

Sea Level Increases and Home Prices

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The Headlines are ominous

(Consider articles in the *The Wall Street Journal*)

“Sea Levels Rose at Faster Pace, Study Says

Previous research was at odds with evidence of increased melting from Greenland and Antarctica” (5/11/2015)

“How a Floating Island Could Save Pacific Nation From Rising Seas

Residents of Kiribati considering mass relocation to futuristic Green Float island as climate change threatens their homes” (12/8/2015)

“Singapore Builds Higher as Seas, Temperatures Rise

New terminal at Changi Airport to be built 5.5 meters above sea level; coastal sea walls to be enlarged” (7/11/2016)

Even MoMA has run an exhibit on rising sea levels and design

INSIDE/OUT

A MoMA/MoMA PS1 BLOG

MARCH 26, 2010 | [RISING CURRENTS](#)

Rising Currents: Opening of the Exhibition

Posted by [Barry Bergdoll](#), The Philip Johnson Chief Curator of Architecture and Design



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How will NY Harbor adjust?

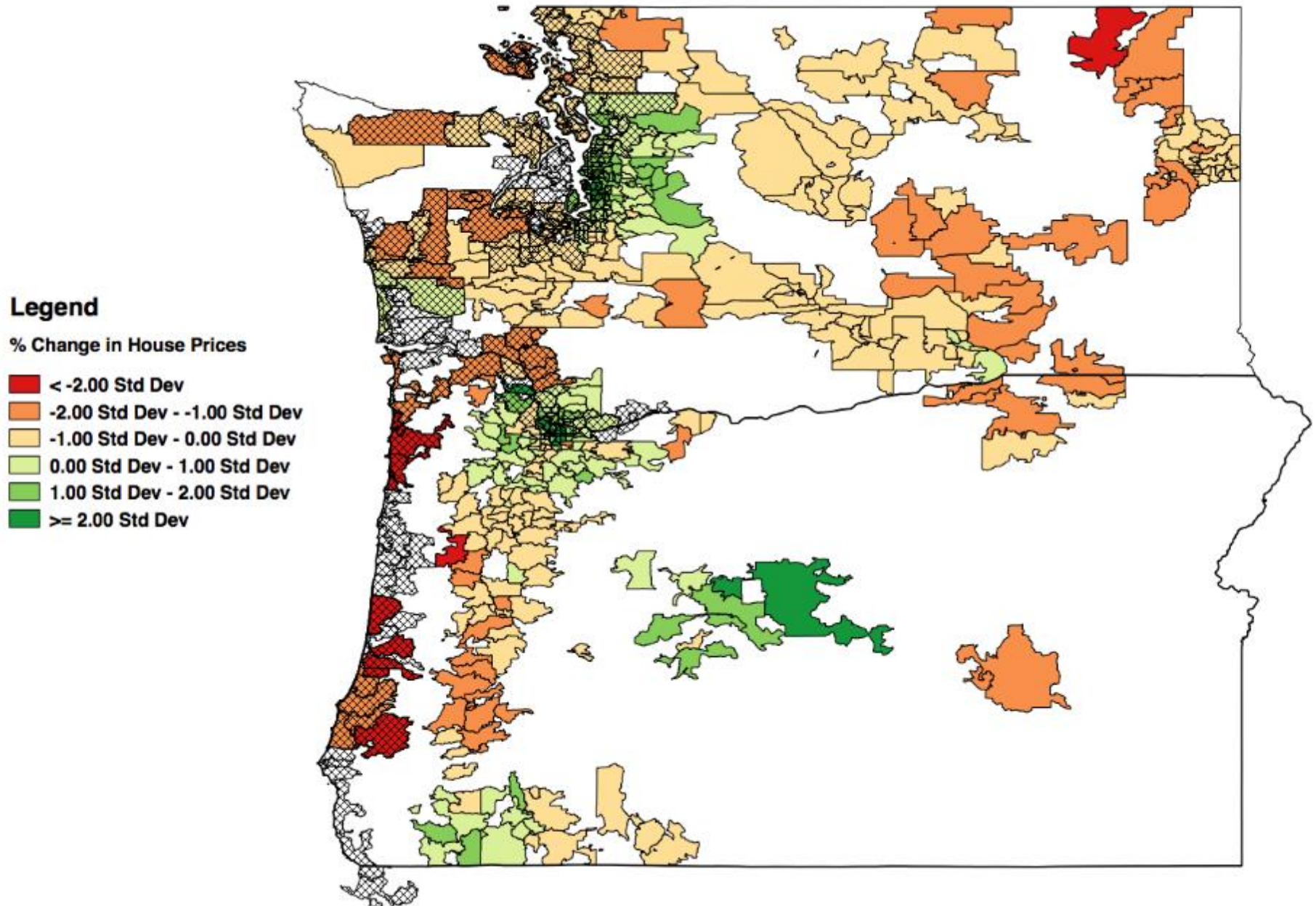
(Note: The exhibit was prepared prior to Hurricane Sandy)



