



Seeing Climate, Seeing Change:
Communicating climate science in a changing media
landscape

Heidi Cullen - Climate Central
March 3, 2010

Outline

- [Public Perception & The Media
- [Seeing Climate, Seeing Change

Public Views on Global

The single strongest predictor of concern about global warming is:

Warming

- the belief that it's caused by human activity.



- August 2008 ABC News/Planet Green/Stanford Poll

Concern also is predicted by trust in what scientists say about the issue, belief that scientists agree, and the level of attention people are paying to global warming.

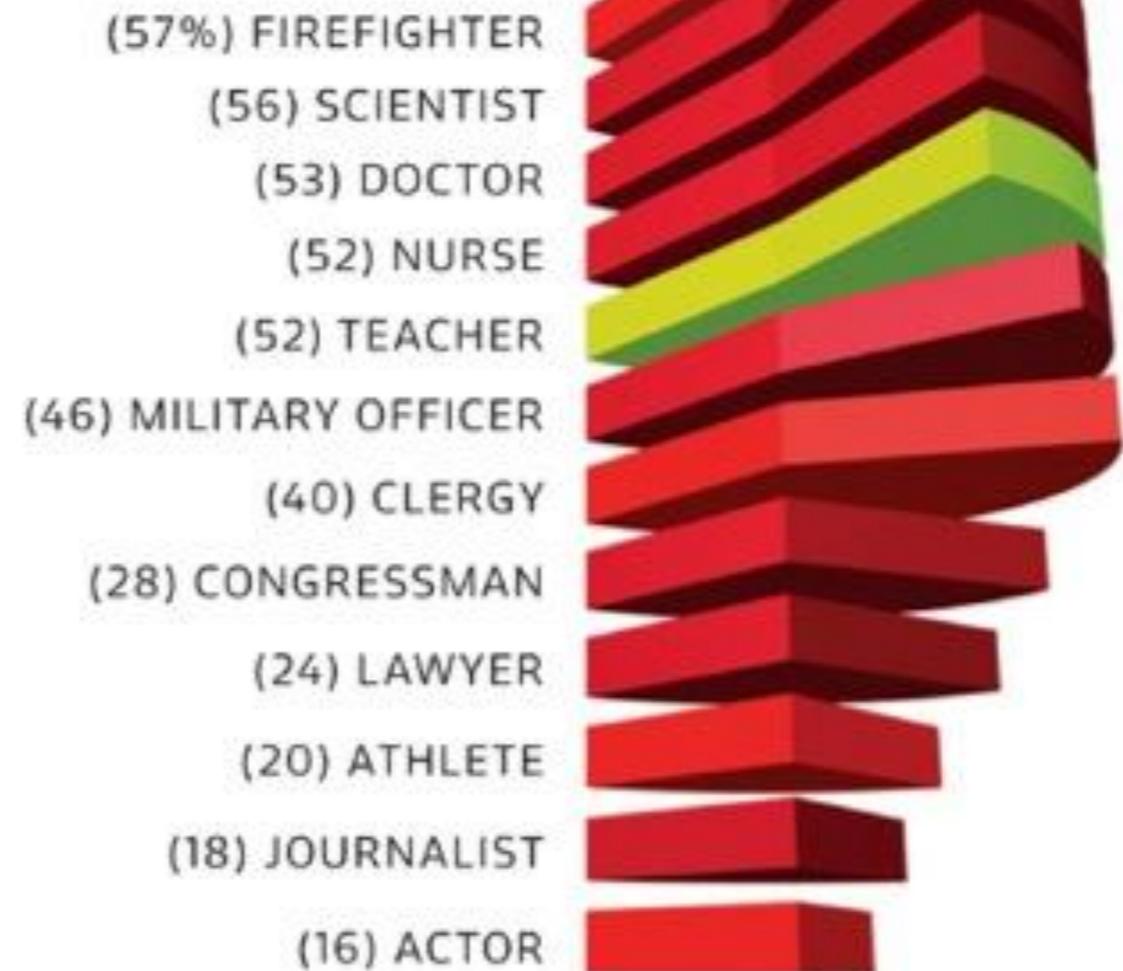
Trust

trust: *[truhst]* –noun

1. reliance on the integrity, strength, ability, surety, etc., of a person or thing; confidence.
2. confident expectation of something; hope.

CALLINGS

Proportion of respondents who attribute “very great prestige” to the following professions:



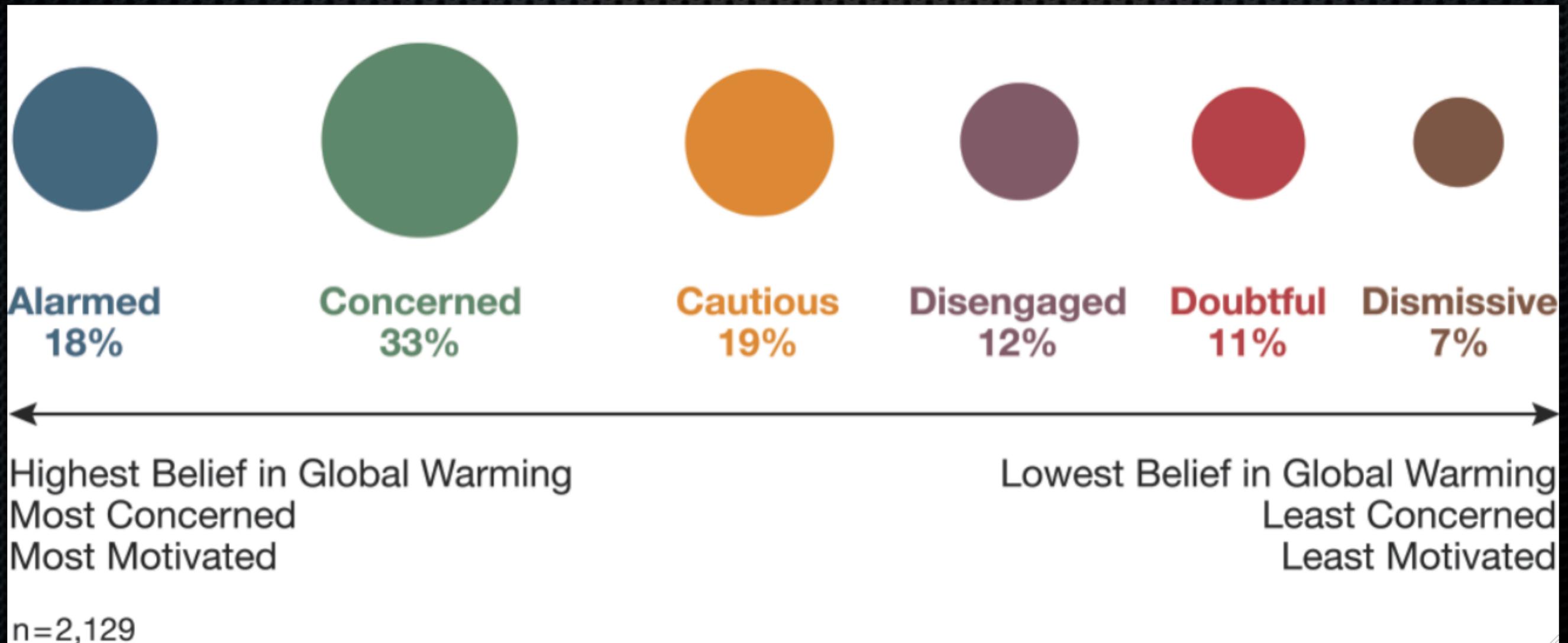
Source: The Harris Poll, July 2008

Chart by **ERIK DE GRAAFF** ArtEZ Academy
of Visual Arts, the Netherlands

Source: NYT Magazine, 9/21/08

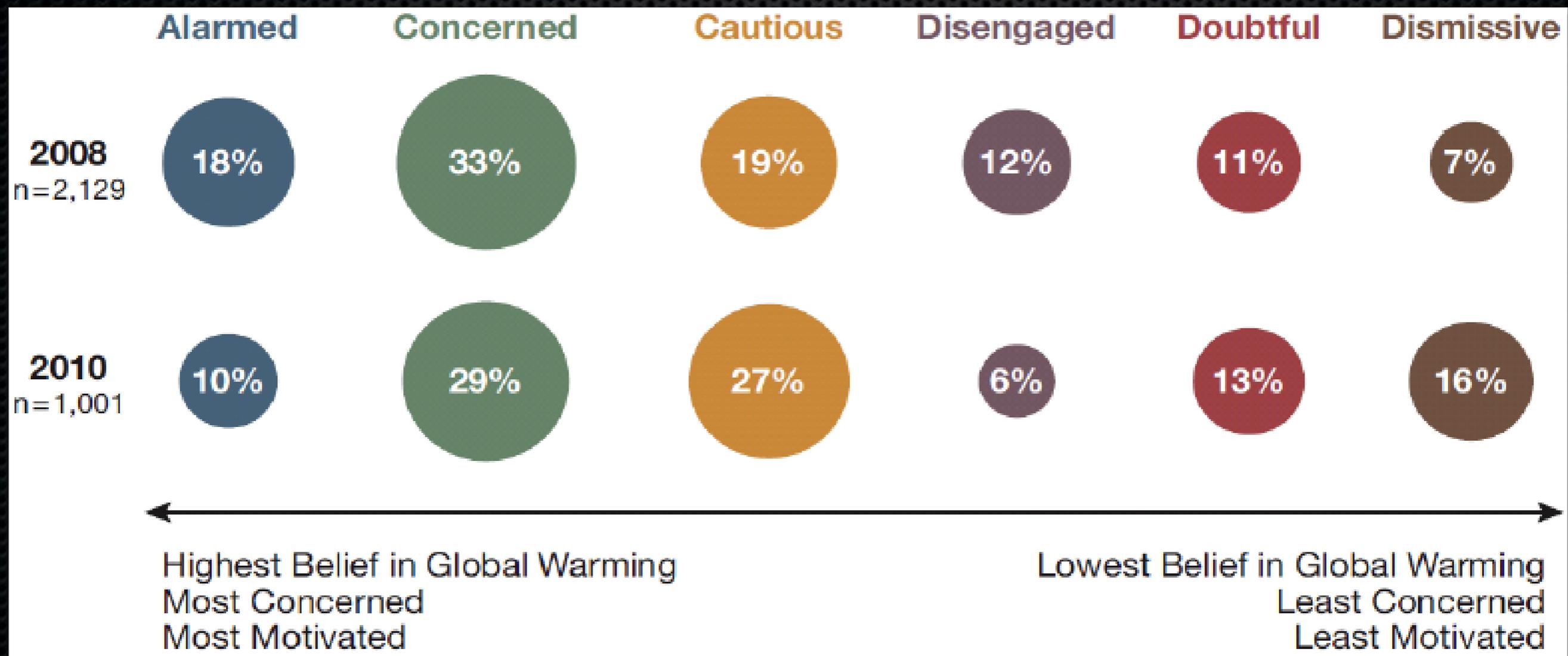
Climate Change 2008: The 6 America's.

