Cold Winters Warming?  
Perceptions of Climate Change in New Hampshire

Larry Hamilton  
Carsey School of Public Policy  
University of New Hampshire

“What are people saying about climate?”  
Coastal Adaptation Workgroup

Greenland, New Hampshire  
May 13 2019

Research supported by grants from the US National Science Foundation (Living Bridge IIP-1230460; PoLAR Climate Change Education Partnership DUE-1239783; New Hampshire EPSCoR EPS-1101245), US Department of Agriculture (Communities and Forests in Oregon 2010-67023-21705 and 2014-68002-21782), Neil and Louise Tillotson Fund of the New Hampshire Charitable Foundation, and the Carsey School of Public Policy and the Sustainability Institute at UNH. Any opinions, findings, and conclusions expressed in this material are those of the author and do not necessarily reflect the views of supporting organizations.
Since 1980, NH winters have been warming.

7 passed all previous records.

Some recent winters that seem cold would have been “warm” earlier.
NH winters are warming twice as fast as global warming.

But with global signature:
- step
- pause
- takeoff

**New Hampshire winter and global annual temperature anomaly**

- NH winter (smoothed)
- Global annual (smoothed)

L Hamilton (2016) Was December warm? data: NOAA climate divisions and global data
Lake Winnipesaukee ice-out

(Other data show global signature too)
How did I start down this road?

There’s a forest behind my house where I’ve walked, skied or snowshoed daily for past 40 years.
I noticed winters changing, long before I ever heard the term “climate change”

Maybe you’ve seen changes too, around places you have lived?

<= My daughter in 1980
Since 1980, NH winters have been warming

7 passed all previous records

Some recent winters that *seem* cold would have been “warm” earlier
These last few slides are from a “Pub Talk” last year in eastern Oregon, at the **Range Rider Saloon**

**Talking about climate change**
Our standard survey question about climate change:

Which statement do you think is more accurate?

• Climate change is happening now, caused mainly by human activities
• Climate change is happening now, but caused mainly by natural forces
• Climate change is not happening now
• I don’t know

Asked 4 times/year on the Granite State Poll since 2010
2018–2019
Granite State Poll: 63%
climate change is happening now, caused mainly by human activities
Climate change happening now, caused mainly by human activities tracked on 47 surveys

NH is not a bad proxy for US on this issue

updated from: Hamilton et al. (2019) 'Generation gaps in U.S. public opinion on renewable energy and climate change'
Majority of NH residents agree human activities are changing climate:

- young & old
- male & female
- any education
- not any party
April 2019
Granite State Poll

Democrats: who would you vote for, if primary held today?
April 2019
Granite State Poll

Democrats: Climate views of each candidate’s supporters
April 2019
Granite State Poll

Republicans: who would you vote for, if primary held today?
Republicans: Climate views of each candidate’s supporters

April 2019
Granite State Poll

Hamilton (2019) ‘Climate-change views of New Hampshire primary voters’ Carsey School of Public Policy
Generation gap

- **Millennials** recognize that humans are changing the climate
- But recognition is rising among all age groups
Generation gap

- **Millennials** also are much more likely to support renewable energy development

- As with climate, support is rising among all age groups
The Future?

- Upward trends among all age groups show gradually rising recognition that humans are changing the climate
- Public opinion has not responded to sudden events such as hurricanes, but there may be cumulative effects
- Science communication has cumulative effects as well
- Younger adults more likely to recognize the reality of human-caused climate change
- If their voting participation rises, change might come faster
Surveys analyzed in Carsey briefs & research papers, write me for copies
Questions?

(back at the Range Rider Saloon)