

## Story:

March Madness is one of the most electrifying times of the year, where college basketball takes center stage and captivates millions. Fans across the country meticulously fill out brackets, hoping to predict the perfect winner amidst upsets, buzzer-beaters, and Cinderella stories. The chaos and excitement of the tournament leave everyone wondering—what truly separates the champions from the rest?

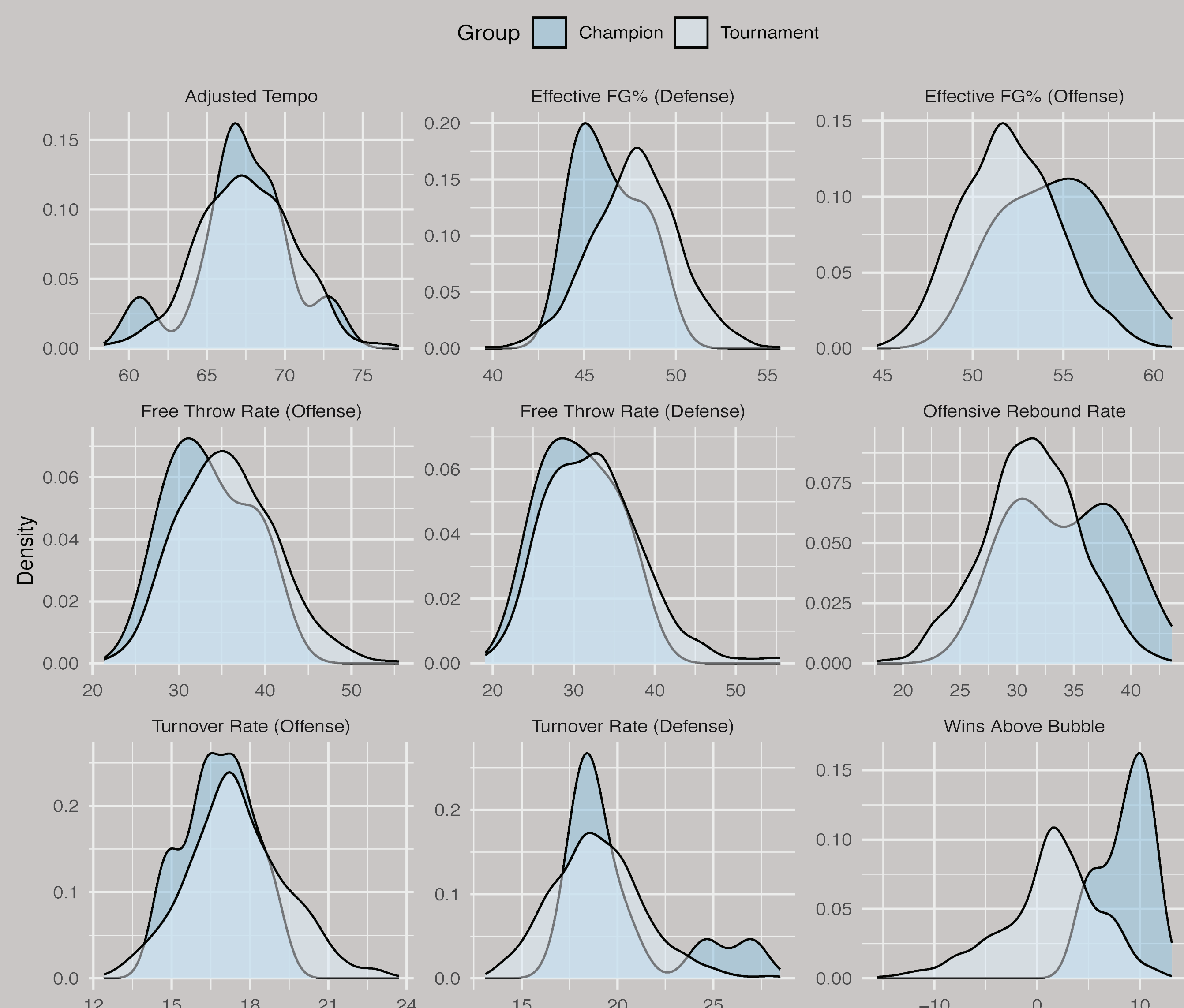
## Motivation:

Coaches, analysts, and basketball enthusiasts alike would be deeply interested in uncovering the traits that make NCAA champions stand out. For coaches and analysts, these insights could inform strategies and recruitment decisions, while fans seek a data-driven edge in filling out their brackets. Understanding what separates champions from the rest not only adds excitement to March Madness but also provides actionable knowledge for those invested in the game.

