Smarter, Faster Cheaper:

Helping Cities Survive and Thrive in an Age of Increasing Demands and Shrinking Resources

City of Houston

IBM is the leading developer and implementer of smarter cities solutions

INSTRUMENTED

We now have the ability to measure, sense and see the exact condition of practically everything in near real-time.

INTERCONNECTED

The city is a “system of systems” that are connected and co-dependent.

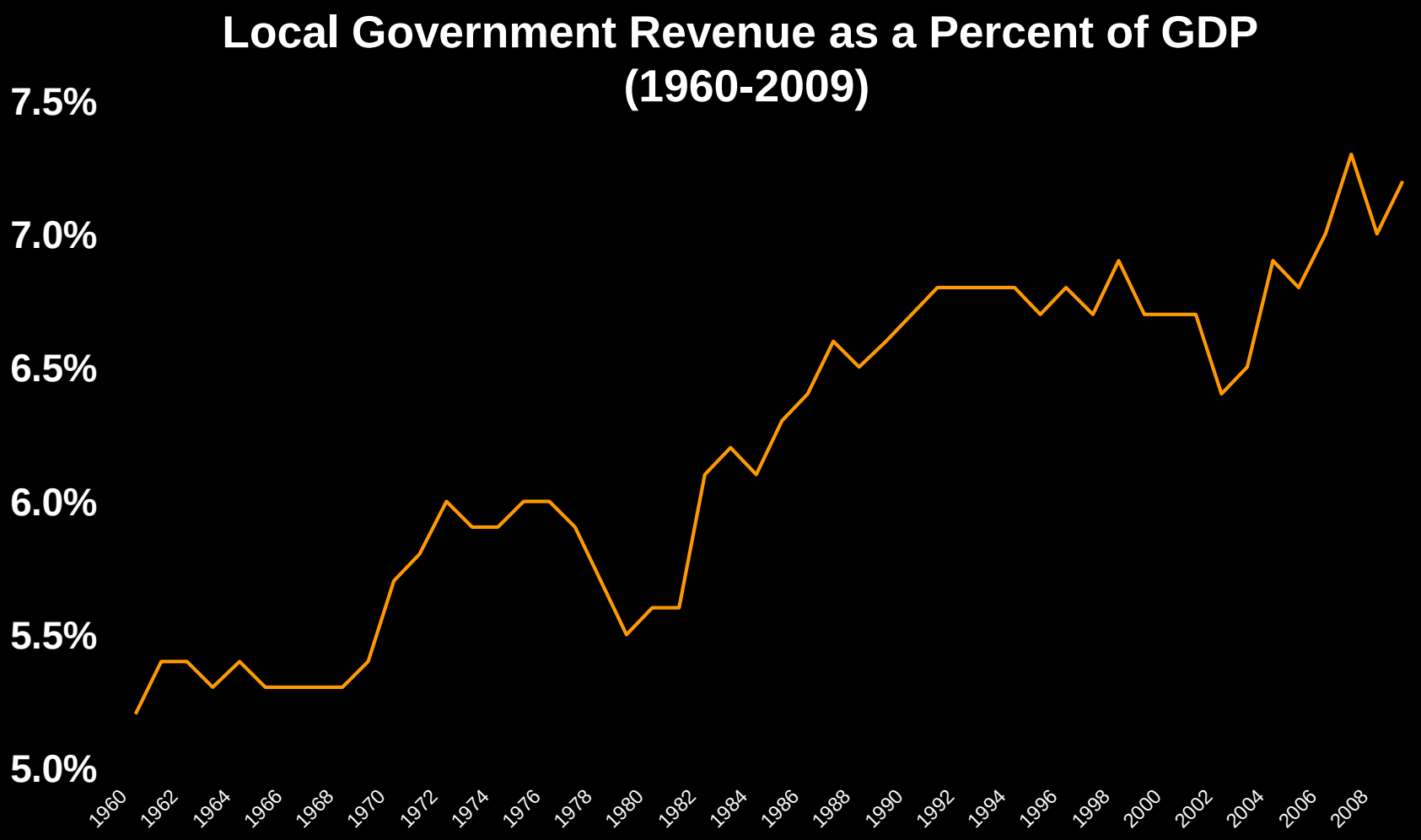
INTELLIGENT

The information produced by these systems can be used to make better decisions.

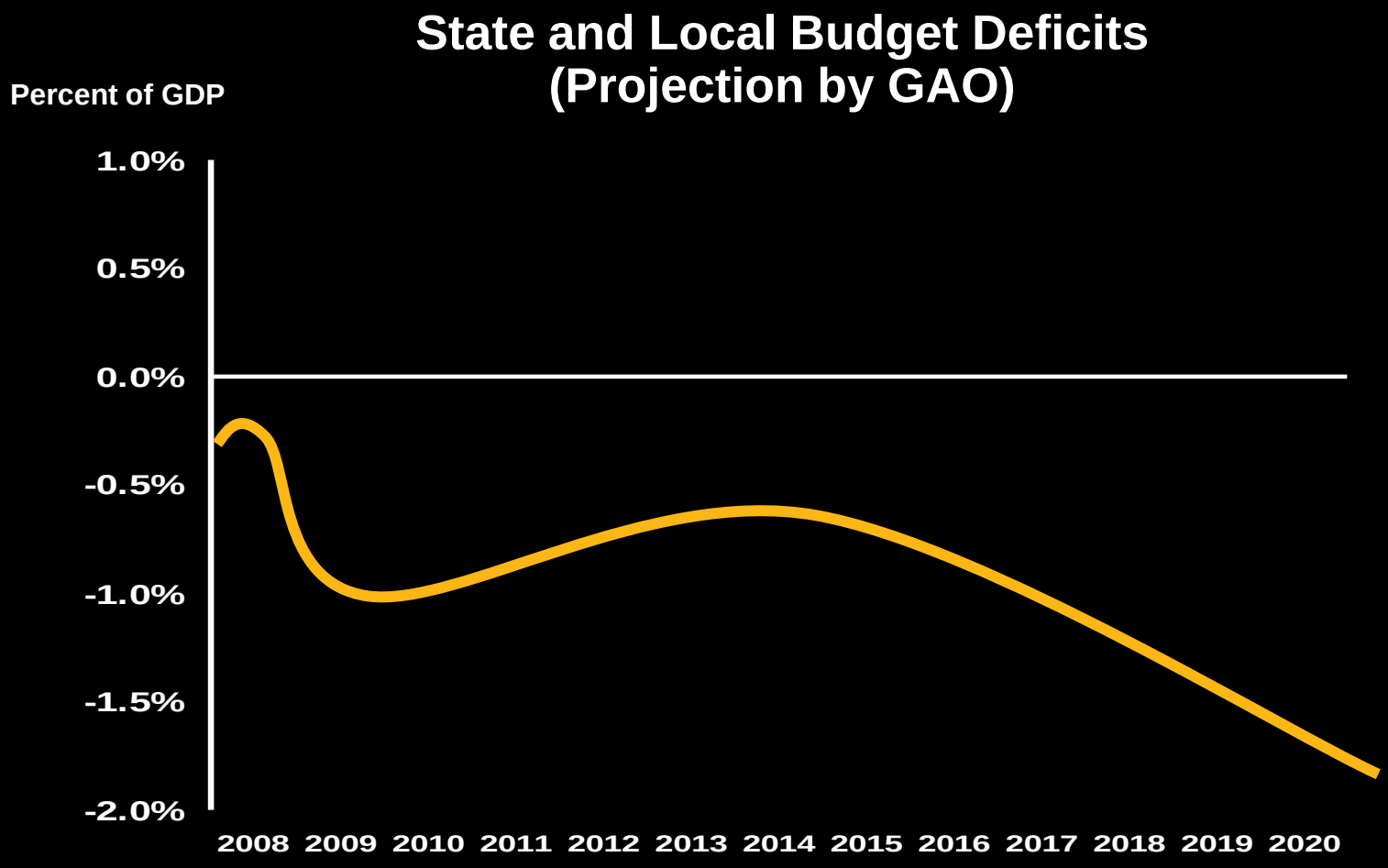
SMARTER

We can gather, synthesize and apply this information to achieve financial, environmental and operational benefits.

