

American A/C Market

at a Glance

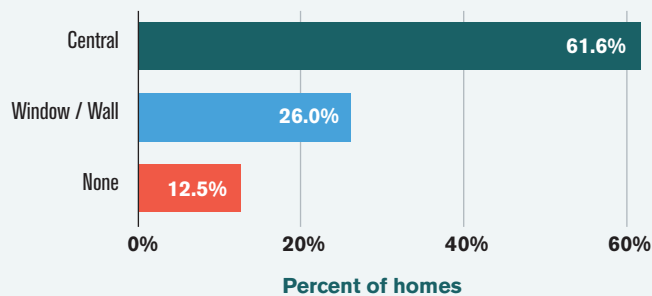
The century-old technology of air conditioning has brought newfound summer comfort and enabled migration to hot climates. CityLab used the U.S. government's Residential Energy Consumption Survey to shed light on how Americans use air conditioning.

Nearly 90 percent of American households have a form of air conditioning, and over 60 percent of American homes use central a/c.

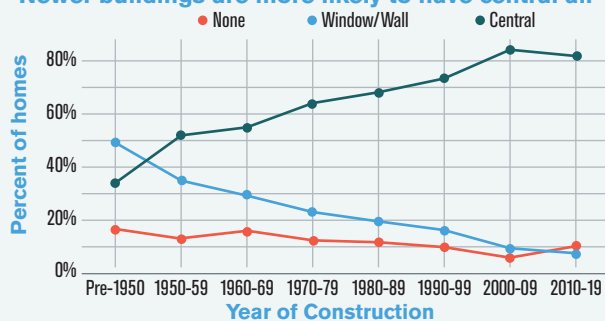
Homes built before 1950 are only slightly more likely to lack a/c than homes built this decade, but are more likely to rely on window or wall air conditioning instead of central air.

Wealthier households are more likely to have a/c, and more likely to have central air instead of window or wall units. But even among low-income households, more than 75 percent have some form of a/c.

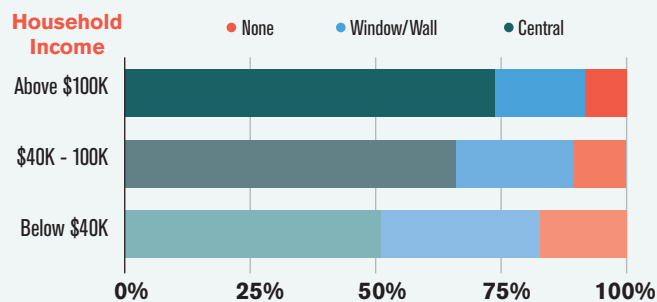
Most U.S. homes have some sort of air conditioning



Newer buildings are more likely to have central air



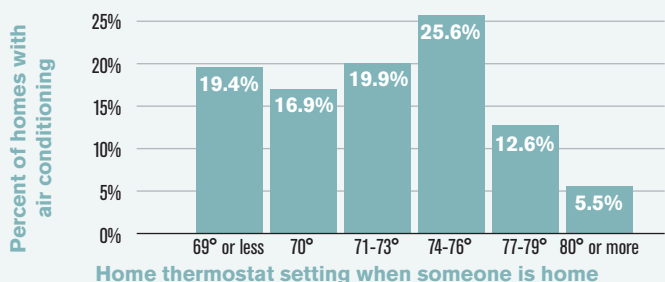
Air conditioning is more common in wealthier households



