



EPA's Portfolio Manager

A Benchmarking Analysis and Look Ahead

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Overview

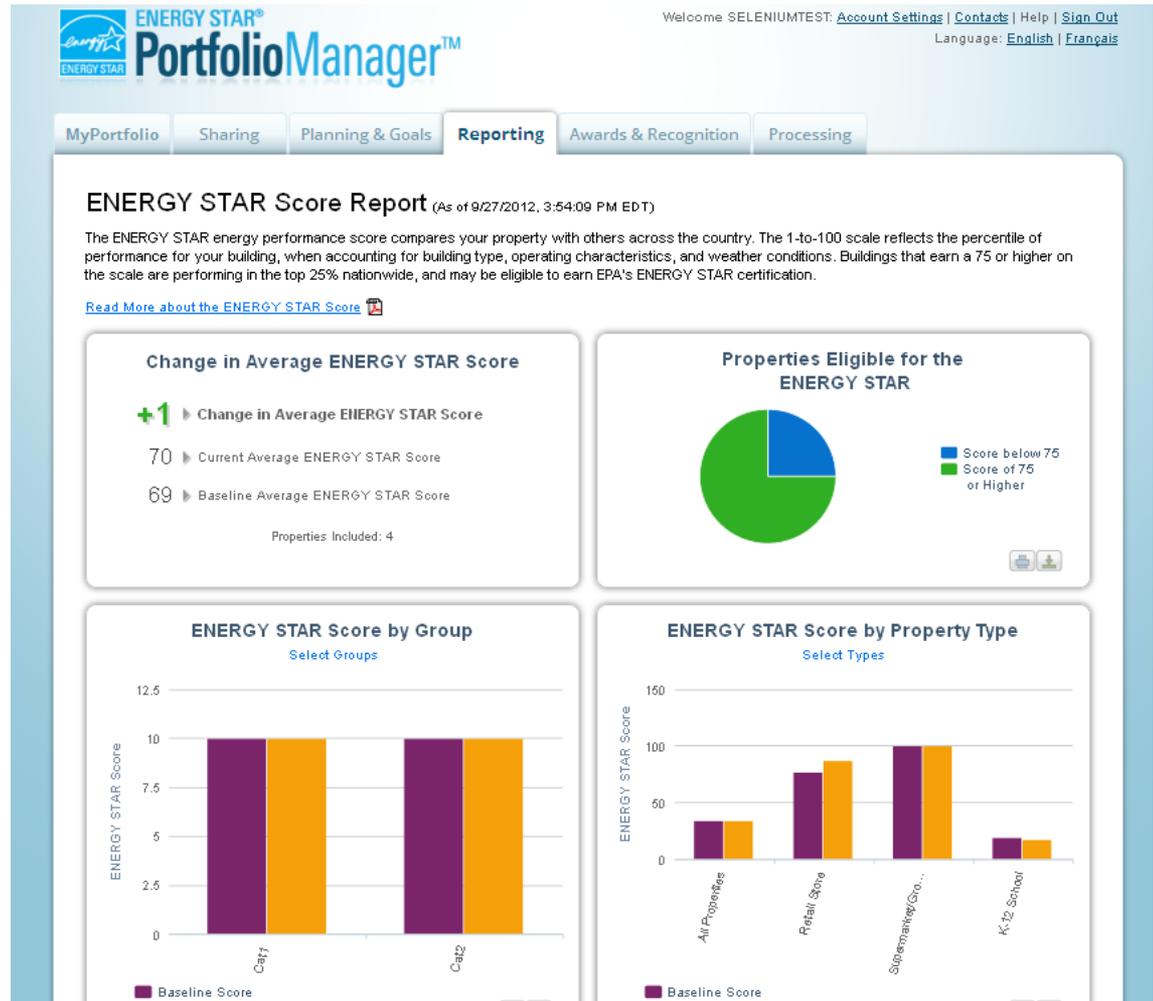
You cannot manage what you do not measure



- Measurement
 - Effective management requires regular measurement
 - Sound decisions are based on actual measured results
- EPA's Portfolio Manager
 - Foundation of ENERGY STAR program
 - The standard national platform for benchmarking energy consumption
 - At the end of 2011, over 250,000 buildings in all sectors of the market
- Today's Topics
 - Portfolio Manager Upgrade
 - EPA's new DataTrends analysis
 - www.energystar.gov/DataTrends

- Portfolio Manager Upgrade
 - Easier to use
 - Completely new user interface
 - Make data entry more user friendly, like TurboTax®
 - Enhanced sharing and reporting features
 - Streamlined system database
 - Faster processing
 - Easier to update in the future
 - Modern approach to automated benchmarking
 - New REST-based web services
 - Granular and synchronous services improve opportunities for new applications
 - Upgraded services released for testing in September!
 - <http://portfoliomanager.energystar.gov/WebServices>

- Completely new look and feel
- Demonstrations available already
- New features throughout
 - Connect to other users
 - Make new reports
 - Benchmark campuses



- Quarterly Project Updates
 - Keep partners informed of project status
 - Share design ideas
 - Solicit input
 - Answer questions
 - Nearly 5,000 attendees in total
- Project Website
 - Project schedule
 - FAQs
 - Webinar slides & recordings
 - www.energystar.gov/PMUpgrade

- Continue to benchmark your buildings today
 - ALL data will transfer to the upgraded tool (including your existing shared buildings)
- Stay involved throughout the process
 - Attend our quarterly webinars
 - Visit www.energystar.gov/PMUpgrade
- Upgrade launch is scheduled for June 2013!