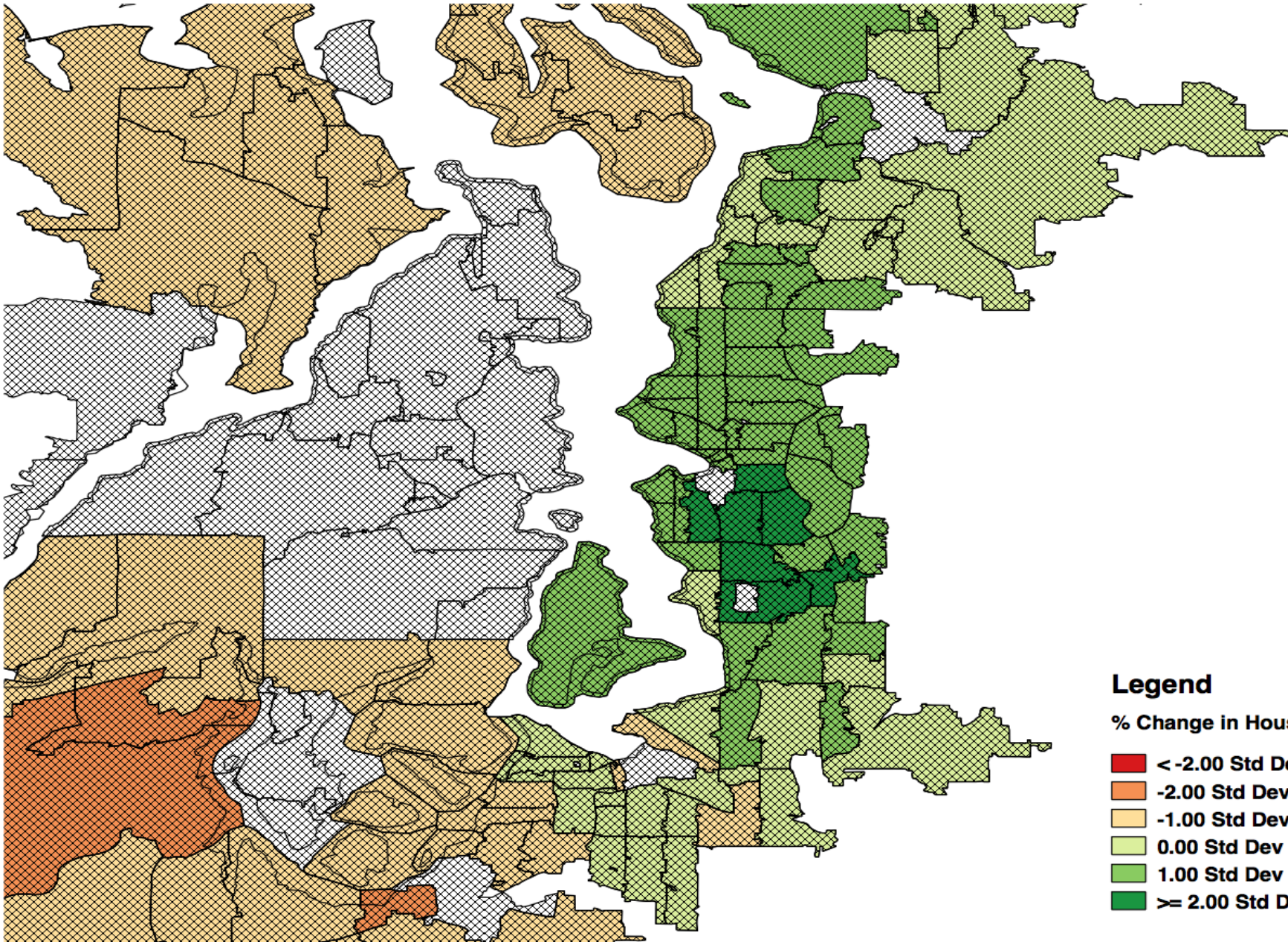
How are US housing markets responding?

- Examine home price changes after Hurricane Sandy (10/22/2012)
 - Start sample period in March 2012 and look at 5-year changes
- Consider price changes in Zip Codes located in flood zones as defined by NOAA from 2050
 - Compare home price changes in flood zones relative to median home price changes in the state
 - Examine all locations at risk of flooding (could also examine highest risk locations)
- Plot these changes on maps to see patterns

