



Coastal properties, such as this one in New Jersey, were once prized

But these homes now face greater flooding risks, and that has hurt their value



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Coastal Property Was Once King. Fears of Climate Change Are Undermining Its Value

In a growing number of coastal communities, homes near the sea are appreciating more slowly than those inland. That's bad news for people on the beach, good news for those farther away.



By Sarah Krouse, Laura Kusisto and Tom McGinty

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Three-bedroom house. Ocean views. Steps from the water.

This was once a surefire home-sales pitch. Today, some buyers fear a [warmer climate will bring fiercer floodwaters, winds and hurricanes](#)—and that has changed the math of waterfront real estate.

“I can’t get anybody to come look at it,” said real-estate agent Angela Payne, describing a four-bedroom home with river views near the coast in Somerset

County, Md. She has been seeking a buyer for six months. The sellers reduced the price to \$219,000 this month from \$224,500.

"The area does have some flooding," she said of the property, which is in a federally designated flood zone, "so it's hard to get someone to invest that kind of money in a house when they see that."

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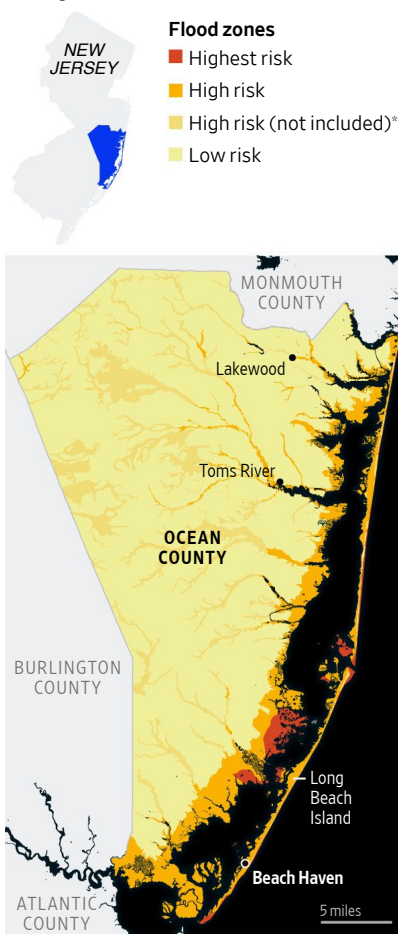
The value of homes in Somerset County flood zones at a high risk of flooding had risen 10.5% from 2012 to 2017, while homes in the county not facing that risk rose 14.4%, a Wall Street Journal examination found.

The effects of the planet's slow heating are diffuse and its causes are debated. That hasn't stopped [climate-change expectations filtering into business decisions](#) and values of financial assets. In coastal residential real estate, those expectations are turning an old dictum on its head. "Location, location, location" is receding from the waterline.

Up and down the eastern seaboard, many home prices near water's edge aren't doing as well as homes inland in the same county, a Journal examination found. Real-estate brokers, homeowners and prospective buyers say [a big reason is the perception that climate change is making such properties a riskier investment.](#)

To compare changes in waterfront single-family home prices with those inland for the Journal examination, the real-estate information provider Realtor.com analyzed median prices per square foot in and out of designated high-risk flood zones in 16 coastal states between 2012 and 2017. A subsidiary of News Corp., the Journal's owner, operates Realtor.com.

Counties are broken into zones based on flood risks. Realtor.com and the Journal compared the change in home values in coastal areas at a high risk of flooding with those further inland.



*Realtor.com's analysis focused on AE, what the firm describes as the primary high-risk flood zone with the largest number of transactions. Other flood zones with similar flooding risks but fewer transactions were excluded from the study.

Source: FEMA

Flood Zones Used in Analysis

Low risk

Area of moderate or minimal flood hazard.

High risk

Areas with a 1% annual chance of flooding. Also known as the 'AE' flood zone, these areas were home to the most transactions and the focus of Realtor.com's analysis. Other flood zones with a similar risk but fewer transactions were excluded from the study.

Highest risk

Coastal areas with a 1% or greater chance of flooding and additional hazards associated with storm waves.

In 40 of the 66 counties in the analysis, the prices of homes in high-risk flood zones failed to keep pace with those in areas not deemed at risk of flooding. In 2015, that phenomenon happened in 10 fewer counties.