Data Trends

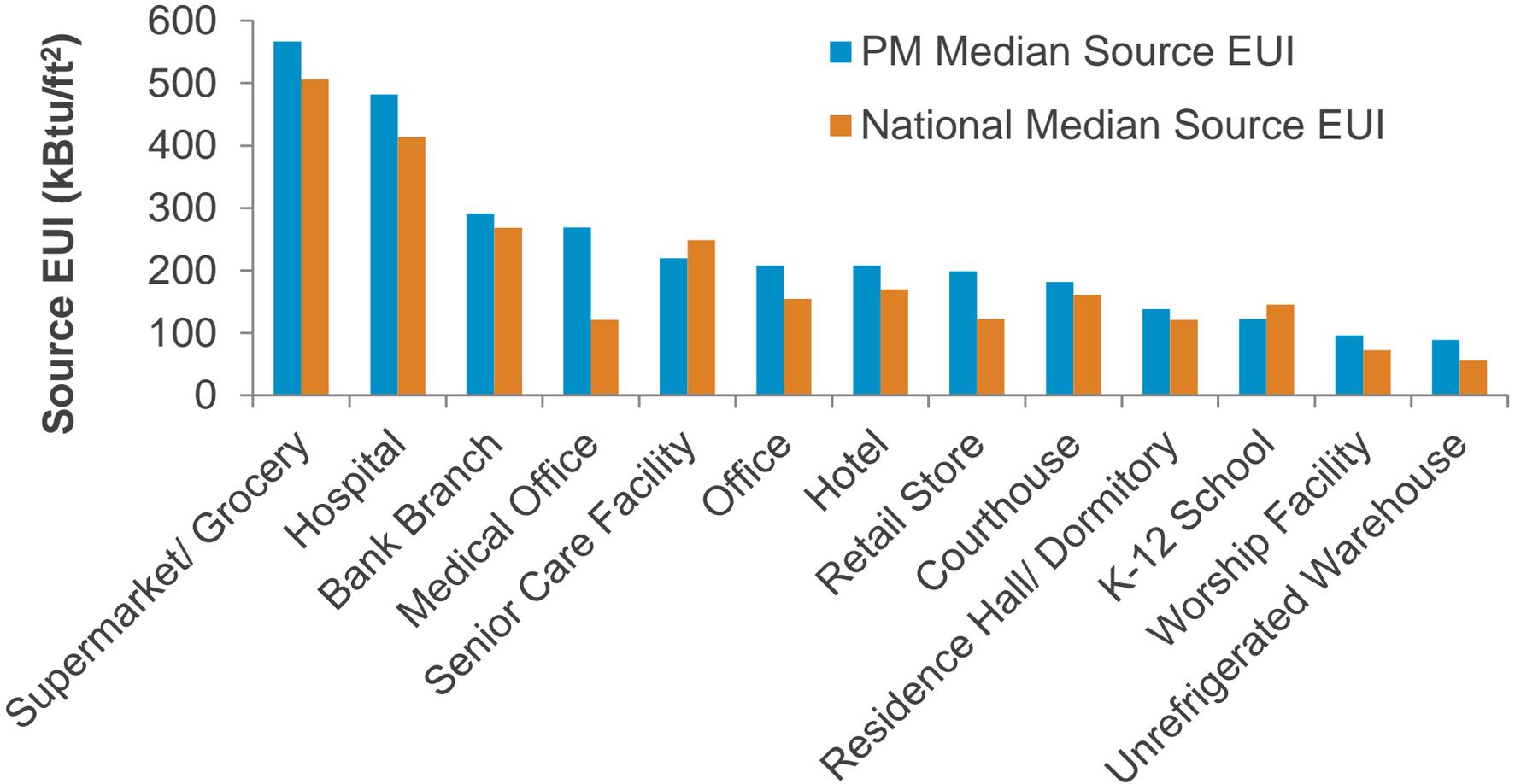


- New set of analyses on Portfolio Manager data
- Review benchmarking trends
 - Median EUI values
 - Energy savings
 - Key drivers of energy use by building type
 - Distribution of water consumption values
 - Comparisons to national reference
- Although Portfolio Manager is not a random, nationally representative sample, benchmarking data provides a valuable reference representing thousands of real buildings
- www.energystar.gov/DataTrends

