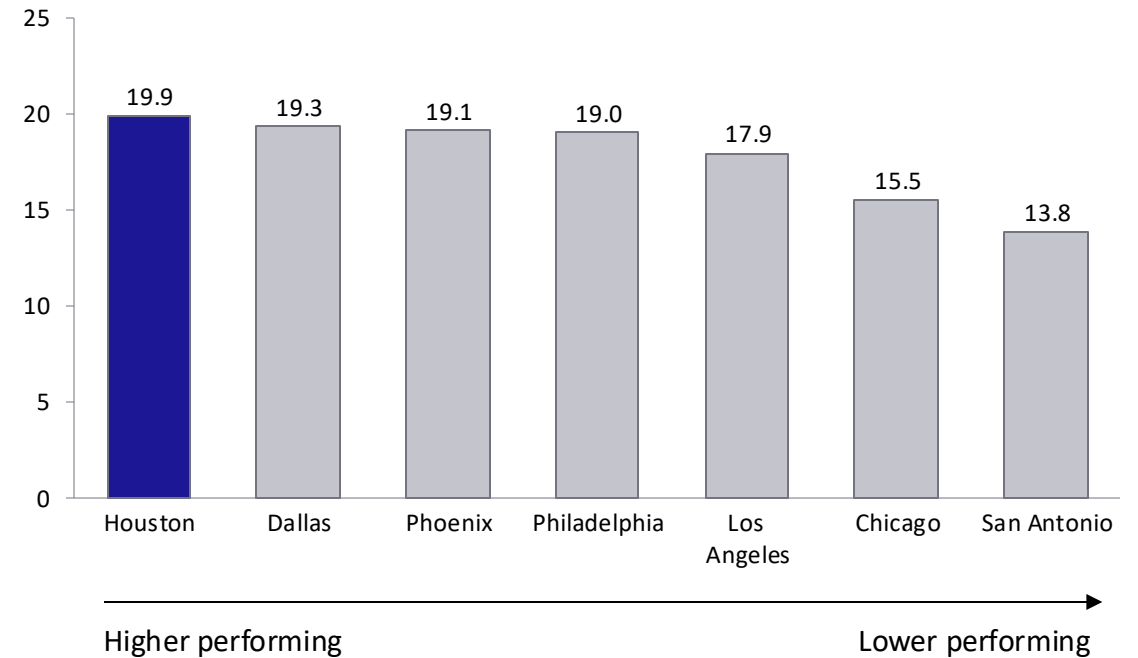
Measures the number of new businesses per 1k residents

Sources: US Census Bureau; Internal analysis

Strategic objective: Embrace innovation in the delivery of City services

Observation: Houston's city services rank highly compared to peer cities, as does its ease of doing business score

Quality of services score (2024)

Top ranked cities include Nampa, ID, Lexington, KY, Boise, ID, Nashua, NH, and Oklahoma City, OK

City	Score
Phoenix	33
Houston	85
San Antonio	94
Dallas	97
Chicago	137
Philadelphia	138
Los Angeles	139

Higher performing → Lower performing
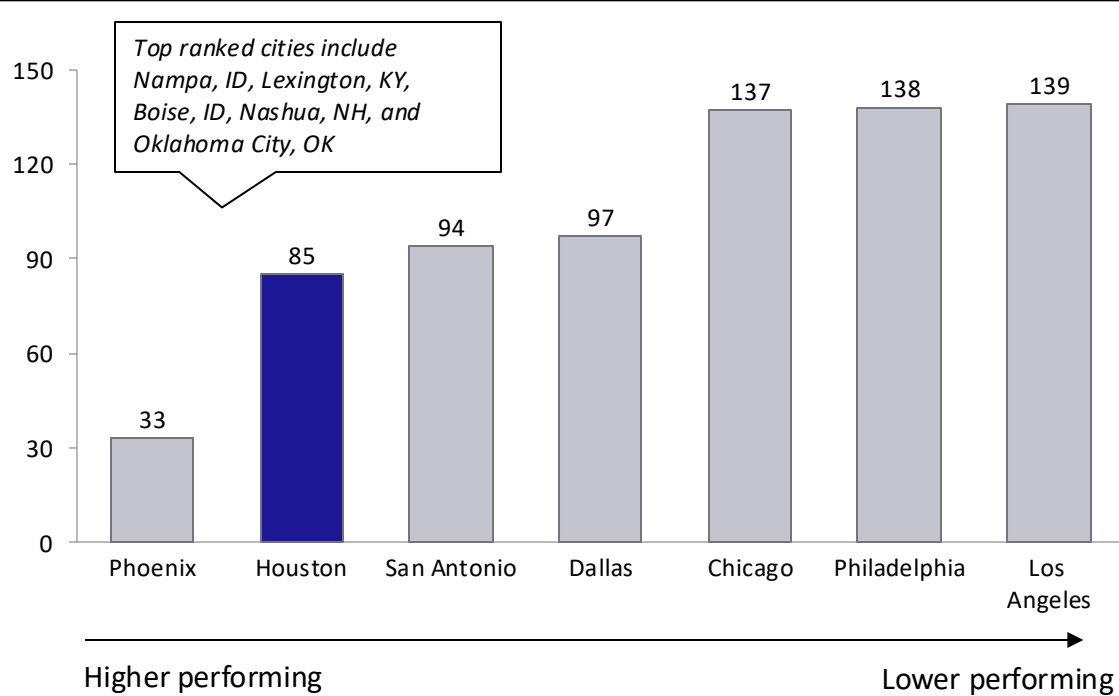
Measures the quality of City services based on the ranking of the 148 largest U.S. cities (#1 being the best)

Ease of doing business score (2022)

City	Score
Philadelphia	80.6
Dallas	78.5
Houston	78.4
Chicago	76.3
Phoenix	75.3
San Antonio	75.2
Los Angeles	56.5

Higher performing → Lower performing
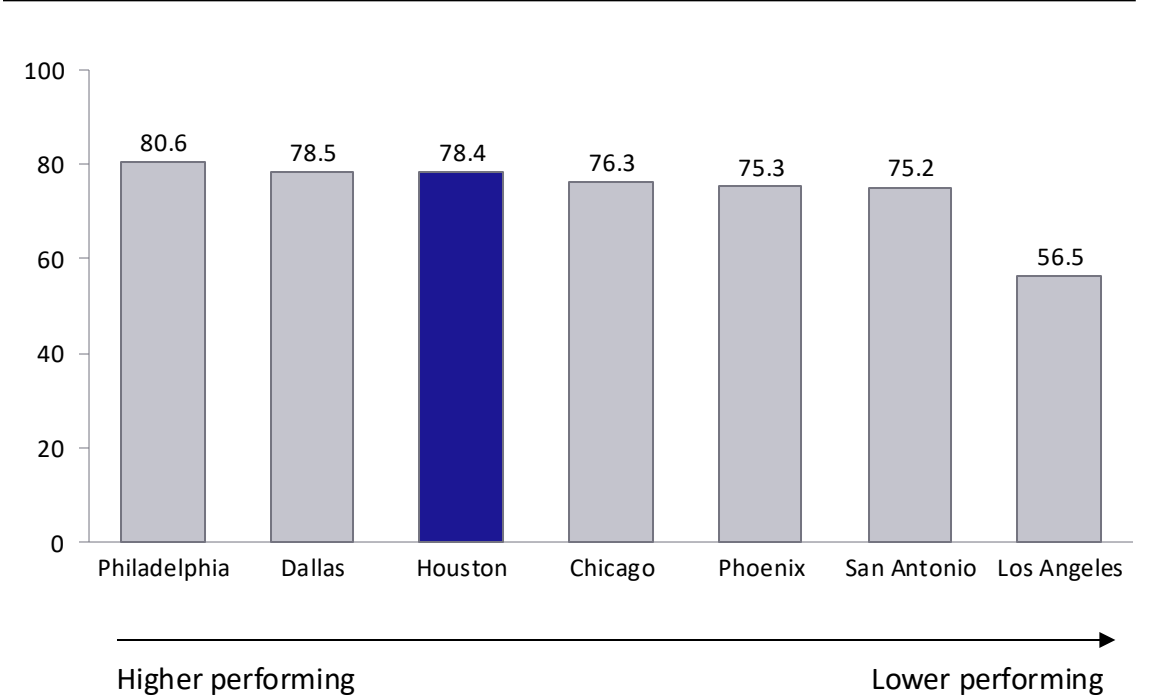
Measures the City's environment conduciveness for business (scoring out of 100, with 100 being the highest)

Sources: WalletHub; Arizona State University; City of Houston internal data; Peer city government websites; Internal analysis

Strategic objective: Embrace innovation in the delivery of City services

Observation: Houston has maintained the average number of days it takes to complete a plan review

Solid waste on-time performance

The City tracks missed trash pick-ups as part of the 311 dashboard. However, it appears that they do not track solid-waste on-time collection as a KPI.

The City could consider tracking this KPI, similarly to how it tracks on-time collection rates for curbside recycling

Higher performing   Lower performing
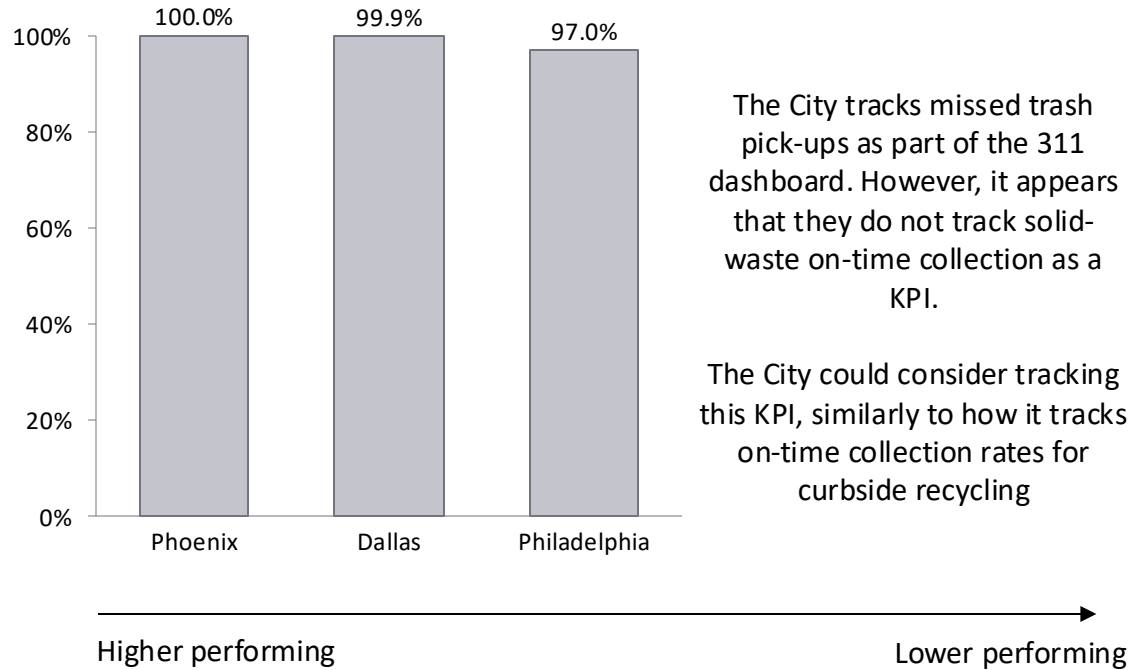
Measures the efficiency of the City's solid waste collection program based on the percentage of routes completed on-time

Houston average number of days to complete plan review

Residential **Commercial**
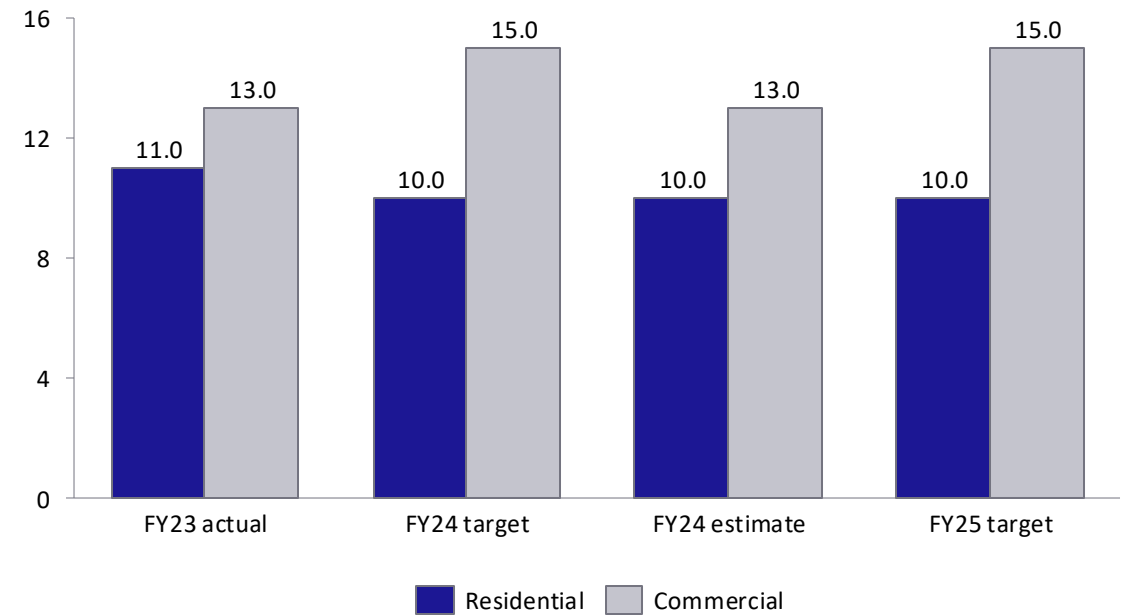
Note: benchmarking average number of days to complete plan review is challenging due to different cities measuring this KPI differently

Strategic objective: Embrace innovation in the delivery of City services

Observation: When benchmarking against the average, Houston is taking longer to hire and procure for services

Average days to hire[1] (FY23)
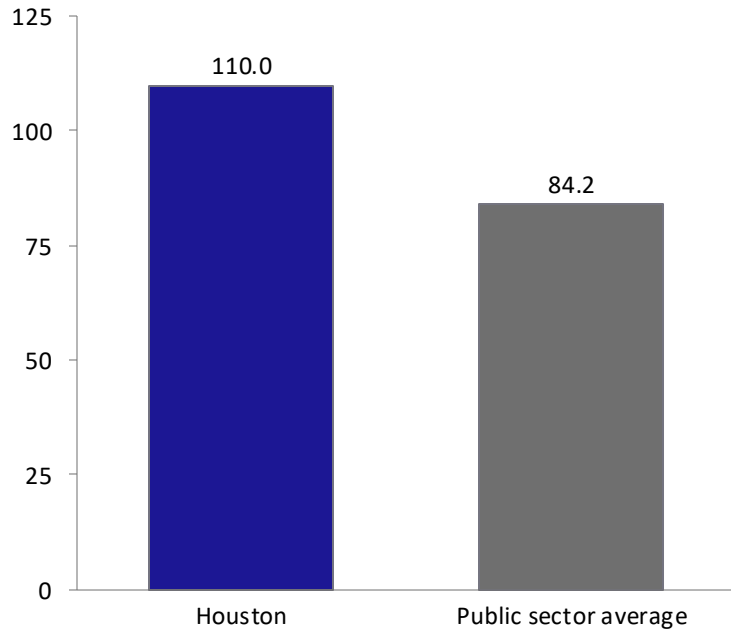
Measures the efficiency of hiring

Average days for procurement[2] (FY23)
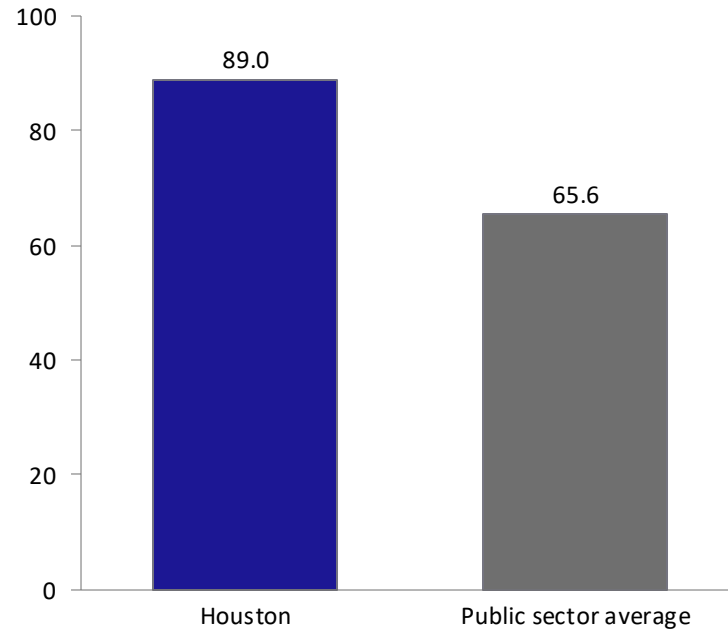
Measures the efficiency of procurement

Average days to pay invoices (FY23)

The data for Houston was not readily available, However, the City could further analyze its performance and compare against the public sector average
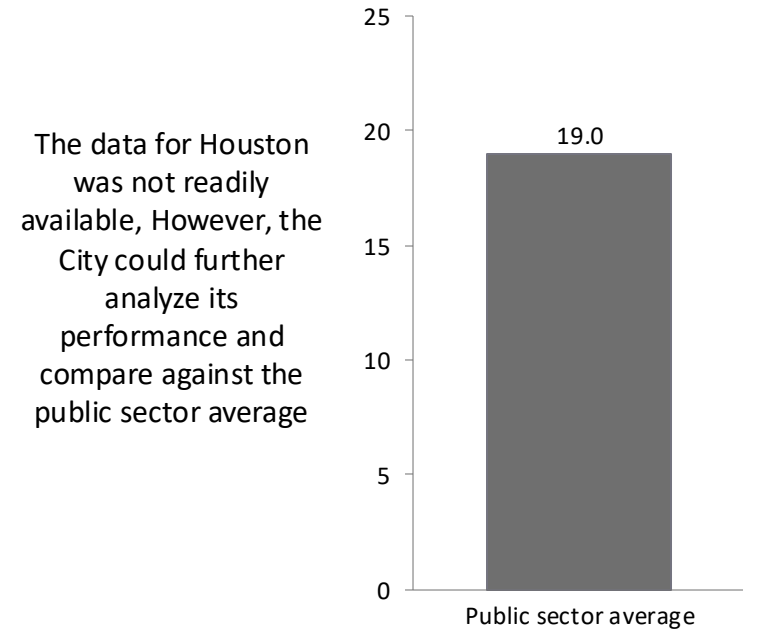
Measures the efficiency of invoice payment

1. Houston's internal KPI: Time to fill (days) - Average number of days from requisition posting to job offer for a fiscal year
2. Houston's internal KPI: Average Days to Complete Direct Award Procurements
Sources: APQC Benchmarking Tool; City of Houston internal data; Internal analysis

Overview of "Quality of life" priority

Quality of life

Work to create an environment where individuals, families, and businesses of Houston thrive, and visitors feel welcomed, while also promoting access to care, fostering strong community relationships, and speaking to the vibrancy of the City's cultural scenes

Strategic objectives

1. Protecting the laws and ordinances that encourage diversity and equity

2. Confirm quality affordable housing options

3. Provide vibrant and enjoyable activity, parks, and recreation centers

4. Promote healthy, safe, livable, and connected Neighborhoods

Source: City of Houston FY25 Budget

Summary of Houston's performance compared to peer cities

Public safety	Infrastructure	Government that works	**Quality of life**

Quality of life indicators by strategic objective

For indicators where Houston is performing below peers, a supplemental analysis was conducted to explain the trend and outlined relevant case studies, if applicable

Strategic objective	KPI	Scoring
Protecting the laws and ordinances that encourage diversity and equity	Racial equity gap in educational attainment	Below peers
	Racial equity gap in homeownership	Below peers
Confirm quality affordable housing options	Median home price to median household income ratio	In line with peers
	Percent of renter households cost-burdened by housing payments	In line with peers
	Affordable and available rental homes per 100 low-income renter households	In line with peers
	Trend in homelessness (2019-2022)	Above peers
Provide vibrant and enjoyable activity, parks, and recreation centers	City park rank	In line with peers
	Acreage of parkland per 1k residents	In line with peers
	Percent of residents that live within a ten-minute walk to a park	In line with peers
Promote healthy, safe, livable, and connected neighborhoods	Tree canopy average	In line with peers
	Traffic fatalities per 100k residents	In line with peers

Note: "Above peers" indicates Houston is ranked 1 or 2 in that indicator compared to its peers; "In line with peers" indicates Houston is ranked 3,4 or 5; "Below peers" indicates Houston is ranked 6 or 7

Strategic objective: Protecting the laws and ordinances that encourage diversity and equity

Observation: Houston's racial equity gap in educational attainment and homeownership is larger than peers

Racial equity gap in educational attainment (2022)
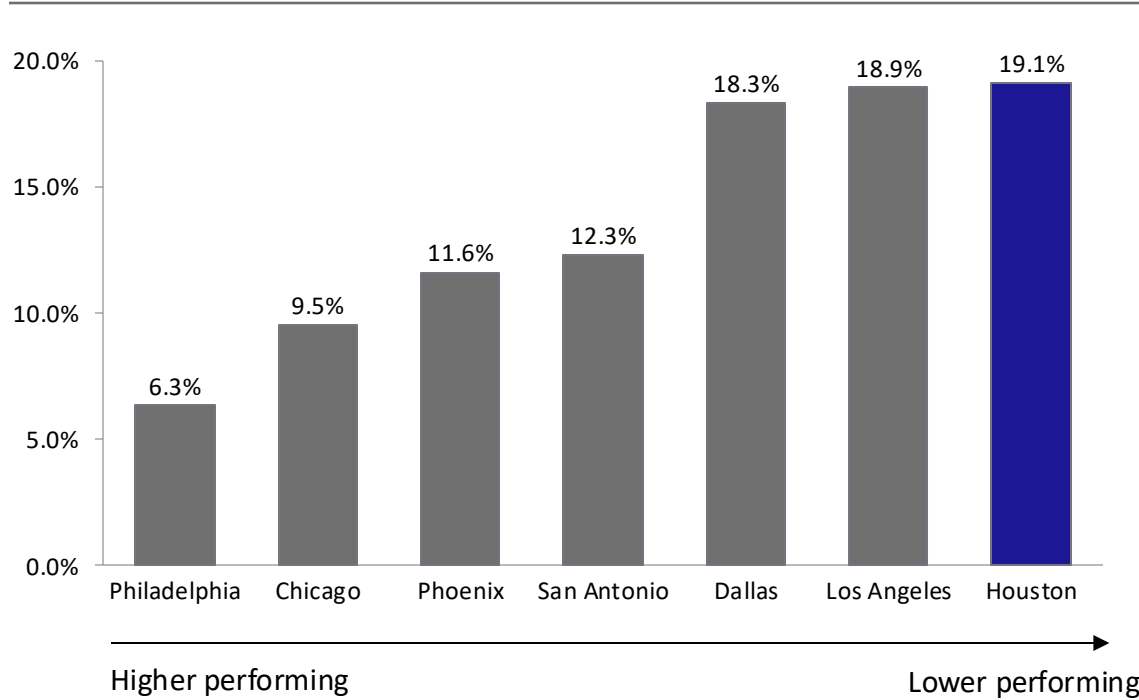
Measures racial disparity for educational attainment as the gap between total graduation rates and graduation rates for white, non-Hispanic residents

Racial equity gap in homeownership (2023)

Illustrated in more detail in subsequent slide(s), including relevant case study
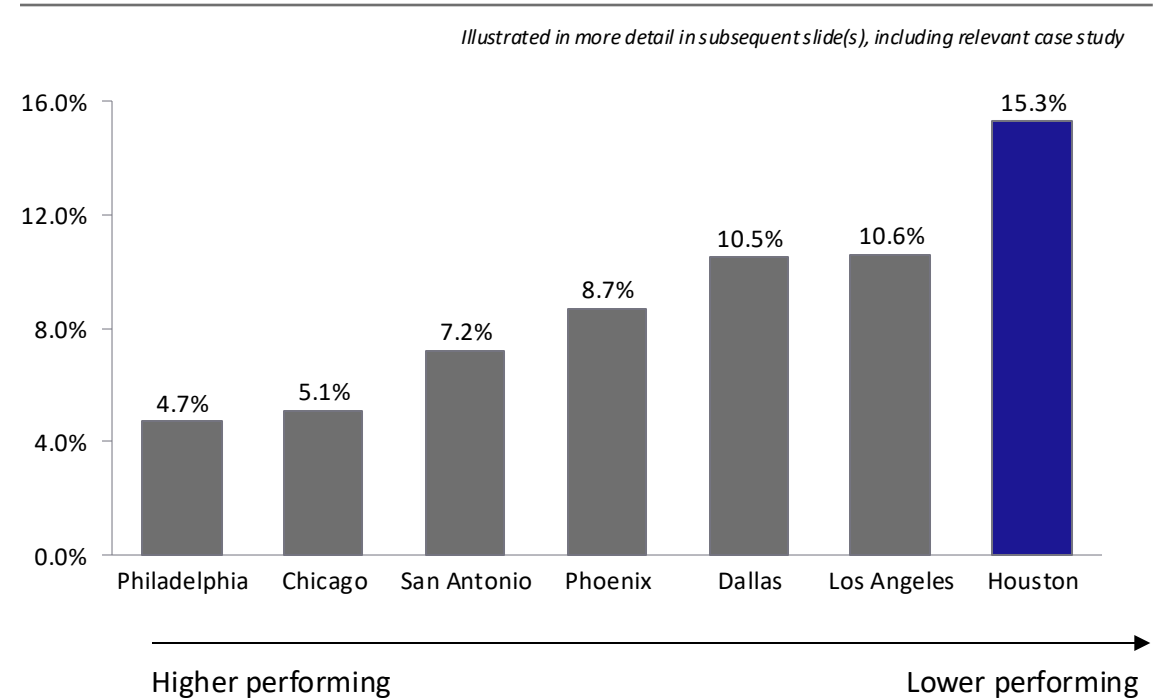
Measures racial disparity for homeownership as the gap between total homeownership rates and homeownership rates for white, non-Hispanic residents

Note: improving the racial equity gap will require the City to work closely with Houston Independent School District and non-for-profit organizations in the area

Sources: US Census Bureau; Housing Finance; Internal analysis

Equity gap in homeownership by race and heritage

Houston homeownership rate in 2023 *(by race or heritage)*

-15.3%

	Black	Two or more races	Hispanic (or latino)	Asian	White, non-hispanic	Total
	28.7%	37.8%	39.4%	50.2%	57.7%	42.4%
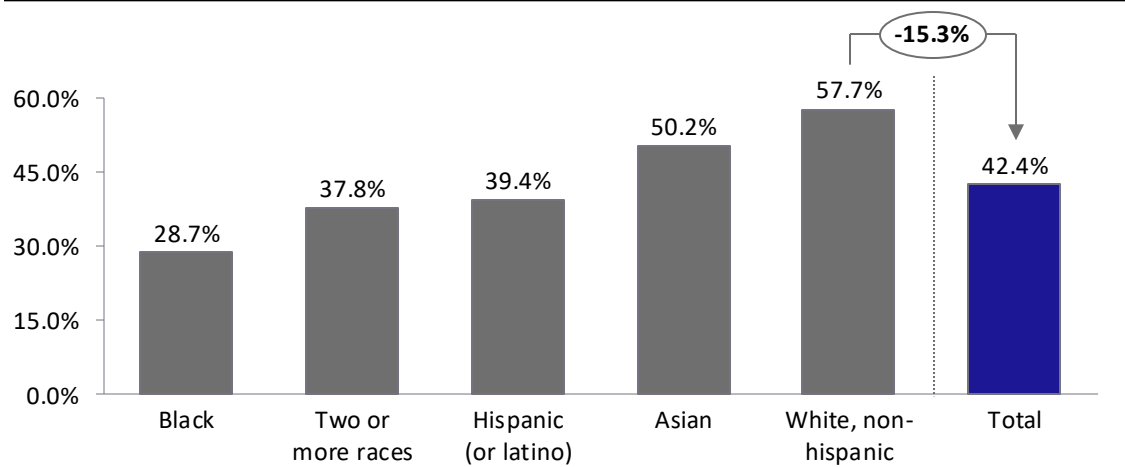
Houston's racial equity gap in homeownership (2018-2023)

