NCAA Final Four Comparison

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The Dataset

Dataset: The dataset came from Sports Reference where I exported the advanced team data into excel, cleaned it up and then exported it to R where I performed all the analysis and visualizations. Once in R, I did some final cleaning just to make it easier to work with in terms of analysis.

Analysis: I originally wanted to include Pace and Offensive Rebound Percentage but those stats were not available for the 07/08 season, so I focused on five advanced efficiency metrics that were available for both seasons. These metrics were Simple Rating System (SRS), True Shooting Percentage (TS%), Effective Field Goal Percentage (eFG%), Turnover Percentage (TOV%) and Total Rebound Percentage (TRB%).

For context, SRS is a rating that takes into account strength of schedule and point differential, TS% is a measure of shooting efficiency on 2pt/3pt field goals and free throws, eFG% is a measure that adjust for 3-pt field goals being worth more than 2-pt field goals, TOV% is an estimate of how many turnovers a team will have per 100 plays and TRB% is the percentage of available rebounds grabbed while on the floor.
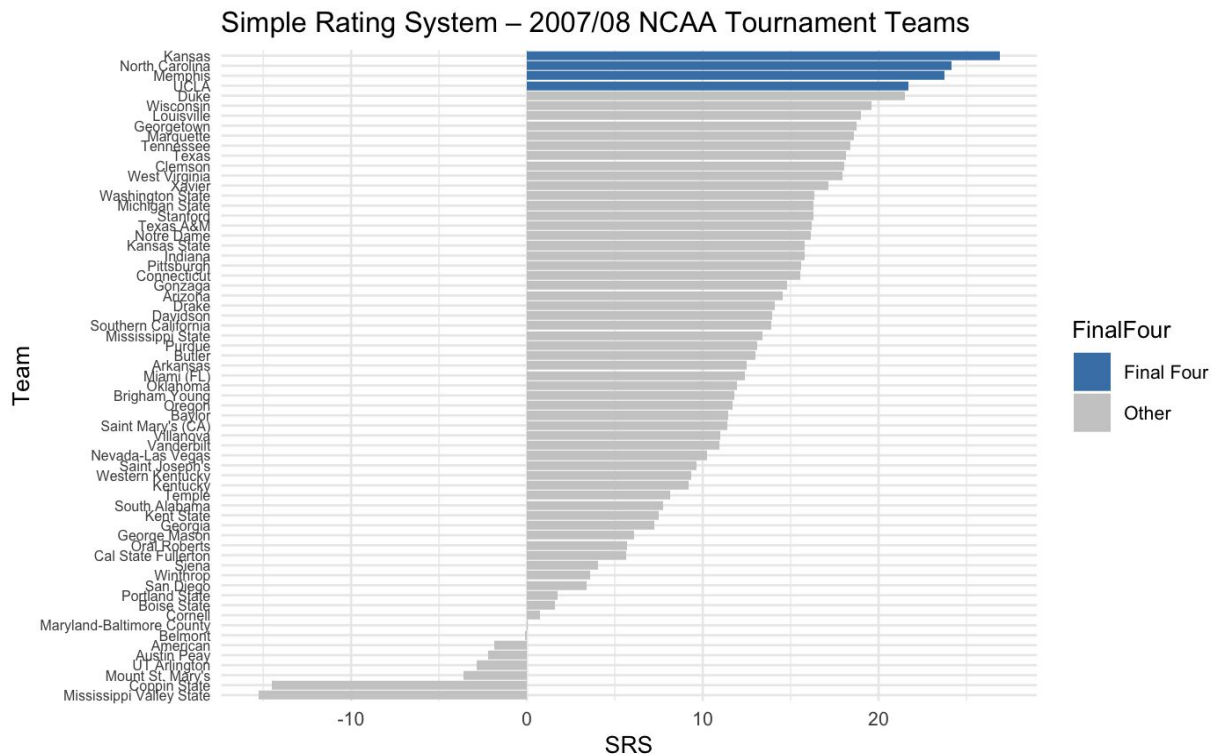
One limitation this analysis had was that the Sports Reference data had no real defensive rating metric. With a metric that took into account more defensive stats, I would have been able to see how well these team's were defending and may had shed some light on teams like Houston or Memphis.

Goals

- Explore how the final four teams from their respective tournament looked in comparison to the rest of the field.
  - Were they better or worse and was there a clear advantage ?
- Explore how the final four teams from each season stacked up against each other in terms of the 5 selected metrics.
  - Which season had the teams that performed the best overall?
    - Who was the best team from each season?
  - Were there any similarities or major differences between these teams ?

