Final Project

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Report

Research Question:

What is the relationship between a baseball team's runs scored, runs allowed, and their win rate for that season?

We wanted to find if there was a significant link between the runs scored by a team in a season, and their win rate. The initial hypothesis is yes of course, it should be a direct relationship, but factors like blowout games and close defeats may skew the numbers and make them less accurate than initially presumed.

Data Source

We got both of our data sources from the MLB's website as they have collected all relevant data into a couple tables for each Baseball League. As all teams were gather from the same source it also ensured consistency between the numbers reported.

Data Focus

We'll be focusing on Win Rate, Runs Scored and Runs Allowed to determine if there is a significant like between these factors and if a team made it to playoffs or not that season.

Read In Data

All American Playoff Teams

All National Playoff Teams

All Playoff Teams

All American League Teams

All National League Teams

All Teams Combined

Change table character to numeric

```
##    Playoff Teams    PCT(Win Rate)  RS(Runs Scored) RA(Runs Allowed)
##      "character"        "numeric"        "numeric"        "numeric"
```

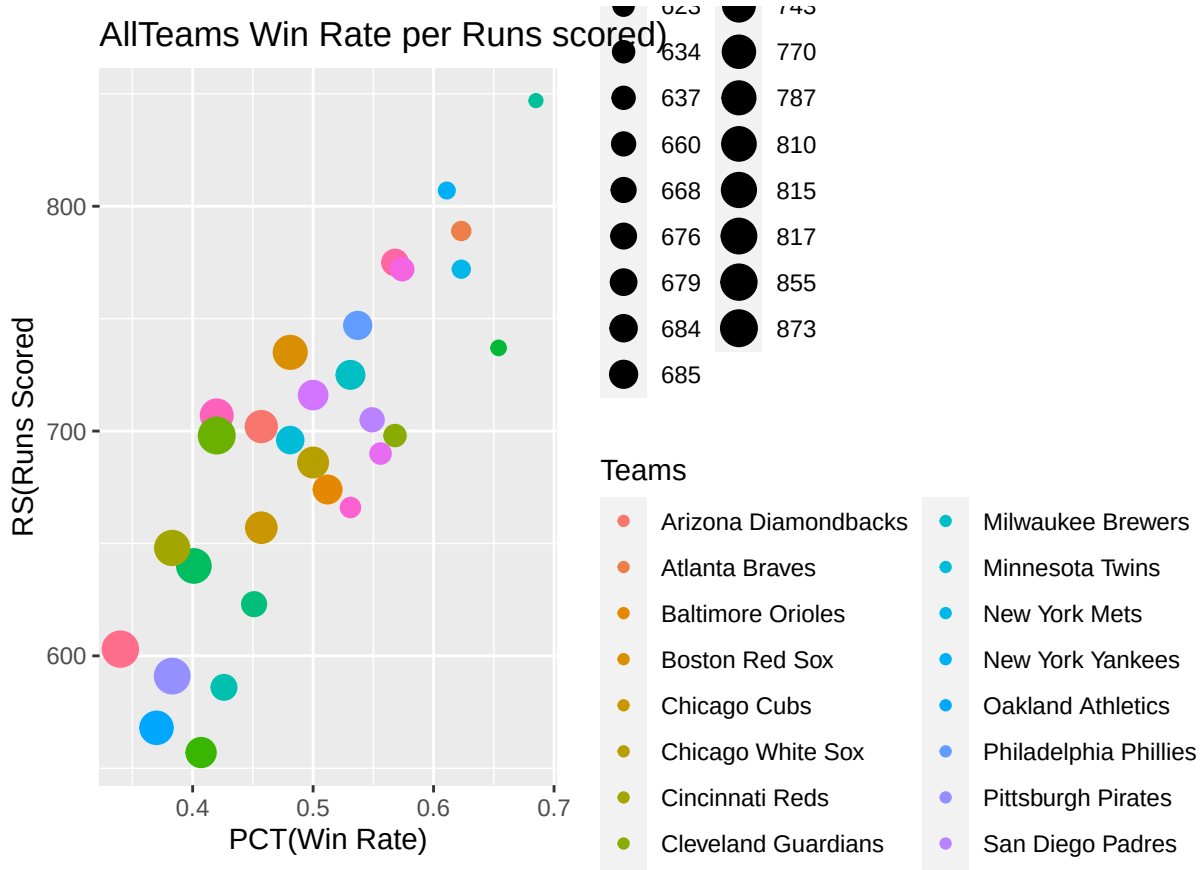
Not Playoff Teams Summary table

count	mean	min	firstQuintile	secondQuintile	median	thirdQuintile	fourthQuintile	max	standdev
18	0.4400	0	0.39	0.42	0.438	0.457	0.492	0.531	0.05400
18	656.2220	557	595.80	646.40	665.500	688.000	705.000	735.000	56.77400
18	748.4444	668	688.00	716.20	735.500	748.400	813.000	873.000	64.26711