Local government is growing…



…but it's business model is broken

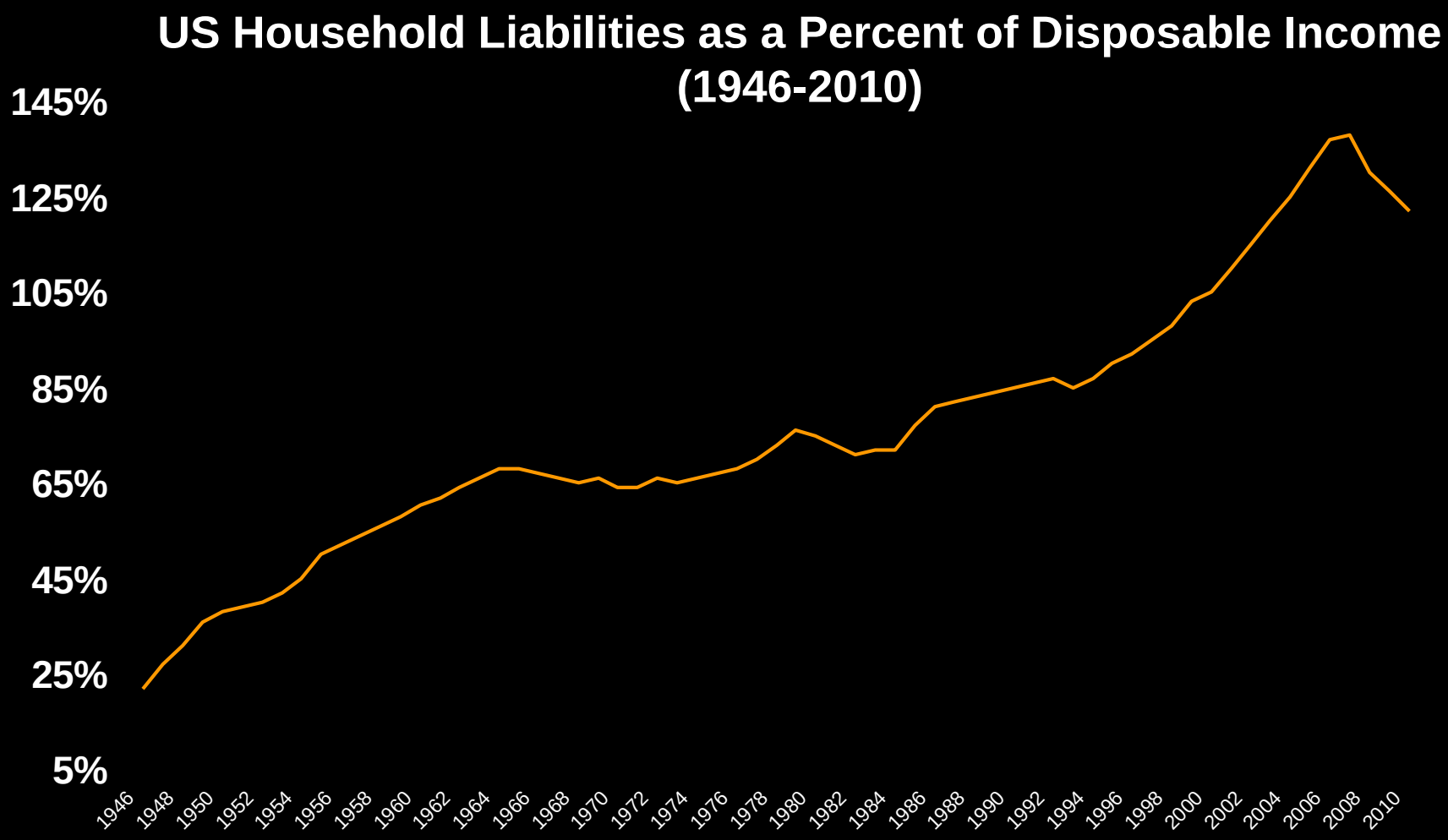


Local governments have problems on both sides of the ledger

- Revenues are flat

- Costs are increasing at a rate that exceeds anticipated revenue growth