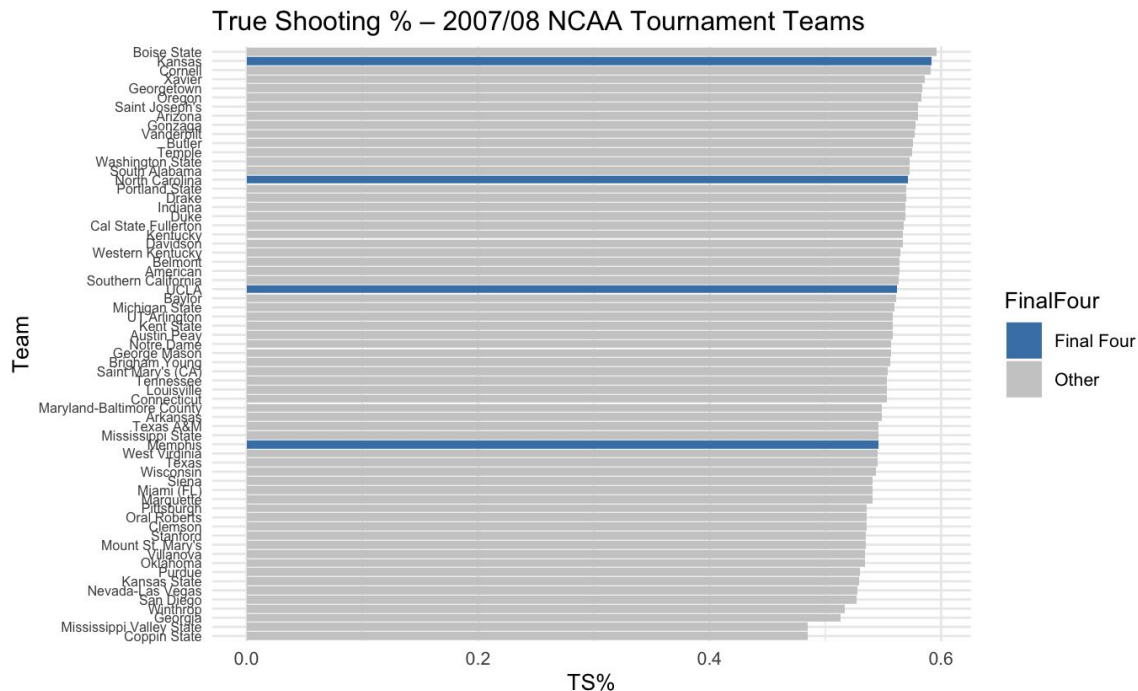# SRS - 07/08 Final Four vs the Field

Insight: The Final Four teams dominated in the SRS which would make sense. The best teams should have a good point differential regardless of their strength of schedule. Kansas who eventually won it all this season is ranked 1st which is a testament to how good they were this year.

Simple Rating System – 2007/08 NCAA Tournament Teams

TS% - 07/08 Final Four vs the Field

Insight: Again Kansas is ranked towards the top at 2nd with a TS% of .592, North Carolina was ranked 15th with a .571 % , UCLA ranked 27th with a .562% and Memphis was tied 43rd with a .546%.
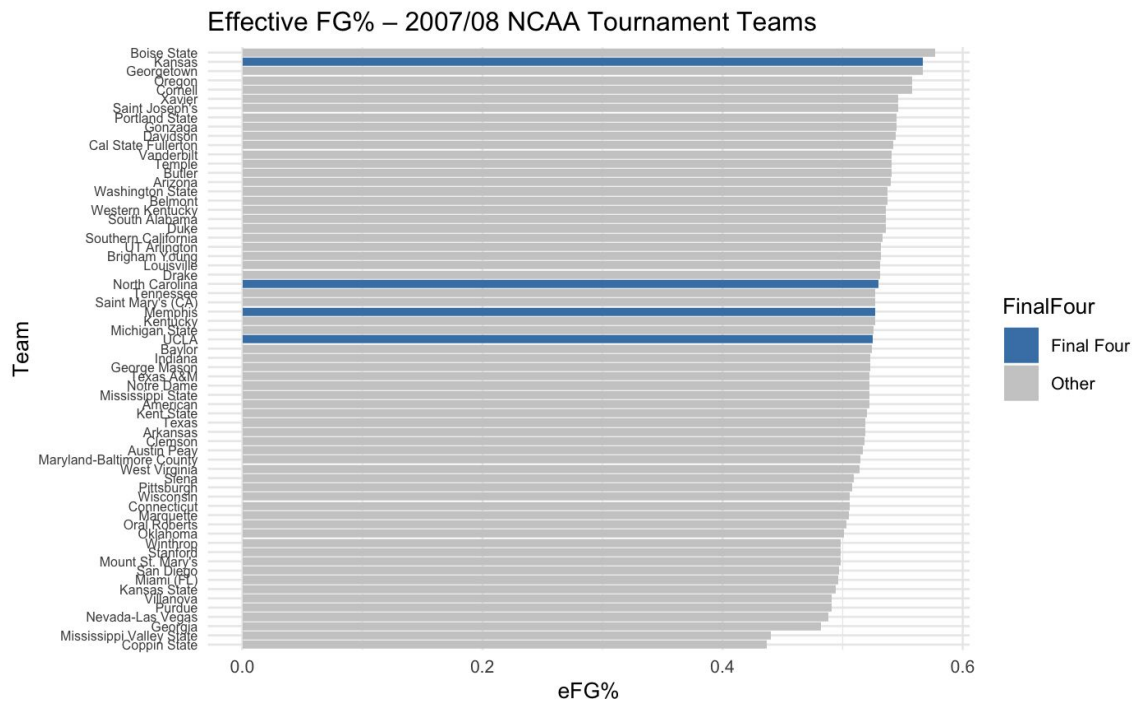
Despite them all being 1 seeds, there was quite a range of efficiency in terms of True Shooting.

True Shooting % – 2007/08 NCAA Tournament Teams

eFG% - 07/08 Final Four vs the Field

Insight: In terms of scoring the ball and being efficient at it, Kansas is clearly above everyone from a TS% and eFG% standpoint. For context, Kansas was tied at 2nd with an eFG% of .567%, North Carolina was ranked 26th with a .530% , Memphis was tied at 28th with a .527% and UCLA was 32nd with a .525%.
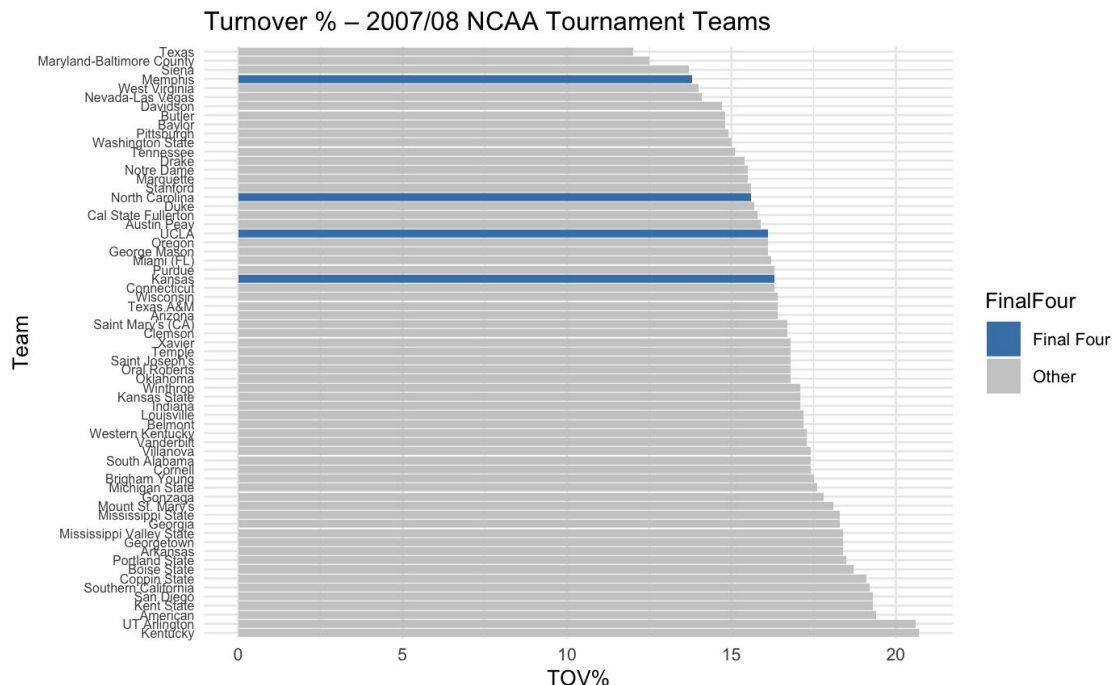
I was surprised to see the other 3 teams so far behind Kansas.

