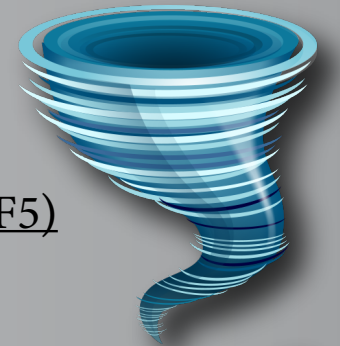


Is Tornado Alley Shifting East?

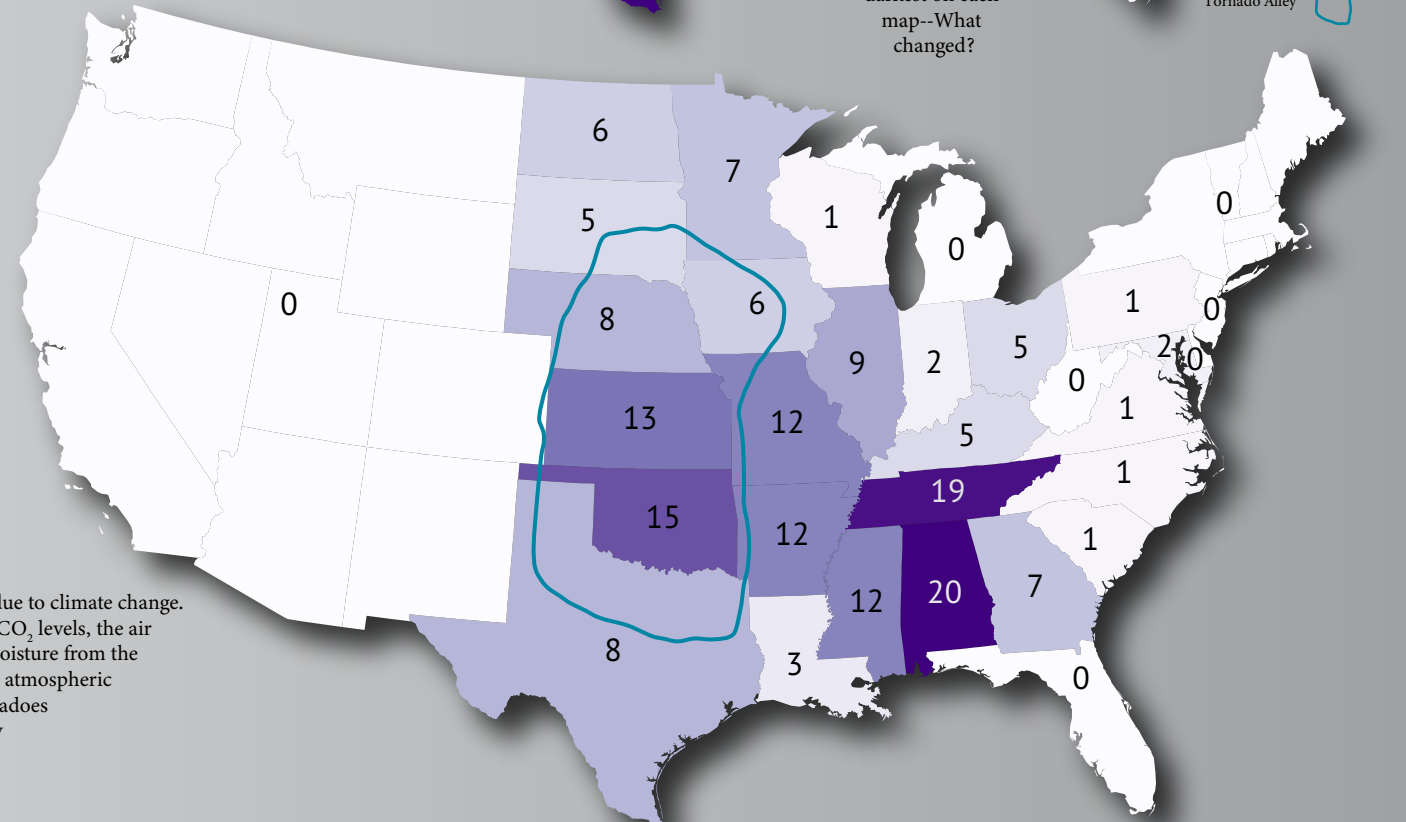
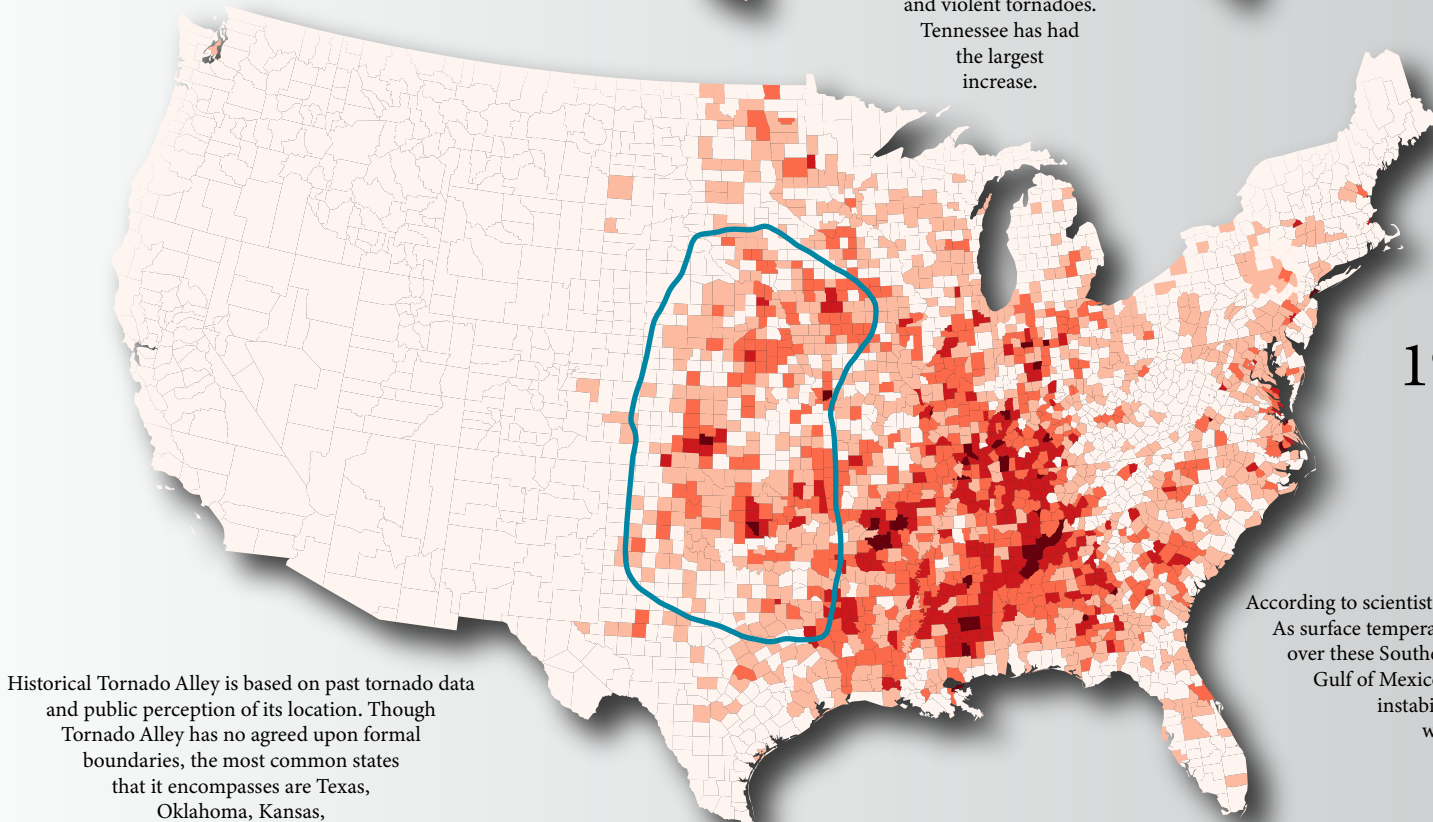
