I. Introduction and Background

The world of basketball recruiting is a massive one, according to *Accelerated Prep* (2022) there are over half a million high school basketball players in the country and only around 30,000 scholarships for those players to continue playing in college. Participating in college basketball at any level from NCAA division 1 to Junior College is a prestigious honor and one many of those half a million players are striving for. Recruiting is also a massive expense for the schools themselves. Now that schools are allowed to pay players via Name, Image, and Likeness, finding top tier talent comes at a premium with some schools spending upwards of $10 million according to 247 Sports (Geoghegan, 2025). This type of spending is possible for top programs but smaller ones do not have that type of luxury. How can smaller schools better locate top talent and how has the recruiting landscape changed over time? The first issue is extremely geographical, the best players are often grouped in similar areas and is something scouts need to consider when trying to find talent. The second is one that can possibly help them determine how they should adapt to a new world of college sports.

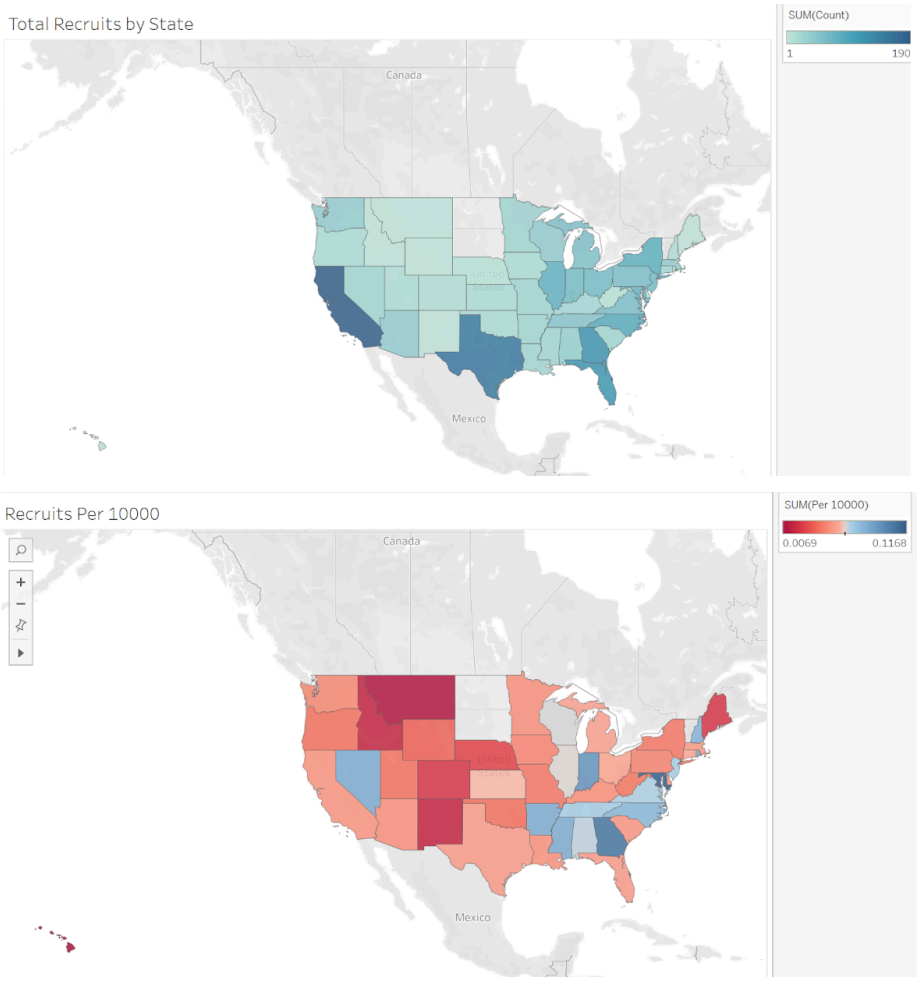
II. Objectives and Goals

This study attempts to look at where the top players come from to give recruiters a better idea of where they should focus their efforts by looking at geospatial data. If this can be done schools can better fine tune their methods of scouting and save money by cutting waste. It also looks at how previous recruiting classes have turned out and what they have looked like over time to give scouts a better understanding of how to proceed for the future based on previous trends.

