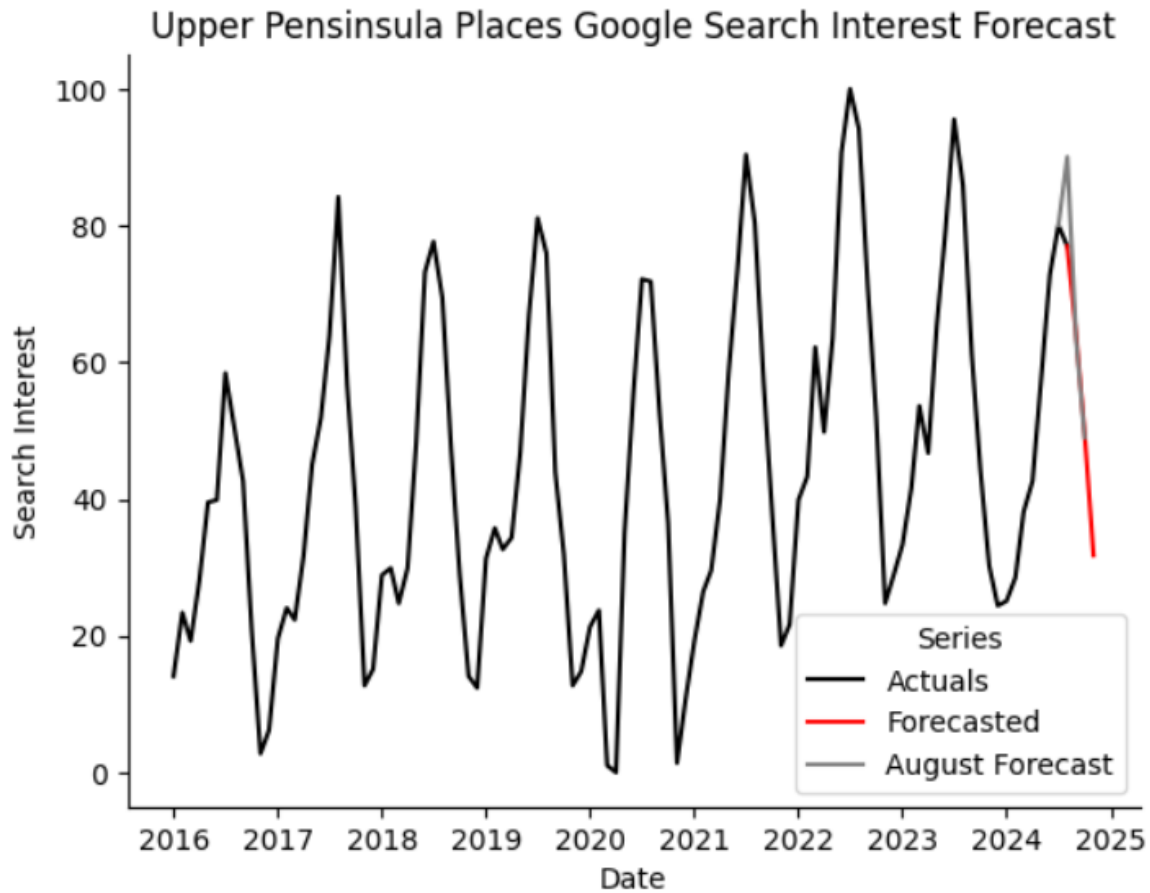


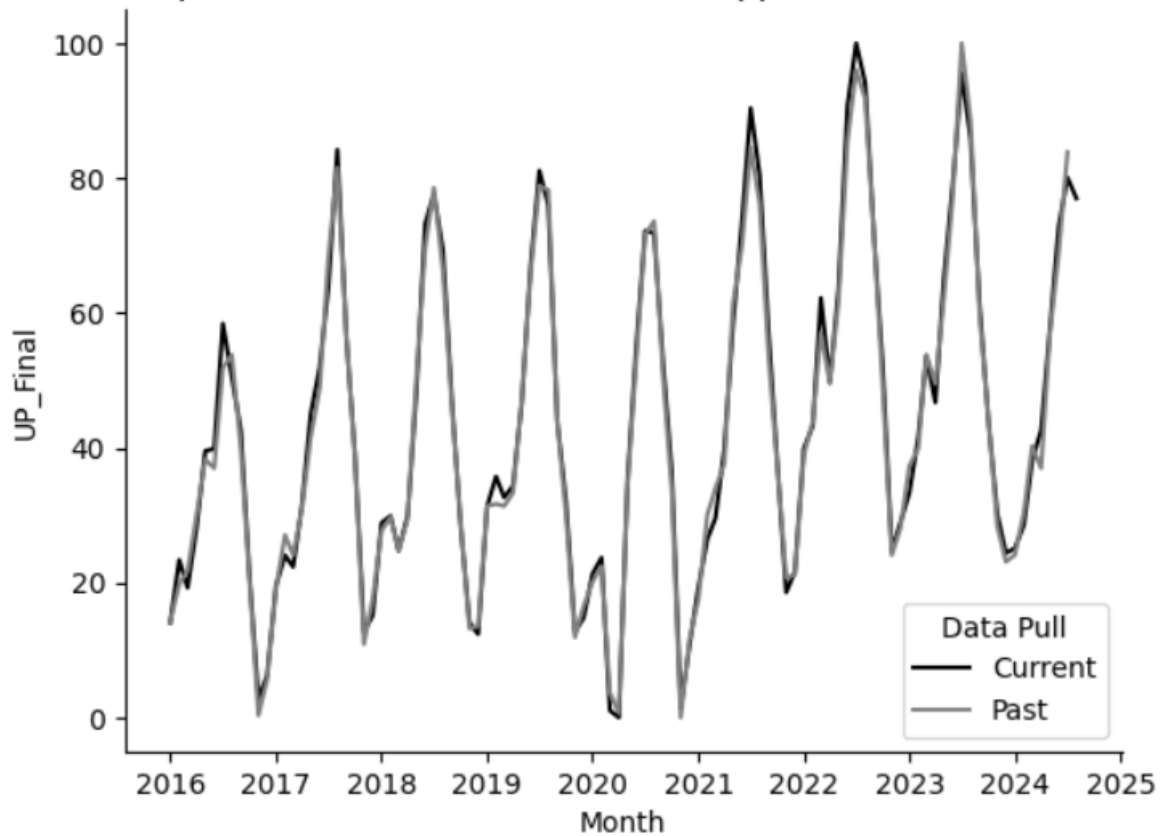
UP Change Addendum

During 2024, the UP has had lower search interest than in the immediate previous years. The forecasted (grey) search interest adjusting for weather was lower than 2023 and the actual search interest was lower than that.



Part of the difficulty in determining these trends is that the Google trend result is different from data pull to data pull. Based on the most recent data pull, it would appear that 2023 had a lower search interest peak than 2022. However, in the previous data pull, this comparison was reversed with 2023 peak being higher than 2022.

