

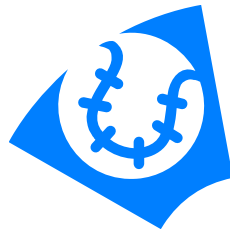


Baseball Salaries

How Statistics Help Us
Understand the Game

How do numbers make baseball more fun?

- Baseball is a game with lots of numbers.
- We can use statistics to compare different players and teams.
- We can find statistics easily on baseball cards and in the sports sections of daily newspapers.
- Statistics give us a common language.



Baseball Salaries

- Are baseball player salaries out of control?
- Do players get paid a reasonable amount for the work they do?
- Are salaries related to how well players actually play?

Year	Avg. Salary
1993	1,062,780
1994	1,154,486
1995	1,094,440
1996	1,101,455
1997	1,314,420
1998	1,384,530
1999	1,724,310
2000	1,983,849
2001	2,138,896
2002	2,301,469
2003	2,376,577

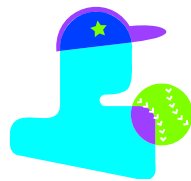
Important Statistics and Why

- *Number of home runs*: People want to see home runs—home runs are exciting, and teams will pay for players who can hit home runs
- *Batting average (Hits/At Bats)*: Most common statistic when comparing players
- *Slugging percentage (Total Bases/At Bats)*: Measures the average number of bases a player advances for each time at bat



Data Can Be Analyzed in Different Ways

- Data can be represented in tables and by graphs. Sometimes comparing numbers in a table is easy, but other times you can learn more by looking at data in a graph.
 - Tables: You can scan numbers easily.
 - Graphs: You can see patterns or trends easily.

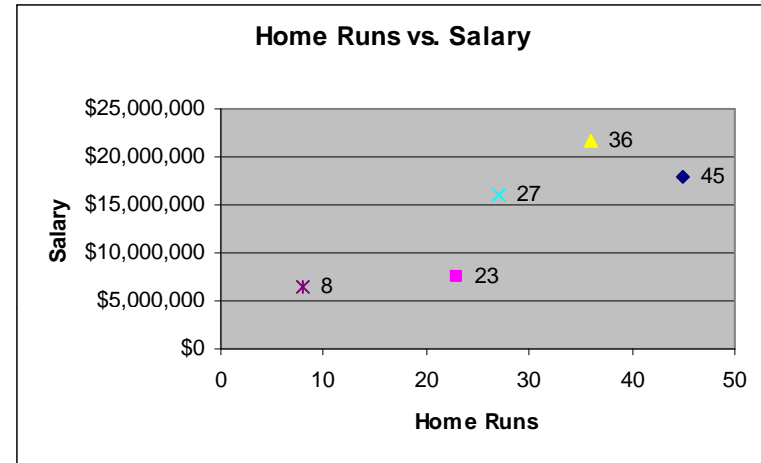


Player Comparison

Player	Team	G	AB	R	H	2B	3B	HR	RBI	BB	SO	AVG	SLG	Salary (2004)
Barry Bonds	Giants	147	373	129	135	27	3	45	101	232	41	0.362	0.812	\$18,000,000
Tino Martinez	Devil Rays	138	458	63	120	20	1	23	76	66	72	0.262	0.461	\$7,500,000
Alex Rodriguez	Yankees	155	601	112	172	24	2	36	106	80	131	0.286	0.512	\$21,726,881
Jeff Bagwell	Astros	156	572	104	152	29	2	27	89	96	131	0.266	0.465	\$16,000,000
Ichiro Suzuki	Mariners	161	704	101	262	24	5	8	60	49	63	0.372	0.455	\$6,528,000

Home Runs vs. Salary

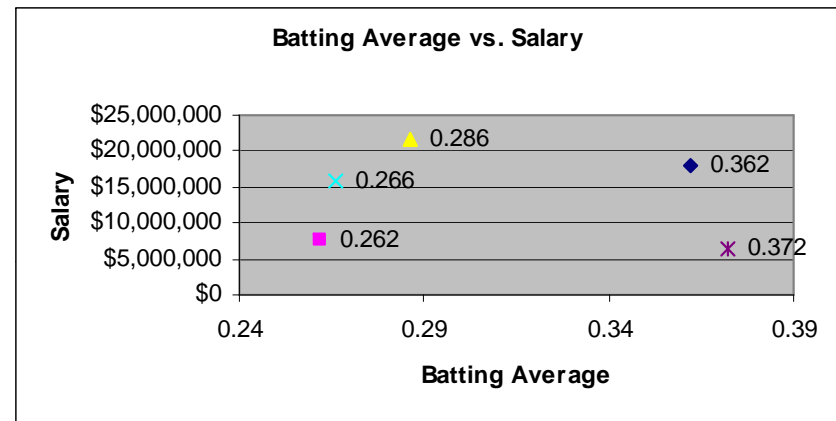
- Shows a fairly positive correlation: As number of home runs increase, salary tends to increase



Player	HR	Salary (2004)
Barry Bonds	45	\$18,000,000
Tino Martinez	23	\$7,500,000
Alex Rodriguez	36	\$21,726,881
Jeff Bagwell	27	\$16,000,000
Ichiro Suzuki	8	\$6,528,000

