Weathering the Storm: Houston's Financial Preparedness for Natural Disasters

BUDGET AND FISCAL AFFAIRS COMMITTEE

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OFFICE OF CITY CONTROLLER CHRIS HOLLINS

A Closer Look at City Finances

Controller's Office Insights are in-depth reports that explain important city financial topics in a clear and accessible way. They're designed to keep both City Council and Houston residents informed.

We'll be sharing a series of these reports throughout the fiscal year on a variety of topics, and we look forward to bringing you more insights in the months ahead.

Overview - Houston Economic Disaster Preparedness

What this is:

- A look at Houston's history of disasters (frequency, severity, and costs);

- An assessment of the City's economic vulnerabilities that limit flexibility in emergencies;

- A review of the City's disaster reserve funding policies and current capacity; and

- Options and strategies to make Houston more financially prepared for future events.[1]

What this is not:

- An evaluation of how the City operationally responds during disasters; or

- A review of the effectiveness of first responders or life-saving mobilization efforts.

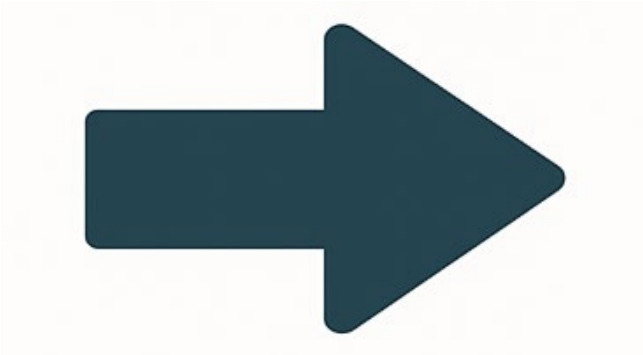1. General Fund focus only.

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History of Disasters

This section looks at the historical record of natural disasters in the Houston region—analyzing how often they strike, how intense they've grown, and the economic toll they've taken.

Disaster costs are rising sharply across the U.S., driven largely by hurricanes and tropical storms

Disaster Cost $ in Billions

- Total Disaster Cost
- Tropical Cyclone[1]

% Disaster Cost from Tropical Cylcone[1]
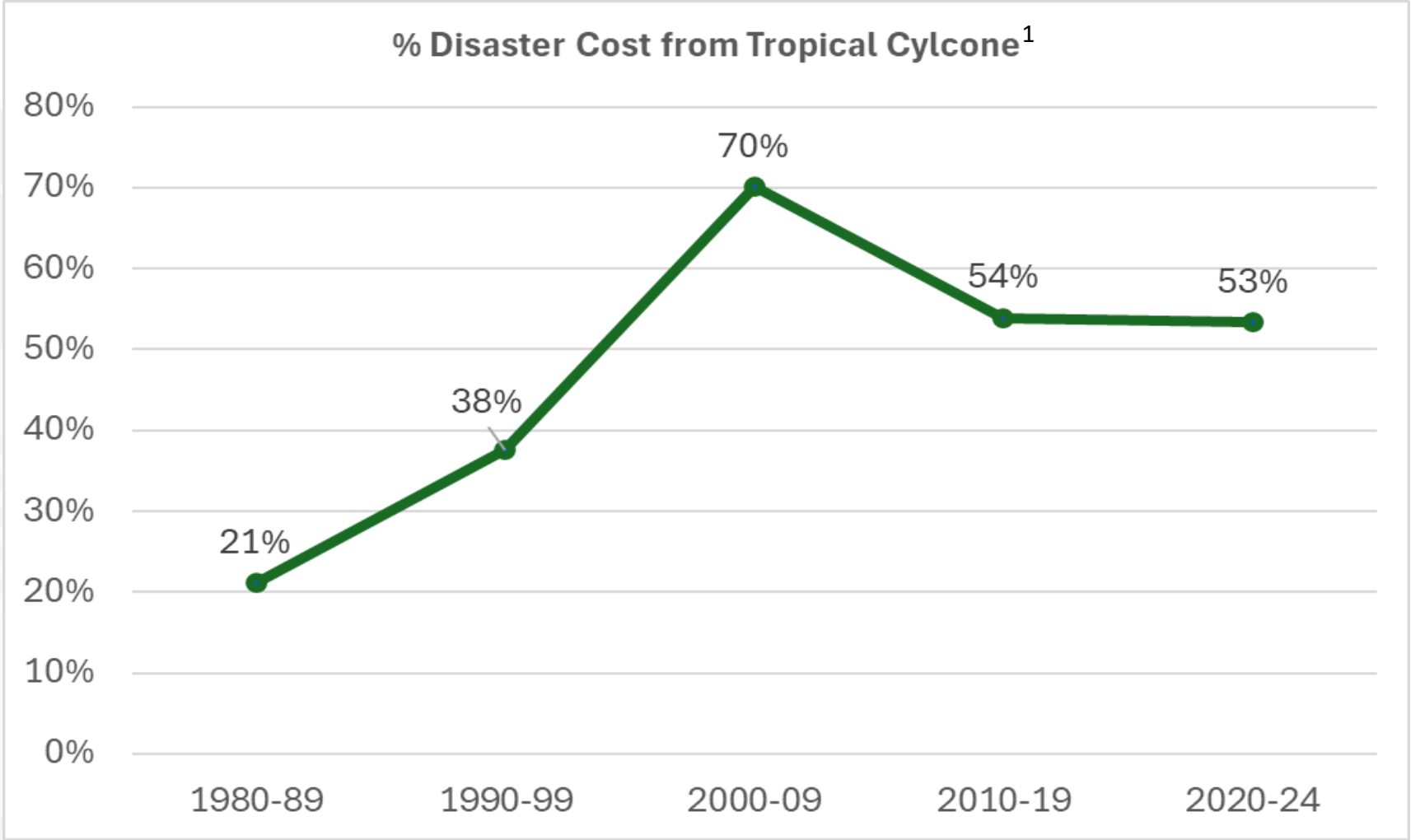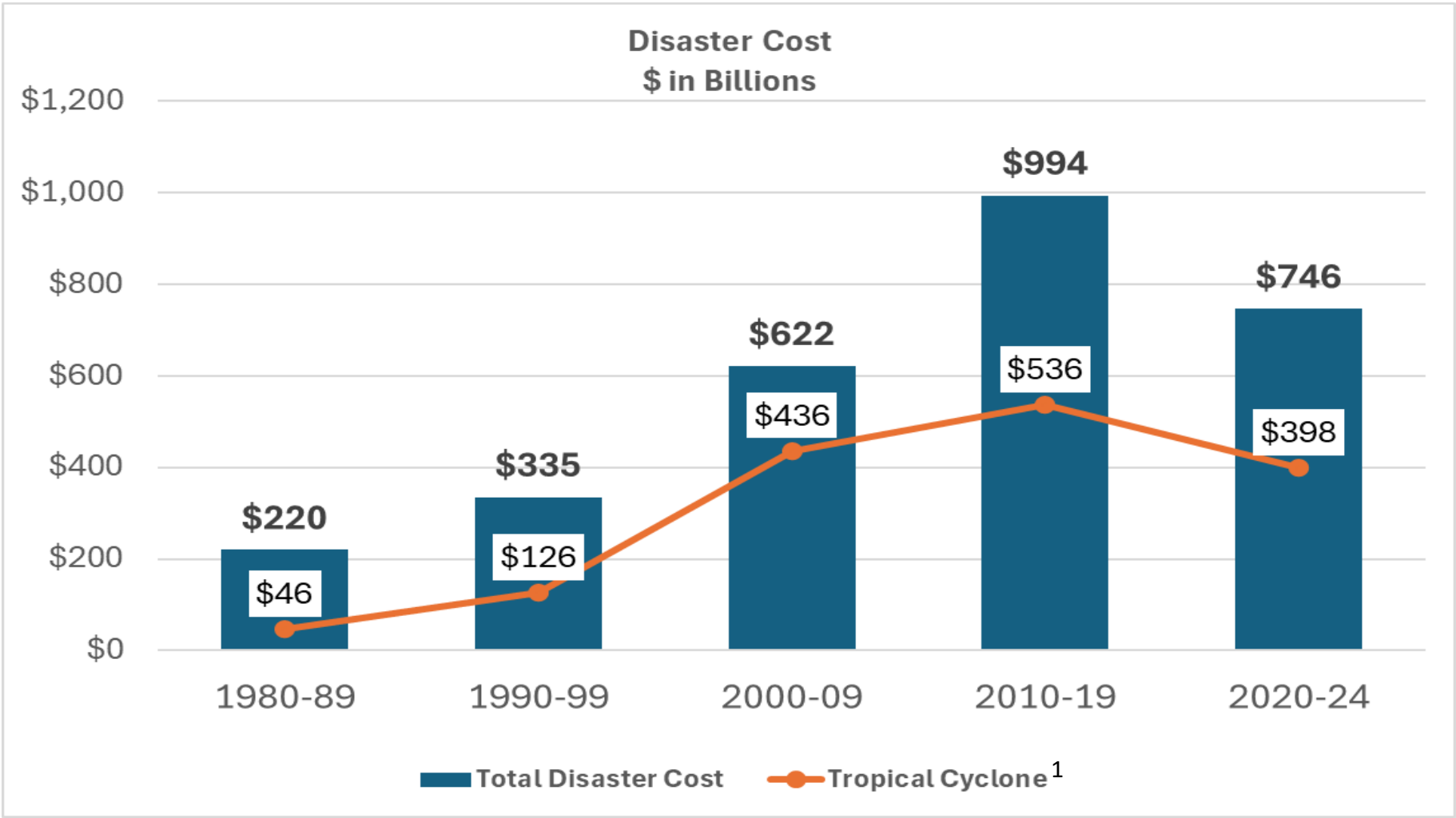
Total disaster costs have climbed sharply:

- $220B in the 1980s → nearly $1 trillion in the 2010s.

- 2020–24 alone has already reached **$746B**, with *five years left in the decade*.

Tropical cyclones[1] are the **largest single driver** of these costs.

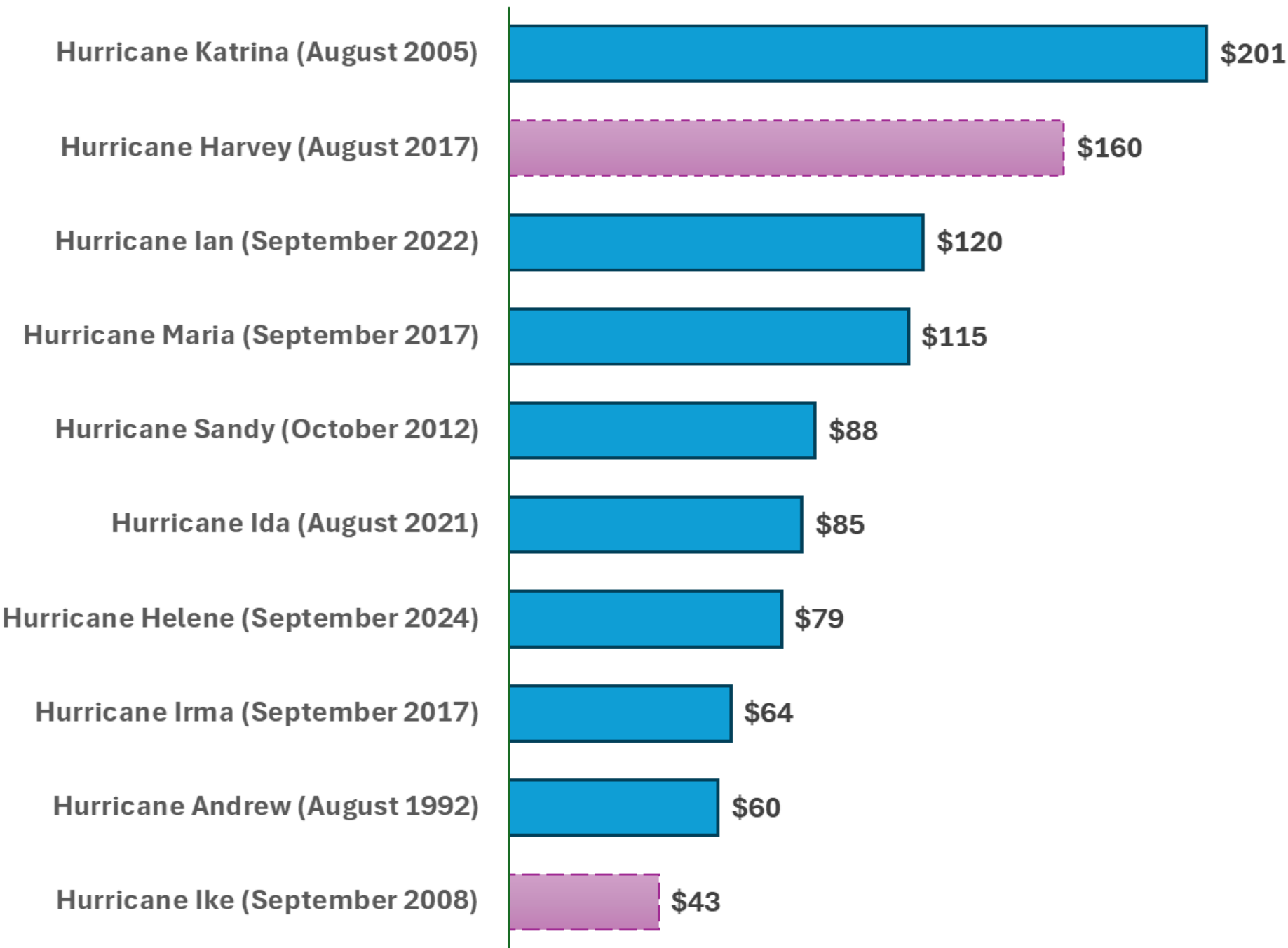- Over the past four decades, **tropical cyclones have consistently grown as the costliest type of U.S. disaster**, averaging **53% of total costs since 1980**.