On the revenue side, households need to de-leverage…



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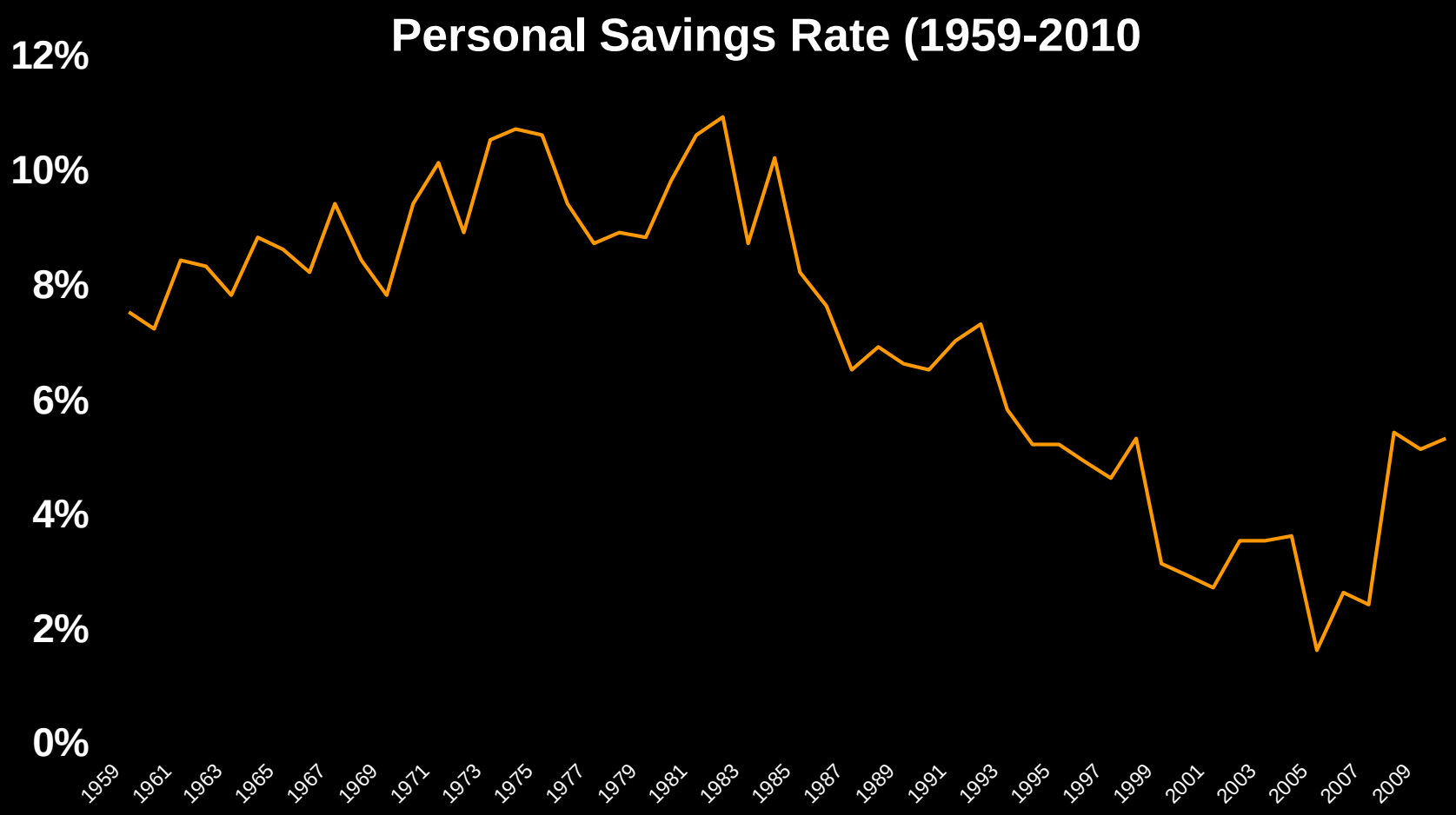
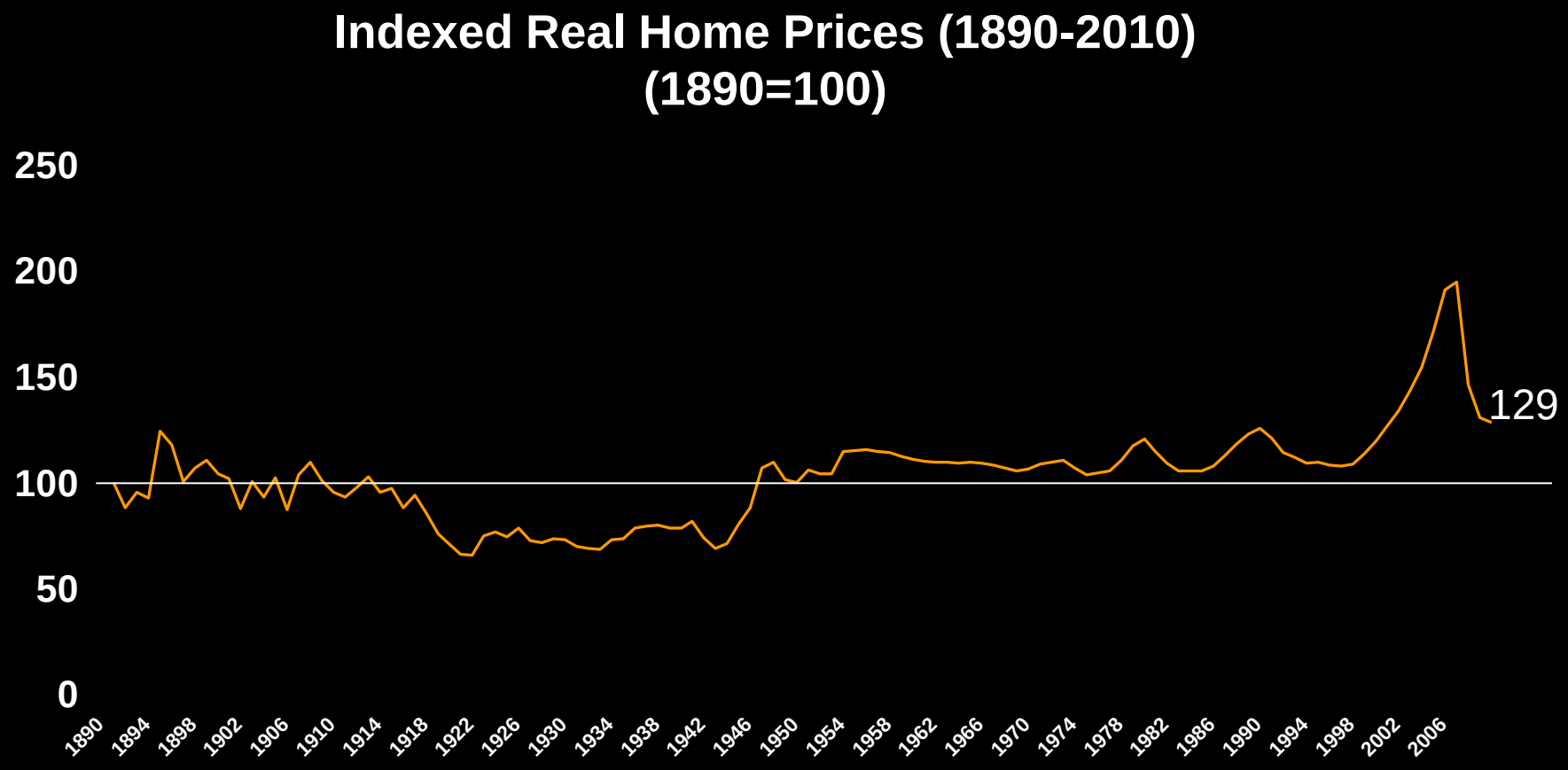
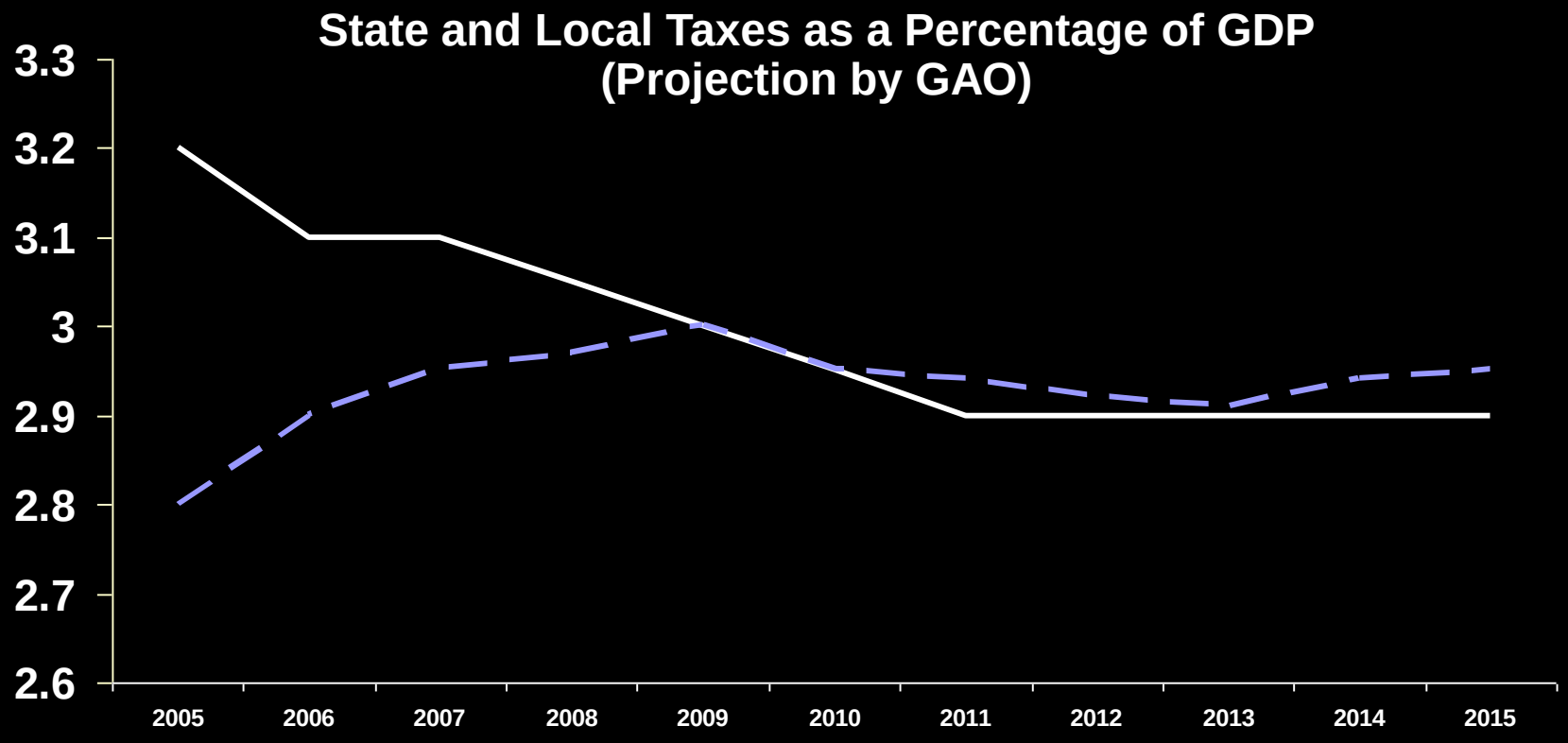
…which means they need to save more and spend less …