- Nationally representative survey of 2,129 American adults in the fall of 2008.
- Size of the circles represent the proportion of the American public in each audience segment.
- The "6 Americas" fall on a scale from extremely sure to unsure that global warming is happening, with the majority somewhat to very sure that it is occurring

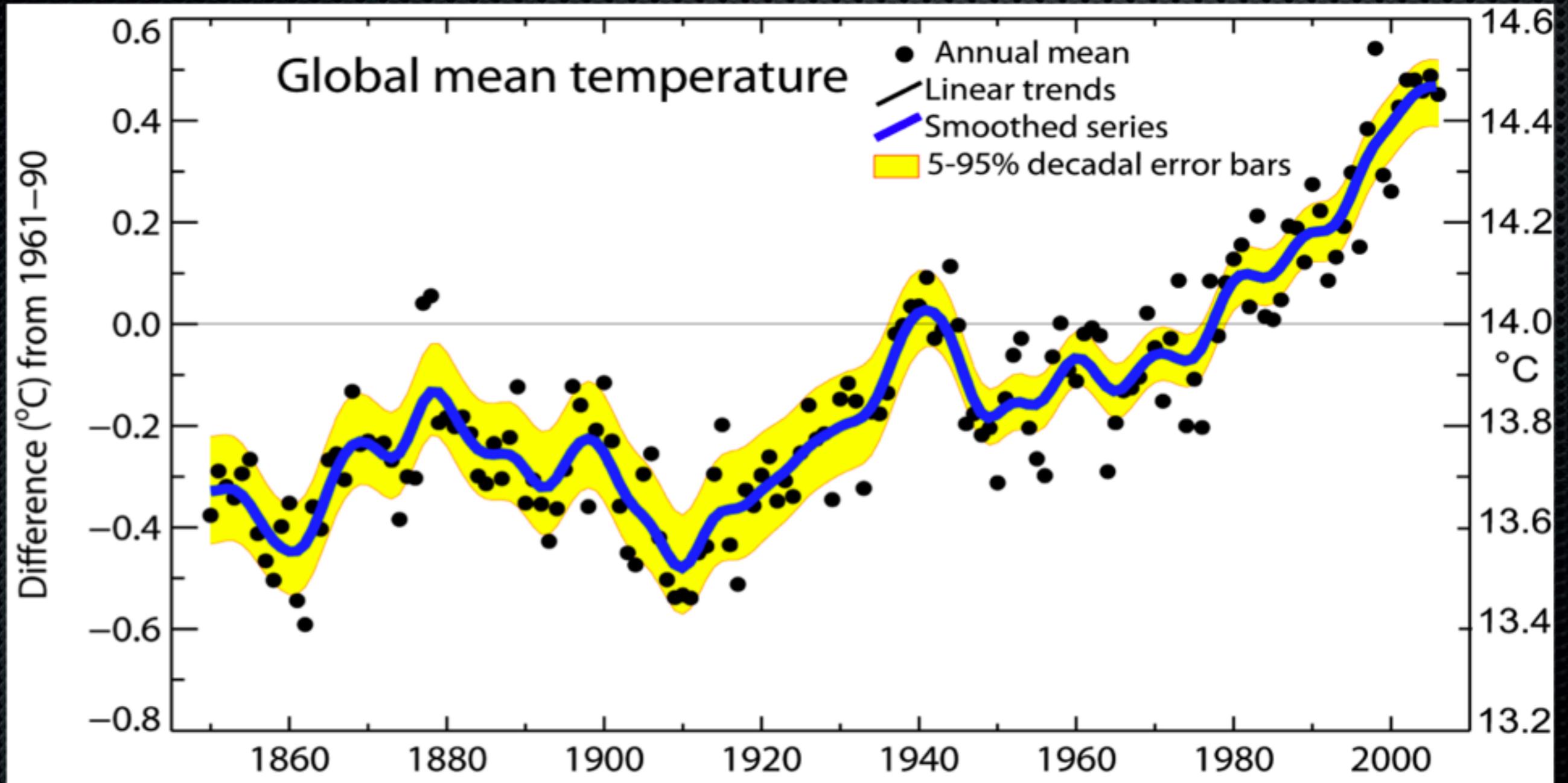


Climate Change 2010: The 6 America's.

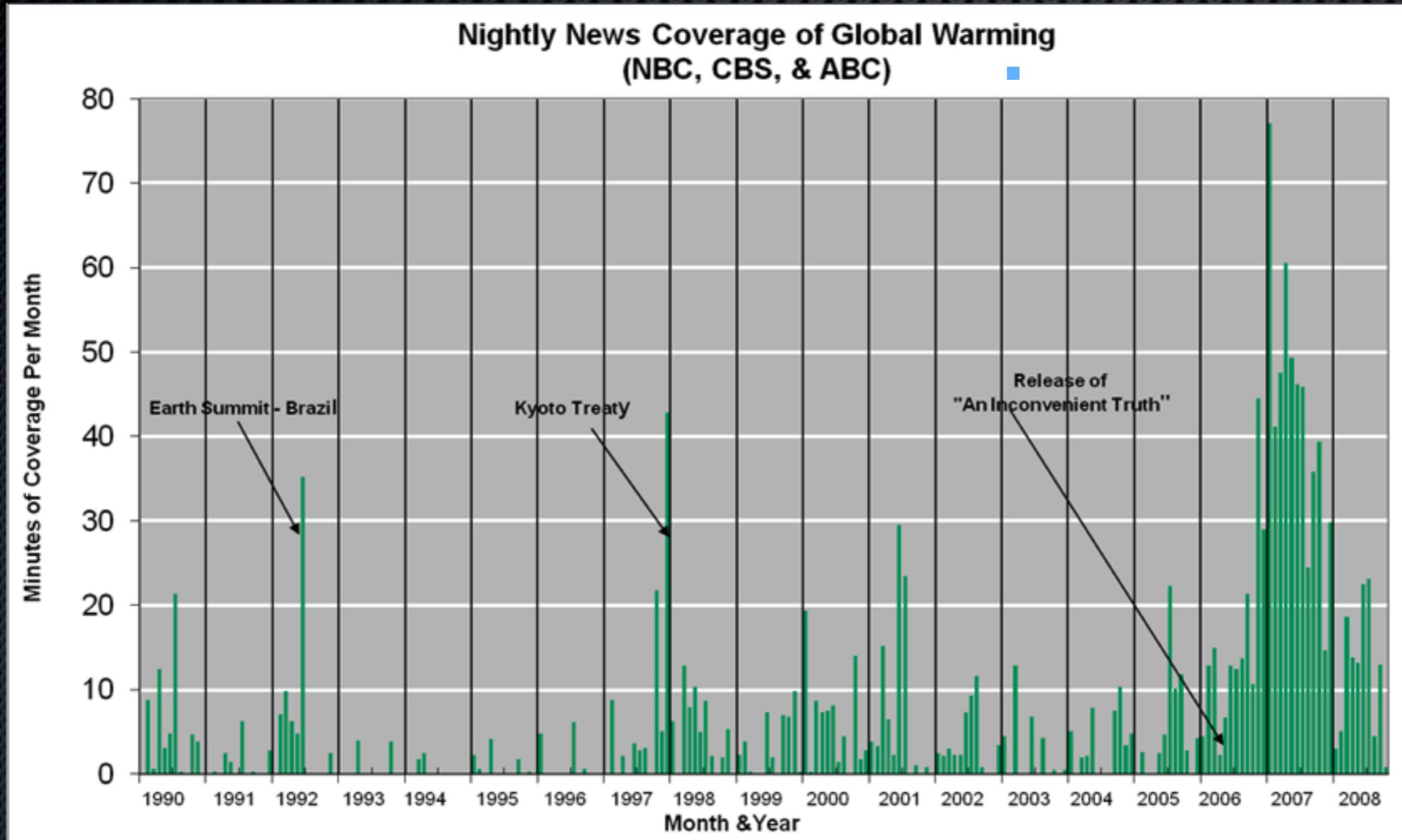
- Nationally representative survey of 2,129 American adults in the fall of 2008.
- Size of the circles represent the proportion of the American public in each audience segment.
- The "6 Americas" fall on a scale from extremely sure to unsure that global warming is happening, with the majority somewhat to very sure that it is occurring



Global warming is a trend.