Batting Average vs. Salary

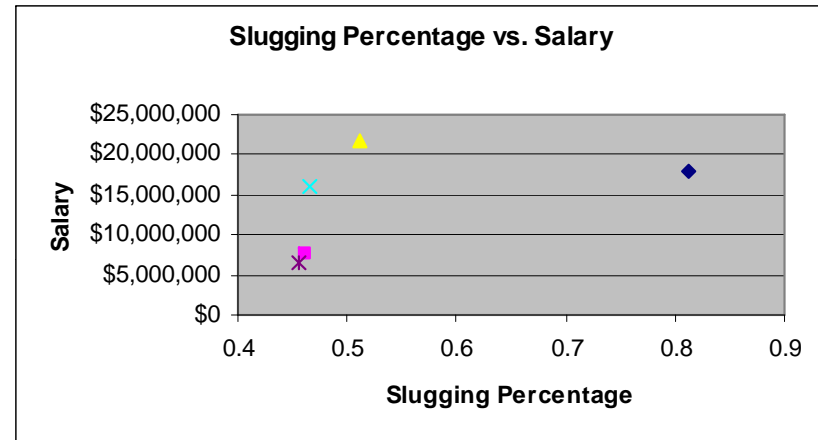
- Seems to have somewhat of a positive correlation: Ichiro Suzuki is an outlier (he has a high batting average but gets paid quite a bit less than other players)



Player	AVG	Salary (2004)
Barry Bonds	0.362	\$18,000,000
Tino Martinez	0.262	\$7,500,000
Alex Rodriguez	0.286	\$21,726,881
Jeff Bagwell	0.266	\$16,000,000
Ichiro Suzuki	0.372	\$6,528,000

Slugging Percentage vs. Salary

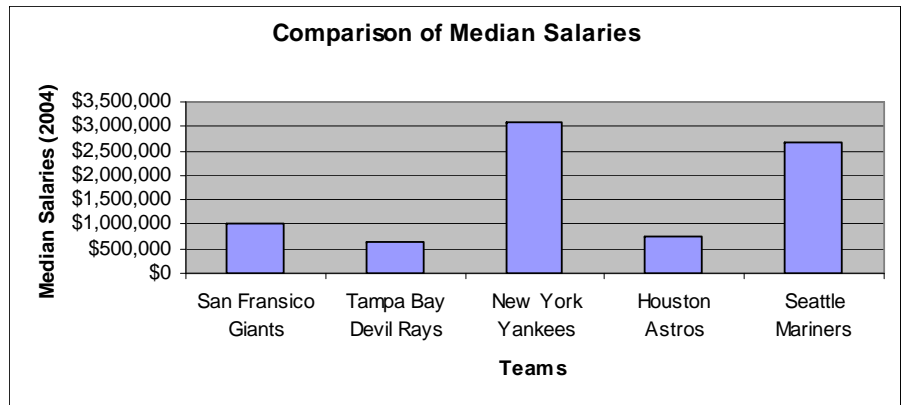
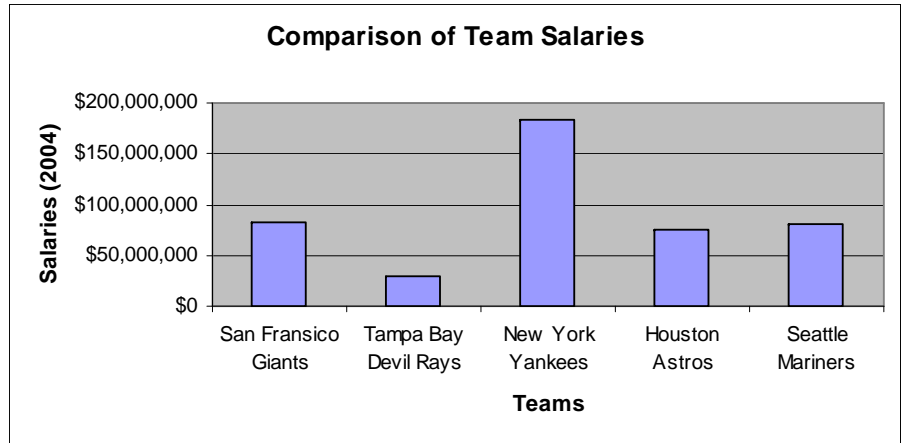
- Appears to have a strong positive correlation: The higher your slugging percentage, the higher your salary (Barry Bonds is an outlier—his slugging percentage falls outside of the other players)



Player	SLG	Salary (2004)
Barry Bonds	0.812	\$18,000,000
Tino Martinez	0.461	\$7,500,000
Alex Rodriguez	0.512	\$21,726,881
Jeff Bagwell	0.465	\$16,000,000
Ichiro Suzuki	0.455	\$6,528,000

Comparison of Team Salaries

- Some of the big name teams have more money to pay their players.
- The median salary (middle salary) also varies, but Yankees and Mariners are not far apart.
- You need to pay attention to the scale of graphs, because they can mislead you.



Conclusion

- A few players get paid a lot of money.
- The salary doesn't always depend on how good a player is—some players are good and don't get paid high salaries.
- The league needs to control the salaries so more players can get paid better based on their statistics.

Player	Salary (2004)	Salary Per Game (162 games)
Barry Bonds	\$18,000,000	\$111,111
Tino Martinez	\$7,500,000	\$46,296
Alex Rodriguez	\$21,726,881	\$134,117
Jeff Bagwell	\$16,000,000	\$98,765
Ichiro Suzuki	\$6,528,000	\$40,296



Sources

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www.baseball-almanac.com

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Slam Sports: Baseball Salaries List

www.canoe.ca/BaseballMoneyMatters/salaries_players.html

ESPN

<http://sports.espn.go.com/mlb/players>