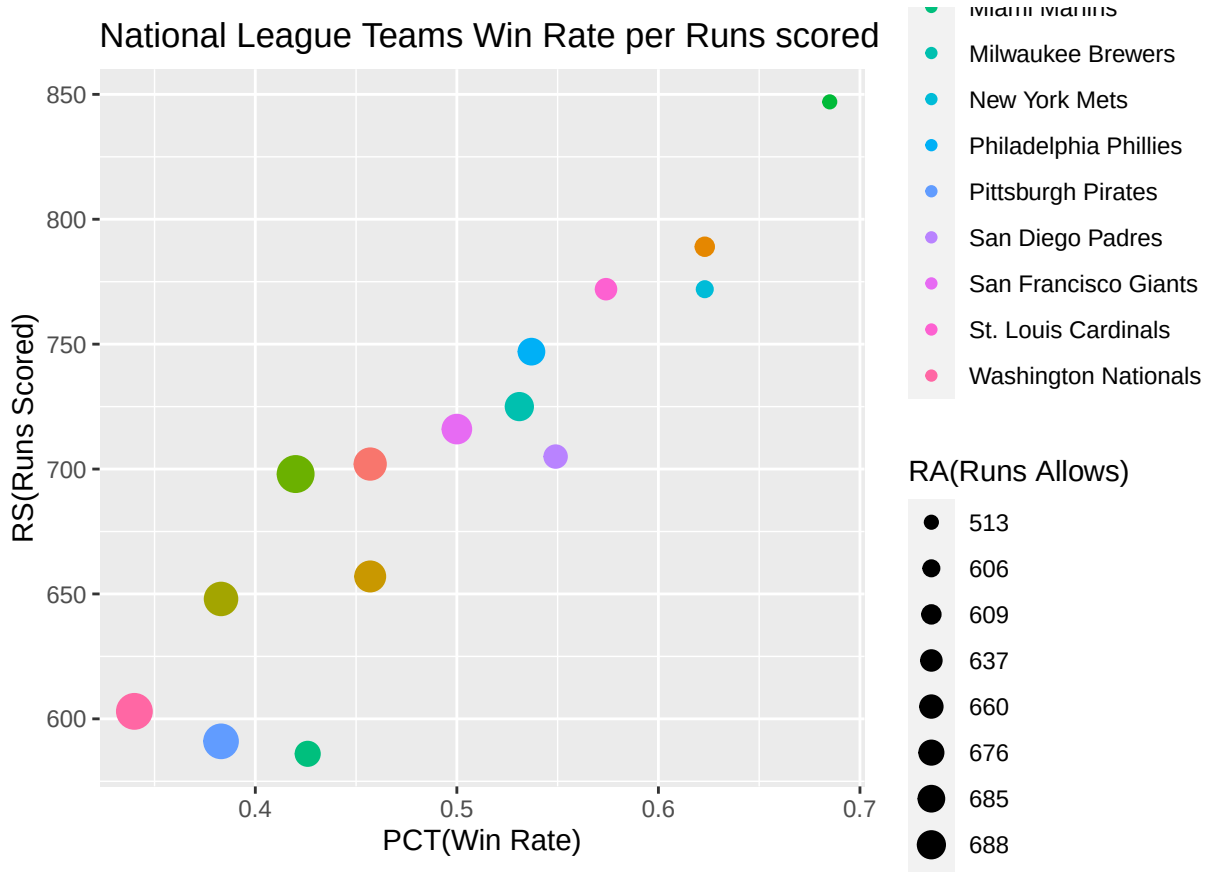
Playoff Teams summary table

count	mean	min	firstQuintile	secondQuintile	median	thirdQuintile	fourthQuintile	max	standdev
12	0.5899167	0.531	0.5504	0.568	0.571	0.5962	0.623	0.685	0.0487022
12	750.4166667	666.000	699.4000	741.000	759.500	772.0000	786.200	847.000	53.3708438
12	612.0833333	513.000	574.8000	611.000	618.500	629.6000	655.400	685.000	55.6473610

