



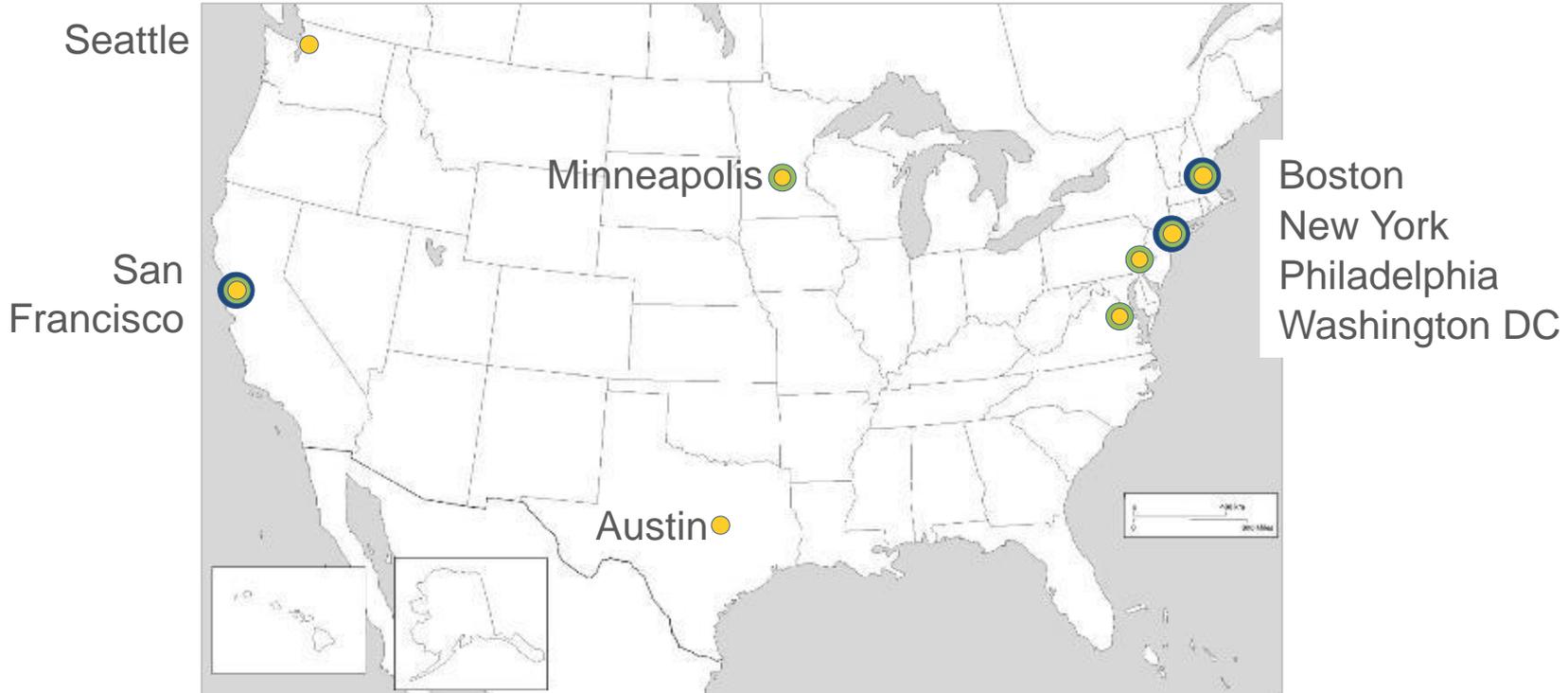
Energy Efficiency Policies in American Cities

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America's cities
are leading