- The Houston/Gulf Coast region is a major driver of these figures, repeatedly absorbing some of the highest losses.

1. "Tropical Cyclone" includes major hurricanes, tropical depressions and tropical storms

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Hurricanes drive disaster costs higher, with Houston among the hardest hit

Top 10 Costliest Cyclone Cost in Billions

Hurricane	Cost
Hurricane Katrina (August 2005)	$201
Hurricane Harvey (August 2017)	$160
Hurricane Ian (September 2022)	$120
Hurricane Maria (September 2017)	$115
Hurricane Sandy (October 2012)	$88
Hurricane Ida (August 2021)	$85
Hurricane Helene (September 2024)	$79
Hurricane Irma (September 2017)	$64
Hurricane Andrew (August 1992)	$60
Hurricane Ike (September 2008)	$43

- **Hurricane Katrina (2005)** remains the costliest U.S. cyclone disaster at **$201B**.

- **Houston/Gulf Coast impact:** Houston has **two hurricanes in the top 10** — Harvey (2017, $160B) and **Ike (2008, $43B)**.

- **Recent storms dominate the list:** 6 of the 10 costliest cyclones occurred since 2015, highlighting **increased risk and severity/cost** of storms.

Source: National Centers for Environmental Information - Link

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# Houston has faced 25 FEMA-declared disasters since 1983, with frequency rising sharply over the last decade

Severe Storms and Flooding (x2)

COVID-19 Pandemic

Severe Storms and Flooding

Severe Storms and Flooding (x2)

Tropical Storm

Hurricane

Severe Storms and Flooding

Tropical Storm

Severe Storms and Flooding

| 1983 | 1984 | 1989 | 1992 | 1994 | 1998 | 2001 | 2002 | 2005 | 2007 | 2008 | 2015 | 2016 | 2017 | 2019 | 2020 | 2021 | 2024 |

Severe Storms and Flooding

Severe Storms and Flooding

Tropical Storm

Hurricane

Hurricane

Severe Storms and Flooding

Tropical Storm

Severe Winter Storm

Severe Storms and Flooding (x2)

Hurricane

Source: Federal Emergency Management Agency (FEMA). Filtered for Harris County and Major Disaster Declaration

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Today, FEMA ranks Harris County #1 nationally in hurricane risk