Effective FG% – 2007/08 NCAA Tournament Teams

TOV% - 07/08 Final Four vs the Field

Insight: Memphis was the best final four team in terms of taking care of the ball. So despite them not being the best when it comes to TS% or eFG% they didn't give teams extra possessions.
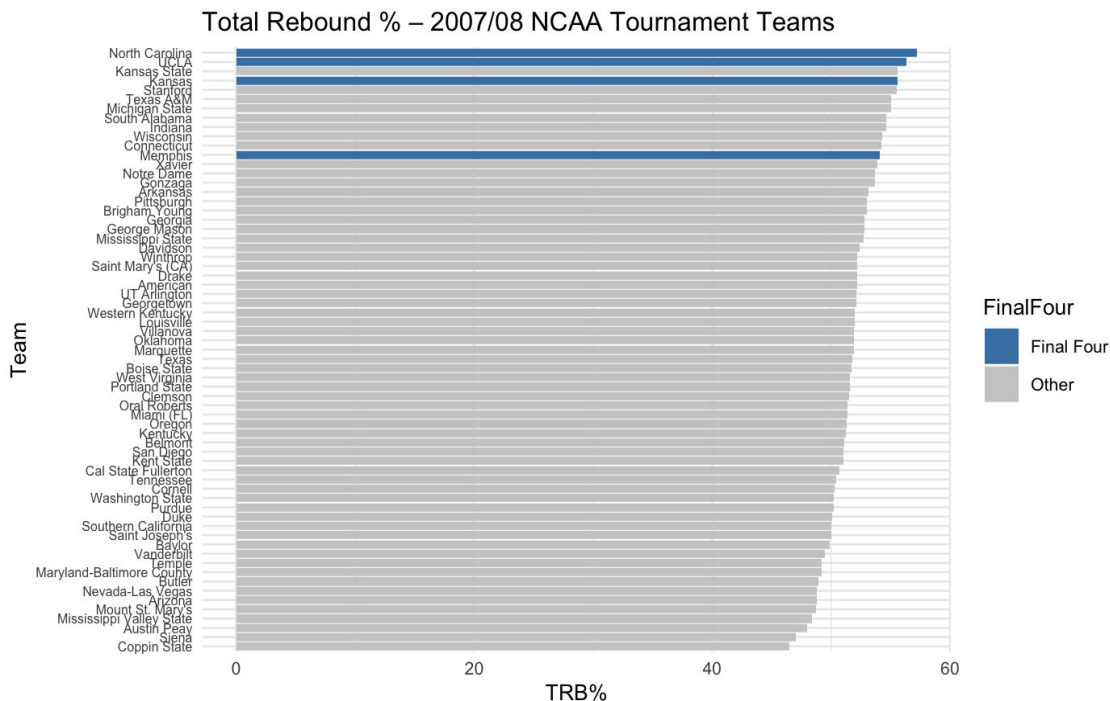
Memphis ranked 4th at 13.8 , North Carolina was tied 16h at 15.6, UCLA was tied 22nd at 16.1 and Kansas had the most turnovers per 100 plays tied 26th at 16.3.

Turnover % – 2007/08 NCAA Tournament Teams

TRB% - 07/08 Final Four vs the Field

Insight: All of the Final Four teams had good rebounding numbers which is essential to winning basketball games.
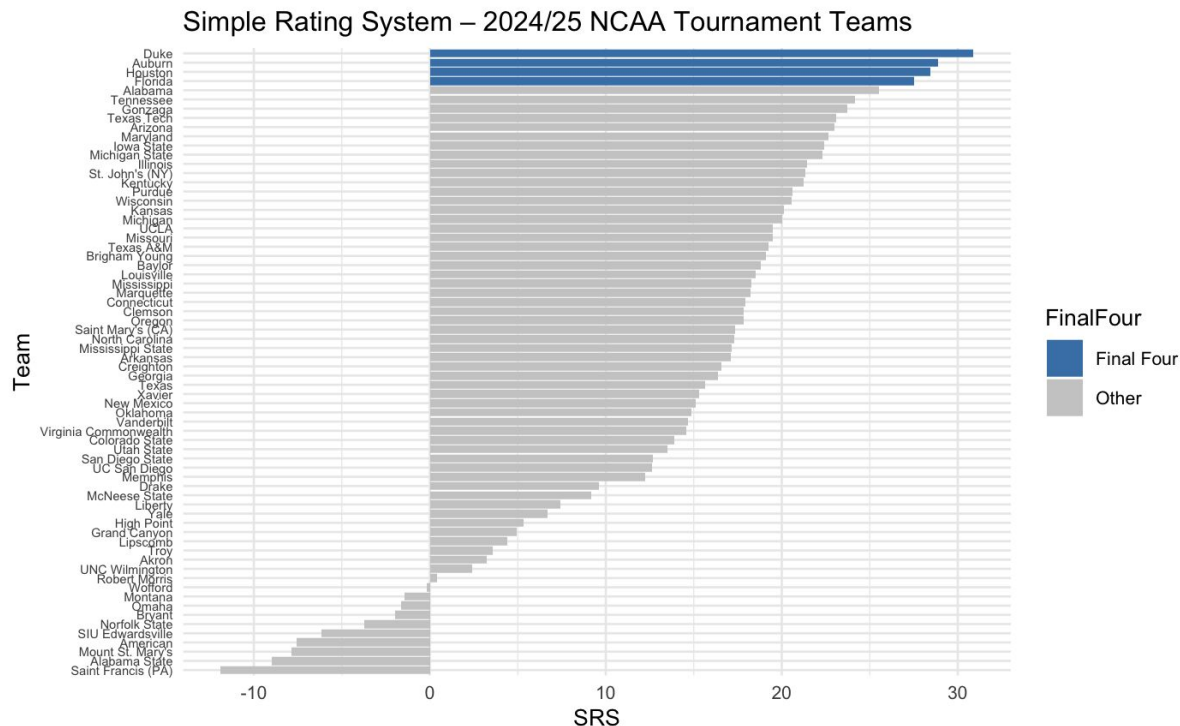
North Carolina has historically been known to rebound the ball well so it's no surprise they were ranked 1st at 57.2%. UCLA ranked 2nd at 56.3%, with Kansas being right behind tied 3rd at 55.6%. Memphis was right outside the top 10 , tied 12th at 54.1%.

