



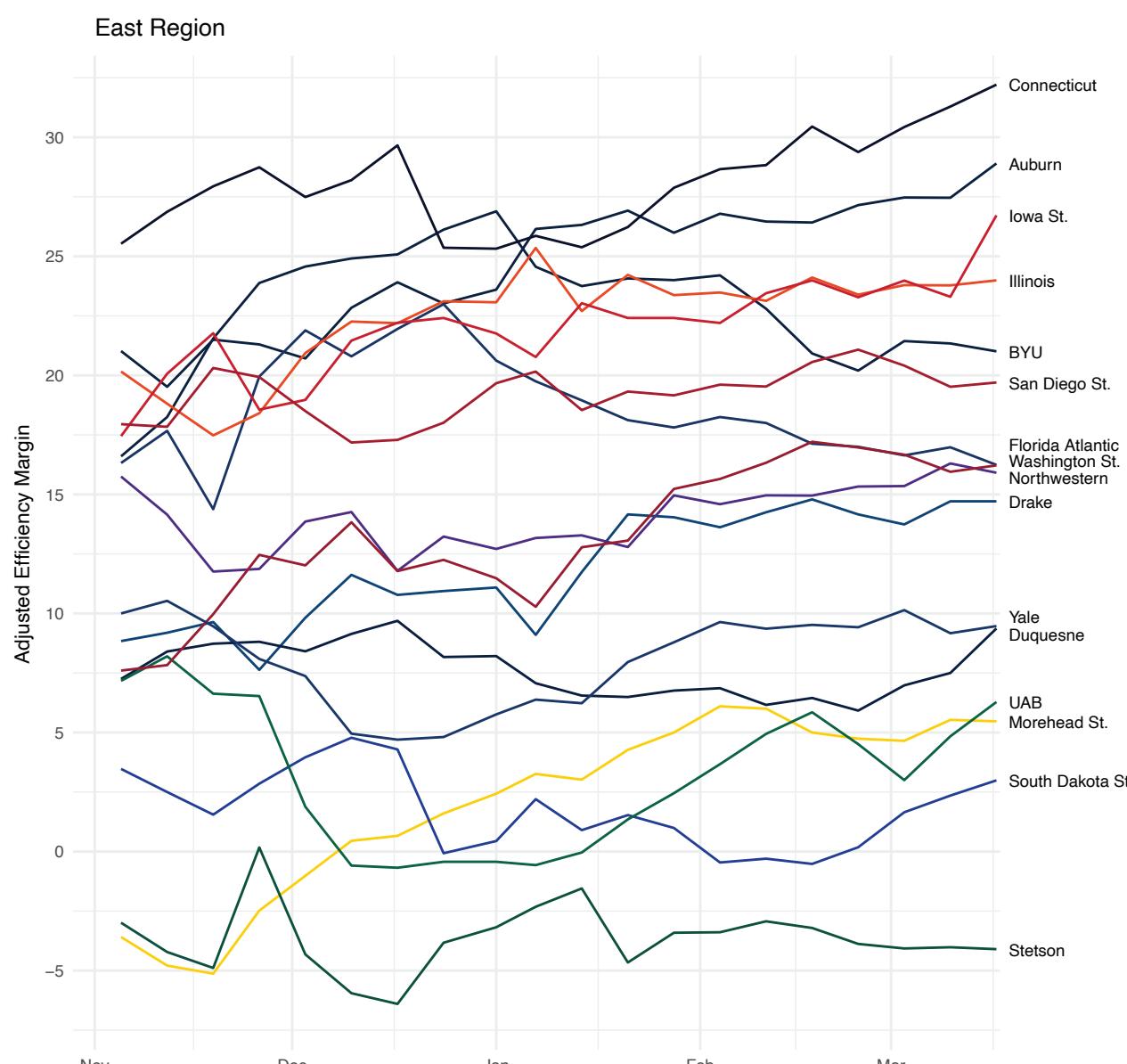
Bracketology with KenPom

Introduction

If you aren't familiar with KenPom, it is a college basketball statistics website that ranks teams to show how strong they would be if they played at their current level, independent of injuries or emotional factors. The rankings update after every game, making it interesting to see how teams progress through the season. They are also meant to be predictive, which is what this poster will focus on. Every year, millions of people fill out a bracket with the hopes of picking a perfect one. They carefully pick their upsets and pour over any and all research they can find, all for it to be busted in the first weekend. Let's see if KenPom's rankings provide any insight into which teams will do well in the tournament. Could the stats have predicted N.C. State's historical run or UConn winning back to back championships?