"Buyers are more aware. Recent events are fresher in their minds," said Javier Vivas, senior analyst at Realtor.com, referring to [hurricanes and large storms this year and last](#). "Because of that awareness they are more skeptical or at least more knowledgeable about this real, tangible risk."

[Hurricane Florence in September](#) inflicted an estimated \$20 billion to \$30 billion of damage from winds and flooding on residential and commercial properties across North Carolina, South Carolina and Virginia, according to housing-data tracker CoreLogic Inc. [Hurricane Michael a month ago](#) caused \$2.5 billion to \$4 billion of damage in Florida, CoreLogic said.

Last year, [Hurricanes Maria, Irma and Harvey](#) together cost about \$270 billion in damage, according to the National Oceanic and Atmospheric Administration.

[Waterfront property has traditionally commanded a premium](#) because more-affluent buyers are willing to pay for views and proximity to recreation and centers of economic activity. That is still the case, but the premium shrank to 36% in April 2018 nationwide from the two-decade average of 41%, according to real-estate-listings company Zillow.

The cost of staying is among deterrents to ownership. Lifting a house to protect against flooding can cost from \$10,000 to upward of \$100,000, depending on size, said Michael Brovont, sales manager at Wolfe House Movers in Bernville, Pa., which does such coastal raising work. That doesn't include the cost of permits, unhooking and re-establishing electricity and plumbing during the lift, or rebuilding the foundation, and of paying rent to live elsewhere during the process.

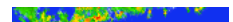
The estimated National Flood Insurance Program premium for \$250,000 in building coverage for a primary residence in a high-risk flood zone is about \$2,199, compared with an estimated \$1,559 for a home in a low-risk zone, according to the Federal Emergency Management Agency. In the highest-risk area that rises to an estimated \$9,315.

There are [efforts in some coastal counties to toughen building codes or go beyond what those rules require](#) to avoid further destruction from severe storms. In the highest level of a program called "Fortified," home builders harden the body of a house—from the roof to walls, floors and foundation. That degree of protection can add 3% to 5% to the cost of building a new home, according to the Insurance Institute for Business and Home Safety, a research organization funded by insurers that created the program.

The analysis for the Journal incorporated 1.2 million home sales in Realtor.com's data, using flood zones determined by FEMA to identify properties near water. The analysis excluded some states, such as Texas and Louisiana, where deed-level data aren't disclosed, and Western states such as California, where many coastal residences sit higher above water.

Alabama, Florida, North Carolina and Maryland now have more counties where high-risk flood-zone property is lagging than before, the analysis shows. The trend occurred in a limited number of areas in the West, including one county Oregon and two in Hawaii.

RAISING THE ANTE









Homeowners near the New Jersey coast elevate their properties to protect against floodwaters.

Even where home buyers decide to be near water, “the desire to live three or four houses off the water versus right along the water has increased significantly” because of flooding concerns and [rising flood insurance costs](#), said Michael Hoffman, a real-estate agent at William Raveis Real Estate in Scituate, a town in Plymouth County, Mass.

In Florida, house prices in high-risk flood zones failed to keep pace with prices in low-risk zones in 20 counties around the state’s long coastline. [Hurricane Michael made landfall this month](#) in Bay County, Fla., where single-family home prices in high-risk flood zones rose 23% between 2012 and 2017, while those outside such zones rose 32%. In neighboring Gulf County, high-risk flood-zone home prices rose 42% during that period while homes further inland rose 89%.

There are reasons beyond climate risk that some inland homes have appreciated more. Certain inland counties are home to fast-growing communities that have drawn more buyers. Municipal-finance problems in some states have led to higher taxes on the wealthy that have spurred affluent coastal dwellers to depart for lower-tax jurisdictions.

Some brokers and academics also contend that prices on the coast are already high, leading to lower percentage growth in median prices.

The Journal [findings dovetail with recent research](#). A [Harvard University study in May showed home prices at lower elevations are suffering](#), while once-modest neighborhoods on higher ground in Miami-Dade County, Fla., are appreciating more quickly, by virtue of their geography. University of Colorado researchers studying data from 2007 through 2016 found homes vulnerable to rising sea levels across the country are selling at a 7% discount to similar but less-exposed properties.

