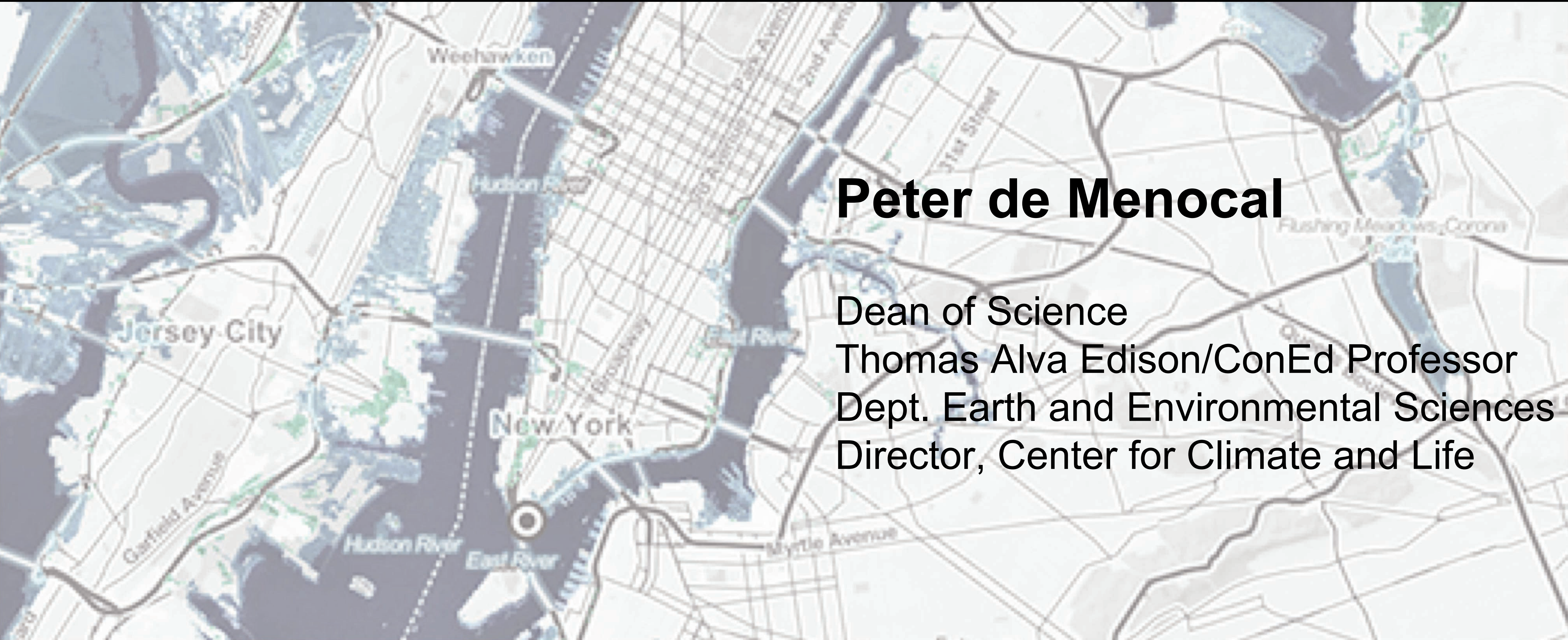


# Climate Science & Investment

## Ice Sheets, Sea Level Rise and Coastal Property



**Peter de Menocal**

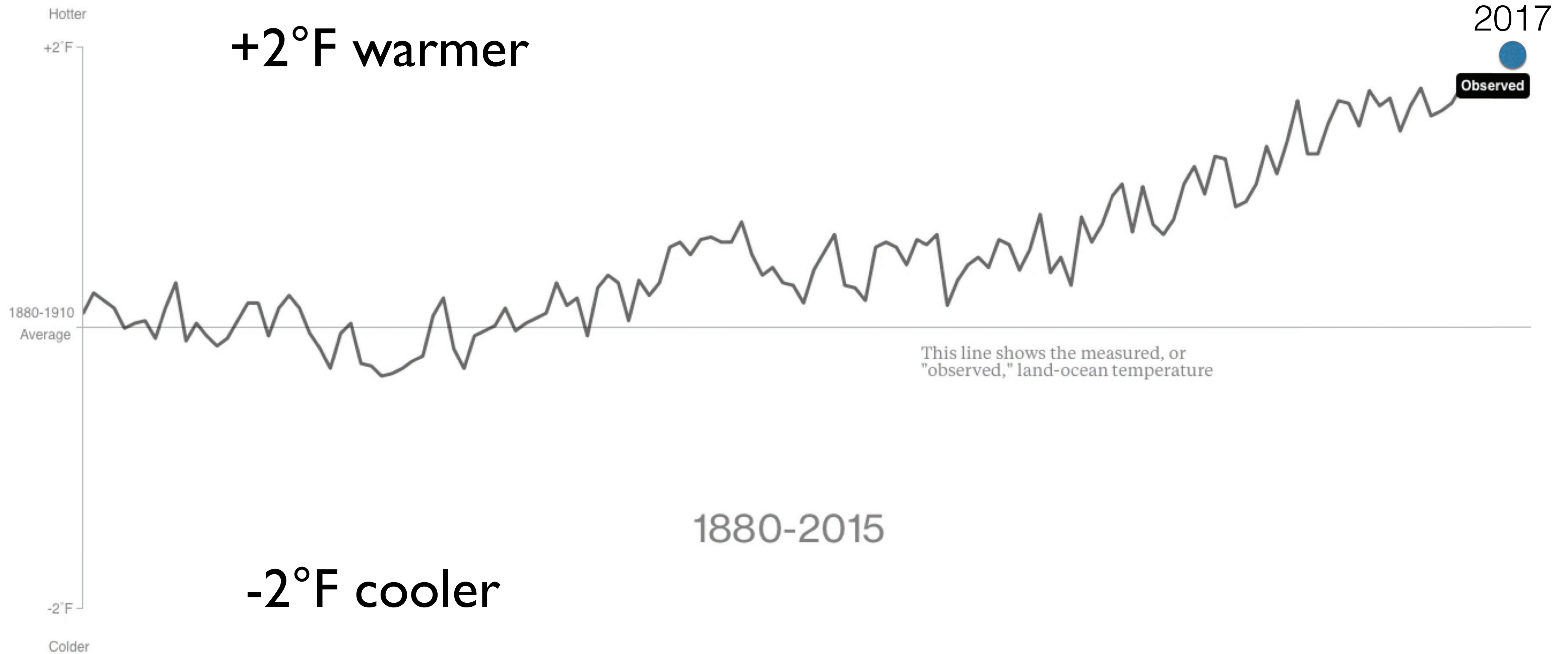
Dean of Science

Thomas Alva Edison/ConEd Professor


Dept. Earth and Environmental Sciences