… and since housing prices have farther to fall…



... growth in sales and property tax revenue will be flat at best



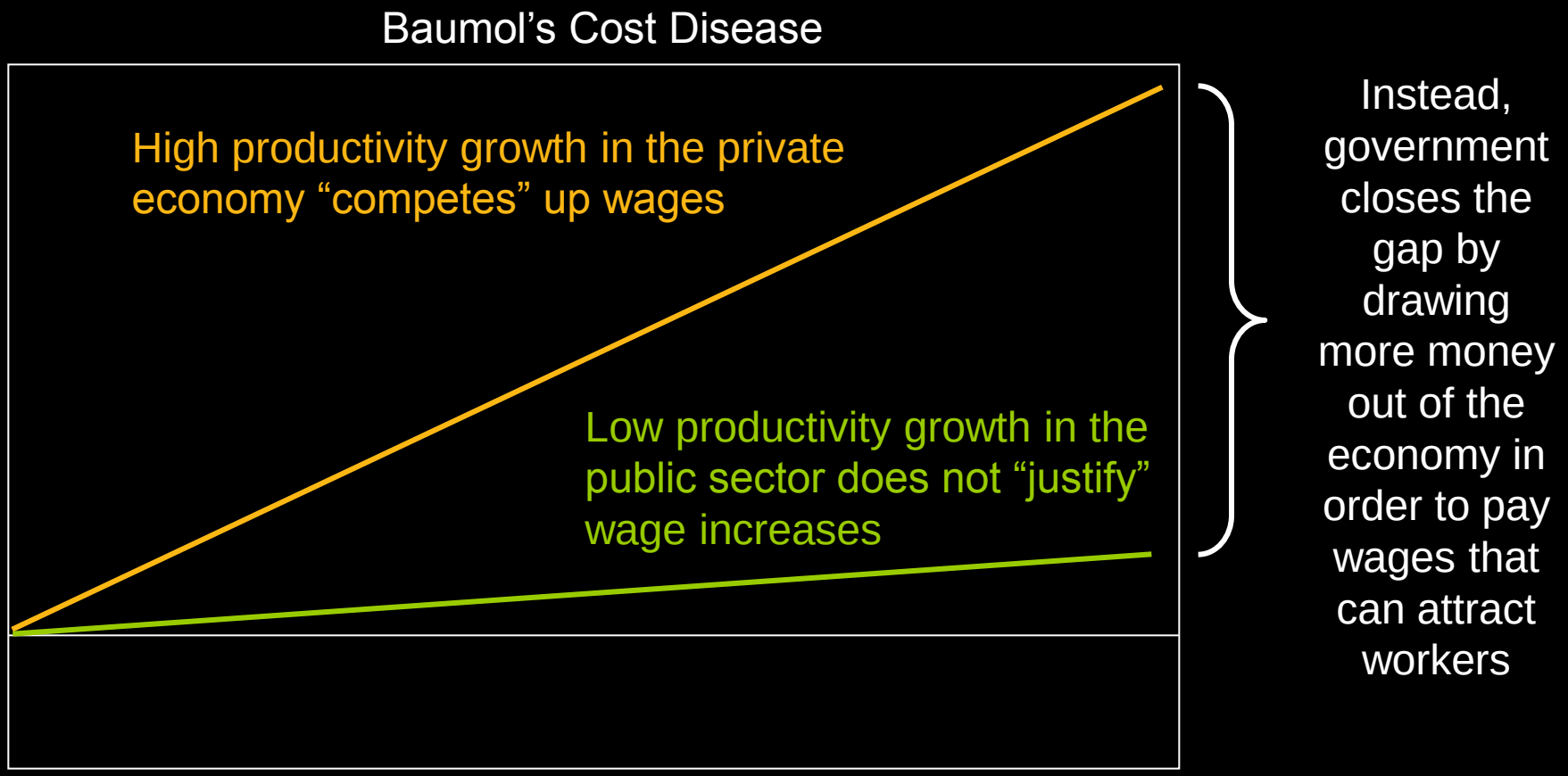
On the cost side, cities have made long-term obligations that exceed their capacity to finance them …

- Pensions
- Health care
- Economic development
- Infrastructure

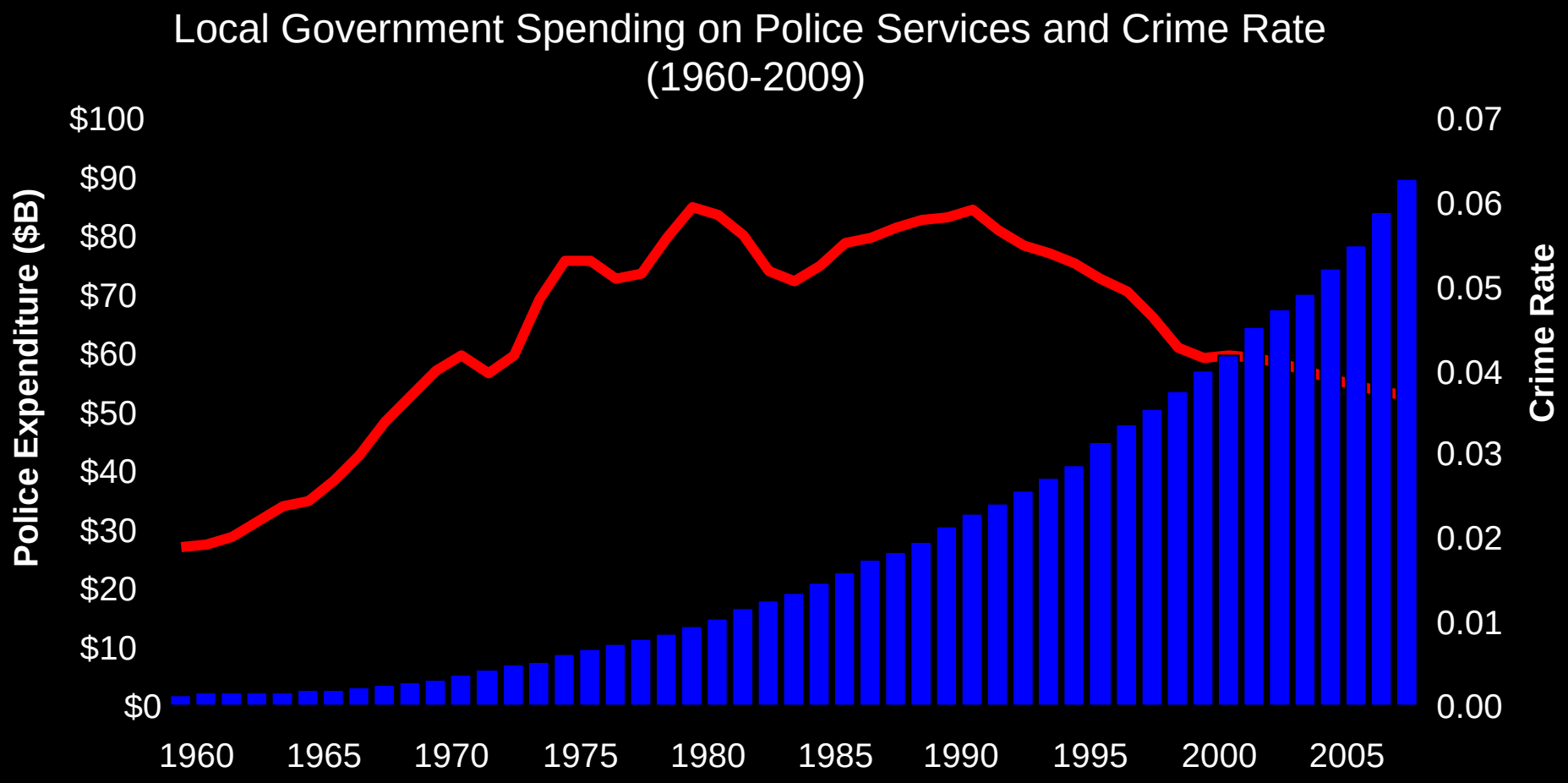
Unfunded Pension Liabilities Per Capita

1	Chicago	44,966
2	New York City	38,886
3	San Francisco	34,940
4	Boston	30,901
5	Detroit	18,643
20	Houston	10,804

… and they are in businesses that suffer from low long-term productivity growth …