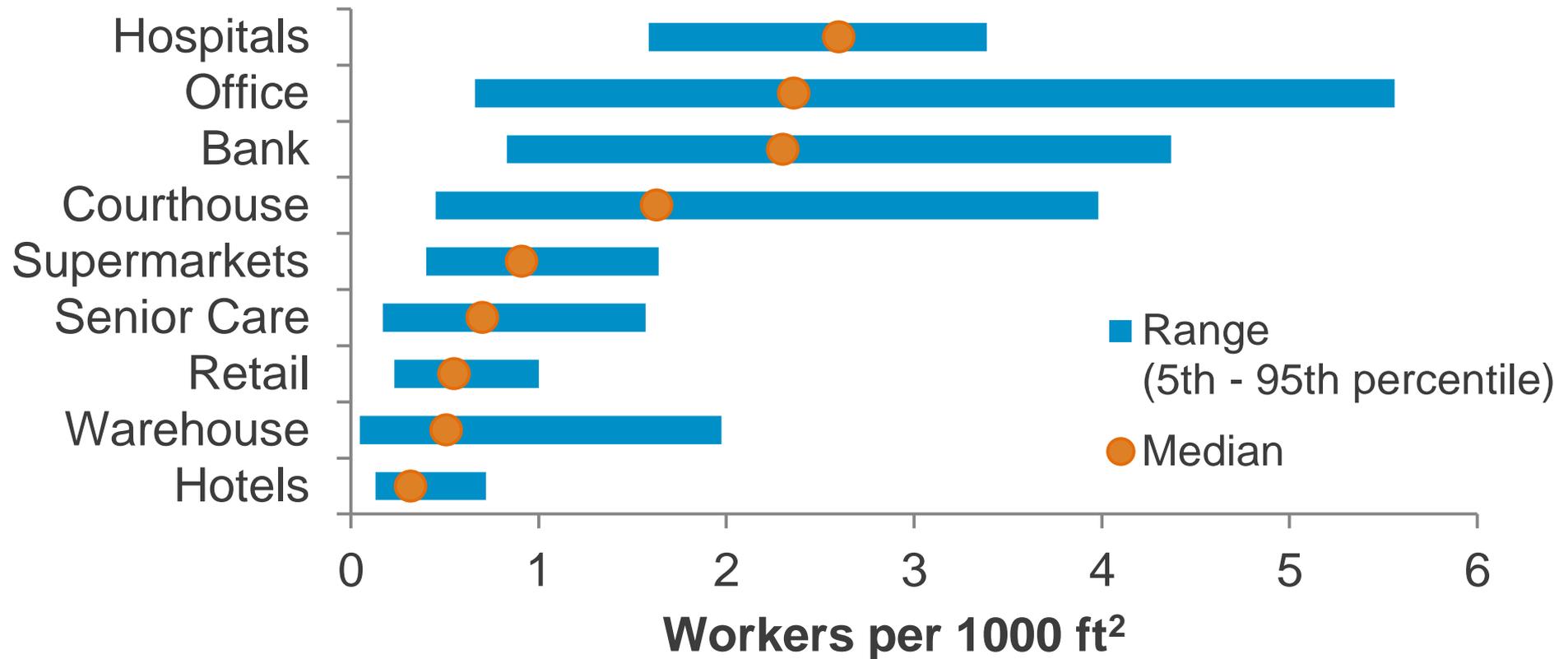
Energy Use Benchmarking



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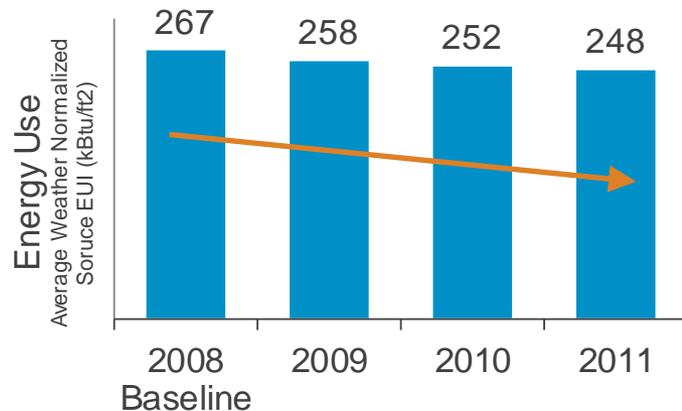


- Tremendous growth in recent years
 - Over 250,000 buildings as of December 2011
- Source Energy Intensity (EUI) varies greatly by building type
 - Most intensive: Supermarket, Hospital
 - Least intensive: Unrefrigerated Warehouse, House of Worship
- Source EUI values are generally similar to the national median value for each building type
- Details on buildings activities vary greatly among types
 - Different average Workers, Hours and Square Foot
 - Different ranges in values
 - Offices show greater variation in workers per 1,000 square foot than Retail Stores

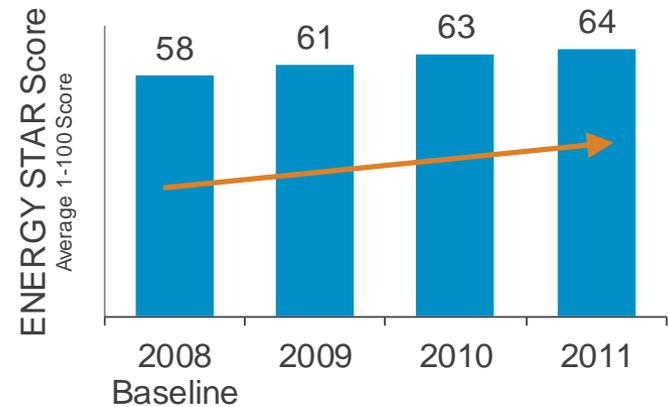
Benchmarking and Energy Savings



- Over 35,000 buildings entered complete energy data for 2008 through 2011, which represents three years of change from a 2008 baseline