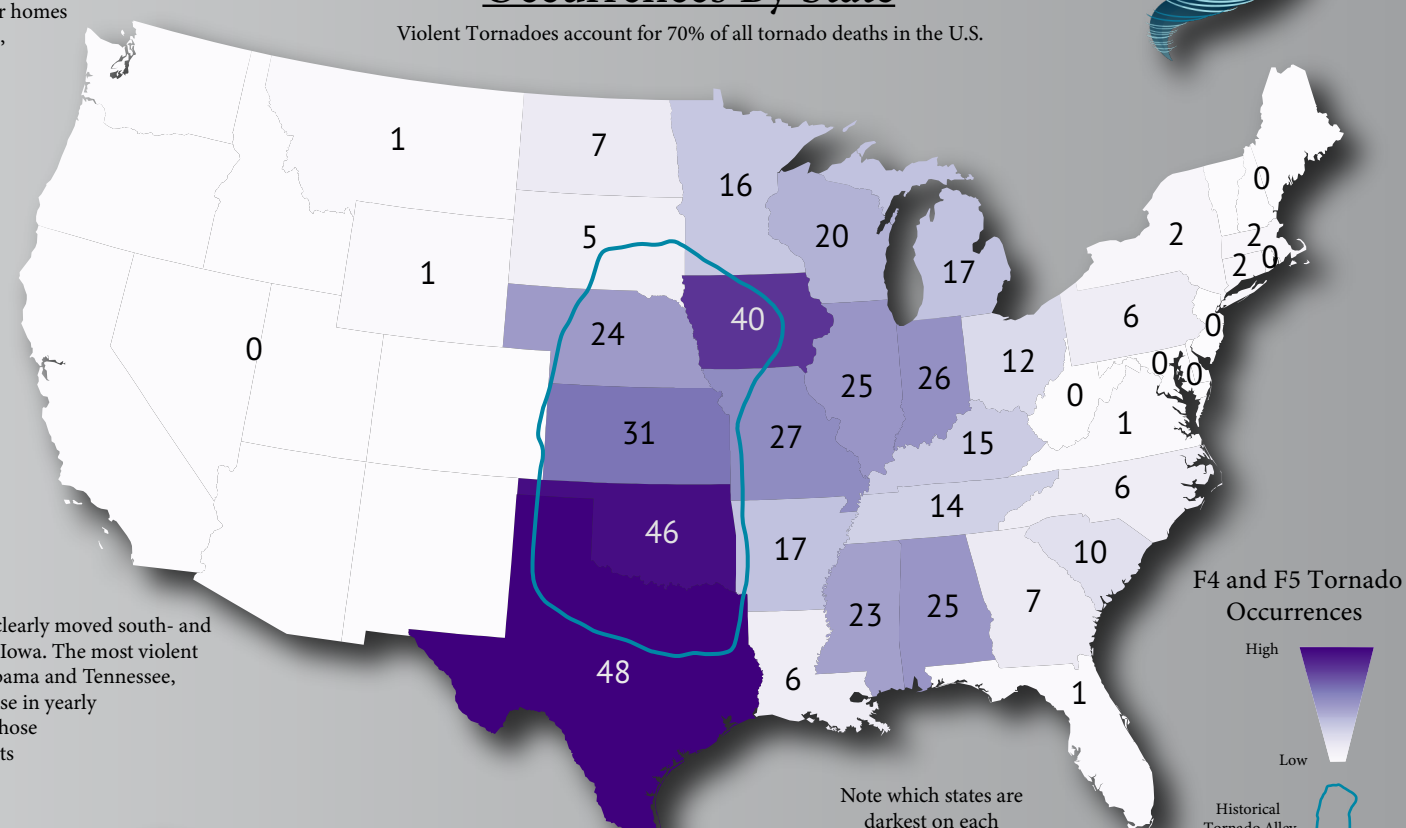
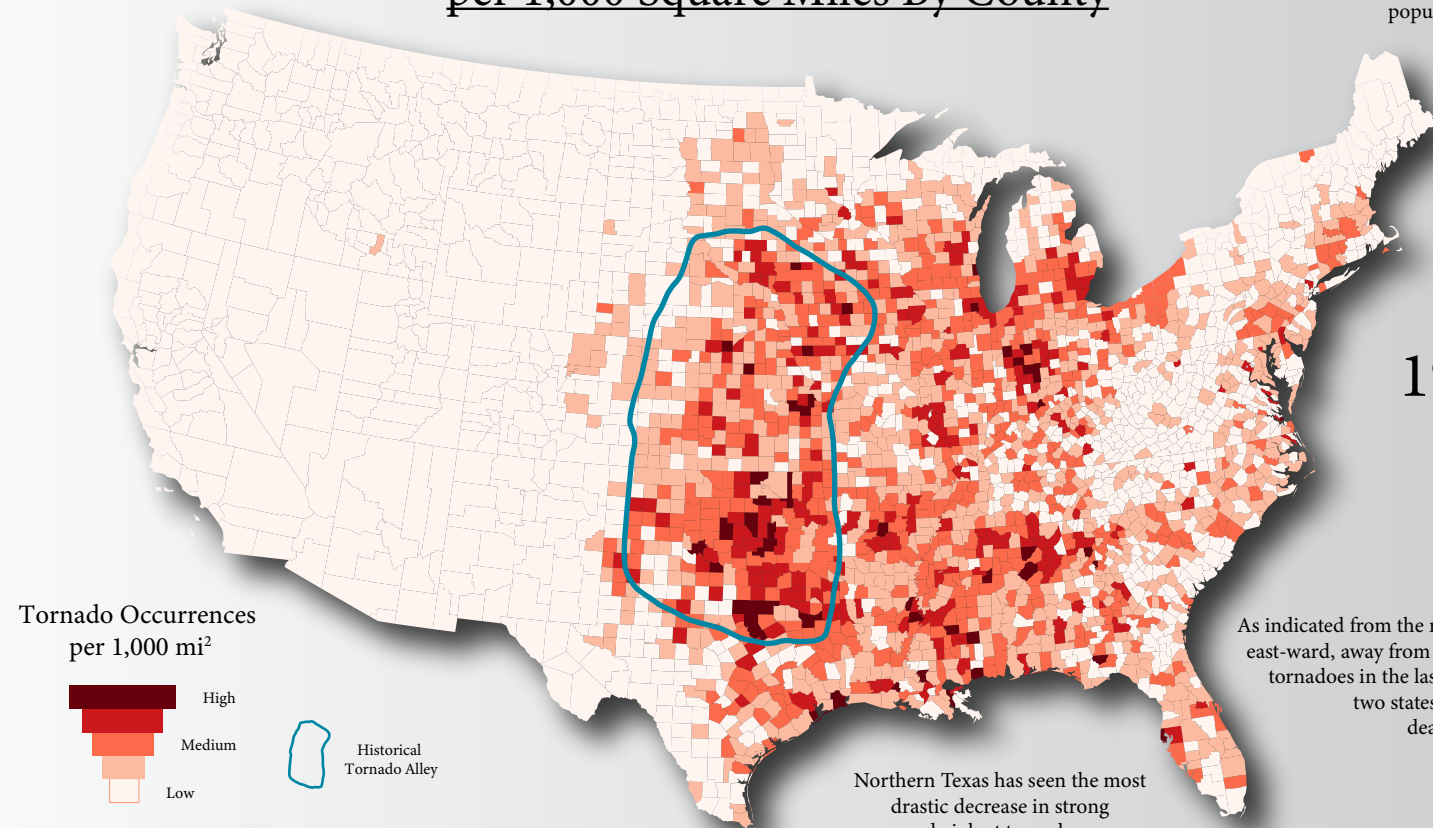