## Data:

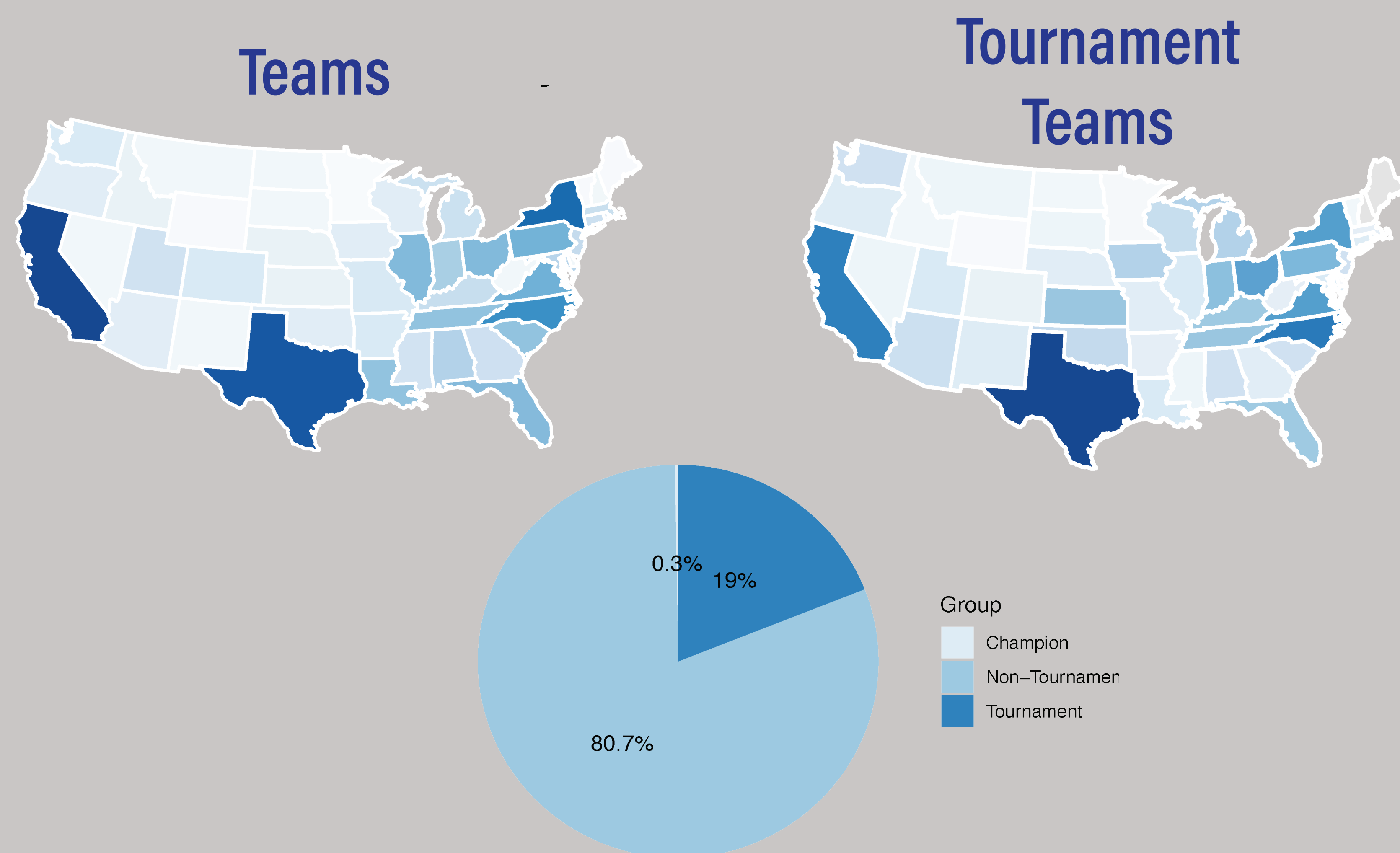
The dataset consists of 3,523 rows and 26 columns detailing NCAA basketball team performance, including metrics like offensive and defensive efficiency, shooting percentages, and turnover rates. The data was collected from NCAA records and manually enriched by adding state information for each team to enable geographic analyses. It underwent cleaning and aggregation to classify teams into groups such as "Champions," "Tournament Teams," and "Non-Tournament Teams," providing a clear basis for comparison.