7% savings
in Weather Normalized
Source EUI

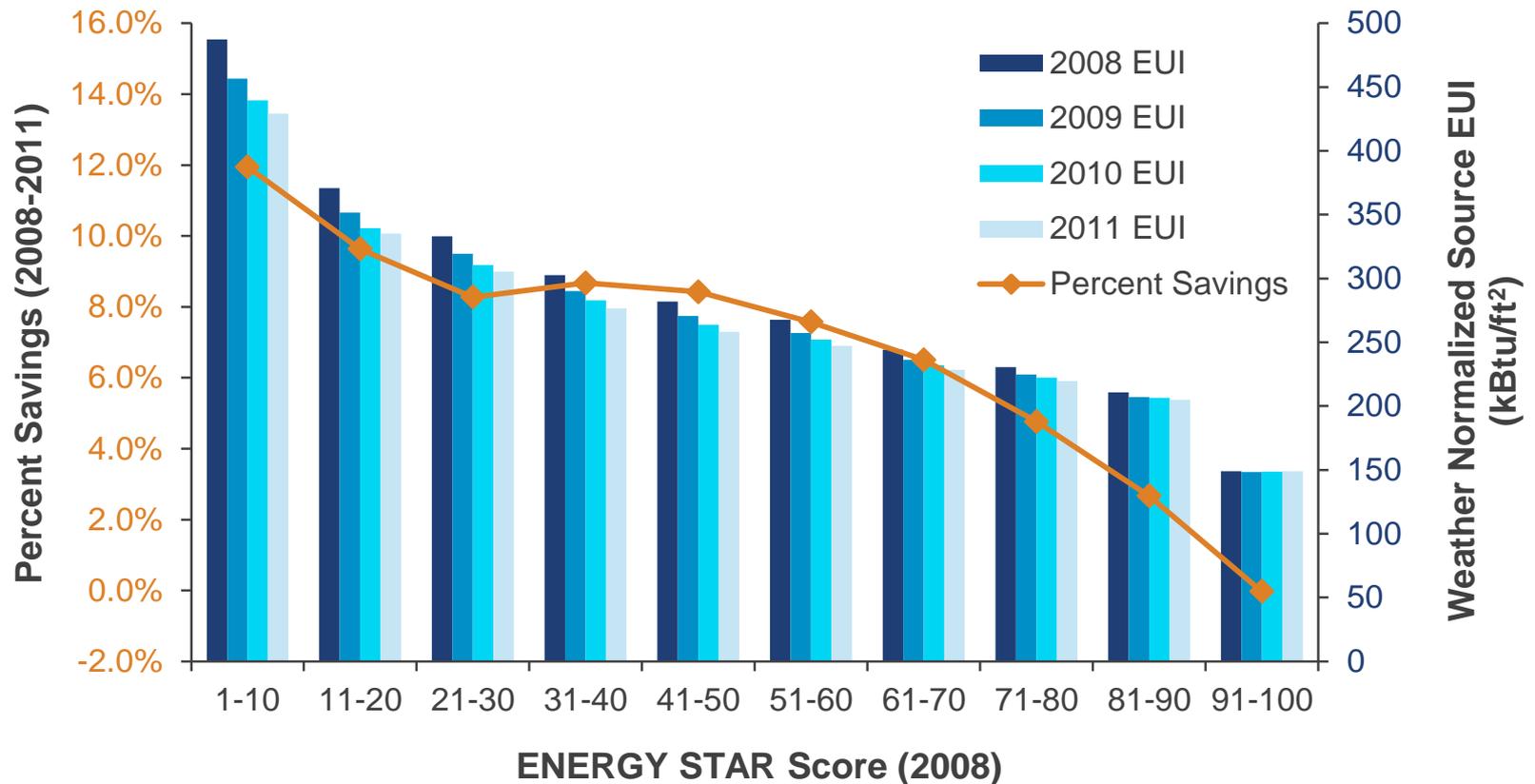


6 point increase
in ENERGY STAR
score

Benchmarking and Energy Savings



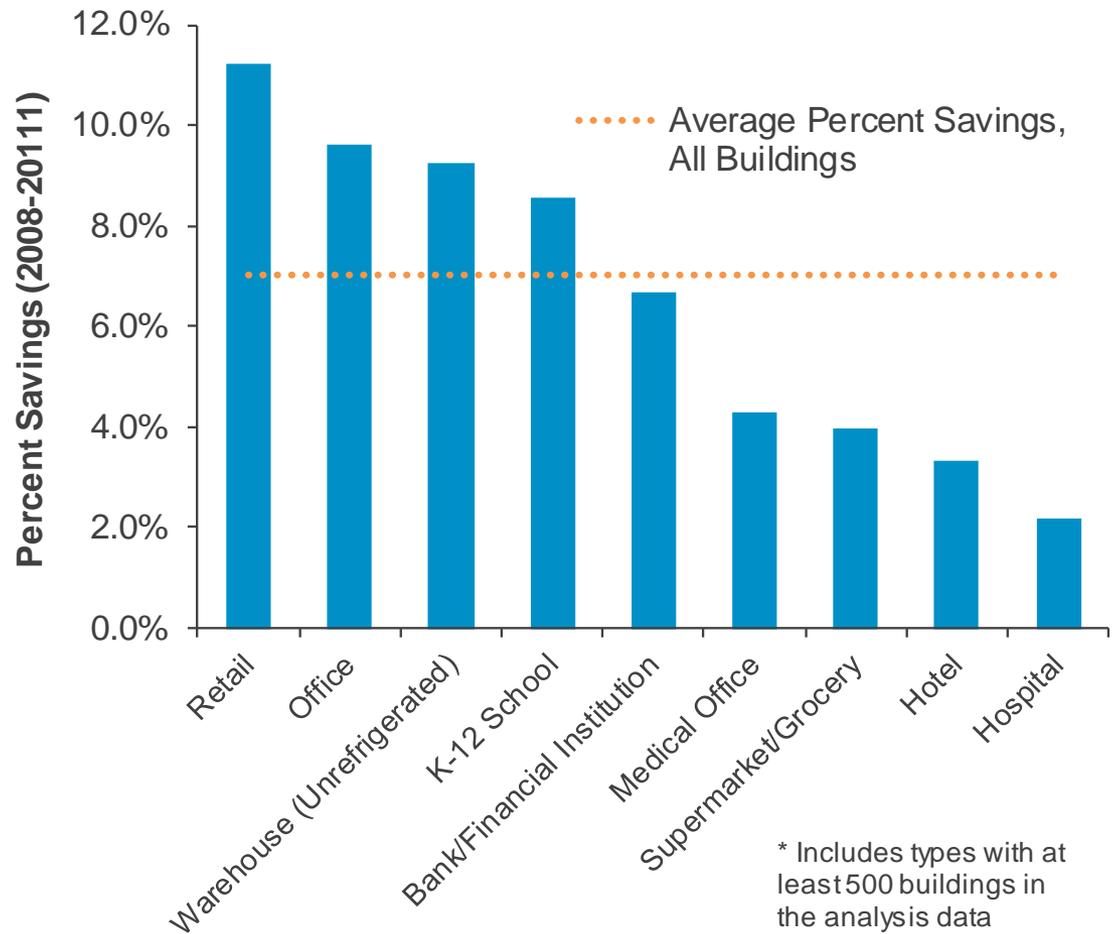
- Buildings starting with scores below 50 have saved more than twice the average



Benchmarking and Energy Savings



- Savings vary by Building type
- Office, Retail, and School
 - Save above average
 - Most common building types benchmarked (60% of sample)