Harris County
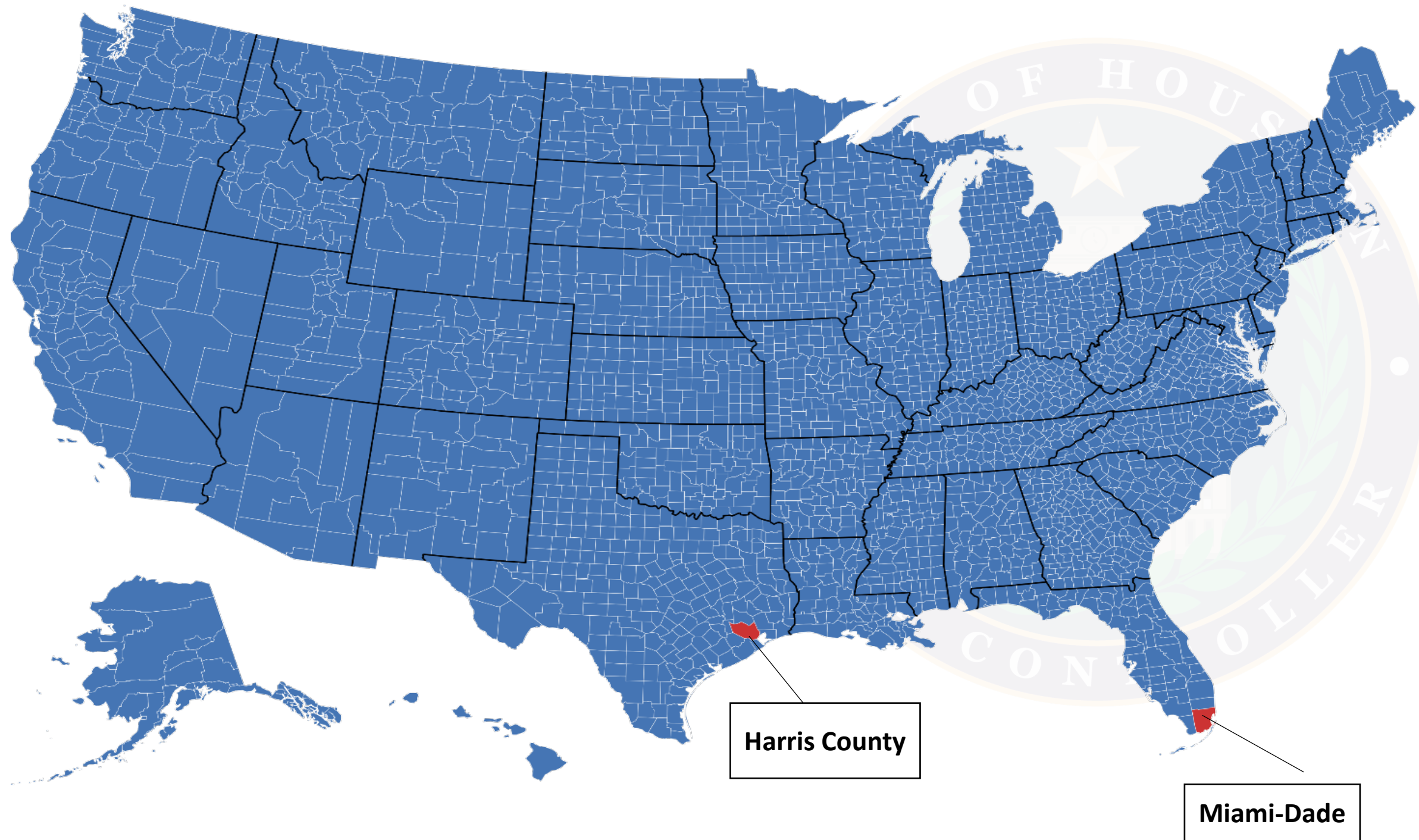
Miami-Dade

- **FEMA hurricane risk scores** factor in expected losses, social vulnerability, and community resilience.

- **Harris County (TX)** and Miami-Dade County (FL) both **score 100** — the highest possible risk level.

- **Harris County has faced severe financial and human impacts from major storms.**

- **Hurricane Harvey (2017):** Caused **$160 billion** in damages, the **2nd costliest** U.S. storm, devastating Greater Houston.

- **Hurricane Ike (2008):** Ranked as the **10th costliest U.S. storm.**

Economic Vulnerabilities

Factor	Risk to Preparedness
Structural Budget Deficit	Limits proactive investments
Property Tax Cap	Restricts revenue scalability
Sales Tax Volatility	Reduces fiscal reliability
Cost of Public Safety	Police and Fire make up 58% of General Fund expenditures
State Legislative Policies	Limits the City's financial flexibility

This section examines the City of Houston's key economic vulnerabilities, including persistent structural budget deficits and state legislation that limits local financial flexibility.

After a temporary boost from federal support, Houston's fund balance is declining sharply


Change in Fund Balance
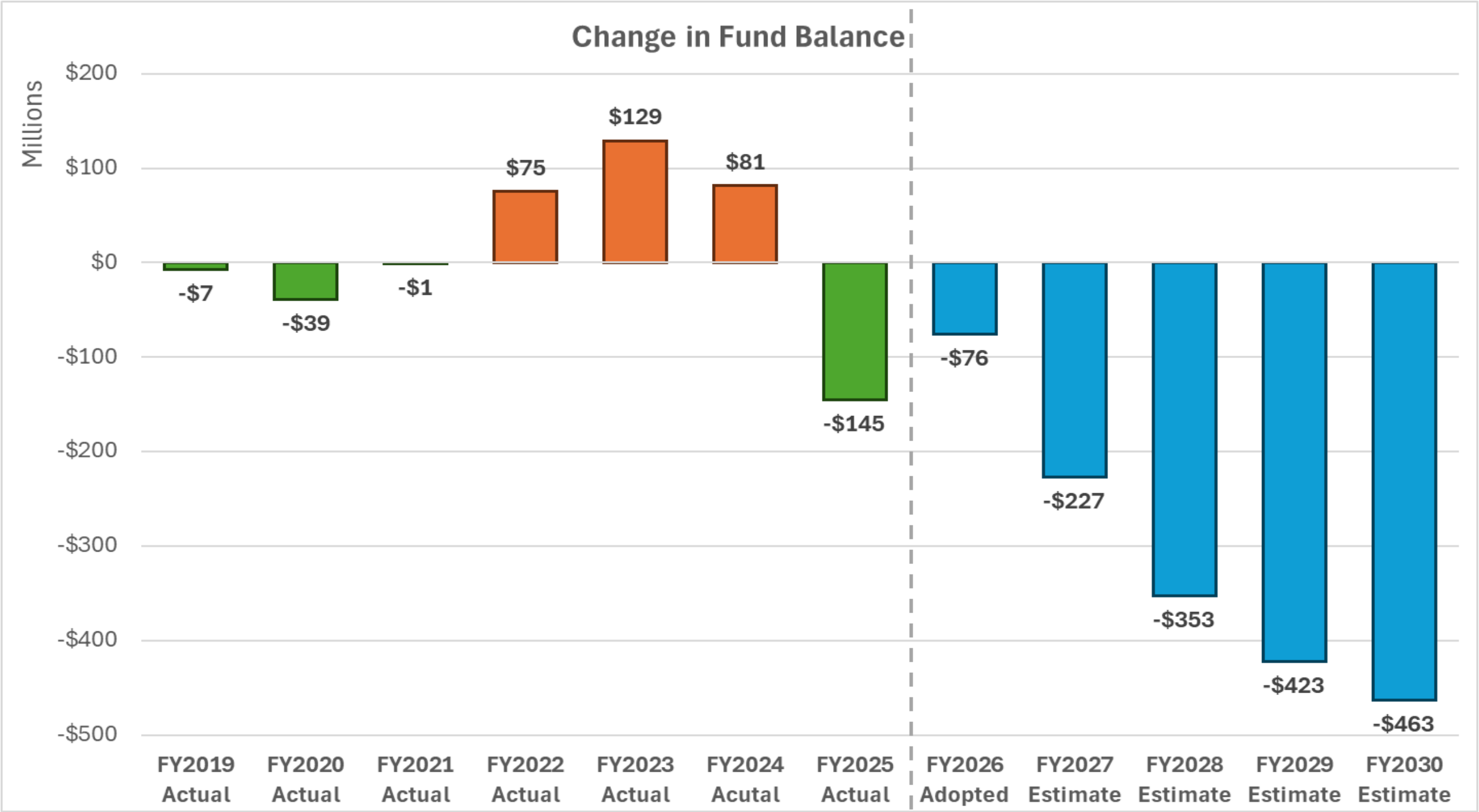
- Beginning in FY2022, the City has used American Rescue Plan Act (ARPA) funds to replace lost revenue, boosting fund balance through FY2024. Those funds are now exhausted.

- FY2025 saw the largest decrease to Houston's fund balance in history.

- FY2026 is projected to have the second-steepest decrease in history.

- Finance projects large recurring deficits from FY2027–FY2030.

