STATTESHIP XCASE

Are taller or bigger pitchers better?

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ABSTRACT & OVERVIEW

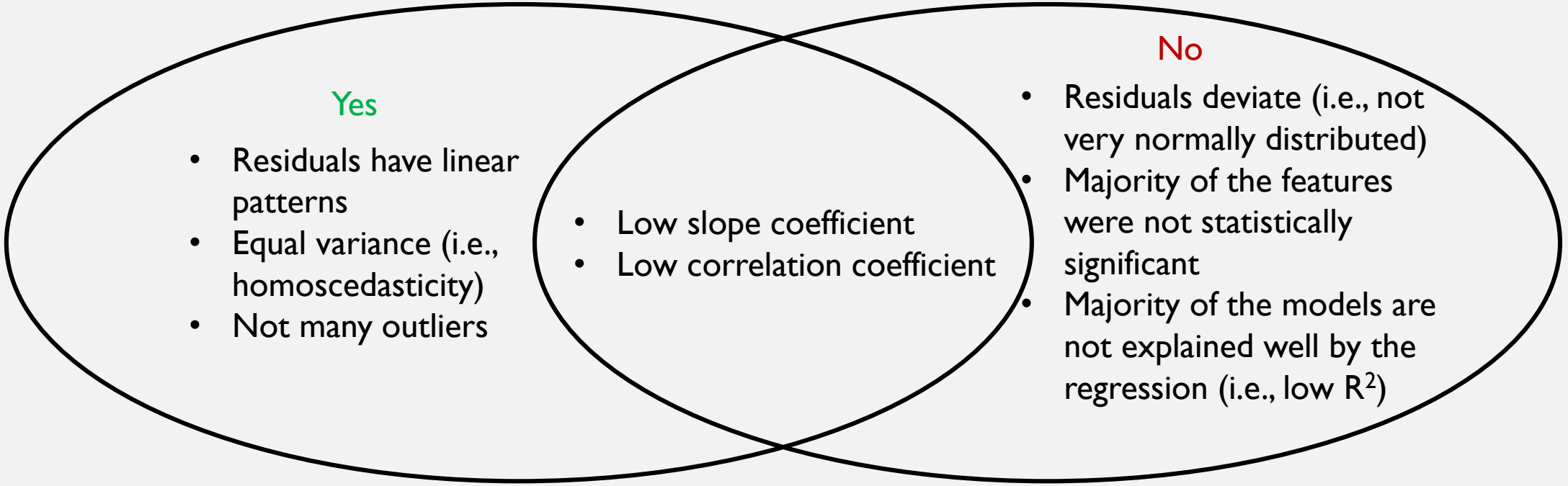
- **Null Hypothesis:** Minimal or no correlation on pitchers' success based on height or weight.
- **Alternate Hypothesis:** Correlation on pitchers' success based on height or weight.

- Variables and Techniques Used:
  - **Regression Analysis** to review correlation.
  - Observance of **Diagnostic Regression Plots** to complete normality & residual analysis.
  - **Review P-Value** to accept or reject null hypothesis.

ANALYSIS: REGRESSION & HYPOTHESIS TESTING

- Out of **16** discrete, simple linear regressions, **7** predictors in my models were statistically significant.
  - Low Slope Coefficient
  - Low Correlation Coefficient
  - Low Coefficient of Determination

IN CONCLUSION…
…DO HEIGHT AND WEIGHT MATTER?



Based Exclusively on Stattleship Data from a single season? **No.**

In Real Life? ¯_(ツ)_/¯

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Appendix

APPENDIX: REGRESSION SUMMARY

HEIGHT

Dependent Variable	R	R^2	P-Value	Accept or Reject Null Hypothesis?
ERA	- 0.03	ε	0.3	REJECT
IP / GS	0.07	0.01	0.93	ACCEPT
H / 9 Inning	- 0.11	0.01	0.0117	REJECT
HR / 9 Inning	0.02	ε	0.89	ACCEPT
K / 9 Inning	0.13	0.02	0.72	ACCEPT
K%	0.05	0.0023	0.52	ACCEPT
BB / 9 Inning	0.06	0.0041	0.9	ACCEPT
WHIP	- 0.03	ε	0.09	ACCEPT

WEIGHT

Dependent Variable	R	R^2	P-Value	Accept or Reject Null Hypothesis?
ERA	0.0017	0.0125	0.4486	WASH
IP / GS	0.1239	0.0154	0.02	REJECT
H / 9 Inning	0.0088	ε	ε	REJECT
HR / 9 Inning	0.11	0.01	0.94	ACCEPT
K / 9 Inning	- 0.03	ε	ε	REJECT
K%	0.13	0.02	0.0047	REJECT
BB / 9 Inning	0.05	0.0029	0.04	WASH
WHIP	0.05	0.0029	ε	REJECT

APPENDIX: HEARING CORRELATION THROUGH THE GRAPE VINE (READ: REDDIT)

"ADVANTAGES" FOR THE GIANTS

- Longer "levers" (arms/legs) more velocity due to levers
- Better downward angle (but see Randy Johnson/sidearm)
- Release point closer to the plate

"ADVANTAGES" FOR THE RUNTS

- Better coordination and rotation ability, more velocity from rotation.
- Power production/stronger per body weight/acceleration/quick twitch muscles
- Less adjustment needed to hit the strike zone (less of an angle/miss in release point is less distance off/difficulty in timing longer levers)