

NBA Exploratory Data Analysis

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```
#!/ warning: false
#!/ echo: false
#!/ message: false

library(tidyverse)

## -- Attaching packages ----- tidyverse 1.3.1 --

## v ggplot2 3.3.6      v purrr 0.3.4
## v tibble 3.1.7       v dplyr 1.0.9
## v tidyr 1.2.0        v stringr 1.4.0
## v readr 2.1.2        v forcats 0.5.1

## Warning: package 'tidyr' was built under R version 4.0.5

## Warning: package 'readr' was built under R version 4.0.5

## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()     masks stats::lag()

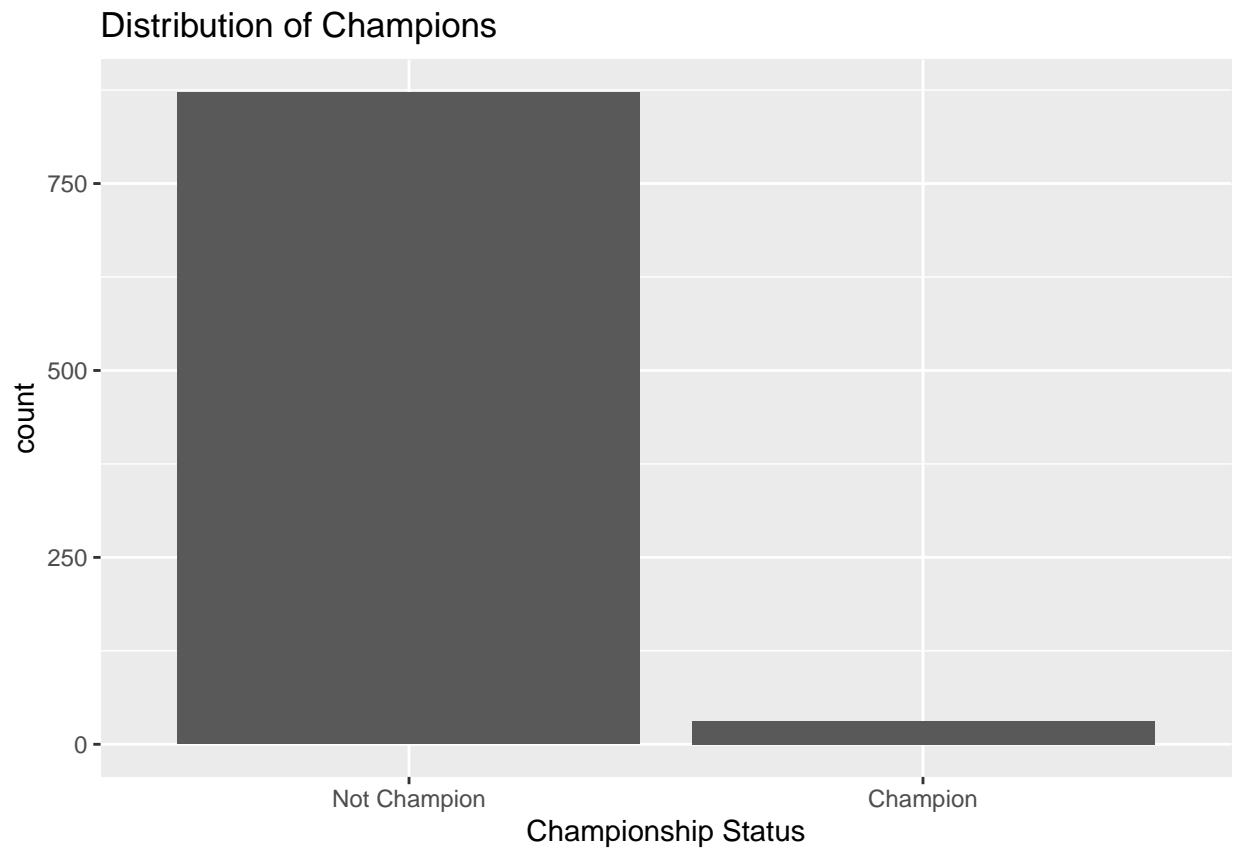
library(knitr)
library(gridExtra)

