

Is Florida getting warmer?

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In the analysis of Florida's temperature over the years, a scatter plot was first created. A trend line was added to better visualize the pattern, which shows a clear increase in temperature over time.

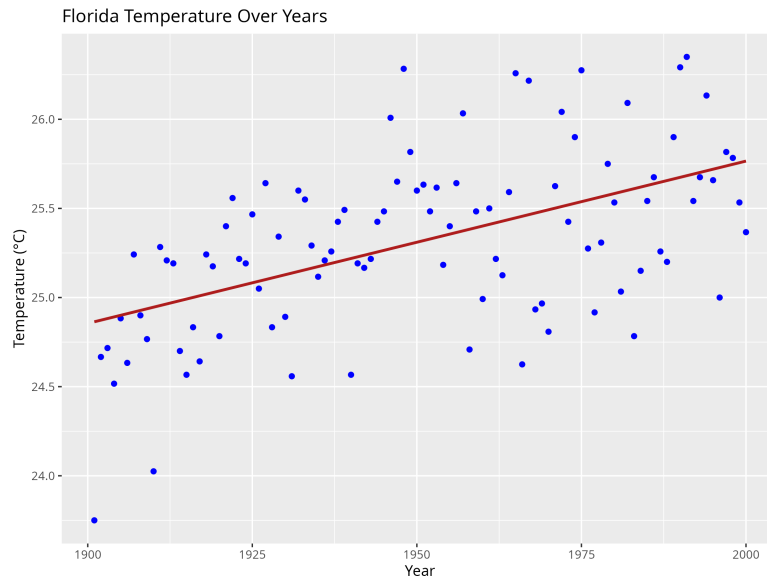


Figure 1: Florida scatter plot

The calculated correlation between year and temperature was 0.5331784, confirming an upward trend that Florida is getting warmer.

To ensure this result was not a statistical fluke, a permutation test was conducted. By shuffling the data 100,000 times, a p-value of 0 was obtained. This indicates that the probability of this positive correlation occurring by chance is negligible.

The chart below displays the correlation values from the 100,000 random shuffles. Their normal distribution confirms that the simulation method itself was sound.

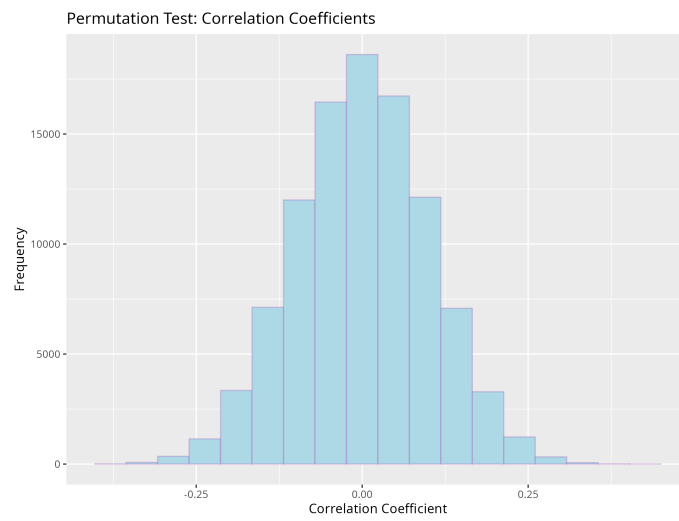


Figure 2: Permutation Test: Correlation Coefficients