2018	2019	2020	2021	2022	2023
14.0%	15.7%	13.8%	15.6%	14.9%	15.3%
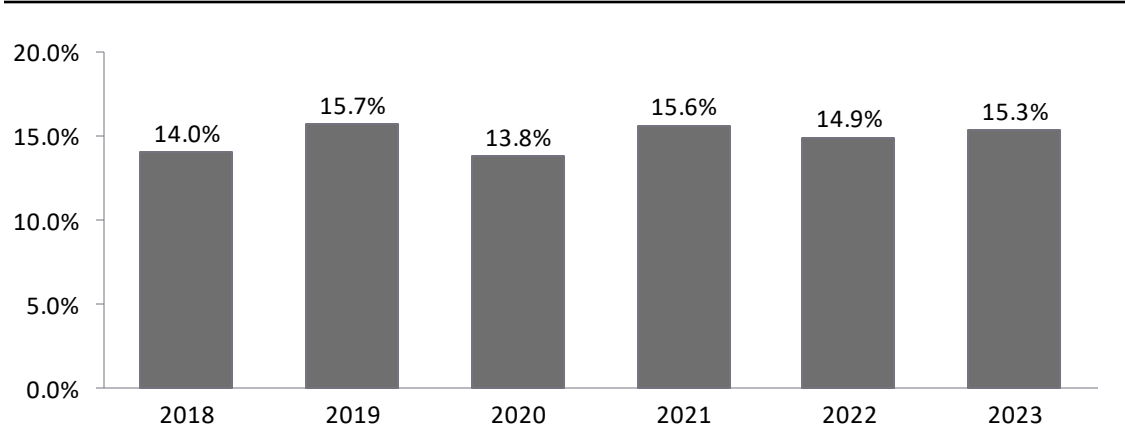
Current initiatives

- The City of Houston, via the Housing and Community Development Department (HCD), administers multiple programs to help residents with homeownership. These programs include:

Program	Description
Affordable home development program	• HCS partners with developers to build new and affordable homes throughout the City • Affortable homes are reserved for program-qualified homebuyers and sold at a discount
Homebuyer Assistance Program	• The city offers up to $50,000 to income-qualified residents to assist first-time homebuyers
New Home Development Program	• HCD provides new and affordable single-family homes for Low-to-Moderate Income Homebuyers

The City could conduct additional analyses and research to identify key challenges to equitable access to housing, and refine existing programs accordingly

Sources: US Census Bureau; City of Houston website; Internal analysis

Case study: Madison, Wisconsin utilized the "turn the curve" to identify key factors for low black homeownership and build out policy solutions

Madison's black ownership turn the curve process

Due to having a lower black homeownership rate than state peers, Madison utilized the "turn the curve" process to build a black homeownership empowerment plan

- The city identified 15 factors influencing the current level of black homeownership
- The city used these findings to identify five areas of policy and sub-policies, including:
  - Improve economic opportunity and career pathways for Black, Indigenous, and People of Color (BIPOC)
  - Grow the supply of affordable housing
  - Help low- and moderate-income residents maintain homeownership
  - Combat bias and discrimination in the real estate system
  - Increase financial education and access to credit for BIPOC
- An implementation plan was then created to align resources and community stakeholders

1 Madison was able to **build out a strategy** using data-backed policies to address the underlying issue of low black homeownership

2 Madison is now **teaming up with community stakeholders** to increase resources and policy levers to drive up black homeownership

3 Black homeownership increased from 15% in 2020 to 23% in 2023

Considerations for Houston

- Houston could consider utilizing a similar "turn the curve" process to build out a racial equity homeownership strategy

- As part of the strategy, the City may consider conducting a housing study that identifies the key challenges to the City's housing stock and affordability, while contextualizing the existing racial equity gaps

- These efforts could be aligned to the City's other initiatives in housing, such as expanding the downpayment assistance program

Strategic objective: Confirm quality affordable housing options

Observation: Home prices relative to income and percent of renter households' cost-burdened by housing payments are in line with peers

Median home price to median household income ratio (2024)

Philadelphia 3.7
Chicago 4.0
San Antonio 4.2
Houston 4.3
Dallas 4.5
Phoenix 5.3
Los Angeles 12.1

59%

Higher performing → Lower performing
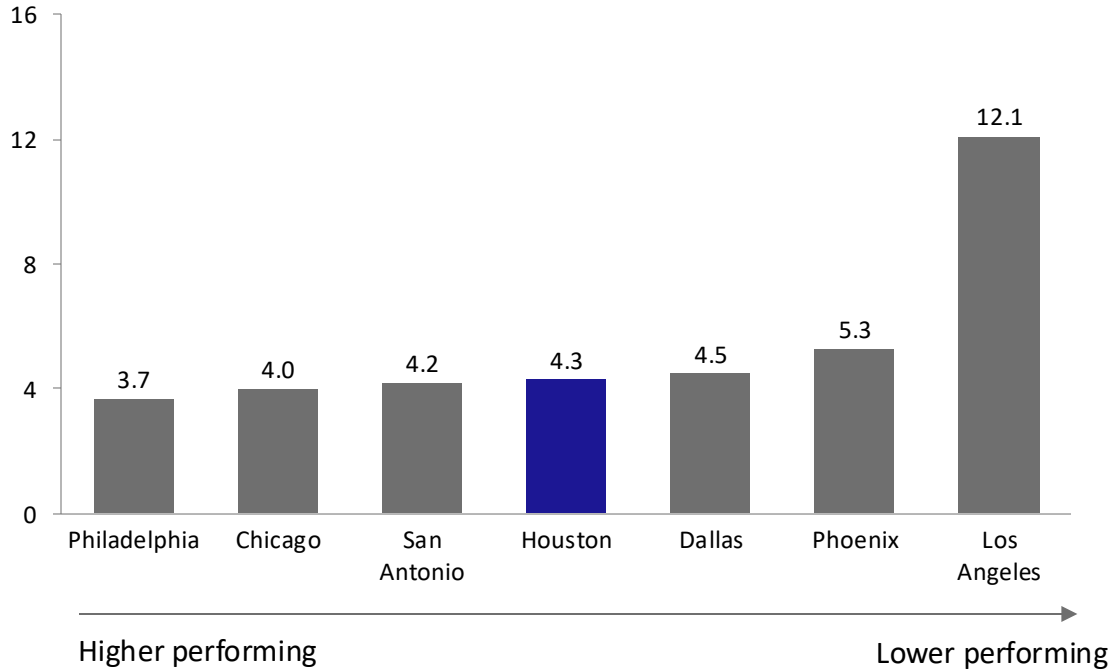
Measures the general ability to purchase a home as the median home price divided by median household income

Percent of renter households' cost-burdened by housing payments (2023)

Chicago 46%
Philadelphia 52%
Dallas 54%
Houston 54%
San Antonio 54%
Phoenix 55%
Los Angeles 59%

Higher performing → Lower performing
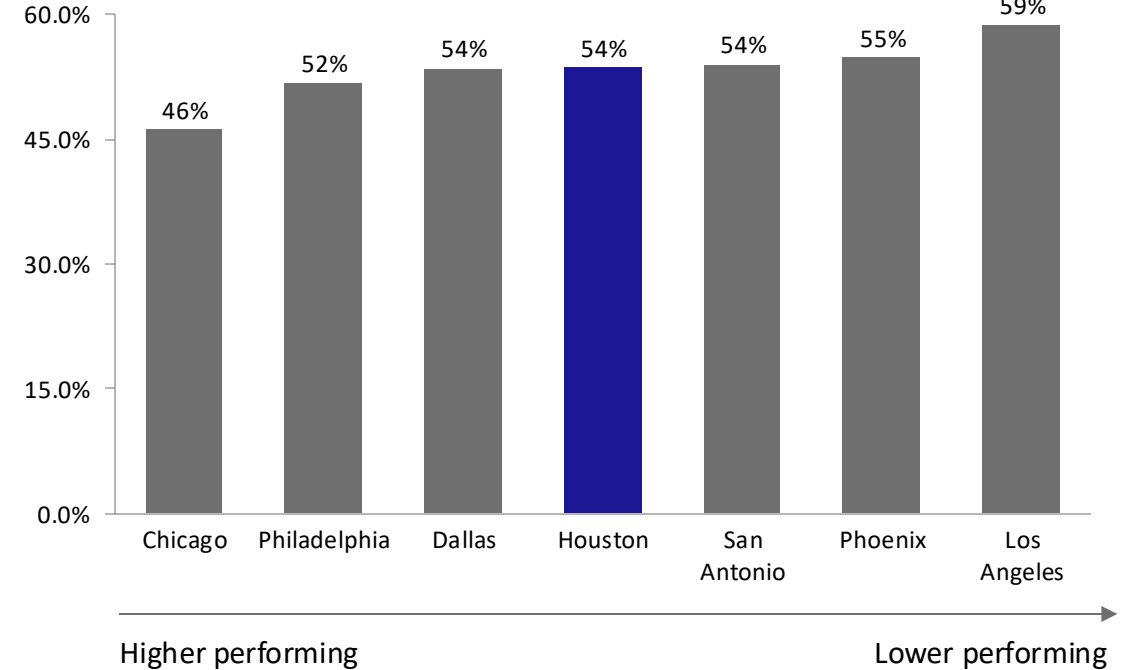
Measures the percent of renters paying more than 30% of their income on housing

Sources: Zillow; US Census Bureau; Internal analysis

Strategic objective: Confirm quality affordable housing options

> **Observation:** Houston's available affordable housing for low-income residents is in line with peers, and the City has seen a significant decline in homelessness in recent years

Affordable and available rental homes per 100 low-income renter households (2024)

Philadelphia	Chicago	Dallas	Houston	San Antonio	Phoenix	Los Angeles
61	58	40	40	37	34	27

Higher performing → Lower performing
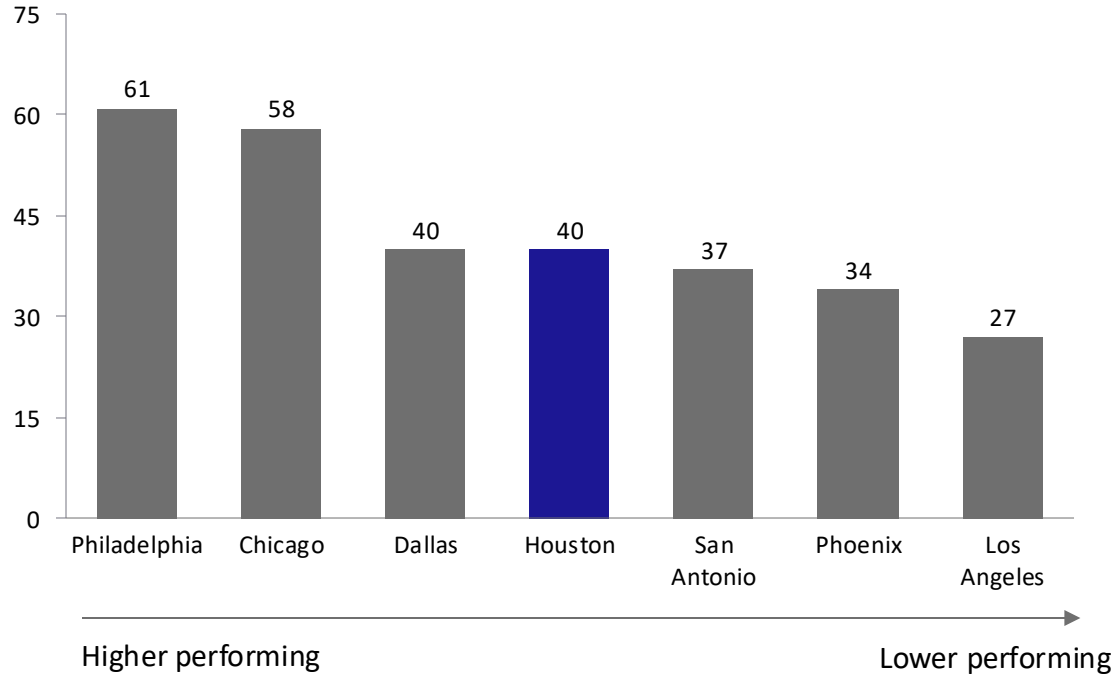
Measures housing affordability and accessibility for low-income residents

Trend in homelessness (2019 vs. 2022)

Philadelphia	Houston	Dallas	San Antonio	Chicago	Los Angeles	Phoenix
(17.6%)	(17.0%)	(6.5%)	9.9%	16.0%	26.8%	45.8%

Higher performing → Lower performing
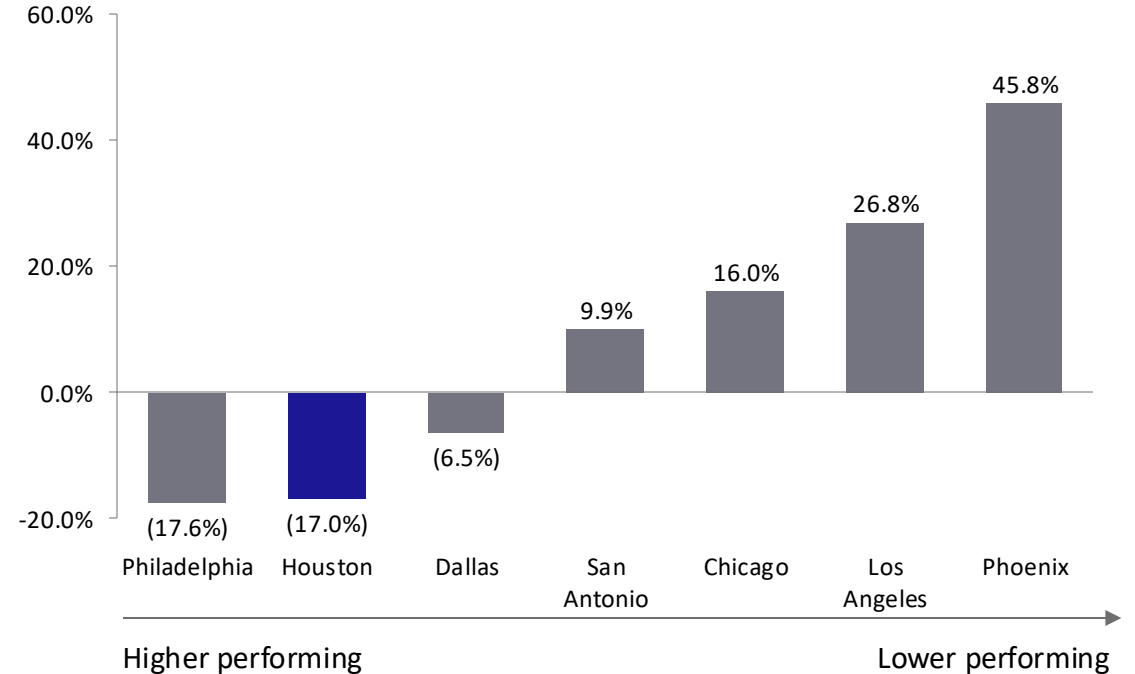
Measures the change in homeless population from 2019 to 2022

Sources: National Low-Income Housing Coalition; HUD Exchange; Internal analysis

Strategic objective: Provide vibrant and enjoyable activity, parks, and recreation centers

Observation: Houston's greenspace access and equity is in line with peers, with a contributing factor being its level of parkland per resident

City park rank (2024)

Top ranked cities include Washington DC, Minneapolis, MN, St. Paul, MN, Irvine, CA, and Arlington, VA

City	Rank
Chicago	10
Philadelphia	32
Dallas	38
San Antonio	53
Houston	68
Phoenix	85
Los Angeles	88

Higher performing → Lower performing
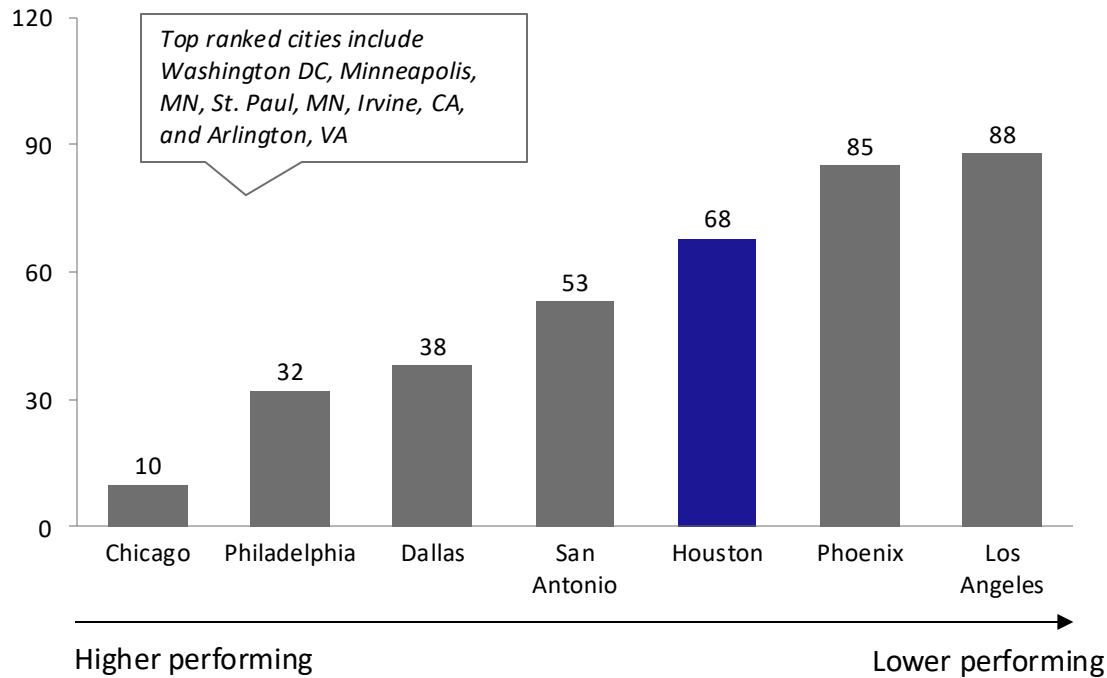
Measures the overall quality of parks and greenspace as a ranking of the US largest 100 cities (#1 being the highest)

Acreage of parkland per 1k residents (2024)

City	Acreage
Phoenix	31.7
San Antonio	22.7
Houston	19.6
Dallas	16.3
Los Angeles	10.2
Philadelphia	6.7
Chicago	5.1

Percent of residents that live within a ten-minute walk to a park (2024)

City	Percent
Chicago	98%
Philadelphia	95%
Dallas	74%
Los Angeles	63%
Houston	61%
San Antonio	52%
Phoenix	49%

Higher performing → Lower performing
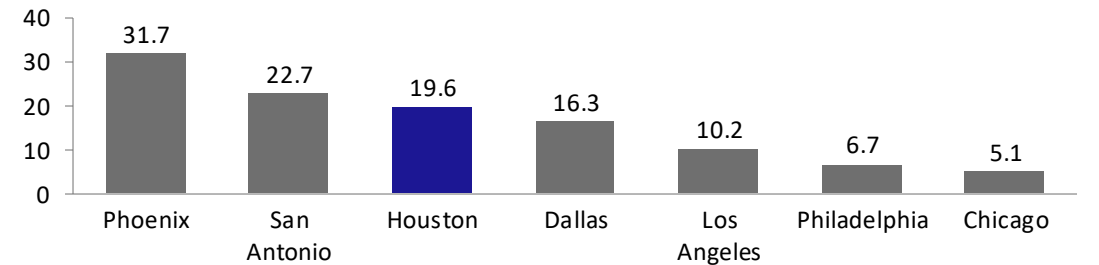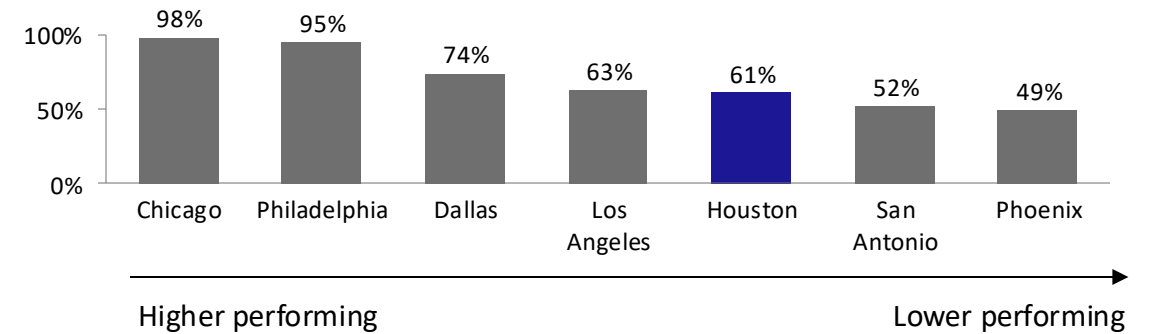
Measures the amount of parkland relative to city size and population, as well as accessibility for residents

Sources: Trust for Public Land; Internal analysis

Strategic objective: Promote healthy, safe, livable, and connected neighborhoods

Observation: Houston's tree canopy coverage is in line with peers, but the safety of its roads scores lower than peer average

Tree canopy average (2024)

Dallas	San Antonio	Houston	Chicago	Philadelphia	Los Angeles	Phoenix
28.6%	25.5%	22.0%	20.3%	16.7%	14.9%	11.2%

Higher performing → Lower performing
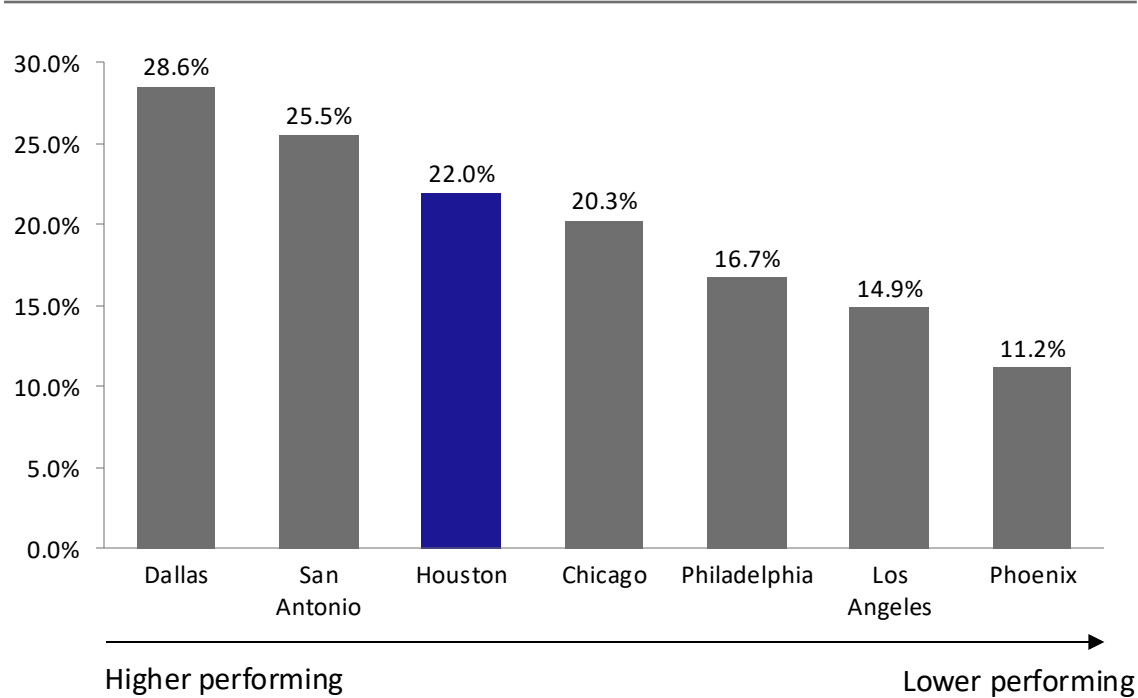
Measures the percentage of the city covered by tree canopy

Traffic fatalities per 100k residents (2022)

Chicago	Philadelphia	Los Angeles	San Antonio	Houston	Dallas	Phoenix
7.2	9.1	9.3	13.8	14.0	17.5	18.9

Higher performing → Lower performing
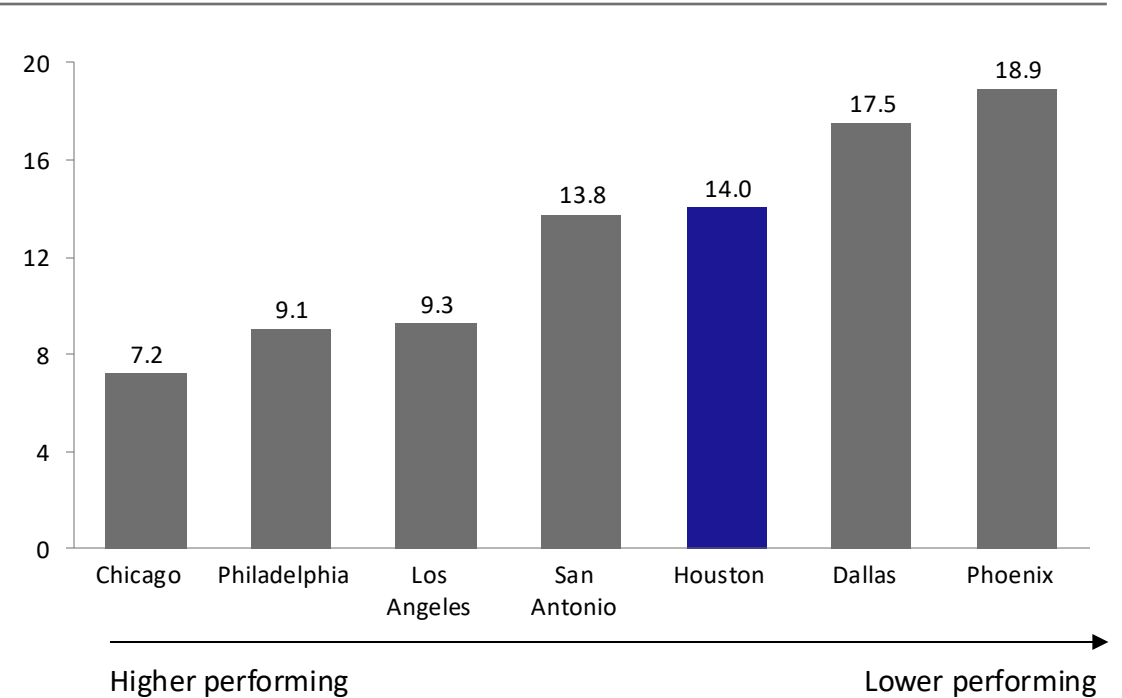
Measures fatal road accidents as the number of total fatalities divided by 100k residents

Sources: Tree Equity Score; National Highway Transportation Safety Administration; Internal analysis

Next steps: further analyze areas where the city is performing below peers

Use "turn the curve" to:

1 **Further assess areas of underperformance.** Perform additional analysis for the indicators where the City is performing below peers to identify the root cause

2 **Identify the right partners to address the root causes.** Identify which City departments and/or external partners may have a role in addressing these root causes

3 **Identify options to address the root causes.** Assess how existing programs or initiatives can be optimized to help achieve the desired outcome. Additionally, the City may identify the need for additional programs, policies, or initiatives to better address the root cause of the issue

Organizational Analysis

Table of contents

1. Approach and methodology

Assist the City in delivering actionable insights to enhance organizational efficiency

City asks

- Conduct a current state assessment of the City of Houston and gain a deep understanding of its structure and operations

- Identify duplication of effort across the enterprise and opportunities for improvement

- Provide recommendations related to spans and layers across departments and alignment of functions

Key steps

1

Assessed Key Departments

Conducted a rapid scan of various departments evaluating spans and layers, alignment of functions, overlap of effort, and alignment of employees.