Media Coverage is a cycle



The media landscape is a mess.

Unpopular Science

by CHRIS MOONEY & SHERIL KIRSHENBAUM

THE
Nation.

July 29, 2009

This article appeared in the August 17, 2009 edition of The Nation.

For twenty-three years Sabin Russell worked at the *San Francisco Chronicle*. A top medical writer specializing in global health and infectious diseases, Russell covered subjects ranging from bioterror threats to the risk of avian flu and traveled throughout Africa to report on the AIDS epidemic. He won numerous accolades, including a 2001 Science in Society Journalism Award from the National Association of Science Writers for his reporting on the flaws of the flu vaccine industry.

Then came March 30, 2009—his last day on the job. Russell was at MIT, on leave from his paper for a fellowship. The struggling *Chronicle* had been cutting staff



This is the way my career ends. This the way my career ends. Not with a bang, but a Twitter.

4:44 PM Mar 30th from web



Sabinwiki
Sabin Russell

OP-ED CONTRIBUTOR

News You Can Endow

By DAVID SWENSEN and MICHAEL SCHMIDT
Published: January 27, 2009

New Haven

The New York Times

[Enlarge This Image](#)



“THE basis of our governments being the opinion of the people, the very first object should be to keep that right,” Thomas Jefferson wrote in January 1787. “And were it left to me to decide whether we should have a government without newspapers or newspapers without a government, I should not

HOME / PRESS BOX : MEDIA CRITICISM.

Slate

Nonprofit Journalism Comes at a Cost

The downside of nonprofit news organizations like MinnPost, Voice of San Diego, and the Washington Independent.

By Jack Shafer

Posted Wednesday, Sept. 30, 2009, at 7:12 PM ET



The nonprofit news business—if that isn't a contradiction in terms—is spreading like a midsummer algae bloom.

Philanthropists, who in different times would have endowed a seat at a university or contributed to a new research wing at a hospital or established yet another museum of modern art, have turned to funding new, nonprofit journalism outlets. Herbert and Marion Sandler poured the financial foundation for ProPublica two years ago.

Where do Americans get their news?

- Local News: 78%
- Network News: 73%
- Internet: 61%
- Radio: 54%
- Local Newspapers: 50%
- National Newspapers: 17%



Pew Internet and American Life Center (March 1, 2010): <http://www.journalism.org/node/19537>

What do we want to read about?

Independents have a different wishlist for news coverage

% who say they would appreciate more coverage of these subjects

	Republicans	Democrats	Independents
Scientific news	42	44	49*
Health and medicine	30	38*	45*
My neighborhood	36	35	42
U.S. domestic policy	31	33	38*
International news	27	33	35

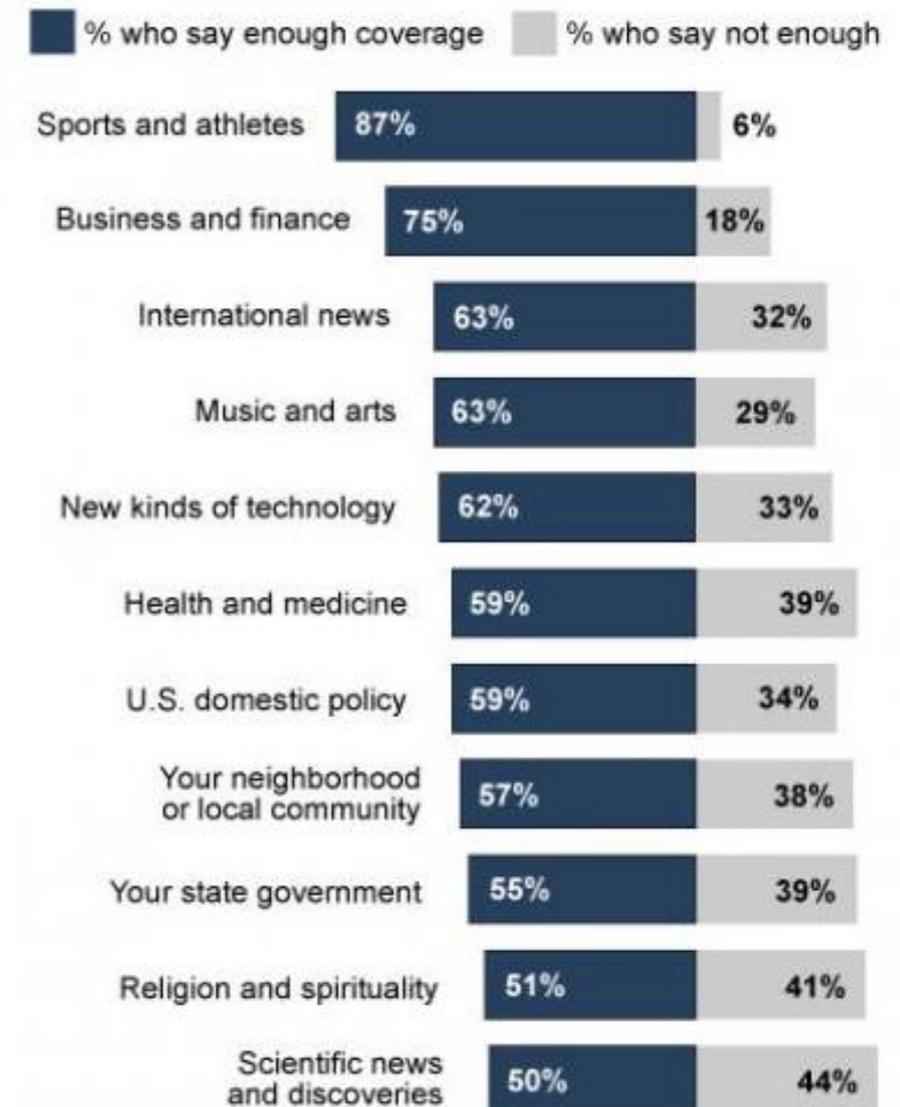
* indicates a significant difference.

Source: PRC-Internet & American Life Project and PRC-Project for Excellence in Journalism Online News Survey - December 28, 2009-January 19, 2010. N=2,259. Margin of error is +/- 2 percentage points.



The topics that get enough attention—and those that don't

"Is there enough coverage of this topic?"



Source: PRC-Internet & American Life Project and PRC-Project for Excellence in Journalism Online News Survey - December 28, 2009-January 19, 2010. N=2,259. Margin of error is +/- 2 percentage points.

Outline

- [Science, the Media & Public Perception
- [Seeing Climate, Seeing Change

Communicating Climate



1. Weather

statistics of extremes

2. Climate

past/present/future

3. Energy

solar/wind forecasts

— [How do you make climate...

— [visual?

— [compelling?

— [relevant?

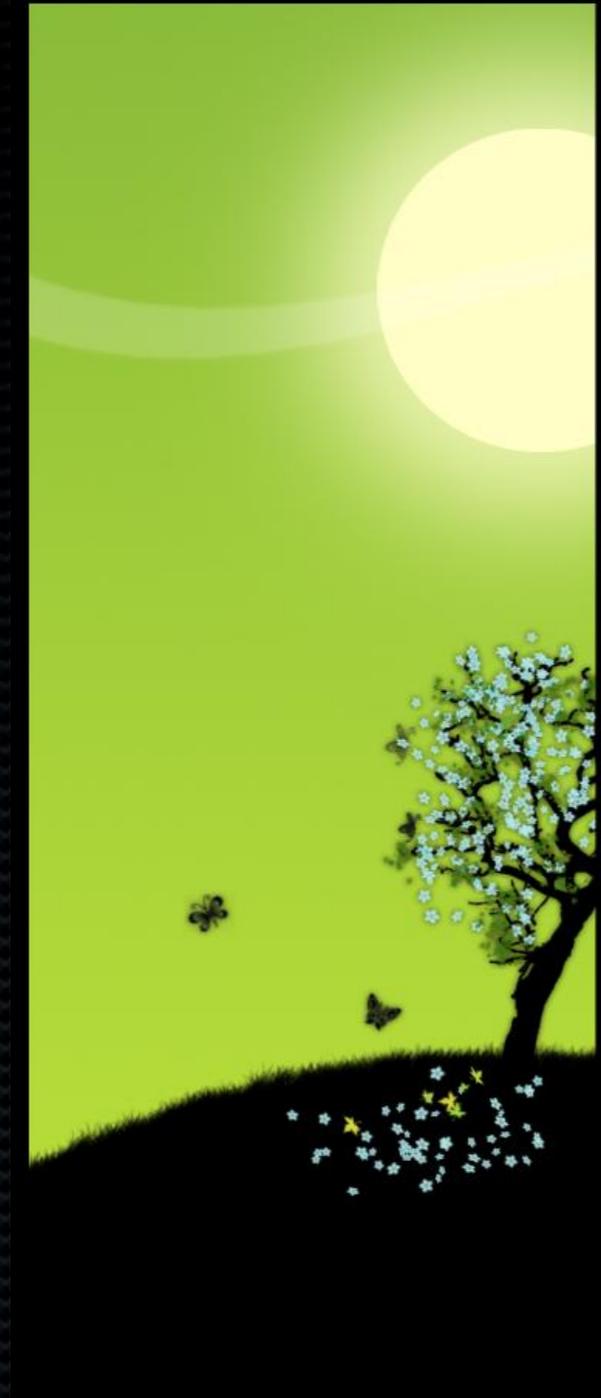
— [mainstream?

Climate coverage should aim to:

- Give weather events context, depth, and perspective
- Connect to other sectors - energy, business, national security
- Increase climate literacy
- Help keep people out of harm's way!