… and we are generally not satisfied with the outcomes we achieve

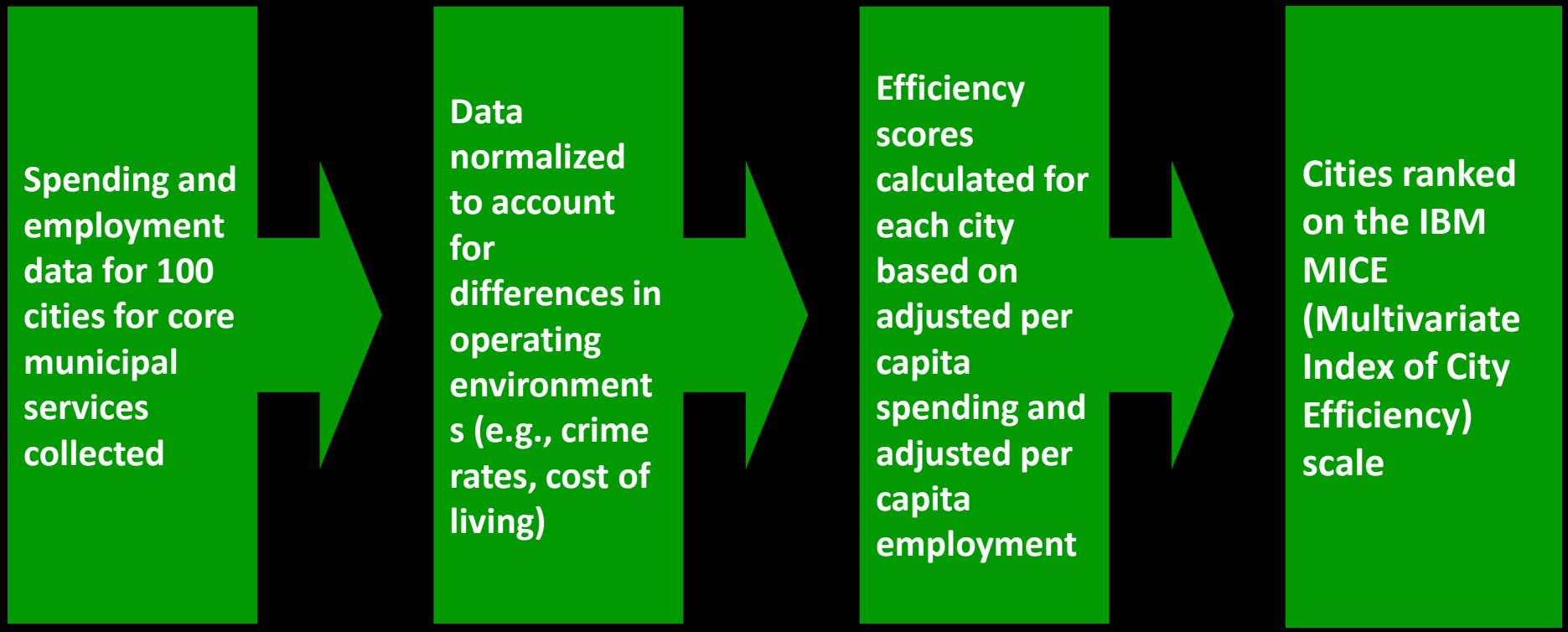


This all adds up to a broken business model that needs to be fixed by:

- Vigorously driving revenue growth through – among other things – strategic investments in infrastructure and economic development
- Improving the productivity of labor and capital through a laser-like focus on efficiency
- Measuring returns on investment based on outcomes, and allocating resources accordingly

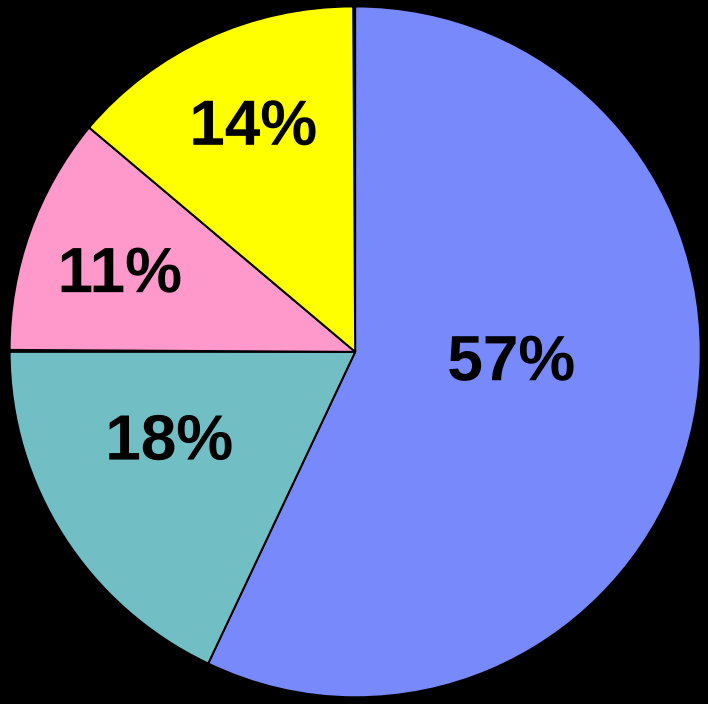
To help cities identify opportunities for cost reduction, IBM has benchmarked 100 large US cities

Operations Efficiency Benchmarking Methodology



In total, $51 billion in spending was included in the efficiency analysis

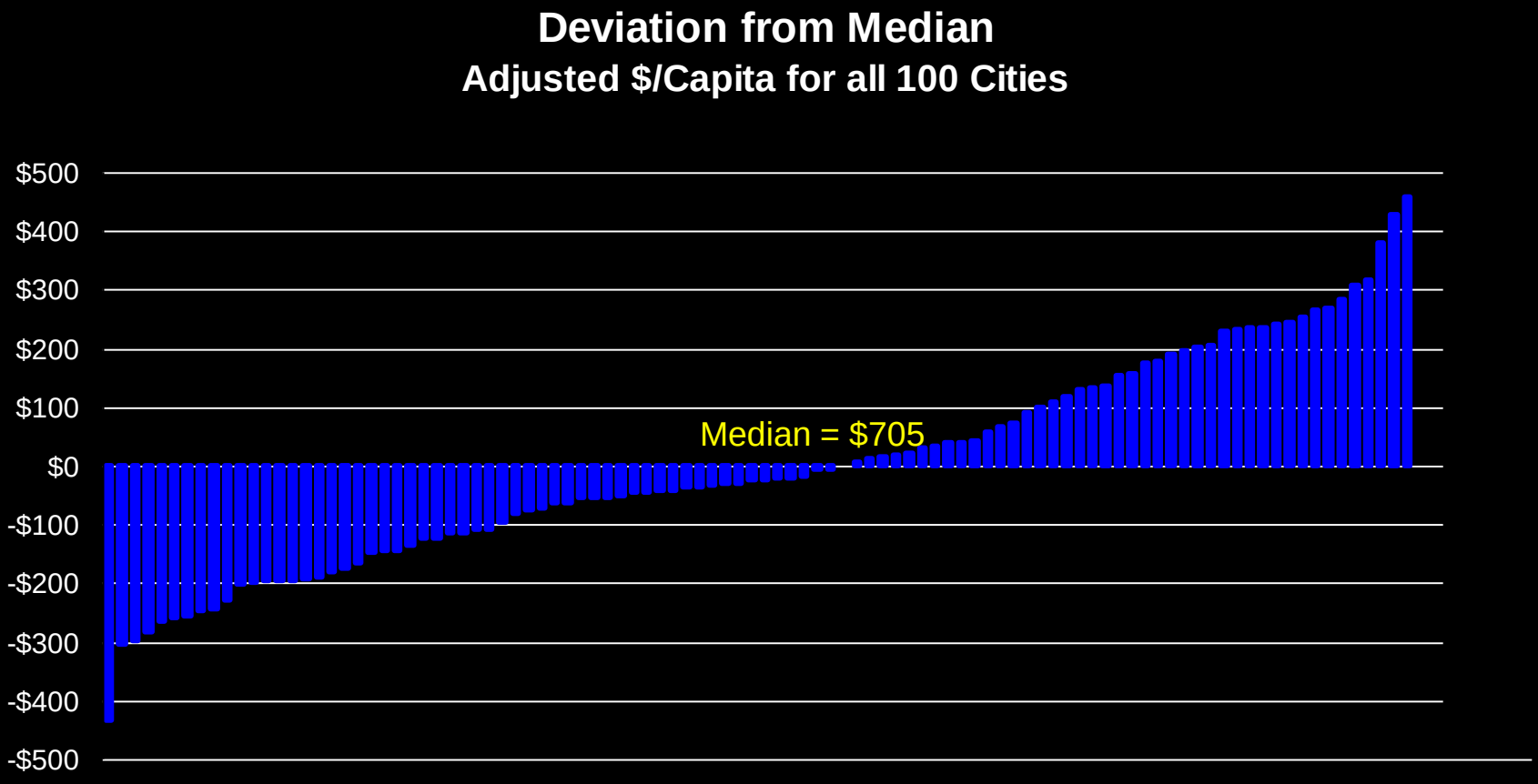
Spending Distribution



- **Public Safety**
  - *Core: Police, Fire*
- **Public Infrastructure**
  - *Core: Parks, Public Works, Planning & Zoning, Buildings, Code Enforcement*
- **Support Services**
  - *Core: Exec Office, Finance, HR, IT, Law*
- **Community and Economic Development**
  - *Core: None*