Compares Current and Past Month's Upper Peninsula Data Pull

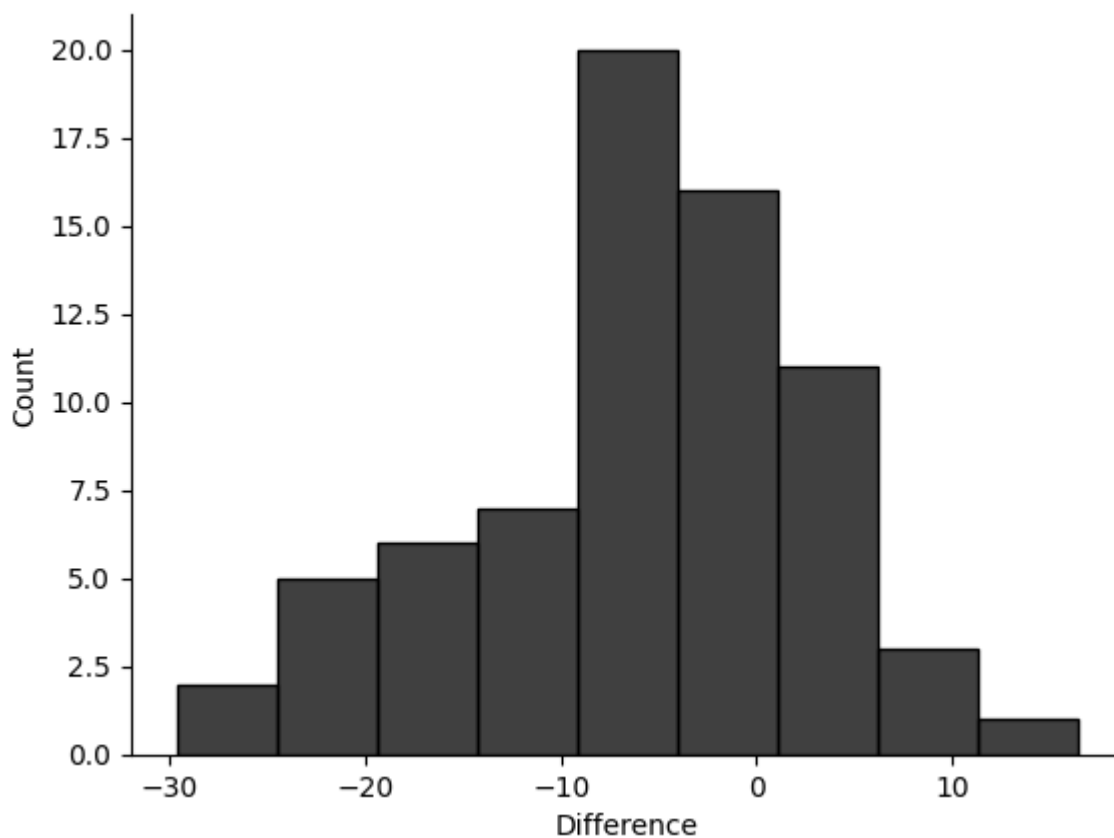


The aggregate search interest for the Upper Peninsula is a linear combination of 71 individual places. This addendum looks at trends for these 71 places.

I create a metric for each place that considers the average linear trend from 2021-2023 for June-July search interest values. I use summer search interest values because this is the yearly peak in search interest. The Upper Peninsula does have higher search interest values from January to March relative to the Lower Peninsula due to winter sports and activities. However, last winter was relatively warm and snowless explaining some of the search interest decline during the winter.

Since I'm focusing on summer search interest, I measure how the summer 2024 search interest values compare to what would be expected from the 2021-2023 trend. From the histogram below, we can see that not all Upper Peninsula places had lower search interest than expected. However, the difference is negative far more often than it's positive.

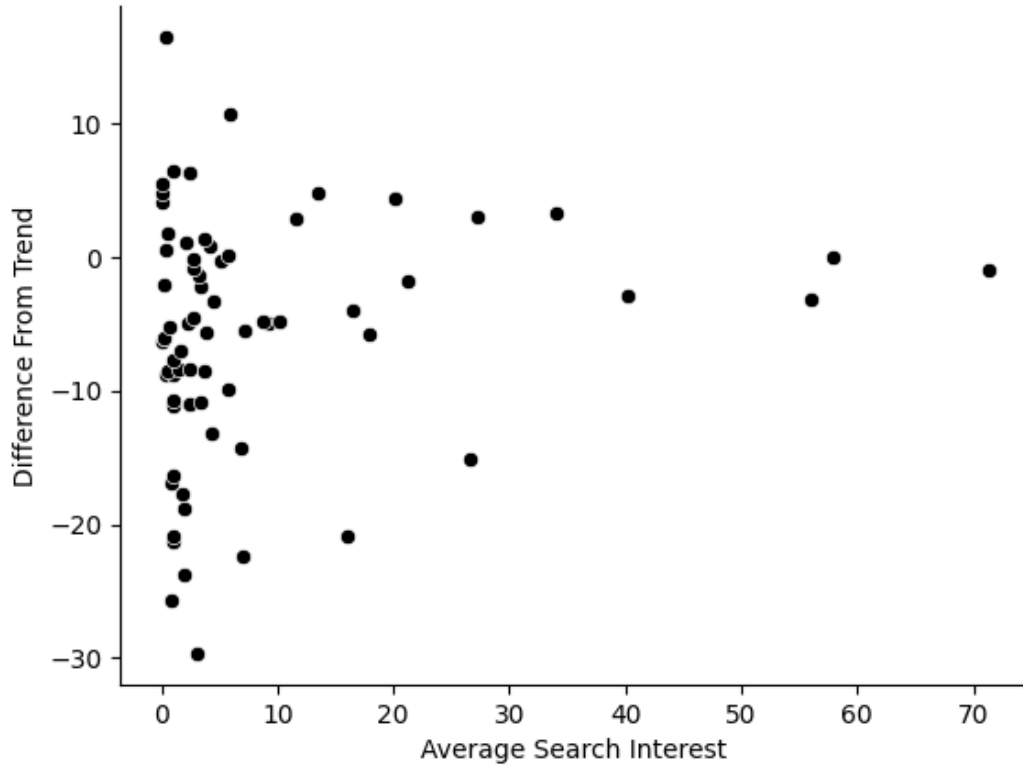
Place Level Summer Search Interest Difference from Trend