Dataset & Packages

To collect data from the KenPom website, I built a web scraper that captured the home page and collected the rankings each week over 6000+ games. This gave me a dataset of 22 columns and 7241 rows. The columns contain data types of date, text and numbers. It is structured the same way the table on kenpom.com is. To make my plots, I used tidyverse, dplyr, ggplot2, Adobe Illustrator and Photoshop.

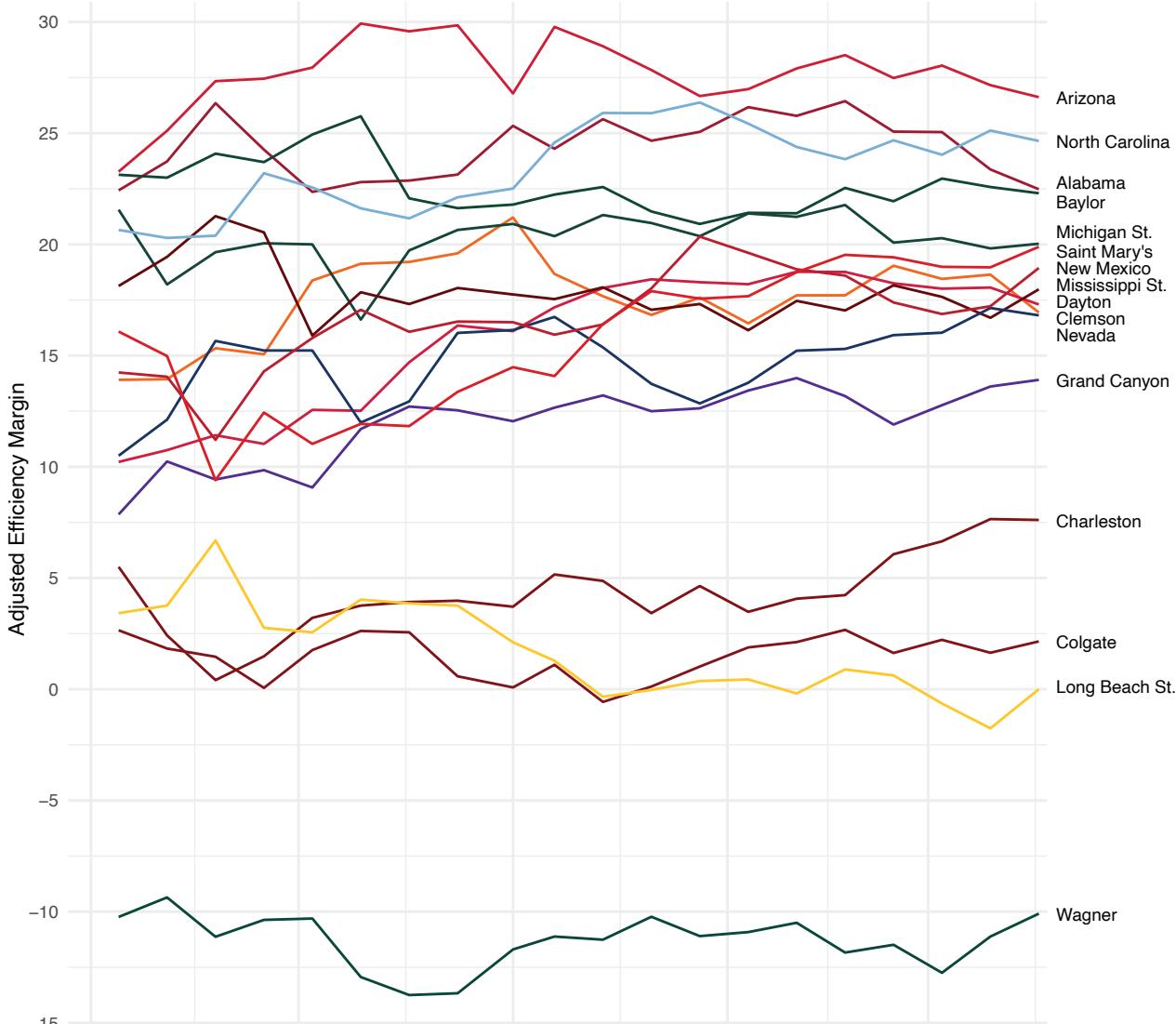


Region Wise Regular Season Progression & Momentum Tracker

The plots on the sides of the poster show how each team in their region progressed throughout the regular season of college basketball based on their adjusted efficiency margin, which is a combination of all other statistics on the KenPom website. It aims to show the highs and lows of each team as well those with the most momentum going into the tournament.