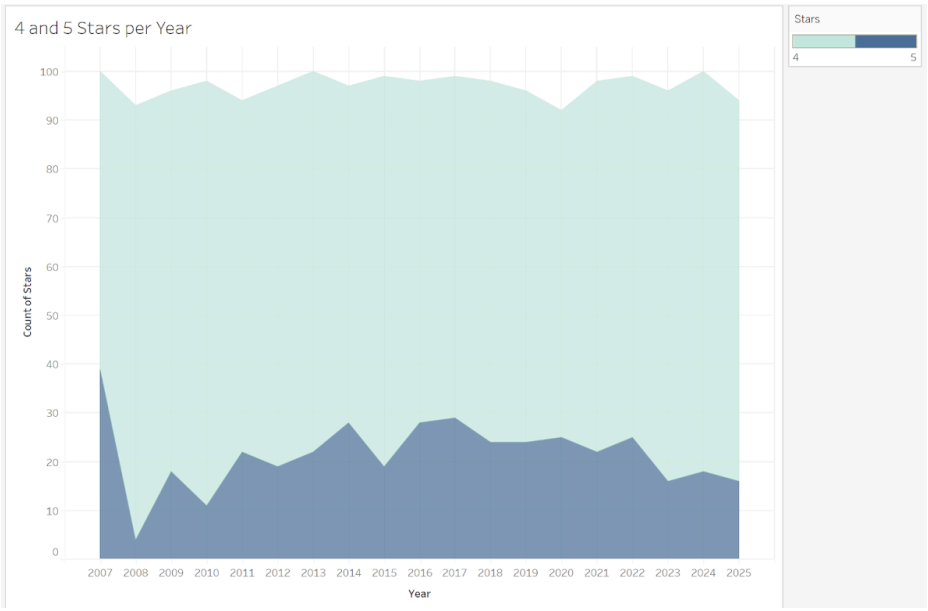
III. Data

The data collected comes from the ESPN 100 list. Each year, since 2008, ESPN has released their top 100 high school basketball recruits with grades and subsequent stars one through five. Being placed on this list means a player should be a very impactful player at the next level and these are often the most desired players in the nation (ESPN, 2025). The data was also joined with data about each state's population from World Atlas for future geospatial concerns (WorldAtlas, 2023) as well as with the conference of the school each player committed to from *Sports Reference* (2025). The data includes what state the player comes from, the school they committed to, their rank in the top 100, grade, star value, and the year they were recruited.