Legend:
- Actual Change
- ARPA Boost
- Estimated Gap – Finance Baseline Projection

State and local laws restrict property tax revenues and mandate spending, squeezing Houston's budget

State legislative changes have increasingly placed financial pressure on municipalities by limiting local revenue options and imposing restrictions on expenditure funding levels. Below are just some of the recent laws that have major financial impact on the City of Houston.
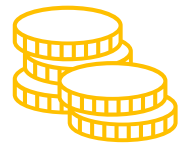
Revenue Limits

- ❑ COH Charter Amendments Prop 1 & H (2004)
- ❑ SB 2 – Property Tax Cap (2019)
- ❑ SB 1152 – Telecom/Cable Fees (2019)
- ❑ HB 100 – Ride-share Fees (2017)
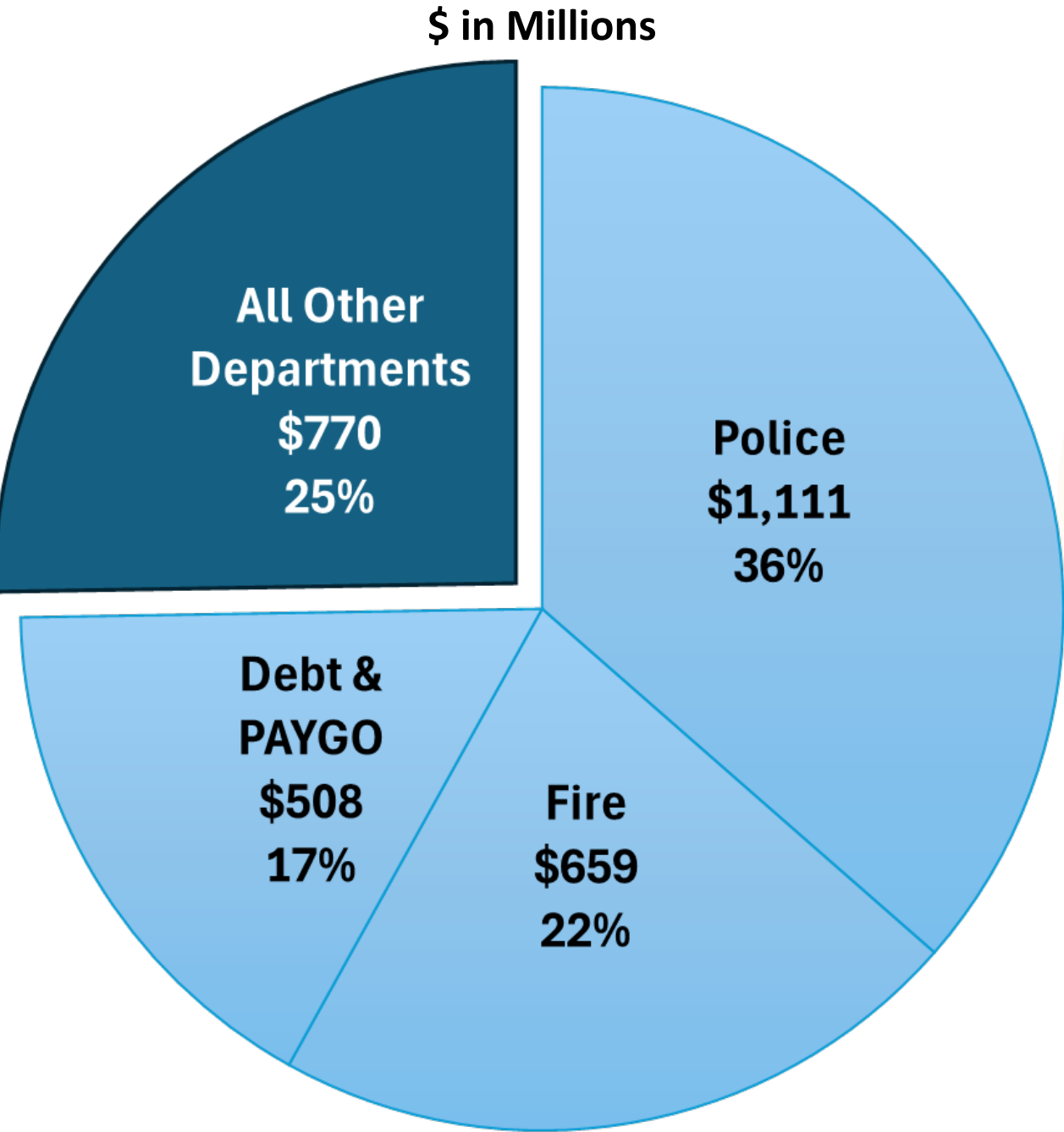- ❑ SB 9 (pending) – Lower Revenue Cap (2025)

Spending Mandates

- ❑ HB 1900 – Police Budget Law (2021)
- ❑ HB 325 (pending) – Spending Caps (2025)

Police, Fire, and Debt consume 75% of the budget, leaving little flexibility

$ in Millions

FY2026 General Fund Adopted Budget: $3,048

- **Fire and Police:** Public safety consumes 58% of the General Fund.

- **Debt Service:** Debt and PAYGO account for 17% of the budget

- **All Other Services:** 21 departments share just 25%—including Solid Waste, Parks, and Libraries.

- **Limited Flexibility:** Fixed costs leave little room to fund disaster preparedness.

Category	Description
Houston Policy	A look at current financial polies
Historical Fund Balance Reserves	A look back at the minimum fund balance reserve and the budget stabilization fund
Other Cities	How does Houston compare to other cities