Director, Center for Climate and Life

# Why is climate changing?



# Why this matters



Center for  
Climate and Life

Addressing Global Challenges

**Climate impacts life's essentials**

**Food**

**Water**

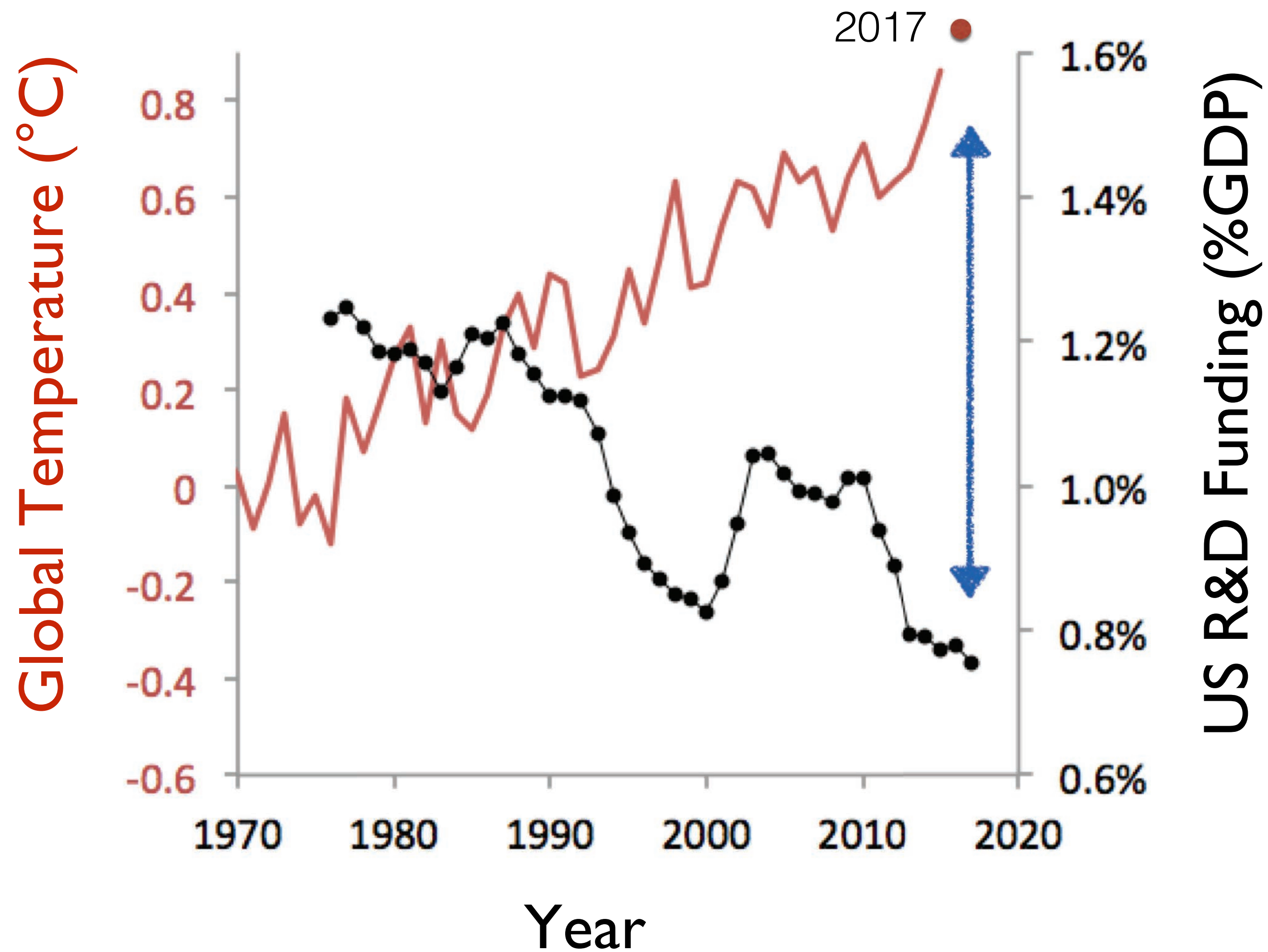
**Shelter**

**Energy**

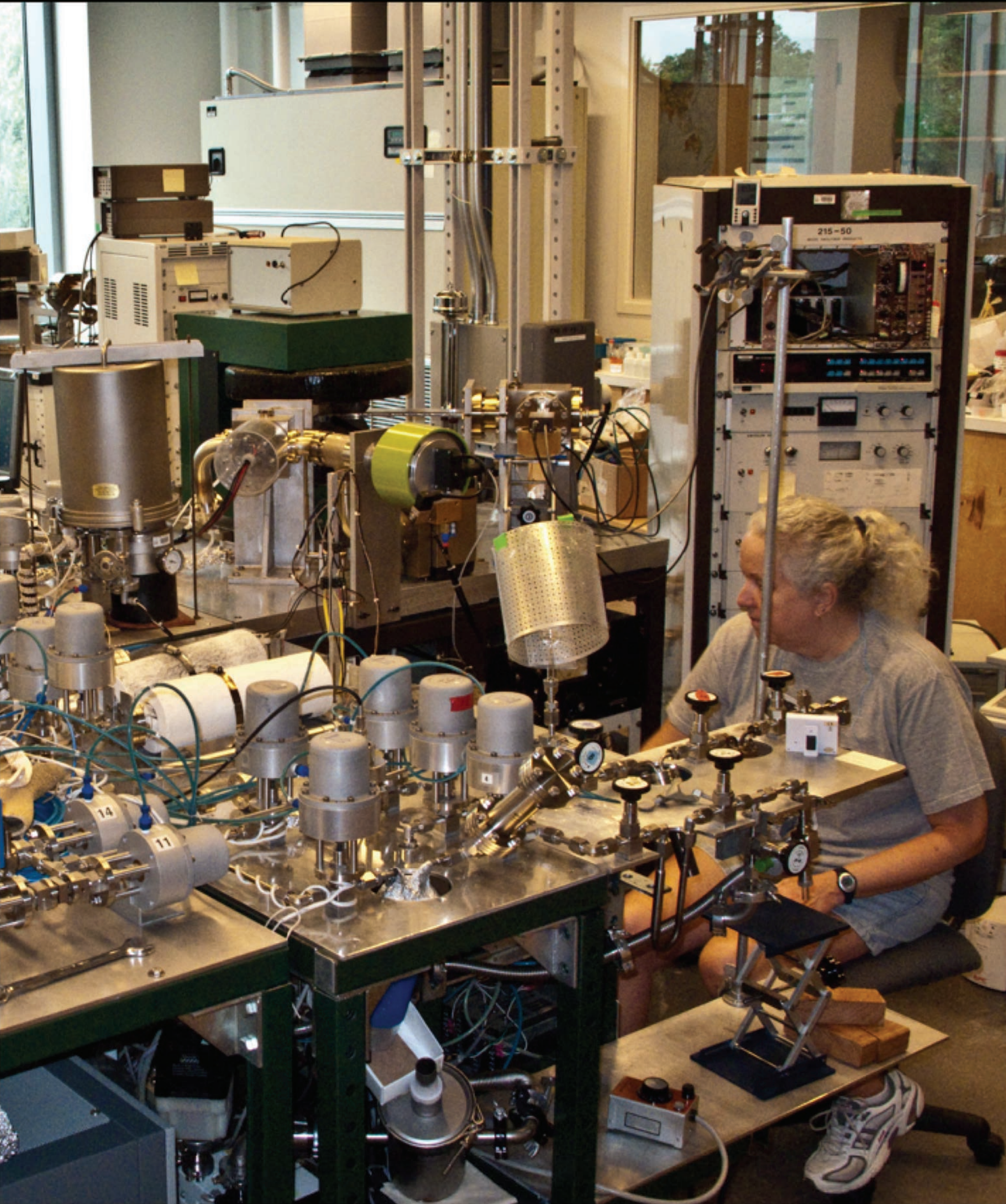
**Health**

**& the economy**

# The Challenge – Science Funding Gap



# Our Solution



## **New Science Delivery Model**

- *problems* people care about
- *places* they care about
- *timescales* they care about

## **Engage Business & Philanthropy**

- Support urgent science
- Put it to work.