10 True Things about Climate:

1. The scientific community agrees on the following:
2. The observed warming is unequivocal and irreversible.
3. Weather extremes are increasing.
4. Climate models are important tools to study the future.
5. Future climate scenarios are CHOICES about emissions.
6. Weather is renewable energy (solar/wind forecasts).
7. The more CO₂ we emit, the warmer it gets.
8. Plant and animals species are on the move.
9. Emissions are currently tracking past highest trajectory.
10. NATURAL CLIMATE VARIABILITY IS STILL POWERFUL!



Part 1: Weather Extremes

Connecting Climate to Weather

Climate is what you expect, weather is what you get.

Ed Lorenz, MIT

Climate is what you affect, weather is what gets you.

Myles Allen, Oxford University

Part 1: Records Highs vs. Lows



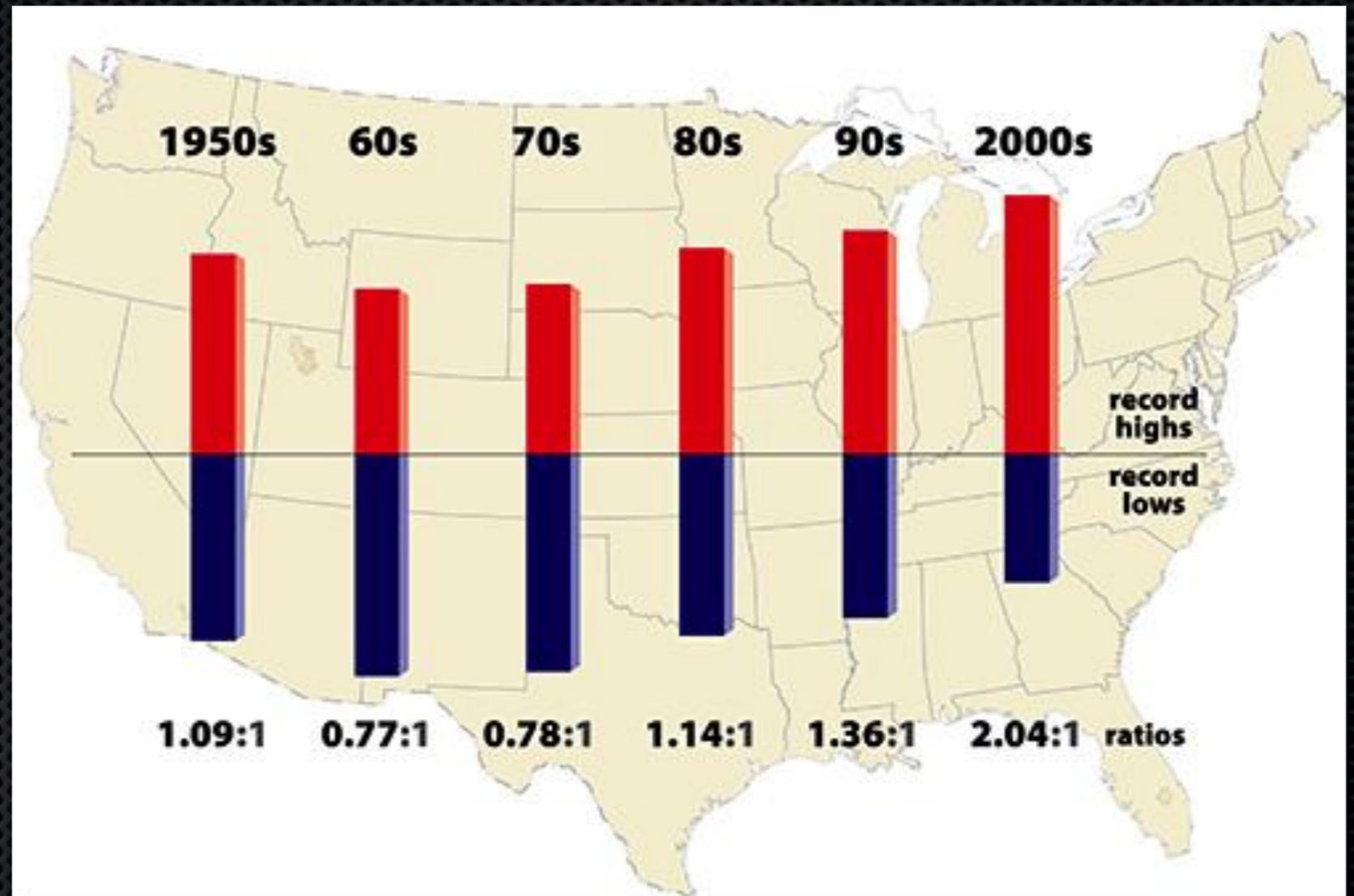
Part 1: Records Highs vs. Lows

— If temperatures were not warming, number of record daily highs and lows being set each year would be approximately even.

— Since Jan. 1, 2000: the continental US set 294,400 record highs and 146,914 record lows.

• Since Jan. 1, 2010: 431 record highs vs. 1,319 record lows.

• Business as Usual: US ratio of daily record high to record low temperatures would increase to about 20-to-1 by mid-century and 50-to-1 by 2100.



This graphic shows the ratio of record daily highs to record daily lows observed at about 1,800 weather stations in the 48 contiguous United States from January 1950 through September 2009. Each bar shows the proportion of record highs (red) to record lows (blue) for each decade. The 1960s and 1970s saw slightly more record daily lows than highs, but in the last 30 years record highs have increasingly predominated, with the ratio now about two-to-one for the 48 states as a whole.