The pricing shift affects homeowners, insurance companies, lenders and the finances of towns and cities. Moody’s Investors Service, which rates the creditworthiness of municipalities—and thus how much they have to pay to borrow money—warned in November 2017 that rising sea levels and more extreme weather could spur “steady migration that undermines local economies” and redistributes wealth, workers and demand for public services.

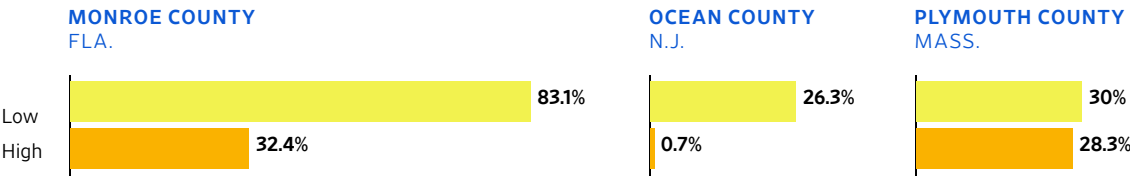
For the Journal examination, Realtor.com gathered single-family home sales data in more than 470 coastal counties on the East and West coasts and bordering the Great Lakes. It whittled that to the 66 coastal counties that met a number of flood-zone and deed-disclosure-related criteria.

Here’s what life looks like, and how it has changed, in three states facing storm risks:

Yvette Toledo-Baste, a real-estate agent at Horizon Homes Realty in the Florida Keys, is in the process of closing on the sale of a four-bedroom Key Largo home for owners who want to move further inland in Miami. The home sold for \$940,000, below the \$1.125 million it was initially listed for more than a year ago.

Lindsay Carriera, her boyfriend Josh Paul Dykstra and his 12-year-old son moved from Sussex County, N.J., to Florida for a better quality of life in August 2017, just before Hurricane Irma hit and they were forced to evacuate.

CHANGE IN MEDIAN PRICE PER SQ. FT.
BETWEEN 2012-17, BY FLOOD RISK



Source: Realtor.com

“Knowing that we could potentially come home to nothing was very upsetting,” Ms. Carriera said. The couple looked at more than a dozen coastal homes, but Mr. Dykstra ultimately bought a three-bedroom home further inland in Charlotte County because of concerns about flooding, red tides and the cost of insuring and repairing a home after storms.

“It kills us not to be able to walk out back and see water,” said Ms. Carriera, 27, but “you would be spending more money to upkeep it than actually enjoying it and that’s why we went inland. I guess it’s just peace of mind.” Mr. Dykstra bought a the newly constructed home for about \$240,000 and the pair plan to move in November.

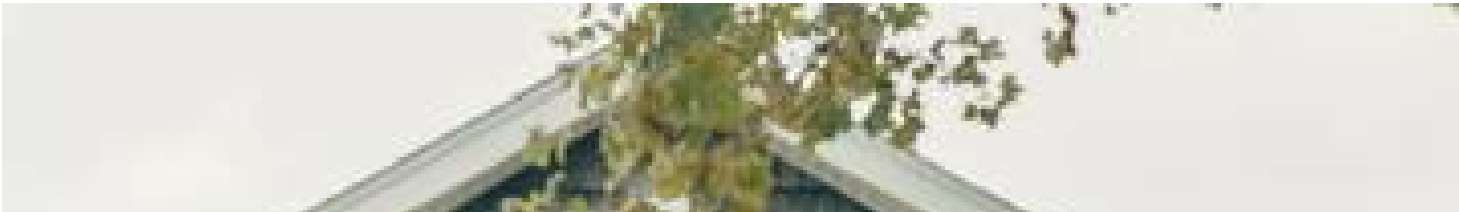
The value of Charlotte County single-family homes in high-risk flood zones rose 59.2% between 2012 and 2017, compared with a 76.5% increase in the value homes further inland.



In Ocean County, N.J., a middle-class, coastal county home to multilevel beachfront houses and small summer bungalows, the value of high-risk flood-zone homes rose 1% between 2012 and the end of last year. The value of inland homes rose 26%.