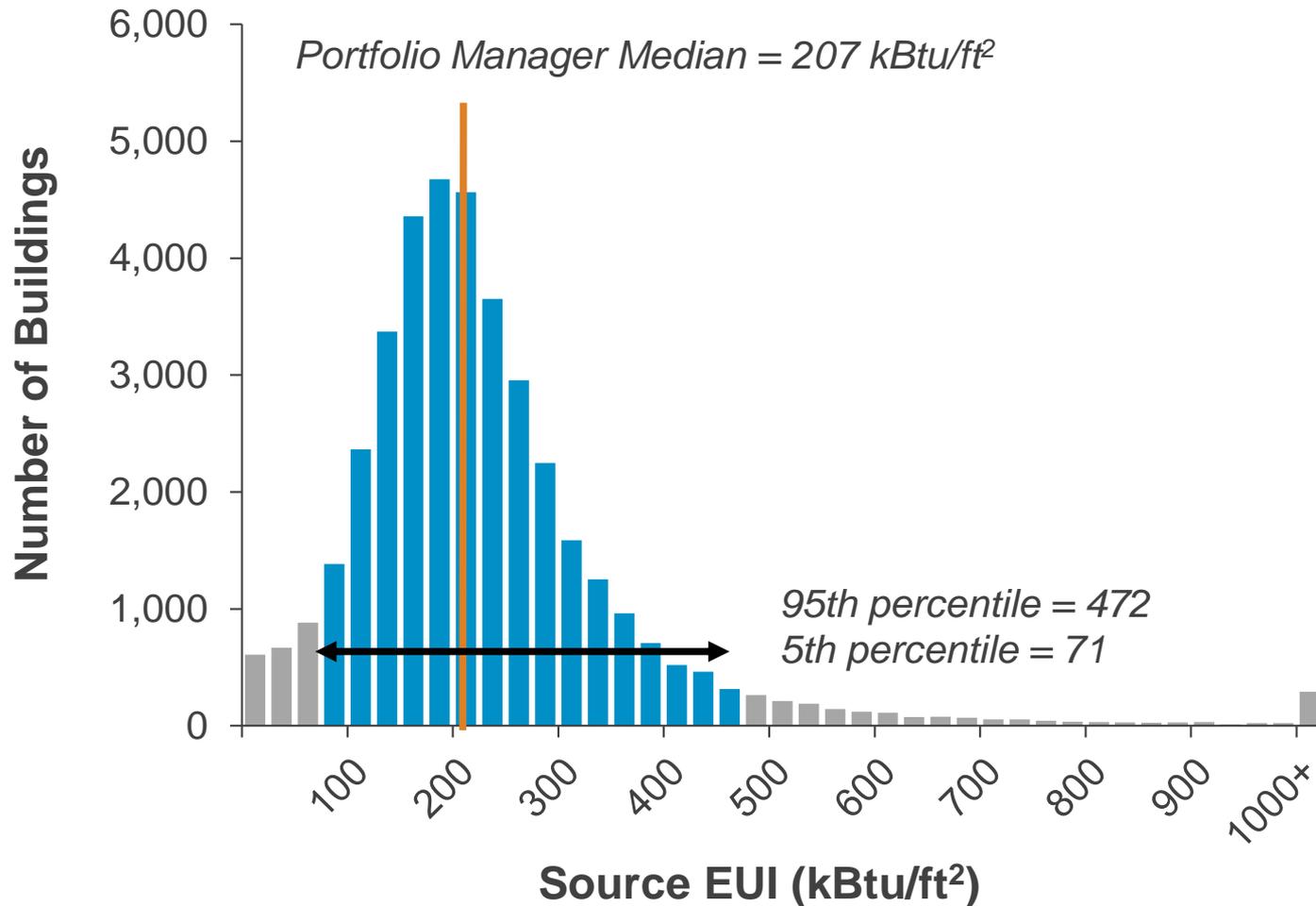


Energy Use in Office Buildings

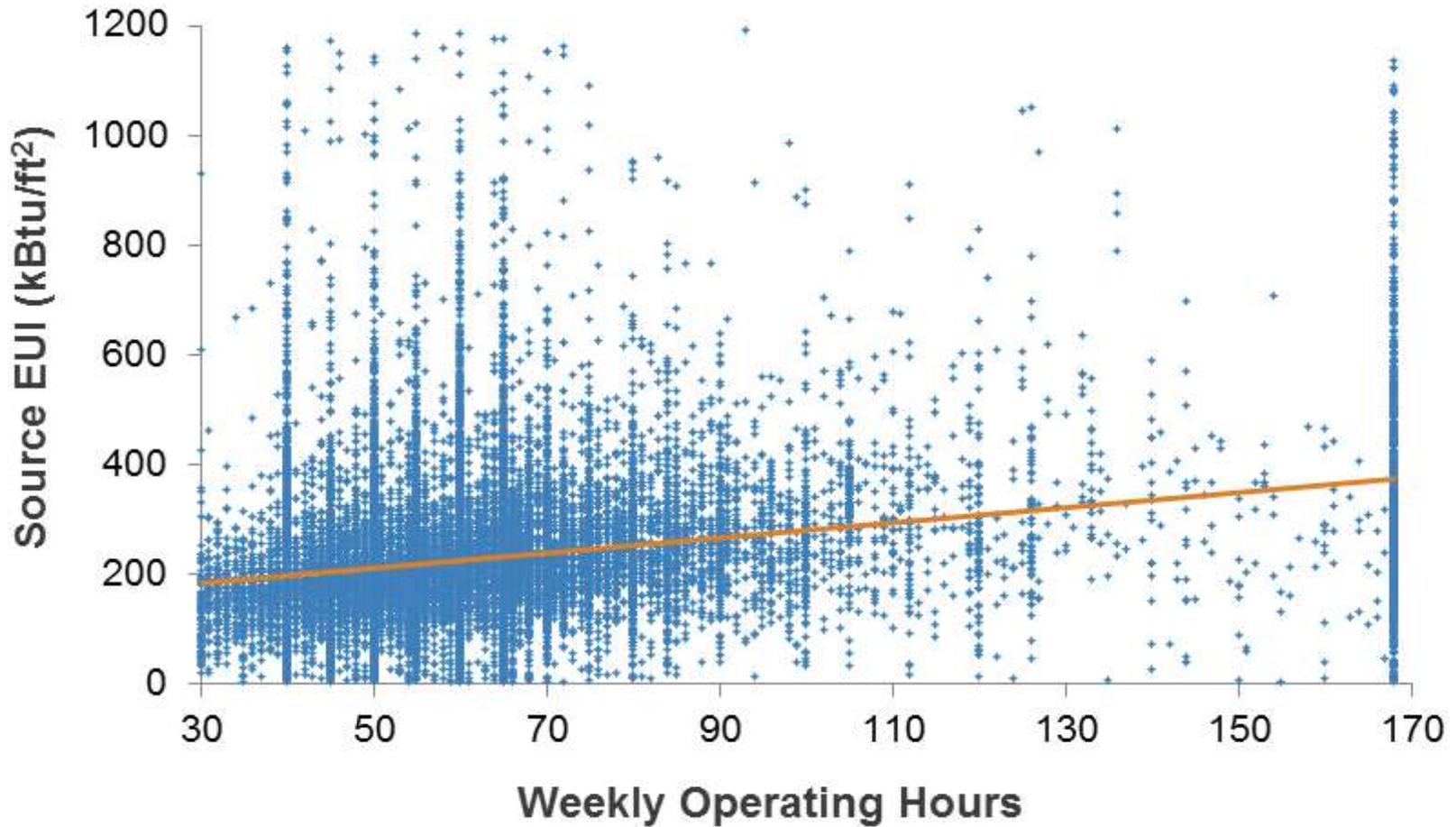


- Broad range in EUI
 - Buildings at the 95th percentile use almost 7 times as much energy as buildings at the 5th
 - Median EUI = 207 kBtu/ft²
- Many factors affect EUI
 - Business activities (hours, workers, Cooling Degree Days (CDD), computers)
 - Equipment and operation
- The ENERGY STAR score normalizes for business activities
 - Two buildings can have the same EUI but receive different scores

