

CCBL Park Factors

Jack Byrne

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CCBL Park Factors calculated based on Baseball Reference park factors calculation method: <https://www.baseball-reference.com/about/parkadjust.shtml>

```
library(dplyr)
```

```
##  
## Attaching package: 'dplyr'  
  
## The following objects are masked from 'package:stats':  
##  
##   filter, lag  
  
## The following objects are masked from 'package:base':  
##  
##   intersect, setdiff, setequal, union
```

```
library(knitr)  
setwd("C:/Users/Jack/Desktop/School Stuff/Gatemen Baseball/Park Factors")  
df <- read.csv("ccbl-park-factors.csv")  
teams <- unique(df$Home)
```

```
parkFactor <- function(team){  
  
  home <- filter(df, Home == team)  
  home <- mutate(home, win = ifelse(Score.1 > Score, 1, 0))  
  road <- filter(df, Away == team)  
  road <- mutate(road, win = ifelse(Score.1 < Score, 1, 0))  
  
  num = (sum(home$Score.1)+sum(home$Score))/nrow(home)  
  denom = (sum(road$Score.1)+sum(road$Score))/nrow(road)  
  
  pf = (num/denom)  
  
  ipc = (18.5 - sum(home$win)/nrow(home)) / (18.5 - sum(road$win)/nrow(road))  
  
  pf2 = pf/ipc  
  
  opc = 10/(9+pf2)  
  
  pf3 = (pf2*opc)
```

```
sol = pf3*100

return(sol)
}
```

```
final = data.frame(0,0)
colnames(final) <- c("Team", "Park Factor")
j = 1
for (i in unique(df$Home)){
  final[j, 1] = i
  final[j, 2] = round(parkFactor(i),2)
  j = j+1
}

kable(final)
```

Team	Park Factor
Yarmouth-Dennis	115.88
Cotuit	102.17
Hyannis	95.84
Harwich	82.41
Chatham	102.06
Falmouth	97.87
Wareham	96.73
Orleans	86.81
Brewster	126.60
Bourne	99.79