Pacific Northwest



Seattle, WA

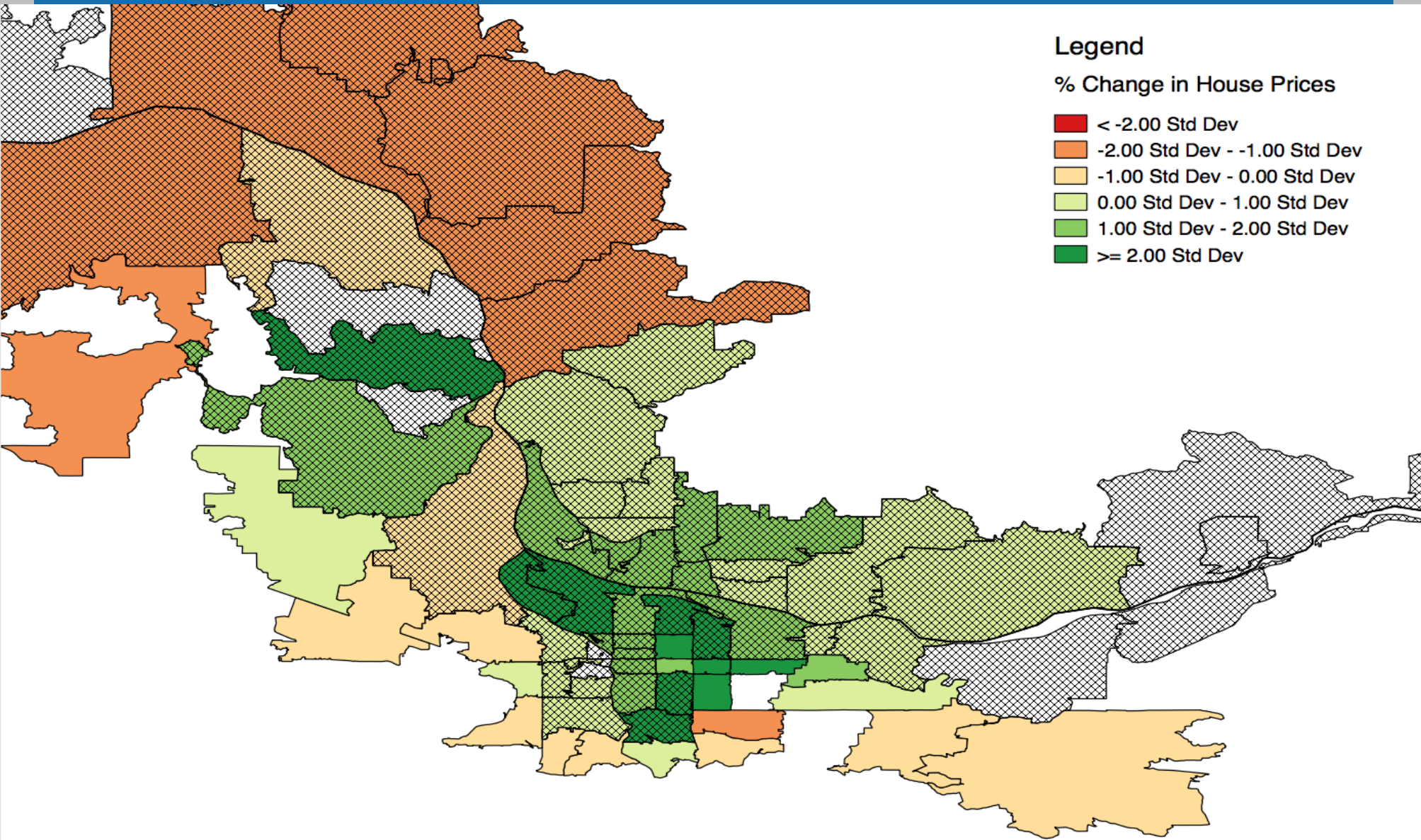


Legend

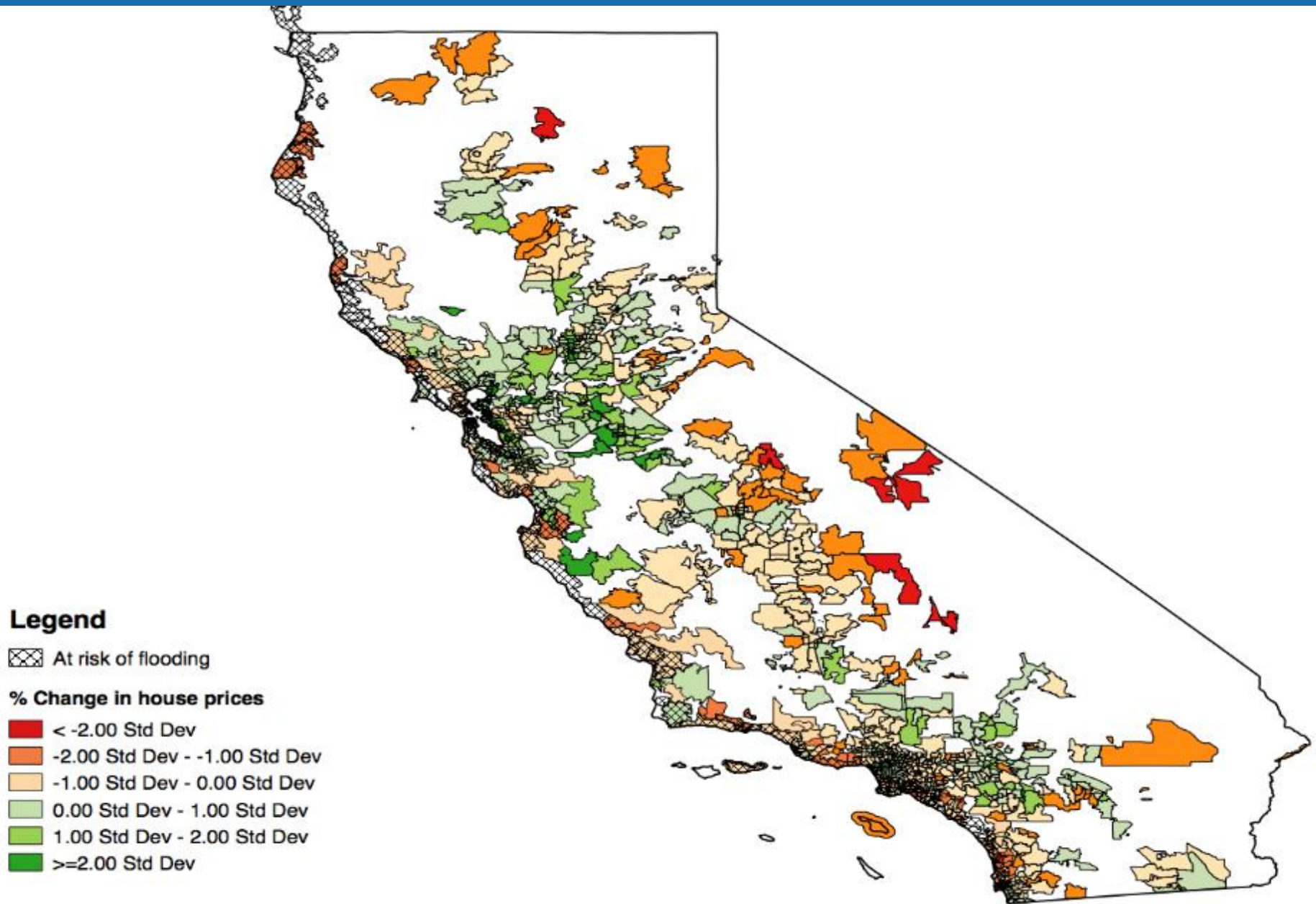
% Change in House Prices

- < -2.00 Std Dev
- 2.00 Std Dev - -1.00 Std Dev
- 1.00 Std Dev - 0.00 Std Dev
- 0.00 Std Dev - 1.00 Std Dev
- 1.00 Std Dev - 2.00 Std Dev
- \geq 2.00 Std Dev

