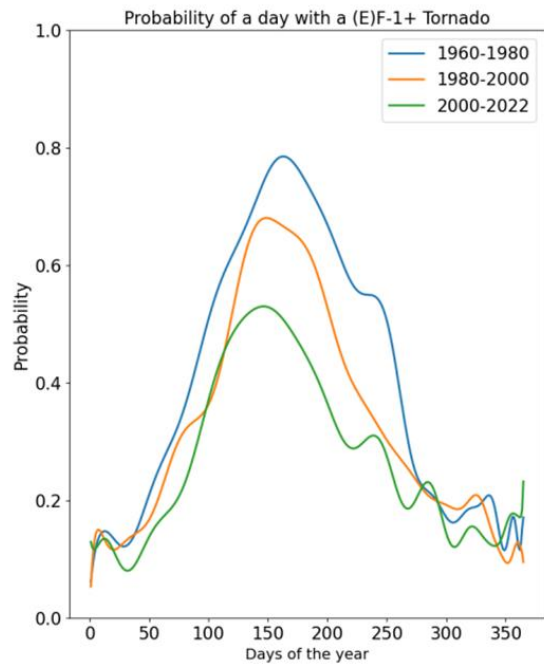


Supplementary Information

for

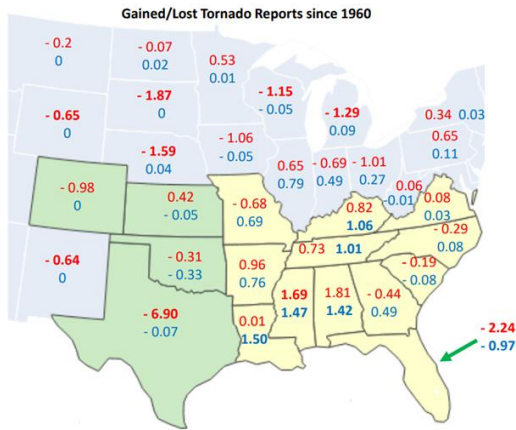
The Regionality and Seasonality of Tornado Trends in the United States

Authors: M. Graber, R. J. Trapp, Z. Wang

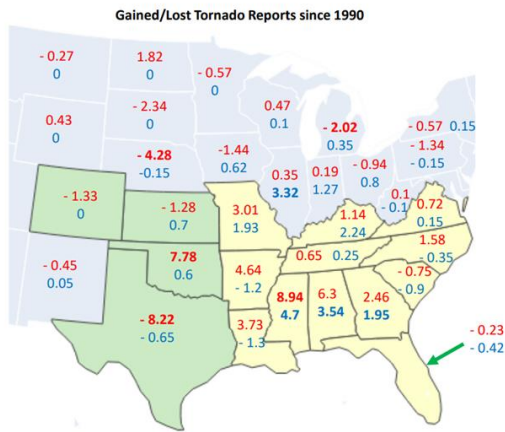


Supplementary Figure 1: Probability of a tornado day per day of the year across three periods.