Disaster Reserve Funding

This section explores Houston's disaster reserve policy, benchmarks it against peer cities, and reviews GFOA best practices for funding disaster preparedness.
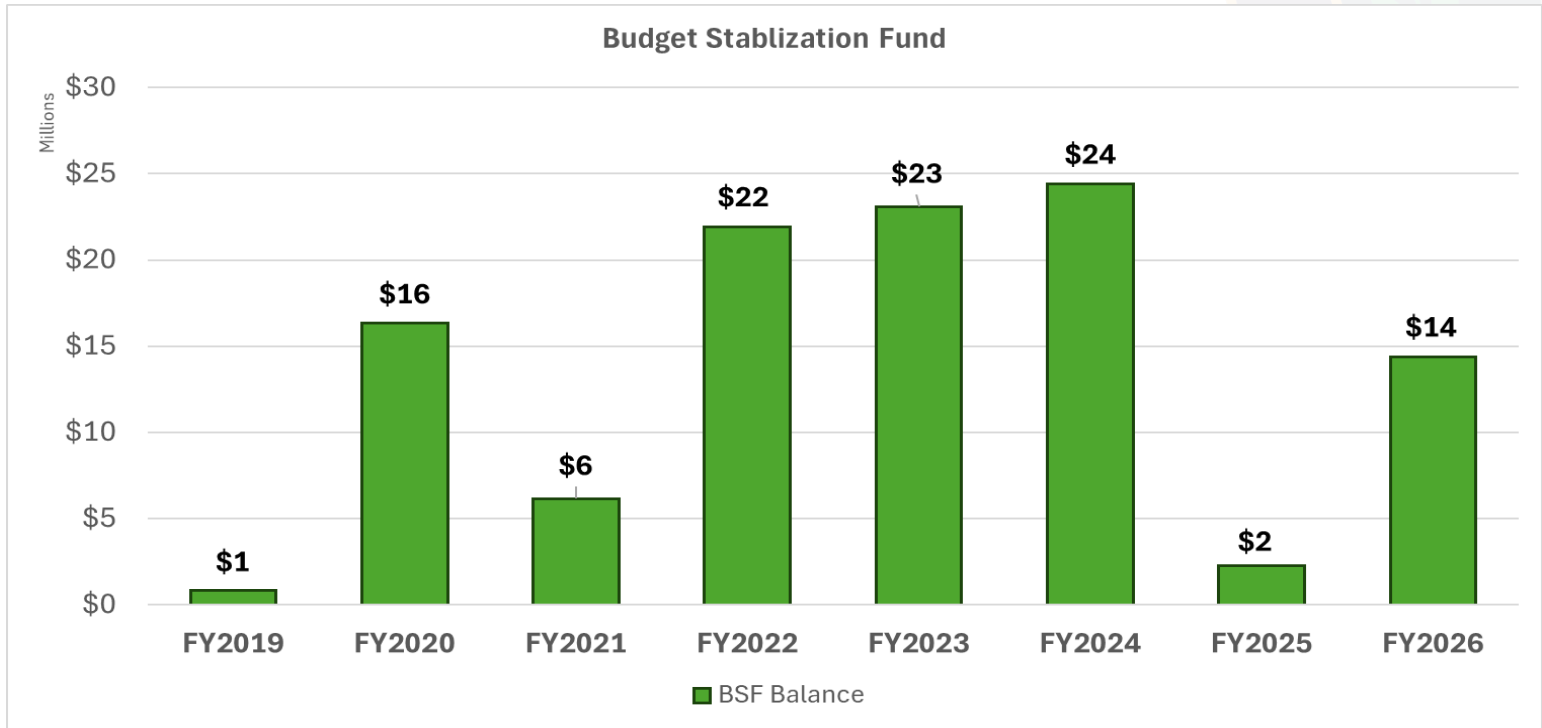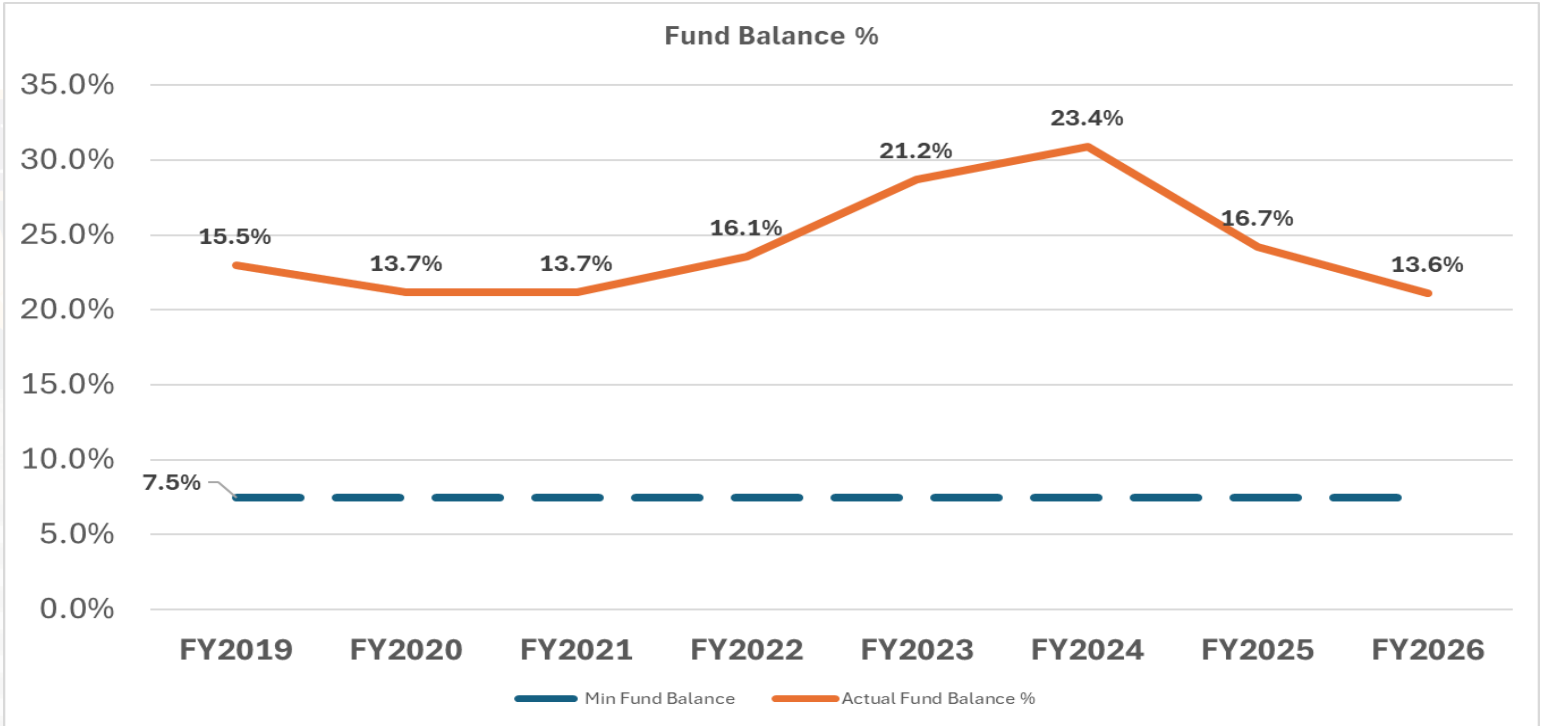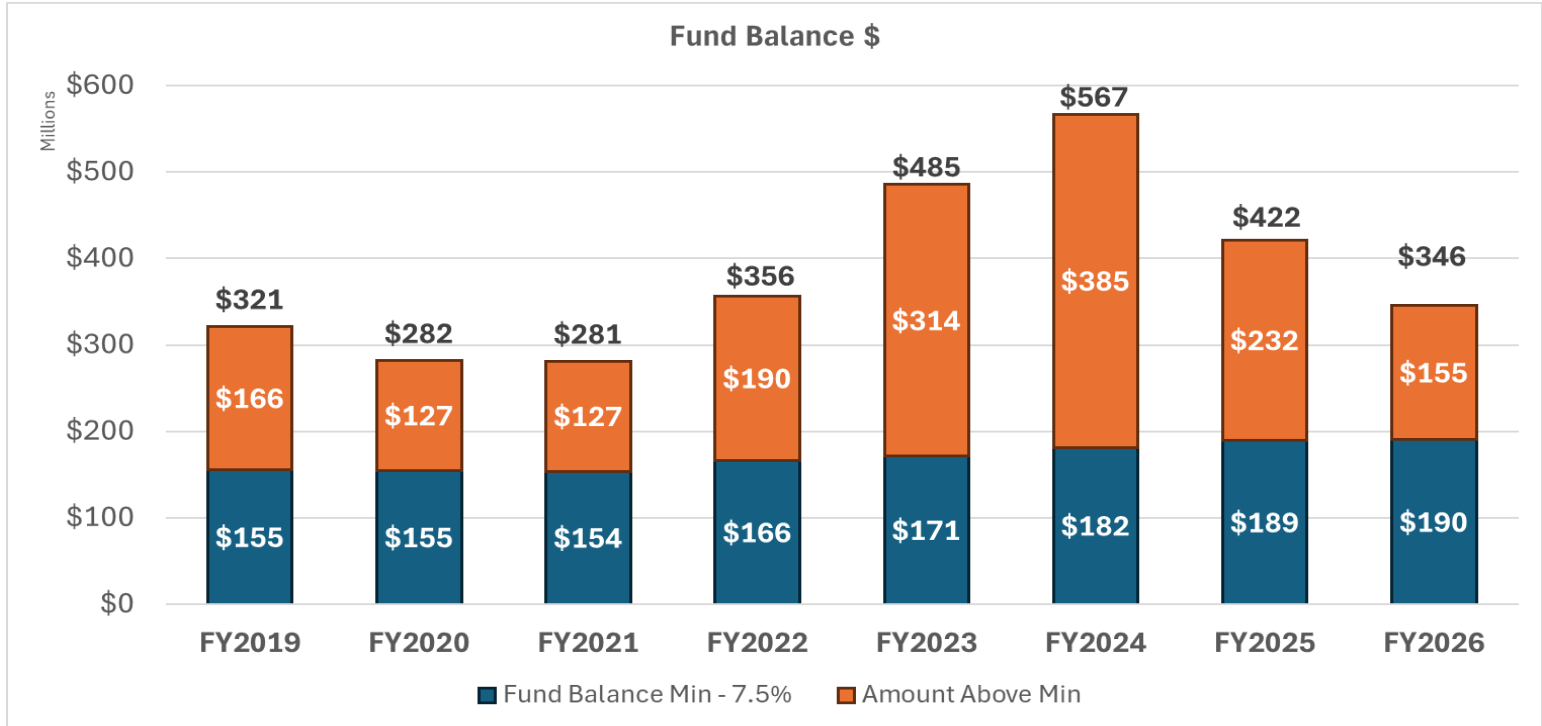
Houston's current reserve policy

