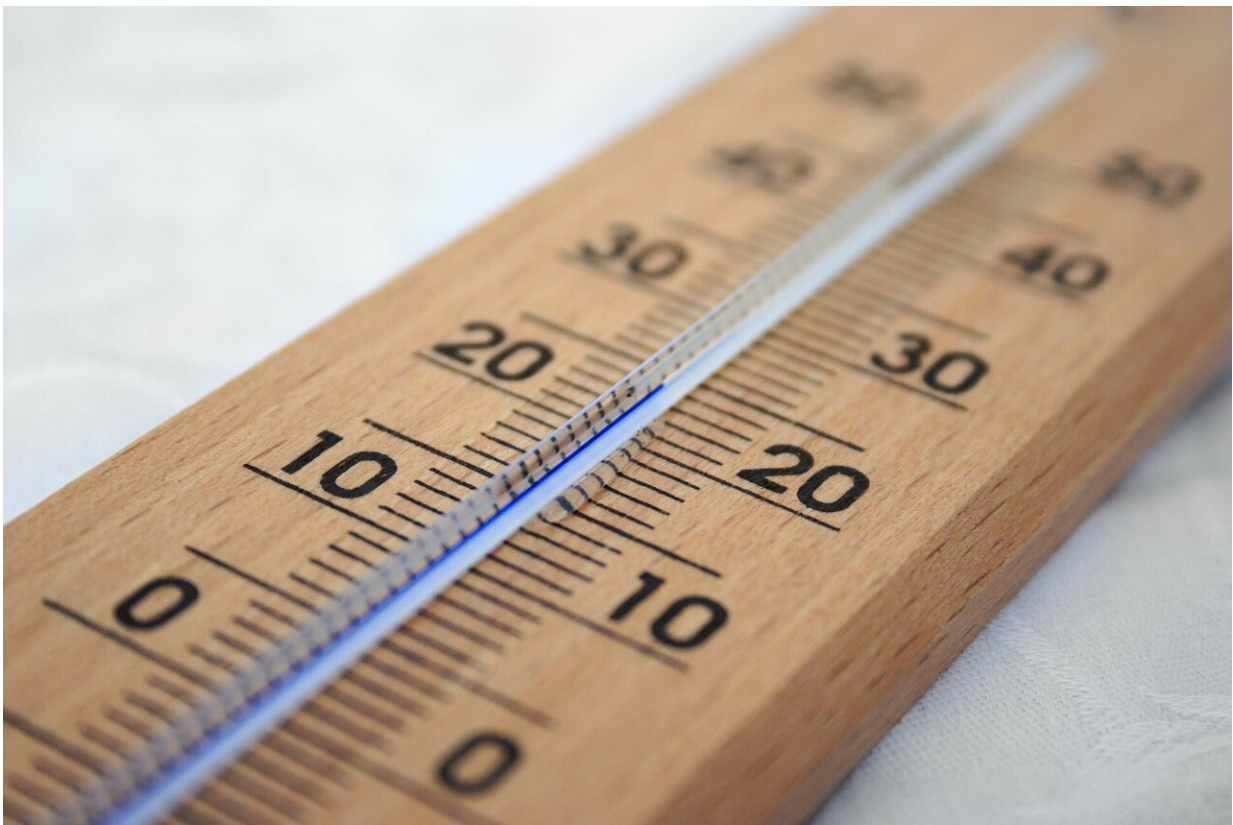


# Average winter temperatures in Northeast have warmed by up to 4.8 degrees since 1970, new research shows

November 29 2020, by Frank Kummer, The Philadelphia Inquirer

---



Credit: CC0 Public Domain

In the winter of 1969-70, Philadelphia had an average temperature of 30.3 degrees Fahrenheit. Last year, the average was 39.4.

No one says snow and cold spells are things of the past. But winters have warmed considerably since 1970 in the Northeast, according to data compiled by Climate Central, an organization of scientists and journalists that research and report on [climate](#).

Overall, the group found that winter not only is warmer than it was 50 years ago, it is warming faster than any other season in 38 states, including Pennsylvania and New Jersey.

Consider:

- In Philadelphia, Climate Central calculated that average winter temperatures have risen 4.8 degrees since 1970, and the season has 19 more days with above-normal temperatures.

- Atlantic City, New Jersey, winters have warmed 4.3 degrees with 14 more days above normal.

- Allentown, Pennsylvania, has warmed 3.8 degrees with 14 more days above normal.

To derive its findings, Climate Central used data from the Applied Climate Information System for 242 U.S. weather stations.

It calculated [average temperatures](#) and days above normal in December, January and February 1969-70, and compared the same months through 2019-20. An above-normal winter day was defined as one with an average temperature above the 1981-2010 normal.

Of the meteorological stations, 98% saw an increase in average winter temperatures since 1970, with most warming 2 degrees or more.

Overall, average winter temperatures increased the most around the

Great Lakes and Northeast region, as did the number of days with above-normal temperatures.

Sean Sublette, a meteorologist at Climate Central who lives in Bucks County, said the 50-year data show an undeniable warming in the Philadelphia region.

However, even going back 150 years, minimum winter temperatures were rising though not as quickly. Still, the data indicate a steady upward trend over time, he said.

"All these minimums here are going up," Sublette said. "There's been no going back down. You start seeing a very consistent rise about 50 years ago."

He noted that temperatures are still rising even though the sun is currently in a less-active portion of its normal cycle. Low periods like we are now seeing should mean cooler temperatures.

However, Sublette said, the [temperature](#) trend is still rising, which scientists attribute to climate change.

Warmer winters might be enjoyable for some, but they can have serious consequences for industries such as agriculture.

"Fruit trees," Sublette said, "need to be chilled cold for a good part of the [winter](#) so they get those cues to come out of dormancy and produce flowers and fruit. If that doesn't happen they get all messed up."

Further, he said it's also potentially damaging to plants when they flower prematurely in, say, a warm February, then refreeze in early March.

Though Sublette noted ski resorts such as those in the Poconos are trying

to stay ahead by diversifying their offerings, it's not true that warming always means less snow.

In fact, at times, warming can produce bigger snowfalls.

Sublette explained that the Northeast has seen some big snows in the last decade because warming has yielded more energy in the atmosphere to feed storms. Rising temperatures can still remain below freezing, setting the stage for a big Nor'easter.

Attempts to address climate change have been stalled since 2017 when President Donald Trump took office, pulled the U.S. out of the Paris climate accord and spent the remainder of his term rolling back more than 80 environmental regulations, according to the Harvard Law School. Other organizations list more than 100.

Some of those rollbacks were aimed at curbing emissions from carbon and methane, both of which are [greenhouse gases](#), from power plants, fracking operations, and auto emissions.

President-elect Joe Biden has named former U.S. Sen. John Kerry to a new post, special envoy for [climate change](#), and pledged to rejoin the Paris accord. But if Biden plans to undo the Trump administration's work, it could take years on some of the regulations because of how government rules are set up and possible court challenges.

©2020 The Philadelphia Inquirer  
Distributed by Tribune Content Agency, LLC

Citation: Average winter temperatures in Northeast have warmed by up to 4.8 degrees since 1970, new research shows (2020, November 29) retrieved 19 April 2024 from <https://phys.org/news/2020-11-average-winter-temperatures-northeast-degrees.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.