Fantasy Football Analysis

November 16, 2019

1 Fantasy Football Analysis

The purpose of this notebook is to provide some simple analyses of each year's fantasy football league. The data that I use as input is weekly point totals for each team for the regular season (13 weeks). At this point, I don't consider finer grained data like position points per week, etc.

1.0.1 Basic Analysis

Here, we calculate means and standard deviations for each team.

[3]:
Team	Weekly Mean	Weekly Standard Dev
DJ Purple	84.534	16.073686
Eat 4 Dicks Asendorf	91.492	18.485327
Aah Fuckin' Shitdick	106.666	21.966251
Pubic Faith	79.336	22.936637
Peter's Team	84.408	24.313768
Jbone!	89.338	22.114680
Zach Attack	99.304	20.257177
THROW IT TO SANDERS	90.462	19.645151
Lambeau Leapers	115.038	12.617615
Frank The Tank	93.170	27.517389
Chubby Winners	97.462	23.460426
Rudy Was Offsides	93.358	20.119223

Sorted Highest Weekly Averages

[4]:
Team	Weekly Mean	Weekly Standard Dev
Lambeau Leapers	115.038	12.617615
Aah Fuckin' Shitdick	106.666	21.966251
Zach Attack	99.304	20.257177
Chubby Winners	97.462	23.460426
Rudy Was Offsides	93.358	20.119223
Frank The Tank	93.170	27.517389
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THROW IT TO SANDERS	90.462	19.645151

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Jbone!                        89.338                22.114680
DJ Purple                     84.534                16.073686
Peter's Team                  84.408                24.313768
Pubic Faith                   79.336                22.936637
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Sorted by Highest Weekly Standard Deviation

Team	Weekly Mean	Weekly Standard Dev
Frank The Tank	93.170	27.517389
Peter's Team	84.408	24.313768
Chubby Winners	97.462	23.460426
Pubic Faith	79.336	22.936637
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Eat 4 Dicks Asendorf	91.492	18.485327
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Lambeau Leapers	115.038	12.617615

1.0.2 Schedule Luck Analysis

Here, I calculate how lucky each team was. This is computed on a weekly basis and asks the question "What if my opponent was different this week?" The way that our league works, you are matched up with one opponent and play head-to-head against them for that week. If you score a lot of points, but end up playing the team that scored the most, that's pretty unlucky. If you score hardly any point, but end up playing the team that scored the least points, that's pretty lucky.

To compute a luck metric, I compute the expected value of your wins for each week by comparing your weekly points to every other team's points that week. - If you scored the most points, you would beat every team that you could play and your expected win value is 1. - If you scored the least points, you would lose to every team that you could play and your expected win value is 0. - If your score would beat 4 teams, but lose to 7 teams, than your expected win value is 4/11

Luckiest Teams   I sort this by highest difference. A positive difference represents you were lucky and won more games than expected. A negative difference represents you were unlucky and won fewer games than expected

Team	Actual Wins	Expected Wins	Difference
Peter's Team	6	4.090909	1.909091
Eat 4 Dicks Asendorf	6	4.545455	1.454545
Jbone!	6	4.545455	1.454545
Rudy Was Offsides	6	4.727273	1.272727

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Chubby Winners              7       5.909091    1.090909
Lambeau Leapers             9       8.272727    0.727273
Aah Fuckin' Shitdick        7       6.909091    0.090909
Pubic Faith                 2       2.636364   -0.636364
THROW IT TO SANDERS         3       4.181818   -1.181818
Frank The Tank              3       4.454545   -1.454545
DJ Purple                   2       3.636364   -1.636364
Zach Attack                 3       6.090909   -3.090909
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Sorted Luck by Expected Wins We want to see what the standings would look like without luck.

[14]:
	Actual Wins	Expected Wins	Difference
Team			
Lambeau Leapers	9	8.272727	0.727273
Aah Fuckin' Shitdick	7	6.909091	0.090909
Zach Attack	3	6.090909	-3.090909
Chubby Winners	7	5.909091	1.090909
Rudy Was Offsides	6	4.727273	1.272727
Eat 4 Dicks Asendorf	6	4.545455	1.454545
Jbone!	6	4.545455	1.454545
Frank The Tank	3	4.454545	-1.454545
THROW IT TO SANDERS	3	4.181818	-1.181818
Peter's Team	6	4.090909	1.909091
DJ Purple	2	3.636364	-1.636364
Pubic Faith	2	2.636364	-0.636364

1.0.3 Team Luck Analysis

Here I want to evaluate a team's week-to-week variance. This is a slightly different luck analysis than the schedule analysis above. Instead of assuming that your score for the week is fixed and looking at who you played, this analysis will keep your opponent the same, but look at your scores for other weeks and see if you would have won. This asks the question "What if my player's schedule was different?"