Next, I look at the relationship between average search interest for a place and the 2024 summer difference from trend.

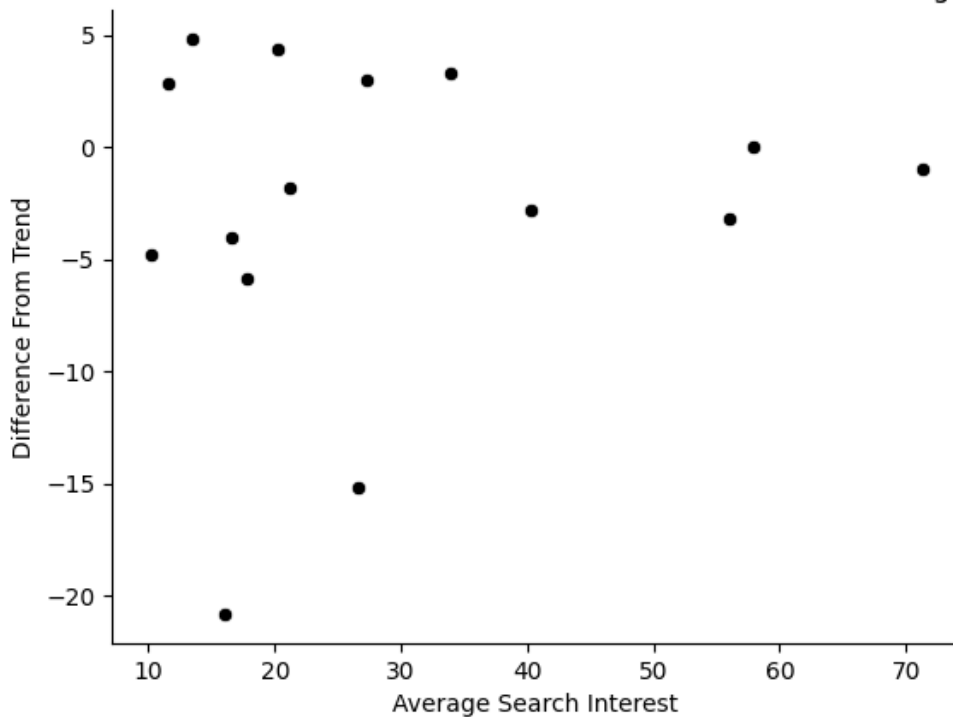
Unsurprisingly, the places with lowest search interest have the highest variance in differences from trend. However, the negative variance amongst low search interest places is much higher than the positive variance.