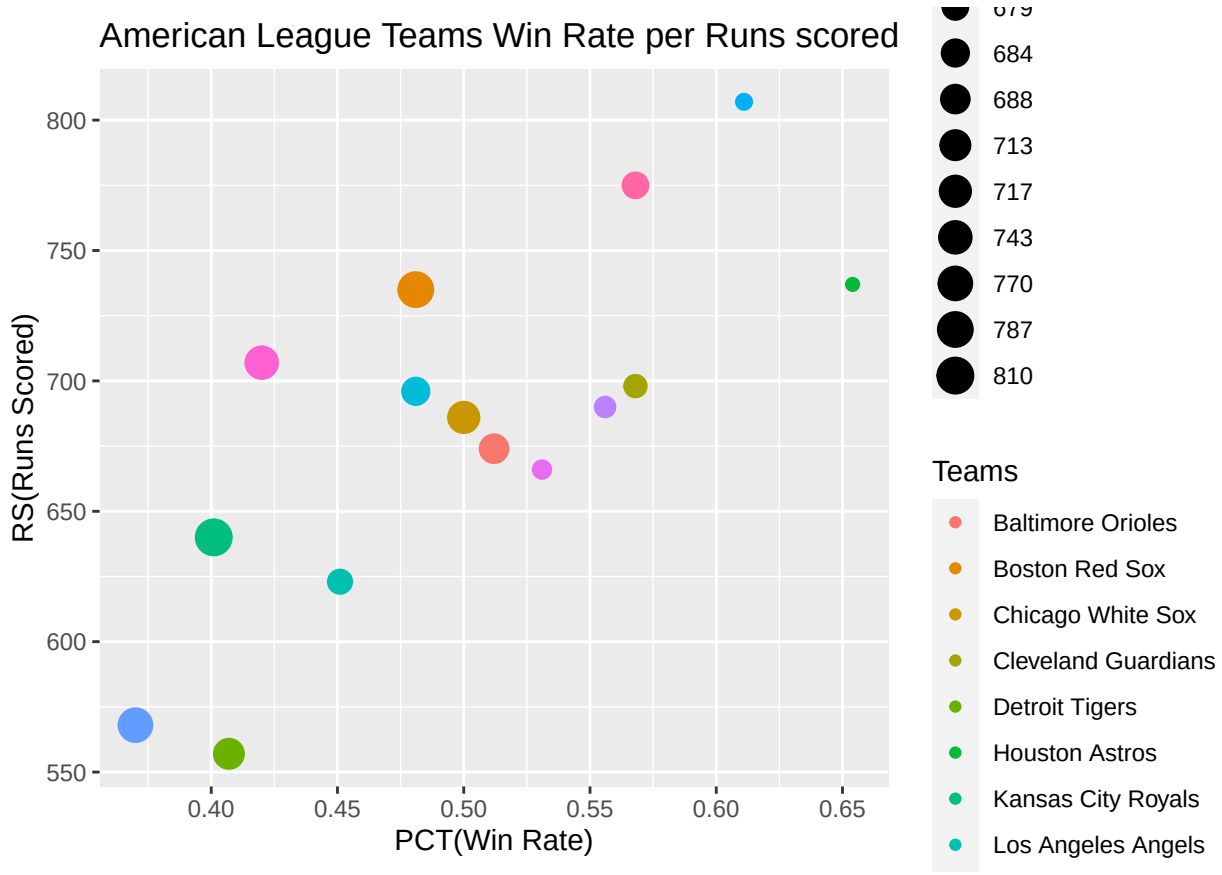
All League Teams chart



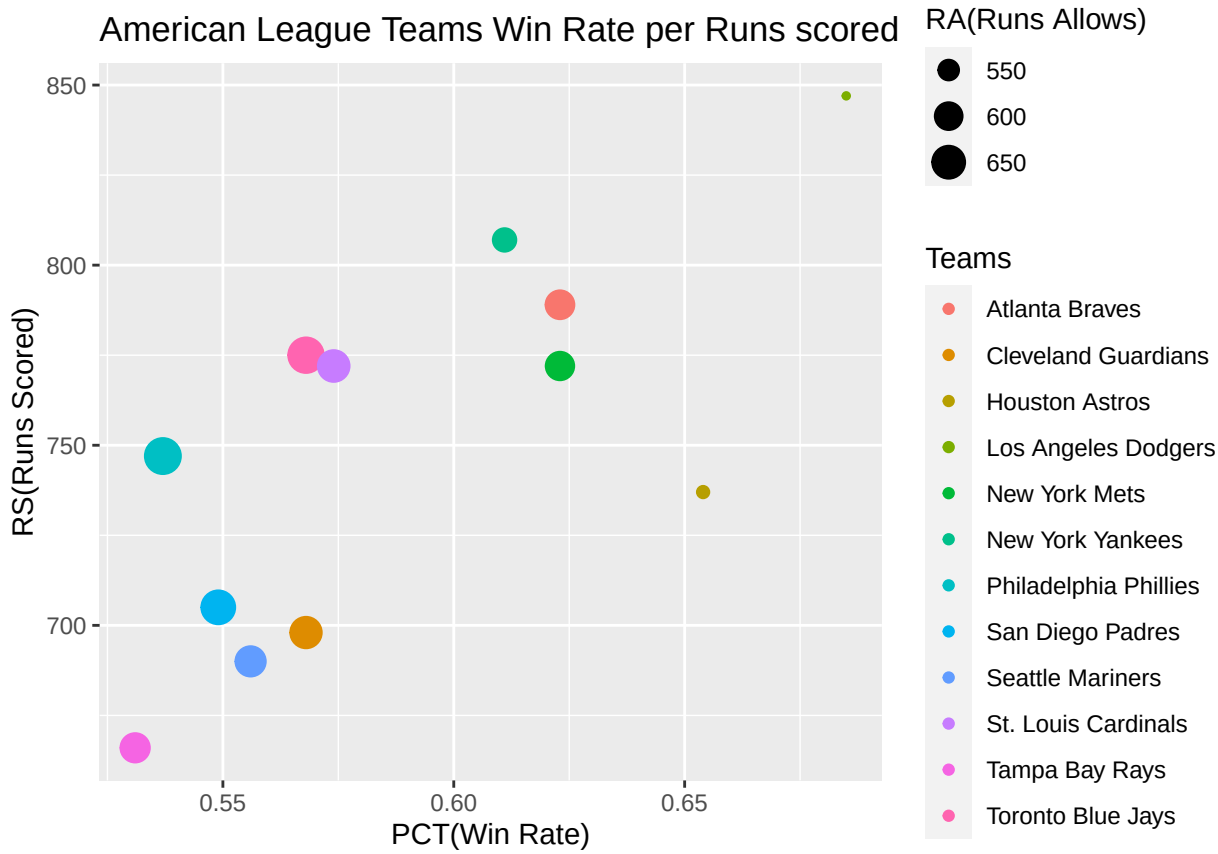