[ENLARGE] (©UCAR, graphic by Mike Shibao.) News media terms of use*

Part 1: Shifting Number of Hot Days

forecast
earth

JULY HOT DAYS

CLIMATE CENTRAL

Atlanta

Max > 90°F



Max > 95°F



Max > 100°F



Minneapolis

Max > 90°F



Max > 95°F



Max > 100°F

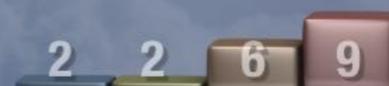


New York

Max > 90°F

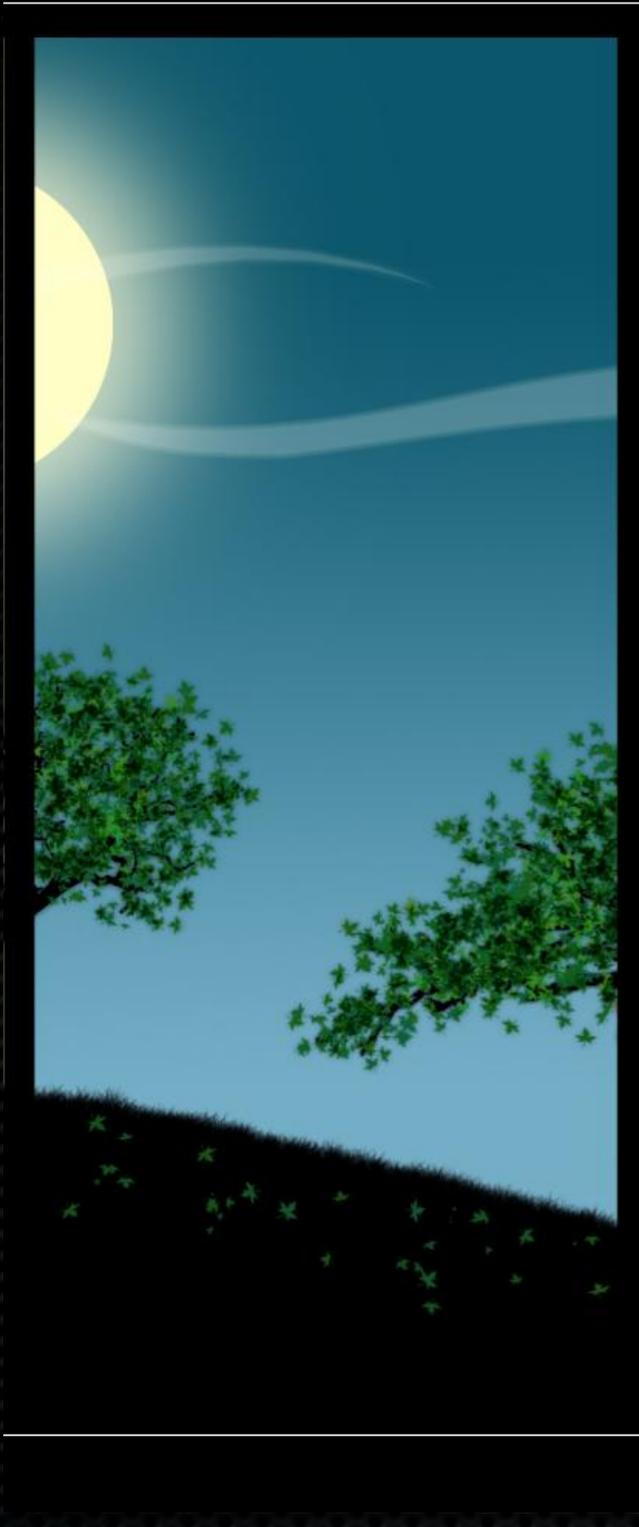


Max > 95°F



Max > 100°F





Part 2: Climate

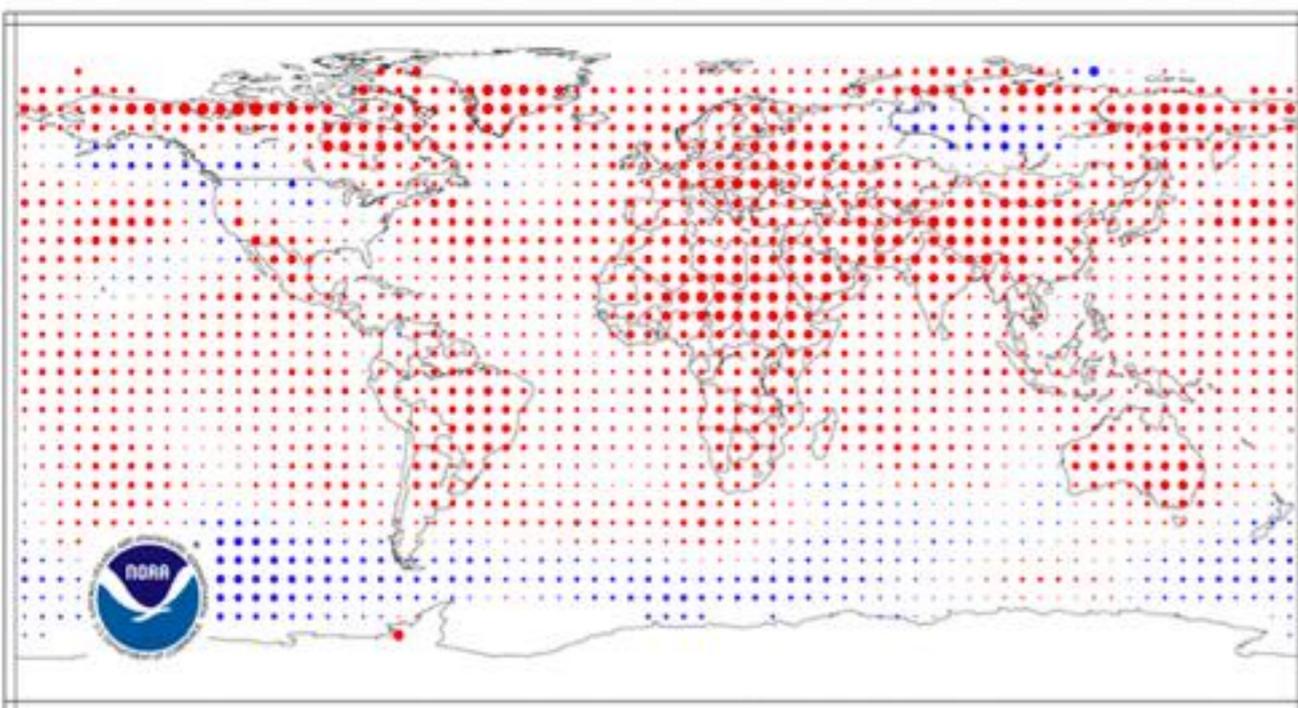
Part 2: Climate

2009: Observational Data

Temperature Anomalies Jan-Dec 2009

(with respect to a 1971-2000 base period)

National Climatic Data Center/NESDIS/NOAA



-5C -4C -3C -2C -1C 0C 1C 2C 3C 4C 5C

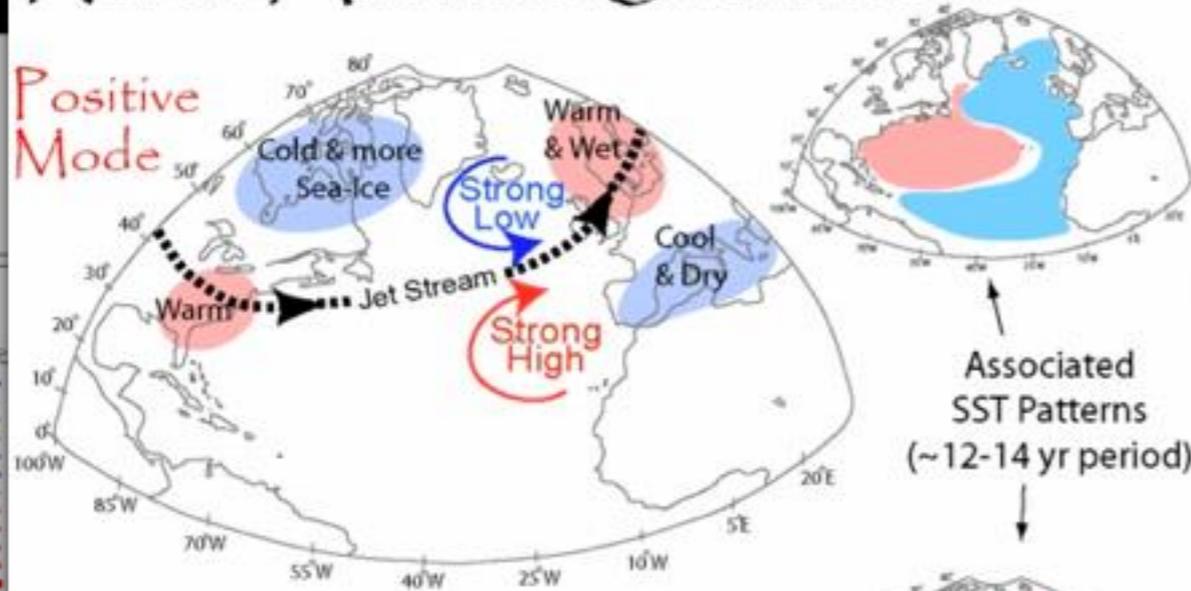
Degrees Celsius

Global Top 10 Warm Years (Jan-Dec)	Anomaly °C	Anomaly °F
2005	0.62	1.11
1998	0.60	1.08
2003	0.58	1.04
2002	0.57	1.03
2009	0.56	1.01
2006	0.56	1.01
2007	0.55	0.99
2004	0.54	0.97
2001	0.52	0.94
2008	0.48	0.86
1997	0.48	0.86

