

Bivariate Project Analysis

Sample Description:

I sampled all 32 of the NFL football teams. I got my average player age data from PFF, Pro Football Focus, the same location that the NFL gets their data. The population of interest is all NFL football teams. The number of wins by each team is common known knowledge and can be found on any sports news website. I used NFL.com. I originally was going to use the salary cap used by each team, and that data also came for PFF, who keeps a copy of those official records on their site.

Raw Data:

→	C1-T	C2	C3	C4
		Cap Spent	Wins	Av.Age
1	Panthers	176672310	11	27.18
2	Redskins	174807970	7	25.78
3	Eagles	173790936	13	26.08
4	Dolphins	173171683	6	25.87
5	Jaguars	172516956	10	25.32
6	Chiefs	170799858	10	26.02
7	Packers	169715403	7	25.23
8	Cardinals	169351526	8	26.81
9	Giants	168653914	3	25.28
10	Bears	167722301	5	25.81
11	Seahawks	167414477	9	25.68
12	Falcons	166313787	10	26.45
13	Raiders	165666467	6	25.85
14	Steelers	164604183	13	26.08
15	Patriots	163713427	13	26.87
16	Saints	162941460	11	25.75
17	Bengals	162916991	7	25.31
18	Titans	162476092	9	26.81
19	Lions	162305019	9	25.79
20	Texans	161052404	4	25.81
21	Cowboys	159808251	9	25.26
22	Ravens	158870983	9	26.28
23	Chargers	158862663	9	25.87
24	Rams	158110564	11	25.13

25	Broncos	157628109	5	25.42
26	Colts	157498655	4	25.19
27	Browns	156664052	0	23.98
28	Bills	156321308	9	26.47
29	Vikings	154777781	13	26.06
30	Buccaneers	153756128	5	26.11
31	49ers	146588821	6	25.77
32	Jets	146126320	5	25.13

I have the Cap Spent column in here as well because originally I was going to compare the wins in the season to how much cap they spent. The minimum wins was the Browns with 0 and their average player age was also the lowest, at 23.98 years old. The maximum games won was 13 by 4 different teams, all who were in the top 11 for average player age. My linear relationship is a moderate correlation with a correlation coefficient of 0.574. The coefficient of determination, r^2 , is 0.33.

Statistics

Variable	N	N*	Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
Wins	32	0	8.000	0.566	3.203	0.000	5.250	9.000	10.000	13.000

Statistics

Variable	N	N*	Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
Av.Age	32	0	25.827	0.113	0.639	23.980	25.313	25.810	26.102	27.180

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	1	104.83	104.834	14.75	0.001
Av.Age	1	104.83	104.834	14.75	0.001
Error	30	213.17	7.106		
Lack-of-Fit	25	189.67	7.587	1.61	0.314
Pure Error	5	23.50	4.700		
Total	31	318.00			

Model Summary:

S 2.66562

R-Sq 33.0%

R-Sq(adj) 30.7%

Regression Equation:

Wins = - 66.34 + 2.878 Av.Age