Total Rebound % – 2007/08 NCAA Tournament Teams

SRS - 24/25 Final Four vs the Field

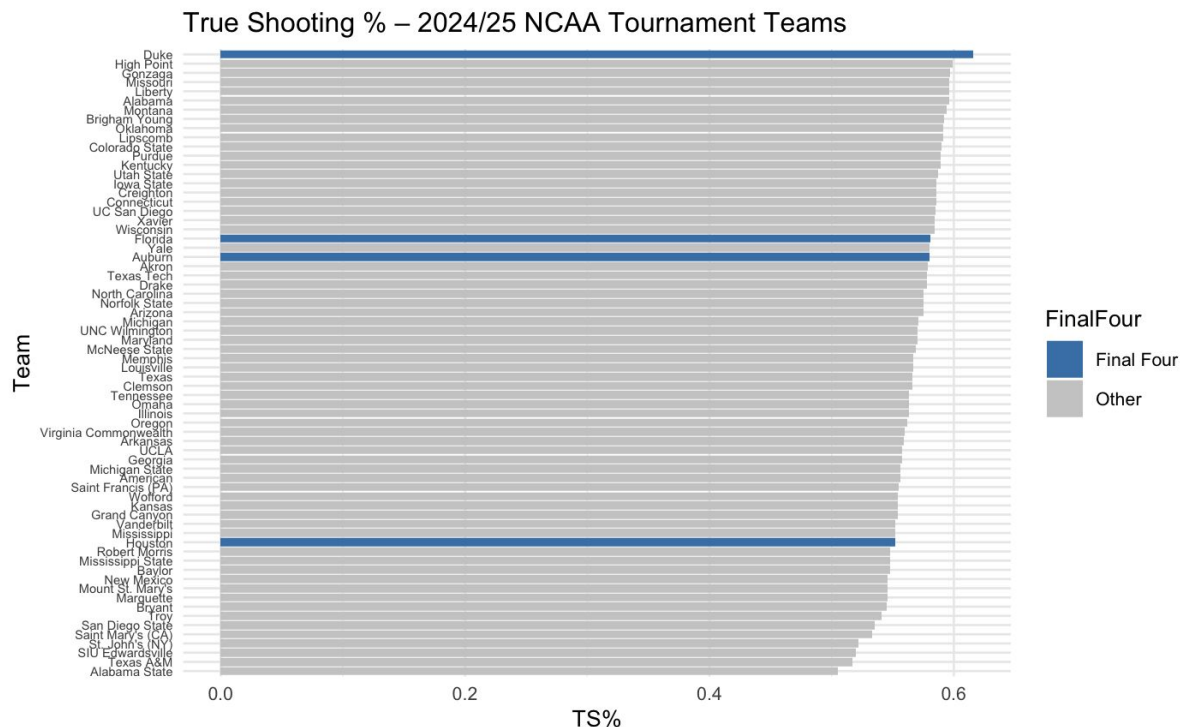Insight: Just like the 07/08 season, all the final four teams ranked in the top 4 for SRS.

However, in this case Duke who was ranked 1st didn't win it all, instead the team ranked 4th, which was Florida won it all.

