2012 CBECS: Preliminary Results and Timeline for Data Release

Joelle Michaels, CBECS Survey Manager

Interagency Sustainability Working Group September 18, 2012 / Washington, DC





Independent Statistics & Analysis www.eia.gov

Overview

- CBECS background
- 2012 CBECS preliminary characteristics results
- 2012 CBECS timeline and data release schedule
- Questions?



CBECS provides essential, unique information

- The Commercial Buildings Energy Consumption Survey (CBECS) is the <u>only</u> independent, statistically representative source of national-level data on the *characteristics* and *energy* use of commercial buildings
- Mandated by Congress in 1977, it has been conducted every 3 to 5 years since 1979
- The 2012 CBECS is currently wrapping up the final stage of data collection; we are gathering the usage data from energy providers across the country
- 2012 CBECS final sample of over 6,700 buildings, one of the largest CBECS ever



CBECS uses a two-stage survey process

- Phase I: Buildings survey
 - In-person or telephone interview conducted by a trained interviewer
 - Computer-assisted survey instrument (since 1995)
 - Voluntary
 - Approximately 30-45 minutes in length
 - 2012 field period was ~ 8 months long
- Phase II: Energy suppliers survey
 - Follow-up with energy suppliers for <u>about half</u> of the building cases (usage data for the others collected in Phase I)
 - Historically a mail survey; for 2012, it is mainly an internet data collection
 - Mandatory
 - 2012 field period began in March 2014 and will be ending this month (~7 months long)

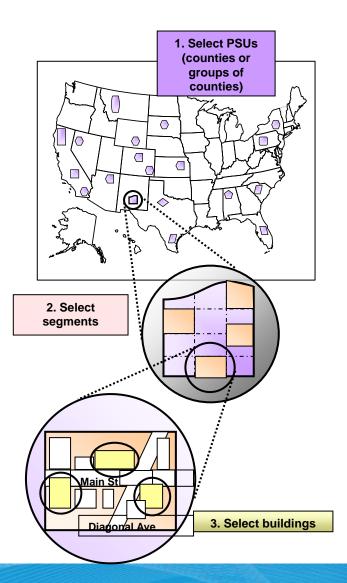


CBECS requires a multi-frame approach

- No comprehensive source of <u>buildings</u> exists
- Area frame
 - Randomly select small, geographic areas
 - Within them, list and stratify all commercial buildings in those areas
 - Randomly select buildings within strata

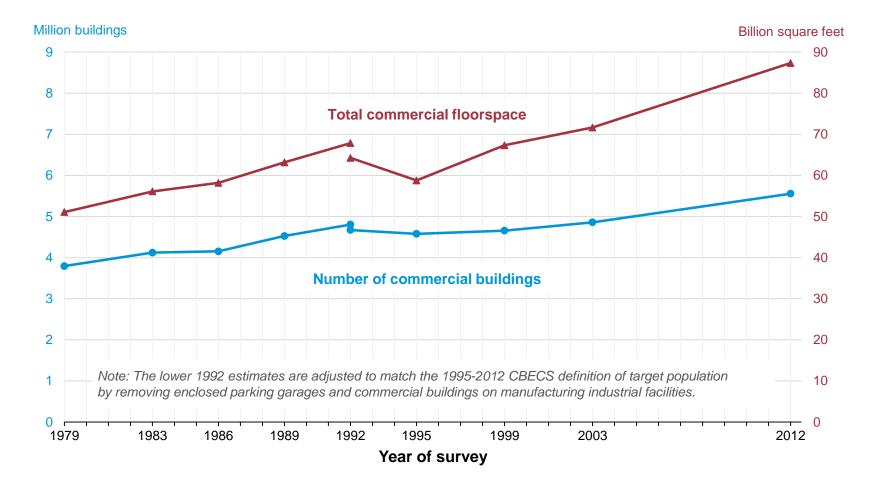
• List frames

 Supplemental lists ensure adequate representation of special buildings (hospitals, govt bldgs, college/universities, airports, other large buildings)