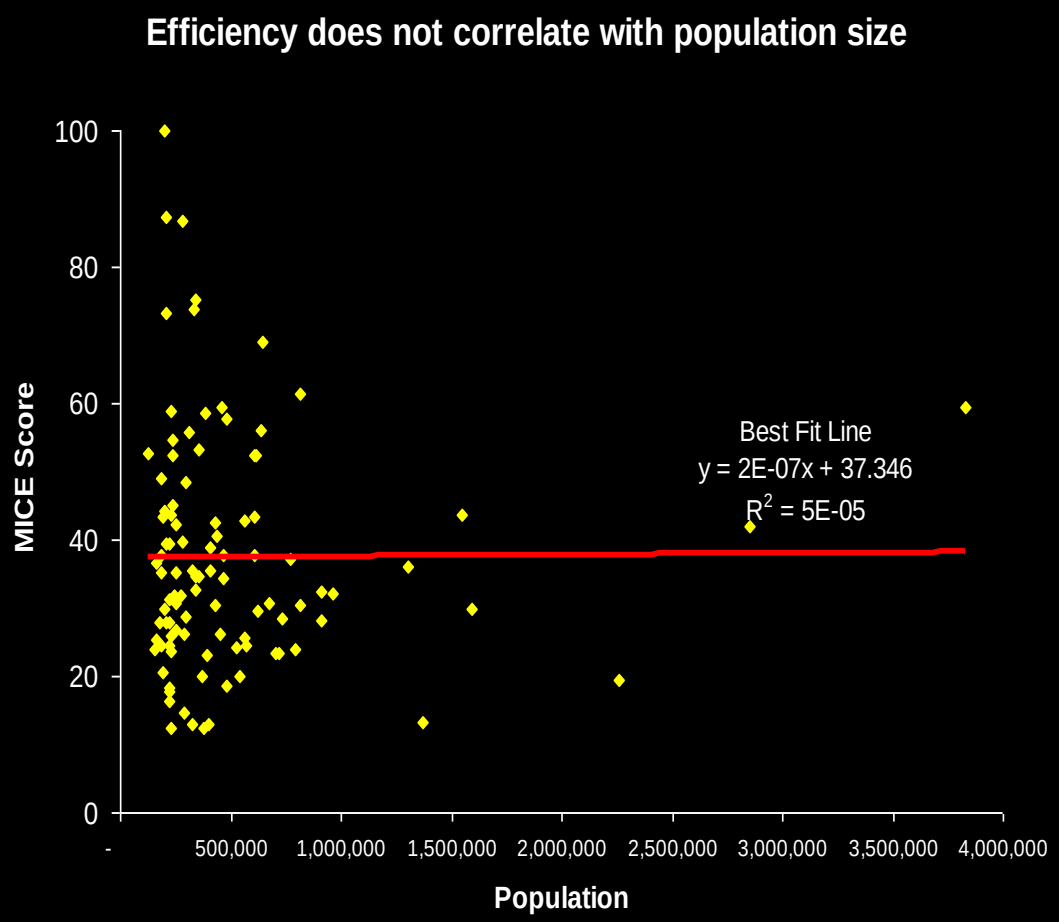
Finding #1: The level of resources that cities dedicate to delivering basic municipal services varies widely

On average, cities spend $705 per capita to deliver "core" municipal services



Finding #2: This broad variation in resource deployment **does not** seem to be driven by exogenous factors

- Variation in spending does not correlate with:
  - Population (economies of scale do not appear to be operative)
  - Geographic size (no operational cost for distance)
  - Labor conditions (union vs. non-union)
  - Per capita Income (no wealth effect)



Management and policy choices are what matter

Cities spend what they spend because they choose to spend it.

These choices come in two forms:

Cities make strategic choices

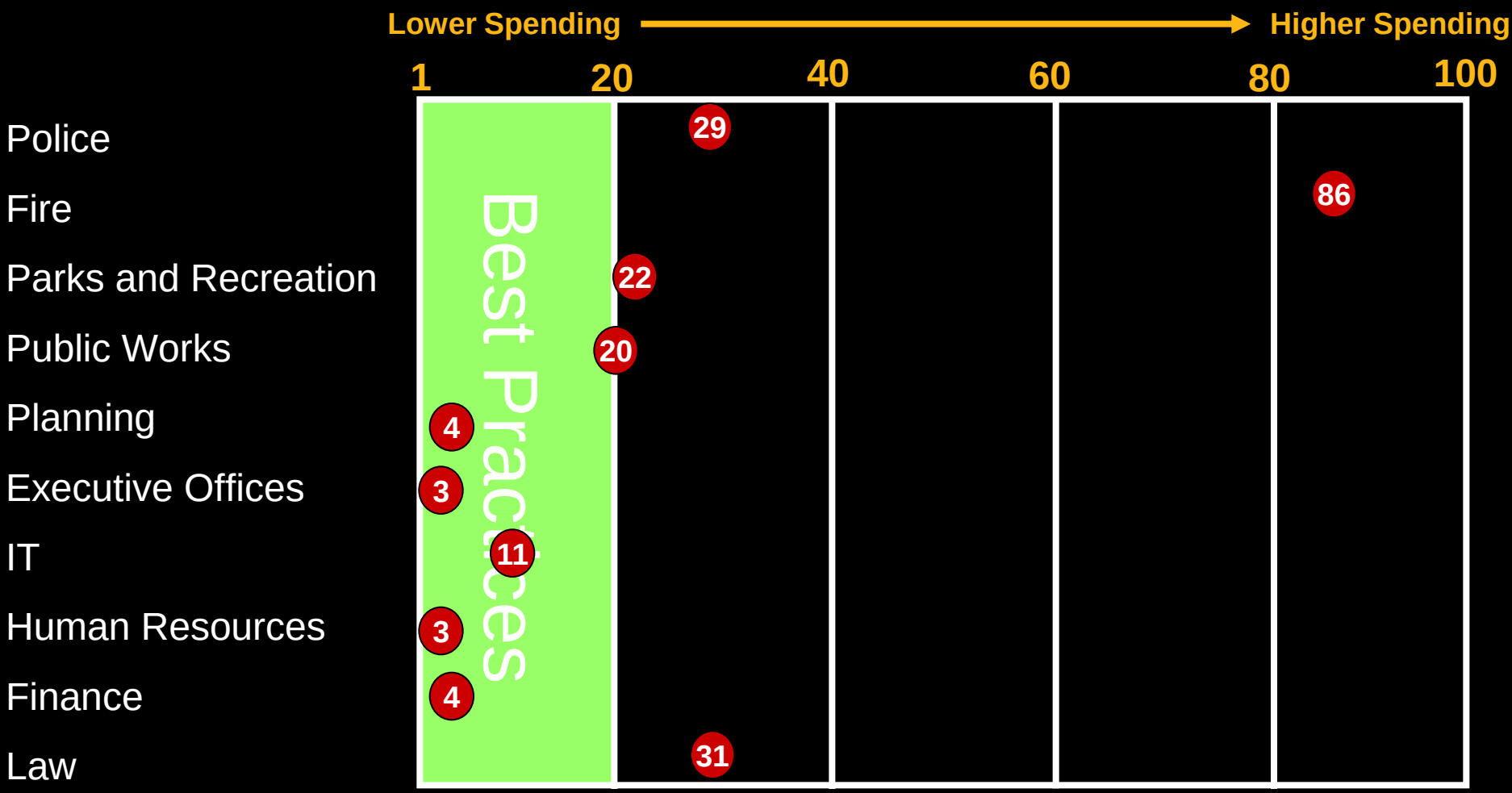
- What specific services will we provide?
- To whom?
- At what level?