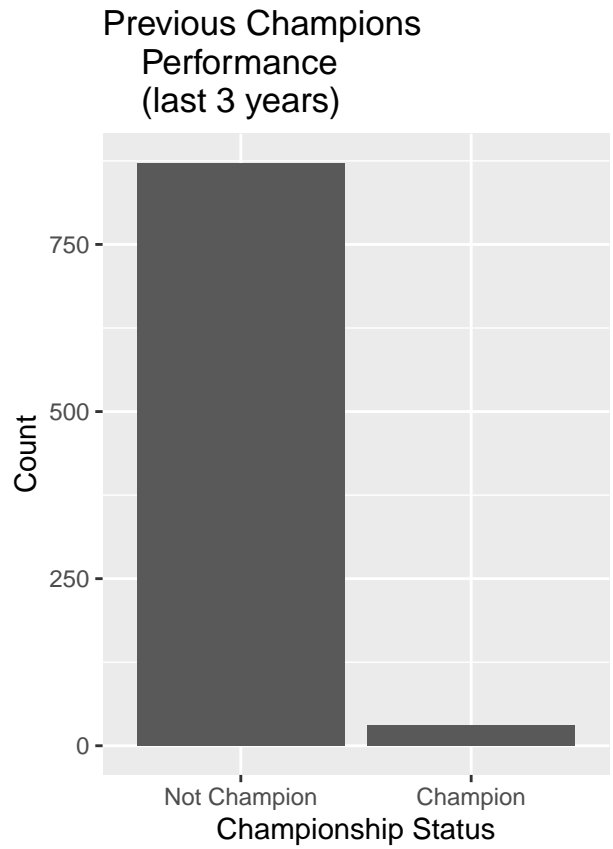
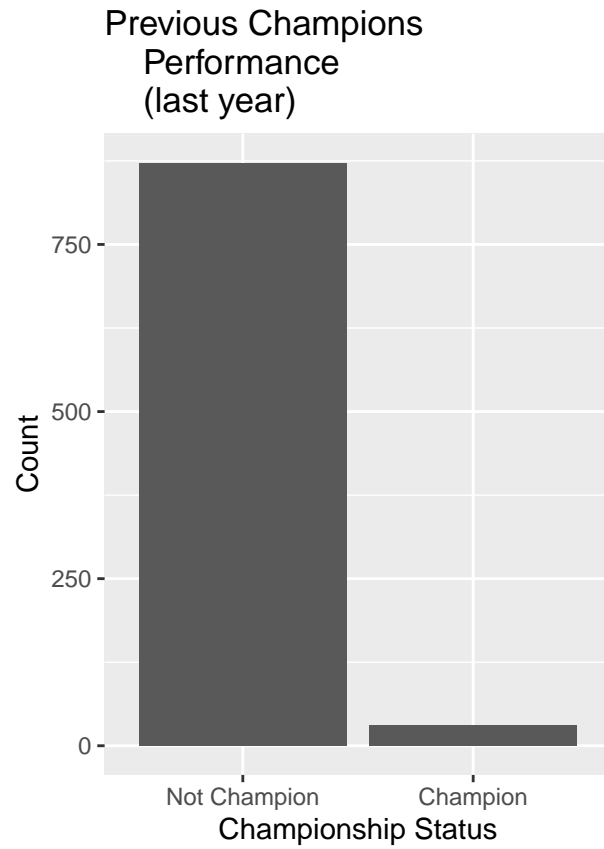
##
## Attaching package: 'gridExtra'