2

Conducted Interviews and Deploy Surveys

Selected key stakeholders to participate in interviews and surveys for additional information of the current state and uncover challenges and opportunities.

3

Gathered peer-city benchmarking

Leveraged a combination of publicly available information from other city governments in addition to benchmarking database to gather leading practices.

4

Develop Roadmap

Examined data provided by the City including interviews, surveys, and leading practices to create recommendations and a practical action plan for the City's next steps.

Additional considerations for accomplishing the City's asks

To meet the organizational assessment objective of conducting a rapid analysis based on select data sources of selected departments* layers, functions, and span of controls to establish a baseline understanding and identify opportunities for efficiency, leading practice questions will help guide the efforts.

Questions to consider when conducting an organizational assessment:

▶ How are the spans and layers of the departments structured, and how do they impact organizational efficiency and effectiveness?

▶ How well are the functions within the departments aligned?

▶ Where is there overlap or duplication of effort within the department or across the enterprise?

▶ Are there shadow positions across HR, Legal, IT, and Finance, and what impact do they have?

▶ How are departments measured against their peers of similar employee size, budget, and population?

Detailed data sources to conduct assessment

- **Current structure analysis:** Departments' total headcount, fully loaded people cost ($), average span of control, reporting layers, and people manager headcount representation.

- **Vacant position and contractor analysis:** Snapshot of vacant positions and contractors (staff augmentation), per human resource data.

- **Peer city benchmarking:** Public data gathered from five peer cities selected by city leadership to compare current state structure metrics.

- **Leadership interviews and survey:** Qualitative data gathered during interviews with directors of the 12 selected departments and surveys completed by the 9 non-selected departments.

- **Activity Analysis:** Survey distributed to the 12 selected departments to capture where employees allocate their time.

City of Houston leadership selected departments based on recommendation of headcount, budget, and strategic impact: Houston Police, Houston Fire, Houston Public Works, Houston Health, Parks & Recreation, Solid Waste Management, Human Resources, Legal, Houston Information, Technology Services, General Services, Finance, Planning & Development

2. Spans & layers analysis

Common organizational shapes
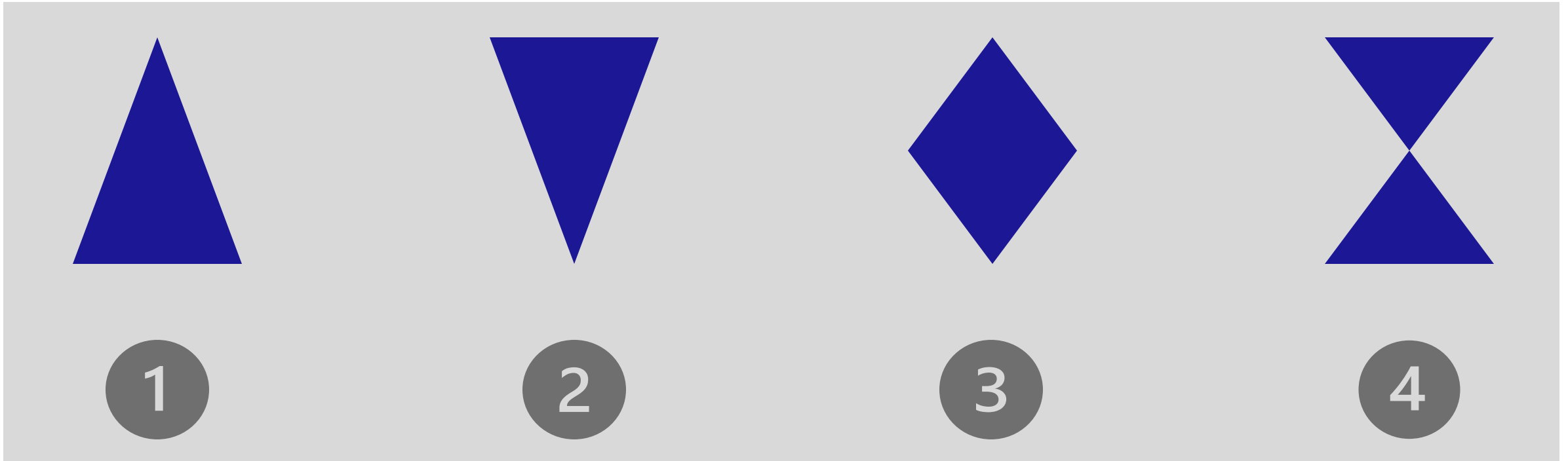
Pyramid is traditional hierarchy with fewer leaders and more and more direct reports. Common in shared services or where efficiency is key

Reverse Triangle is where there are many leaders/ experts but fewer support team members. This is common in legal functions with several attorney but fewer paralegals or clerks

Diamond suggests there are few leaders with increasing direct reports, but once middle management hits, relatively few directs. This is common in project management but can also indicate where 1-2 directs are being added to 'promote' managers with little business need

Hourglass is often found in research and development functions with several leaders with smaller teams and then a second wave of managers who oversee 'labs'

Overview of spans and layers

Conducting a thorough analysis of spans and layers is crucial for any organization as it provides valuable insights into the organizational structure, helping to identify inefficiencies and streamline decision-making processes. By examining the distribution of responsibilities and the hierarchical layers within the organization, companies can optimize resource allocation, improve communication flow, and foster a more agile and responsive workforce

For both spans and layers, ***the higher the number, the more complex*** the organization

Layers:
A measure of the **depth** of the organization, referring to the number of organizational levels from the City Executive downward, **regardless of title or supervisory responsibilities**
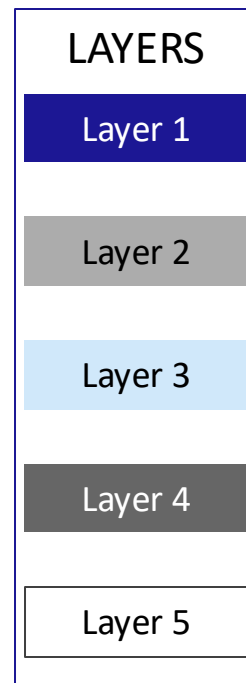
Spans:
A measure of the **width** of an organization, referring to the number of people reporting directly to one individual

LAYERS

Layer 1

Layer 2

Layer 3

Layer 4

Layer 5

Sample Organization (Illustrative)

Mayor

Dept Director | Dept Director | Dept Director

Span of Control (SOC)

Deputy Director | Deputy Director | Deputy Director | Deputy Director

EA | Sr Manager | Sr Manager | Sr Manager | Sr Manager | Sr Manager

Admin Assistant | Program Manager | Manager | Specialist
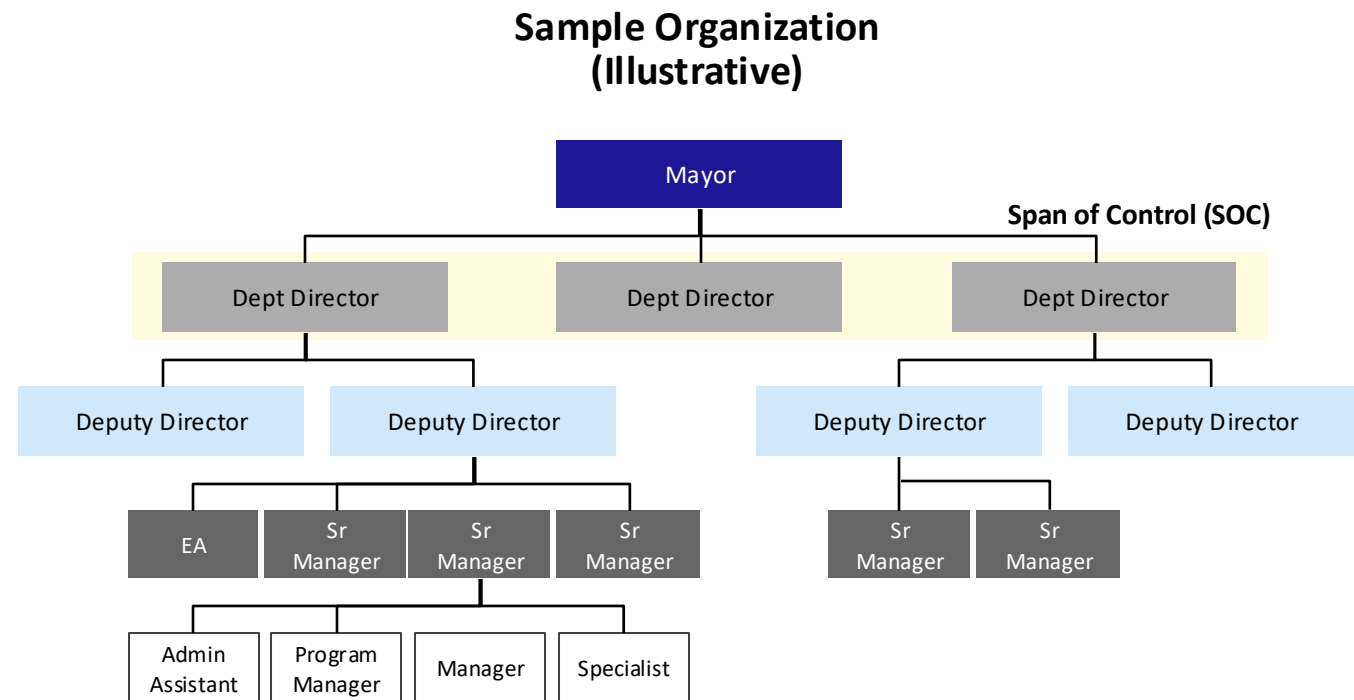
Summary of leading practices to create an optimal hierarchy

Leading Practice		Rationale
1 An employee should sit no more than 6-7 layers away from the Chief Executive	➤	If an employee is more than 7 layers away from the Chief Executive, there is too much distance between the strategic objectives set at the executive level and the bottom-line delivery • Middle management is tasked with continuously translating the organization goals and objectives, creating inefficiencies between the strategy and the front-line delivery to customers
2 The recommended span of control averages between 6-8*	➤	This enables the strategic direction to be set at the top, while empowering the levels below with decision rights to reduce the inefficiency of constant translation by middle management • Minimizing unnecessary management layers will elevate the responsibilities of the front-line workers to make decisions, within constraints set by the business
3 People managers should supervise at a minimum 3 direct reports	➤	A manager with less than 3 direct reports adds between 5 and 7 hours of collaboration time per week** • These reporting structures do not enable the people manager to build the competencies needed to run a team • They often create silos within the group and typically result in divided work rather than delegating work

*The span of control will differ based on the level of complexity, but managers should never have fewer than 3 direct reports
** Source: Internal analysis and Microsoft Workplace Analytics findings

Leading practice spans of control by type of role

The guidelines presented are derived from a comprehensive dataset within a specialized modernization toolbox, which has been pivotal in conducting a range of organizational assessments and provides a substantial foundation for benchmarking. These guidelines aim to:

- Offer directional insights rather than rigid directives.
- Incorporate leading practices, fine-tuned through an in-depth knowledge of various operational landscapes.

Each organization delivers distinct services and may have different priorities. The advice provided is the culmination of experience gained from numerous client engagements, which serve as comparative benchmarks to enhance our analysis and spotlight areas for improvement.

	Type of Managerial Position	Span (# of Direct Reports)	Job Example
L2	Executive Management	**3-8**	**Directors**
	Operational services	3-8	
	Enabling services	4-8	
L3	Senior Management	**3-8**	**Senior Managers, Chiefs**
	Operational services	3-8	
	Enabling services	4-8	
L4	Middle/Upper Management	**6-9**	**Managers**
	Technical Leaders	**Narrower** end of range for span of control	
	People Leaders	**Broader** end of range for span of control	

Leading practice* encourages a narrower span for areas where directors and managers have low job similarity between teams.

Leading practice spans of control by type of role

L5

Type of Managerial Position	Span (# of Direct Reports)	Job Examples
Front Line Leaders		**Leader, Team Leads, Superintendent**
General Positions	**6-10**	Business Strategist; Analyst; Coordinator; Consultant
Technical / Professional Positions	**8-12**	Engineer; Accountant; Lawyer (people with certifications)
Clerical / Administrative Positions	**10-15**	Business Support Coordinator; Contract Administrator; Records and Information Management Clerk
Field Positions	**12-25**	Greenskeeper; Laborer / Driver; Transit Operator; Maintenance

The guidelines for L5 spans of control are related to the type of work being performed by subordinates, as well as the complexity and similarity of work.

Leading practice encourages a broader span for areas where there is a low dynamic of change, low job complexity and variety, and low amount of coordination required between employees to complete tasks.

How varying spans of control can impact an organization

	Too Wide	Just Right	Too Narrow
Connection	Upper management is not connected to issues on front lines. Increased stress at upper manager level due to excessive workload	Upper management has a pulse for what is happening on the ground. Middle managers manage and focus on projects	Upper management focused on tactical aspects of the business. Not enough focus on long term priorities
Commitment	Reduced opportunities for one-on-one performance feedback	Workers aligned with executive priorities	Not enough focus spent on long term priorities
Creativity	Large number of improvement projects at middle management layers that may be of low value add and not implemented	Highly impactful improvement projects which are implemented	Middle managers spend majority of time micromanaging or significant amount of time working as Individual Contributors
Coordination	Greater need of assistants or chiefs of staff	Controlled costs, no need for additional 'coordinating' roles	Process inefficiencies, high over head costs

Source: Internal analysis and Microsoft Workplace Analytics findings

Spans and layers analysis overview

The Spans and Layers Analysis comprises the overall employee composition of the City of Houston organization with a deeper analysis of the 12 selected departments (in blue).

Departments	N° of Positions	% of the total positions	Fully Loaded Cost $*
Houston Police	6,771	30.9%	929M
Houston Fire	3,880	17.7%	480M
Houston Public Works	3,843	17.5%	324M
Houston Health	1,199	5.5%	103M
Parks & Recreation	916	4.2%	50M
Solid Waste Management	447	2.0%	32M
Human Resources	357	1.6%	27M
Legal	190	0.9%	27M
Houston Information Technology Services	211	1.0%	26M
General Services	251	1.1%	21M
Finance	177	0.8%	20M
Planning & Development	82	0.4%	8.3M
Houston Airport System	1322	6%	113M
Houston Public Library	489	2%	32M
Administration & Regulatory Affairs	359	2%	29M
Fleet Management	369	2%	27M
Municipal Courts	270	1%	24M
Housing & Community Development	205	1%	21M
Houston Emergency Center	216	1%	17M
Mayors Office	83	0.4%	10M
Department of Neighborhoods	102	0.5%	9M
City Council	87	0.4%	7M
Controllers	53	0.2%	6M
Office of Business Opportunity	36	0.2%	3M
City Secretary's Office	8	0.04%	673K
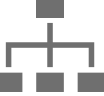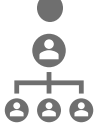
Here are some key points worth note for this analysis:

- Selected departments were selected in alignment with City leadership

- The analysis looked at each department to identify preliminary opportunities for optimization, considering spans of control (SOC), layers, organizational design shape, job families and people manager positions

- 60% of the organization cost originates in Police and Fire department positions' (49% of the City total headcount)

- Support functions (IT, HR, Legal and Finance) represent 4% of the headcount and cost of the City

- This analysis does not include vacant positions or seasonal interns

Source: HRIS Active List as of 8.14.24

*Fully Loaded Cost = Annualized salary + Medical employer cost + Life employer cost + Other pay + Longevity + Pension + FICA

Spans & layers key observations

Themes	Observations
Vacant Positions	• The City of Houston is operating **with over 4K vacant positions*, predominantly in the Police, Public Works, and Fire departments**, leading to high costs and service delivery issues, with 2,000 positions remaining unfilled for over 12 months, and the majority of these vacancies funded by General Funds.
Talent and organizational structures	• **Misaligned talent and outdated organizational structures** hinder effective City operations, with organically evolved frameworks failing to meet dynamic needs, inefficient service groupings in departments like Public Works, ambiguous reporting lines creating unclear roles and shadow positions, understaffing in strategic roles, and a top-heavy structure with too many managerial positions and too few operational roles.
Orphan positions	• **Orphan positions and inaccurate reporting lines** in the Fire (3.2K positions), Parks and Recreation (23 positions), and Police (10 positions) departments, create an ambiguous organizational structure, potentially impacting employee experience and satisfaction with unclear reporting lines.
Spans & Layers	• The City of Houston organization has a **high number of layers and small spans of control**, with 4,681 positions in levels 8 to 12, 11% of which are People Managers with 1-3 direct reports, predominantly in the Public Works and Police departments, which account for 77% of these positions.
Promotions	• **Promotions to accomplish salary raises for leaders' positions without direct reports** are impacting salary costs in key departments, with 681 leadership positions and 565 roles with 1-2 direct reports, predominantly in the Police and Public Works departments, indicating potential areas for restructuring or reevaluation.
Contractors	• The Contingent Workforce Program incurs **approximately $20M/year for contractors**, with substantial costs in Health, Solid Waste, and select administrative roles, overseeing 349 contractors at an annual cost of $19.6M, where over 70% ($14M/year) comes from Health and Solid Waste departments (250 positions), over 40% ($8.5M/year) from administrative and support roles (153 positions), and certain roles, such as Executive Staff Analyst, Senior Staff Analyst, and Administration Manager, exceeding the average full-time employee pay.

*Data shared by Human Resources department file 'Vacant Report as of 9.3.2024'. File does not consider "Vacancy Factor"

City of Houston organization overview

- City has 11 levels[1], and the average span[6] of control is 5.02
- Total number of positions is 21.9K[7] and costs $2.3B
- 3,704 of those positions are People Managers (17%)*

Average SOC by Level (Reverse Triangle)

Level	SOC	HC
1	35.00	35
2	8.47	61
3	5.98	219
4	5.02	540
5	4.60	750
6	5.38	997
7	4.42	698
8	4.12	186
9	3.94	78
10	3.99	91
11	3.20	49[2]

Span of Control Distribution by Level

Direct Reports: ● 1 ● 2-3 ● 4-7 ● 8+

Level	1	2-3	4-7	8+
1				100.00%
2	6.67%	13.33%	26.67%	53.33%
3	10.17%	27.68%	35.59%	26.55%
4	10.85%	31.27%	41.60%	16.28%
5	12.42%	32.44%	40.32%	14.82%
6	12.34%	26.88%	42.93%	17.85%
7	12.46%	29.37%	45.85%	12.32%
8	18.28%	32.80%	37.63%	11.29%
9	12.82%	46.15%	32.05%	8.97%
10	14.29%	37.36%	39.56%	8.79%
11	16.33%	51.02%	30.61%	

Top Findings	Preliminary Opportunities for Assessment
CoH 12 selected departments total headcount (18,261) is 6% lower than the average number of FTEs in other peer-cities[3] (19,300)	Review the roles & responsibilities to identify opportunities to optimize the roles and improve the efficiency
CoH 12 selected departments base pay cost (1.3B) is 17%[6] higher than the average people cost from peer-cities[3] (1.1B[4])	Reassess CoH structure and operating model to understand why headcount is lower than average peer-cities, but cost is higher than peer-cities
People Managers represent 17% of this organization (3.7K), 42% of them (1,555) have 1-3 direct reports. The number of direct reports and SOC decreases from the top to the lower layers implicating on the reverse triangle shape, where there are many leaders / experts but fewer support members	Review the underutilized People Managers to optimize roles and prevent excessive cost and decision ambiguity
[8]14,322 positions are individual contributors, and they cost 1.3B. 84% of those positions are in layers 5 - 8. There are only 49 positions in level 12	Examine the positions in levels 8-12 and potentially consolidate the layers to improve efficiency and reduce cost

*A typical organization has around 16% of its workforce considered as managers which is often used as a benchmark for the percentage of leaders within a company, signifying a 1:5 ratio of managers to employees.
Source: *ravio* article - Building an effective management structure: how to know if your company is too top heavy

City of Houston selected departments overview

This slide comprises high-level metrics to examine how effectively the selected departments are structured. Finding an optimal number of reporting layers and span of control will increase org flexibility and responsiveness.

	Houston Police Department**	Houston Fire Department	Houston Public Works	Houston Health Department	Parks & Recreation***	Solid Waste Management
Organization Structure		*Please see considerations				
Total Headcount	6.8K	3.9K	3.8K	1.2K	915	447
Fully Loaded People Cost ($)	929M	480M	324M	103M	50M	32M
Average Span of Control	5.37	NA*	3.97	5.63	4.87	8.47
Reporting layers (from Director)	11	NA*	11	7	7	6
People Manager Headcount	1.3K	NA*	968	214	185	53
People Managers with 1-3 Reports	403	NA*	508	70	103	13

Preliminary Opportunities

- CoH has 4,681 positions in levels 8 to 12 with a total FLC of $445M; 11% are People Managers, many with 1-3 direct reports, causing numerous layers and a narrow span of control
- The Police, Fire, Health, Solid Waste and Parks & Recreation departments base pay cost are less costive than the benchmark average observed across peer-cities
- The total headcount in Police, Parks & Recreation and Solid Waste departments are less than the number of FTEs in peer-cities
- The HRIS file exhibits discrepancies in reporting lines and managerial assignments for the Fire department, resulting in an ambiguous organizational structure and unclear reporting hierarchy

*The remaining levels cannot be accurately determined due to insufficient data in the HRIS file. The first 3 levels were designed referencing the departments' organizational structure
**10 positions are not represented due to unclear reporting lines
***23 positions are not represented due to unclear reporting lines

City of Houston selected departments overview

This slide comprises high-level metrics to examine how effectively the selected departments are structured. Finding an optimal number of reporting layers and span of control will increase org flexibility and responsiveness.

	Human Resources	Legal Department	Houston IT Services	General Services	Finance Department	Planning & Development
Organization Structure						
Total Headcount	294	190	211	251	177	82
Fully Loaded People Cost ($)	27M	27M	26M	21M	20M	8.3M
Average Span of Control	4.60	15.92	5.53	4.84	3.61	3.64
Reporting layers (from Director)	7	4	6	6	7	5
People Manager Headcount	64	12	38	51	49	22
People Managers with 1-3 Reports	25	1	14	22	23	13

Preliminary Opportunities

- The IT, Finance, Legal and Planning & Development departments base pay cost are less costive than the benchmark average observed across peer-cities
- The total headcount in The HR, IT, Finance, Legal, General Services and Planning & Development departments are less than the number of FTEs in peer-cities
- HR and IT span of control are wider than leading practices
- Finance span of control is narrower than leading practices
- 98 People Managers across these support departments have only 1-3 direct reports

Non-selected departments overview

This slide comprises high-level metrics to examine how effectively the non-selected departments are structured. Finding an optimal number of reporting layers and span of control will increase org flexibility and responsiveness.

	Administration & regulatory Affairs	Airport System	**City Council	City Secretary's Office	**Controllers	Department of Neighborhoods
Organization Structure						
Total Headcount	359	1322	87	8	53	102
Average Span of Control	5.61	4.93	2.30	3.50	3.25	4.39
Reporting layers (from Director)	7	9	6	3	5	6
People Manager Headcount	64	267	33	2	16	23
People Managers with 1-3 Reports	32	109	22	1	13	11
Highly Compensated Individual Contributor*	10	66	0	0	4	2

*Highly Compensated Employee minimum salary listed as $132,964 beginning July 1, 2024, per https://www.dol.gov/agencies/whd/overtime/salary-levels
**Not an area in either the selected or non-selected department groups but the HRIS data was analyzed to provide additional reference points for City leadership

Preliminary Opportunities

- **Narrow span of control (SOC)** – All six departments depicted in the chart are below the recommended 6-8 SOC levels in an organization. A Narrow SOC increases the risk of process inefficiencies, high overhead costs, and a decrease in commitment to long term priorities due to upper management's increased focus on tactical matters.

- **Heavy reporting layers** – employees should sit no more than 6-7 layers away from the top level. The _Houston Airport System_ currently shows nine levels, increasing the risk or likelihood of organizational disconnects between executive-level decisions and front-line delivery to customers.

- **Organizational Shapes** – Organizational structures are typically pyramid, reverse triangle, diamond or hourglass shaped. Organizations with heavy middle management levels such as _City Council_, _Controllers_ and _Department of Neighborhoods_ face increased risks of agility loss (aversion to change), cultural stagnation, and upper-level promotion bottlenecks.

Non-selected departments overview

This slide comprises high-level metrics to examine how effectively the non-selected departments are structured. Finding an optimal number of reporting layers and span of control will increase org flexibility and responsiveness.