Cities make operational choices

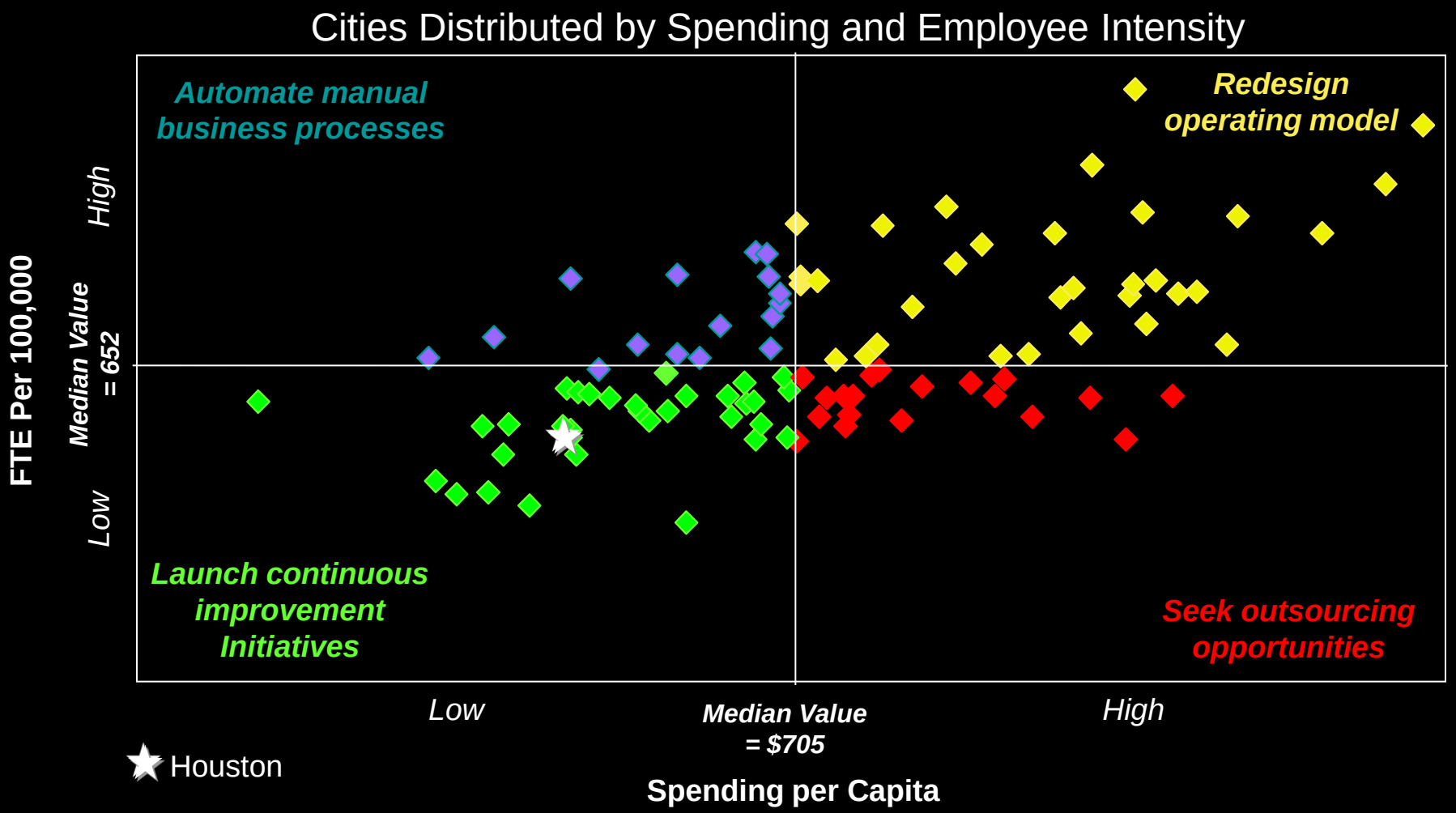
- How will those services be provided?
- Using what business processes?
- Using what mix of capital and labor?
- Deploying which technologies?
- Using what organizational structure?
- Sourced from where?

City manager run cities are almost 10% more efficient than cities run by mayors

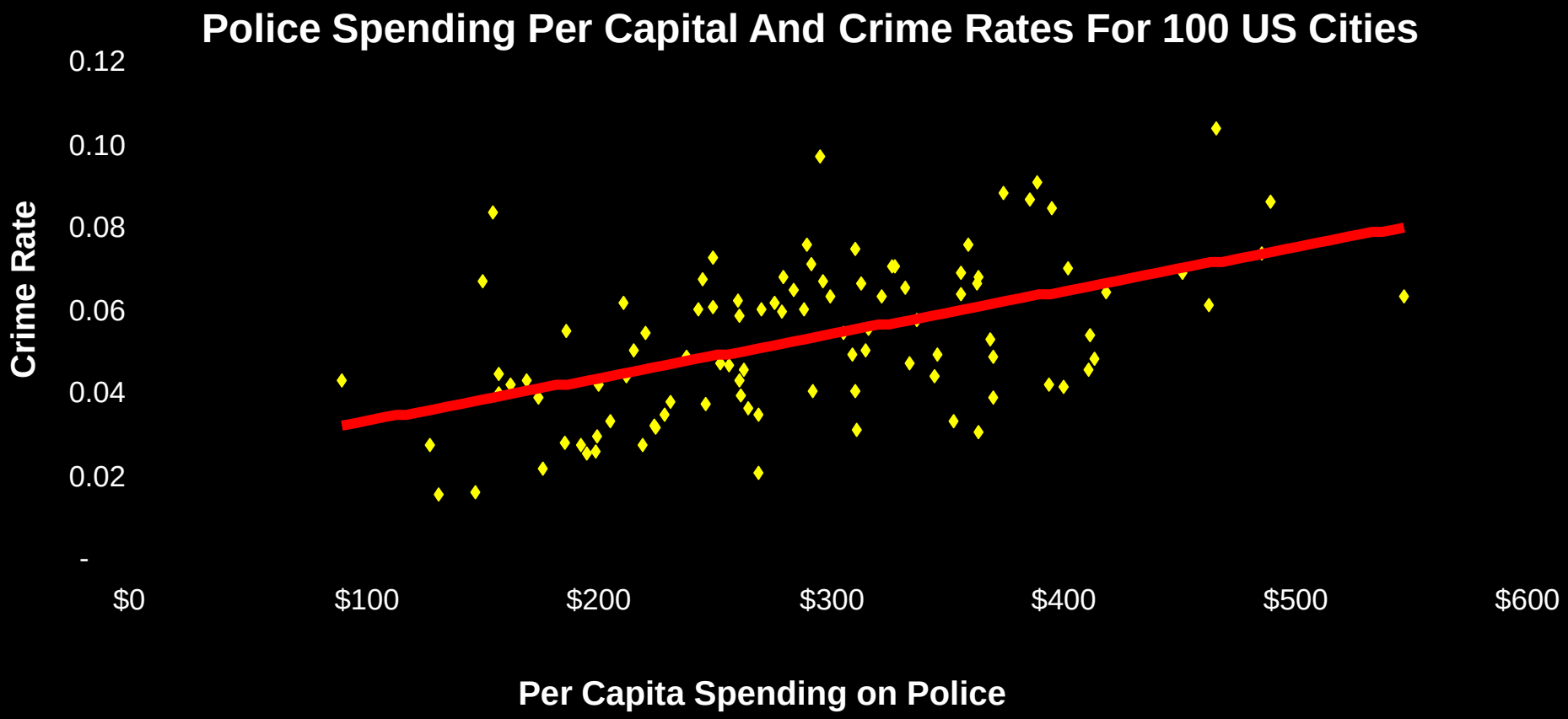
While Houston ranks 11th overall, it is not a "best practices" spender in certain areas