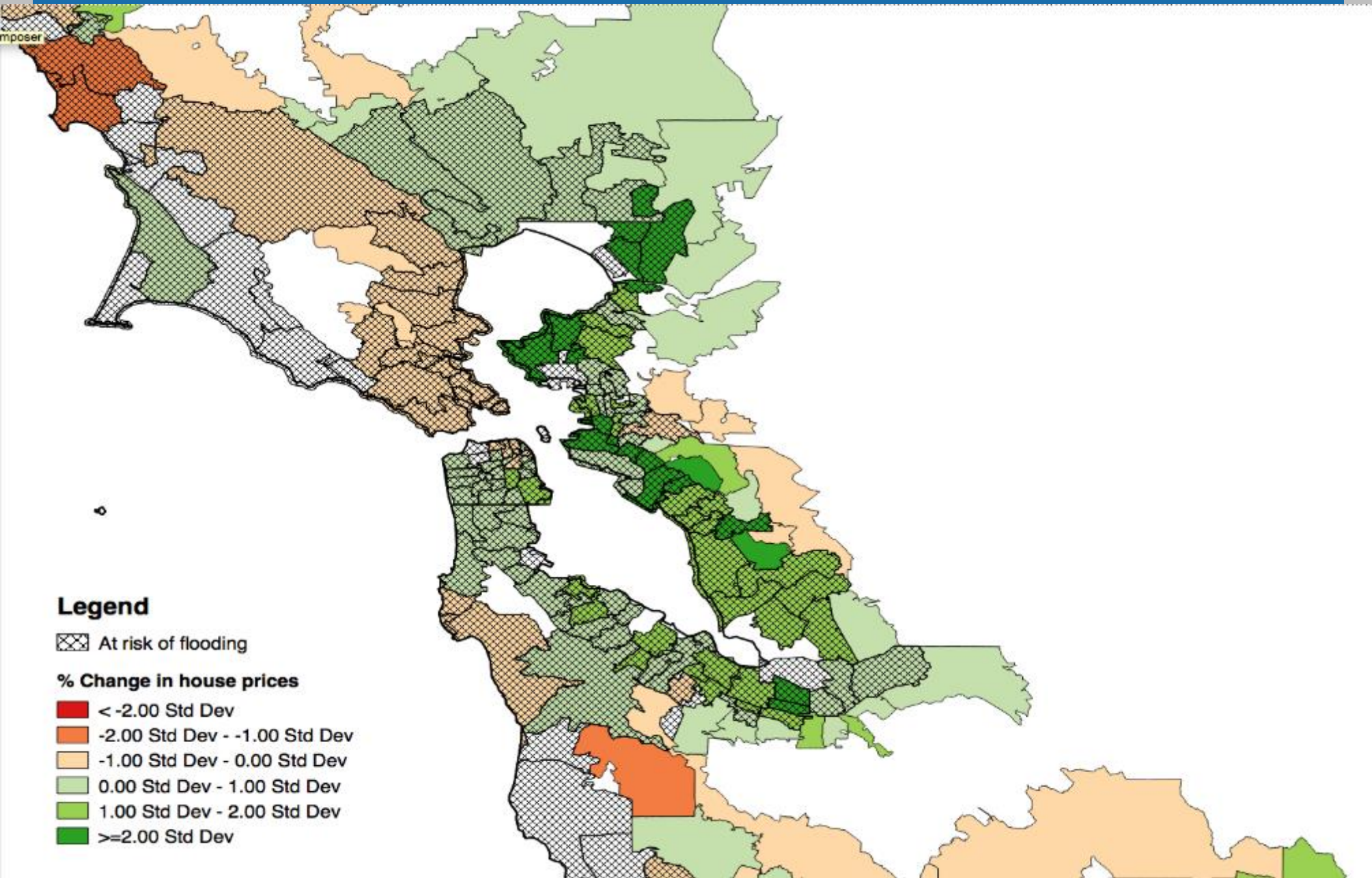
Portland, OR



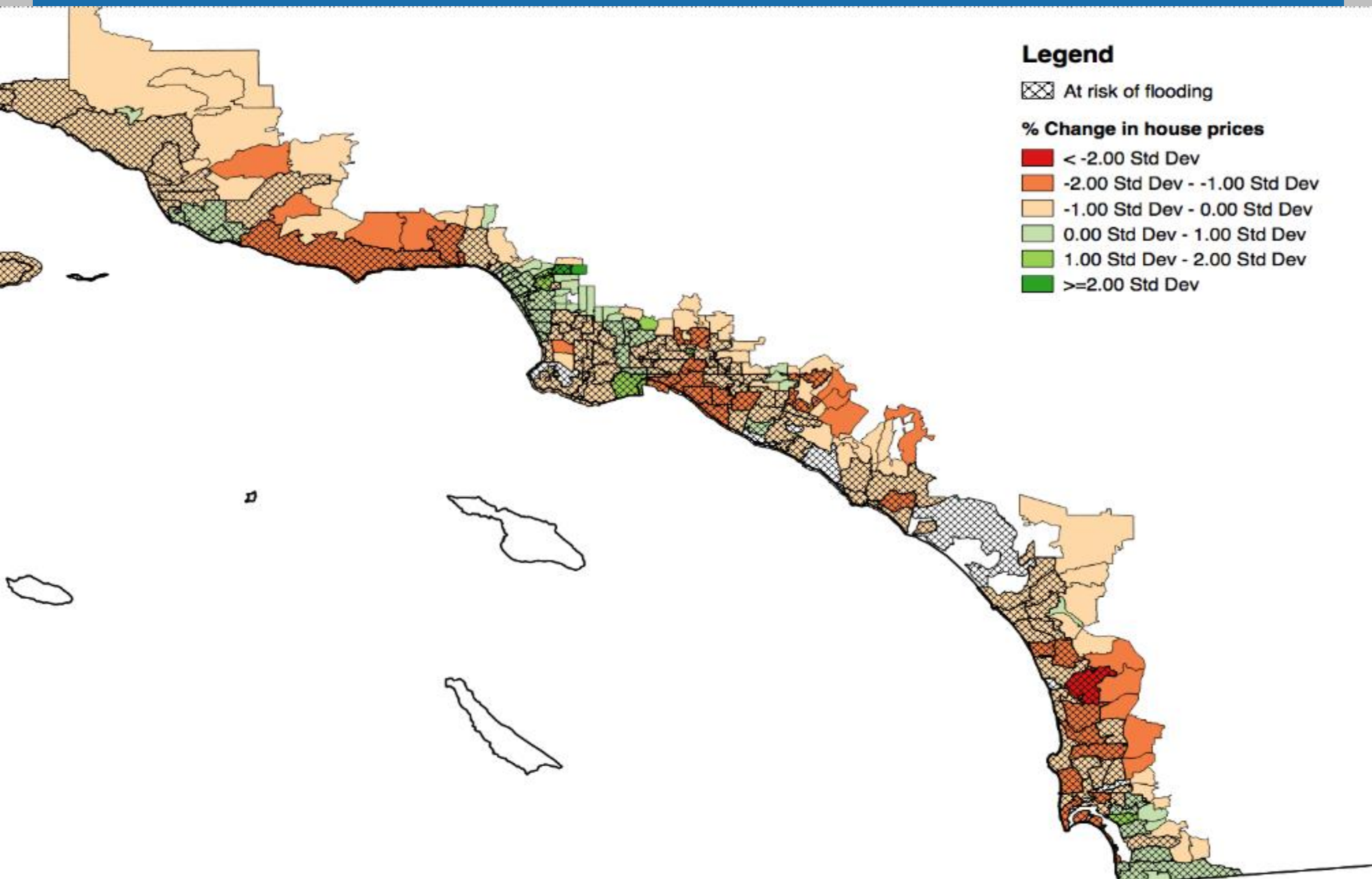
California



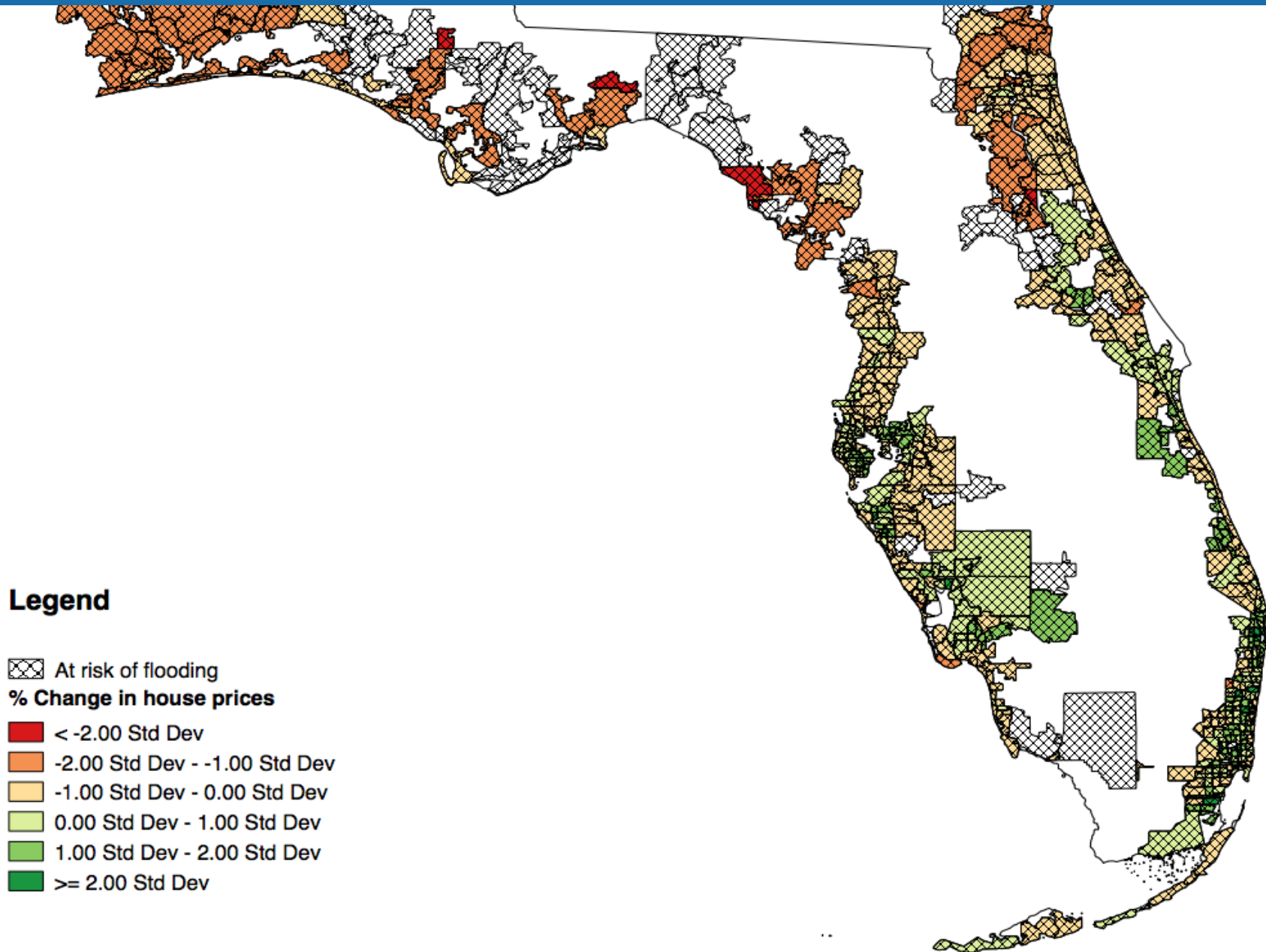