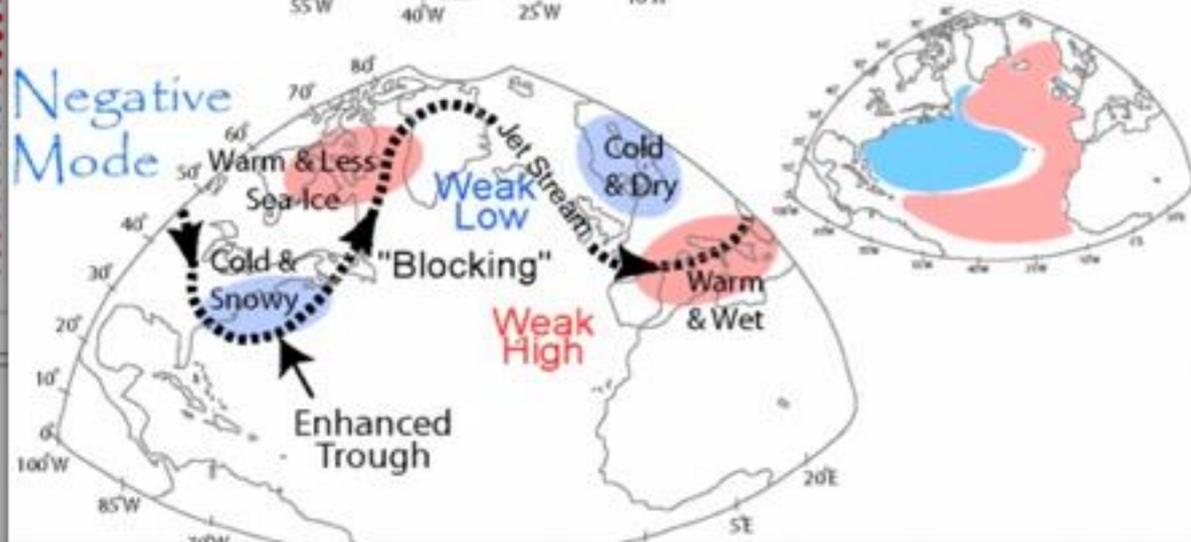
Part 2: Climate

North Atlantic Oscillation

Positive Mode

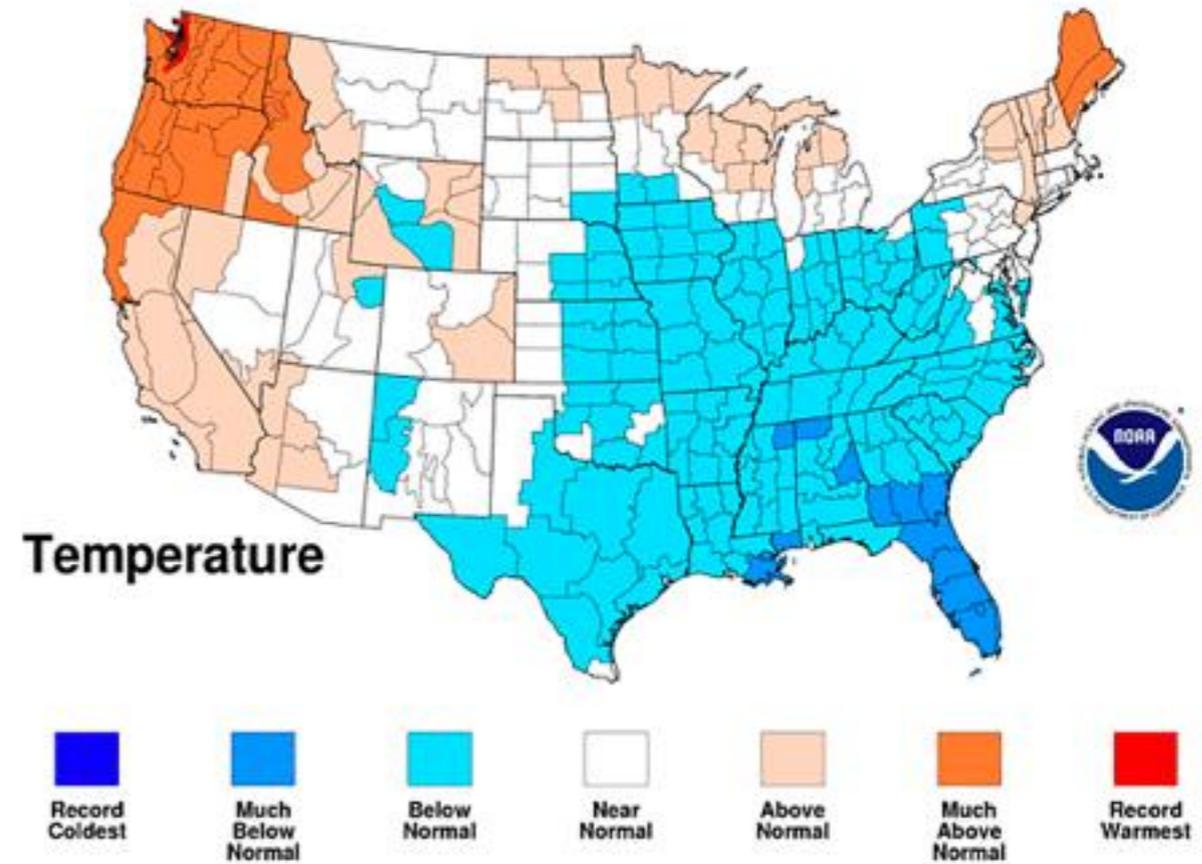


Negative Mode