	**Emergency Center	Fleet Management	Housing and Community Development	**Mayor's Office	Municipal Courts	Office of Business Opportunity	Public Library
Organization Structure							
Total Headcount	216	369	205	83	270	36	489
Average Span of Control	5.14	5.75	3.83	4.61	7.69	5.29	4.35
Reporting layers (from Director)	7	6	6	5	6	4	8
People Manager Headcount	43	64	54	23	35	7	114
People Managers with 1-3 Reports	15	19	28	15	10	3	52
Highly Compensated Individual Contributor*	1	0	2	8	19	0	0

*Highly Compensated Employee minimum salary listed as $132,964 beginning July 1, 2024, per https://www.dol.gov/agencies/whd/overtime/salary-levels
**Not an area in either the selected or non-selected department groups but the HRIS data was analyzed to provide additional reference points for City leadership

Preliminary Opportunities

- **Narrow span of control** – With the exception of Municipal Courts, all the other departments depicted in the chart are below the recommended 6-8 SOC levels in an organization, showing a narrow SOC. A Narrow SOC increases the risk of process inefficiencies, high overhead costs, and a decrease in commitment to long term priorities due to upper management's increased focus on tactical matters
- **Heavy reporting layers** – The _Public Library Department_ currently shows eight levels, increasing the risk or likelihood of organizational disconnects between executive-level decisions and front-line delivery to customers.
- **Organizational Shapes** –Organizations with heavy middle management levels such as _Housing and Community Development_, _Municipal Courts_ and _Office of Business Opportunity_ also face increased risks in terms of elevated operational costs, duplication of effort across layers, and increased bureaucracy

Vacant positions analysis

The City of Houston organization has 4,971 vacant positions* distributed across the 25 units, as listed below:

Org Unit	N° of vacant positions	% of the total positions
Houston Police Department	1872	38%
Houston Public Works	849	17%
Houston Fire Department	704	14%
Houston Health Department	444	9%
Houston Airport System	213	4%
Parks & Recreation	201	4%
Houston Public Library	86	2%
Houston Emergency Center	79	2%
Municipal Courts	62	1%
Administration & Regulatory Affairs	55	1%
Finance Department	51	1%
Fleet Management	50	1%
Solid Waste Management	48	1%
Information Technology Services	45	1%
General Services	44	1%
Human Resources	33	1%
Mayor's Office	27	1%
Legal Department	23	0.5%
City Council	21	0.4%
Department of Neighborhoods	15	0.3%
Planning & Development	15	0.3%
Controllers	13	0.3%
Office of Business Opportunity	10	0.2%
Housing & Community Development	9	0.2%
City Secretary's Office	2	0.04%
TOTAL:	**4,971**	**100%**

Findings:

▶ Currently, 18% of the City of Houston organization positions are vacant**

▶ 2,186 of those positions are vacant longer than 12 months

▶ 70% of the vacant positions sits within Police, Public Works and Fire departments

▶ Police open positions comprises the positions: Municipal (218), Trainees (353), and Police (1,301)

▶ Fire open positions comprises the positions: Municipal (13), Trainees (221), and Fire (470)

▶ Department leaders confirmed that not all this roles are intended to be filled

Opportunities:

▶ **Reevaluate and Optimize Open Positions:** Conduct a thorough review of all vacant positions to determine if they are still necessary or if the responsibilities can be absorbed by existing roles. Eliminate or combine positions where possible to streamline the workforce and reduce redundancy

▶ **Strategic Hiring and Employee Development:** For the positions that need was confirmed, focus on strategic hiring by seeking candidates with broad skill sets and the potential to fill multiple roles. Simultaneously, invest in training and development programs to enhance the skills of current employees, preparing them to take on new challenges

▶ **Leverage Technology and Automation:** Invest in technology upgrades and automation to increase efficiency. This can help compensate for the reduced workforce by minimizing the need for manual input and speeding up processes

*The 4,971 vacant positions were identified by HRIS file (Vacancy Report as of 9.3.2024) shared by the Human Resources Department

** Pending confirmation if vacant positions are currently filled with contractors

Promotions to accomplish salary raises analysis*

The analysis investigated two premises to detect possible cases of promotions to accomplish salary raises:

1. Examination of roles with leadership titles (i.e., Director, Manager, Senior Manager, Coordinator, Lead, Leader, Supervisor, Chief, Superintendent, Commander, Lieutenant and Sergeant) and **0 direct reports**

2. Assessment of roles with leadership titles overseeing **only 1-2 direct reports**

1. Roles with leadership titles and 0 direct reports

Departments	Number of Positions
Houston Police Department	292
Houston Public Works	149
Parks & Recreation	75
Houston Health Department	60
Human Resources	39
General Services	33
Houston Information Technology Services	10
Finance Department	7
Legal Department	7
Solid Waste Management	5
Planning & Development	4
Total	**681**

Considerations:

► 681 positions with leadership titles have 0 direct reports across all 12 priority departments

► 43% of those positions sits in Police and 22% in Public Works

► 232 positions are Sergeant, 159 Managers and 113 Coordinators

► The 681 positions fully loaded cost is $81,524,098

2. Roles with leadership titles and 1-2 direct reports

Departments	Number of Positions
Houston Police Department	222
Houston Public Works	195
Parks & Recreation	70
Houston Health Department	27
Human Resources	15
Finance Department	8
General Services	8
Solid Waste Management	7
Houston Information Technology Services	6
Planning & Development	6
Legal Department	1
Total	**565**

Considerations:

► 565 positions with leadership titles have 1-2 direct reports across all 12 priority departments

► 39% of those positions sits in Police and 35% in Public Works

► 141 positions are Sergeant, 141 Managers and 127 Supervisors

► The 565 positions fully loaded cost is $76,690,409

*Fire positions are not included in this analysis since the organization levels cannot be accurately determined due to insufficient data in the HRIS file

3. Leadership interviews & survey analysis

Selected departments interviews overview

This assessment encompasses findings and potential opportunities for improvement derived from interviews conducted with leaders from the 12 selected departments for this analysis. To augment the depth of the analysis, further discussions were held with leaders from additional departments as Mayor's office and Controller's Office.

CoH Leaders Interviewed	Interviews approach and objectives
12 selected departments leaders interviewed	***Approach***
• Director Finance	• Utilized both in-person and virtual formats for discussions, ensuring thorough engagement over sessions lasting between 60 to 90 minutes
• Chief Procurement Officer Procurement	***Objectives***
• Fire Chief	• **Collect detailed information:** Collect organizational and employee data to build a foundational understanding of the City's current state
• Director General Services	
• Director Houston Health Department	• **Assess functional efficiency:** Assess the operational effectiveness of each department, identifying strengths and areas for improvement
• Director Human Resources	
• Director Information Technology	• **Understand leadership perspectives:** Delve into various topics to grasp leaders' viewpoints on roles, responsibilities, structural organization, governance, and departmental challenges
• Director Legal	
• Director Planning and Development	
• Police Chief	• **Identify patterns and insights:** Analyze the interviews notes to detect recurring themes, challenges, and opportunities
• Director Houston Public Works	
• Chief Operating Officer Houston Public Works	• **Identify organizational pain points:** Identify and document the critical issues and obstacles that hinder departmental performance and overall organizational health
• Director Parks and Recreation	
• Director Solid Waste	• **Develop findings and opportunities:** Leverage the data and insights collected from the interviews to formulate improvement opportunities aimed at enhancing departmental and organizational effectiveness
Other departments leaders interviewed	
• Director Innovation	
• City Controller	

Non-selected departments leadership survey overview

This assessment encompasses findings and potential opportunities for improvement derived from surveys conducted with leaders from the 9 departments identified as non-selected.

CoH Leaders Surveyed

9 non-selected departments leaders surveyed

- Director, Administration and Regulatory Affairs (ARA) Department
- Director, Houston Airport System
- Director, Fleet Management Department
- Director, Housing and Community Development
- Interim COO, Houston Public Library
- Director and Presiding Judge, Municipal Courts
- Director, Department of Neighborhoods
- Director, Office of Business Opportunity
- Director and Emergency Management Coordinator, Office of Emergency Management

Survey approach and objectives

Approach

- Utilized virtual survey to get to assess the leadership of 9 departments identified as non-selected for this assessment (please see survey questions in appendix)

Objectives

- **Assessment of org structure:** Evaluate the current organizational structure, including the clarity of roles and responsibilities across various departments
- **Identification of overlapping roles:** Identify any instances of overlapping roles within departments or with external entities that may lead to inefficiencies or confusion
- **Documentation and communication:** Assess how roles and responsibilities are documented and communicated within the organization, and to identify areas for improvement
- **Challenges and solutions:** Understand the challenges faced by employees related to their roles and to gather insights on how these challenges are addressed
- **Develop findings and opportunities:** Leverage the data and insights collected from the surveys to formulate improvement opportunities aimed at enhancing departmental and organizational effectiveness

Leadership interviews & survey key observations

Themes	Observations
Support Functions	• **Departments have reported challenges with inefficiencies from the support functions operating model** (HR, IT, Legal, and Finance). The current efforts to centralize support is not functioning as intended, **leading to shadow functions like Communications, Finance, Legal, and IT operating outside centralized authority.** These result in duplicative efforts and operational inefficiencies, with Finance and IT dedicating significant resources to rectify errors from satellite operations in Public Works, Parks, and Library services, posing risks to organizational policies and governance.
Talent recruitment and retention	• Critical **issues within the talent acquisition and management framework are adversely affecting the City's ability to retain and recruit talent.** Various departments, including HPW, Procurement, HITS, and Health, are facing challenges with vacant roles that are difficult to fill. **Extended hiring timelines result in losing quality candidates to competing offers.** The SEA process extends the recruitment process and has become a formality since all recent requests seem to be approved. Employees are often recruited and provided with training, only to subsequently depart for more lucrative positions within other City departments or external companies where the compensation is more competitive. **Retention difficulties stem from the limited promotional opportunities available to internal candidates,** who are required to compete with external applicants for advancement despite possessing seniority and experience. Departments mentioned that it is harder to promote an internal candidate than to hire someone from outside. The **absence of initiatives to actively recruit talent from high schools and colleges** represents a missed opportunity in attracting and nurturing early-career professionals.
Job Roles and Career Pathways	• The **lack of clear career pathways and overly general job descriptions hinder retention and recruitment** efforts in City departments. In some departments, there **is noticeable uncertainty among employees about their professional development options,** impacting employee retention. Department leaders have identified a **significant gap in career pathways for individual contributors, hindering their advancement potential and leading to fake promotions to manager roles without direct reports.** Job descriptions are outdated and overly general, with minimum qualifications not aligned to the roles, failing to accurately reflect the specific skills and experience required, thus attracting the wrong talent. Restrictions on leaders updating job descriptions to keep them intentionally general further exacerbate the issue. Additionally, some departments lack entry-level positions, **adversely affecting career progression opportunities** and hampering the recruitment of new talent.
Compensation & Benefits	• **Challenges in salary equity and competitive compensation practices impact employee satisfaction and lead to promotions aimed at accomplishing salary raises.** Current salaries are below market value, making it difficult to match market competitiveness and prompting promotions to address salary disparities. The **Legal department faces challenges in talent recruitment and retention, suggesting the need for a case success-based bonus system,** with Labor and Civil Rights groups most affected by compensation issues. Public Works departments are encountering significant challenges in updating compensation structures, with **newly hired engineers often receiving higher pay than long-tenured engineers,** leading to compensation disparities and dissatisfaction among longer-tenured staff. The **Compensation Committee, overseen by HR, frequently rejects salary increase recommendations,** exacerbating salary alignment issues.

Leadership interviews & survey key observations

Themes	Observations
Procurement Processes	• **Contract finalization takes an excessive amount of time, contributing to operational inefficiencies.** The **slow procurement process puts departments like Health and Parks & Recreation at risk of forfeiting grants due to time constraints.** The procurement system is widely regarded as slow, affecting the overall effectiveness of City services. There is a clear necessity for City-wide training to enhance and expedite procurement procedures. Additionally, procurement processes often involve last-minute legal consultations, resulting in further delays.
Culture	• There is a noticeable **gap in Culture within the organization, particularly following the influx of new employees since the onset of COVID-19. Low employee engagement scores** highlight a critical need for improvement in fostering a sense of belonging and motivation among staff. **Significant turnover has been observed across key departments, with half of the HR team, the majority of the Health team, and most of the Legal department** being new hires, potentially impacting the continuity and effectiveness of operations. Additionally, there is a high percentage of newly appointed directors, suggesting a potential challenge in maintaining consistent leadership and direction.
Change Management	• The City organization exhibits a **significant gap in change management capabilities,** evidenced by the **absence of designated change management roles and resources** for managing organizational transitions. The upcoming MyTime Payroll system implementation, coupled with **the absence of a Change Management Office (CMO),** underscores the need for such a function, especially to support training for technology-averse employees like those in fire and police services. At present, the communications team is tasked with handling change management responsibilities; however, their capacity to do so is limited.
Call Centers	• The City has **various citizen facing call centers leading to confusion and inefficiency.** Several departments (e.g., Health, Public Library, Airport) have individual nonemergency call centers with the **primary central non-emergency 3-1-1 call center service** operating under the Administration and Regulatory Affairs department. The other major call center for emergency 9-1-1 services operates under the Houston Emergency Center. A more in-depth assessment for potential consolidation has the **potential for cost savings, improved customer service, data consistency and improved organizational/operational efficiency**.

4. Activity Analysis

Activity analysis overview

An activity analysis survey was distributed to 12 selected departments to collect work duties data from various levels. The data details where employees allocate their time in terms of monthly hours (160 hours) by departmental activity. The report encompasses potential areas for improvement from the findings of this analysis.

Activity Analysis Audience

- All levels were surveyed on core support functions: Finance, IT, HR, and Legal
- Public Works and Solid Waste departments were surveyed down to six levels below the Director due to their structured hierarchy
- Fire and Police departments had only administrative / support roles surveyed
- The assessments for the remaining departments covered four below the Director position

Considerations & Support

- The survey was distributed utilizing the Qualtrics platform
- The survey aimed for a completion rate that would encompass 60% of the targeted audience within the departments
- Office hours were scheduled to offer support to participants
- The activities outlined in the survey received validation from the department Directors
- Reminders for survey completion were issued to non-respondents through both Qualtrics and City leadership communications

Survey Completion and Dates

No.	Department	Survey Sent Date	Audience Sample Size	Completed	Completion	60% achieved?	Survey Close Date
1	Human Resources	9/9/2024	287	280	98%	YES	9/20/2024
2	Legal	9/9/2024	188	181	96%	YES	9/20/2024
3	Finance	9/9/2024	177	169	95%	YES	9/20/2024
4	Information Technology	9/9/2024	210	197	94%	YES	9/20/2024
5	Planning and Development	9/9/2024	80	75	94%	YES	9/20/2024
6	General Services	9/9/2024	231	215	93%	YES	9/20/2024
7	Parks and Recreation	9/9/2024	456	395	87%	YES	9/20/2024
8	Houston Public Works	9/9/2024	2778	2089	75%	YES	9/20/2024
9	Houston Health Department	9/9/2024	840	633	75%	YES	9/20/2024
10	Police	9/10/2024	607	453	75%	YES	9/20/2024
11	Fire	9/10/2024	178	108	61%	YES	9/20/2024
12	Solid Waste	9/9/2024	436	265	61%	YES	9/20/2024

Analysis

- The report will use the Pareto 80/20 principle to assess the top 80% of the activities department employees conduct monthly
- Activities within departments were categorized into macro processes for the analysis of time allocation
- Specific findings and opportunities for improvement have been provided for each department
- The report facilitates cross-departmental comparisons and highlights potential areas for efficiency gains
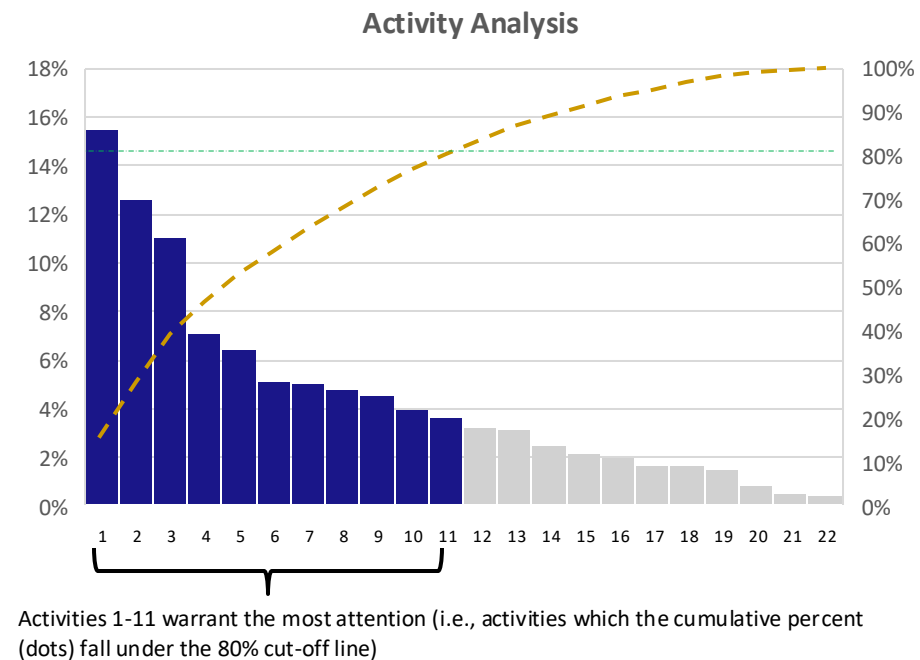
Activity analysis key observations

Themes	Observations
Operational and administrative activities	• City of Houston employees spend **over 30% of their time on operational and administrative activities,** such as reading emails, handling service requests, participating in meetings, and preparing reports, with a fifth of this time—equivalent to the workload of over **900 full-time employees—dedicated solely to managing emails and attending meetings..**
Shadow functions	• **HR, Finance, Procurement, and IT activities appear to be distributed across multiple departments,** indicating a decentralized approach, with **10 of the 11** selected departments (excluding HIT Department) involving 121 FTEs in IT-related activities. Procurement management has 6 FTEs outside the Finance department, distributed across HR, Legal and Fire. Parks & Recreation department invests a considerable amount of time in accounting and related activities. Additionally, other **departments also undertake finance-related tasks,** including budgeting and forecasting, managing grants, and handling payroll. **HR activities, such as Training & Development and Recruitment and Talent Selection, are shared among various departments,** suggesting areas of collaboration.
Taks not mapped to their department	• Departments within the City undertake a diverse array of activities classified as "Other," with **City employees spending 11% of their time (511 FTE) performing tasks not mapped to their departments,** such as conducting risk and expenditure analyses, creating training materials, handling media inquiries, engaging in marketing efforts, and offering comprehensive IT support, many of which are duplicated by other departments.

City of Houston activity analysis

The table presented below details the key activities that occupy 80% of the work hours for full-time employees (FTEs) across the 12 selected departments.

#	Grouping	Total % of all time	Total hours per month based on headcount	Total #FTE based on headcount
1	Public works core activities	15.5%	125,661	785
2	Reading/responding to email	12.7%	102,430	640
3	Other	11.1%	89,618	560
4	Managing / handling Service Requests	7.1%	57,258	358
5	Attending internal/external meetings	6.5%	52,438	328
6	Completing internal or external reports	5.2%	41,819	261
7	Performing supervisory/managerial duties	5.1%	41,200	258
8	Health core activities	4.8%	38,738	242
9	Parks & Rec core activities	4.6%	37,224	233
10	Training & Development	4.0%	32,557	203
11	IT core activities	3.6%	29,501	184
12	Solid waste core activities	3.2%	26,168	164
13	Finance core activities	3.2%	25,903	162
14	General Administration & Support	2.5%	20,137	126
15	Legal core activities	2.2%	17,672	110
16	HR core activities	2.1%	16,597	104
17	Risk & Compliance Management	1.7%	13,603	85
18	Data Management	1.7%	13,558	85
19	General services core activities	1.5%	12,440	78
20	Police core activities	0.9%	7,188	45
21	Planning & Dev core activities	0.5%	4,051	25
22	Fire core activities	0.5%	3,670	23

Activity Analysis

Activities 1-11 warrant the most attention (i.e., activities which the cumulative percent (dots) fall under the 80% cut-off line)

Top Findings	Preliminary Opportunities for Assessment
• Across the City departments, employees spend 43% of their time in core-related activities from their department. Public Works (38%), HR (35%), Fire (28%), and Police (24%) assessed positions spend less than 40% of their time in core department activities.	• Reevaluate and restructure workflows in Public Works, HR, Fire, and Police departments to increase the time allocated to core departmental activities, ensuring that these essential functions receive adequate focus and resources.
• Employees allocate 32% of their time to operational and administrative activities1. Notably, Police and Fire departments spend a significant portion of their time on these activities, with Police (44%) and Fire (42%), both exceeding the 40% mark.	• Streamline and automate operational and administrative tasks within City departments to reduce the time spent on these activities, thereby allowing more focus on core responsibilities and improving overall efficiency.
• Across City departments, only 7% of the time is dedicated to supporting civilians through managing and handling service requests. Notably, the Finance department reported spending 0 hours on this activity. In contrast, Planning & Development (14%), Solid Waste (10%), and Parks & Recreation (10%) departments each allocate over 10% of their time to civilian support activities.	• Evaluate departmental approaches to managing service requests and civilian support to identify optimization opportunities and enhance service delivery.

[1]*Reading and responding to emails, attending internal and external meetings, completing reports, performing supervisory or managerial duties, and general administration and support.*

Cross-functional activities map findings (1/2)

The 26 groupings identified involve full-time employees (FTEs) from multiple departments engaged in similar tasks. This mapping aims to pinpoint activities that are carried out by several departments, potentially leading to work duplication and inefficiencies

26 Grouping	12 selected departments												Total Hours	FTE
	Public Works	Police	Health	Solid Waste	HR	Legal	Parks & Rec	IT	Finance	General Services	Fire	Planning & Develop		
Reading/responding to email **①**	53,628	9,692	12,107	2,485	6,134	3,864	4,509	3,096	3,888	3,884	1,818	1,210	**106,314**	**664**
Other	47,012	10,042	14,006	2,104	3,513	2,375	3,480	1,053	1,528	2,913	651	942	**89,618**	**560**
Managing / handling service requests	25,480	3,708	2,872	4,085	1,449	877	6,138	1,863	1,573	8,280	772	1,733	**58,831**	**368**
Attending internal/external meetings	25,725	2,866	8,216	1,643	2,570	1,433	1,669	2,608	1,925	2,243	550	990	**52,438**	**328**
Completing internal or external reports	22,268	-	8,060	1,256	2,419	919	1,386	871	2,051	1,806	422	361	**41,819**	**261**
Performing supervisory/managerial duties	22,892	2,993	6,559	1,368	1,101	314	2,247	895	898	1,015	-	232	**40,514**	**253**
Operate waste handling, storage, and disposal	16,966	-	-	20,169	-	-	-	-	-	-	-	-	**37,135**	**232**
Training & development **⑥ ***	10,100	2,352	5,044	947	4,732	987	1,517	1,195	1,697	1,064	1,407	358	**31,399**	**196**
Maintain productive assets	20,783	629	-	568	-	-	-	-	-	-	-	-	**21,980**	**137**
Create and manage IT support services/solutions **③**	1,475	3,057	4,431	598	388	-	336	9,106	117	923	271	1,085	**21,787**	**136**
General administration & support	-	15,815	-	326	-	-	-	-	-	-	3,692	-	**19,833**	**124**
Manage legal and ethical issues	-	502	-	-	-	16,457	-	-	-	-	-	-	**16,959**	**106**

Findings:

① Employees across all 12 departments of the City of Houston, totaling 664 individuals, dedicate a significant portion of their time to reading and responding to emails

② The Public Works, Health, and Police departments are noted for allocating more hours per full-time equivalent (FTE) to tasks that are also carried out by other departments

③ Notably, outside the IT department 10 of the 11 departments, involving 79 FTEs, engage in IT-related activities

Please reference 6 in the next page.

Cross-functional activities map findings (2/2)

The 26 groupings identified involve full-time employees (FTEs) from multiple departments engaged in similar tasks. This mapping aims to pinpoint activities that are carried out by several departments, potentially leading to work duplication and inefficiencies

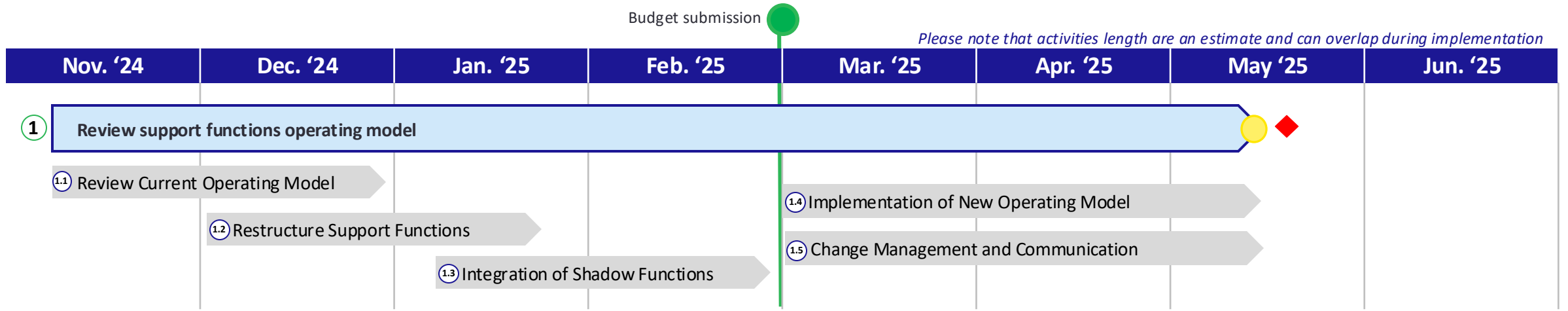| 26 Grouping	Public Works	Police	Health	Solid Waste	HR	Legal	Parks & Rec	IT	Finance	General Services	Fire	Planning & Develop	Total Hours	FTE
	12 selected departments													
Data management	-	5,451	-	1,042	4,263	-	-	640	-	-	2,162	-	**13,558**	**85**
Risk & compliance management	-	1,472	1,248	460	2,856	381	1,004	2,159	725	-	53	989	**11,346**	**71**
Procurement and vendor management	-	-	-	-	279	121	-	-	4,103	-	628	-	**5,131**	**32**
Perform planning/ budgeting/ forecasting	-	1,198	-	244	-	-	-	320	3,126	-	-	-	**4,888**	**31**
Recruitment & talent selection	-	659	-	-	4,165	18	-	-	-	-	-	-	**4,842**	**30**
Provide public safety services	4,360	-	-	-	-	58	-	-	-	-	-	-	**4,418**	**28**
Perform planning and management accounting	-	-	-	-	-	-	2,528	-	1,150	453	-	-	**4,131**	**26**
Process payroll	-	3,770	-	-	-	-	-	-	-	-	186	-	**3,956**	**25**
Manage sustainability	1,876	-	-	434	-	-	-	-	-	425	-	-	**2,735**	**17**
Maintain parks, greenspaces, and recreational services	1,618	-	-	1,034	-	-	-	-	-	-	-	-	**2,652**	**17**
Manage government and industry relationships	1,937	511	-	-	-	166	-	-	-	-	-	-	**2,614**	**16**
Manage communication	-	592	-	-	1,510	-	-	-	-	-	-	-	**2,102**	**13**
Manage grants, trusts and funds	-	-	-	-	-	-	930	-	1,096	-	-	40	**2,066**	**13**
Disaster management	-	-	-	1,349	-	-	-	209	-	-	-	-	**1,558**	**10**

Findings:

4 Activities such as data management, procurement management (with 6 FTEs outside the Finance department), and risk and compliance (involving 69 FTEs outside the Legal department) appear to be distributed across multiple departments, indicating a decentralized approach to these functions

5 The Parks & Recreation department invests a considerable amount of time in accounting and related activities. Additionally, other departments also undertake finance-related tasks, including budgeting and forecasting, managing grants, and handling payroll

6 HR activities, such as Training & Development and Recruitment and Talent Selection, are shared among various departments, suggesting areas of collaboration. Meanwhile, communications present an opportunity for further optimization

6. Roadmap

① Review support functions operating model

Budget submission

Please note that activities length are an estimate and can overlap during implementation

Nov. '24	Dec. '24	Jan. '25	Feb. '25	Mar. '25	Apr. '25	May '25	Jun. '25

① Review support functions operating model

1.1 Review Current Operating Model

1.2 Restructure Support Functions

1.3 Integration of Shadow Functions

1.4 Implementation of New Operating Model

1.5 Change Management and Communication

Group of opportunities

(Owner: Mayor's Office)
- Review and restructure support functions operating model
- Reevaluate the capabilities and efficiency of support system to address existing gaps and integrate shadow functions

Activity Details

1.1 Review Current Operating Model
- Conduct a thorough review of the current operating model for HR, IT, and Finance support functions.
- Identify strengths, weaknesses, and areas for improvement.

1.2 Restructure Support Functions
- Develop a new operating model that addresses identified gaps and aligns with organizational goals.
- Redefine roles, responsibilities, and processes for support functions.
- Implement the new operating model in a phased manner to confirm a smooth transition.

1.3 Integration of Shadow Functions
- Identify shadow functions that exist within the organization.
- Develop strategies to integrate these functions into the centralized support system.
- Confirm that shadow functions are aligned with the overall organizational goals and processes.

1.4 Implementation of New Operating Model
- Begin the phased implementation of the new operating model.
- Monitor progress and address any issues that arise during implementation.
- Confirm that the new processes and systems are effectively integrated into the organization.

1.5 Change Management and Communication
- Develop a change management plan to support the transition to the new operating model.
- Communicate the changes to all employees and stakeholders.
- Provide training and support to confirm a smooth transition.

