

`geom_basketball()` function with NBA as the argument so that it shows the court used in NBA games. While many of the graphing techniques are the same, note how many options there are for displaying the NBA court, for example its various colors.

```
player_name <- "Nikola Jokic"
p <- geom_basketball(league = "NBA",
  display_range = "defense",
  color_updates = list(
    defensive_half_court = "white",
    offensive_half_court = "white",
    court_apron = "white",
    center_circle_fill = "white",
    two_point_range = "white",
    painted_area = "white",
    free_throw_circle_fill = "white",
    basket_ring = "black"))
p + geom_point(data = nba_nuggets_shots |>
  filter(namePlayer == player_name,
    yearSeason == 2023,
    zoneBasic != "Backcourt"),
  aes(y = locationX/10,
    x = (locationY - 420)/10),
  alpha = .25) +
labs(title = "2022-23 Shot Attempts for Nikola Jokic")
```

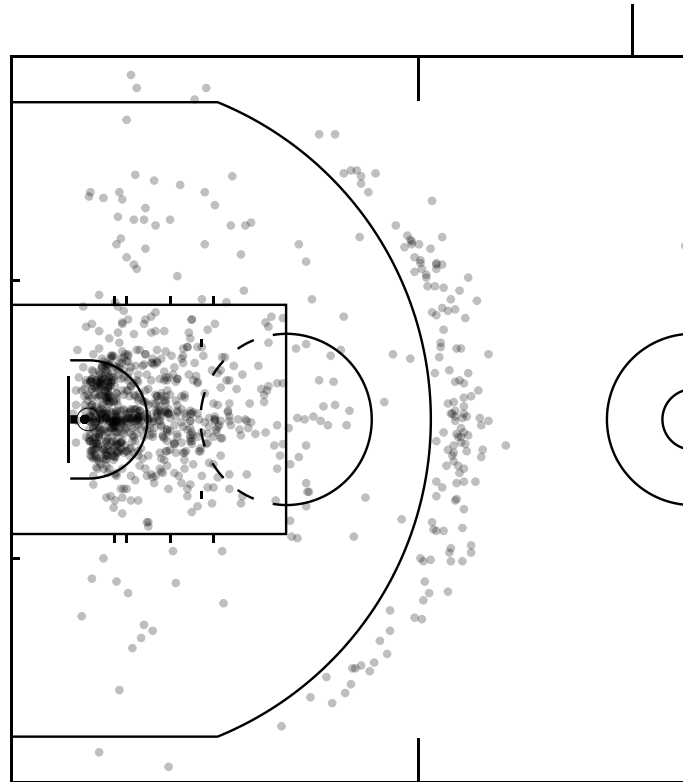


Figure 5.9: Shot chart for the Denver Nuggets' center, Nikola Jokić.

```

player_name <- "Nikola Jokic"
p <- geom_basketball(league = "NBA",
  display_range = "defense",
  color_updates = list(
    defensive_half_court = "white",
    offensive_half_court = "white",
    court_apron = "white",
    center_circle_fill = "white",
    two_point_range = "white",
    painted_area = "white",
    free_throw_circle_fill = "white",
    basket_ring = "black"))
p + geom_point(data = nba_nuggets_shots |>
  filter(namePlayer == player_name,
    yearSeason == 2023,
    zoneBasic != "Backcourt"),

```

```

aes(y = locationX/10,
     x = (locationY - 420)/10,
     col = zoneBasic),
alpha = .25) +
labs(title = "2022-23 Shot Attempts for Nikola Jokic by Zone", shape = "")

```

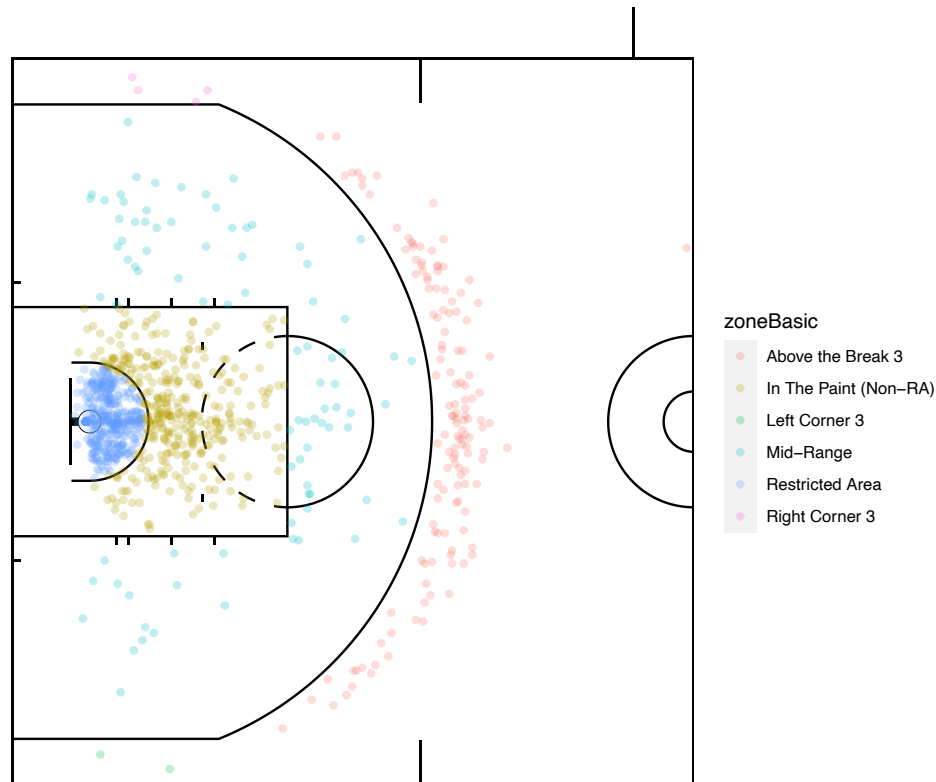


Figure 5.10: Shot chart for the Denver Nuggets’ center, Nikola Jokić. Here we specify different colors based on the zone in which the shot was taken.

While we have shown how to create shot charts for the NBA players, we can also do this for any league where we have data. The WNBA provides much of this same data through an API, and we can access that API through the `wehoop` package. Two useful functions in the `wehoop` package are `load_wnba_pbp` for play-by-play data and `load_wnba_player_box` for box score data. The first code block shows us downloading the Seattle Storm play-by-play data and we plot their two- and three-point shots in the subsequent code block. In this analysis, we also need to eliminate free throws or else we will have those clouding our shot chart. To do that, we use the `grep1()` function to identify shots of type “Free”, and we exclude them by using the exclamation point before the function. Note that this time when we display the court, we