San Francisco, CA



Los Angeles



Florida



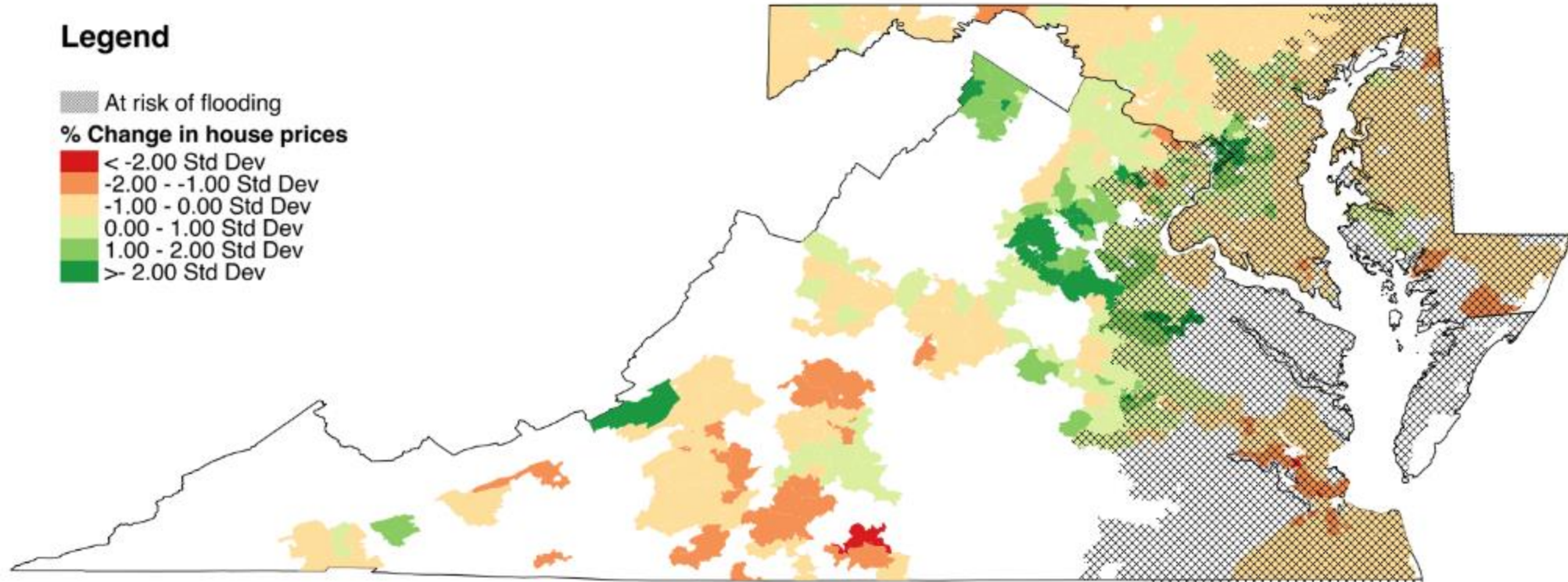
Florida Gold Coast



← **Mar-a-Lago**

Mid-Atlantic

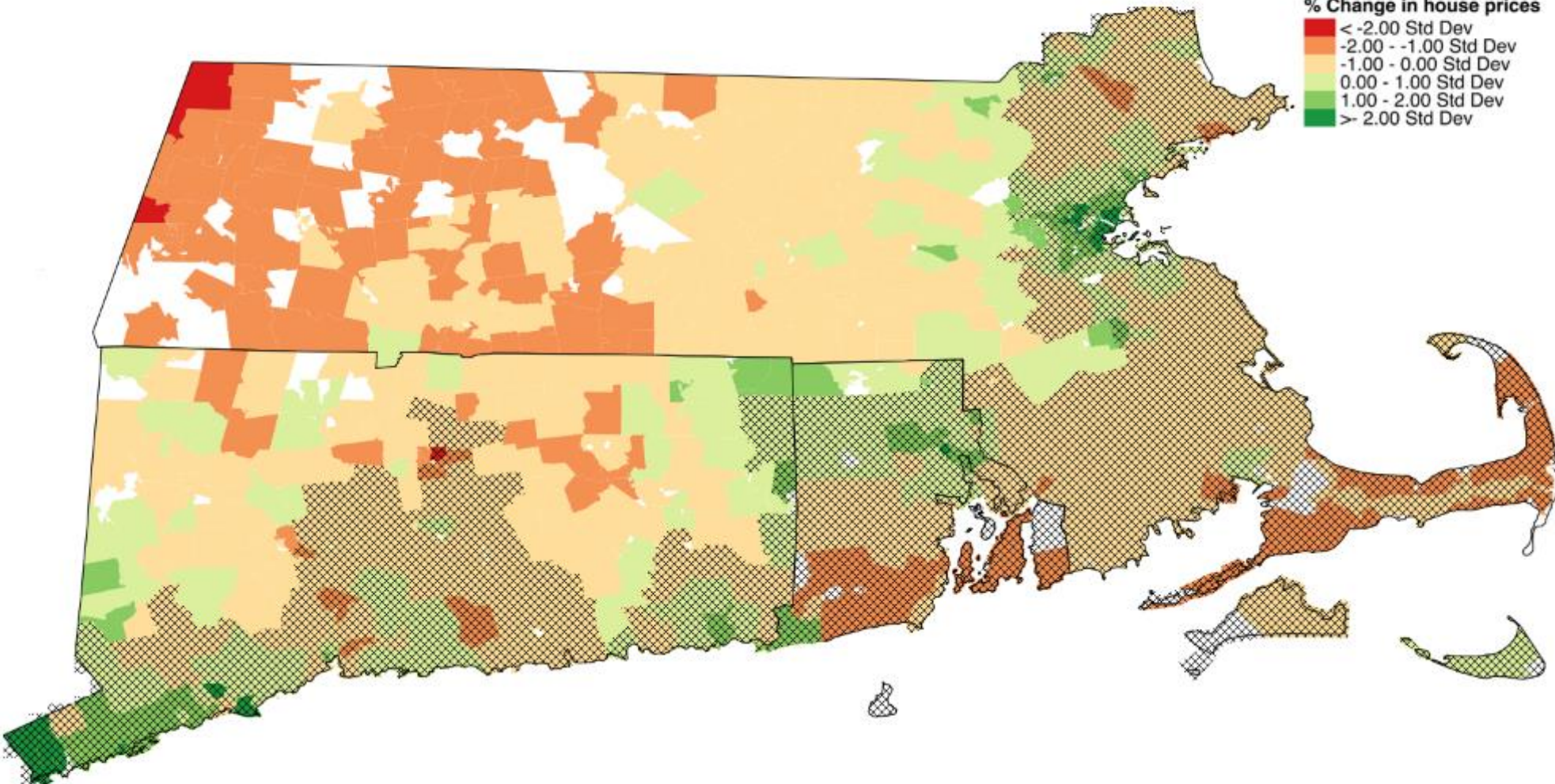