Legend - project estimated length:
- Short-term 0-3 months
- Medium-term 3-6 months
- Long-term 6-12 months

Legend – estimated level of support:
- Vendor support for implementation
- CoH team implementation

Legend – level of impact:
- High
- Medium
- Low

Case study: City of Memphis implements a new operating model for Total Rewards function

Organization goal	Value delivered	Key considerations for City of Houston

City of Memphis was faced with challenges due to recent legislation that resulted in an influx of benefits participants during the upcoming open enrollment season for the City.

As part of a larger Total Rewards Transformation Program, Memphis wanted to redesign their operating model to not only support the influx of participants but to also become more customer-centric and to better support employees.

This also required Memphis to effectively communicate the upcoming Total Rewards changes to its employees.

CITY OF MEMPHIS

▸ **Operational Efficiency:** Redesigned models to support more benefits participants.

▸ **Change Management:** Implemented a plan to smoothly communicate and manage changes.

▸ **Change Leadership:** Established a network to drive and sustain transformation.

▸ **Employee Experience:** Improved the Open Enrollment process for employees and retirees.

▸ **Support Services:** Enhanced call center support with performance improvements.

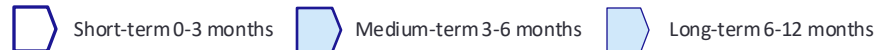▸ **Stakeholder Awareness:** Increased understanding of the Total Rewards function and its benefits.

▸ Create customer-centric operating models to handle more participants.

▸ Structure support functions and establish operating model to reduce duplication of roles and inefficiencies.

▸ Assess shadow positions and streamline processes.

▸ Implement a clear change management plan and communicate effectively.

▸ Use Change Champions to support and sustain transformation.

▸ Boost call center capabilities and confirm high-quality service.

▸ Increase understanding of the Total Rewards function and its benefits.

② Redesign organization structure and perform talent placement

Budget submission

Please note that activities length are an estimate and can overlap during implementation

Nov. '24	Dec. '24	Jan. '25	Feb. '25	Mar. '25	Apr. '25	May '25	Jun. '25	Jul. '25	Aug. '25	Sept. '25	Oct. '25	Nov. '25	Dec. '25

② Redesign organization structure and perform talent placement

Org Redesign Pilot

Remaining Departments Org

- **2.1** Define Future State Organization Design Principles
- **2.2** Data Gathering and Current State Assessment
- **2.3** Future State Organizational Modeling
- **2.1** Define Future State Organization Design Principles
- **2.2** Data Gathering and Current State Assessment
- **2.3** Future State Organizational Modeling Responsibilities
- **2.4** Implementation and Talent Placement
- **2.5** Full-Scale Rollout and Monitoring

Group of opportunities

(Owner: Mayor's Office)
- Review vacant and contractors' positions
- Redesign organizational structures including the ones impacted by orphan positions
- Streamline CoH layers and optimize spans
- Rationalize leadership structures for cost efficiency

Activity Details

2.1 Define Future State Organization Design Principles
- Align the organizational design with CoH's strategic objectives and industry leading practices.
- Establish design principles and criteria that will guide the development of the future state structure.
- Define optimal outcomes and develop success metrics to evaluate alternative design options.

2.2 Data Gathering and Current State Assessment
- Conduct a current state organizational design diagnostics
- Evaluate current state against industry standards to identify leading practices and areas for improvement.
- Conduct a gap analysis of capabilities and competencies to identify talent needs.
- Conduct an initial cost analysis.

2.3 Future State Organizational Modeling Responsibilities
- Model future state organizational alternatives, outlining the benefits and risks of each model.
- Model cost implications of new organizational structure.
- Finalize the future state design based on workshop outcomes, cost implications, and alignment with design criteria.

2.4 Implementation and Talent Placement
- Conduct detailed change impact analysis.
- Develop a holistic implementation plan.
- Develop transition to new organization timeline.
- Conduct Implementation Planning Session.
- Facilitate talent selection and workforce transition efforts.

2.5 Full-Scale Rollout and Monitoring
- Deploy the new organizational structure and processes across all CoH departments.
- Build and validate the adoption of new ways of working.
- Monitor the rollout closely to confirm smooth implementation and address any issues promptly.
- Revisit goals, purpose and value during design implementation.
- Assess design and changes to hierarchy, network, measurement, membership, teaming, and responsibility data.

Legend - project estimated length:
- Short-term 0-3 months
- Medium-term 3-6 months
- Long-term 6-12 months

Legend – estimated level of support:
- Vendor support for implementation
- CoH team implementation

Legend – level of impact:
- High
- Medium
- Low

Case study: University of Virginia's transforms Human Resource's Occupational Health division

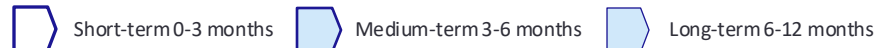| Organization goal	Value delivered	Key considerations for City of Houston
The University of Virginia's Occupational Health (OH) division within the HR department was undergoing an overall transformation. This transformation included redesigning the division's organizational structure. The goal was to align the OH team with the overall objectives of the HR organization and improve their ability to serve the institution effectively. Additionally, an organizational structure was designed to clearly delineate the scope of services and roles and responsibilities within the OH team. This structure enabled the OH team to deliver services more effectively to the institution and its stakeholders.	▶ **Unified Direction:** Confirmed alignment with the OH core team and key stakeholders for a cohesive transformation. ▶ **Stakeholder Awareness:** Provided clarity on the impact of changes on different stakeholders. ▶ **Rationalized Change:** Justified the need for changes to gain support and buy-in. ▶ **Clear Solutions:** Defined core OH solutions focused on workplace safety, injury prevention, and risk management. ▶ **Streamlined Roles:** Clarified and streamlined roles and services for a more efficient OH organization.	▶ Clarify and streamline roles and responsibilities to enhance organizational efficiency and effectiveness. ▶ Review organizational capabilities to assess gaps and duplication of roles. ▶ Confirm that the right talent is placed in the appropriate positions and identify individuals who require upskilling. ▶ Confirm alignment with core teams and key stakeholders to create a unified direction for any transformation efforts. ▶ Conduct a thorough assessment of how changes will impact different stakeholders to prepare for a smoother transition. ▶ Provide a clear rationale for the need for changes to gain support and buy-in from all involved parties. ▶ Define and focus on core solutions that address key issues such as safety, prevention, and risk management.

3 Revamp career pathways by defining job roles and families, and developing targeted training curricula

Please note that activities length are an estimate and can overlap during implementation

Aug. '25	Sept. '25	Oct. '25	Nov. '25	Dec. '25	Jan. '26	Feb. '26	Mar. '26

3 Revamp career pathways by defining job roles and families, and developing targeted training curricula

- **3.1** Review job titles and job families
- **3.2** Review job descriptions
- **3.3** Review / Create Career Pathways Framework
- **3.4** Implementation of new roles framework

Group of opportunities

(Owner: Mayor's Office and HR)
- Create transparent and well-defined career progression plans across all City departments
- Establishment of new job families and job families with entry-level positions and individual contributors
- Incorporate a comprehensive training curriculum tailored to each career pathway

Activity Details

3.1 Review job titles and job families
- Collect and review all existing job titles and job families from the Org Redesign work future structure to leverage for future defined roles.
- Research industry standards for job titles and job families relevant to respective departments and align as appropriate with common terminology.
- Develop a visual representation or chart/map that depicts the relationships and skills sets associated with each job family.

3.2 Review job descriptions
- Leverage Org Redesign work activity analysis to identify job descriptions that need to be updated or created.
- Evaluate opportunities to consolidate redundant roles with similar responsibilities under a single, more encompassing title.
- Refine existing job descriptions to accurately reflect responsibilities, required skills, and experience for each role.
- Review and validate with each department job descriptions with leaders

3.3 Review / Create Career Pathways Framework
- Create a framework outlining potential career paths for employees across different job families and experience levels. This framework should include:
  - Progression paths within job families
  - Opportunities for skill development and role transitions.
  - Clear requirements and expectations for advancement.

3.4 Implementation of new roles framework
- Implement the new standardized job titles and descriptions across departments.
- Draft communications for key stakeholders to inform changes.
- Collaborate with HR to create resources such as career development plans, mentorship programs, and training opportunities.
- Communicate the new role management process and career pathways framework to all employees.
- Train managers on utilizing the framework for career development.
- Regularly review the effectiveness of the new system.

Legend - project estimated length:
- Short-term 0-3 months
- Medium-term 3-6 months
- Long-term 6-12 months

Legend – estimated level of support:
- Vendor support for implementation
- CoH team implementation

Legend – level of impact:
- High
- Medium
- Low

Case study: United States Air Force develop career pathways to improve the attraction and retention of talent

Organization goal	Value delivered	Key considerations for City of Houston

Organization goal

363d ISR Wing needed recommendations for a career path for its civilian population to improve the attraction and retention of talent.

While the focus is on the 0132-job series, the proposed career path framework provided input for a broader Air Force initiative around attraction and retention of civilian staff. No career path currently existed to provide a roadmap for advancement to more senior GS levels; those who seek promotion typically explored USA Jobs for external opportunities, and advancement is almost all self-driven.

Value delivered

► **Improved Talent Attraction and Retention:** A clear career path framework enhances the ability to attract and retain skilled civilian talent, especially within the 0132-job series.

► **Structured Career Advancement:** Provides a roadmap for promotion to senior GS levels, reducing reliance on external opportunities and self-driven advancement.

► **Flexible Progression Models:** Incorporates both "specialist" and "manager" career progression paths, catering to different career aspirations.

► **Support for Leadership Decisions:** Serves as a baseline for leadership panels to discuss promotions, training, job rotation, and assignments.

► **Enhanced Employee Development:** Facilitates conversations between employees and managers about career planning, goal setting, and skill development.

► **Strengthened Career Management:** Acts as a tool for traditional career management, emphasizing leadership alignment, transparency, and open communication.

What can the Career Paths guide offer you?

Information
About the types of skills and experiences needed to progress in your career and at each level

Guides
for career planning and professional development

Resources
for learning and development

Key considerations for City of Houston

► Develop a structured pathway for civilian jobs for similar départements with officer x civilian workforce

► Include both specialist and managerial paths to suit different career aspirations.

► Work with department leaders (Directors and Chiefs) to confirm leadership supports and aligns with the career path framework.

► Maintain open communication about the framework and its benefits.

► Facilitate structured career planning and skill development conversations between managers and employees.

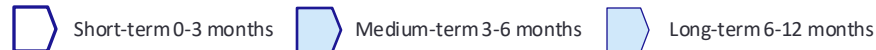► Align the career path framework with existing HR processes like training and performance evaluations.

4 Review compensation & benefits framework

Please note that activities length are an estimate and can overlap during implementation

Nov. '25	Dec. '25	Jan. '26	Feb. '26	Mar. '26	Apr. '26	May. '26

4 Review compensation & benefits framework

4.1 Data Collection and Analysis

4.3 Evaluate Success-Based Bonus System

4.6 Pilot Success-Based Bonus System

4.2 Review Current Salaries and Compensation Structures

4.5 Implementation of Salary and Compensation Adjustments

4.4 Re-evaluate Compensation Committee Process

4.7 Ongoing Monitoring and Evaluation

Group of opportunities

(Owner: Mayor's Office and HR)
- Review current salaries to match market value
- Evaluate opportunity to implement success-based bonus system as an incentive
- Re-evaluate Compensation Committee process to consider salary increase recommendations

Activity Details

4.1 Data Collection and Analysis
- Gather current compensation and benefits data for all employees.
- Conduct a market analysis to compare current salaries with industry standards.
- Identify potential issues with longer-tenured staff and equity concerns.

4.2 Review Current Salaries and Compensation Structures
- Analyze current salaries and compensation structures to identify discrepancies with market values.
- Develop a plan to adjust salaries to match market values, focusing on competitive edge and employee satisfaction.
- Develop recommendations to maintain equity and reduce dissatisfaction.

4.3 Evaluate Success-Based Bonus System
- Research and evaluate the feasibility of implementing a success-based bonus system within the Legal department.
- Develop criteria and metrics for the bonus system.
- Prepare a proposal for the implementation of the bonus system.

4.4 Re-evaluate Compensation Committee Process
- Identify areas for improvement to confirm better salary alignment with industry standards and internal equity.
- Implement recommendations for process improvements.

4.5 Implementation of Salary and Compensation Adjustments
- Implement salary adjustments based on the market analysis and internal equity .
- Communicate changes to employees and provide support for any questions.

4.6 Pilot Success-Based Bonus System
- Launch a pilot program for the success-based bonus system in one department.
- Monitor and evaluate the effectiveness of the bonus system.
- Collect feedback from participants and make necessary adjustments.

4.7 Ongoing Monitoring and Evaluation
- Continuously monitor the impact of compensation and benefits changes on employee satisfaction and retention.

Legend - project estimated length:
- Short-term 0-3 months
- Medium-term 3-6 months
- Long-term 6-12 months

Legend – estimated level of support:
- Vendor support for implementation
- CoH team implementation

Legend – level of impact:
- High
- Medium
- Low

Low

Case study: Puerto Rico Financial Oversight and Management Board (FOMB) Organizational Redesign, Recruitment and Compensation Review

Organization goal	Value delivered	Key considerations for City of Houston

Organization goal

Puerto Rico FOMB aimed to address and resolve the human capital challenges affecting the financial management and accounting functions within several departments of the government.

Specifically, the objectives were to equip government employees with the necessary skills, structure, and support to effectively address current and future needs. The one-year pilot program was intended to develop a broader implementation strategy by gathering lessons learned, leading practices, and key stakeholder engagement. This information then informed a government-wide implementation strategy. As part of this effort, compensation structures were reviewed and adjusted to confirm the client had data-driven compensation models that lead to competitive, fair, and justified salaries. Ultimately, the goal was to create a sustainable and effective civil service reform that could be implemented across the entire government, improving overall efficiency and effectiveness.

Value delivered

▶ **Optimized Workforce:** Used PowerBI for data-driven workload and skills analysis, leading to future state recommendations for optimizing financial management operations.

▶ **Compensation Market Analysis:** Implemented data-driven compensation models for fair and justified salaries, revealing that most salaries were below the market competitive range.

▶ **Reallocate and Reinvest Resources:** Suggested reallocation of activities and resources to high-level target operating model organizational units and recommended reinvestment in critical areas.

▶ **Plan for Broader Rollout:** Developed an approach for broader rollout to 20,000 government employees based on pilot learnings, aiming to achieve sustainable and effective civil service reform.

▶ **Empowered Workforce:** Enabled the workforce to execute professional duties with competency and excellence.

Key considerations for City of Houston

▶ Confirm City employees have the necessary skills, structure, and support to meet current and future needs.

▶ Use data-driven approaches to assess internal and external compensation, workload, and skills to make informed decisions for determining fair, competitive salaries.

▶ Implement pilot programs to gather lessons learned and leading practices before broader rollout.

▶ Reallocate activities and resources to optimize operations and invest in critical areas for long-term sustainability.
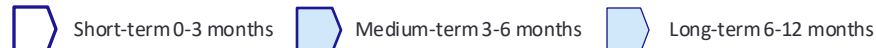
5 Improve procurement organizational efficiency through process, technology optimization, and resource alignment

Please note that activities length are an estimate and can overlap during implementation

Mar. '25	Apr. '25	May '25	Jun. '25	Jul. '25	Aug. '25	Sept. '25	Oct. '25

5 Improve procurement organizational efficiency through process, technology optimization, and resource alignment

5.1 Review Current State Processes

5.2 Revise Procurement Workflows

5.5 Enhance Contract Finalization Measures

5.6 Optimize Procurement Timelines

5.3 Reassign Operational and Administrative Tasks

5.7 Implement Technology Solutions

5.4 Ongoing PMO and Change & Comms Support

Group of opportunities

(Owner: Mayor's Office and HR)
- Streamline time spent on operational and administrative tasks by CoH employees and evaluate how technology can be leveraged to automate manual/repetitive tasks
- Streamlining the procurement processes to confirm timely support to City's departments

Activity Details

5.1 Review Current State Processes
- Conduct a comprehensive review of current procurement and administrative processes.
- Work with each functional department to determine the "desired" current state.

5.2 Revise Procurement Workflows
- Work with cross-functional teams to identify inconsistencies against that desired current state (i.e., the actual current state) and document variations.
- Create future state processes aimed, integrate stakeholders and technology systems early in the process for effective planning and efficiency.

5.3 Reassign Operational and Administrative Tasks
- Conduct a skills assessment to identify highly specialized staff.
- Reassign routine tasks to cost-effective, specialized support staff.
- Develop a plan to transition tasks and provide necessary training.
- Create a TMO to own procurement training and office hours.

5.4 Ongoing PMO and Change & Comms Support
- Establish a Project Management Office (PMO) to oversee the project.
- Develop a change management plan to support the transition.
- Communicate changes to all stakeholders through regular updates.

5.5 Enhance Contract Finalization Measures
- Standardized contract templates by category of supply considering that technology terms will significantly differ from office supplies (i.e., data privacy, third party risk, etc.). Contract finalization times should differ based on the complexity of the requirement (i.e., technology).
- Share lead times across the functional communities so they are aware in their planning process.

5.6 Optimize Procurement Timelines
- Develop a procurement timeline template for departments to follow.
- Provide training to departments on how to adhere to the new timelines.
- Monitor adherence to timelines and make adjustments as necessary.

5.7 Implement Technology Solutions
- Identify routine administrative tasks suitable for automation.
- Select and deploy RPA bots to handle tasks such as data entry, scheduling, and basic customer service inquiries.

Legend - project estimated length:
- Short-term 0-3 months
- Medium-term 3-6 months
- Long-term 6-12 months

Legend – estimated level of support:
- Vendor support for implementation
- CoH team implementation

Legend – level of impact:
- High
- Medium
- Low

Medium   Low

Case study: Defense Health Agency (DHA) implemented change and organization design for a procurement organization

Organizational goal	Value delivered	Key considerations for City of Houston
The Defense Health Agency, a government entity, aimed to standardize, integrate, and streamline policies, business processes, and systems solutions to meet procurement mission requirements.	▶ Identified 90+ procurement excellence, organizational effectiveness, technology solution and performance management initiatives to support the client's transformation	▶ Work on reducing the average time-to-hire to improve staffing efficiency.

The Defense Health Agency, a government entity, aimed to standardize, integrate, and streamline policies, business processes, and systems solutions to meet procurement mission requirements.

Additionally, the goal was to define and implement performance metrics to drive transparency, accountability, and leadership decision-making. The organization was restructured or augmented to better focus on customer service, performance transparency, and accountability.

Furthermore, a structured and systematic approach was created to manage the change journey and increase the probability of a successful and lasting transformation through stakeholder management, targeted communications, and appropriate training.

Value delivered

▶ Identified 90+ procurement excellence, organizational effectiveness, technology solution and performance management initiatives to support the client's transformation

▶ Decreased the average time-to-hire from 80 days in 2017 to 76.2 days> Established a scalable and flexible organizational structure

▶ Developed programs that are now regarded as an agency leading practice and are used as the standard

Key considerations for City of Houston

▶ Work on reducing the average time-to-hire to improve staffing efficiency.

▶ Conduct a thorough assessment to identify areas for improvement in procurement, organization, technology, and performance management.

▶ Standardize and streamline policies, processes, and systems to confirm consistency and efficiency.

▶ Implement performance metrics to drive transparency, accountability, and informed decision-making.

▶ Restructure the organization to focus on customer service and accountability, ensuring it is scalable and flexible.

▶ Use a structured approach to manage change, including stakeholder management, communication, and training.

▶ Develop and implement programs that can become leading practices and standards for the organization.

▶ Use technology solutions to enhance procurement processes and systems for better efficiency.
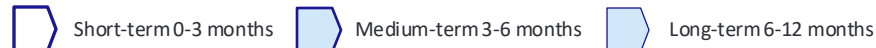
6 Develop and implement a structured Change Management Office (CMO)

Please note that activities length are an estimate and can overlap during implementation

May '25	Jun. '25	Jul. '25	Aug. '25	Sept. '25	Oct. '25	Nov. '25	Dec. '25

6 Develop and implement a structured Change Management Office (CMO)

6.1 Establish a Dedicated Change Management Office (CMO)

6.2 Create Change Management Frameworks

6.4 Monitor and Evaluate Change Management Processes

6.3 Define Communications & Training CMO Team

6.5 Strengthen Change Management Communication

6.6 Integrate Change Management into Organizational Culture

Group of opportunities

(Owner: Mayor's Office and HR)
- Establish a dedicated Change Management Office with dedicated resources
- Enhance the implementation of new systems by providing specialized support and training
- Create specialized communications roles for change management, ensuring a more effective and structured approach to organizational change

Activity Details

6.1 Establish a Dedicated Change Management Office (CMO)
- Identify and appoint a Change Management Office lead and define where the function will live in the organization.
- Define the scope, roles and responsibilities within the CMO, allocate resources and budget, and map in-flight and planned projects to define pipeline.

6.2 Create Change Management Frameworks
- Select and customize appropriate change management models and frameworks.
- Develop templates, tools, and guidelines for change management processes.
- Conduct initial training sessions for the CMO team on the new frameworks.

6.3 Define Communications & Training CMO Team
- Identify key communication and training tasks currently handled by roles across departments.
- Define new specialized roles within the CMO for change communication and training and recruit or reassign staff to fill these roles.

6.4 Monitor and Evaluate Change Management Processes
- Develop metrics and KPIs to measure the success of change initiatives.
- Conduct regular reviews and assessments of ongoing projects.
- Make necessary adjustments to frameworks and processes.

6.5 Strengthen Change Management Communication
- Develop a comprehensive communication strategy for priority initiatives.
- Established effective communication channels to keep employees informed.
- Partner with leaders to enable town hall meetings and Q&A sessions.

6.6 Integrate Change Management into Organizational Culture
- Upskilling leaders and employees on change.
- Promote the importance of change management through leadership.
- Integrate change management principles into performance evaluations and development plans.

Legend - project estimated length:
- Short-term 0-3 months
- Medium-term 3-6 months
- Long-term 6-12 months

Legend – estimated level of support:
- Vendor support for implementation
- CoH team implementation

Legend – level of impact:
- High
- Medium
- Low

Low

Case study: U.S. Virgin Island implemented a new operating model for the finance function supported by change management, and new organizational design for all functions

Organization goal	Value delivered	Key considerations for City of Houston

Organization goal

The U.S. Virgin Islands was not able to fully meet the financial needs of its stakeholders due to a lack of centralization, standardization, accountability, and reliance on manual processes.

There was a need to consolidate all financial activities into a single entity to improve centralization, standardization, accountability, and reduce reliance on manual processes, thereby better meeting the financial needs of its stakeholders.

Value delivered

► **Centralization and Standardization:** Combined all financial activities into one entity for better efficiency and consistency.

► **Change Management:** Developed a comprehensive change strategy, including communication, stakeholder engagement, training, and tracking role impacts to support the transition.

► **Organizational Design and Operating Model:** Analyzed current activities, designed a new organizational structure, and set guiding principles and KPIs to confirm efficient and effective operations.

Key considerations for City of Houston

► Develop a change strategy, engage stakeholders, communicate clearly, provide training, and track role impacts.

► Analyze current activities, design an efficient structure, set guiding principles and KPIs, and plan for new processes and skills assessment.

► Form a steering committee and hold kick-off meetings to align key stakeholders.

► Track risks and role changes to mitigate potential issues during the transition.

Spend Analysis

Table of contents

1. Approach & Methodology

Spend Analysis Workstream Overview

The spend analysis workstream conducted the activities listed below per the City's asks

City asks

▶ Analyze historical spending data (including contract, non-contract, and P-Card purchases) to identify trends and areas for potential cost savings or optimization. (Analysis should include a classification of historical expenses into relevant categories and subcategories based on vendor, type of goods or services, department, etc.)

▶ Identify areas where costs can be reduced through negotiation, consolidation, alternative sourcing, or process optimization.

▶ Review procurement and P-Card practices and controls to identify risks and inefficiencies. Develop a prioritized list of recommendations to mitigate risk exposure.