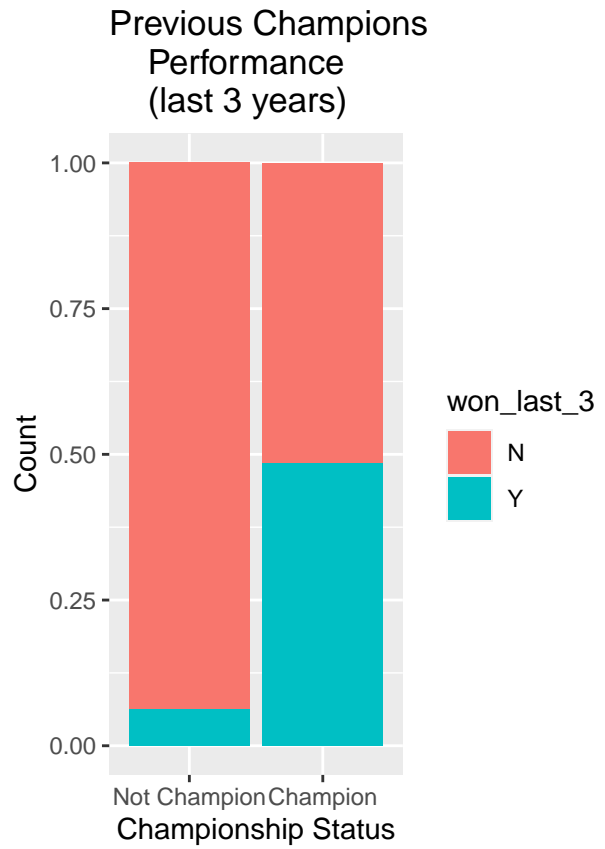
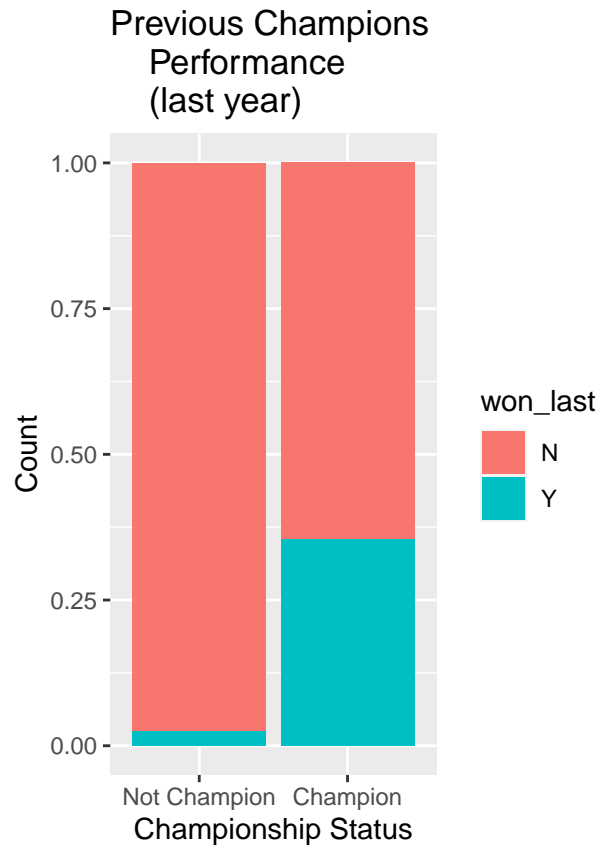
## The following object is masked from 'package:dplyr':
##
## combine

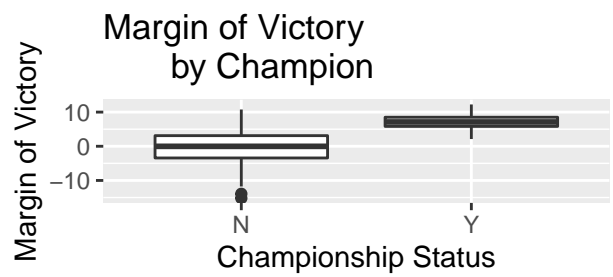
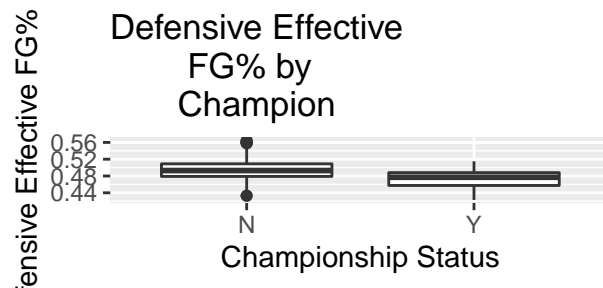
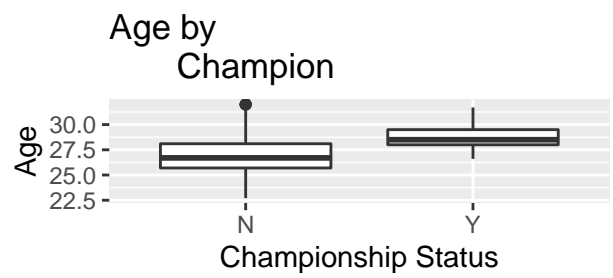
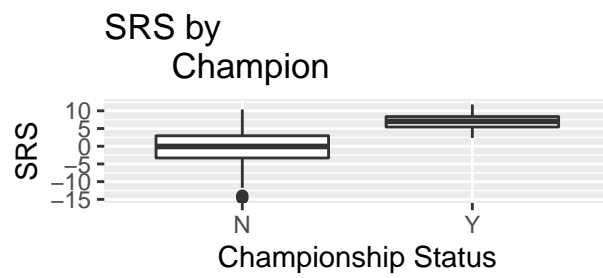
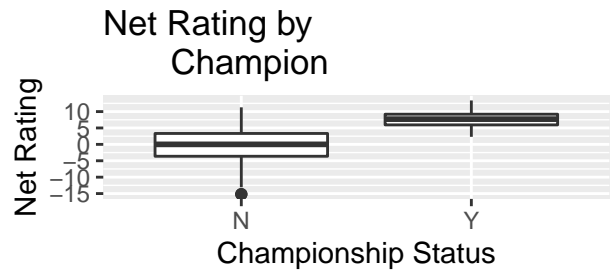
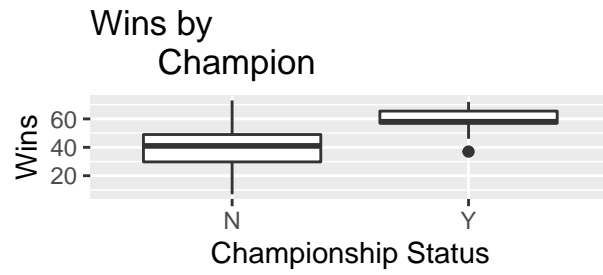
library(broom)
library(ggplotify)