TS% - 24/25 Final Four vs the Field

Insight: Just like Kansas, we see Duke being ranked at the top. They were 1st with a TS% of .616%, Florida was ranked 21st at .581 % , Auburn ranked was tied 22nd at .580% and Houston was tied 53rd at .552%.
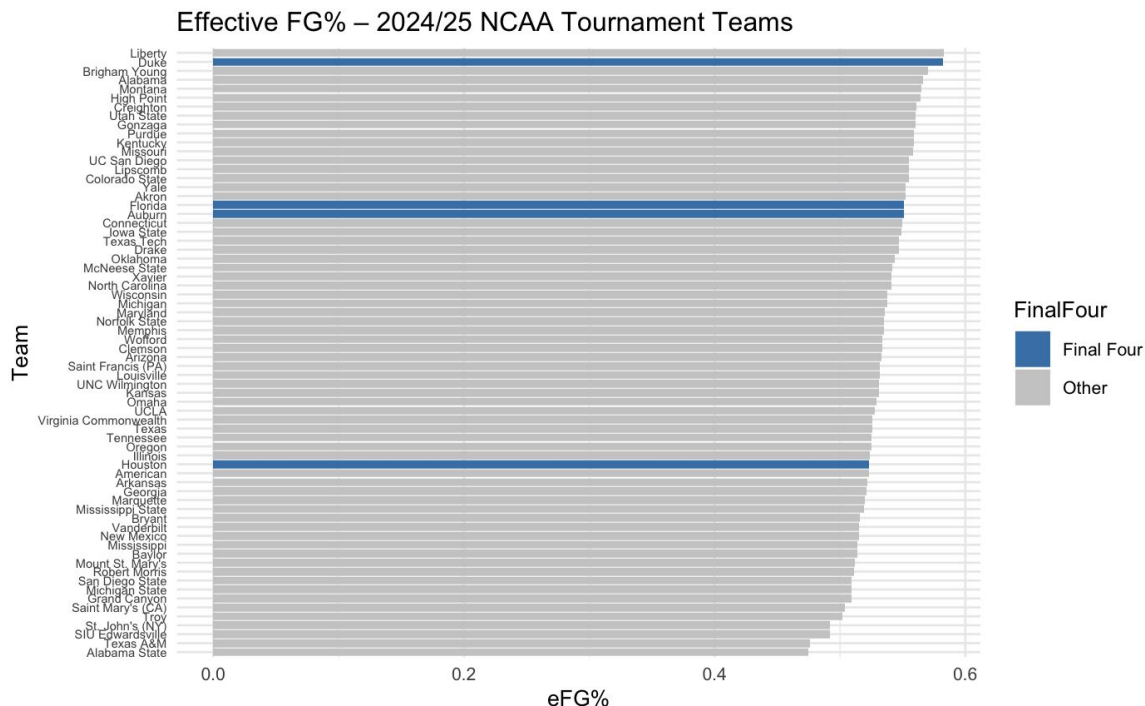
There was a wide spread between these 4 teams. However, Houston being ranked 53rd out of the the 68 total teams was surprising. But their style of play was very defensive and held teams below their scoring average all year.

True Shooting % – 2024/25 NCAA Tournament Teams

eFG% - 24/25 Final Four vs the Field

Insight: Duke again is well above the other teams in the field in terms of TS% and eFG%. However, unlike Kansas who performed similarly in these metrics they couldn't get the job done.
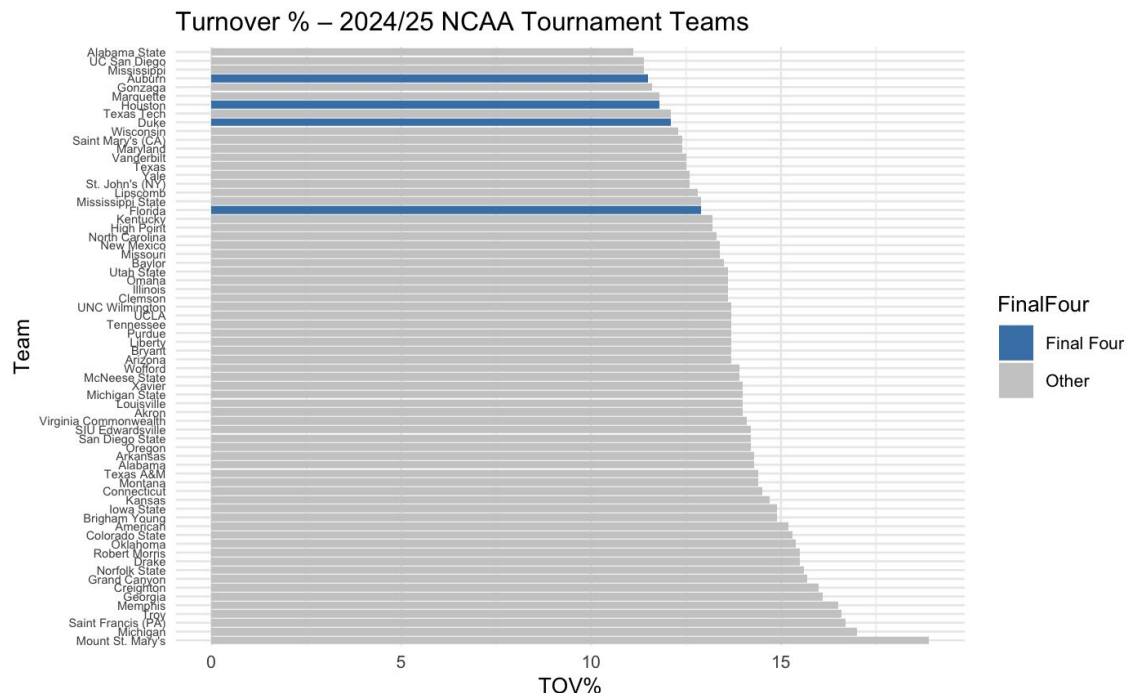
In eFG% , Duke ranked 2nd at .582%, Florida and Auburn were tied 18th at .551% and Houston was again far behind, ranked 48th at .523%.