Our approach

1 Identify and Collect Data	2 Cleanse and Prepare Data	3 Data Analysis	4 Opportunity Identification
▶ Collect spend data (determine data requirements, identify source systems, receive data and validate)	▶ Develop/define process for categorizing data	▶ Analyze core payment data (spend by vendor, department, category, fiscal year, etc.)	▶ Provide high level reports to analyze and present spend findings
▶ Gather procurement and Purchase Card (P-Card) policy documentation	▶ Identify categories and subcategory structure as applicable	▶ Validate categorizations and update data accordingly	▶ Identify high-level areas of opportunity for strategic sourcing by Category
▶ Receive translation tables related to budget and accounting codes, etc.	▶ Categorize data	▶ Conduct review of procurement and P-Card programs	▶ Provide recommendations for improvement on procurement and P-Card programs

① Identify and Collect Data

SAP tables and P-Card data were the primary data inputs for this analysis

Data Type	File	Date Received	FY(s)	Use Description	Comments
Purchase Order	**SAP Tables EKPO & EKKO**	9/13/2024	FY22 FY23 FY24	▶ Primary input files used for purchase order and contract spend. ▶ EKPO: base record for PO, price, and NIGP code ▶ EKKO: base record for vendor, department, and contract number	Several records within EKKO had no vendor name listed nor a department name, so we labeled these records as "Unknown" for vendor and department in the data
P-Card	**"COH July 2023 thru June 2024.xlsx"**	03/2024	FY24	▶ Primary input file used to categorize FY24 purchase card data	Approximately 49% of item descriptions are blank or vague. Categorization inferred by assessing other fields, including MCC description, vendor, and purchasing department
	FY22 P-Card Data.xlsx FY23 P-Card Data.xlsx	9/16/2024	FY22 FY23	▶ Used within total transaction counts and dollar value aggregation year over year	FY22-FY23 purchase card data has missing item descriptions, MCC codes, and item prices and thus not categorized as part of the spend analysis process

(2) # Cleanse and prepare data
The data was mapped into 8 discrete categories and a 'Miscellaneous' category using NIGP codes and MCC descriptions

Data Preparation

(1) **Translate codes to English text** – Review data fields for completion and map in translation tables for Department codes, Buyer codes, and PO Document Type

Categorization Mapping Process

(1) **Review Data –** Identify key fields used for historical spend analysis across (purchase order and P-Card purchases)

PO	P-Card
• Outline Agreement • Vendor Name • Department Name	• Description • Department Name • Transaction amount • Vendor Name

(2) **Create Categorization Structure –** Identify relevant data fields to group common commodities and services and develop a tiered categorization taxonomy (discreet categories and sub-categories) based on the nature (i.e., the "what") of the purchase

PO	P-Card
• NIGP Code • Class Description • Item Description	• MCC Description • Vendor Name

- **PO Data** – Approximately ~2,600 NIGP Codes and their class and item descriptions were mapped to a categorization structure. Verified class/item descriptions against short text to confirm accuracy of NIGP codes.
- **P-Card data** – Used MCC Description (validated against Vendor Name) to map transactions to a top level category

(3) **Develop Sub-categorization Structure –** Analyzed size of level 1 categorization groupings to redistribute items where appropriate to create a functional categorization structure. Then continued categorizing data into sub-categories

- **PO Data** – Used NIGP Codes to determine appropriate sub-categories for each category, categorizing down to five sub-category levels where needed

- **P-Card data** – Due to item description and MCC data quality issues, transactions were only categorized to a top-level category

2 # FY22-24 Spend Totals

Listed below is the total spend by Fiscal Year (22-24) across Purchase Orders and P-Card and the observed increases from FY23 to FY24

	FY22	FY23	FY24	FY22-24 Total Spend
Total Spend ($)M	$2,171	$2,380	$4,036	$8,587
Contract Spend ($)M	$1,897	$2,081	$3,511	$7,489
Non-contract Spend ($)M	$253	$274	$502	$1,029
P-Card Spend[1] ($)M	$21	$25	$23	$69

FY24 has a $1.6B increase from FY23. Below is a breakdown of potential drivers for the overall increase:

FY23-24 Spend Comparison for FY24	FY24 Increase
Modernization project for the George Bush Airport, beginning in FY24 and anticipated for completion in 2025. Airport facility construction and operations expenses from *$113M in FY23 to $483M in FY24*	$370M
Water and sewer construction services, including maintenance and repair services from *$454M in FY23 to $738M in FY24*	$284M
Road and highway construction services, including maintenance and repair services from *$82M in FY23 to $166M in FY24*	$84M
Architectural and engineering services from *$75M in FY23 to $147M in FY24*	$72M
Lakes, rivers and other waterways management from *$31M in FY23 to $103M in FY24*	$72M
Water systems repairs, lab services for water testing and analysis, etc., from *$6.7M in FY23 to $55M in FY24*	$48M
Total FY24 Increase	**$930M**

[1] P-Card Spend was only categorized for FY24

3 # Data Analysis: COH's Level 1 Categories
9 categories, including a 'Miscellaneous' category, were identified in this spend categorization exercise

Facilities & Construction

Construction-related services to create or enhance COH structures, facilities and infrastructure (i.e. buildings, roads, pipelines, water systems)

Lifestyle & Human Service

Purchases of goods, services, and accessories to enrich and engage the community of Houston (e.g. people shelter, support services, art services, food)

Industrial Products & Services

Purchase of basic or raw materials, chemicals, fuel, instruments, tools, hardware and equipment to complete industrial initiatives

Professional Services

Purchases of professional-related services including business admin, financial, legal and consulting services

Information Technology

Acquisition of technology-related goods and services for the operation, maintenance, and advancement of COH's IT infrastructure

Management & Operations

Purchases to manage COH operations and facilities (e.g. office furniture and supplies, printing services, badges, leases, security)

Logistics, Automotive & Transportation

Purchases related to the movement of people, goods and services (e.g. vehicles, boats, aircraft, equipment)

Medical

Purchases of medical and pharmaceutical equipment and services (e.g. personal protective equipment, defibrillator, diagnostic equipment, prescription drugs)

Miscellaneous / Unclassified

Vaguely-classified, transaction items that do not contain conclusive information and/or did not entirely fall into an established category of spend

Data Analysis: COH's Level 2 Categories
3 The spend could be further broken down into 34 sub-categories

All ($) are for FY24

Facilities & Construction | $2,276M | 56.4%
- Equipment & Supplies
- Construction Services
- Maintenance & Repair
- Architectural & Engineering Svs
- Utility Svs
- Facility Svs
- Construction Mgmt Svs

Industrial Products & Services | $535M | 13.3%
- Industrial Svs
- Industrial Equip. & Supplies
- Water Systems Equip & Svs
- Wildlife & Environmental
- Structures & Real Estate (i.e. industrial rental equip)

Professional Services | $471M | 11.7%
- Legal Services
- Insurance Services
- Consulting Services
- Accounting/Finance
- Comms & Media Related Services
- HR Services
- Contracted Services

Logistics, Auto. & Transport. | $323M | 8.0%
- Infrastructure Management
- Maint. & Equip. – Automotive
- Maint. & Equip. – Aviation
- Maint. & Equip. – Marine
- Maint. & Equip. – Heavy Machinery

Information Technology | $165M | 4.1%
- Communication Systems & Components
- Computer Hardware & Accessories
- General Electronics
- IT Services
- Software
- Hardware

Management & Operations | $136M | 3.4%
- Management & Operations Services
- Structures & Real Estate (i.e., rent/lease for existing structures)
- Office Management

Lifestyle & Human Service | $91M | 2.3%
- Human Services
- Leisure & Recreation

Medical | $25M | 0.6%
- Medical Services
- Medical Equipment & Supplies
- Pharmaceuticals

Miscellaneous category not included on this slide; FY24 = $14M

Approach and methodology

3 # Purchase Card Overview
FY24 total spend on P-Card totals $23.25M, roughly 0.6% of the annual spend. There is an opportunity to leverage P-Card to drive efficiency

P-Card is leveraged for less than 1% of the total spend by category

Master Category	Sum of Transaction Amount
Industrial Products & Services	$4.97M
Facilities & Construction	$4.21M
Logistics, Automotive & Transportation	$3.00M
Lifestyle and Human Services	$2.73M
Misc	$2.72M
Management & Operations	$2.35M
Professional Services	$2.30M
Medical	$0.56M
IT	$0.51M
Total	**$23.35M**

Departments without P-Card spend in FY24:

▶ Convention & Entertainment (CEF)

▶ Citywide General Government

Top 3 departments make up 53% of total P-Card spend

Department Name	Sum of Transaction Amount	% Transaction Amount
Public Works	$6.38M	27.32%
Fleet Management Department	$3.71M	15.91%
Houston Fire Department	$2.31M	9.88%
Parks and Recreation	$2.26M	9.67%
Aviation Services (HAS)	$2.17M	9.30%
Houston Police Department	$1.82M	7.79%
Health and Human Services	$1.17M	5.00%
General Services (GSD)	$0.87M	3.72%
Mayor's Office	$0.57M	2.45%
Admin and Reg Affairs (ARA)	$0.33M	1.43%
Information Technology	$0.31M	1.31%
Human Resources	$0.25M	1.07%
City Council (CNL)	$0.22M	0.94%
Solid Waste Management	$0.14M	0.58%
Finance Dept (FIN)	$0.13M	0.56%
Legal Department	$0.13M	0.56%
Municipal Courts	$0.12M	0.52%
Department of Neighborhoods	$0.10M	0.44%
Houston Emergency Center	$0.08M	0.36%
Housing (HCD)	$0.06M	0.25%
Planning and Development	$0.06M	0.25%
Controller Office	$0.05M	0.23%
Office of Business Opportunity	$0.05M	0.21%
Houston Public Library (HPL)	$0.04M	0.19%
City Secretary	$0.01M	0.05%
Total	**$23.35M**	**100.00%**

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4 Opportunity Identification
The following depicts alignment of themes across the various categories

Theme							
	1. Contracting efficiency Potential duplicative contracts with the same vendor	**2. Non-contract spend** Existing contracts are not fully utilized, or additional contract opportunities exist	**3. Supplier Relationship Mgmt** Reduce number of non-strategic vendors (i.e., 80/20 rule)	**4. Emergency POs** Unplanned purchases outside of agreed to terms & pricing	**5. Department category strategy coordination** A few departments can coordinate enterprise-wide category strategies	**6. Year over year trending** Understand repeating drivers to anticipate future needs	**7. Data quality** Gaps in data impacting analysis capability
Facilities & Construction						• In FY24 spend increased by a total of $1b; there is an increase in spend across all categories	• Missing descriptions in P-Card data • Some vendors/ depts are blank in the raw data (could have been sanitized for PII) • Some vendors/ depts are labeled unknown due to missing 'Purchase Number' either in EKPO or EKKO tables
Industrial Products & Services							
Professional Services							
Logistics, Automotive & Transportation							
Management & Operations							
IT							
Lifestyle and Human Services							
Medical							

Data Analysis: Category Overviews

4

~81% of spend is with the top 3 categories; similar themes exist across categories

All $ are for FY24

Facilities & Construction | $2,276M | 56.4%
- 80% of spend is with 74 out of 1,172 vendors (6%)
- 45 vendors have 3+ contracts
- 3 departments account for 91% of the spend
- Across all departments, 95% of spend is on-contract
- Spend increased by 87% between FY23 to FY24

Information Technology | $165M | 4.1%
- 80% of spend is with 28 out of 614 vendors (5%)
- 8 vendors have 3+ contracts
- IT dept accounts for $65M (39%) of the spend, with 98% on contract; 32% is with HPD and Public Work
- Across all departments, 88% of spend is on-contract
- Spend increased by 45% between FY23 to FY24

Industrial Products & Services | $535M | 13.3%
- 80% of spend is with 38 out of 1,027 vendors (4%)
- 7 vendors have 3+ contracts
- Public Works accounts for 71% of the spend
- Across all departments, 84% of spend is on-contract
- Spend increased by 84% between FY23 to FY24

Management & Operations | $136M | 3.4%
- 80% of spend is with 14 out of 522 vendors (2.6% of vendors)
- 7 vendors have 3+ contracts
- 2 departments account for 57% of the spend
- Across all departments, 93% of spend is on-contract
- Spend increased by 48% between FY23 and FY24

Professional Services | $471M | 11.7%
- 80% of spend is with 120 out of 1,345 vendors (9%)
- 13 vendors have 3+ contracts
- 4 departments account for 57% of the spend
- Across all departments, 75% of spend is on-contract
- Spend increased by 47% between FY23 to FY24

Lifestyle & Human Service | $91M | 2.3%
- 80% of spend is with 17 out of 678 vendors (3% of vendors)
- 12 vendors have 3+ contracts
- 5 departments account for 75% of the spend
- Across all departments, 91% of spend is on-contract
- Spend increased by 15% between FY23 and FY24

Logistics, Auto. & Transport. | $323M | 8.0%
- 80% of spend is with 33 out of 860 vendors (4%)
- 9 vendors have 3+ contracts
- 4 departments account for 72% of the spend
- Across all departments, 50% of spend is on-contract
- Spend increased by 48% between FY23 to FY24

Medical | $25M | 0.6%
- 80% of spend is with 24 out of 239 vendors (10% of vendors)
- 4 vendors have 3+ contracts
- 3 departments account for 91% of the spend
- Across all departments, 82% of spend is on-contract
- Spend increased by 32% between FY23 and FY24

*Vendors with multiple contracts are limited to 3 and above; this assumes vendors with 2 contracts are due to recompetes and only one active contract exists.

Category management/organizational structure
This framework sets the foundation for how COH can strategically manage goods & services
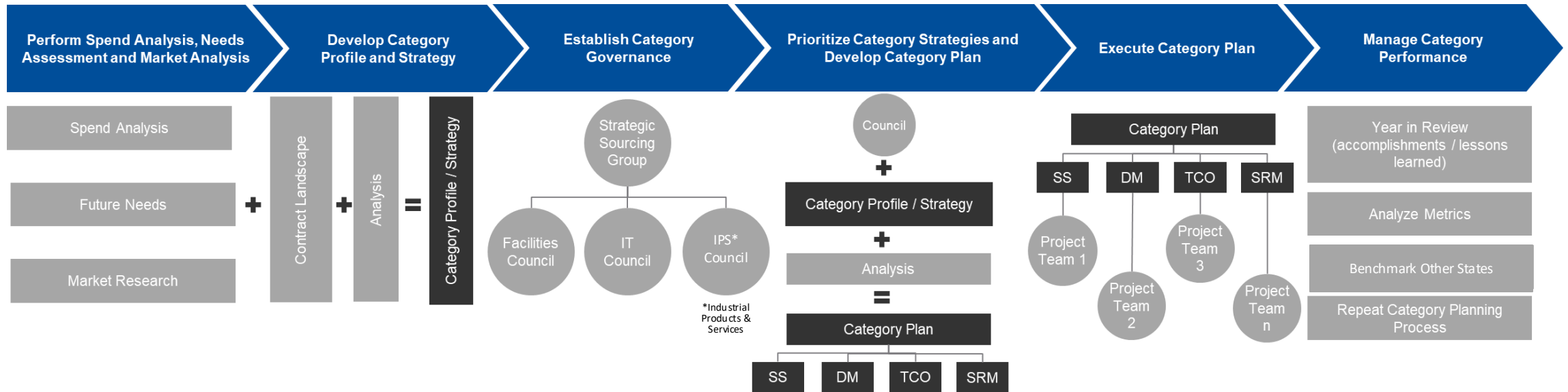
1. *Perform Spend Analysis:* The process of categorizing and analyzing the State's payments made for goods and services over a specified time period (e.g., fiscal year) into a standardized category taxonomy.

2. *Develop Category Profile and Strategy*: Review subcategory spend and potential opportunities, identify market forces, develop category objectives and identify initial category strategies.

3. *Establish Category Governance:* Develop an operating model and guidelines to confirm the category management team is successful.

4. *Prioritize Category Strategies & Develop Plans:* The category managers will develop and prioritize a list of potential initiatives, with COH leadership reviewing the list, considering the overall category strategy and prioritize the initiatives among the category teams accordingly.

5. *Execute the Category Plans:* Using the established category plans for each category initiative, continually monitor progress, provide guidance, and communicate progress to the broader organization to socialize the initiatives and increase value/savings for the State.

6. *Manage Category Performance:* Conduct ongoing management of the category to monitor supplier performance, mitigate risks, and track progress against savings targets.

2. Data Analysis & Mapping

COH's Level 1 Categories

9 categories, including a 'Miscellaneous' category, were identified in this spend categorization exercise

Facilities & Construction

Construction-related services to create or enhance COH structures, facilities and infrastructure (i.e. buildings, roads, pipelines, water systems)

Lifestyle & Human Service

Purchases of goods, services, and accessories to enrich and engage the community of Houston (e.g. people shelter, support services, art services, food)

Industrial Products & Services

Purchase of basic or raw materials, chemicals, fuel, instruments, tools, hardware and equipment to complete industrial initiatives

Professional Services

Purchases of professional-related services including business admin, financial, legal and consulting services

Information Technology

Acquisition of technology-related goods and services for the operation, maintenance, and advancement of COH's IT infrastructure

Management & Operations

Purchases to manage COH operations and facilities (e.g. office furniture and supplies, printing services, badges, leases, security)

Logistics, Automotive & Transportation

Purchases related to the movement of people, goods and services (e.g. vehicles, boats, aircraft, equipment)

Medical

Purchases of medical and pharmaceutical equipment and services (e.g. personal protective equipment, defibrillator, diagnostic equipment, prescription drugs)

Miscellaneous / Unclassified

Vaguely-classified, transaction items that do not contain conclusive information and/or did not entirely fall into an established category of spend

COH's Level 2 Categories
The spend could be further broken down into 34 sub-categories

All $ are for FY24

Facilities & Construction | $2,276M | 56.4%
- Equipment & Supplies
- Construction Services
- Maintenance & Repair
- Architectural & Engineering Svs
- Utility Svs
- Faculty Svs
- Construction Mgmt Svs

Information Technology | $165M | 4.1%
- Communication Systems & Components
- Computer Hardware & Accessories
- General Electronics
- IT Services
- Software
- Hardware

Industrial Products & Services | $535M | 13.3%
- Industrial Svs
- Industrial Equip. & Supplies
- Water Systems Equip & Svs
- Wildlife & Environmental
- Structures & Real Estate (i.e. industrial rental equip)

Management & Operations | $136M | 3.4%
- Management & Operations Services
- Structures & Real Estate (i.e., rent/lease for existing structures)
- Office Management

Professional Services | $471M | 11.7%
- Legal Services
- Insurance Services
- Consulting Services
- Accounting/Finance
- Comms & Media Related Services
- HR Services
- Contracted Services

Lifestyle & Human Service | $91M | 2.3%
- Human Services
- Leisure & Recreation

Logistics, Auto. & Transport. | $323M | 8.0%
- Infrastructure Management
- Maint. & Equip. – Automotive
- Maint. & Equip. – Aviation
- Maint. & Equip. – Marine
- Maint. & Equip. – Heavy Machinery

Medical | $25M | 0.6%
- Medical Services
- Medical Equipment & Supplies
- Pharmaceuticals

Miscellaneous category not included on this slide; FY24 = $14M

Category Summary by Spend and Spend on Contract

The top categories of spend are Facilities & Construction, Industrial Products & Services and Professional Services.
Facilities & Construction category has the largest number of contracts

Spend by Category (in Millions)						
Category	FY22 PO	FY23 PO	FY24 PO	FY24 P-Card	YoY total Spend	% of Spend
Facilities & Construction	$968	$1,215	$2,272	$4	$4,460	52.2%
Industrial Products & Services	$280	$290	$530	$5	$1,105	12.9%
Professional Services	$285	$321	$469	$2	$1,077	12.6%
Logistics, Automotive & Transportation	$179	$218	$320	$3	$720	8.4%
Management & Operations	$221	$91	$133	$3	$448	4.3%
IT	$103	$114	$164	$1	$382	4.5%
Lifestyle and Human Services	$75	$78	$88	$3	$244	3.8%
Medical	$30	$19	$24	$1	$74	0.9%
Miscellaneous	$8	$10	$11	$3	$32	0.4%
Total	$2,150	$2,355	$4,012	$23	$8,541	100%

Outline Agreements (Contracts) by Category					
Category	FY22	FY23	FY24	Total Contracts (Distinct)[1]	% of Contracts
Facilities & Construction	586	626	784	1,232	45.1%
Industrial Products & Services	265	292	309	439	16.1%
Professional Services	261	271	316	523	19.1%
Logistics, Automotive & Transportation	182	178	203	274	10.0%
Management & Operations	100	79	98	150	5.5%
IT	125	130	159	207	7.6%
Lifestyle and Human Services	116	105	148	215	7.9%
Medical	78	77	80	119	4.4%
Miscellaneous	35	42	48	126	4.6%
Total				2,734	100%

[1] Total contract counts will not equal the sum of YoY or category sums as contracts can be multi-year and/or contracts with spend across multiple categories

P-Card Spend and Transaction Count by Category
Logistics, Automotive & Transportation has the largest number of transactions

Spend by Category (in Millions)			
Category	FY22-24 PO Spend	FY24 P-Card Spend	FY22-FY24 Total Spend
Facilities & Construction	$4,456	$4	$4,460
Industrial Products & Services	$1,100	$5	$1,105
Professional Services	$1,075	$2	$1,077
Logistics, Automotive & Transportation	$717	$3	$720
Management & Operations	$445	$3	$448
IT	$381	$1	$382
Lifestyle and Human Services	$241	$3	$244
Medical	$73	$1	$74
Miscellaneous	$29	$3	$32
Total	$8,517	$23	$8,541

Transactions by Category			
Category	FY24 (PO)	FY24 (P-Card)	Total Transactions[1]
Facilities & Construction	6,376	12,034	18,410
Industrial Products & Services	2,893	8,704	11,597
Professional Services	1,938	8,329	10,267
Logistics, Automotive & Transportation	10,226	14,462	24,688
Management & Operations	3,604	8,293	11,897
IT	1,756	1,411	3,167
Lifestyle and Human Services	1,415	4,648	6,063
Medical	942	1,145	2,087
Miscellaneous	336	7,661	7,997
Total	29,486	66,687	96,173

[1] Total count will not equal the sum of YoY or category sums as transactions can have multiple items purchased and/or spend that aligns that applies to multiple categories

Data Translation Tables (1 of 2)
The team was provided a mapping of the Department code to translate into a text description.
A separate mapping table was provided to roll up divisions into Public Works (see right)

Department Code Reference Tables	
Department Code	**Department Name**
1000	Houston Police Department
1100	Department of Neighborhoods
1200	Houston Fire Department
1500	Houston Emergency Center
1600	Municipal Courts
2100	Solid Waste Management
2500	General Services (GSD)
2800	Aviation Services (HAS)
3200	Housing (HCD)
3400	Houston Public Library (HPL)
3600	Parks and Recreation
3800	Health and Human Services
5000	Mayor's Office
5100	Office of Business Opportunity

Department Code Reference Tables	
Department Code	**Department Name**
5500	City Council (CNL)
6000	Controller Office
6400	Finance Dept (FIN)
6500	Admin and Reg Affairs (ARA)
6700	Fleet Management Department
6800	Houston Information Technology Services (HITS)
2000	**Public Works**
7000	Planning and Development
7500	City Secretary
8000	Human Resources
9000	Legal Department
9900	Citywide General Government
4200	Convention and Entertainment (CEF)
COH	Purch Org - COH

Divisions rolled up into Public Works	
Division Code[1]	**Division Name**
40026	Transportation And Drainage
40004	CP Real Estate
40005	Tran star
40006	HPC Administration
40007	Directors Office
40008	HPC Code Enforcement
40009	HPW Technology
40010	HW Ops
40011	HW Wastewater
40012	HW Drinking Water
40014	HPC City Engineer
40015	HW Regulatory Compliance
40016	HW Water Quality
40020	Financial Management Services
40021	Customer Account Services
40024	Capital Projects
40026	Transportation And Drainage
40027	FMS Procurement

[1] Department with codes beginning as "400" in the P-Card data were consolidated and included with Public Works spend. Only ~25,000 transactions in P-Card data, totaling ~$5.7M, were impacted.

Data Translation Tables (2 of 2)
The team was provided a mapping of the PO Doc Type number to translate into a text description

PO Doc Type	Description
CC	P-Card Order
CP	Cap Pro Release
EO	Emergency Order
IL	Interlocal
MP	Marketplace Order
PO	One-Time
RO	Contract Release
SRO	Service Related Order
SS	Sole Source
UB	Stock Transport Order

Data Assumptions Summary

Data Summary	Description	Impact
Multiple records were excluded from analysis due to errors in data	Multiple records were excluded from the data after confirmation from the Chief Procurement Officer that they should be not be included. These included individual POs with spend over $1B, and all records with the NIGP code "SALE OF SURPLUS GOOD."	• 304 records excluded • $13.8B in spend excluded
P-Card Data was only analyzed for FY24	Due to missing data fields (MCC Description, Item Price) in FY22 and FY23 P-Card data, P-Card data was only categorized for FY24. It is included in the dataset overview, but not in the category overviews through the analysis	• P-Card spend for FY22 and FY23 is not included in the data analysis
"Misc." top category was not included in the data analysis	A small portion of spend was categorized as "Misc.", as it did not fit into any major business category. The spend was predominantly P-Card record with unclear MCC and Short Text descriptions, or PO data that was NIGP Category "NON-PROFESSIONAL SERVICES (NOT OTHERWISE CLASSIFIED)".	• Less than 0.5% of spend was categorized as "Misc."
Some POs do not have vendor, department or contract data in SAP	In SAP, table EKPO (the PO Line Item table) is the base dataset for PO, price and NIGP code. This is then matched to EKKO (PO Header table), to get vendor, department and contract info. A small number of records (<0.004%) did not have matches in EKKO, so these records are labeled as "Unknown" for vendor and department in the data.	• 0.3% of POs
Non-contract classification assumption	The contract status of a PO was determined by whether there was an "Outline Agreement" number present for the PO data. Our analysis assumes that a missing contract number means the spend was not on-contract but could be skewed by missing or hidden contract data.	• No outline agreement number present for 0.3% of POs • No contract data for P-Card
Contract counts in analysis potentially include null values	In cases where there is non-contract spend included in a distinct contract count, the null value for the outline agreement can be included in the distinct count for contracts. This leads in some cases to a +1 being added to the distinct contract counts where non-contract spend is present.	• Contract counts by vendor/dept will have a +1 count if non-contract spend is present
P-Card data was only categorized at the top level	Due to gaps in item description for the P-Card data, the Merchant Category Codes (MCC) descriptions were used to categorize the P-Card data. The MCCs were reliable for top categorization, but limited ability to categorize beyond that.	• P-Card data only categorized at the top level
Public Works divisions were consolidated and included with HPW spend	In the P-Card data, Public Works was split into its individual divisions for its department name. To standardize department names between PO and P-Card data, any department code starting in "400" was reassigned to Public Works and the P-Card department name was updated to Public Works.	• ~25,000 records totalling ~$5.7M were consolidated and included as part of Public Works department spend
NIGP Code "Professional Services not classified" was categorized as Professional Services - Other	Due to the various nature of the records under NIGP Code "Professional Services not classified", these records were categorized as Professional Services – Other.	• $98M and 32 records listed on this NIGP code

Control Totals
FY22-24 total spend was analyzed using COH's General Fund budget as the control total for spend in each year

COH's General Fund FY22-24 budget was pulled from [FY Operating Budget Site](#) to compare against expenditures or "spend" received

	FY22	FY23	FY24	FY22-24 Total Spend
Total Spend ($)M	$2,171	$2,380	$4,036	$8,587
Contract Spend ($)M	$1,897	$2,081	$3,511	$7,489
Non-contract Spend ($)M	$253	$274	$502	$1,029
P-Card Spend[1] ($)M	$21	$25	$23	$69
General Fund Operating Budget	$2,640	$2,770	$2,890	$8,300

- Total spend in FY22 and FY23 are less than the General Fund Operating Budget.
- FY24 spend is roughly $1B higher than the budget listed. This is due to:
  - The [IAH Terminal Redevelopment (ITRP) Program](#), a $14,580M investment project to modernize the George Bush Airport, beginning in FY24 and anticipated for completion in 2025.
    - ***Data shows*** *a large increase in airport facility construction and operations expenses from ~$113M in FY23 to ~$483M in FY24 (+ $370M in spend).*
  - Increased spend for infrastructure and reconstruction investment resulting from natural disasters like flash flooding and severe storms in FY23 and FY24 – [here](#). Below lists the key categories/areas with this increase:
    - *EPOs from ~$6.7M in FY23 to ~$55M in FY24 for water systems repairs, lab services for water testing and analysis, etc., indicating a disaster related spike (+ $48.3M in spend).*
    - *Lakes, rivers and other waterways management from ~$31M in FY23 to ~$103M in FY24 (+ ~$72M in spend).*
    - *Road and highway construction services, including maintenance and repair services from ~$82M in FY23 to ~$166M in FY24 (+ $84M in spend)*
    - *Water and sewer construction services, including maintenance and repair services from ~$454M in FY23 to ~$738M in FY24 (+ $284M in spend)*
    - *Architectural and engineering services from ~$75M in FY23 to ~$147M in FY24 (+ $72M in spend)*

[1] P-Card Spend was only categorized for FY24

Outlier Transactions
304 transactions were removed from this analysis, totaling ~$13.8B in spend

The following transactions are excluded in the total spend analyzed but are in the files received September 2024.