A famous coach once said, "What happens in November has no effect on the outcome in March." These plots put that to the test. With so many teams with similar efficiencies, it can be hard to predict who will win. However, by seeing whether they are trending upwards or downwards, we can get an idea of which team has a better chance of winning.

Ken Pomeroy

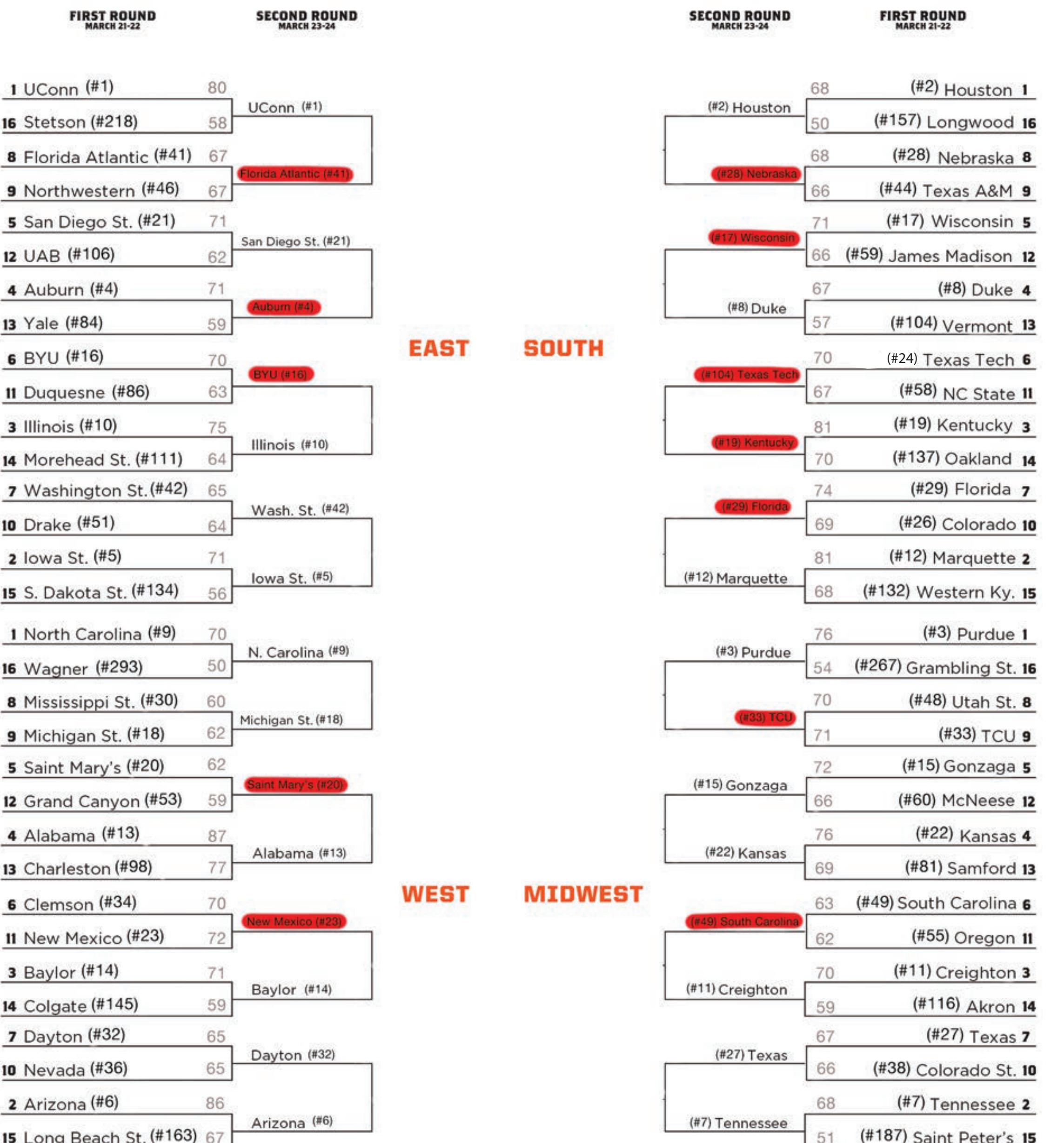


Ken Pomeroy

Predicting first round winners for March Madness

The bracket below tries to predict the winner of each first round matchup based on their KenPom rankings. Each team's overall rank heading into the tournament is written beside it. Using a proprietary formula that utilizes their offensive and defensive efficiencies and pace of play, the predicted score for each matchup is also listed. For games that would have ended in a tie, the tiebreaker goes to the team with the higher rank