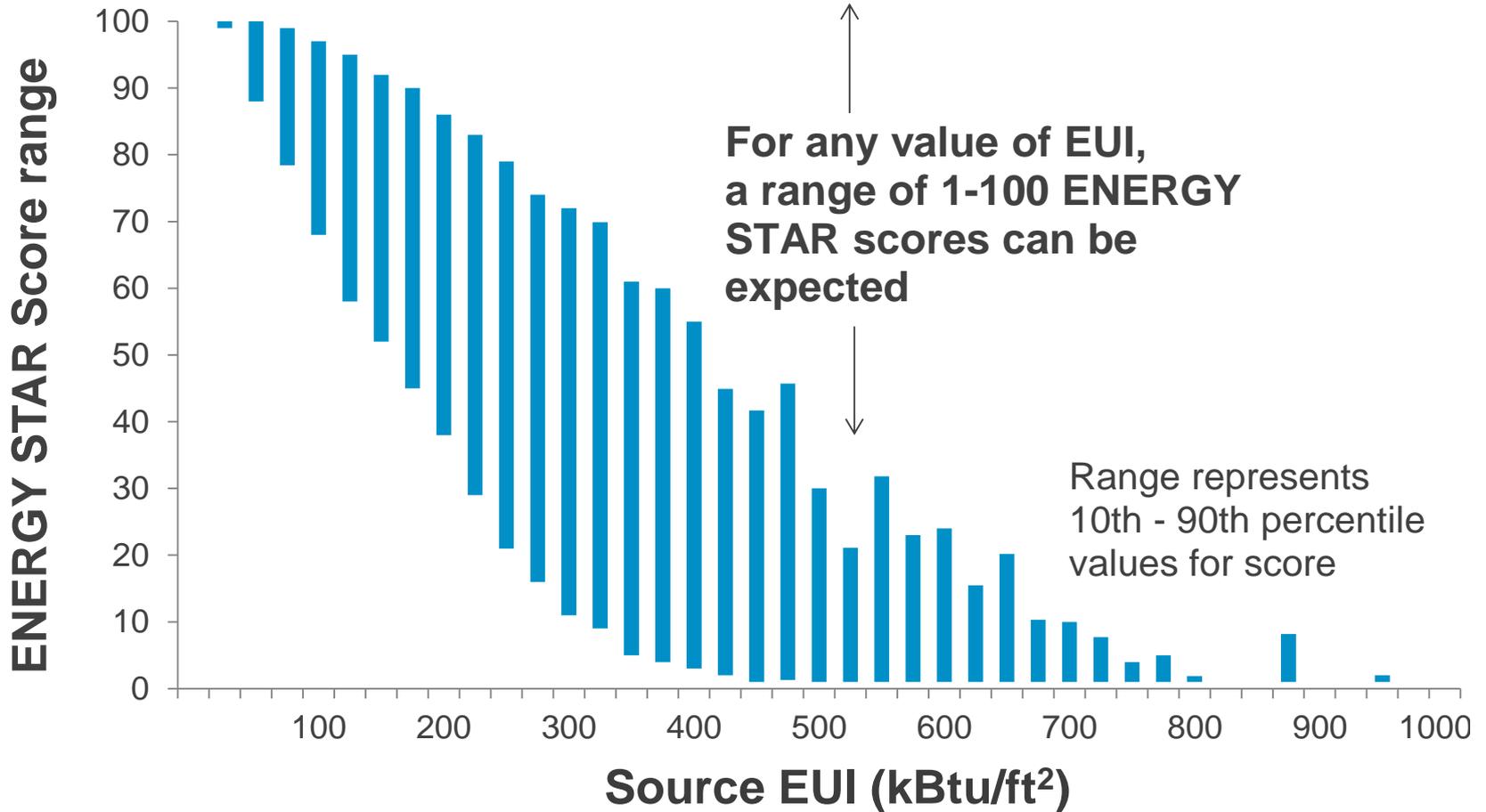
Energy Use in Office Buildings



Energy Use in Office Buildings



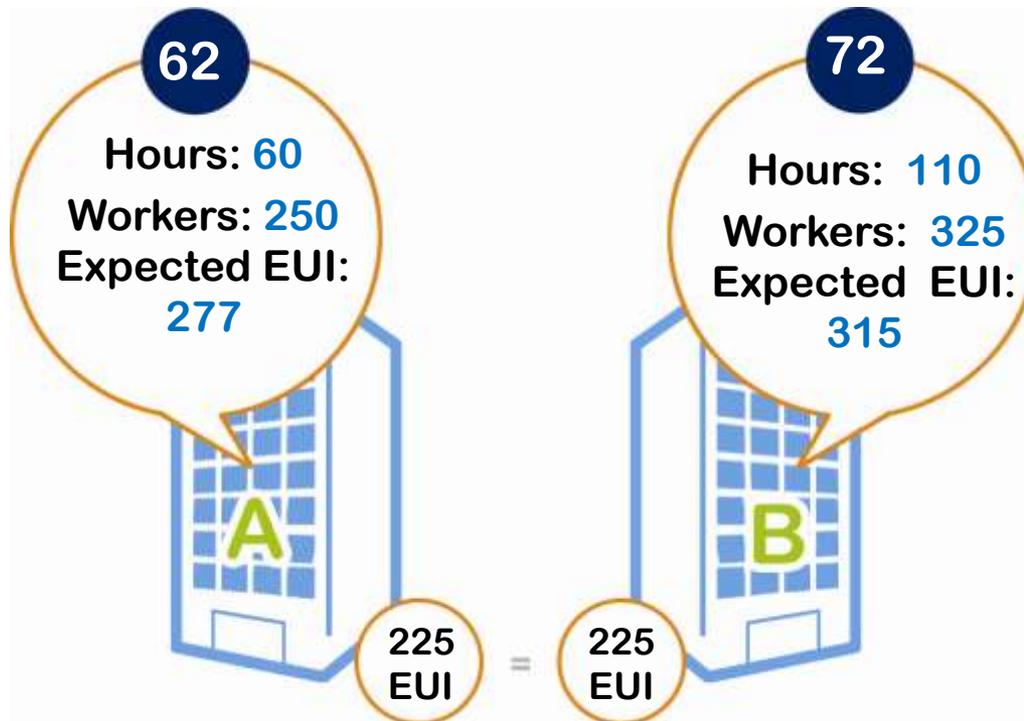
Energy Use in Office Buildings



Energy Use in Office Buildings



- Because the score accounts for differences in business activities, two buildings can have the same Source EUI but receive different ENERGY STAR scores