## What do Champions Excel at?

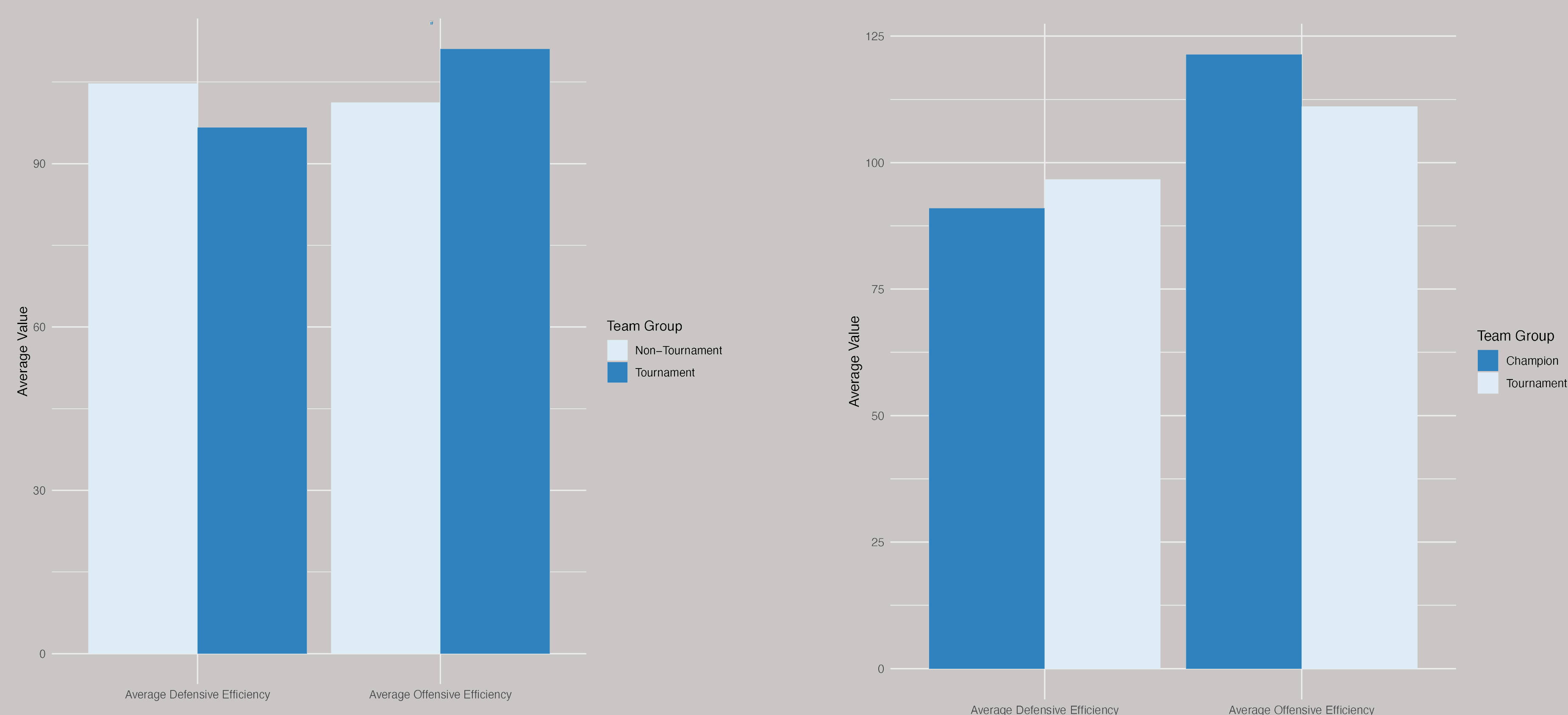


Champions consistently outperform other tournament teams across several critical metrics. Champions show higher offensive efficiency (EFG\_O), reflecting their ability to convert possessions into points effectively, and superior defensive efficiency (EFG\_D), showcasing their capacity to limit opponents' scoring opportunities. They also exhibit lower turnover rates (TOR) and better rebounding (ORB), indicating their ability to maintain possession and control the game. These advantages highlight the balanced dominance of champions in both offensive and defensive aspects of the game.