# Why Columbia ?

Top Earth Science program

120 Climate PhDs

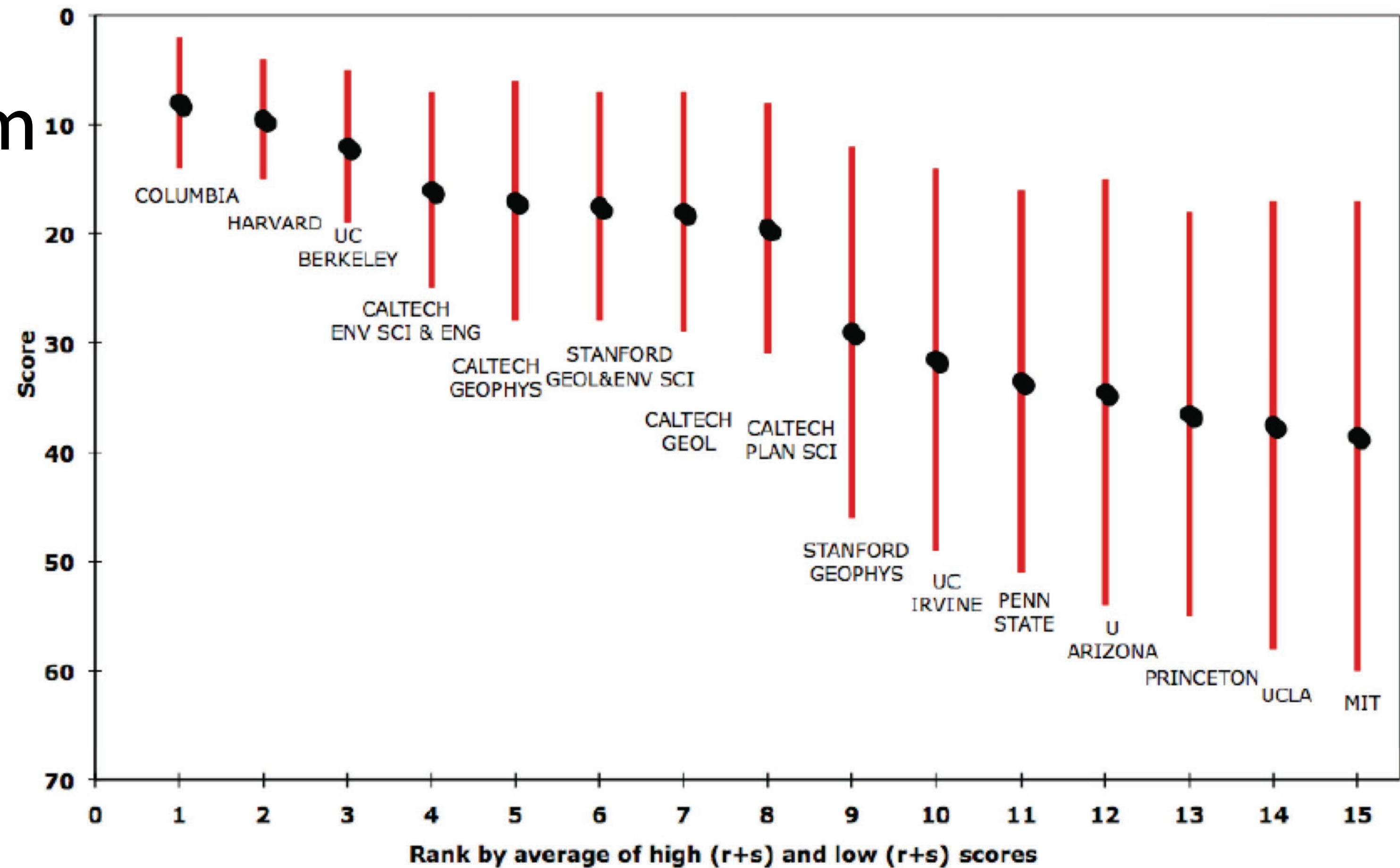
Earth Institute

NYC Business hub

Columbia