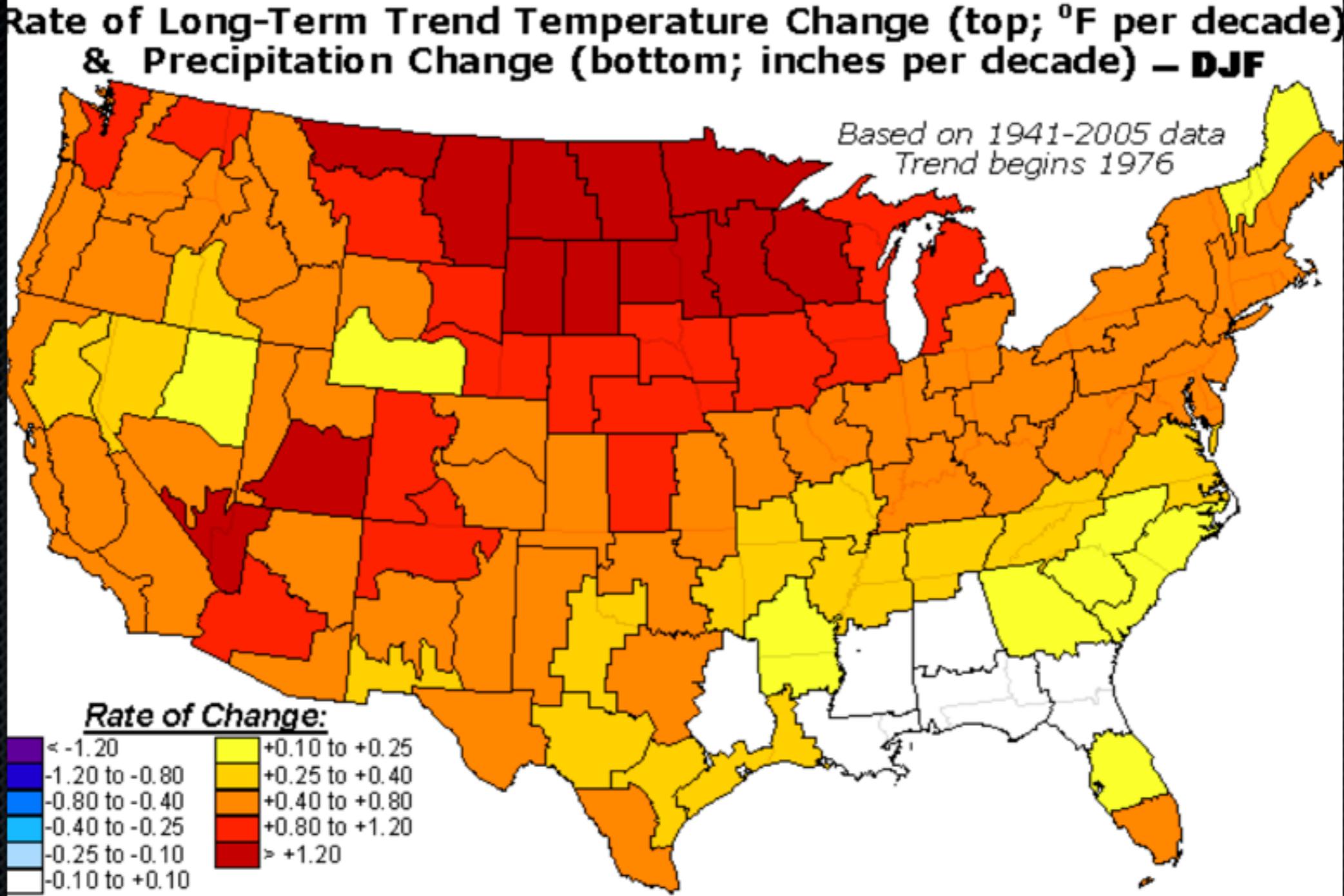


Jan 2010 Divisional Ranks

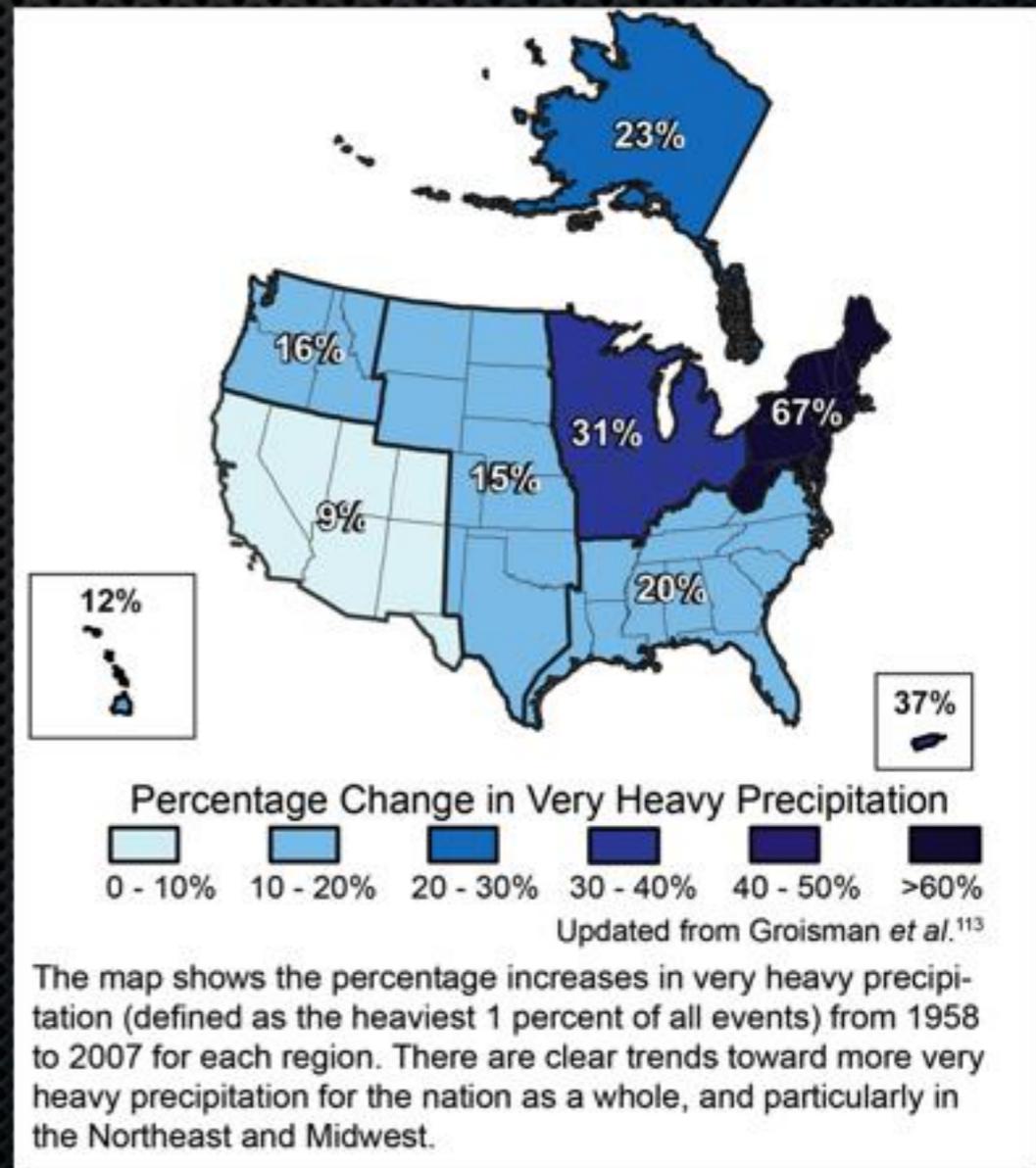
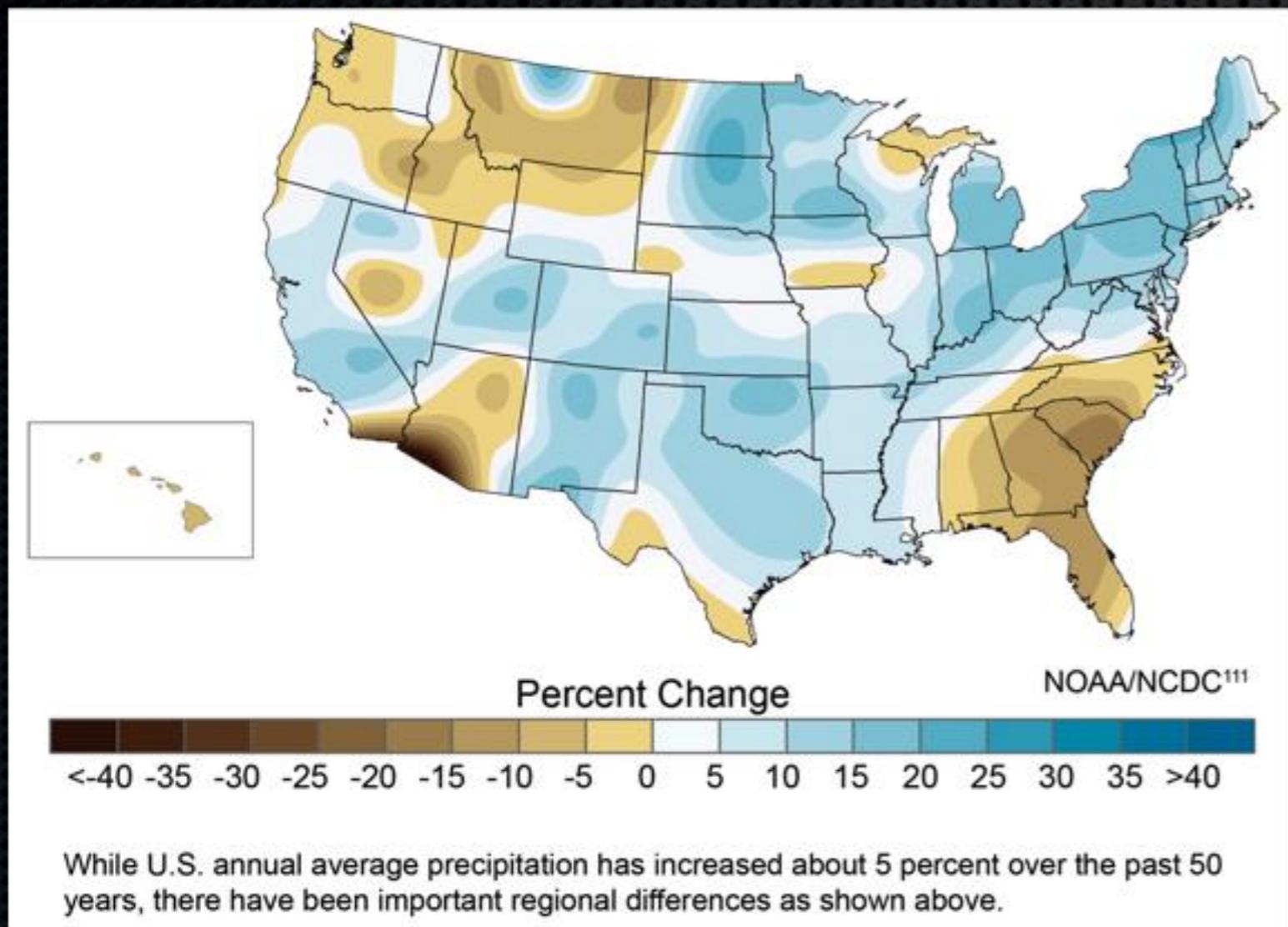
National Climatic Data Center/NESDIS/NOAA