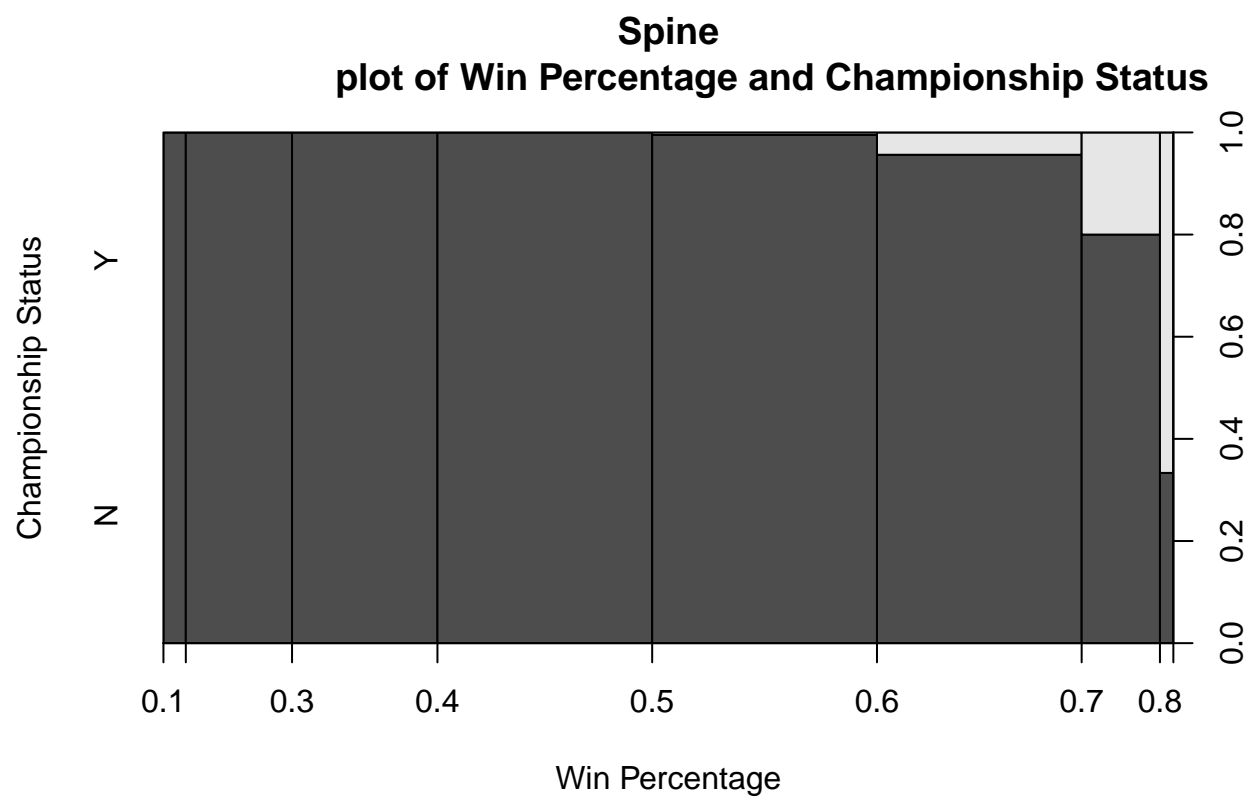
knitr::opts_chunk$set(warning = FALSE, message = FALSE, echo = FALSE)
#knitr::opts_chunk$set(fig.width=4.5, fig.height=3)