Outlier Transactions			
Item / PO	**Value ($)M**	**# PO(s) Impacted**	**Reason Removed**
PO 4500385271	$11,360	1	CPO data team confirmed transaction should not be included
PO 4500362757	$8	1	CPO data team confirmed transaction should not be included
PO 4500419637	$2,240	1	Removed due to significant spend value, indicating it should also be excluded
Transactions listed under NIGP Code "SALE OF SURPLUS AND OBSOLETE ITEMS"	$240	301	Excluded from analysis – not indirect spend/expenditures
Total	**$13,848M**	**304**	

Unknown & Blank Items

Missing, vague and/or unknown fields, totaling $613M in spend, impacted the categorization mapping exercise

The EKPO table (the base dataset for PO, price and NIGP code) could not be matched to the EKKO table (PO header table with vendor name, department and contract info) due to no match/link to align transaction items; these records are labeled as "Unknown" for vendor and department in the data.
Several P-Card transactions could not be further subcategorized due to missing, vague or unclear MCC descriptions. Fields such as department code and

Unknown & Blank Items					
Item / PO	# PO(s) Impacted	# P-Cards Impacted	Total Transactions Impacted	Value Impact ($)M	Comment
Blank NIGP codes/ MCC Codes	1,340	5	1,345	$0.243	
Missing class/item or MCC descriptions	2,738	32,365	114,358	$401	Primarily P-Card transactions; items that did not have a description listed
Vague or unclear descriptions	N/A	79,258	79,258	$13	Primarily P-Card transactions; items with vague descriptions that prevented further categorization
Unknown department/vendor	1,835	N/A	1,835	$199	Non-contract spend with unlisted/unspecified vendor/department; no outline agreement listed to support vendor/department identification through SAP mapping
Total	**5,913**	**111,628**	**196,796**	**$613**	

Data In-scope

Over $8,500M of spend for FY22-FY24 remains in scope for this spend analysis

$8,541M	$7,489M	$1,029M	$23M
Total Spend	**Contract Spend**	**Non-contract Spend**	**P-Card Spend[1] (FY24 only)**

% of total spend	87.7%	12%	0.3%*

[1] P-Card spend, ~46M across FY22-23 not included in category analysis

	FY22 Breakdown	FY23 Breakdown	FY24 Breakdown	Total In-scope
Total Spend ($)M	$2,150	$2,355	$4,036	**$8,541M[1]**
Total Spend (%)	25%	28%	47%	**100%**
Count of Purchase Orders Transactions*	23,994	27,171	27,429	**78,594**
Count of P-Card Transactions*[2]	64,073	71,760	66,678	**66,678**

[2] P-Card spend was only categorized for FY24

*Transaction counts (PO & P-Card) are distinct counts of PO/Transaction ID from the data

3. Category Observations & Recommendations

Category Summary: Facilities & Construction

$4,460M	52.4%
FY22-FY24 Spend	of Total Spend YoY

Type	($) M	%
Contract	$4,227	94.8%
Non-Contract	$228	5.1%
P-Card	$4	0.1%

PO Year over Year Spend

FY22 Spend	$968M
Vendors	725
Contracts	586
Depts	19
PO Count	4,967

FY23 Spend	$1,215M
Vendors	805
Contracts	626
Depts	20
PO Count	6,422

FY24 Spend	$2,272M
Vendors	837
Contracts	784
Depts	22
PO Count	6,376

P-Card FY24 Spend

FY24 Spend	$4M
Vendors	311
Contracts	-
Depts	36
Transactions	12,034

FY24 Sub-category Spend

Sub-category	($) M	% of Total Spend	Common goods/services purchased
Construction Services	$1,442.5	63.3%	Water/sewer, road/highway, airport
Maintenance & Repair	$371.5	16.3%	HVAC, airport/building maint., roadway maint.
Architectural & Engineering Svs	$149.9	6.5%	Engineering services, testing, installation
Utility Services	$124	5.4%	Electric utility, gas utility, water utility
Facility Services	$98.7	4.3%	Trash disposal, landfill services, custodial services
Construction Management Services	$57.6	2.5%	Site/Building construction/, public facility construction
Equipment & Supplies	$29.6	1.1%	Tools, Containers, Cables and wires

FY24 Top 10 Vendors by Spend*

Parent Company	Transaction Amount	% of Total Transaction
United Airlines INC	$150M	6.59%
Reliant Energy Retail Services LLC	$99M	4.34%
MC2 Civil LLC	$91M	4.01%
FlatIron Constructors INC	$76M	3.32%
DL Glover	$71M	3.14%
TDIndustries	$69M	3.04%
LEM Construction Co INC	$67M	2.96%
Harper Brothers Construction LLC	$65M	2.85%
Grava LLC	$48M	2.12%
Industrial TX Corp	$47M	2.07%
Total	$2,276M	100.00%

FY24 Top 10 Departments by Spend*

Department Name	Transaction Amount	% of Total Transaction	# of Buyers
Public Works	$1,223M	53.73%	27
Aviation Services (HAS)	$566M	24.88%	21
General Services (GSD)	$273M	12.01%	14
Solid Waste Management	$60M	2.64%	12
Housing (HCD)	$58M	2.53%	9
Houston Police Department	$31M	1.37%	12
Parks and Recreation	$28M	1.23%	16
Health and Human Services	$20M	0.88%	20
Department of Neighborhoods	$3M	0.14%	8
Houston Fire Department	$3M	0.14%	9
Total	$2,276M	100.00%	100

✱ Unknown = Purchase ID is blank in either the EKPO and EKKO creating the inability to pull in Vendor or Dept Name
Blank = raw data provided contained blank (null) values

185

Opportunity Identification: Facilities & Construction
The following themes emerged across the categories

Facilities & Construction	

Contract v. Non-contract with the same vendor	• Review non-contract spend for future procurement strategies to leverage the full demand and obtain better pricing:
	  • Architectural and Engineering Services
	• Review vendors with both contract and non-contract spend
	  • Construction Services

Multiple contracts with the same vendor	• Review multiple contracts with top vendors for potential renegotiation, leverage buying power and consolidation of requirements: • Construction Services and Maintenance and Repair
Spend is predominately with 1-3 departments	• Public Works accounted for 54% ($1,223M) of spend followed by Aviation Services for 25% ($560M)
Vendor base indicates opportunity for rationalization	• 80% of spend covers 74 out of 1,131 vendors (6.5%); consider developing strategic relationships with top vendors and rationalizing supply base to reduce vendor tail. • There are 66 contracts with 34 different vendors totaling ~$182M for Roadway Construction Services. 10 vendors account for ~80% of spend. • 10 vendors provide HVAC Maintenance, Repairs, and installing services for 7 departments (14 contracts).
Increase in Emergency POs	• In FY24, POs labeled as 'Emergency Orders' amount to ~$90M, 99% off-contract and 82% are with Public Works. • Review to see if contracts could be established to include these items.

Category and Subcategory Observations

FY24 General Observations

- 80% of spend is with 74 out of 1,172 vendors (6%)
- 45 vendors have 3+ contracts
- 3 departments account for 91% of the spend
- Across all departments, 95% of spend is on-contract
- Spend increased by 87% between FY23 to FY24

Subcategory Observations

Subcategory	Observations
Construction Services	- Spend increased by 100% ($727M) from FY23 to FY24 - In FY24, 4% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 158 vendors are leveraged across 11 departments - In FY24, 97% of the spend is with Public Works and Aviation Services
Maintenance & Repair	- Spend has increased by 101% ($188M) from FY23 to FY24 - In FY24, 7% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 186 vendors are leveraged across 20 departments - In FY24, General Services, Public Works and Aviation Services have 90% of the spend
Architectural & Engineering Svs	- Spend has increased by 97% ($74M) from FY23 to FY24 - In FY24, 6% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 65 vendors are leveraged across 11 departments - In FY24, 86% of the spend is with Public Works

Category Summary: Industrial Products & Services

$1,105M	12.9%
FY22-FY24 Spend	**of Total Spend YoY**

Type	($) M	%
Contract	$954	86.3%
Non-Contract	$146	13.2%
P-Card	$5	0.5%

Year over Year Spend
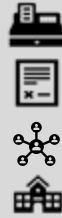
FY22 Spend	$280M
Vendors	534
Contracts	265
Depts	21
PO Count	3,073

FY23 Spend	$290M
Vendors	560
Contracts	292
Depts	19
PO Count	3,061

FY24 Spend	$530M
Vendors	528
Contracts	309
Depts	16
PO Count	2,893

P-Card FY24 Spend

FY24 Spend	$5M
Vendors	533
Contracts	-
Depts	34
Transactions	8,704

FY24 Sub-category Spend

Sub-category	($) M	% of Total Spend	Common goods/services purchased
Industrial Services	$238.8	44.6%	Dredging, Engineering
Water Systems Equipment and Service	$144.6	27.0%	Pumps, Valves, Testing Kits
Industrial Equipment & Supplies	$135.1	25.2%	Fuel, Chemicals, Hydrants
Wildlife and Environmental	$6.9	1.3%	Vet Equipment, Fertilizer
Structures & Real Estate	$4.5	0.8%	Generators, Plumbing

FY24 Top 10 Vendors by Spend*

Parent Company	Transaction Amount	% of Total Transaction
Coastal Water Authority	$90M	16.73%
DRC Emergency Services LLC	$54M	10.12%
Polydyne INC	$43M	8.02%
Sunoco LP	$30M	5.52%
Industrial TX Corp	$19M	3.52%
DXI Industries INC	$17M	3.25%
Altiva Chemicals LLC	$12M	2.27%
Geo Specialty Chemicals iNC	$12M	2.19%
Brenntag Southwest	$11M	2.09%
MSC Industrial Supply	$11M	1.96%
	$9M	1.76%
Total	**$535M**	**100.00%**

FY24 Top 10 Departments by Spend*

Department Name	Transaction Amount	% of Total Transaction	# of Buyers
Public Works	$378M	70.59%	31
Fleet Management Department	$46M	8.58%	10
Solid Waste Management	$30M	5.68%	9
Houston Police Department	$18M	3.42%	17
Aviation Services (HAS)	$17M	3.13%	16
Health and Human Services	$10M	1.83%	24
General Services (GSD)	$7M	1.36%	10
Finance Dept (FIN)	$6M	1.17%	5
Houston Fire Department	$6M	1.17%	11
Mavor's Office	$3M	0.59%	9
Total	**$535M**	**100.00%**	**104**

* Unknown = Purchase ID is blank in either the EKPO and EKKO creating the inability to pull in Vendor or Dept Name

Blank = raw data provided contained blank (null) values

Opportunity Identification: Industrial Products and Services

The following themes emerged across the categories

Facilities & Construction	

Contract v. Non-contract with the same vendor	• Review contract and non-contract spend with the same vendor to identify potential re-negotiation / future procurement strategies to leverage full demand and obtain better pricing:
	  • Industrial Equipment and Supplies and Water Systems Equipment and Services
	• Several vendors have considerable annual spend but do not have existing contracts.
	  • Industrial Equipment and Supplies
	  • Water Systems Equipment and Services

Multiple contracts with the same vendor	• Review multiple contracts with top vendors for potential renegotiation, leverage buying power and consolidation of requirements:
	  • Industrial Services and Industrial Equipment and Supplies
	  • Explore top vendors in each subcategory to confirm vendors with multiple contracts are both active and consider overlapping requirements for future planning

Spend is predominately with 1-3 departments	• Public Works accounts for 70% of the entire category spend and 99% of the Water Systems Equipment and Services Subcategory
Vendor base indicates opportunity for rationalization	• Explore a Supplier Relationship Management program with several top vendors as they accounts for a significant portion of spend
Increase in Emergency POs	• In FY24, POs labeled as 'Emergency Orders' amount to ~$47M, 99% off-contract and majority are with Public Works. • Review top vendors for opportunities

Category and Subcategory Observations

FY24	**$535M** Category Spend	**13.3%** of Total Spend

FY24 General Observations

- 80% of spend is with 38 out of 1,027 vendors (4%)
- 7 vendors have 3+ contracts
- Public Works accounts for 71% of the spend

- Across all departments, 84% of spend is on-contract
- Spend increased by 84% between FY23 to FY24

Subcategory Observations

| Subcategory	Observations
Industrial Services	- Spend increased by 113% ($127M) from FY23 to FY24 - In FY24, 2% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 141 vendors are leveraged across 19 departments - In FY24, 81% of the spend is with Public Works
Industrial Equipment & Supplies	- Spend has increased by 6% ($8M) from FY23 to FY24, but has remained relatively consistent from FY22-24 - In FY24, 13% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 302 vendors are leveraged across 21 departments - In FY24, Fleet Mgmt and Public Works have 56% of the spend
Water Systems Equipment and Service	- Spend has increased by 237% ($102M) from FY23 to FY24 - In FY24, 38% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 110 vendors are leveraged across 10 departments - In FY24, 99% of the spend is with Public Works

Category Summary: Professional Services

$1,077M FY22-FY24 Spend	**12.6%** of Total Spend YoY	

Type	($) M	%
Contract	$849	79.0%
Non-Contract	$224	20.8%
P-Card	$2	0.2%
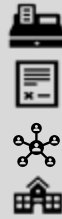
Year over Year Spend

FY22 Spend	$285M	FY23 Spend	$321M	FY24 Spend	$469M
Vendors	461	Vendors	533	Vendors	548
Contracts	261	Contracts	271	Contracts	316
Depts	28	Depts	28	Depts	28
PO Count	1,635	PO Count	1,735	PO Count	1,938

P-Card FY24 Spend

FY24 Spend	$2M
Vendors	811
Contracts	-
Depts	41
Transactions	8,329

FY24 Sub-category Spend

Sub-category	($) M	% of Total Spend	Common goods/services purchased
Legal Services	$136.60	29%	Forensic services, attorney fees
Consulting Services	$87.60	19%	IT, engineering, community and planning consulting services
Insurance Services	$87.10	18%	P&C, life insurance, health insurance
Other	$73.80	16%	Admin, events, inspection, monitoring
Comms & Media Related Services	$30.30	6%	Telecom services, sign language, postage services
Accounting/Finance	$27.50	6%	Payment card services, collections, finance management
HR Services	$17.40	4%	Employment services, temp staffing
Contracted Services	$8.50	2%	Contract sponsorships, labor, meals

FY24 Top 10 Vendors by Spend*

Parent Company	Transaction Amount	% of Total Transaction
Houston Forensci Science LGC INC	$63M	13.46%
McGriff, Seibels & Williams INC	$26M	5.61%
Cigna Health and Life Insurance	$24M	5.19%
KS Plan Administrators LLC	$24M	5.01%
PCard Merchant	$20M	4.20%
Department of Information Resources	$14M	2.97%
Hits Enterprise Contract	$14M	2.90%
Aetna Life Insurance	$12M	2.51%
HDR Engineering INC	$11M	2.35%
Tetra Tech INC	$9M	2.01%
Total	**$470M**	**100.00%**

FY24 Top 10 Departments by Spend*

Department Name	Transaction Amount	% of Total Transaction	# of Buyers
Citywide General Government	$73,235,986	15.55%	9
Unknown	$71,827,204	15.25%	1
Human Resources	$65,579,152	13.93%	10
Public Works	$59,450,528	12.62%	15
Health and Human Services	$44,081,095	9.36%	25
Houston Information Technology (HITS)	$33,747,472	7.17%	11
Admin and Reg Affairs (ARA)	$28,238,680	6.00%	9
Aviation Services (HAS)	$15,406,045	3.27%	15
Finance Dept (FIN)	$12,447,319	2.64%	9
General Services (GSD)	$9,364,124	1.99%	5
Total	**$470,936,826**	**100.00%**	**92**

✱ Unknown = Purchase ID is blank in either the EKPO and EKKO creating the inability to pull in Vendor or Dept Name

Blank = raw data provided contained blank (null) values

Opportunity Identification: Professional Services
The following themes emerged across the categories

		Professional Services
	Contract v. Non-contract with the same vendor	• Legal Services: There is $125M of spend for forensic services; nearly 50% is non-contract spend with unknown vendors (most likely due to scrubbed data with PII) consider reviewing more detailed information to identify and execute potential opportunities. • HR Services: The bulk of spend for employment verification support services is not on contract although spend data shows several contracts across several departments.
	Multiple contracts with the same vendor	• Sub-categories with multiple contracts with large spend include: Legal Services, Insurance Services, Comms & Media, and HR Services
	Spend is predominately with 1-3 departments	• Four departments account for 57% of the category spend; spend is more centralized for Insurance and HR Services
	Vendor base indicates opportunity for rationalization	• Other: This subcategory has the largest number of vendors (160) and likely has opportunities for rationalization
	Increase in Emergency POs	• In FY24, 'Emergency Orders' POs amount to $13M, 91% off-contract and 90% is with Health and Human Services • Review top vendors for opportunities

Category and Subcategory Observations

FY24 General Observations

- 80% of spend is with 120 out of 1,345 vendors (9%)
- 13 vendors have 3+ contracts
- 4 departments account for 57% of the spend
- Across all departments, 75% of spend is on-contract
- Spend increased by 47% between FY23 to FY24

Subcategory Observations

Subcategory	Observations
Legal Services	- Spend has increased by 234% ($96M) from FY23 to FY24 - In FY24, 48% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 44 vendors are leveraged across 13 departments - In FY24, 47% of the spend is with Citywide General Government
Other *further analysis not included in report due to lack of description codes*	- Spend increased by $49M from FY23 to FY24 - In FY24, ~11% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 160 vendors are leveraged across 16 departments - Majority of spend is with three departments: Health & Human Services (27.5%), HR (26.9%) and Public Works (22.7%)
Consulting Services *further analysis not included in report due to remain independent*	- Spend increased by $8M from FY23 to FY24 - In FY24, ~11% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 35 vendors are leveraged across 13 departments - In FY24, 63% of the spend is with Citywide General Government
Insurance Services	- Spend has remains consistent at ~$87M from FY23 to FY24 - In FY24, 99% of the spend is on contract - In FY24, 7 vendors are leveraged across 4 departments - In FY24, 90% of the spend is with Human Resources and Admin and Reg Affairs (ARA)

Category and Subcategory Observations

FY24 General Observations

- 80% of spend is with 120 out of 1,345 vendors (9%)
- 13 vendors have 3+ contracts
- 4 departments account for 57% of the spend
- Across all departments, 75% of spend is on-contract
- Spend increased by 47% between FY23 to FY24

Subcategory Observations

Subcategory	Observations
Comms & Media Related Services	• Spend increased by 76% ($13M) from FY23 to FY24 • In FY24, ~8% of the spend does not have an outline agreement number (i.e., non-contract) • In FY24, 68 vendors are leveraged across 25 departments • In FY24, Information Technology has 66% of the spend
Accounting/Finance	• Spend decreased by -37% ($17M) from FY23 to FY24 • In FY24, ~73% of the spend does not have an outline agreement number (i.e., non-contract) • In FY24, 23 vendors are leveraged across 29 departments • In FY24, Public Works, Human Resources, and Aviation Services has 49% of the spend
HR Services	• Spend increased by 183% ($11M) from FY23 to FY24 • In FY24, ~59% of the spend does not have an outline agreement number (i.e., non-contract) • In FY24, 12 vendors are leveraged across 7 departments • In FY24, 2 departments make amount to 97% of the spend, Health and Human Services and Human Resources

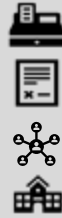# **Category Summary:** Logistics, Automotive & Transportation

$720M	**8.4%**
FY22-FY24 Spend	of Total Spend YoY

Type	($) M	%
Contract	$405	56.2%
Non-Contract	$313	43.4%
P-Card	$3	0.4%

Year over Year Spend

FY22 Spend	$179M	FY23 Spend	$218M	FY24 Spend	$320M
Vendors	476	Vendors	563	Vendors	547
Contracts	182	Contracts	178	Contracts	203
Depts	17	Depts	19	Depts	21
PO Count	8,460	PO Count	10,380	PO Count	10,266

P-Card FY24 Spend

FY24 Spend	$3M
Vendors	340
Contracts	-
Depts	30
Transactions	14,462

FY24 Sub-category Spend

Sub-category	($) M	% of Total Spend	Common goods/services purchased
Maintenance & Equipment - Automotive	$184.1	56.9%	Vehicles, automotive equipment
Maintenance & Equipment - Aviation	$60.9	18.8%	Airport management, aircraft engine parts
Infrastructure Management	$60.4	18.6%	Excavating machines, asphalt materials, vehicle storage
Maintenance & Equipment - Heavy Machinery	$12.2	3.8%	Repairs for engines, motors, machinery
Maintenance & Equipment - Marine	$2.5	0.8%	Boat hardware, vegetation removal equipment

FY24 Top 10 Vendors by Spend*

Parent Company	Transaction Amount	% of Total Transaction
Metro Fire Apparatus Specialists	$24M	7.28%
Frazer LTD	$23M	7.17%
Universal Protection Service	$21M	6.61%
Chastang Enterprises	$20M	6.21%
Associated Supply Company INC	$15M	4.65%
Isani Consultant LP	$15M	4.59%
Rush Truck Center of Texas LP	$14M	4.46%
Texas Materials Group	$13M	4.14%
Hecate Energy LLC	$11M	3.36%
Houston Freightliner INC	$9M	2.88%
Total	$323M	100.00%

FY24 Top 10 Departments by Spend*

Department Name	Transaction Amount	% of Total Transaction	# of Buyers
Public Works	$107M	32.94%	22
Houston Fire Department	$47M	14.54%	10
Aviation Services (HAS)	$44M	13.69%	18
Fleet Management Department	$38M	11.74%	16
Houston Police Department	$29M	8.83%	17
General Services (GSD)	$20M	6.09%	9
Solid Waste Management	$14M	4.19%	12
Unknown	$7M	2.14%	1
Parks and Recreation	$6M	1.77%	12
Health and Human Services	$4M	1.14%	21
Total	$323M	100.00%	89

✳ Unknown = Purchase ID is blank in either the EKPO and EKKO creating the inability to pull in Vendor or Dept Name

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Opportunity Identification: Logistics, Automotive & Transportation
The following themes emerged across the categories

	Logistics, Automotive & Transportation	

	Contract v. Non-contract with the same vendor	• Review contract and non-contract spend with the same vendor to identify potential re-negotiation / future procurement strategies to leverage the full demand and obtain better pricing:
		  • Automotive
		  • Infrastructure Management
		• Review non-contract spend for vendors with no existing contracts such as:
		  • Automotive
		  • Infrastructure Management

	Multiple contracts with the same vendor	• Review multiple contracts with top vendors for potential renegotiation and requirement consolidation:
		  • Automotive
		  • Aviation

	Spend is predominately with 1-3 departments	• Automotive: ~80% of spend is with four Departments, but the majority of the contracts are with Fleet Mgmt • Aviation: 55% of spend is with Aviation Services, while Public Works and General Services account for an additional 30% • Infrastructure Management: 80% of spend is with Public Works

	Vendor base indicates opportunity for rationalization	• The top 33 vendors account for 80% of the total category spend. Consider establishing a supplier relationship management program with these vendors to instill innovation, maintain a program governance structure across all contracts, and make sure the right KPIs are in the contracts.
		  • Automotive: Total FY24 vendors (223 vendors), top 15 vendors make up 80% of spend
		  • Infrastructure Management: Total FY24 vendors (304 vendors), top 13 vendors make up 80% of spend

Category and Subcategory Observations

FY24	**$323M** Category Spend	**8%** of Total Spend

FY24 General Observations

- 80% of spend is with 33 out of 860 vendors (4%)
- 9 vendors have 3+ contracts
- 4 departments account for 72% of the spend
- Across all departments, 50% of spend is on-contract
- Spend increased by 48% between FY23 to FY24

Subcategory Observations

| Subcategory	Observations
Maintenance & Equipment - Automotive	• Spend has increased by 55% ($65M) from FY23 to FY24 • In FY24, 70% of the spend does not have an outline agreement number (i.e., non-contract) • In FY24, 223 vendors are leveraged across 17 departments • In FY24, 78% of the spend is spread across Houston Fire Dept, Public Works, Fleet Mgmt, and Houston Police Dept
Maintenance & Equipment – Aviation	• Spend has increased by 20% ($10M) from FY23 to FY24, but has remained relatively consistent from FY22-24 • In FY24, 3% of the spend does not have an outline agreement number (i.e., non-contract) • In FY24, 72 vendors are leveraged across 15 departments • In FY24, top Departments with spend are Aviation Services and Public Works
Infrastructure Management	• Spend has increased by 100% ($30M) from FY23 to FY24 • In FY24, 43% of the spend does not have an outline agreement number (i.e., non-contract) • In FY24, 304 vendors are leveraged across 21 departments • In FY24, 81% of the spend is with Public Works

Category Summary: Information Technology

$382M
FY22-FY24 Spend

4.5%
of Total Spend YoY

Type	($) M	%
Contract	$338	88.5%
Non-Contract	$43	11.3%
P-Card	$.513	0.1%

Year over Year Spend
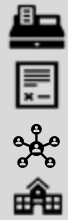
FY22 Spend	$103M
Vendors	393
Contracts	125
Depts	26
PO Count	1,620

FY23 Spend	$114M
Vendors	433
Contracts	130
Depts	26
PO Count	1,675

FY24 Spend	$164M
Vendors	412
Contracts	159
Depts	26
PO Count	1,756

P-Card FY24 Spend

FY24 Spend	$1M
Vendors	211
Contracts	-
Depts	25
Transactions	1,411

FY24 Sub-category Spend

Sub-category	($) M	% of Total Spend	Common goods/services purchased
IT Services	$83.7	50.7%	Data Hosting, Networking
Software	$33.5	20.3%	Library Systems, GIS
General Electronics	$23.7	14.4%	Cameras, AV Systems
Computer Hardware and Accessories	$18.1	10.9%	Laptops, Network Components, Servers
Communication Systems & Components	$4.3	2.6%	Radio, 911 Systems
Hardware	$1.1	0.7%	Wires, Fiber Cabling

FY24 Top 10 Vendors by Spend*

Parent Company	Transaction Amount	% of Total Transaction
Netsync Network Solutions	$22M	13.63%
SHI Government Solutions Inc	$22M	13.45%
Department of Information Resources	$16M	9.56%
GTE Mobilent of South Texas Limited	$14M	8.38%
Motorola Solutions INC	$10M	5.80%
CDW	$6M	3.80%
	$4M	2.41%
Overdrive INC	$4M	2.39%
PS LIGHTWAVE LLC	$3M	2.10%
Baker & Taylor LLC	$3M	2.05%
National Intergovernmental	$3M	1.76%
Total	**$165M**	**100.00%**

FY24 Top 10 Departments by Spend*

Department Name	Transaction Amount	% of Total Transaction	# of Buyers
Houston Information Technology (HITS)	$65,036,252	39.41%	11
Houston Police Department	$27,870,966	16.89%	20
Public Works	$24,714,486	14.98%	19
Aviation Services (HAS)	$16,169,654	9.80%	18
Houston Public Library (HPL)	$12,478,758	7.56%	11
Health and Human Services	$3,523,528	2.14%	21
Mayor's Office	$2,970,118	1.80%	7
Admin and Reg Affairs (ARA)	$2,417,469	1.47%	8
Unknown	$1,972,691	1.20%	1
Houston Fire Department	$1,446,986	0.88%	7
Total	**$165,011,737**	**100.00%**	**77**

* Unknown = Purchase ID is blank in either the EKPO and EKKO creating the inability to pull in Vendor or Dept Name
Blank = raw data provided contained blank (null) values

Opportunity Identification: Information Technology
The following themes emerged across the categories

	Information Technology (IT)

Contract v. Non-contract with the same vendor	• Review contract and non-contract spend with the same vendor to identify potential re-negotiation / future procurement strategies to leverage the full demand and obtain better pricing:
	  • IT Services
	  • Several vendors have spend in multiple sub-categories

Multiple contracts with the same vendor	• Review multiple contracts with top vendors for potential renegotiation and requirement consolidation
	  • IT Services
	  • General Electronics
	  • Computer Hardware and Accessories
	  • Software
	  • Multi sub-category

Spend is predominately with 1-3 departments	• 80% of the spend is with four Departments (Information Technology 39%, Houston Police Department (17%), Public Works (15%) Aviation Services (10%)
Vendor base indicates opportunity for rationalization	• The top 4 vendors account for 45% of the total IT spend. Consider establishing a supplier relationship management program with these vendors to instill innovation, maintain a program governance structure across all contracts, and make sure the right KPIs are in the contracts. • IT Services and General Electronics • IT Services contains a larger vendor tail (207 vendors), top 15 vendors make up 80% of spend

Category and Subcategory Observations

FY24 General Observations

- 80% of spend is with 28 out of 614 vendors (5%)
- 8 vendors have 3+ contracts
- IT dept accounts for $65M (39%) of the spend, with 98% on contract; 32% is with HPD and Public Work
- Across all departments, 88% of spend is on-contract
- Spend increased by 45% between FY23 to FY24

Subcategory Observations

Subcategory	Observations
IT Services	- Spend has increased by 100% ($42M) from FY23 to FY24 - In FY24, 9% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 207 vendors are leveraged across 25 departments - In FY24, 45% of the spend is with IT
Software	- Spend has increased by 98% ($16M) from FY23 to FY24 - In FY24, 15% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 127 vendors are leveraged across 24 departments - In FY24, top departments are IT and Houston Public Library
General Electronics	- Spend has decreased by 31% ($11M) from FY23 to FY24 - In FY24, 4% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 71 vendors are leveraged across 16 departments - In FY24, top departments are IT and Houston Police Dept
Computer Hardware and Accessories	- Spend has increased by 29% ($4M) from FY23 to FY24, but has remained relatively consistent from FY22-24 - In FY24, 22% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 101 vendors are leveraged across 25 departments - In FY24, top departments are IT, Public Works, and Houston Police Dept