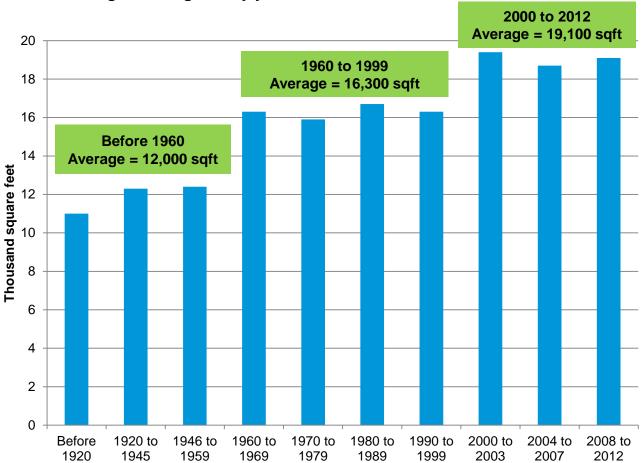


2012 CBECS preliminary results: in recent years, commercial floorspace has grown more rapidly than the number of buildings





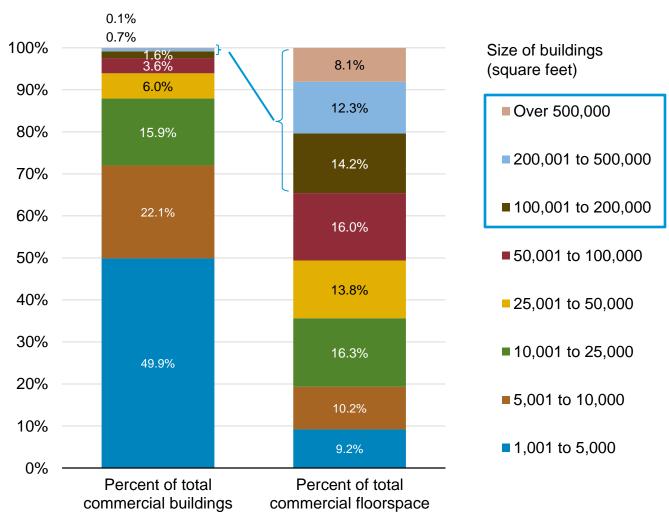
New commercial buildings are larger, on average, than old commercial buildings



Average building size by year constructed

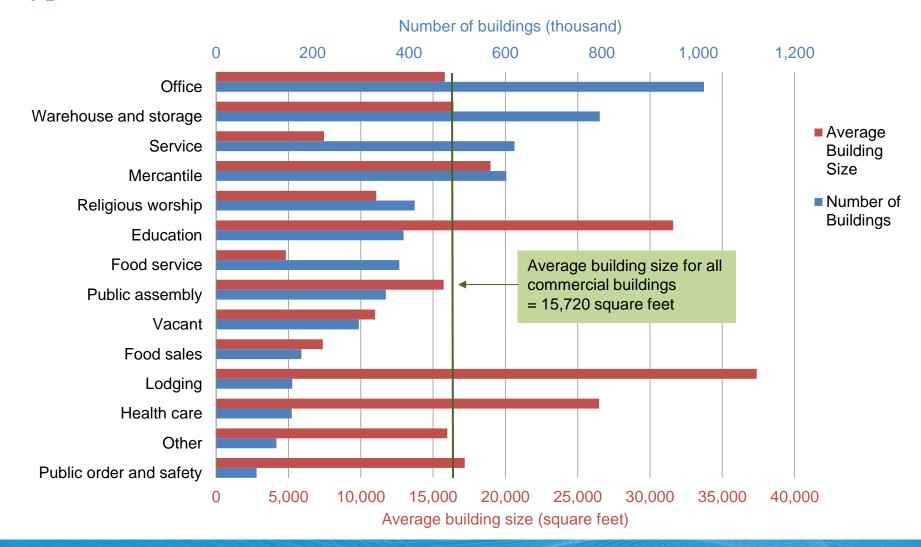


Buildings over 100,000 square feet make up only about 2% of the building count but about 35% of the total floorspace