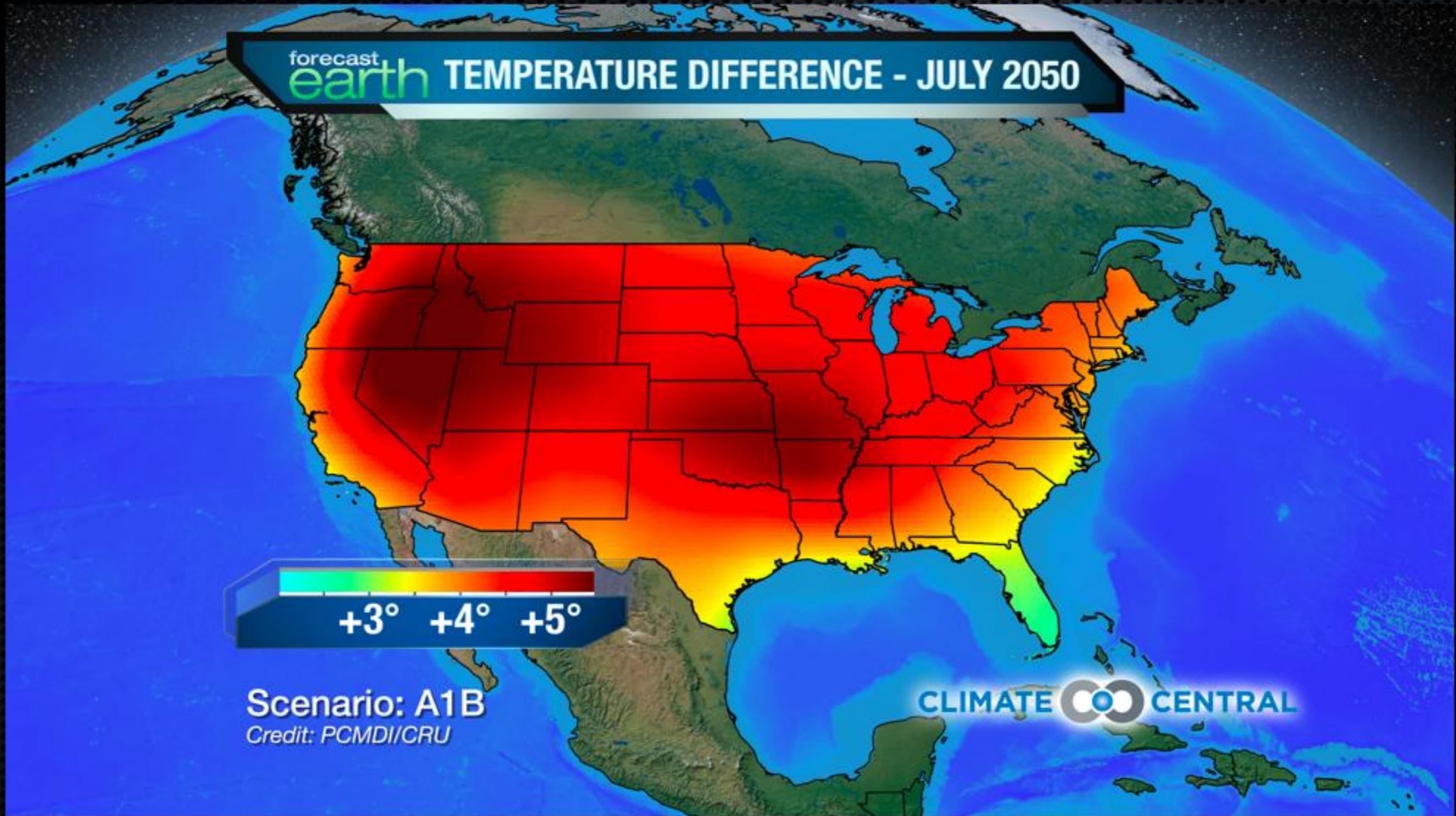
Trends



Part 2: Precipitation Trends



Part 2: Future Trends



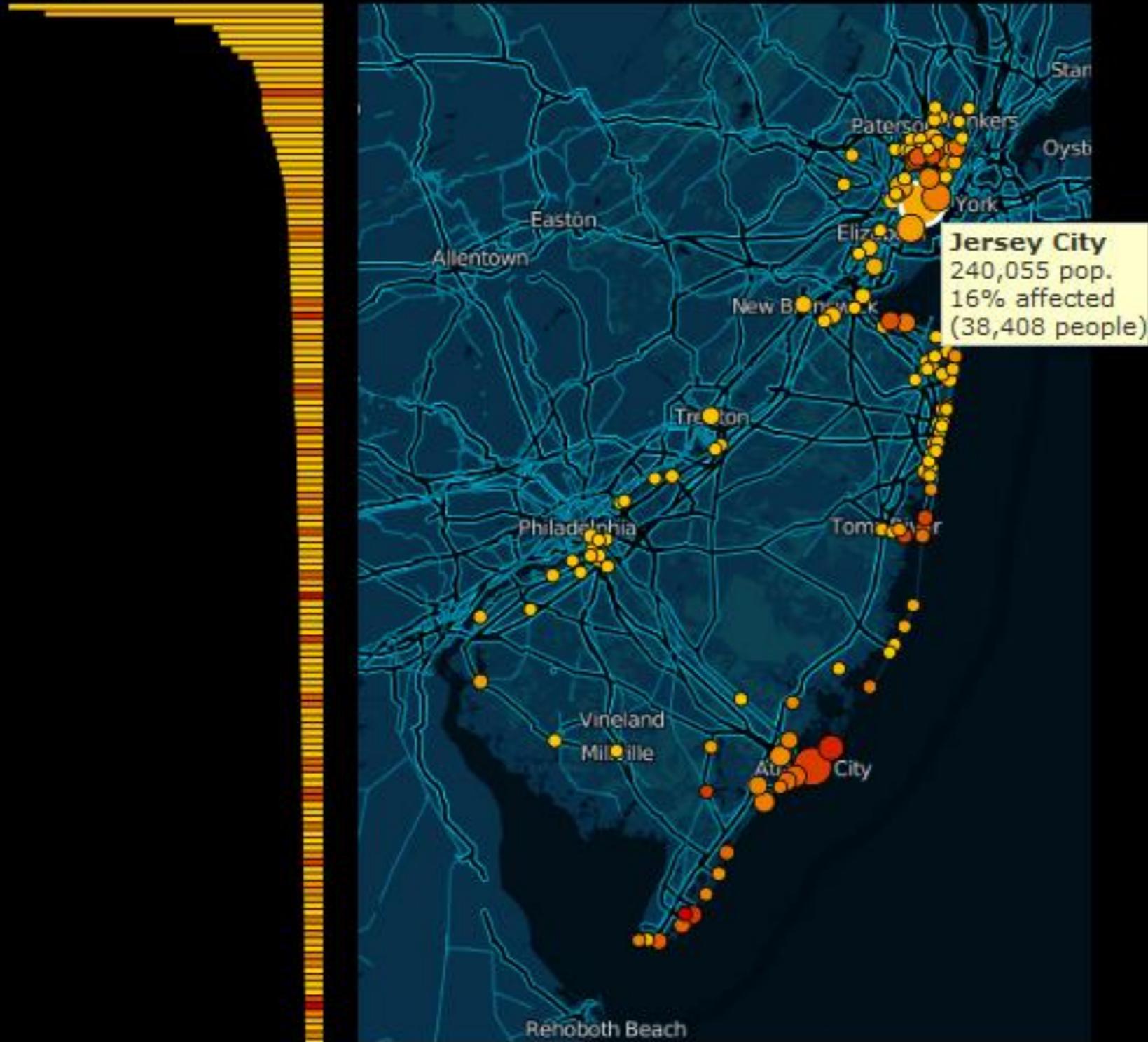
Part 2: Future Sea Level Rise

New Jersey

City populations affected by 1- and 2-meter sea level rise

Sea rise: 1 meter

Sort by: Total Population Scale by: Population Affected

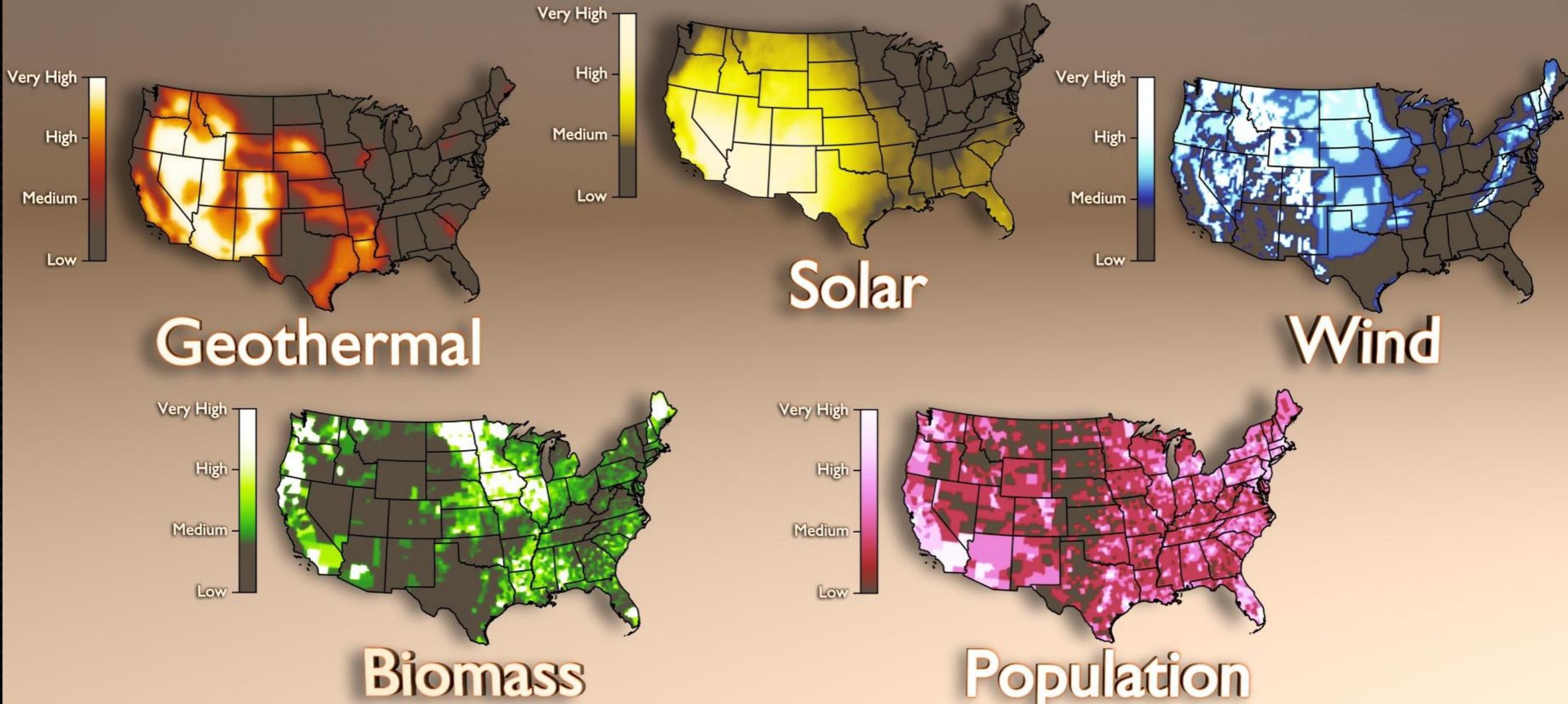




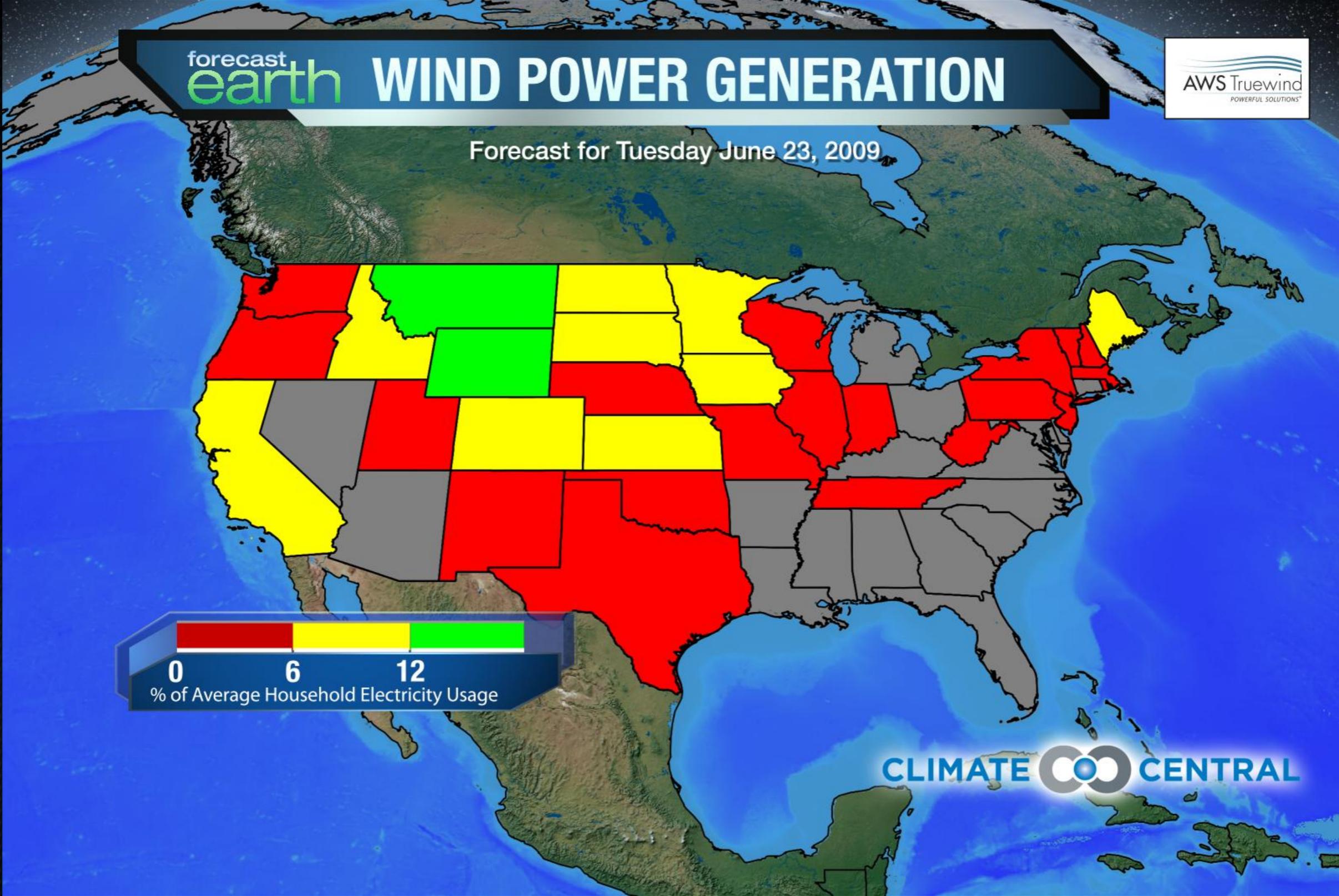
Part 3: Energy

Part 3: Seeing Solutions

Alternative Energy Hotspots



Forecasts



— [What's the use of having developed a science well enough to make predictions, if in the end, all we're willing to do is stand around and wait for them to come true!"]

- Prof. F. Sherwood Rowland
UC Irvine

— [Never has the work of so few...
led to so much... being asked
of so many.



- Prof. Robert Socolow
Princeton University