## Where are the School's From?

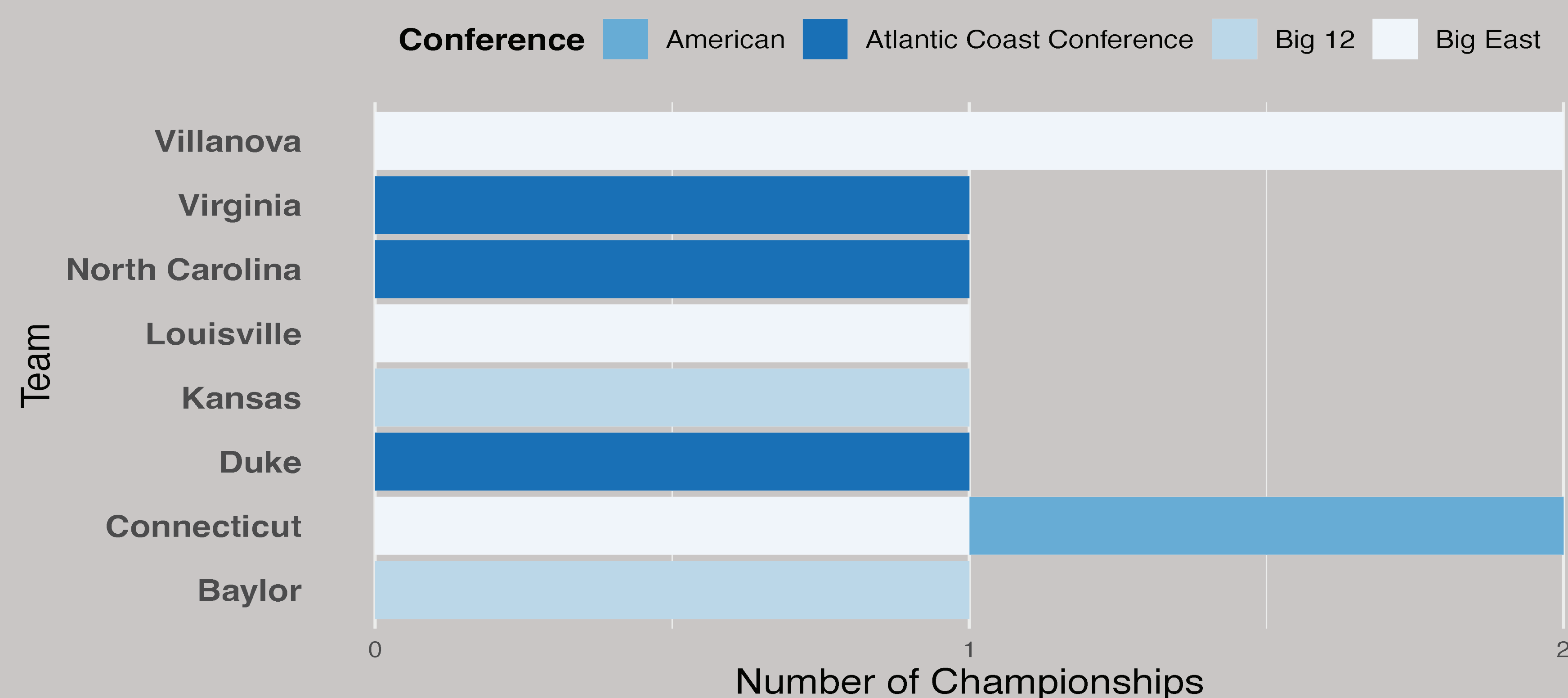


## Does Offense or Defense Matter More?



We see that tournament teams play better offensively and defensively than non tournament teams. Furthermore, we see that champions play even better offensively and defensively than teams that just make the tournament.

## Who's been Winning?



The visualizations collectively highlight the factors that set NCAA champions apart. The maps reveal geographic trends in team success, with certain states producing more tournament teams and champions. Bar plots show champions excelling in offensive and defensive efficiency compared to others, while the density matrix emphasizes champions' superior shooting percentages, defensive capabilities, and lower turnover rates. The pie chart illustrates the rarity of champions among all teams, reinforcing how their balanced dominance across key metrics defines their success.