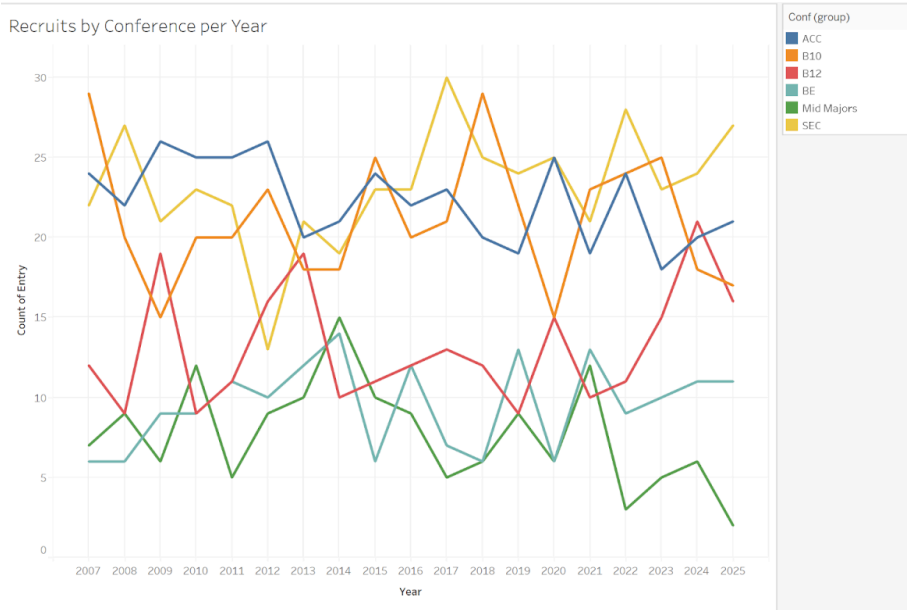
IV. Visualizations

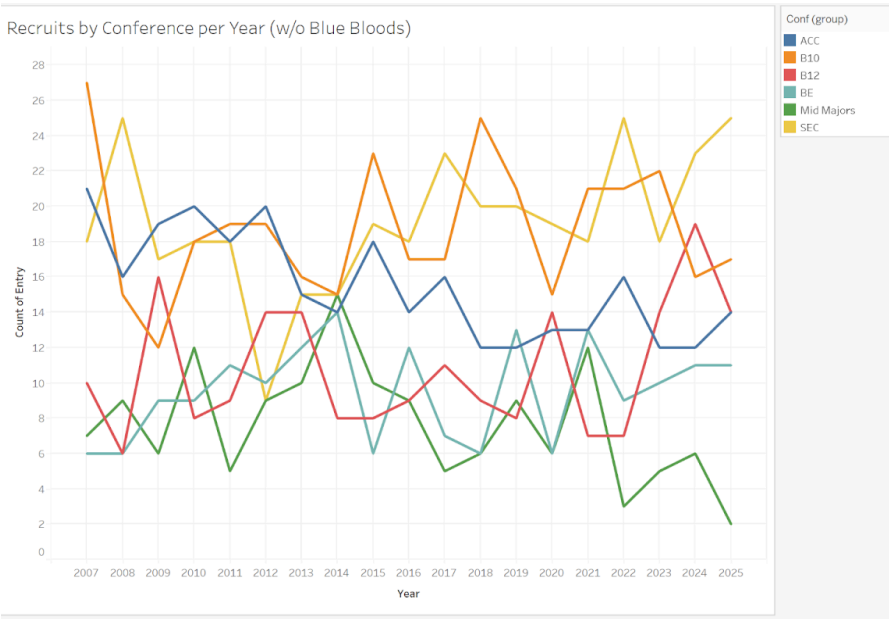


The first two visualizations have to do with where players come from. The top visualization is a chloropleth map that simply shows the total number of top 100 recruits from each state. While this is an interesting tool to see where the majority of players come from it has a few drawbacks. The main one being the population of a state. California and Texas are clearly the most common states for a player to come from followed by states such as Florida, Georgia, New York, North Carolina, and Illinois. However these are some of the most populous states in the United States so it can be difficult to determine if these states are truly producing more good players or if they simply have a much larger pool of players. To correct for this the number of recruits per state was proportionalized by dividing the number of top 100 recruits by the population of each state then multiplied by 10,000 to determine the prevalence of top 100 players rather than the simple count. By doing this it becomes clear that places like Texas, California, Florida, and New York are not nearly as much an abundance of talent as they may seem. A scout can only watch so many players so finding areas that have a lot of talent in a small area is vital. Based on the updated map it is clear that Georgia, Illinois, and Maryland are producing talent at a much higher rate than most of the country, meaning this is where scouts should focus more of their time.



The next visualization shows an area time series chart of how players have been ranked over time. It displays the total number of recruits each year broken down by their star value. This value should be 100 most years however many top players often decide to play overseas in exchange for a payday and forgo their college eligibility. It shows that ESPN originally ranked a lot more players as five stars before overcorrecting and then eventually evening out. It also shows a slight decline in the number of five stars in previous years which may indicate a lack of talent and a need for scouts to search deeper to find diamonds in the rough that can turn into stars. The final finding from this graph is that from 2018-2021 a number of players did not sign with a college indicated by the graph consistently not reaching close to the full 100 players in those years. However that trend has reversed itself most likely due to NIL allowing players to earn money while in school. This is a helpful insight for scouts because it means they have to be less concerned with professional teams poaching potential prospects and can focus more on convincing players to come to their school over another. Rather than convincing them not to play in a league abroad.





The final two visualizations are very similar and show how each conference has fared in recruiting players each year. It separately sorts the Power 5 conferences (the five strongest conferences consistently), the Big 10, Big 12, Big East, ACC, and SEC, and then groups all remaining conferences together, often known as the mid-majors. The top chart includes all schools in division 1 while the bottom one attempts to remove outliers by excluding schools known as Blue Blood programs. These are the top programs and often recruit a high proportion of talent. By removing them a better look at how the conferences do on a team by team basis can be established. The teams eliminated were Duke and North Carolina in the ACC, Kansas in the Big 12, UCLA in the Big 10, and Kentucky in the SEC. The differences between the graphs are clear, the ACC suffers a great deal without their top programs and are a very top heavy conference while the SEC and Big 12 remain at the top of the pack. Overall the graphs show that

the SEC, ACC, and Big 12 are consistently the best at recruiting with the Big 10 in a close fourth and the Big East in a distant fifth. These top four conferences have the funds to spend big and acquire this talent while the Big East needs to be more selective with how they spend their limited resources. Finally it is clear mid-major recruiting has declined in recent years, once again probably due to NIL, making it clear that these schools need to spend time looking for underrated players who may be on less teams radar if they want to be competitive with more well endowed programs because they cannot afford to outspend them.