## 2010 NRC Ranking



# Science can inform Business Risk

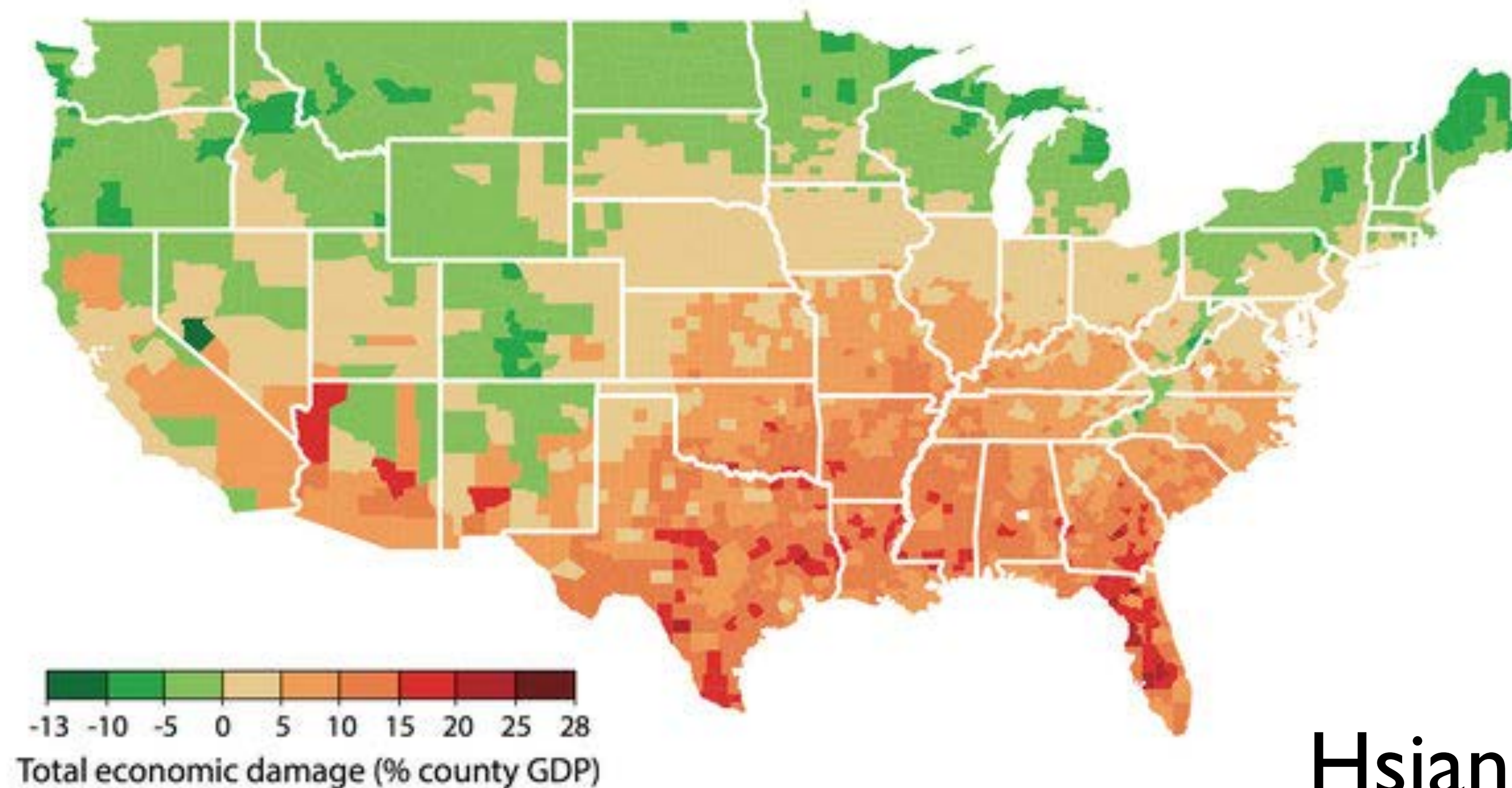


# What Business risk ?

\$600 billion/yr loss by 2100