The scale of that difference was a surprise even to Annmarie Uhl, who knows well the potential costs of repairing and retrofitting a home on the coast.

She and her husband saved for 20 years and by 2008 had enough for a down payment on an \$820,000 four-bedroom cape in Beach Haven. Its prior owner had lifted the home 4 feet off the ground.







Phyllis Sardoni, 83, regularly moves her car in anticipation of high tides.

Four years later, Hurricane Sandy's rising tides flooded their house beyond repair. The couple received nearly \$35,000 in insurance money, but they couldn't fully repair their home's electrical and plumbing systems.

The year after Sandy, they spent \$10,000 on new plumbing and electric systems and \$3,000 on landscaping around the house to keep water at bay. The next year, the home's pipes damaged by the storm, burst and cost another \$20,000 to repair. That year, the couple discovered that mold had grown inside their kitchen, requiring them to rip out the cabinetry, a \$25,000 expense.

Then their electric system broke again. "It was just constant and nonstop. We could never restore the house to where it was pre-Sandy," Ms. Uhl said.

They weighed rebuilding the entire house against selling it outright at a loss and ultimately decided to tear down the old home and build a new one. It cost \$500,000. This time they have forgone costly flood insurance. "We're 10 feet off the ground. If we get that much water and it floods our house we're done and flood insurance is not going to cover it," Ms. Uhl said.

Like the Uhls, Phyllis Sardoni, still a schoolteacher at 83, is holding out. She raised her two-bedroom home near the Jersey Shore 12 feet after Hurricane Sandy and plans to remain there indefinitely. She climbs the 12 steps it now takes to reach her front door, tends to her garden where wildflower seeds carried in by Sandy bloom, and regularly moves her car in anticipation of high tides.

"I have the beach house, which is what I've always wanted," she said. "It's everything it should be."



Dunes and seawall in Long Beach Island, N.J.

Methodology: The analysis of coastal property values was conducted for The Wall Street Journal by Realtor.com, a real estate-information company. Realtor.com, a provider of real-estate information, is operated by a subsidiary of News Corp, the Journal's owner.

For the analysis, which covered the years 2012 through 2017, Realtor.com gathered single-family-home sales data for more than 470 counties on the East and West Coasts and bordering the Great Lakes. That universe was whittled down to 66 counties on the eastern seaboard and West Coast that met a number of criteria:

1. The county's flood maps prepared by the Federal Emergency Management Agency (FEMA) were available in digital format that enabled a computerized analysis of the flood risk for homes that were sold.
2. There were at least 1,000 single-family-home sales during the period and at least 5% of those sales were in areas FEMA had determined to be at high risk of flooding (a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage).
3. The county disclosed deed-level data on home sales that enabled per-square-foot price calculations.

The analysis ultimately included 1.2 million home sales in the 66 counties. The location of each home sold was plotted on the FEMA flood maps, then Realtor.com calculated the annual median price per square foot of homes in each of the different flood zones within each county. The study focused primarily on areas the Federal Emergency Management Agency says have a 1% annual chance of flooding and a 26% chance of flooding over the span of a 30-year mortgage, known as AE flood zones. The Journal refers to those zones as "high risk" areas, while so-called X zones are areas that are typically further inland and are deemed at minimal risk of flooding. There are other FEMA-designated high-risk areas, but Realtor.com decided to exclude them from its analysis because they lacked a critical mass of transactions. One piece of the analysis also looked at VE zones, referred to in the story as areas facing the highest risk of flooding. Like AE zones, VE zones have a 1% annual chance of flooding and a 26% chance of flooding over the span of a 30-year mortgage, but they face additional hazards associated with storm waves.

Credits: [Jess Kuronen](#) and [Tyler Paige](#) produced this piece. Header video by [Drew Evans](#). [Jieqian Zhang](#) provided additional development. [Tristan Wyatt](#) provided graphics. Photos by Rob Stephenson for The Wall Street Journal.

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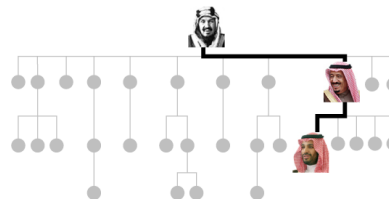
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