footprints

Visualizing Energy Use in Commercial Buildings in the U.S.

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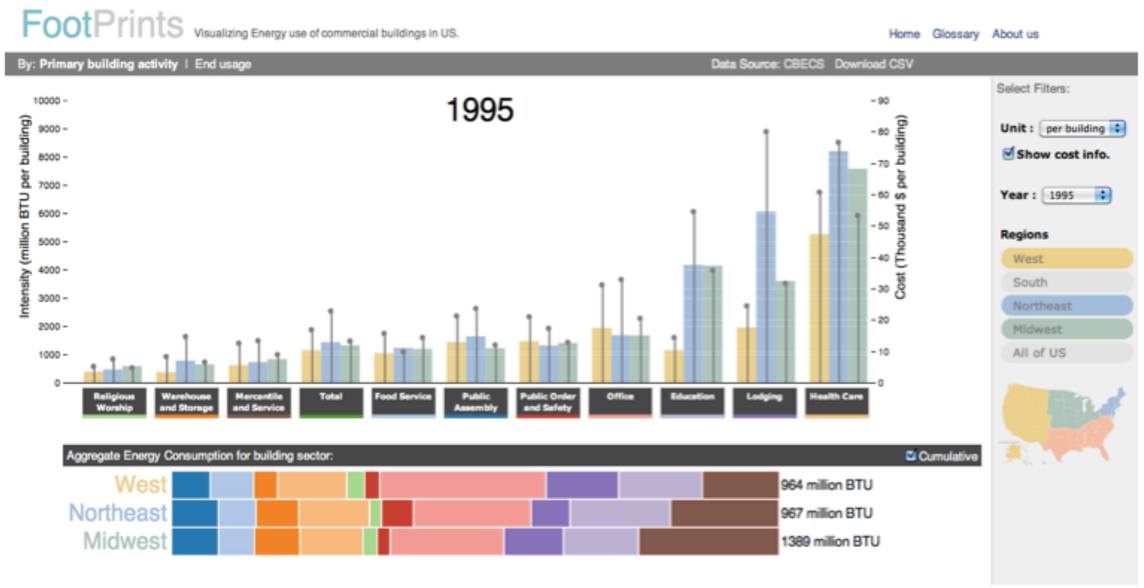


footprints is an exploratory energy visualization using data from the **Commercial Buildings End-Use Survey (CBECS)** database. Its core interaction design philosophy is to provide **"overview first, zoom and filter, and details-on-demand."**

Annual energy intensity, consumption and expenditures for different census regions in the U.S.

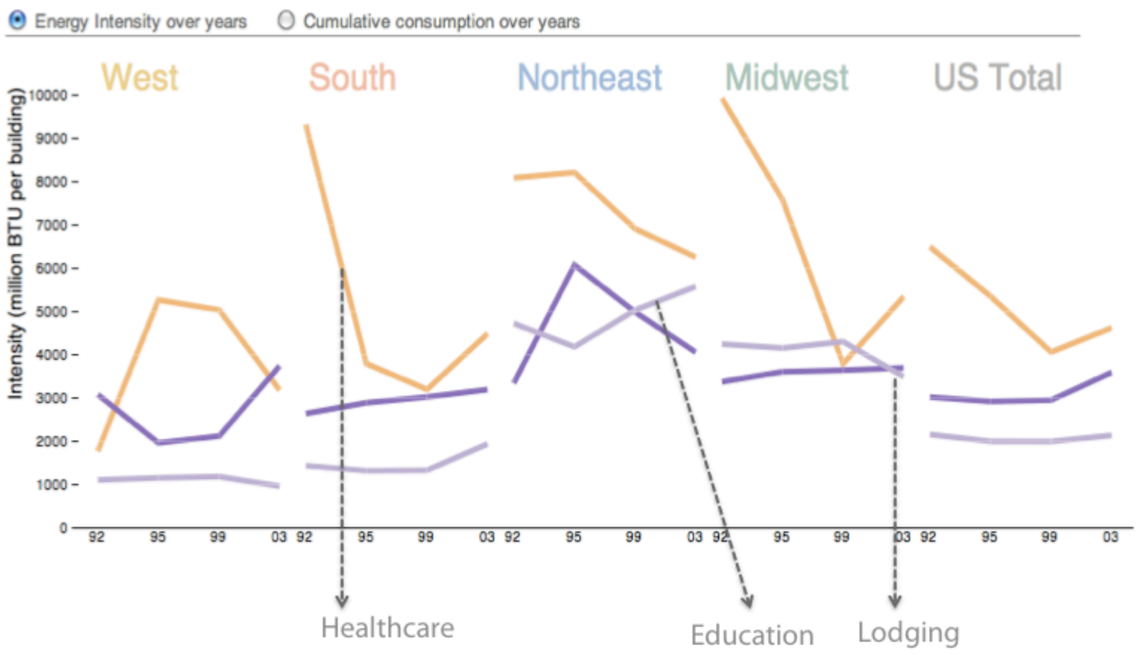
Bar graphs of energy intensities of different regions are shown with energy cost overlays. Stacked bars show cumulative energy consumption of corresponding regions.