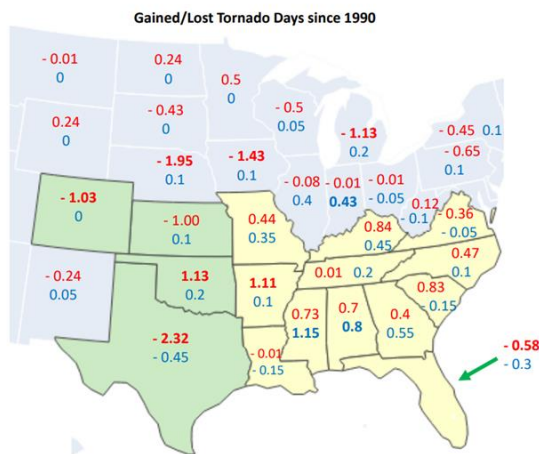
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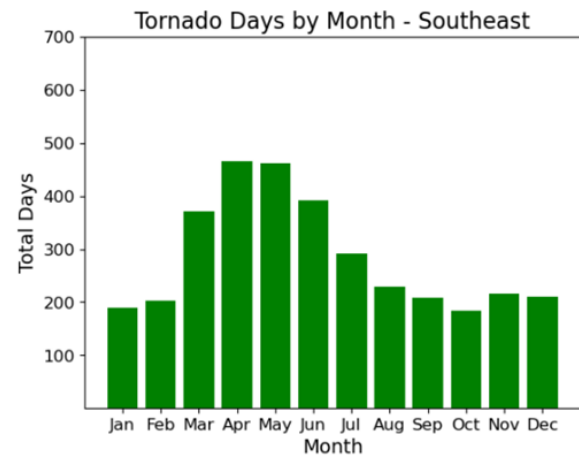
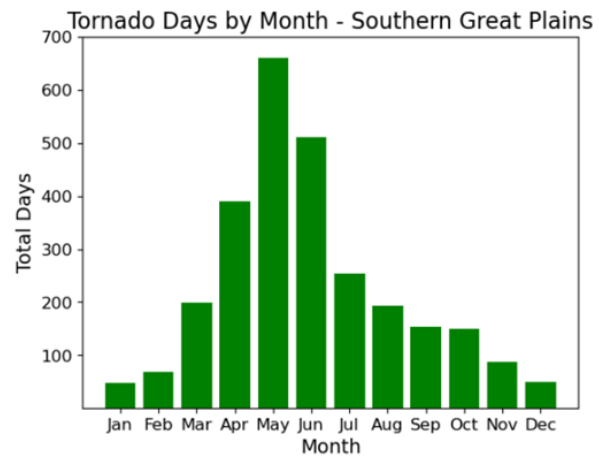
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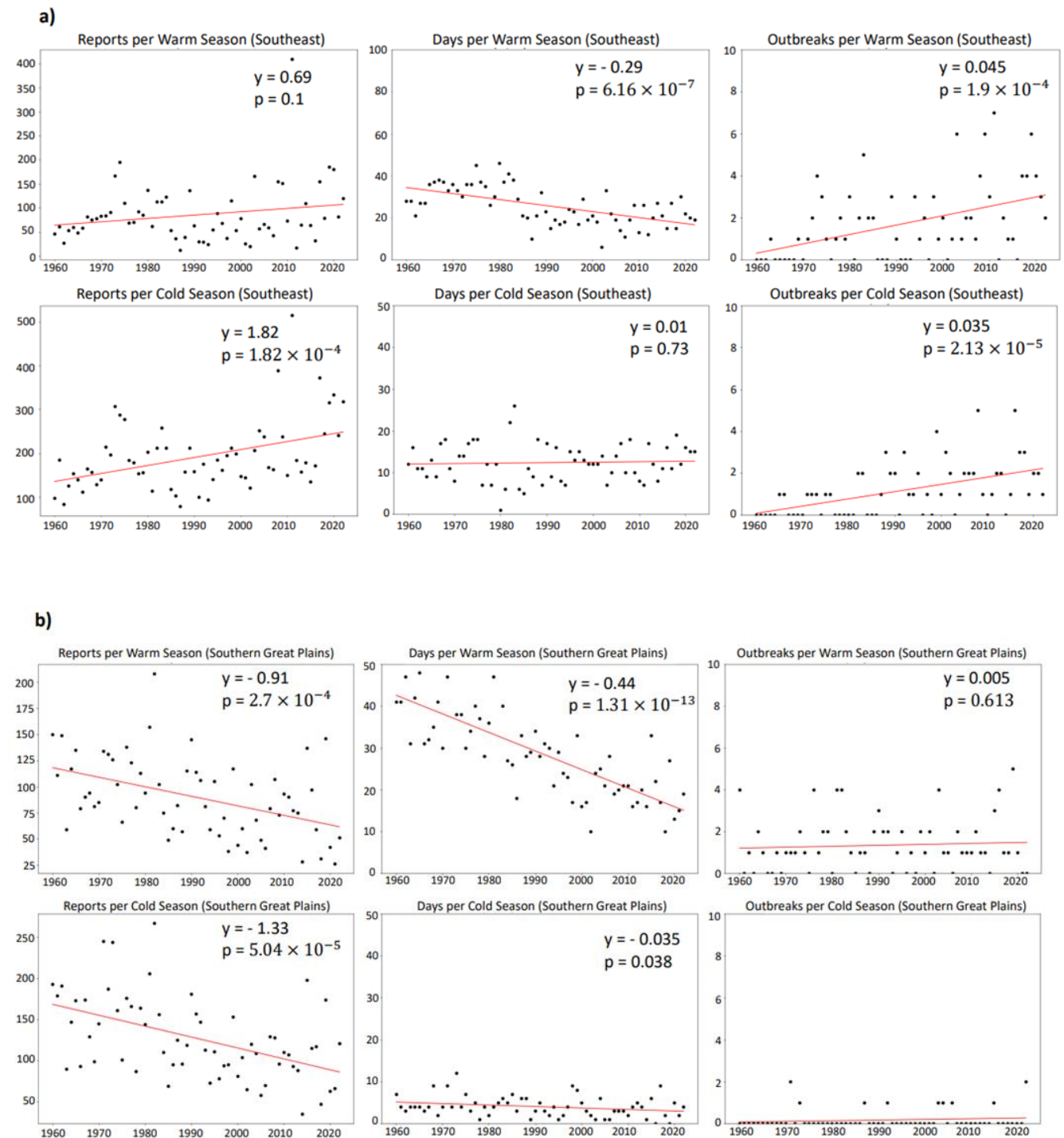
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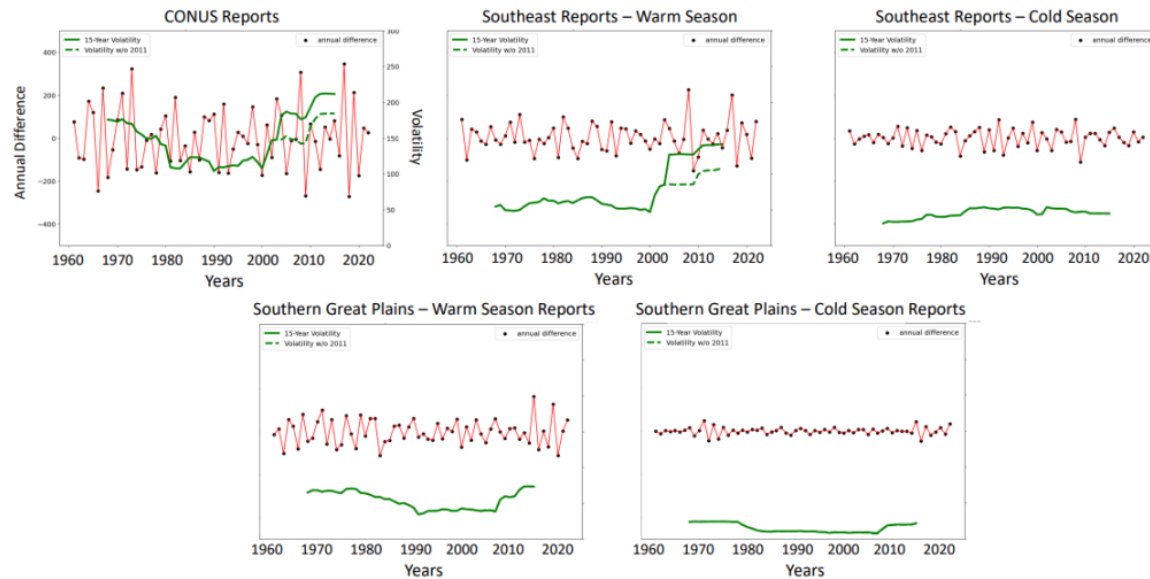
Supplementary Figure 2: a) Slopes of the warm (red) and cool (blue) season annual tornado-report trends indicating the number of tornado reports gained or lost per decade in that state since 1960. **b(c)** Slopes of the warm (red) and cool (blue) season annual tornado-report (tornado day) trends indicating the number of tornado reports (days) gained or lost per decade in that state since 1990. Bold values indicate a significant trend. Green and yellow shading indicate the Southern Great Plains and Southeast regions respectively.



Supplementary Figure 3: Total tornado days by month in the two regions from 1960-2022.



Supplementary Figure 4: Scatterplots of tornado reports, tornado days, and tornado outbreaks (>10 tornadoes) over the Southeast (**a**) and the Southern Great Plains (**b**) with corresponding slopes and p-values to show significance.



Supplementary Figure 5: Annual differenced $E(F)-1+$ tornado reports (red) for the CONUS and by season for the Southeast and Southern Great Plains, and the time series of volatility calculated as 15-year rolling standard deviation (green solid). The green dashed lines show volatility time series with the report number in 2011 set to the long-term mean (appreciable differences are found only over the CONUS and the Southeast in the warm season).