## Climate-related Loss

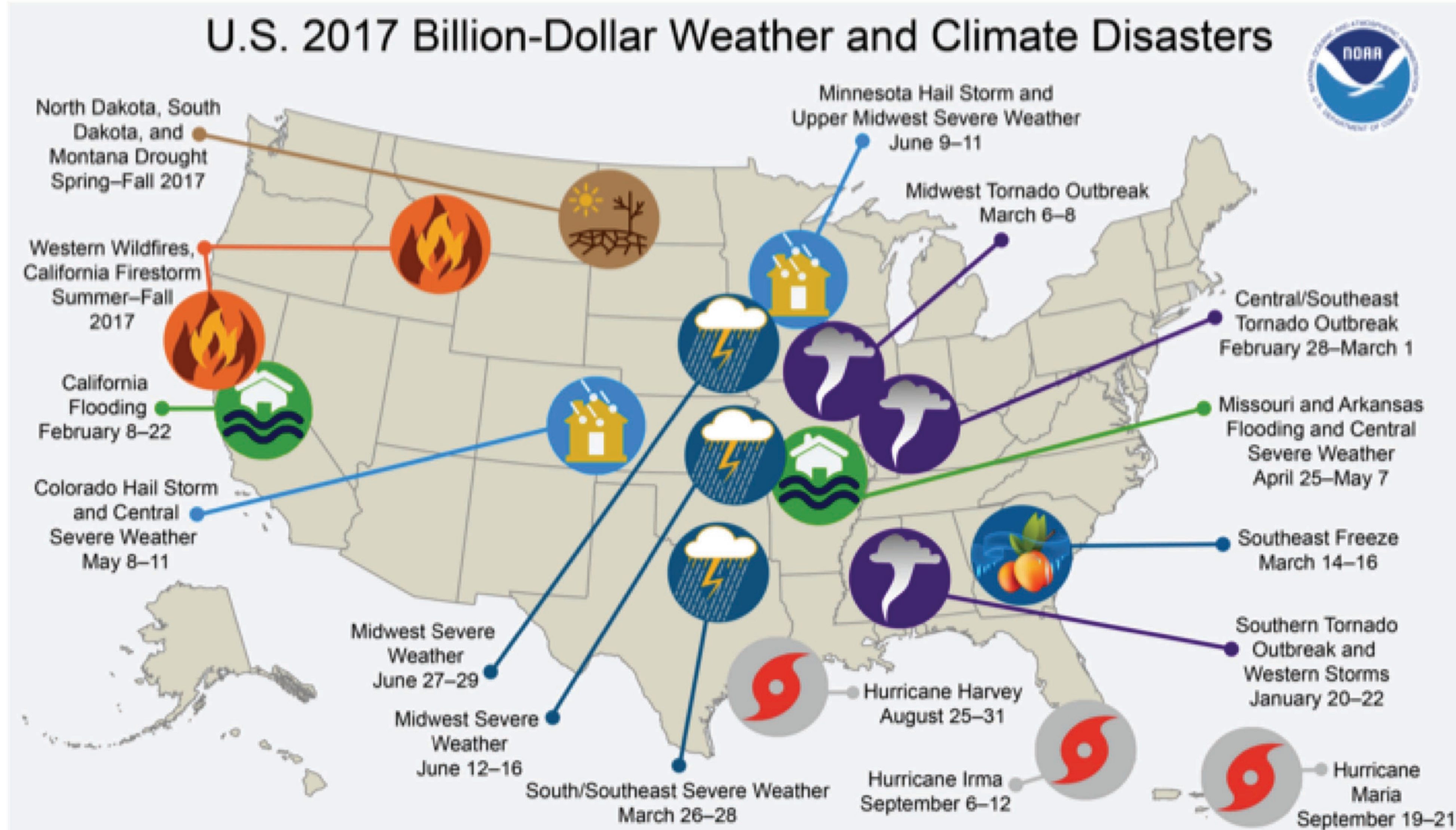
Labor  
Crime  
Agriculture  
Mortality  
Electricity  
Property