```



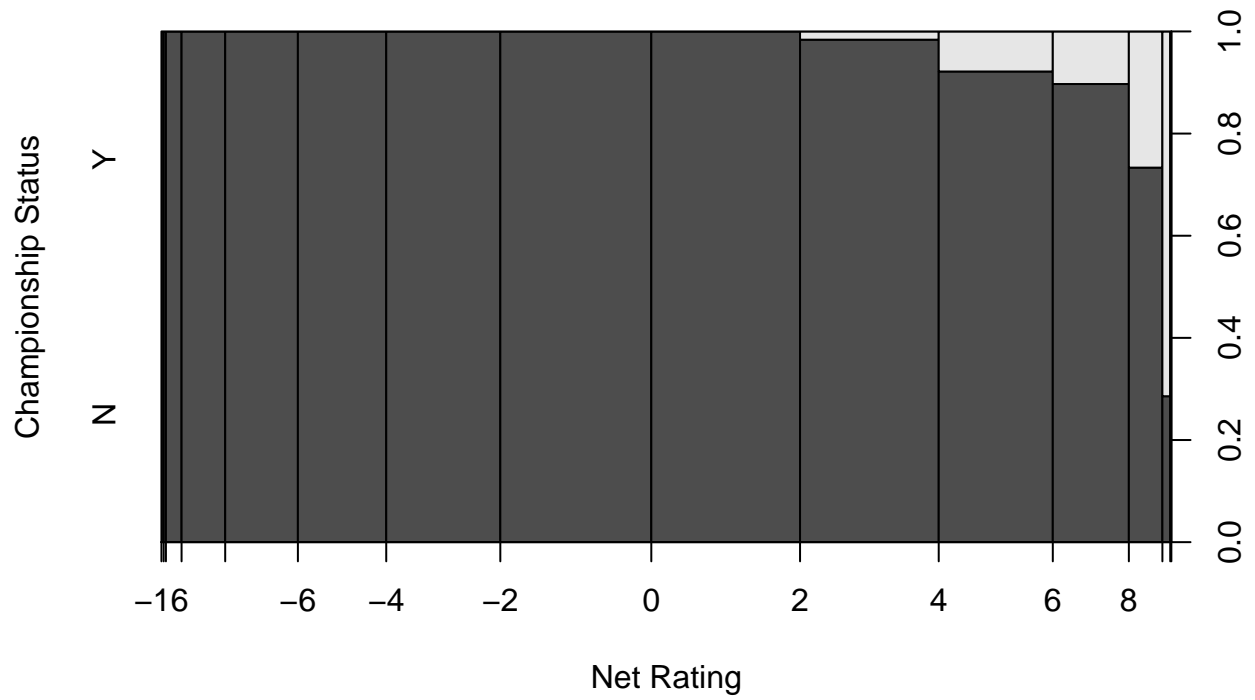




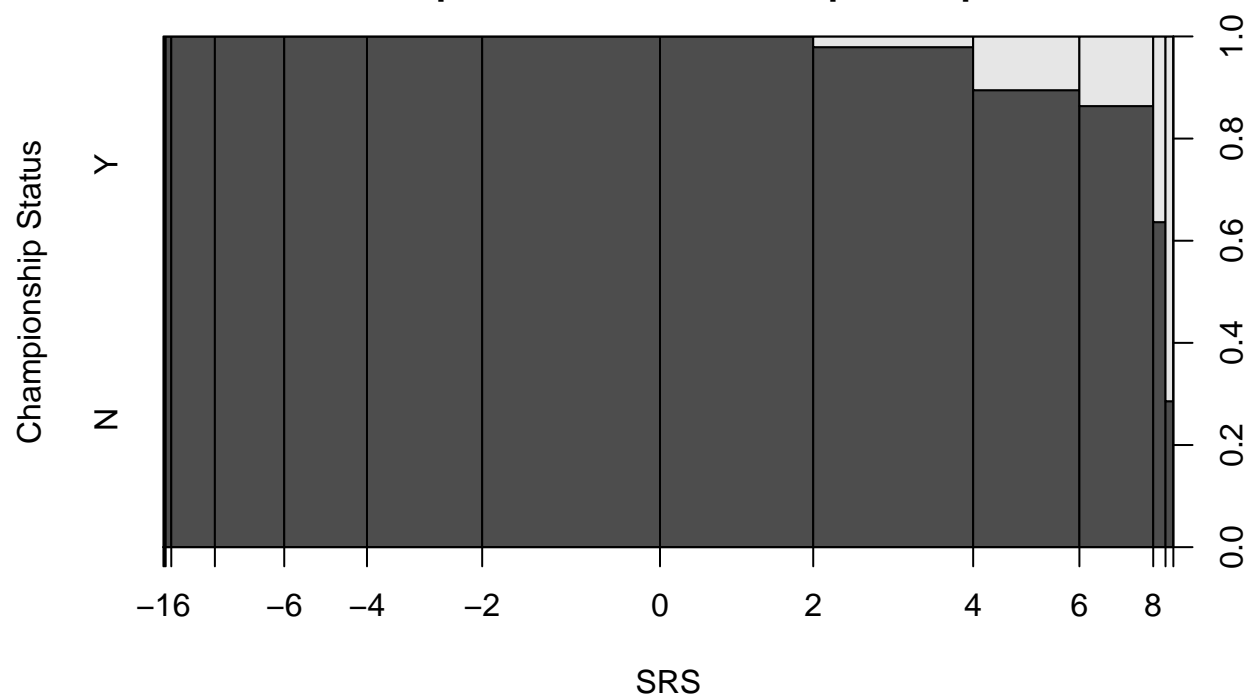


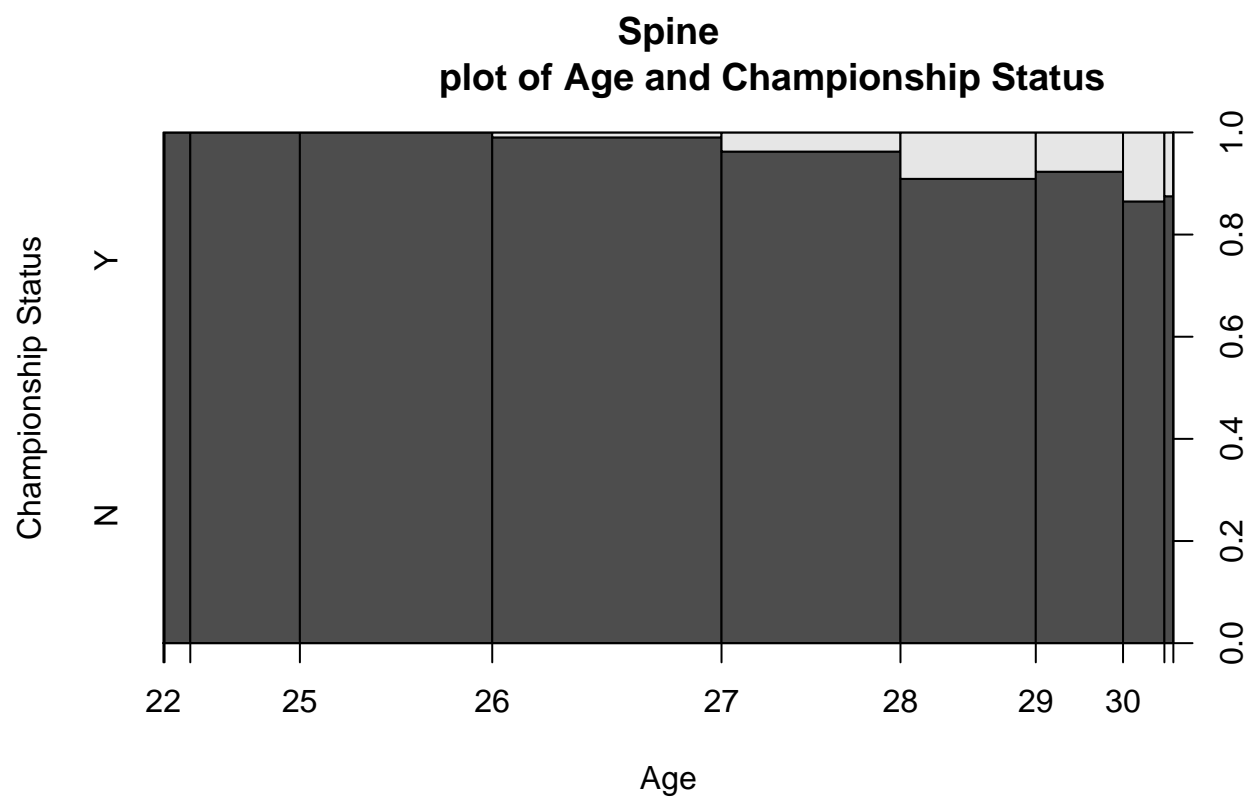


Spine