Energy visualizations like footprints do MATTER.

Energy is one of the most pressing issues of our time. While we have accumulated massive data on our growing ecological footprints, much of this remains hidden in large, complex data sets, unconducive to meaningful energy analysis. Buildings are the largest energy hogs in the U.S, yet databases like the CBECS with numbers on energy consumption and expenditures in over 5000 commercial buildings, present them in a raw format that is overwhelming to digest and use effectively. Graphical visualizations benefit from the powerful 'bandwidth of human vision' and provide greater opportunities to reveal trends and relationships otherwise obscured in tabular representations.

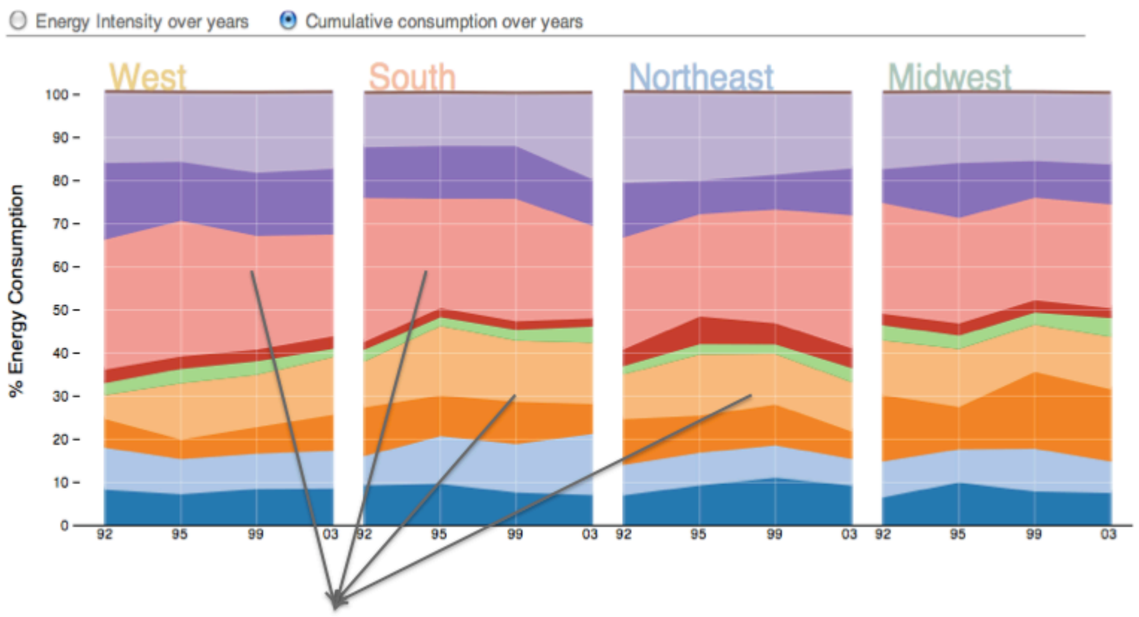
Historical energy intensities for different building types

Small multiples visualization allows easy comparisons of historical energy trends across regions. For a region, each line graph makes comparing energy intensities of different building types easier.



Cumulative Historical energy intensities for different building types

Small multiples visualization allows easy comparisons of historical cumulative trends across regions. For a region, each stacked graph compares energy intensities of different building types.



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