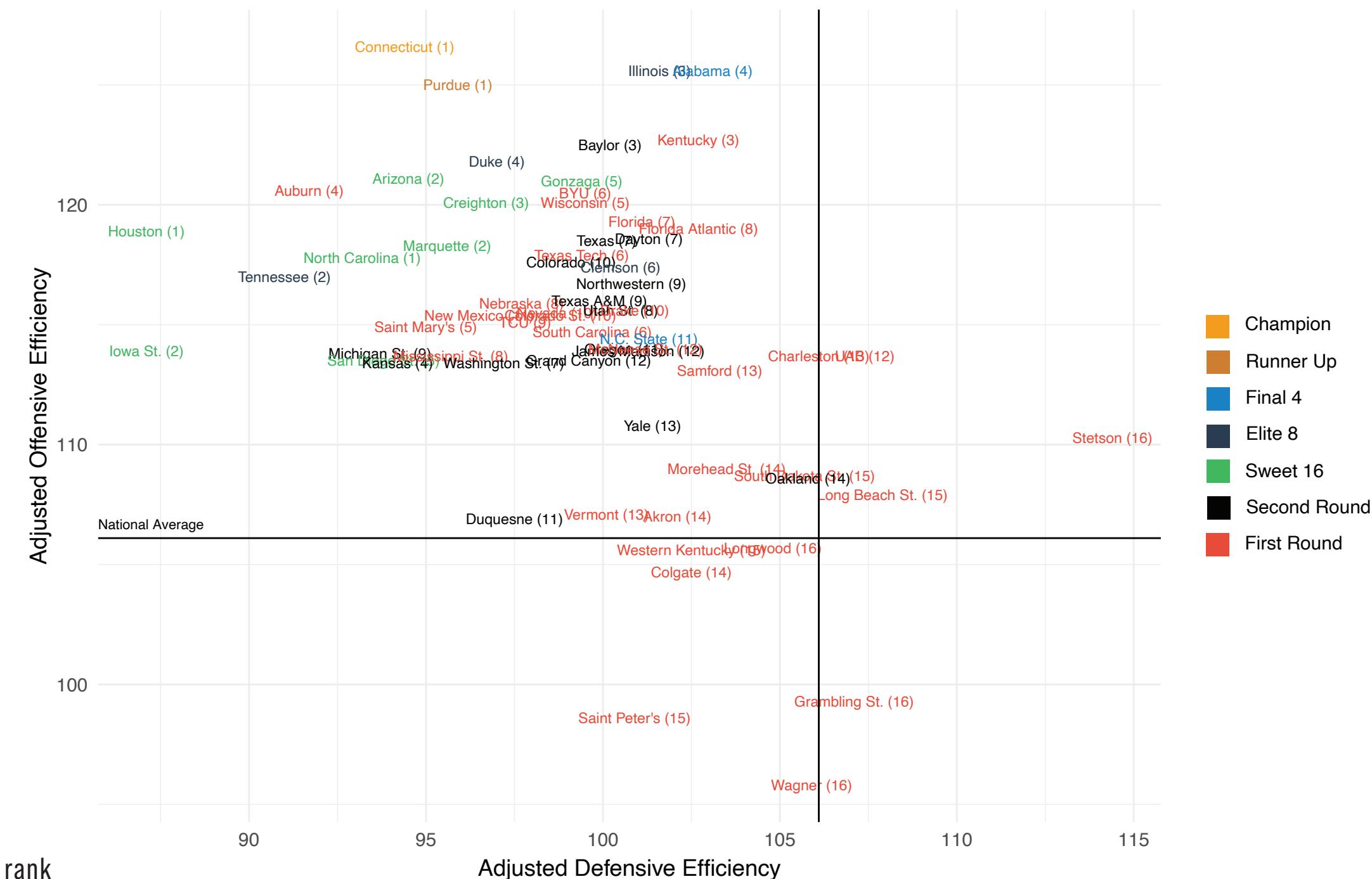
2024 NCAA® DIVISION I MEN'S BASKETBALL CHAMPIONSHIP