plot of Net Rating and Championship Status

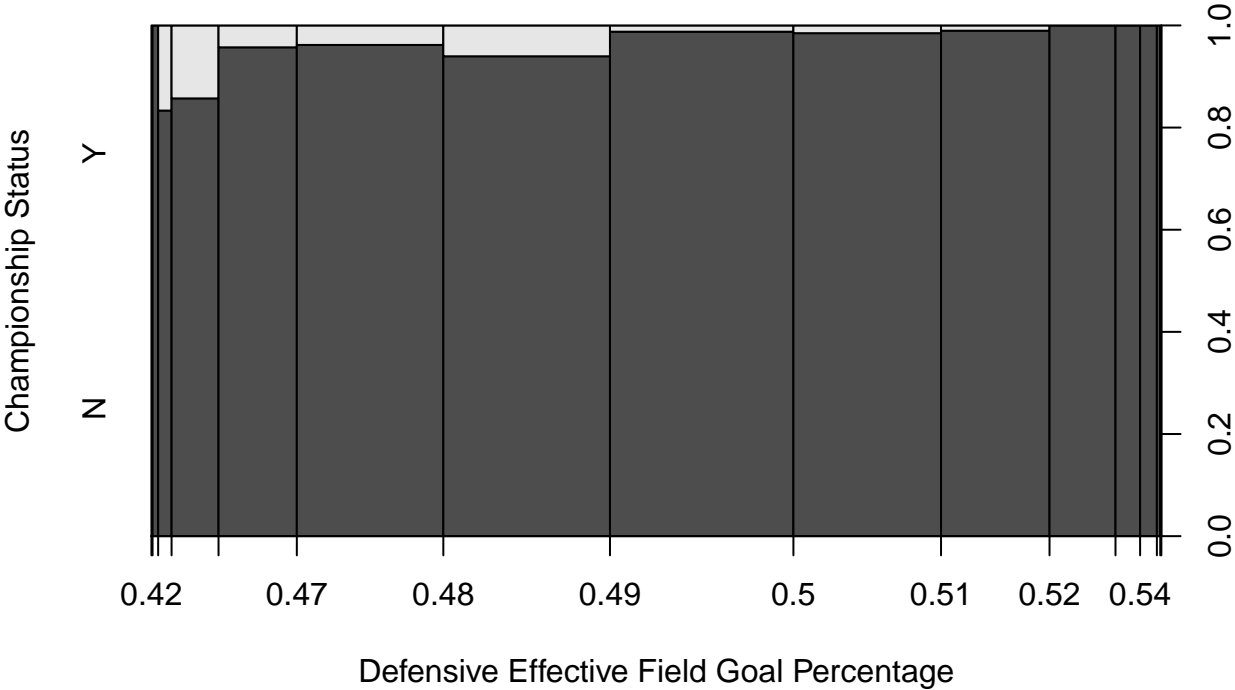


Spine
plot of SRS and Championship Status

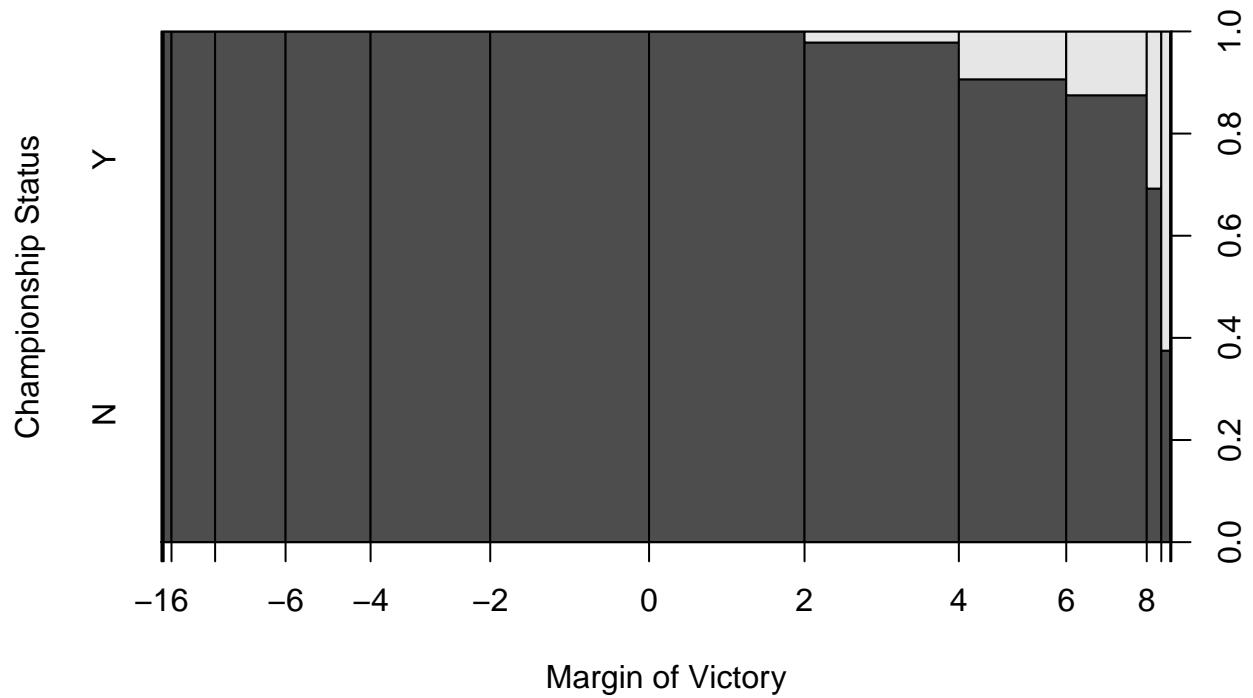




Spine plot of Defensive Effective Field Goal Percentage and Championship Status



Spine plot of Margin of Victory and Championship Status