Legend



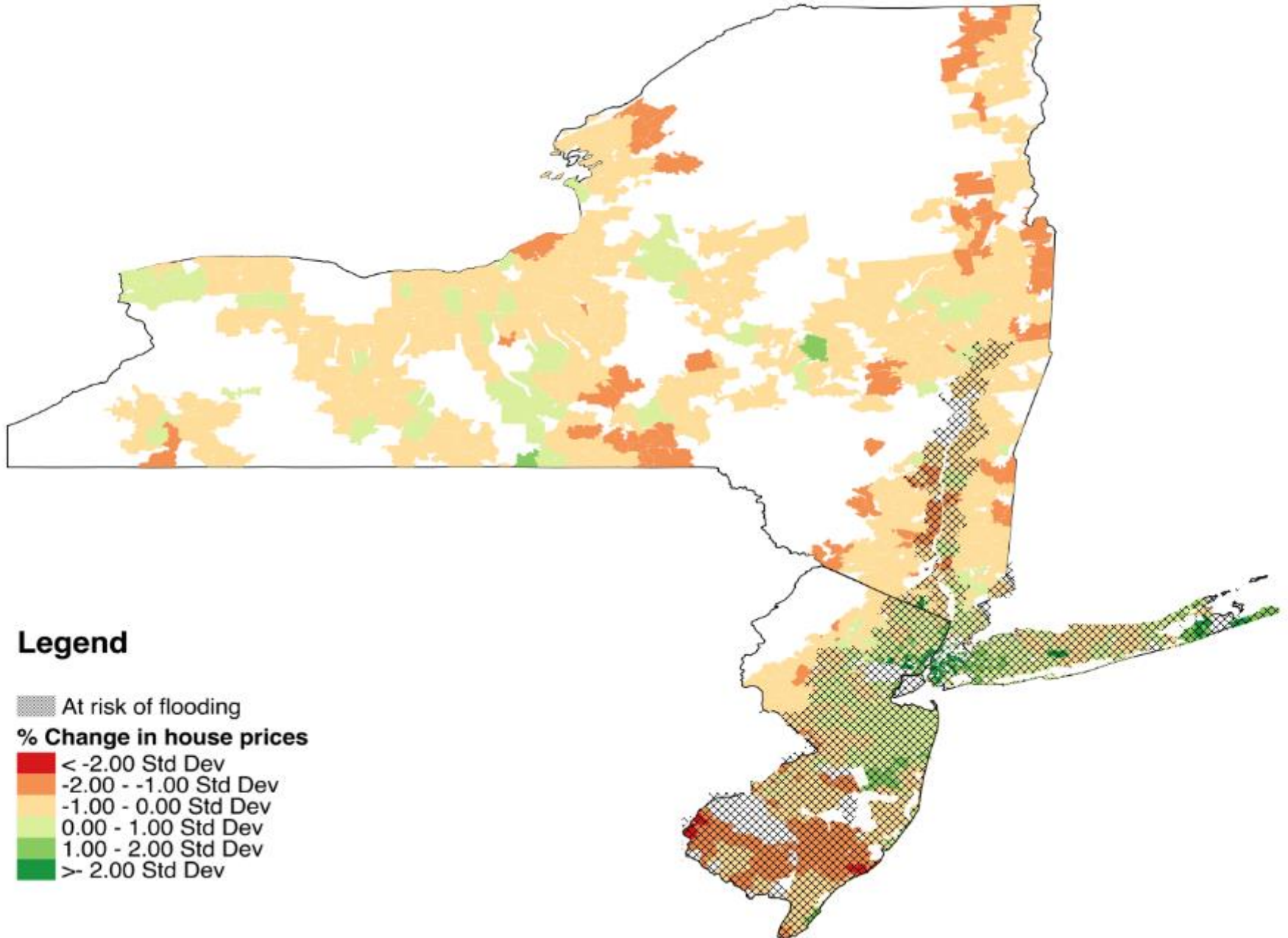
Southern New England

Legend

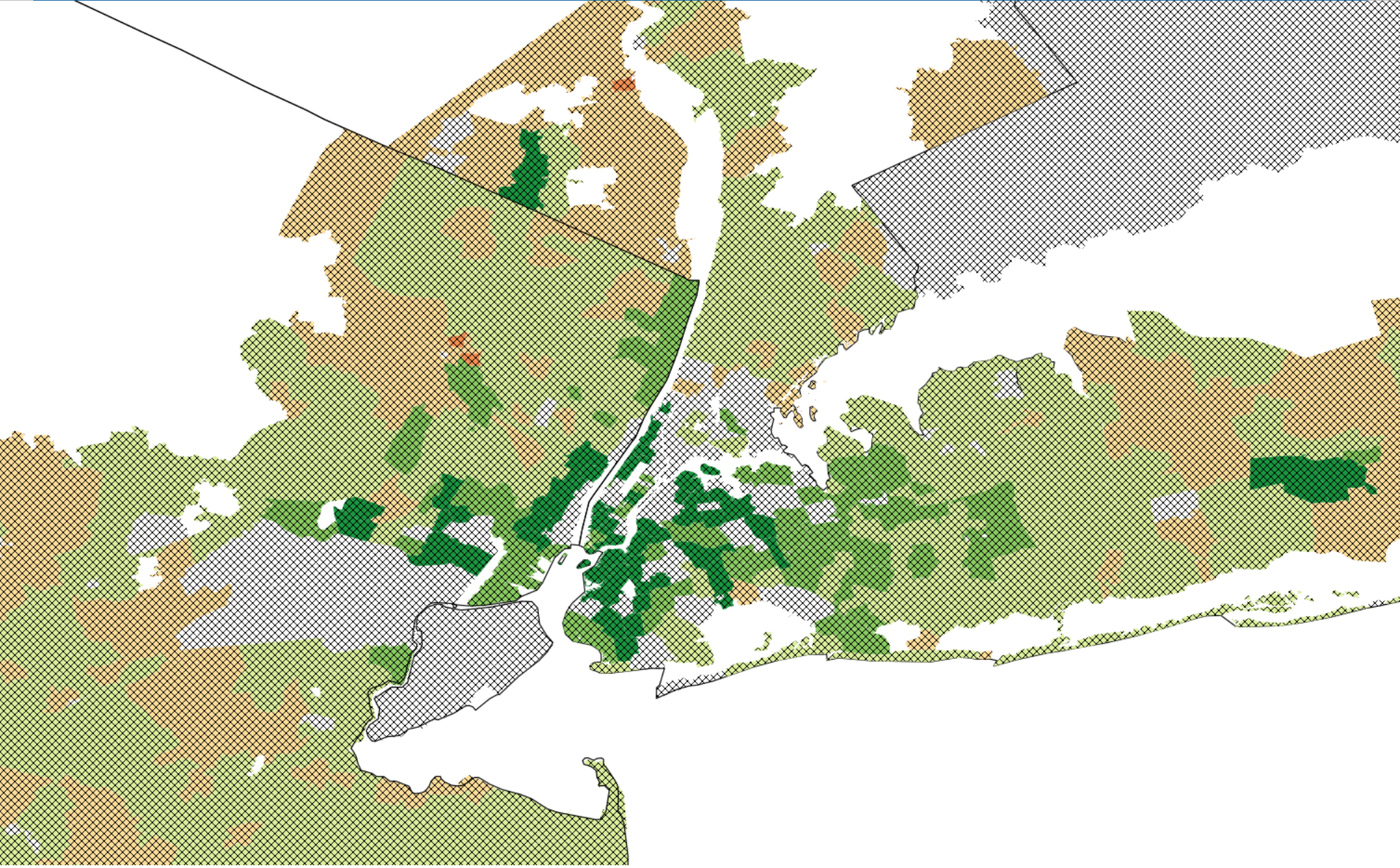
- At risk of flooding
- % Change in house prices**
 - < -2.00 Std Dev
 - 2.00 - -1.00 Std Dev
 - 1.00 - 0.00 Std Dev
 - 0.00 - 1.00 Std Dev
 - 1.00 - 2.00 Std Dev
 - > 2.00 Std Dev