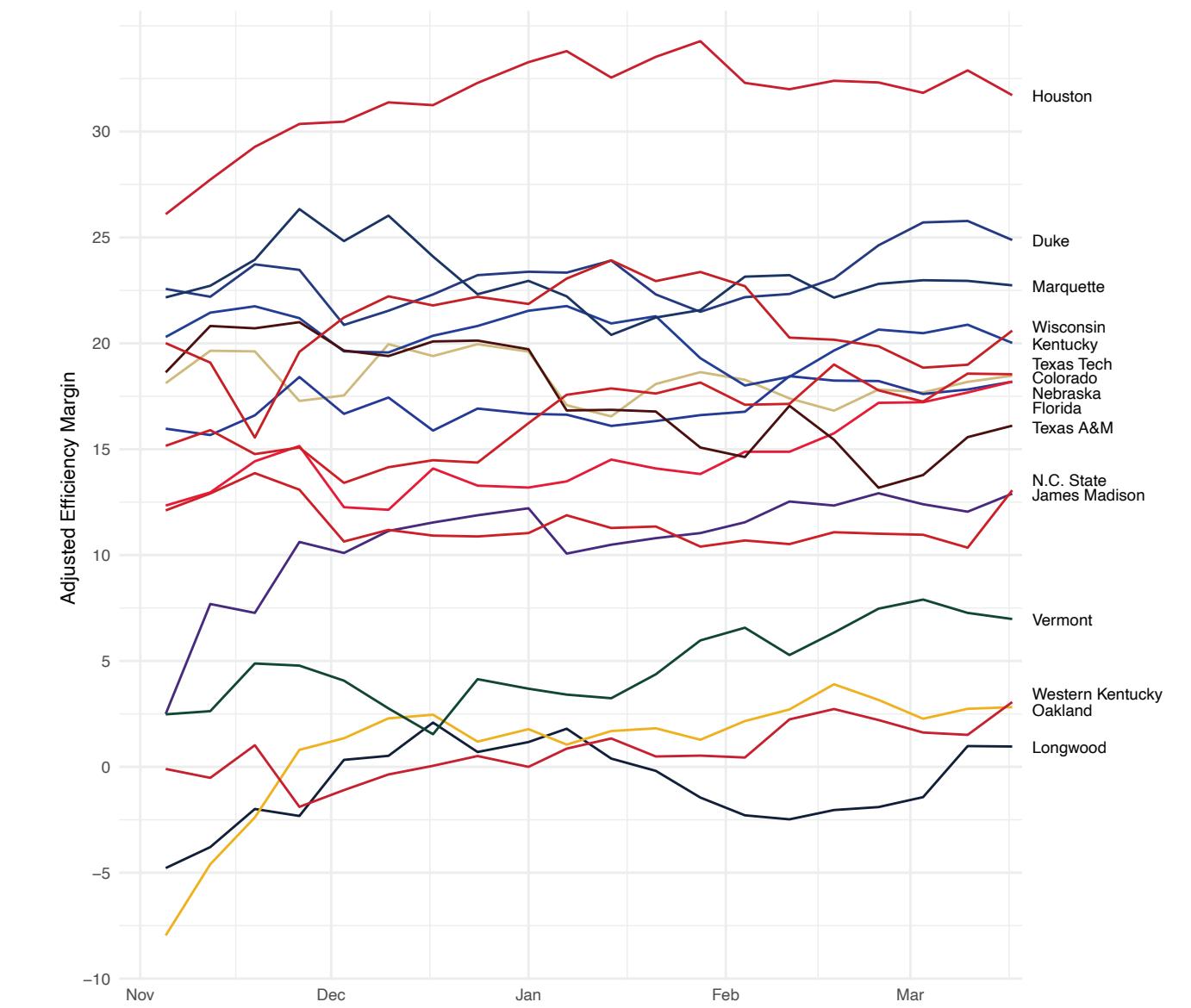
The Field of 64

The visualization on the right plots each of the 64 tournament teams by their respective adjusted offensive and defensive efficiencies going into March Madness. The adjusted offensive efficiency is the points a team would score per 100 possessions and the defensive efficiency is the points they would allow to opponents per 100 possessions. This helps us see where teams are in relation to each other. The national average has also been included as a point of reference. Historically, teams with better offensive efficiency than defensive efficiency do better in the tournament. Teams below the national average rarely make it far, if they even make it out the first round. Each team is coded by a color to show how far they made it this year. Are there any discernable trends or anomalies that you see? Connecticut and Purdue seem to be in a category of their own, explaining why they made it to the championship game. Meanwhile, teams like Houston and Iowa St. had some of the best defensive rankings in the country but didn't make it past the Sweet 16. The cinderella story, N.C. State, were firmly in the middle of the pack but somehow managed to make it to the Final 4.

