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> library(tidyverse)
> library(broom)
> library(Lahman)
> Teams_small <- Teams %>%
+   filter(yearID %in% 1961:2001) %>%
+   mutate(avg_attendance = attendance/G)
> fit <- Teams_small %>%
+   mutate(R_per_game = R/G,
+          HR_per_game = HR/G) %>%
+   lm(avg_attendance ~ R_per_game + HR_per_game + W + yearID, data = .)
> tidy(fit)
# A tibble: 5 x 5
  term          estimate std.error statistic  p.value
<chr>         <dbl>     <dbl>     <dbl>    <dbl>
1 (Intercept) -456674.    21815.     -20.9  3.00e-81
2 R_per_game    322.      331.        0.972 3.31e- 1
3 HR_per_game   1798.     690.         2.61  9.24e- 3
4 W             117.      9.88        11.8  2.79e-30
5 yearID        230.     11.2         20.6  7.10e-79
>
>
>
> predict(fit, data.frame(R_per_game = 5, HR_per_game = 1.2, W = 80, yearID = 2002))
1
16149.29
> predict(fit, data.frame(R_per_game = 5, HR_per_game = 1.2, W = 80, yearID = 1960))
1
6504.751
>
>
>
> newdata <- Teams %>%
+   filter(yearID == 2002) %>%
+   mutate(avg_attendance = attendance/G,
+          R_per_game = R/G,
+          HR_per_game = HR/G)
> preds <- predict(fit, newdata)
> cor(preds, newdata$avg_attendance)
[1] 0.5191942
>

```