F2/EF2 - F5/EF5 Tornado Occurrences per 1,000 Square Miles By County

Tornadoes are some of the most common and dangerous natural phenomena in the United States. It is important to know where they are most likely to occur, so people can be better prepared when they arrive. Historically, "Tornado Alley" has been thought of as being in the Great Plains states such as Texas, Oklahoma, Kansas, Nebraska, and Iowa. However, dangerous tornadoes are becoming more frequent in the South, where population density is higher, far fewer homes have basements for protection, and people are less prepared for what to do in the event of a devastating tornado.

Violent Tornado (F4/EF4 and F5/EF5) Occurrences By State

Violent Tornadoes account for 70% of all tornado deaths in the U.S.



Northern Texas has seen the most drastic decrease in strong and violent tornadoes. Tennessee has had the largest increase.

As indicated from the maps below, Tornado Alley has clearly moved south- and east-ward, away from typical states such as Texas and Iowa. The most violent tornadoes in the last 25 years have occurred in Alabama and Tennessee, two states that have seen a massive increase in yearly deaths since the 1990s. Educating those who live in new tornado hotspots about potential dangers is essential in ensuring that they are able to remain safe during a deadly tornado.

Note which states are darkest on each map--What changed?

Historical Tornado Alley is based on past tornado data and public perception of its location. Though Tornado Alley has no agreed upon formal boundaries, the most common states that it encompasses are Texas, Oklahoma, Kansas, Nebraska, and Iowa.

According to scientists, Tornado Alley is shifting east due to climate change. As surface temperatures increase due to increased CO₂ levels, the air over these Southern states is able to hold more moisture from the Gulf of Mexico. As a result, there will be more atmospheric instability, leading to more strong tornadoes where there haven't been as many in the past. Climate change mitigation is essential for limiting tornado losses.