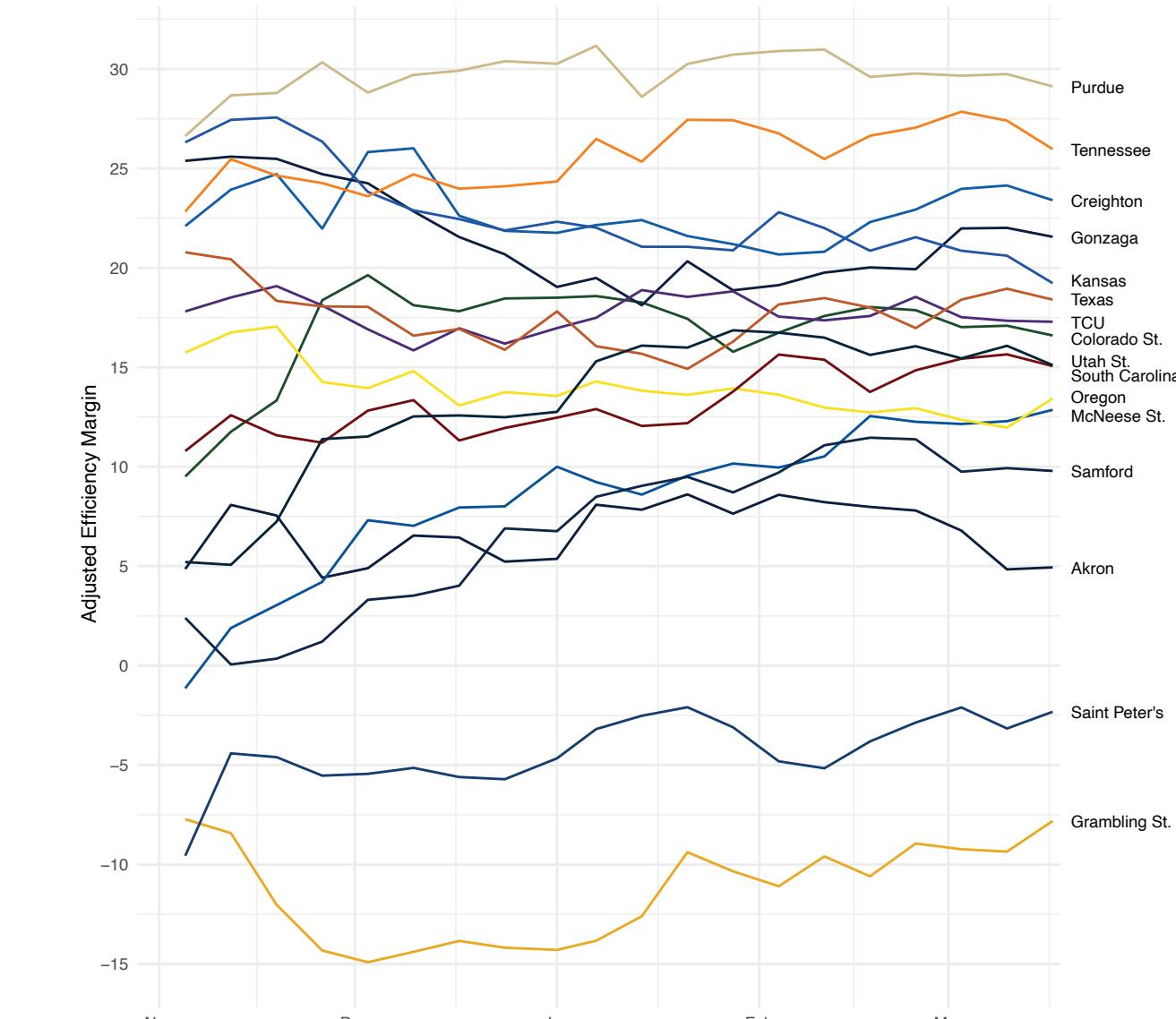
2024 Tournament Teams



South Region



Midwest Region



March Madness