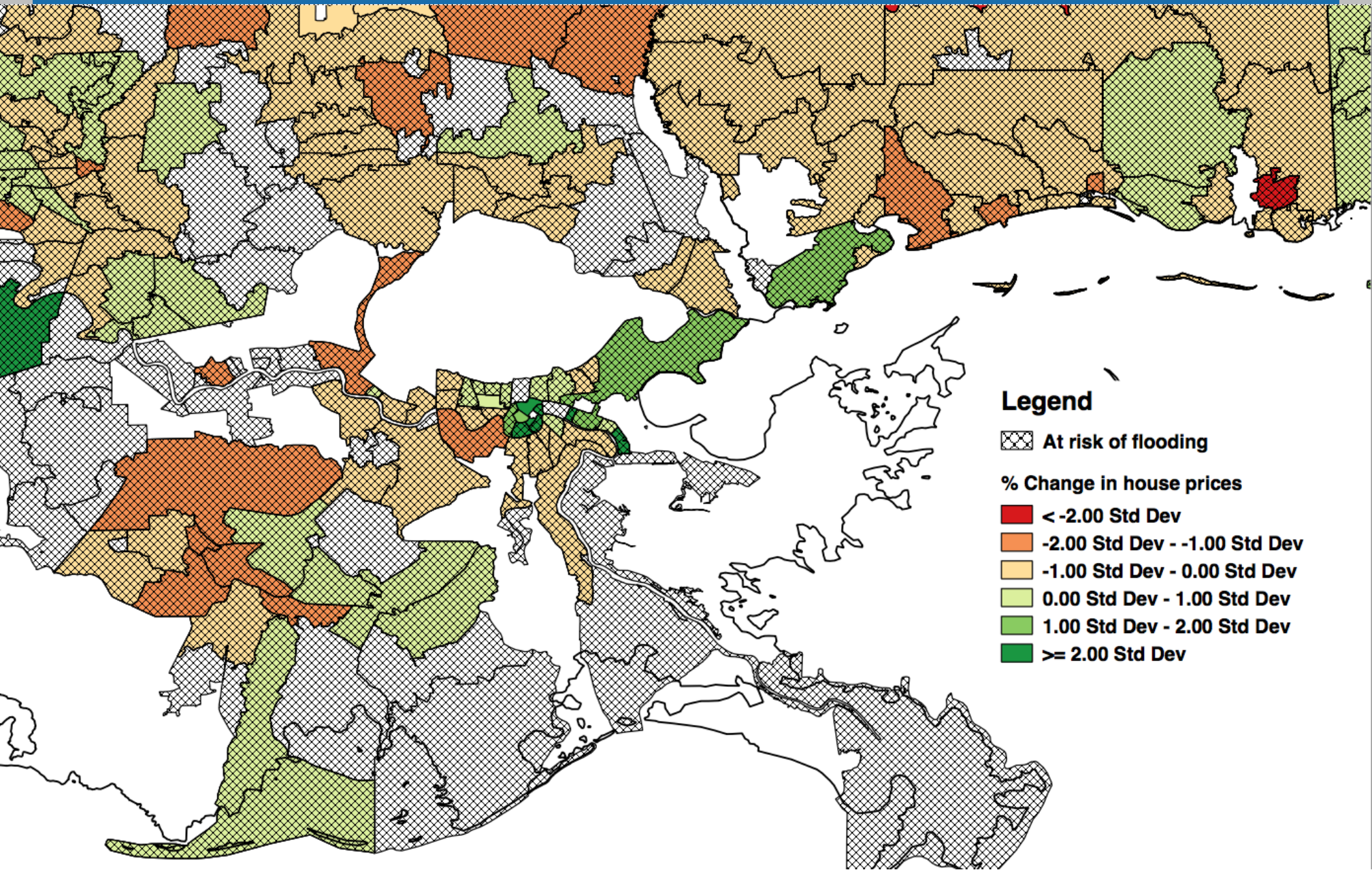
New York & New Jersey



New York City



New Orleans



Conclusions and Future Research

- Home prices are rising in large cities, with little relationship to risk of flooding
- Even locations where Hurricane Sandy hit hard appear to have recovered or hit new peaks in home prices
- Mixed pattern in vacation markets at highest risk of flooding
 - Slow price increases in Cape Cod and Southern CA, but fast appreciation in Florida Gold Coast and the Hamptons
- More research needed as to what factors might drive home buyers to consider environmental factors (e.g., Politics in redoing FEMA flood maps, even in NYC post-Sandy and New Orleans post-Katrina)

FEMA Maps Narrow Potential Flooding Zones...

AROUND THE NATION

New Maps Label Much Of New Orleans Out Of Flood Hazard Area

September 30, 2016 · 4:43 PM ET

Heard on [All Things Considered](#)

Mayor De Blasio and FEMA Announce Plan to Revise NYC's Flood Maps

Release date: October 17, 2016

Release Number: NR-007

New revision will lead to improved flood maps with both current risk and future climate conditions

New Yorkers will save tens of millions of dollars in flood insurance premiums as a result of City's flood map appeal

NEW YORK – Mayor Bill de Blasio and the Federal Emergency Management Agency (FEMA) today announced an agreement to revise New York City's flood maps. This is the result of the de Blasio administration's 2015 appeal of FEMA's flood risk calculations for New York City and the region, which mapped 35,000 more homes and buildings across the city into highest flood risk areas.

FEMA's flood maps require homeowners in the highest flood risk areas to purchase flood insurance to cover the cost of flood damage, if they have a mortgage. Revised flood maps will provide New York City residents with more precise *current* flood risk data, in addition to providing a new map product reflecting future conditions that account for climate change. The innovative revisions will assist New York City in making coastlines more resilient and climate-ready, while ensuring homeowners are not required to purchase more insurance than their current flood risk requires.