Category Summary: Management & Operations

$448M	5.2%
FY22-FY24 Spend	of Total Spend YoY

Type	($) M	%
Contract	$417	93.2%
Non-Contract	$27	6.1%
P-Card	$2	0.5%

Year over Year Spend

FY22 Spend	$221M
Vendors	242
Contracts	100
Depts	27
PO Count	3,416

FY23 Spend	$91M
Vendors	247
Contracts	79
Depts	27
PO Count	3,275

FY24 Spend	$133M
Vendors	253
Contracts	98
Depts	27
PO Count	3599

P-Card FY24 Spend

FY24 Spend	$3M
Vendors	275
Contracts	-
Depts	40
Transactions	8,293

FY24 Sub-category Spend

Sub-category	($) M	% of Total Spend	Common goods/services purchased
Management & Operation Services	$95.1	70.2%	Copying/printing, program management, parking
Structures & Real Estate	$25.5	18.8%	Building rentals, temporary structures
Office Management	$14.9	11%	Office furniture, paper, mail supplies

FY24 Top 10 Vendors by Spend*

Parent Company	Transaction Amount	% of Total Transaction
SP Plus Corporation	$38M	27.81%
Houston Zoo INC	$28M	20.66%
Amadeus Airport IT Americas INC	$8M	6.11%
Staples	$5M	3.47%
Versaterm Public Safety Inc.	$4M	3.23%
Motorola Solutions INC	$4M	3.14%
Unknown	$4M	2.72%
Catholica Charities	$3M	2.16%
Effectual Public Sector INC	$3M	2.01%
Total	$136M	100.00%

FY24 Top 10 Departments by Spend*

Department Name	Transaction Amount	% of Total Transaction
Aviation Services (HAS)	$48M	35.60%
Parks and Recreation	$29M	21.22%
Housing (HCD)	$13M	9.92%
Houston Police Department	$11M	8.19%
Admin and Reg Affairs (ARA)	$6M	4.29%
Public Works	$5M	3.84%
Houston Fire Department	$5M	3.51%
Citywide General Government	$5M	3.33%
Unknown	$4M	2.70%
Health and Human Services	$3M	2.16%
Total	$136M	100.00%

* Unknown = Purchase ID is blank in either the EKPO and EKKO creating the inability to pull in Vendor or Dept Name
Blank = raw data provided contained blank (null) values

Opportunity Identification: Management & Operations

The following themes emerged across the categories

		Management & Operations
	Contract v. Non-contract with the same vendor	• Review contract and non-contract spend with the same vendor to identify potential re-negotiation / future procurement strategies to leverage the full demand and obtain better pricing: • Structures & Real Estate

	Multiple contracts with the same vendor	• Review multiple contracts with top vendors for potential renegotiation and requirements consolidation:
		   • Management & Operation Services: Program and Project Development and Management Services
		   • Structures & Real Estate: Office Space Rental or Lease
		   • Office Management

	Spend is predominately with 1-3 departments	• 75% of the spend is with four Departments (Aviation Services 35%, Parks and Recreation (21%), Housing (10%), Houston Police Dept (8%)

	Vendor base indicates opportunity for rationalization	• The top 2 vendors account for 48% of the total Category spend. Consider establishing a supplier relationship management program with these vendors
		   • Office Management: Review vendor tail (437 vendors in FY24), top 9 vendors make up 80% of spend
		      • 182 vendors are non-contract

Category and Subcategory Observations

FY24 General Observations

- 80% of spend is with 14 out of 522 vendors (2.6% of vendors)
- 7 vendors have 3+ contracts
- 2 departments account for 57% of the spend

- Across all departments, 93% of spend is on-contract
- Spend increased by 48% between FY23 and FY24

Subcategory Observations

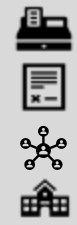| Subcategory	Observations
Management & Operation Services	• Spend has increased by 66% ($38M) from FY23 to FY24 • In FY24, 4% of the spend does not have an outline agreement number (i.e., non-contract) • In FY24, 46 vendors are leveraged across 25 departments • In FY24, 72% of the spend is with Aviation Services and Parks & Recreation
Structures & Real Estate	• Spend has increased by 19% ($4M) from FY23 to FY24 • In FY24, 13% of the spend does not have an outline agreement number (i.e., non-contract) • In FY24, 51 vendors are leveraged across 20 departments • In FY24, 71% of the spend is with Aviation Services, Housing, Houston Fire Dept, Citywide General Government
Office Management	• Spend has increased by 15% ($2M) from FY23 to FY24 • In FY24, 29% of the spend does not have an outline agreement number (i.e., non-contract) • In FY24, 437 vendors are leveraged across 27 departments • In FY24, 44% of the spend is with Admin and Reg Affairs, Houston Fire Dept, Aviation Services, Public Works

Category Summary: Lifestyle and Human Services

$243M	3.8%
FY22-FY24 Spend	of Total Spend YoY

Type	($) M	%
Contract	$218	89.8%
Non-Contract	$22	9.1%
P-Card	$3	1.1%

Year over Year Spend

FY22 Spend	$75M	FY23 Spend	$77M	FY24 Spend	$88M
Vendors	232	Vendors	239	Vendors	319
Contracts	116	Contracts	105	Contracts	148
Depts	23	Depts	22	Depts	34
PO Count	1,323	PO Count	1,242	PO Count	1414

P-Card FY24 Spend

FY24 Spend	$3M
Vendors	421
Contracts	-
Depts	37
Transactions	4,648

FY24 Sub-category Spend

Sub-category	($) M	% of Total Spend	Common goods/services purchased
Human Services	$46.2	50.8%	Food/housing assistance, social and mental health services
Leisure & Recreation	$44.2	48.6%	Clothing & Apparel, Art, Household Goods

FY24 Top 10 Vendors by Spend*

Parent Company	Transaction Amount	% of Total Transaction
Houston Arts Alliance	$30M	33.21%
The Harris Center for Mental Health	$13M	14.16%
Interfaith Ministries	$5M	5.47%
Young Women Christian Associaiton	$4M	4.62%
BakerRipley	$3M	3.42%
Galls	$3M	2.98%
Coalition for the Homeless	$2M	2.63%
The Salvation Army	$2M	2.45%
Unknown	$2M	1.84%
Servicewear Apparel	$2M	1.74%
Total	$90M	100.00%

FY24 Top 10 Departments by Spend*

Department Name	Transaction Amount	% of Total Transaction
Health and Human Services	$17M	18.97%
Houston Police Department	$15M	16.88%
Aviation Services (HAS)	$14M	15.52%
Housing (HCD)	$12M	12.79%
Purch Org - COH	$9M	10.47%
Mayor's Office	$9M	9.70%
Parks and Recreation	$4M	4.19%
Public Works	$3M	2.84%
Houston Fire Department	$2M	2.23%
Unknown	$2M	1.81%
Total	$90M	100.00%

* Unknown = Purchase ID is blank in either the EKPO and EKKO creating the inability to pull in Vendor or Dept Name
Blank = raw data provided contained blank (null) values

Opportunity Identification: Lifestyle and Human Services
The following themes emerged across the categories

Lifestyle and Human Services	
Contract v. Non-contract with the same vendor	• Review contract and non-contract spend with the same vendor • Leisure and Recreation

Multiple contracts with the same vendor	• Review multiple contracts with top vendors for contracting efficiencies:
	   • Human Services
	   • Leisure and Recreation

Spend is predominately with 1-3 departments	• 64% of the spend is across the top 4 departments out of 27. Limited opportunity given the nature of goods and services in this category.
Vendor base indicates opportunity for rationalization	• Limited opportunity given the nature of goods and services in this category.

Category and Subcategory Observations

FY24	$91M Category Spend	2.3% of Total Spend

FY24 General Observations

- 80% of spend is with 17 out of 678 vendors (3% of vendors)
- 12 vendors have 3+ contracts
- 5 departments account for 75% of the spend

- Across all departments, 91% of spend is on-contract
- Spend increased by 15% between FY23 and FY24

Subcategory Observations

Subcategory	Observations
Human Services	• Spend has decreased by ~16.4% ($9M) from FY23 to FY24 • In FY24, ~4.4% of the spend does not have an outline agreement number (i.e., non-contract) • In FY24, 104 vendors are leveraged across 16 departments • In FY24, 89% of the spend is with Health and Human Services, Housing, and Houston Police Department
Leisure & Recreation	• Spend has increased by 91% ($21M) from FY23 to FY24 • In FY24, 8% of the spend does not have an outline agreement number (i.e., non-contract) • In FY24, 583 vendors are leveraged across 26 departments • In FY24, 73% of the spend is with Aviation Services, Purchase Org – COH and Mayor's Office

Category Summary: Medical

$74M — FY22-FY24 Spend | 0.9% — of Total Spend YoY

Type	($) M	%
Contract	$50	67.6%
Non-Contract	$24	31.9%
P-Card	$.6	0.8%

Year over Year Spend

FY22 Spend	$30M
Vendors	146
Contracts	78
Depts	12
PO Count	1,006

FY23 Spend	$19M
Vendors	159
Contracts	77
Depts	11
PO Count	929

FY24 Spend	$24M
Vendors	140
Contracts	80
Depts	10
PO Count	942

P-Card FY24 Spend

FY24 Spend	$1M
Vendors	106
Contracts	-
Depts	23
Transactions	1,145

FY24 Sub-category Spend

Sub-category	($) M	% of Total Spend	Common goods/services purchased
Medical Services	$11.7	46.8%	Equipment Repair, Disease Prevention Services
Medical Equipment & Supplies	$9.4	37.6%	Diagnostic Equipment, Personal Protective Equipment
Pharmaceuticals	$3.9	15.6%	OTC and prescription meds, vaccines

FY24 Top 10 Vendors by Spend*

Parent Company	Transaction Amount	% of Total Transaction
Life-Assist INC	$3M	10.71%
Bound Tree Medical LLC	$2M	9.66%
Howmedica Osteonics Corp	$2M	6.50%
Desiree Bittner LLC	$2M	6.36%
Bee Busy	$1M	4.88%
AWC INC	$1M	4.51%
Pacific Star Corporation	$1M	3.98%
	$1M	3.70%
Idexx Distribution INC	$1M	2.78%
Bee Busy Wellness Center	$1M	2.77%
Aids Foundation Houston INC	$1M	2.57%
Total	**$25M**	**100.00%**

FY24 Top 10 Departments by Spend*

Department Name	Transaction Amount	% of Total Transaction	# of Buyers
Health and Human Services	$11M	42.43%	23
Houston Fire Department	$9M	37.09%	14
Public Works	$3M	11.97%	12
Houston Police Department	$1M	2.75%	9
Human Resources	$0M	1.96%	4
General Services (GSD)	$0M	1.69%	6
Aviation Services (HAS)	$0M	0.85%	10
Admin and Reg Affairs (ARA)	$0M	0.52%	5
Unknown	$0M	0.31%	1
Purch Org - COH	$0M	0.20%	2
Parks and Recreation	$0M	0.14%	5
Total	**$25M**	**100.00%**	**66**

* Unknown = Purchase ID is blank in either the EKPO and EKKO creating the inability to pull in Vendor or Dept Name
Blank = raw data provided contained blank (null) values

Opportunity Identification: Medical
The following themes emerged across the categories

Medical	

Contract v. Non-contract with the same vendor	• Review contract and non-contract spend with the same vendor to identify potential re-negotiation / future procurement strategies to leverage the full demand and obtain better pricing:
	  • Medical Services
	  • Medical Equipment & Supplies

Multiple contracts with the same vendor	• Review multiple contracts with top vendors for potential renegotiation and requirements consolidation:
	  • Medical Services
	  • Medical Equipment & Supplies

Spend is predominately with 1-3 departments	• 79% of the spend is with two Departments: Health and Human Services accounts for 42% of the spend, followed by Houston Fire Department with 37%.
Vendor base indicates opportunity for rationalization	• 80% of spend covers 26 vendors out of 237 vendors (11% of vendors).
Increase in Emergency POs	• In FY24, POs labeled as 'Emergency Orders' (Eos) total ~$1.6M, 98% off-contract and 86% with Houston Fire Dept. • Houston has contracts in place with vendors that have EO spend for similar categories and subcategories. There may be an opportunity to include EO type purchases in future contracts.

Category and Subcategory Observations

| FY24 | **$25.3M** Category Spend | **.63%** of Total Spend |

FY24 General Observations

- 80% of spend is with 24 out of 239 vendors (10% of vendors)
- 4 vendors have 3+ contracts
- 3 departments account for 91% of the spend

- Across all departments, 82% of spend is on-contract
- Spend increased by 32% between FY23 and FY24

Subcategory Observations

Subcategory	Observations
Medical Services	- Spend has increased by 50% ($4M) from FY23 to FY24 - In FY24, 11% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 45 vendors are leveraged across 10 departments - In FY24, 57% of the spend is with Health and Human Services
Medical Equipment & Supplies	- Spend has increased by 25% ($2M) from FY23 to FY24 - In FY24, 16% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 193 vendors are leveraged across 17 departments - In FY24, 53% of the spend is with Houston Fire Dept.
Pharmaceuticals	- Spend has increased by 100% ($2M) from FY23 to FY24 - In FY24, 29% of the spend does not have an outline agreement number (i.e., non-contract) - In FY24, 26 vendors are leveraged across 8 departments - In FY24, the top 2 departments are Houston Fire Dept. and Health and Human Services and account for 91%

Forensic Analysis

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Forensics Data Analysis Insights – Vendor Risk

Observations

- Identified vendors with similar addresses but different vendor names.

- Identified vendors with same phone number but different vendor names and different addresses.

- Interviewees recalled anecdotal situations where a vendor setup different tax identification numbers to provide different services.

Recommendations

Short-term
- Sample test transactions and verify business purpose for instances of multiple vendors using the same address, phone number, etc.

Medium-term
- Enhance vendor master data to validate vendor master information for accuracy and completeness

Long-term
- Enhance system/process to prevent duplicate vendor address, tax ids, etc. without approved business purpose/justification and clearly define owner department

Methodology – Vendor Data Matching Analytics

- Obtained vendor master list and identified vendor population of ~13k receiving payment from the City within the last five years and discussed vendor master list concerns with interviewees.

- Performed analytics to identify potential overlapping business interests.

Risk Consideration	Analytic
Misdirected payments to false vendors	Vendor name fuzzy match
	Vendor address fuzzy match
	Vendor phone and/or fax number exact match
	Vendor Tax ID exact match

- Results identified ~2.4k vendors across the individual tests.

Summary	# Departments	# Vendors	# GL Accounts	# Transactions	Inv_Credit_Amount	Inv_Debit_Amount
	26	2,441	126	336,899	$6,820,652,115.68	$77,679,608.05

- An individual vendor or vendor group may have been identified in multiple tests. A summary of results by test is as follows:

| Analytic	# Flagged Vendors	$ Amount
Vendor name fuzzy match (95% confidence +)	996	$2.3b
Vendor address fuzzy match (95% confidence +)	550	$1.8b
Vendor phone number exact match	796	$3.5b
Vendor fax number exact match	668	$3.1b
Vendor Tax ID exact match	1,170	$2.8b

Methodology – Data Analytics Risk Scoring

- Obtained five years of SAP spend data and limited to expense general ledger accounts and conducted interviews to identify concerns to consider in analytics

- Performed analytics to highlight trends and anomalies in data

Risk Consideration	Analytic
Duplicate payments	Identification of instances where a vendor has issued duplicate invoices
Outlier amounts	Identification of transactions where value is 2-standard deviations above average by department and by vendor
	Identification of round dollar amount transactions
High-risk transactions	Identification of sequential invoices
	Keyword search focusing on emergency purchase orders (including variations, such as EPO); travel, gifts and entertainment; consultants, advisors and other third parties; and payment applications, donations or contributions.
	Identification of one-time vendors
Split transactions	Identification of purchase orders to the same vendor in the same month between certain amounts, aggregating to $50,000 and above or $3,000 and above

- Developed a risk score to assist in evaluating transaction test results by frequency and dollar amount, which was then normalized on a 100-point scale. Analyzed distribution of risk scores by Department and individual transaction:

Transaction Count Exceeding Standard Deviation Threshold - Department

Department	1.5	2	2.5	3	3.5	4	4.5	5
Houston Public Works - HPW	338	303	237	183	161	150	140	126
Mayor's Office	203	177	162	145	127	122	113	106
Houston Airport System (HAS)	247	218	176	151	135	117	106	90
Housing and Community Devp.	135	107	89	77	69	69	67	66
Houston Information Tech Svcs	48	36	24	17	15	12	12	12
Houston Police Department - HPD	56	31	25	21	17	12	12	11
Parks & Recreation	31	24	21	21	16	12	11	11
Houston Health Department	88	54	38	29	21	17	10	8
Solid Waste Management	36	29	22	12	9	9	9	8
Business Opportunity	11	11	11	9	9	8	8	7
Citywide General Goverment	9	9	9	8	6	6	6	6
Admn. & Regulatory Affairs	6	6	6	6	6	5	5	5
Total	1,231	1,015	825	681	597	546	501	456

Forensics Data Analysis Insights – SAP Data Analytics
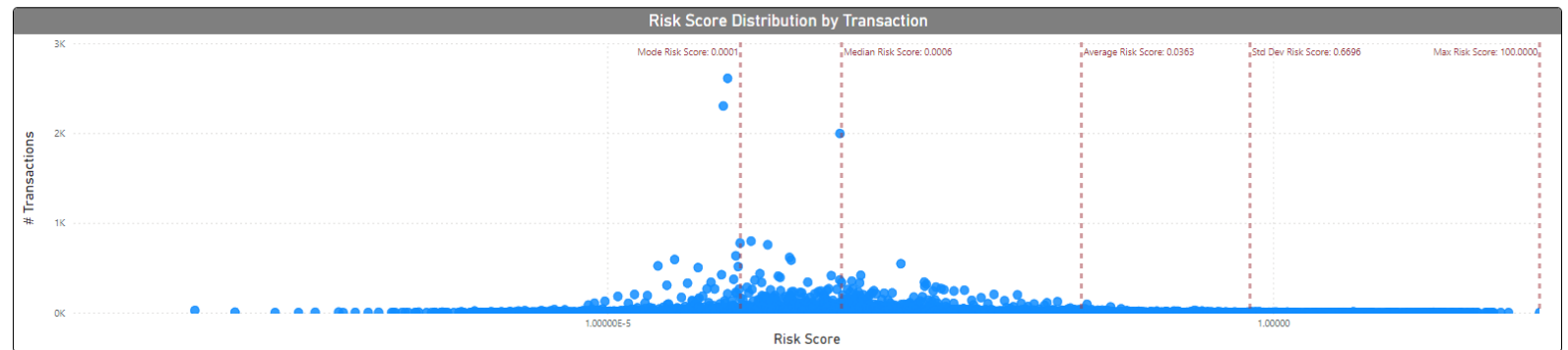
Observations

- Sequential invoicing across POs/Contracts.

- High-risk vendors flagging across various analytics, including those customized based on concerns voiced by interviewees.

- Please refer to following slides for high-level overview of analytics results.

Recommendations

Short-term

- Refine analytics to reduce instances of false-positives
- Detailed review of results
- Risk based sample and test high-risk vendors or transactions by department

Medium-term

- Conduct contract audit on vendors based on results of short-term sample testing

Long-term

- Leverage lessons learned from short and medium-term actions to establish a standardized process for vendor evaluations and ongoing monitoring
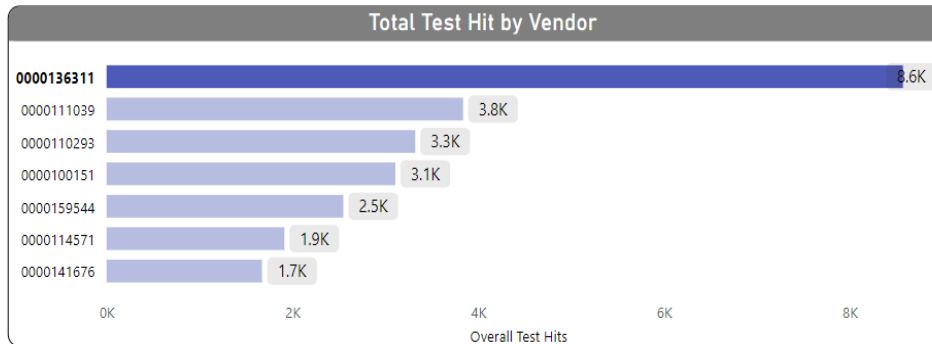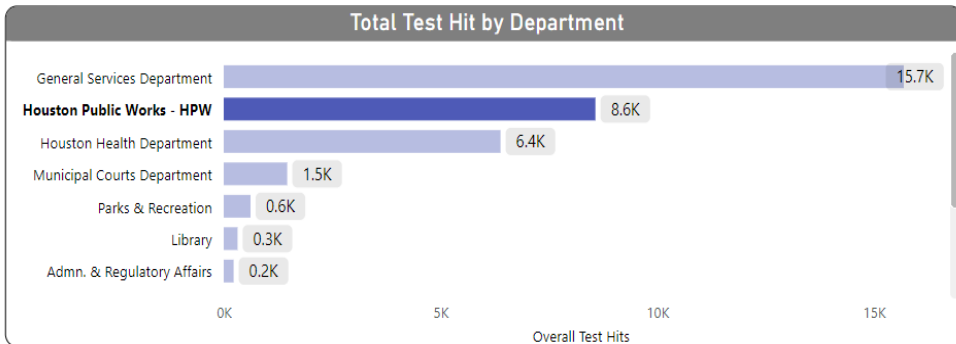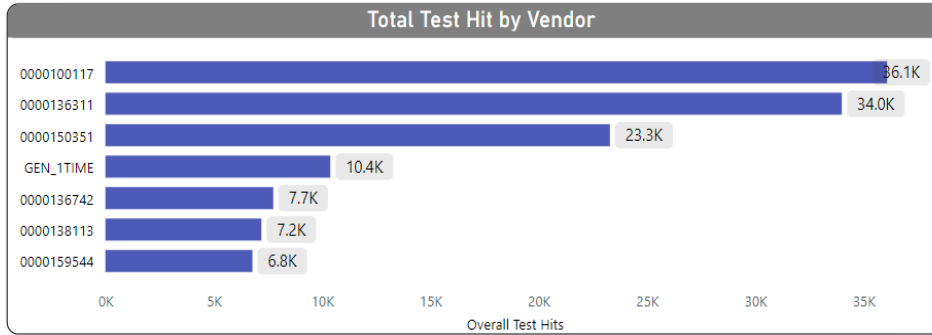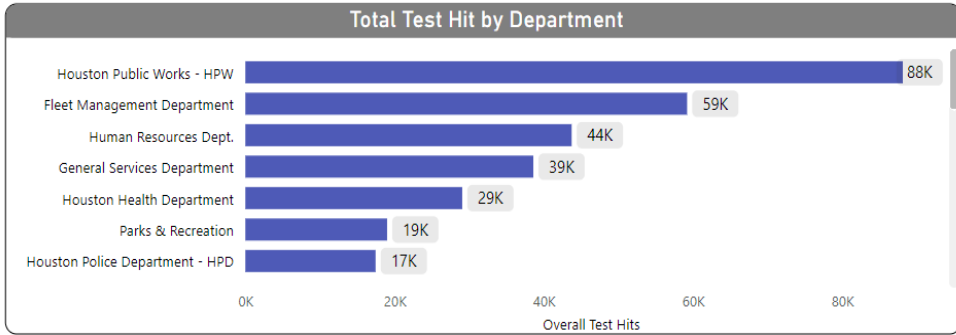
Forensics Data Analysis Insights – Sequential Invoicing

Sample walkthrough

- Sequential invoicing analytic was performed to identify invoices issued to the City sequentially on the same and across multiple POs

- Results indicated that a temporary staffing agency and security services firm had highest number of sequential invoices

- Results further indicated that Public Works had the highest number of sequential invoices with the driver being the security services firm with sequential invoices across different POs

Total Test Hit by Department

Department	Overall Test Hits
Houston Public Works - HPW	88K
Fleet Management Department	59K
Human Resources Dept.	44K
General Services Department	39K
Houston Health Department	29K
Parks & Recreation	19K
Houston Police Department - HPD	17K

Total Test Hit by Vendor

Vendor	Overall Test Hits
0000100117	36.1K
0000136311	34.0K
0000150351	23.3K
GEN_1TIME	10.4K
0000136742	7.7K
0000138113	7.2K
0000159544	6.8K

Total Test Hit by Department

Department	Overall Test Hits
General Services Department	15.7K
Houston Public Works - HPW	8.6K
Houston Health Department	6.4K
Municipal Courts Department	1.5K
Parks & Recreation	0.6K
Library	0.3K
Admn. & Regulatory Affairs	0.2K

Total Test Hit by Vendor

Vendor	Overall Test Hits
0000136311	8.6K
0000111039	3.8K
0000110293	3.3K
0000100151	3.1K
0000159544	2.5K
0000114571	1.9K
0000141676	1.7K

Purchase Order	Invoice
4500329428	10211187
4500305799	10211188
4500329428	10211189
4500305799	10211190
4500329428	10211191
4500305799	10211192
4500329428	10211193
4500305799	10211194
4500305799	10211195
4500305799	10211196
4500305799	10211198
4500305799	10211199
4500305799	10211201
4500305799	10211202
4500305799	10211204
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4500305799	10211206
4500305799	10211207
4500305799	10211208
4500305799	10211209
4500329428	10211210
4500329428	10211211
4500329428	10211212
4500329428	10211213
4500329428	10211214
4500305799	10211216
4500305799	10211217
4500329428	10211218
4500329428	10211219

Methodology – P-Card

- Obtained five years of P-card data[*] and conducted interviews to discuss concerns observed related to P-Card utilization.

- Performed analytics to highlight trends and anomalies in data

Risk Consideration	Analytic
Outlier amounts	Identification of round dollar amount transactions
	Identification of transactions where value is 2-standard deviations above average by transaction amount and separately by employee*
High-risk transactions	Keyword search focusing on travel, gifts and entertainment; consultants, advisors and other third parties; and payment applications, donations or contributions.
	Identification of transactions made on US holidays, excluding HPD and HFD
Split transactions	Identification of purchases less than $3,000 made from the same vendor on the same day, at the department level and separately at the employee level*

*Analysis was limited to information available; FY21 data did not include department information and there are instances where employee name is not available.

Forensics Data Analysis Insights – P-Card Risk

Observations

- Transactions split or structured to be compliant with $3,000 P-Card transaction threshold.[1] Discussions with departments indicate general understanding of P-Card thresholds, however levels of awareness of use and enforcement varied across department leadership.

- Use of prohibited vendors and/or payment applications. Analysis indicate use of Amazon and PayPal.

- Please refer to following slides for high-level overview of analytics results.

[1]Discussions with departments indicated that this occurred both at the individual level and at the department level (e.g., use of multiple P-Cards for same transaction)

Recommendations

Short-term
- Detailed review of P-card analytics results
- Risk-based sample and test P-Card transactions by department

Medium-term
- Assess risks and identify additional system controls can be implemented into P-Card system, based on results of P-Card transaction testing

Long-term
- Develop checklist to standardize P-Card monitoring by administrators, centrally track P-Card use and corrective actions for increased governance