

Lesson 4 Homework 1 Ellen Chancey

Ellen Chancey

September 16, 2018

Question 2.8

Odds against being the winning team were 9/2 for Spain, 11/2 for Brazil, 6/1 for England, and 90/1 for US.

Find corresponding prior probabilities of winning for these teams.

```
worldcup <- read.csv("worldcup.csv")
print(worldcup)
```

```
## Country Win Lose Total Prob
## 1 Spain 2 9 11 0.182
## 2 Brazil 2 11 13 0.154
## 3 England 2 12 14 0.143
## 4 US 2 180 182 0.011
```

Question 2.14

Find the estimated odds ratio between opinion on global warming and whether one is a Democrat or Republican. Interpret.

```
# assign values
repub <- 1
indep <- repub*2.08
dem <- indep*2.96
```

```
# odds ratio
or <- dem/repub
or
```

```
## [1] 6.1568
```

The odds ratio indicates that for every one republican answering yes, there are about 6 democrats answering yes.

```
sessionInfo()
```

```
## R version 3.4.1 (2017-06-30)
## Platform: x86_64-w64-mingw32/x64 (64-bit)
## Running under: Windows 10 x64 (build 16299)
##
## Matrix products: default
##
```

```
## locale:
## [1] LC_COLLATE=English_United States.1252
## [2] LC_CTYPE=English_United States.1252
## [3] LC_MONETARY=English_United States.1252
## [4] LC_NUMERIC=C
## [5] LC_TIME=English_United States.1252
##
## attached base packages:
## [1] stats      graphics  grDevices  utils      datasets  methods   base
##
## loaded via a namespace (and not attached):
## [1] compiler_3.4.1  backports_1.1.0 magrittr_1.5    rprojroot_1.2
## [5] tools_3.4.1     htmltools_0.3.6 yaml_2.1.14     Rcpp_0.12.13
## [9] stringi_1.1.5   rmarkdown_1.6   knitr_1.16      stringr_1.2.0
## [13] digest_0.6.12   evaluate_0.10.1
```