Category	Key Points
Purpose	• Ensure reserves for disasters, emergencies, and economic downturns • Protect fiscal stability and credit rating
Unassigned Fund Balance	• Minimum **7.5% of General Fund expenditures**, excluding debt and PAYGO • Serves as baseline emergency reserve
Budget Stabilization Fund (BSF)	• Minimum: Greater of **1% of General Fund expenditures**, excluding debt and PAYGO or **$20 million** • Uses: disasters, health/safety emergencies, revenue shortfalls
Governance and Access	• Requires two-thirds Council approval if drawn below minimum • Must replenish within 2 years

In recent years, fund balance has been used to cover budget deficits rather than building long-term disaster reserves

Fund Balance $

Stacked bar chart (Millions), "Fund Balance Min - 7.5%" (blue) and "Amount Above Min" (orange):
- FY2019: $155 / $166 — Total $321
- FY2020: $155 / $127 — Total $282
- FY2021: $154 / $127 — Total $281
- FY2022: $166 / $190 — Total $356
- FY2023: $171 / $314 — Total $485
- FY2024: $182 / $385 — Total $567
- FY2025: $189 / $232 — Total $422
- FY2026: $190 / $155 — Total $346

Fund Balance %

Line chart, Min Fund Balance (7.5%) and Actual Fund Balance %:
- FY2019: 15.5%
- FY2020: 13.7%
- FY2021: 13.7%
- FY2022: 16.1%
- FY2023: 21.2%
- FY2024: 23.4%
- FY2025: 16.7%
- FY2026: 13.6%

Budget Stablization Fund

Bar chart (Millions), BSF Balance:
- FY2019: $1
- FY2020: $16
- FY2021: $6
- FY2022: $22
- FY2023: $23
- FY2024: $24
- FY2025: $2
- FY2026: $14

FY2024 Peak: Fund balance reached a record high, **$385M above policy minimum (23.4%)**.

Use of Excess: In FY2025 and '26, fund reserves have been drawn down to close budget gaps.

Stabilization Fund: Despite historic surpluses, the Budget Stabilization Fund has not grown beyond the required minimum

# Houston's reserves lag behind peer cities and recommended best practices

City / Standard	General Fund Reserves (Policy Minimum)	Disaster / Emergency Reserves	Total Target % of GF	Governance & Access
Houston	**7.5%** Unassigned Fund Balance (excl. debt & PAYGO)	BSF = ≥**1%** GF or **$20M** minimum (multi-purpose: disasters, emergencies, shortfalls)	**8-9%**	2/3 Council vote if below min Replenish in 2 years
Dallas	50 days (**13.7%**) of GF ops	Contingency Reserve = **0.5% - 1%** Emergency Reserve = **5%**	**19-20%**	Council approval Replenish in 3 years
San Antonio	**15%** Unassigned GF	$1M Contingency = **0.6% -1%**	**15–16%**	Restricted uses Plan required if below min
Miami	**10%** General Fund balance, includes $5M for contingency	Designated Contingency (**10%**) for long-term liabilities	**20%**	Council approval Annual review
GFOA Best Practice	≥**16.7%** (two months ops)	Separate disaster/emergency reserve recommended	**16.7%+**	Clear policy for access Prompt replenishment

Shallow reserves leave Houston financially vulnerable

- **Houston has the lowest mandatory reserves** among the cities shown, with only **8-9% of General Fund** required to be kept as reserves (includes General Fund and Budget Stabilization Fund).