Effective FG% – 2024/25 NCAA Tournament Teams

TOV% - 24/25 Final Four vs the Field

Insight: Auburn ranked 4th at 11.5, Houston tied 6th at 11.8, Duke tied 8th at 12.1 and Florida was tied 18th at 12.9.
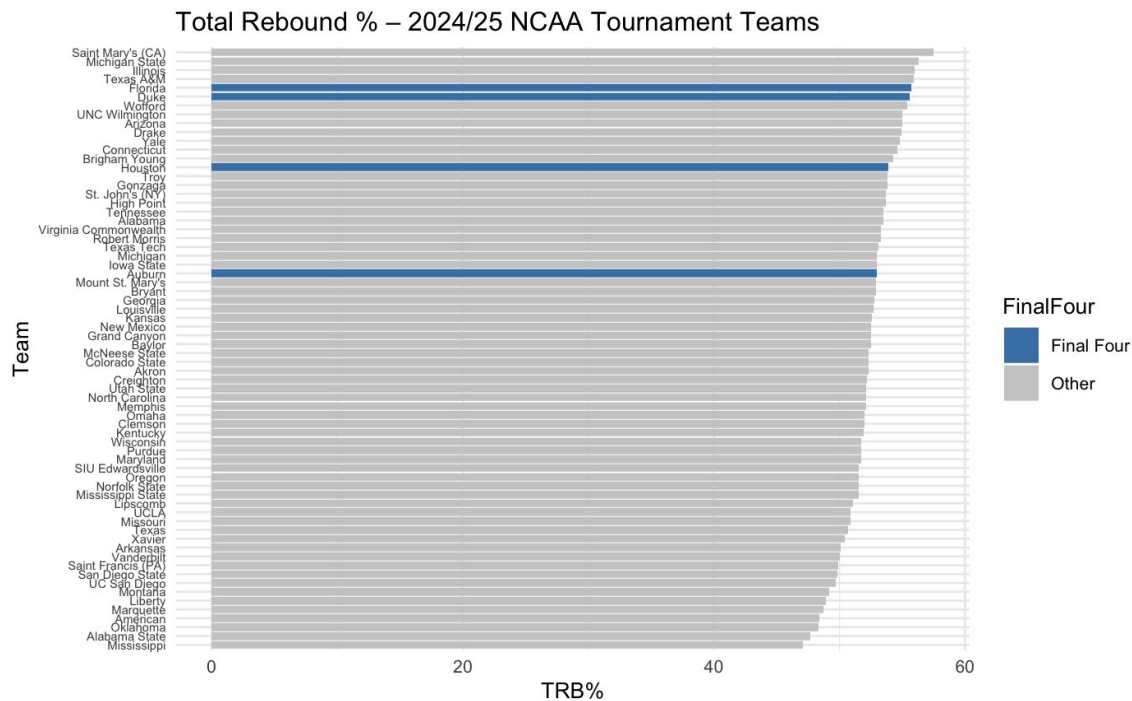
All four teams were good at taking care of the ball, despite Florida being ranked so far from the other teams the actual statistical values were not far away. The best teams take care of the ball and make the most of their possessions.

Turnover % – 2024/25 NCAA Tournament Teams

TRB% - 24/25 Final Four vs the Field

Insight: Florida was the best rebounding team out of the final four teams. It definitely played a huge role in their success as they outrebounded their opponent in every game of the tournament.
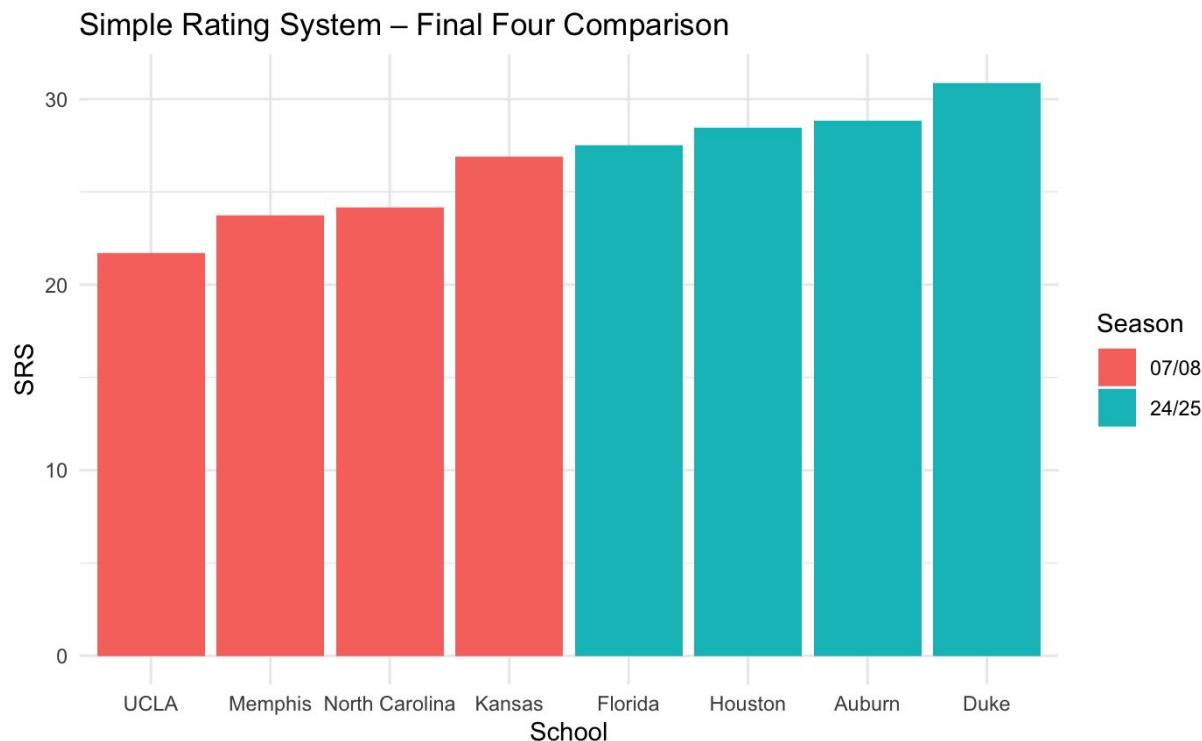
In TRB%, Florida ranked 5th at 55.7, Duke ranked 6th at 55.6, Houston ranked 14 at 53.9 and Auburn was tied 25th at 53.0.