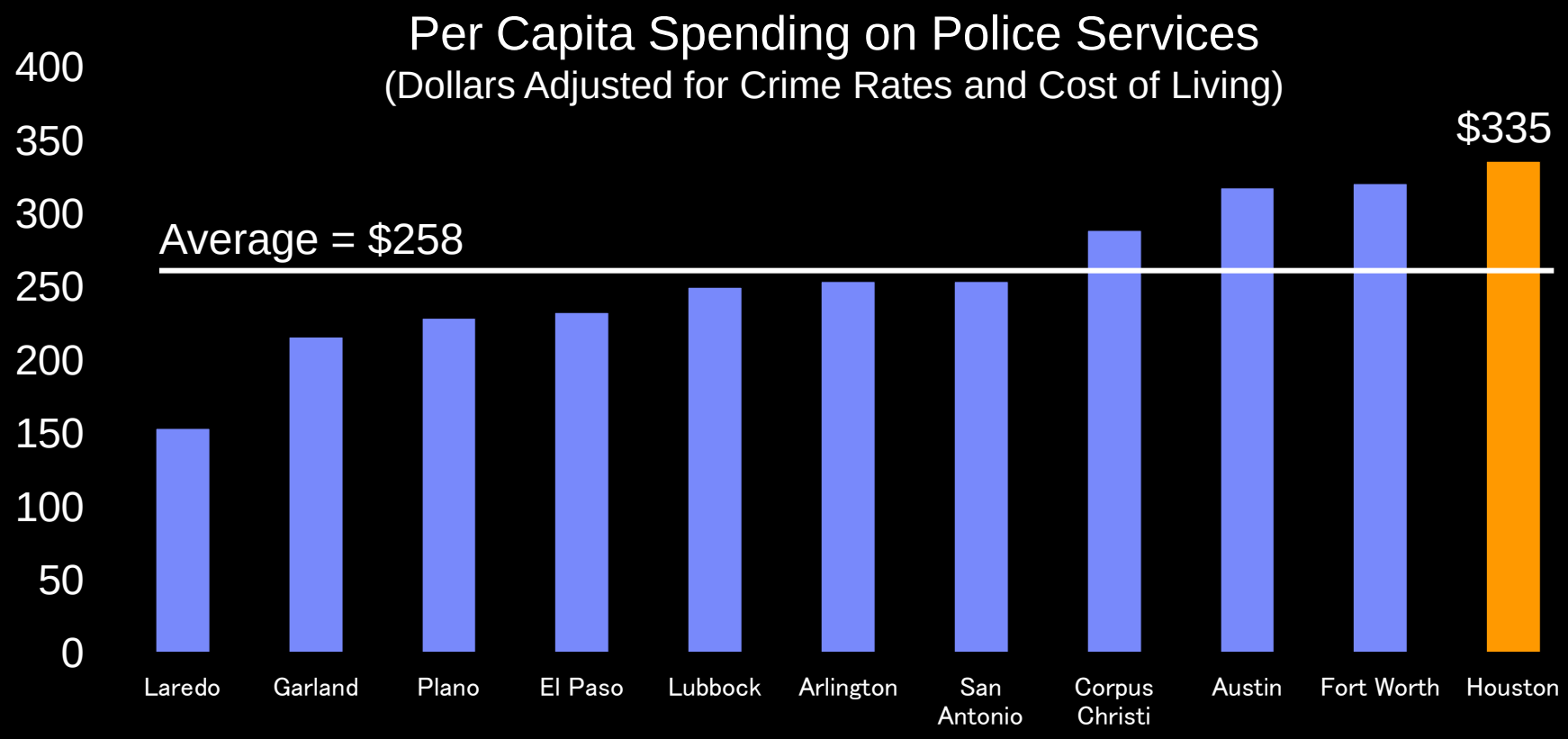
Although Houston scores well overall, the city may want to look at its "employment intensity"



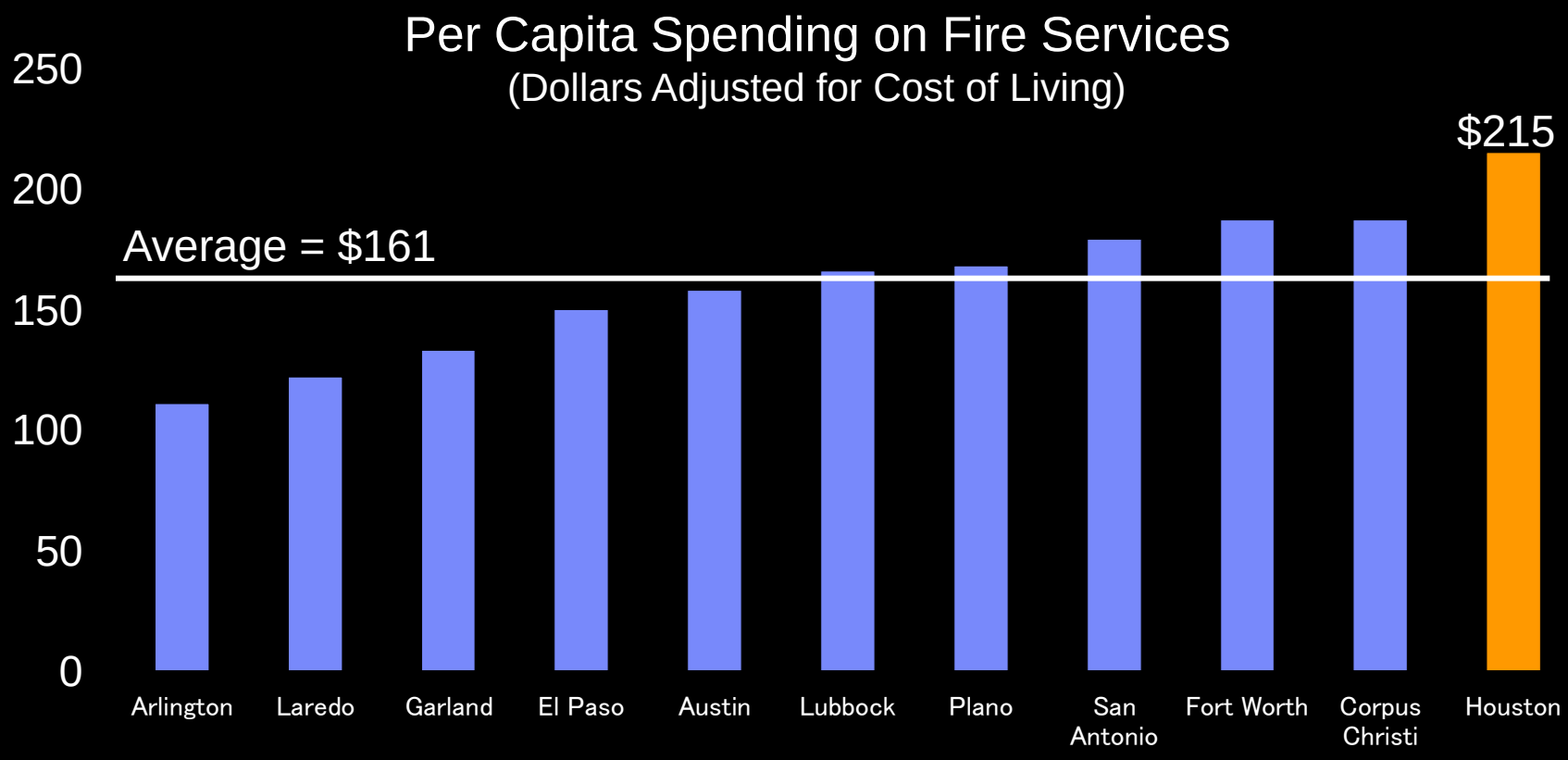
The more a city spends on police services, the higher the crime rate



If Houston spent the same on police services as the average Texas city, it would spend $155M less than it now does



If Houston spent the same on fire services as the average Texas city, it would spend $108M less than it now does



Benchmarking is a blunt instrument

- Best used as a means to identify “where to look”
  - Efficiency opportunities are likely available
  - Strategic choices are just as – if not more – important
- Given the fiscal prospects for cities, they need look at both

Questions?

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