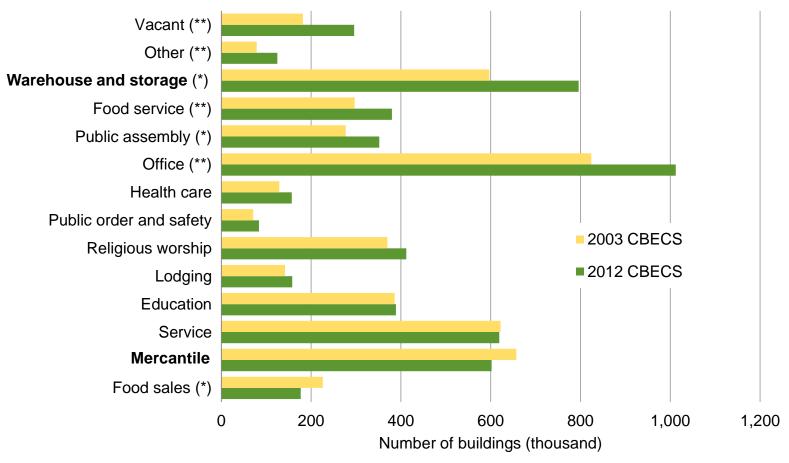
The CBECS building population is diverse and smaller building types are the most common





About half the building types show an increase in the number of buildings from 2003 to 2012

in order of largest to smallest relative growth from 2003 to 2012



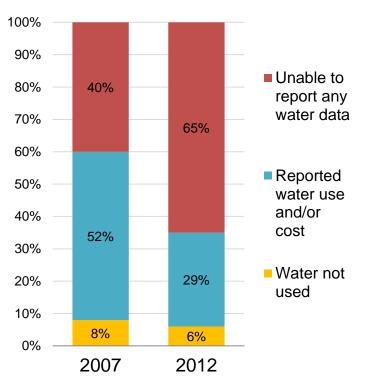
(*) indicates change is statistically significant at the 90% confidence level

(**) indicates change is statistically significant at the 90% and 95% confidence levels



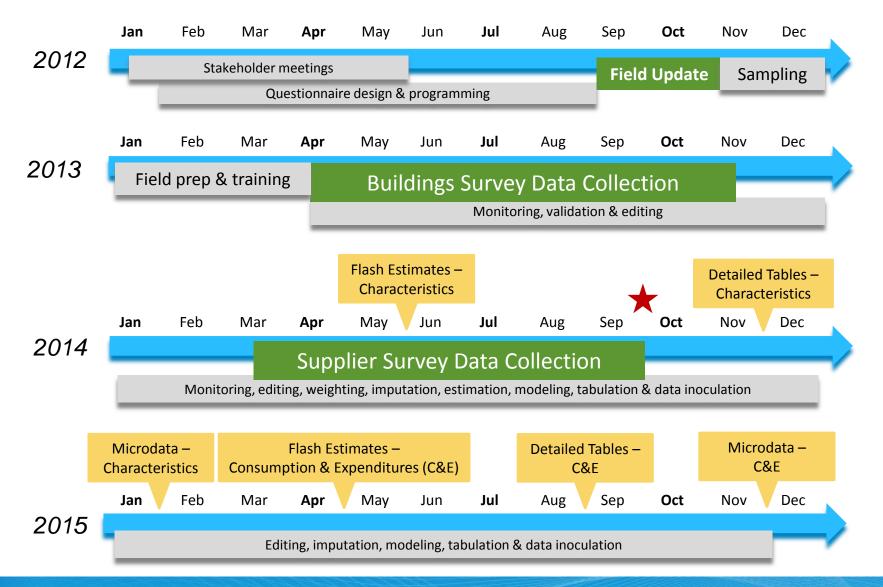
Publication of 2012 water usage data is still uncertain

- 2007 CBECS included experimental water data collection; 2012 CBECS built upon that experience
- Initial results show that respondents find it difficult to access and report this information; the rate of reporting is much lower than it was in 2007
- Thorough data review will determine if water usage can be estimated for certain subpopulations





2012 CBECS timeline spans four years





CBECS home page provides status updates

www.eia.gov/consumption/commercial

Projected schedule of 2012 CBECS data releases

Building characteristics (BC) preliminary estimates	Released June 19, 2014
BC detailed tables	Fall 2014
BC public use microdata	Winter 2014
Consumption & expenditures (C&E) preliminary estimates	Spring 2015
C&E detailed tables	Fall 2015
C&E public use microdata	Winter 2015



For More Information

CBECS home page | www.eia.gov/consumption/commercial

Joelle Michaels, Survey Manager | joelle.michaels@eia.gov

Tom Leckey, Director, Office of Energy Consumption and Efficiency Statistics | <u>thomas.leckey@eia.gov</u>