National League Teams chart



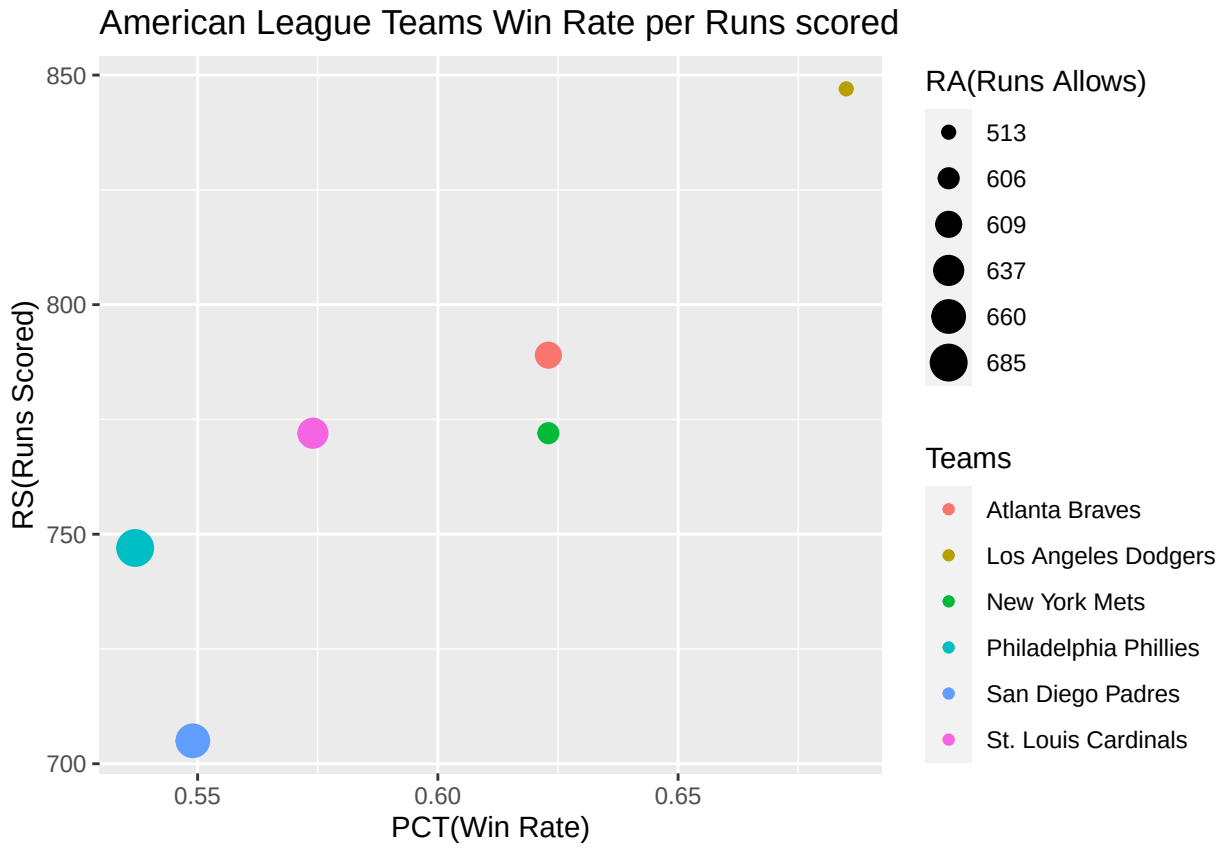
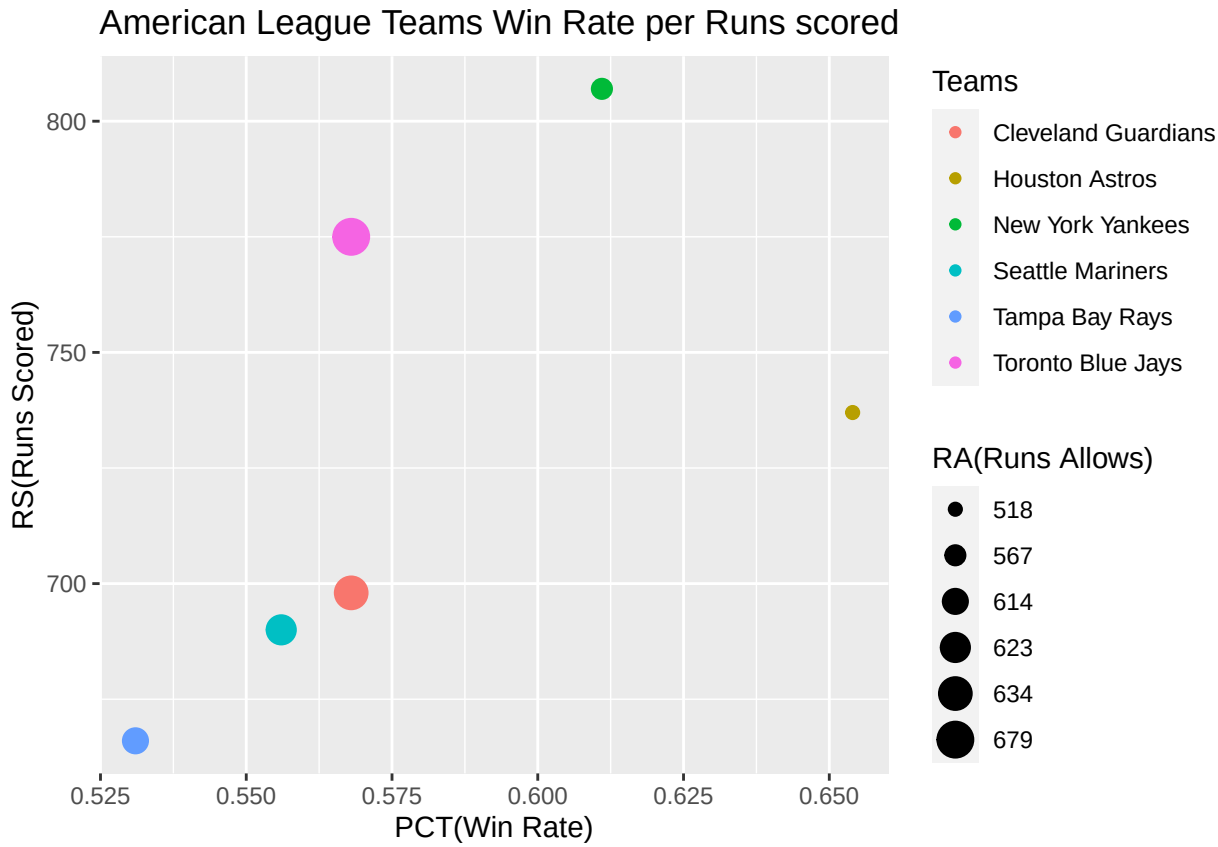
American League Teams chart



Play off League Teams chart



National Play off Teams chart



American Play off Teams chart