Total Rebound % – 2024/25 NCAA Tournament Teams
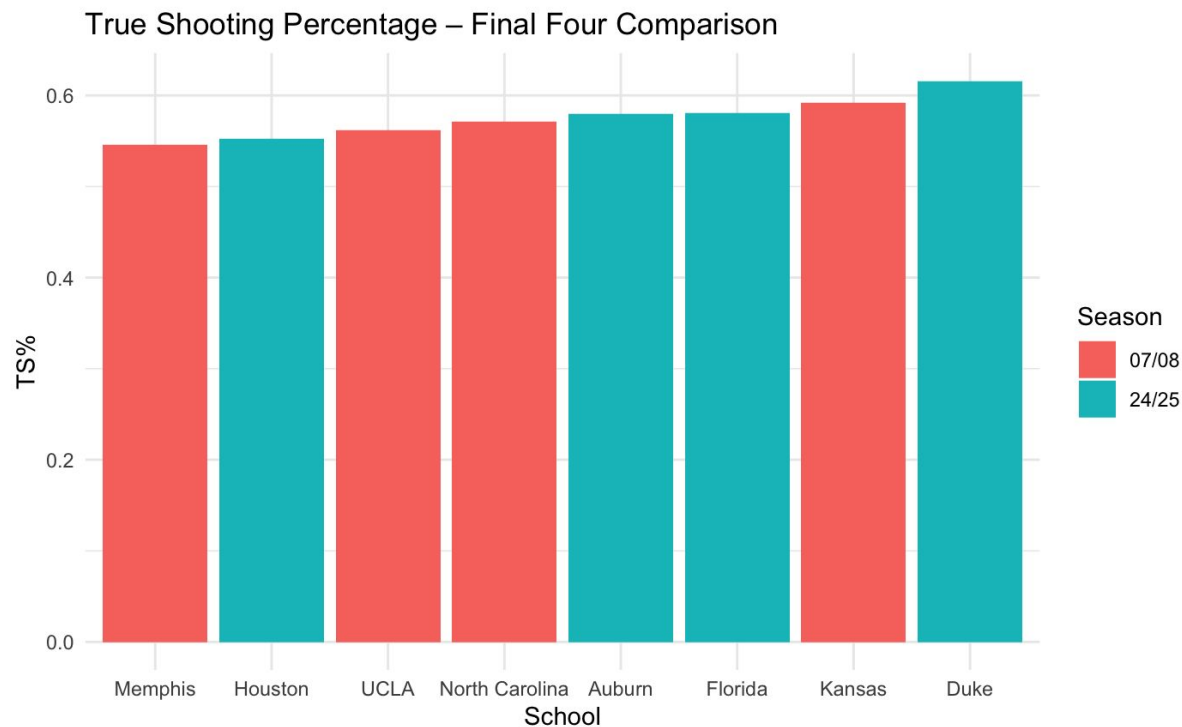
SRS - Final Four Comparisons

Insight: In their respective seasons, all final four teams ranked at the top of their field in terms of SRS. However, when compared side by side this past year's teams clearly had an advantage in terms of strength of schedule and point differential.

I would say this is due to a combination of more teams being competitive, especially in the SEC, and how dominant these four teams were this past season.

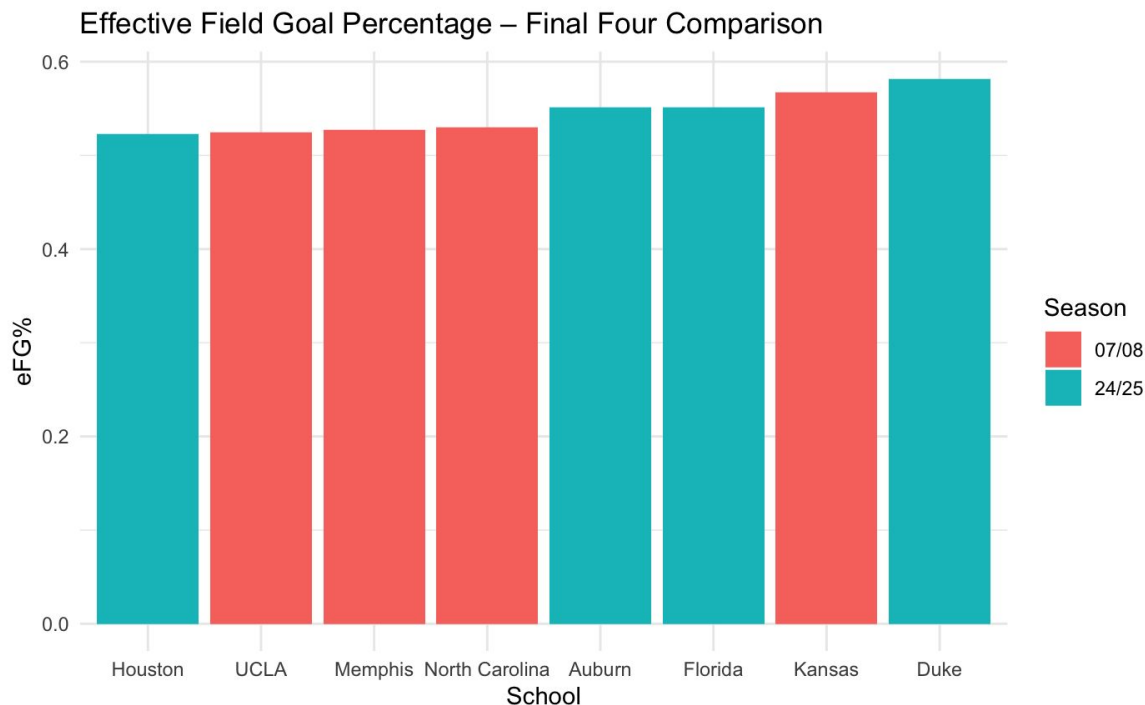Simple Rating System – Final Four Comparison

TS% - Final Four Comparisons

Insight: 3 of the top 4 teams in TS% came from this past season with Kansas being the only one from the 07/08 season. This suggests that, shooting efficiency may have improved over the years. This could possibly due to things like player development, changes in the game such as more 3 point shooting or just better offensive schemes in general.