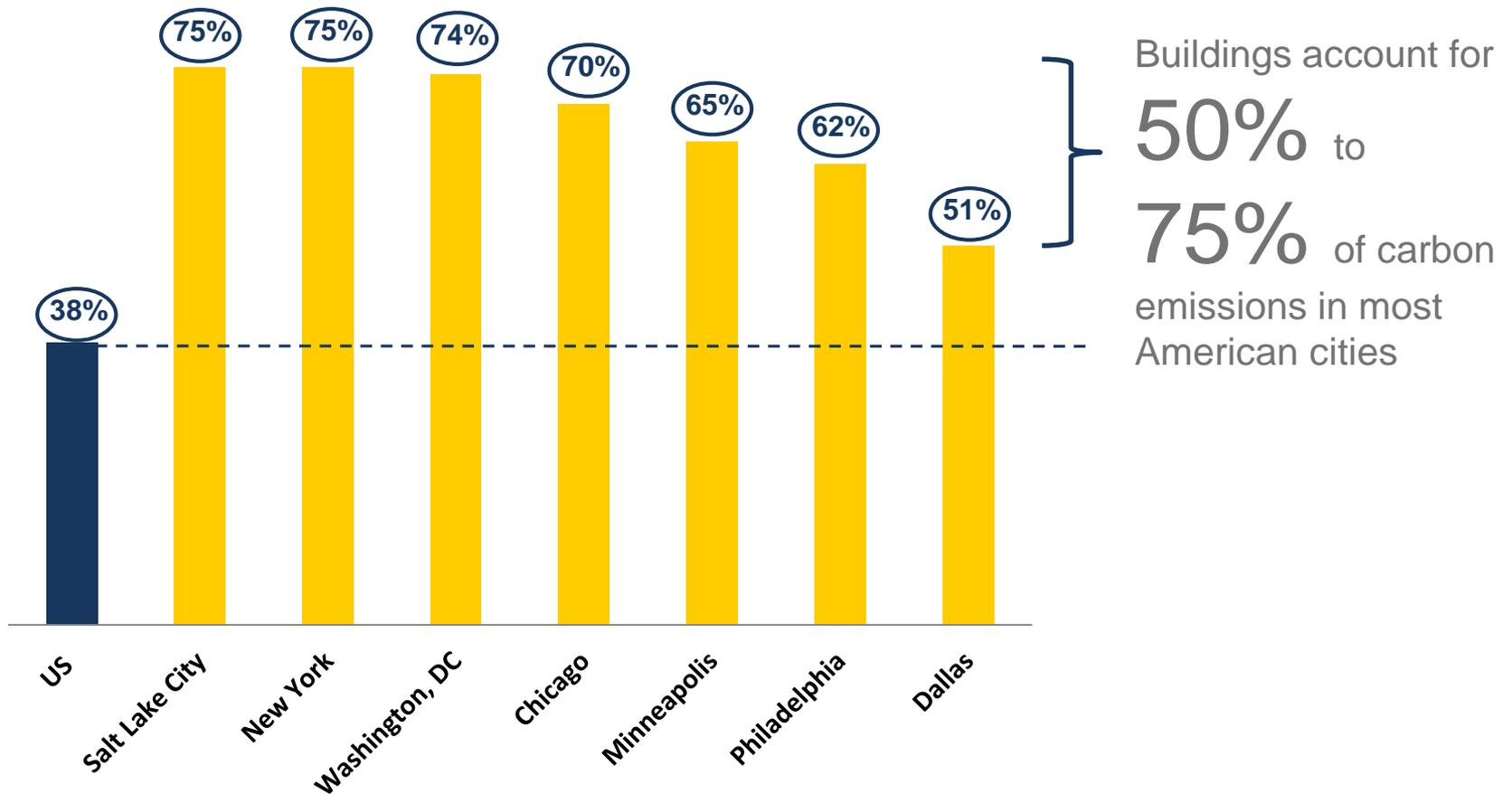
A snapshot of current energy efficiency regulatory polices.



- 8 cities require benchmarking of **private sector** buildings
- 6 cities also require public disclosure of the benchmarking scores
- 3 cities also require energy audits

Why they are
leading?

Cities are leading because they are building dominated.



Percentage of GHG emissions from the building sector

Cities have the capacity and serve to benefit.

Capacity

- Most large buildings are in cities.
- Most of the real estate knowledge trust (developers, design professionals, and construction firms) are in cities
- Cities have authority over their buildings

Direct Benefits

- Cleaner air; better health
- Local skilled jobs
- Reduced cost of living; reduced infrastructure
- Leading cities are more competitive



Political Will

- Cities have already created sustainability plans and have sustainability directors.
- Mayors and council members understand the benefits

What are they
doing?