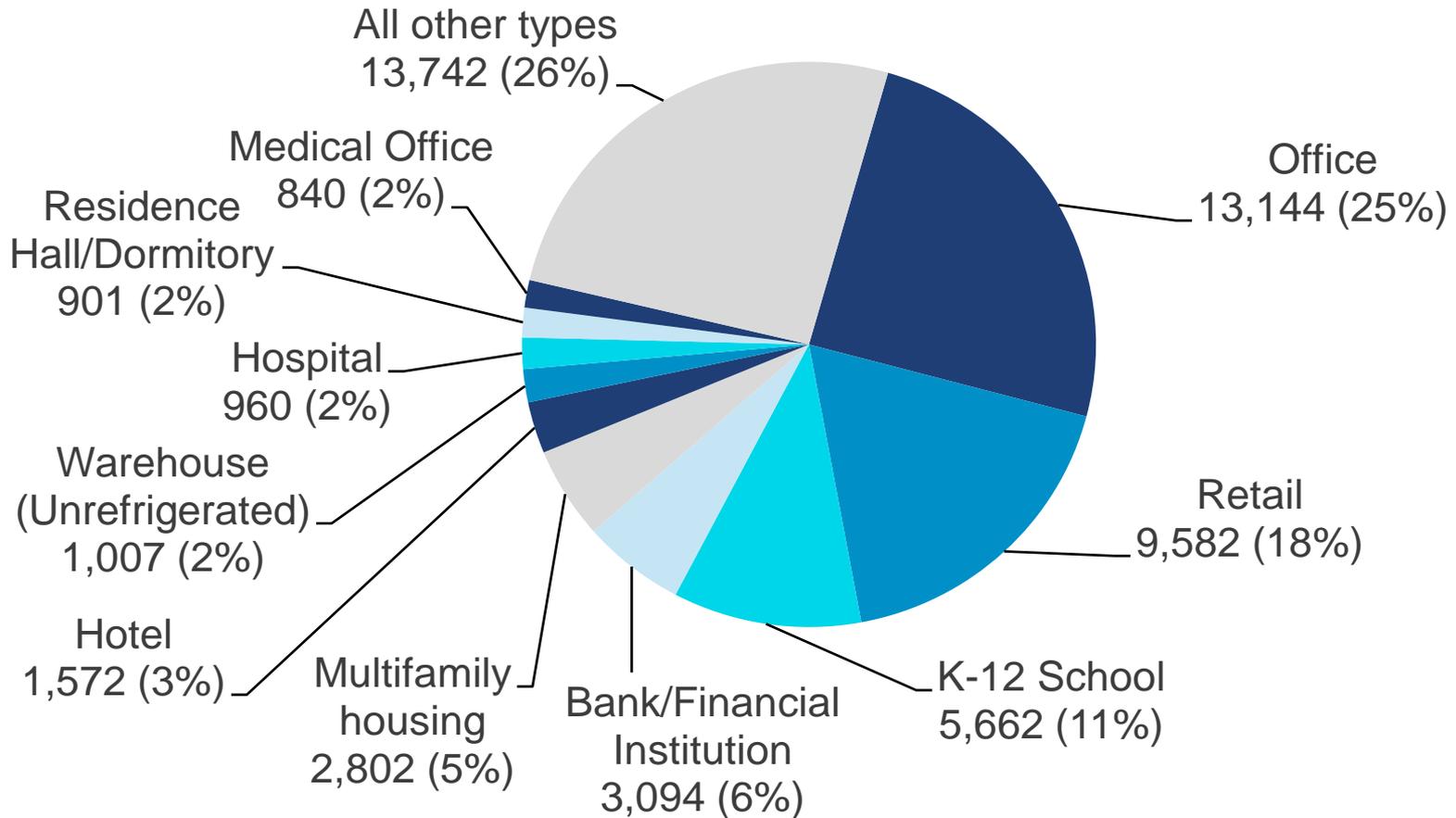
Water Use Tracking



- ENERGY STAR is partnering with EPA's WaterSense program to bring water efficiency solutions to the commercial sector
 - Share best practices
 - Promote measurement and tracking
 - Incorporate water into EIA's Commercial Building Energy Consumption Survey (CBECS)
- Portfolio Manager data
 - Over 50,000 buildings of all different types track water consumption
 - About 60% track indoor water use only