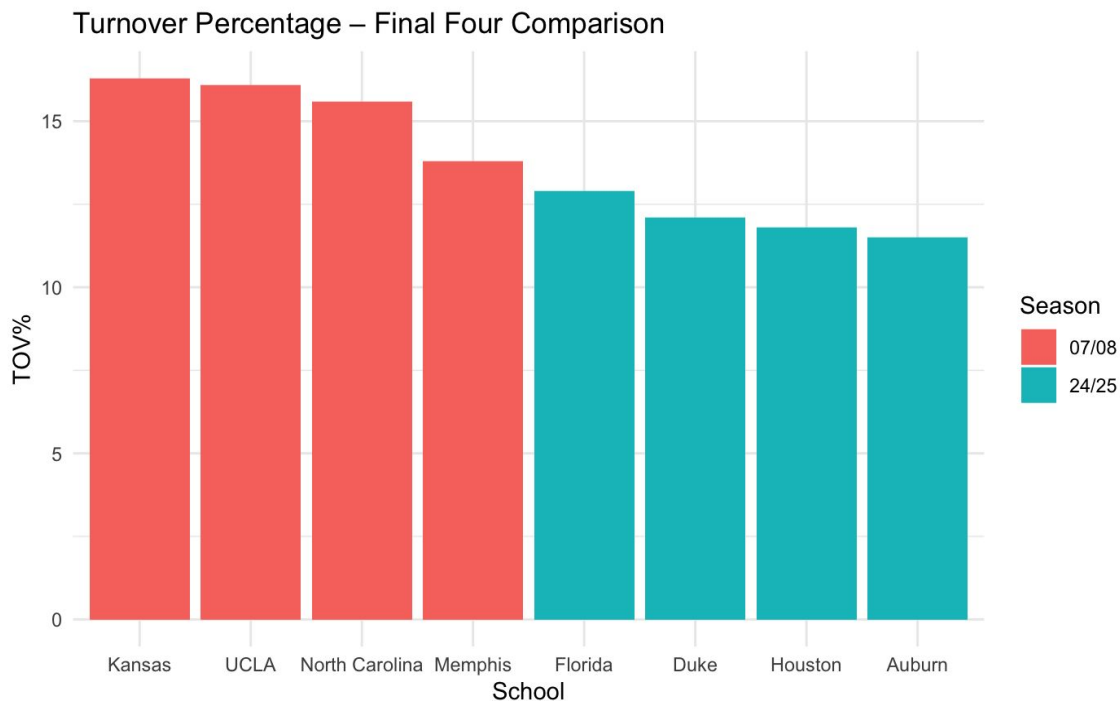True Shooting Percentage – Final Four Comparison

eFG% - Final Four Comparisons

Insight: As is it was with TS% the teams from this past season , with the exception of Houston generally performed better than the 07/08 season. In today's game , there is a lot more emphasis on taking and making the 3's, so this data makes sense for a stat that takes into account this difference between the 2pt and 3pt field goals.
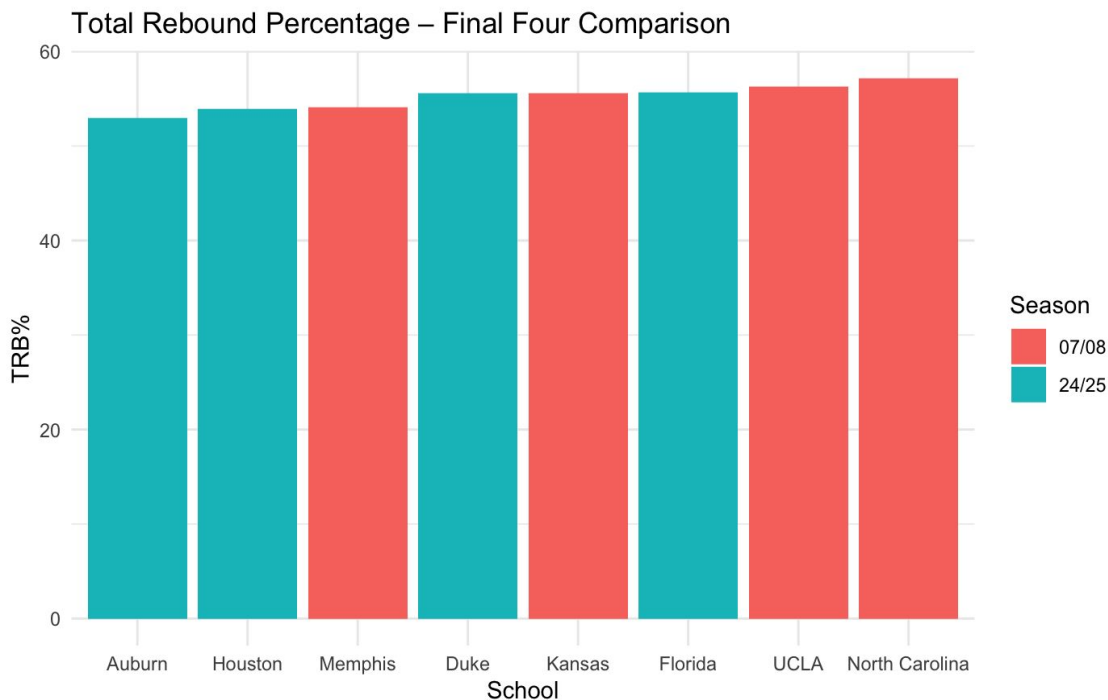
TOV% - Final Four Comparisons

Insight: Just as it was with the SRS ratings , all four teams from the 07/08 season performed worse than the teams from this past year. This graph suggest that teams from the 07/08 season were turning the ball over much more than the team's from this past year.

Turnover Percentage – Final Four Comparison

TRB% - Final Four Comparisons

Insight: This graph showed the opposite of the other graphs, in which the majority of the best rebounding teams came from the 07/08 season, with Florida and Duke(who is tied at 55.6 with Kansas) being the exceptions. However, the other 3 teams are not far behind in rating.

This makes sense as rebounding has always been a focus for teams and with teams shooting worse during the 07/08 season it makes sense that they could grab a lot more rebounds.

Total Rebound Percentage – Final Four Comparison

Conclusion

- The final four teams in the 07/08 season for the most part stacked up well against the rest of the field. In terms of winning, point differential and rebounding these teams were dominant against the rest of the field. However, with the other metrics like TS%, eFG% and TOV% there was some variance but for the most part Kansas was the best team.
- The final four teams in the 24/25 season also stacked up well against the competition with the exception of Houston I would say but that also takes into account I had no defensive metric that could highlight their strengths. In terms of winning, point differential and TOV% these teams were generally towards the top. With the other metrics, TS%, eFG% and TRB% there was some variance but based on these metrics Duke was the best team.
- In the comparison of all 8 final four teams, the teams from this past season had a clear advantage over the 07/08 teams. The only metric that the 07/08 teams put up better numbers in was the rebounding metric but other than that they generally were behind.
- Comparing different eras of basketball can be difficult but I thought it would be interesting to see the similarities and differences of these two historic seasons and it gave me a lot of insight on how these teams performed.

THANK YOU !