They are strategically targeting large existing buildings



BY 2030, ROUGHLY **80%**
OF THE BUILDINGS IN OUR
CITIES WILL BE BUILDINGS
WE ALREADY HAVE TODAY



JUST **2% TO 5%**
OF THE BUILDINGS IN CITIES
ACCOUNT FOR ROUGHLY
HALF THE SQUARE FOOTAGE

They are using 4 categories of policies and programs.

1 INFORMATION & TRANSPARENCY

2 REMOVING MARKET BARRIERS



ENCOURAGING THE LEADING EDGE **4**

RAISING THE BASELINE **3**

INFORMATION AND TRANSPARENCY



Benchmarking and Public Disclosure

- Makes energy use transparent and allows market forces to work
- You can't manage what you don't measure



Energy Audits

- Provides owners the information they need to make efficiency improvements



Sub-metering

- Gives commercial tenants information about their energy use so they can make adjustments

MARKET INVESTMENT



Energy Efficiency Financing

- Provides capital for efficiency improvements to those who need it



Energy-Efficient Leasing

- Ensures that efficiency investments are a win-win for landlords and tenants

RAISING THE BASELINE



Retro-commissioning or “Building Tuning”

- Corrects operational inefficiencies to make sure buildings are running optimally



Certification of Building Operators

- Ensures that operators are trained and certified to operate and maintain building systems effectively



Lighting Upgrades

- Requires cost effective updates of lighting systems to meet current energy codes



Energy Code Compliance

- Increases compliance with codes during renovation and new construction to improve performance

LEADING BY EXAMPLE



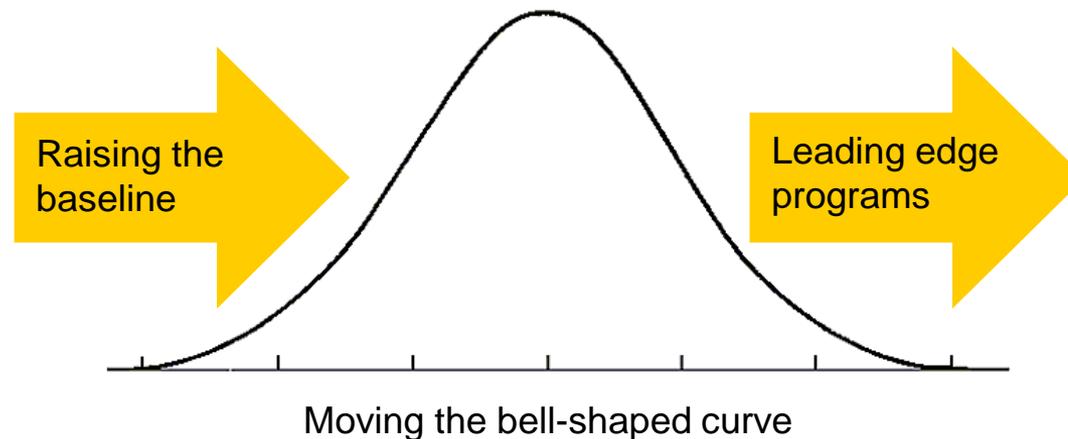
Energy Efficient Municipal Operations

- Shows that government is willing to go as far (or further) than they are requiring of the private sector