Place Level Summer Search Interest Difference from Trend vs Average Search Interest

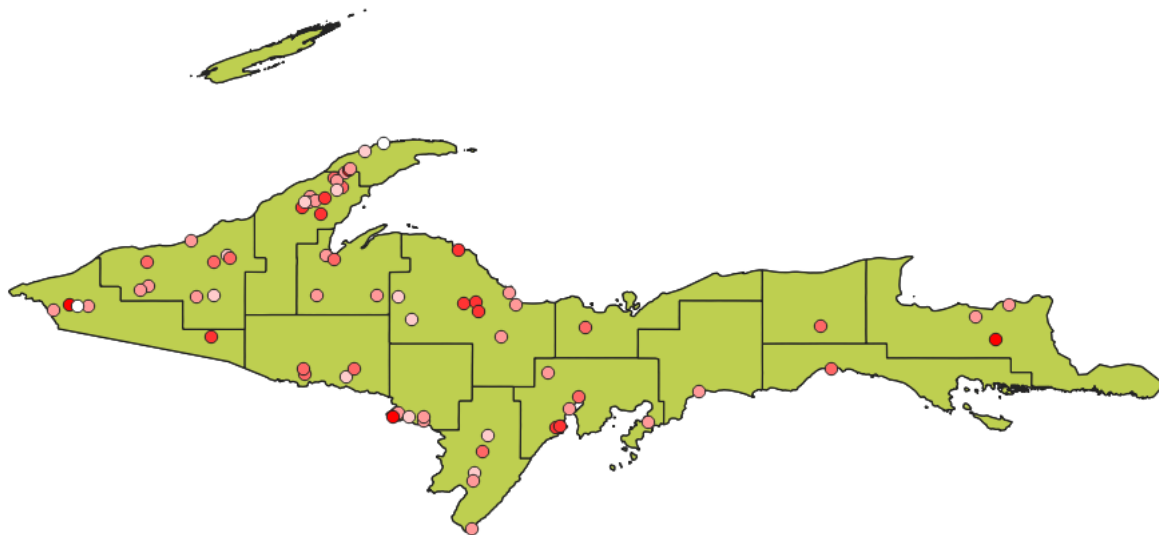


Next, I look at the same results for places with at least '10' average search interest. This includes 15 places. In this case, only 5 of the 15 are above the trend. All of the highest 4 average search interest places are either at or below the trend, although for these places the difference is at most -5.

Large Place Level Summer Search Interest Difference from Trend vs Average Search Interest



Based on the map below, the brightest red dots have the lowest search interest compared to the trend. There is no clear geographic trend in this pattern. Gas prices were high during 2024, but the furthest distance western places aren't more likely to have negative changes to trend than the nearer eastern places.



- -29.7 - -22
- -22 - -14.3
- -14.3 - -6.6
- -6.6 - 1.1
- 1.1 - 8.8
- 8.8 - 16.5

Conclusions

While at this point, there is no conclusive story line behind the reduction in search interest for the Upper Peninsula, there are a few potential theories.

Generally, it's hard to say that this trend is being driven by a single or small handful of places. While the largest negative values come from places with low search interest, even places with larger search interest are usually below trend.

It's possible that there have been changes to Google's algorithm for calculating search interest. Since these changes aren't necessarily public or, at least, publicized it's not immediately apparent what these may be. It may be that newer search trend information does a poorer job capturing search interest for lower interest places.

While the reduction of search interest appears to hold even for places with relatively high interest, it's likely that search interest for any place name in the Upper Peninsula is lower compared to most alternative search terms. At the end of the day, Google trends does not capture absolute search interest but rather

relative search interest compared to other terms. At current, these places are not just competing for search interest with other places, but with everything from the 2024 elections to other current events.

All and all, the most recent data pull especially shows declining search interest since 2022. There was a lot search interest following the 2020 COVID-19 pandemic for outdoors and outdoor recreation based trips and activities which are popular in the Upper Peninsula. In my recently started outdoor recreation search interest project, I found that continued search interest in these activities following the pandemic has been mixed. The most likely explanation, in my mind, is we are seeing an end to renewed interest in these places brought about by the pandemic. It's not unlikely that economic uncertainty, inflation, and cost of living issues are reducing people's interest in these activities as well.