```
##
##      Championship Status
## Win Percentage  Y   N
##    [0.1,0.2]   0  20
##    (0.2,0.3]   0  95
##    (0.3,0.4]   0 130
##    (0.4,0.5]   0 192
##    (0.5,0.6]   1 200
##    (0.6,0.7]   8 175
##    (0.7,0.8]  14  56
##    (0.8,0.9]   8   4
```

```
##
##      Championship Status
## Net Rating      Y   N
##  [-16,-14]      0   2
##  (-14,-12]      0   2
##  (-12,-10]      0  14
##  (-10,-8]       0  39
##  (-8,-6]        0  65
##  (-6,-4]        0  79
##  (-4,-2]        0 102
##  (-2,0]         0 135
##  (0,2]          0 133
##  (2,4]          2 122
##  (4,6]          8  94
##  (6,8]         7  61
```

##	(8,10]	8	22
##	(10,12]	5	2
##	(12,14]	1	0

##		Championship Status	
##	SRS	Y	N
##	[-16,-14]	0	1
##	(-14,-12]	0	1
##	(-12,-10]	0	5
##	(-10,-8]	0	39
##	(-8,-6]	0	62
##	(-6,-4]	0	74
##	(-4,-2]	0	103
##	(-2,0]	0	159
##	(0,2]	0	137
##	(2,4]	3	140
##	(4,6]	10	85
##	(6,8]	9	57
##	(8,10]	4	7
##	(10,12]	5	2

##		Championship Status	
##	Age	Y	N
##	[22,23]	0	1
##	(23,24]	0	23
##	(24,25]	0	98
##	(25,26]	0	172
##	(26,27]	2	203
##	(27,28]	6	154
##	(28,29]	11	110
##	(29,30]	6	72
##	(30,31]	5	32
##	(31,32]	1	7

##		Championship Status	
##	Defensive Effective Field Goal Percentage	Y	N
##	[0.42,0.43]	1	0
##	(0.43,0.44]	0	5
##	(0.44,0.45]	2	10
##	(0.45,0.46]	6	36
##	(0.46,0.47]	3	67
##	(0.47,0.48]	5	126
##	(0.48,0.49]	9	140
##	(0.49,0.5]	2	162
##	(0.5,0.51]	2	130
##	(0.51,0.52]	1	96
##	(0.52,0.53]	0	59
##	(0.53,0.54]	0	22
##	(0.54,0.55]	0	15
##	(0.55,0.56]	0	3
##	(0.56,0.57]	0	1

##	Championship Status
----	---------------------

##	Margin of Victory	Y	N
##	[-16,-14]	0	1
##	(-14,-12]	0	1
##	(-12,-10]	0	7
##	(-10,-8]	0	39
##	(-8,-6]	0	63
##	(-6,-4]	0	76
##	(-4,-2]	0	107
##	(-2,0]	0	142
##	(0,2]	0	139
##	(2,4]	3	135
##	(4,6]	9	87
##	(6,8]	9	63
##	(8,10]	4	9
##	(10,12]	5	3
##	(12,14]	1	0