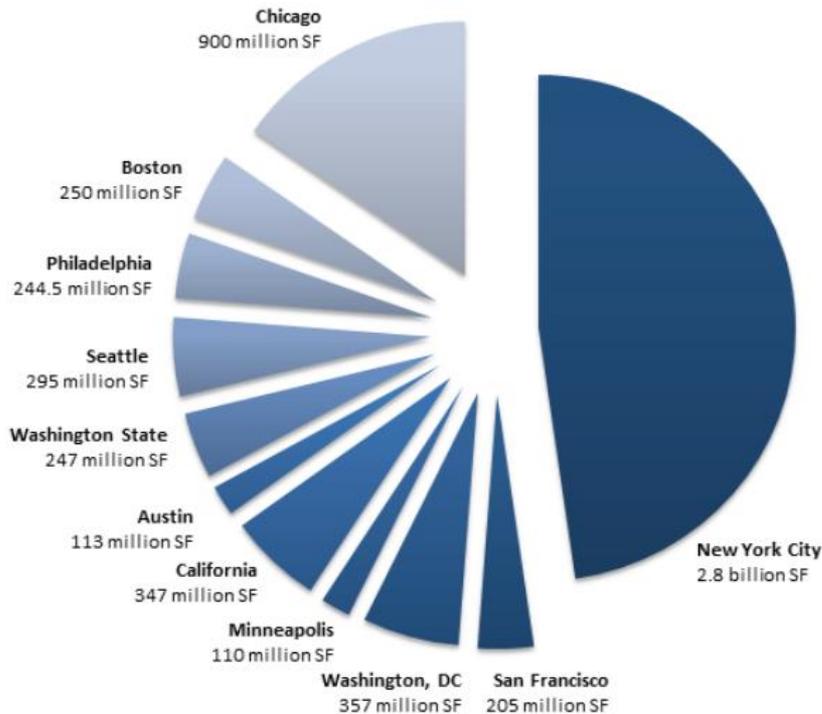
Energy-Efficiency Challenges

- Encourages leading sectors to move quickly and aggressively toward energy savings



Some early
results

Large scale impacts.



5.8 Billion

square feet
benchmarked annually

Accelerated Reductions:

- Hundreds of millions of sq. ft. embarked on 20% to 30% reductions

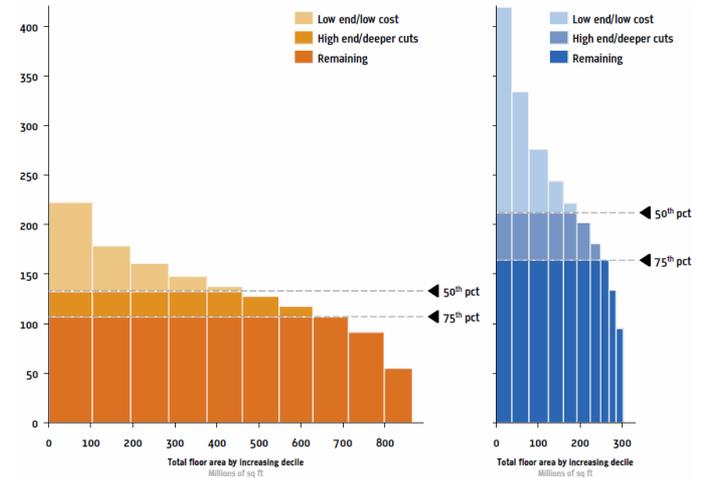
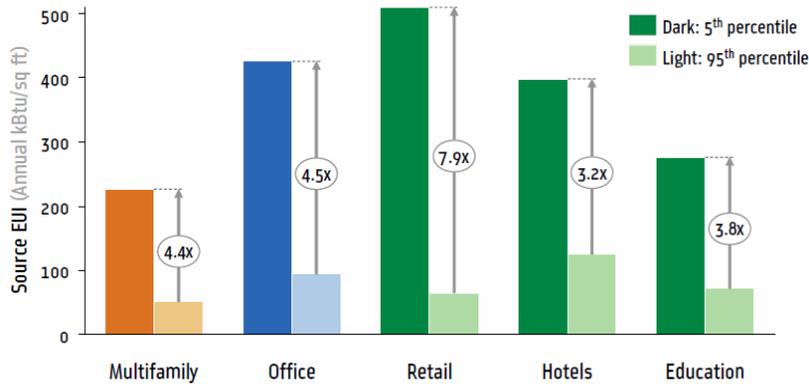
Widespread impact:

- Resources for the Future report shows 2% reductions in cities with benchmarking policies

Jobs:

- Good jobs are being generated and career paths expanded

A knowledge revolution



4 TO 8 TIMES

THE ENERGY IS USED BY THE POOR PERFORMING BUILDINGS, AS PER THE NYC BENCHMARKING ANALYSIS

18% TO 31%

CITYWIDE ENERGY REDUCTIONS COULD BE ACHIEVED BY IMPROVING THE POOR PERFORMERS

What's
next?

- 
- **More cities adopting more policies – CEP, etc.**
 - **Energy efficiency data revolution**
 - **New methods developed which will make these efforts less expensive**
 - **Improvements to energy efficiency infrastructure (certifications, etc.)**
 - **Codes addressing operations, sub-metering, etc.**