- **GFOA Best Practice** recommends at least **16.7%+** (two months) fund balance reserve level. Houston requires roughly **half the minimum recommendation.**

- **Reserve depth is insufficient** compared to peers and GFOA standards.
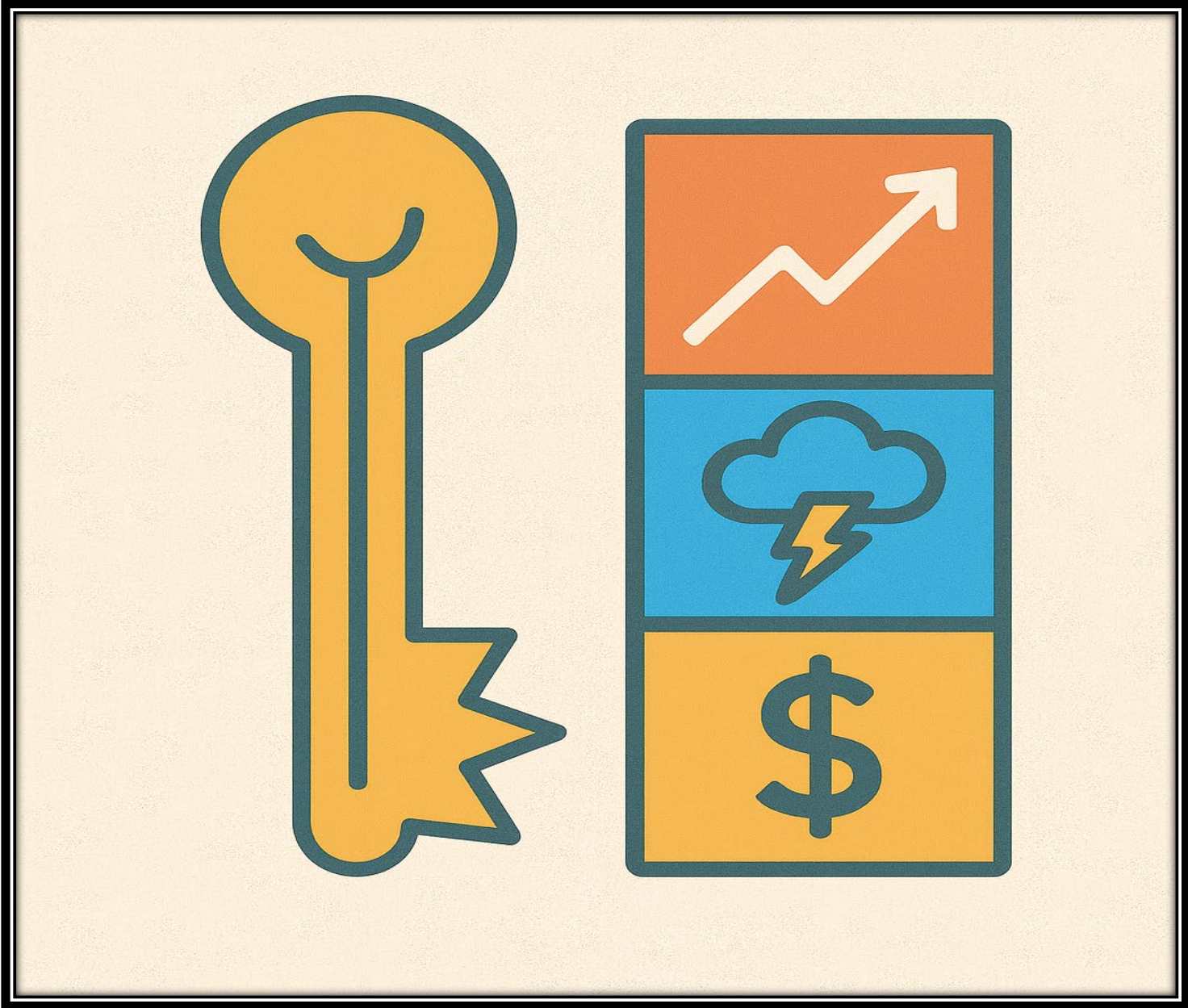
Opportunities Ahead

Category	Description
Save More	Grow reserves beyond the minimum.
Stronger Policies	Update financial rules for resilience.
Plan Ahead	Focus on long-term, sustainable solutions.

This section explores areas where the City can strengthen financial readiness for future disasters.

Policy changes can strengthen Houston's reserves and readiness

Action	Current Policy	Proposed Improvement	Benefit
1. **Raise Minimum Fund Balance**	7.5% of expenditures (excl. debt), below GFOA best practice	Increase baseline reserve requirement	Builds fiscal discipline and stronger reserves
2. **Increase BSF Size**	1% of expenditures (min. $20M)	Raise allocation percentage	Strengthens City's financial safety net
3. **Allocate Excess Above Minimum**	Surpluses used case-by-case	Dedicate year-end surplus above minimum directly to BSF	Creates consistent funding mechanism
4. **Allocate Special Fund Clawbacks**	Clawback dollars not dedicated	Direct clawbacks (per policy) into BSF	Grows reserves without new taxes
5. **Differentiate Uses of BSF**	BSF covers both downturns and disasters	Separate economic vs. disaster uses	Preserves disaster funds during recessions

# Stronger reserves mean stronger preparedness

History and Climate: Houston has faced repeated, costly disasters, with climate change driving greater intensity and risks.

Economic Vulnerabilities: Persistent budget deficits and state and local laws limiting revenue and spending flexibility reduce financial resilience.

Disaster Reserves: Current reserve levels are well below peer cities and GFOA best practices.
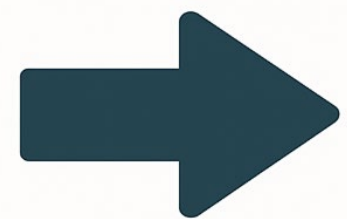
Opportunities Ahead: Build stronger reserves, modernize financial policies, diversify revenues, and plan for long-term sustainability.

Questions