 - Others track a combination of indoor and outdoor use



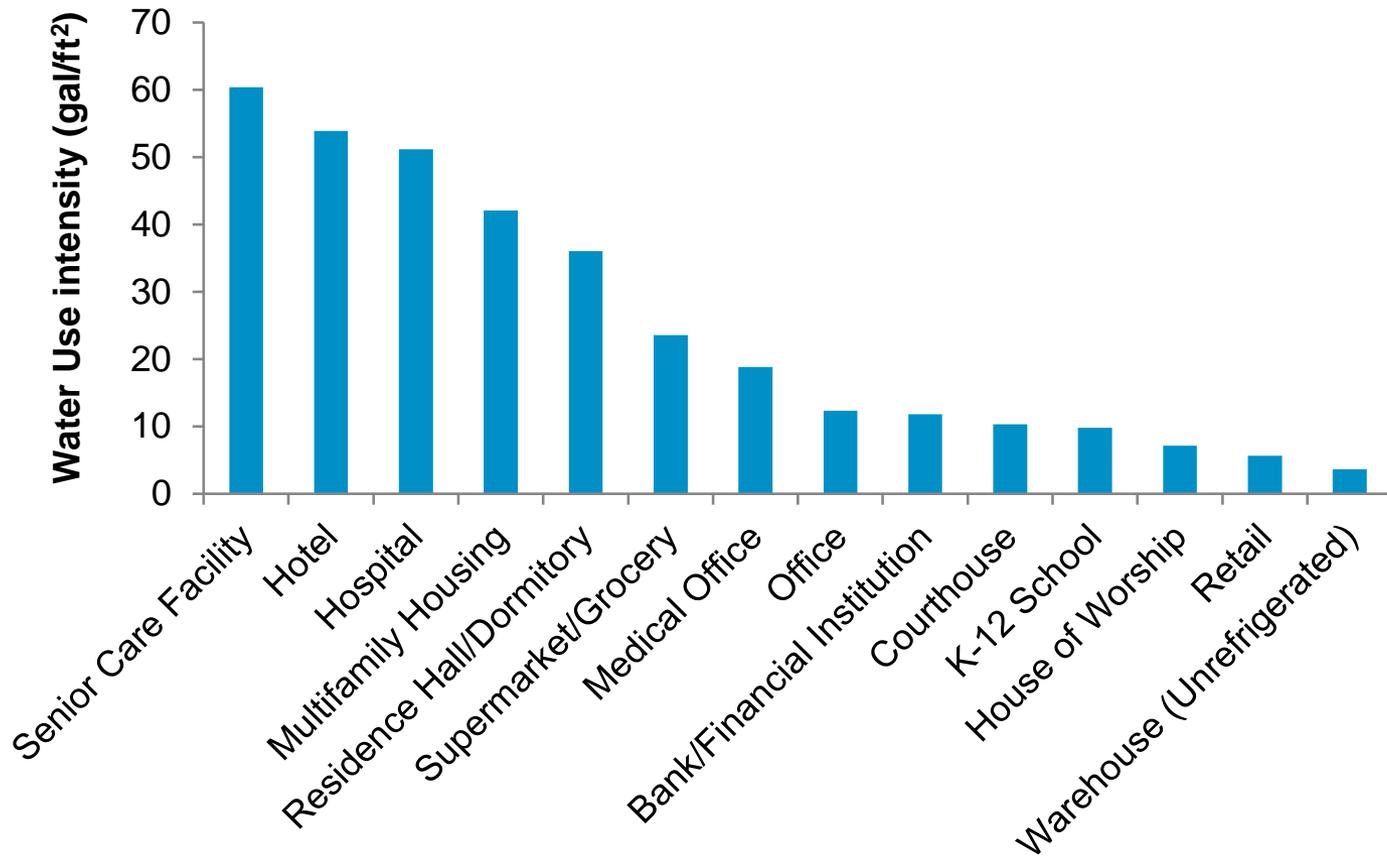
Water Use Tracking



Water Use Tracking



- Building types where people live, as well as work, tend to use more water on a per square foot bases



Reference Links

- Portfolio Manager
 - www.energystar.gov/Benchmark
- Portfolio Manager Upgrade
 - www.energystar.gov/PMUpgrade
- Data Trends Analyses
 - www.energystar.gov/DataTrends



Questions and Discussion