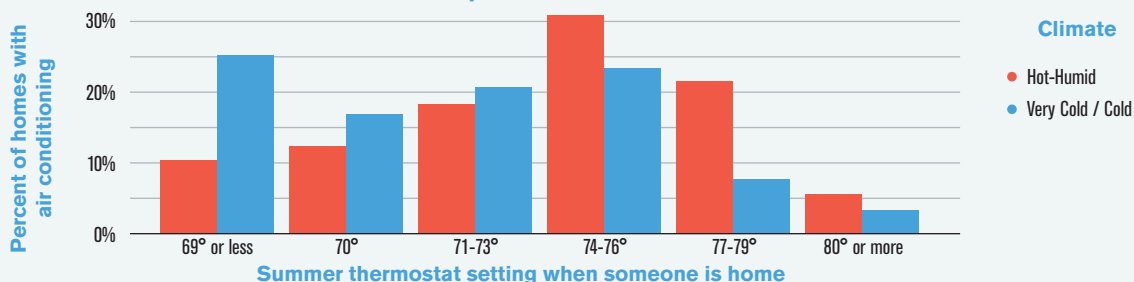
Around 20 percent of American homes are set to 69° F or lower when people are home in the summer. Another 18 percent are set to 77° or warmer – a balancing act between comfort and cost.

Americans in colder climates are more likely to keep their homes chilly, while residents of hotter areas tend to prefer the mid-70s. It's unclear how much reflects economics – it's cheaper to cool a home when it's 80° outside than 95 – and how much reflects warm climate residents preferring warmer indoor temperatures.

How Americans set their summer thermostats



Colder climates keep summer thermostats lower



U.S. Energy Use

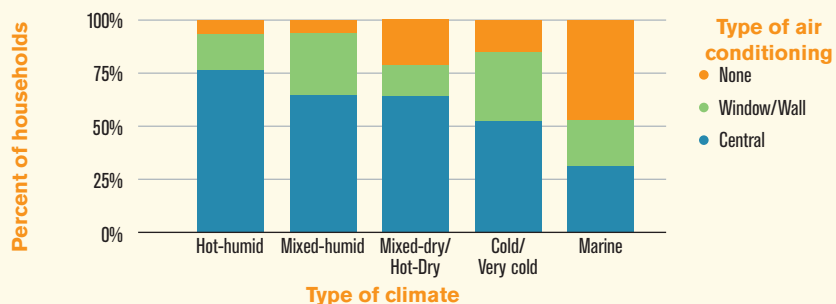
at a Glance

The United States uses more than four times as much energy heating homes than it does cooling them, although that gap has been closing. That shouldn't be a surprise, given the U.S.' position in the Northern Hemisphere. Heating a home from 30 to 70° requires changing the interior temperature by 40°, twice as much as cooling it from 90 to 70.

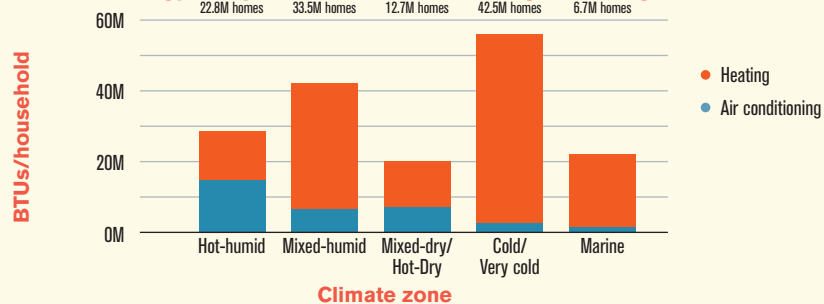
While only about 12 percent of American households overall lack a/c, that rises to 15 to 20 percent in colder or drier climates, and nears 50 percent for "marine" climates, which are common on the West Coast.

The gap between energy spent on heating versus cooling has been slowly closing. American homes are spending more energy on air conditioning and less on heating than they used to.

A/C is less common in cooler climates



Energy use per household on heating & cooling



Bringing It Together

The decrease in national heating energy is due to a range of factors, said Andrew deLaski, executive director of the Appliance Standards Awareness Project. Warm states have been gaining residents much faster than cold states in recent decades, shifting the population from areas with high heating demand to ones with higher a/c demand. Air conditioning has become more common over that period, and homes have become bigger, requiring more energy to cool them.

Furnaces and air conditioners have also become much more efficient over that time. The net effect is that U.S. residential a/c energy use is going up, but not by as much as heating energy use is going down.

U.S. energy usage on heating & air conditioning