Hsiang et al., 2017



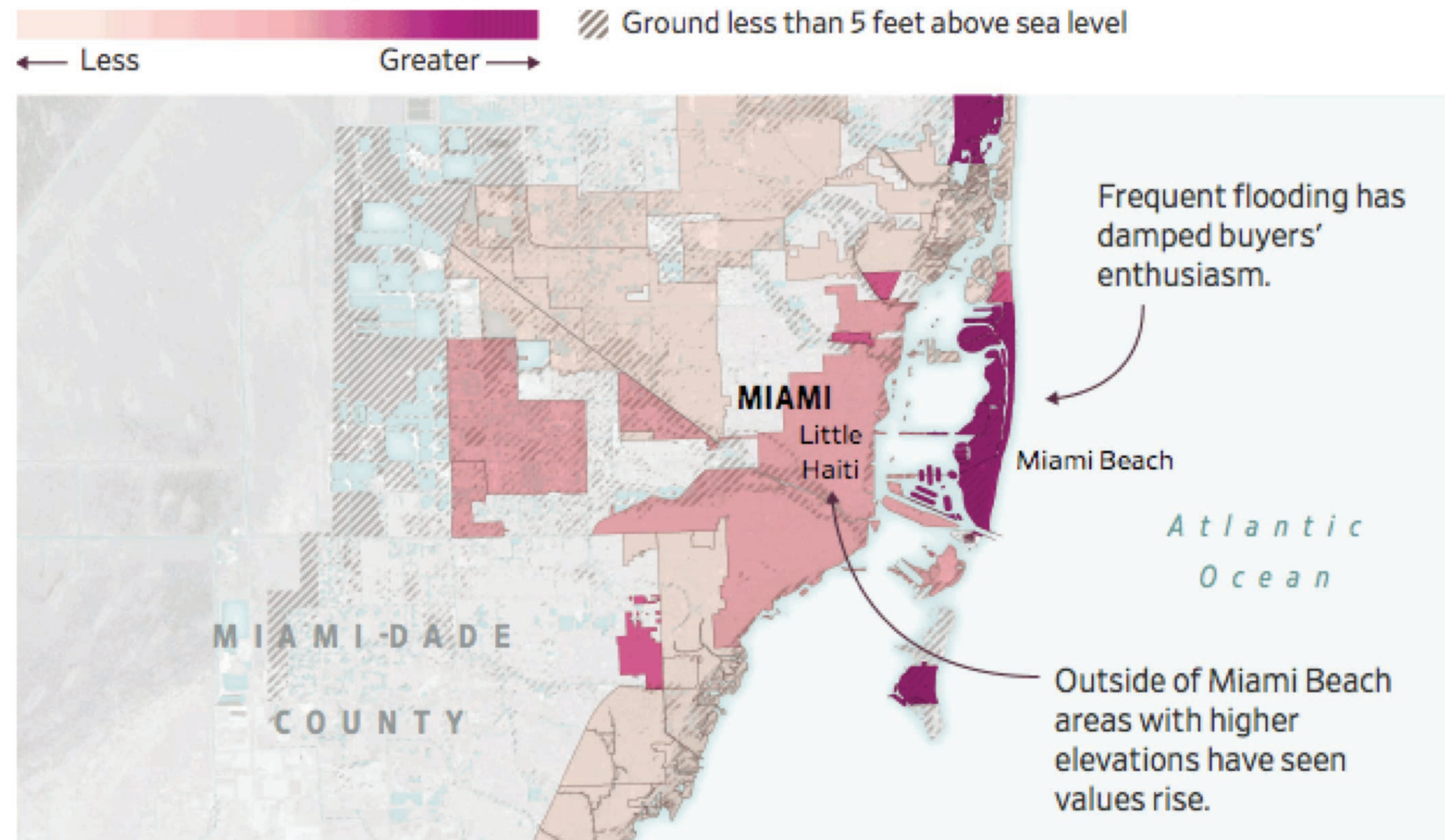
# \$300 billion loss in 2017



This map denotes the approximate location for each of the 16 billion-dollar weather and climate disasters that impacted the United States during 2017.

# Miami - low elevation homes discounted

Effect of elevation on price appreciation

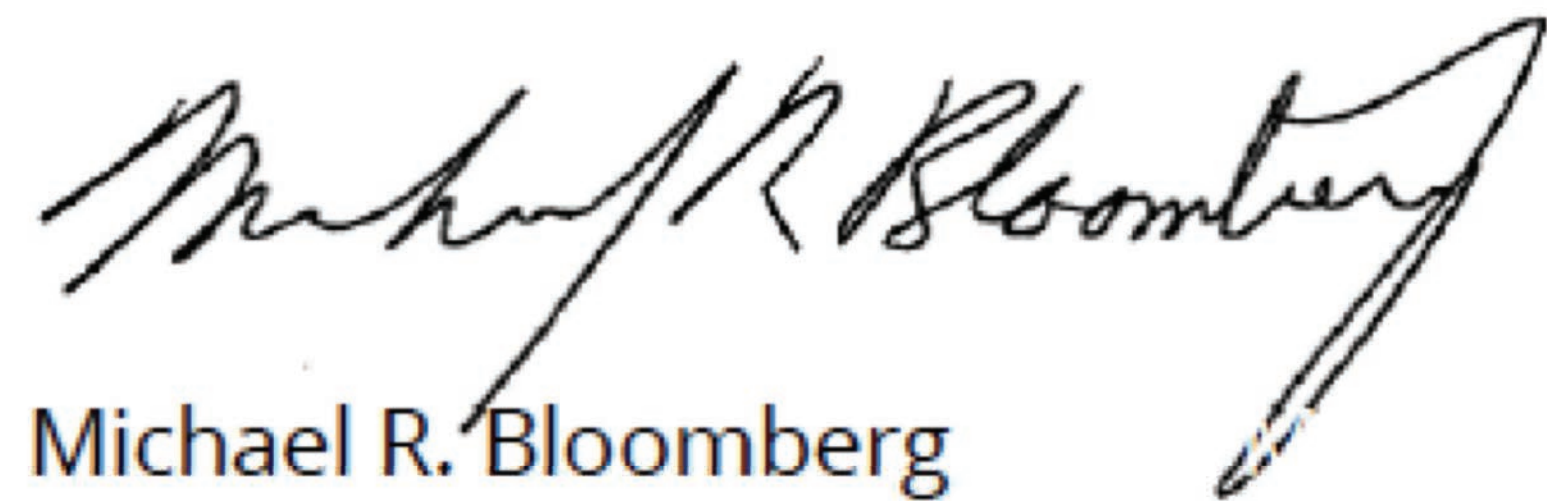


“Concerns over rising sea levels and floods are beginning to reshape one of the country’s largest housing markets, with properties closer to sea level now trading at discounts to those at higher elevations.” **WSJ, April 20, 2018**

# Science and Business should work together

The risk climate change poses to businesses and financial markets is real and already present. It is more important than ever that businesses lead in understanding and responding to these risks—and seizing the opportunities—to build a stronger, more resilient, and sustainable global economy.

Sincerely,

A handwritten signature in black ink that reads "Michael R. Bloomberg". The signature is fluid and cursive, with a long, sweeping tail on the final letter.

Michael R. Bloomberg

2017 Task Force on Climate-Related Financial Disclosures

# Our Scientists



**Prof. Robin Bell**  
Glaciologist



**Prof. Marco Tedesco**  
Glaciologist



**Prof. Radley Horton**  
Climate Scientist



# SHELTER

