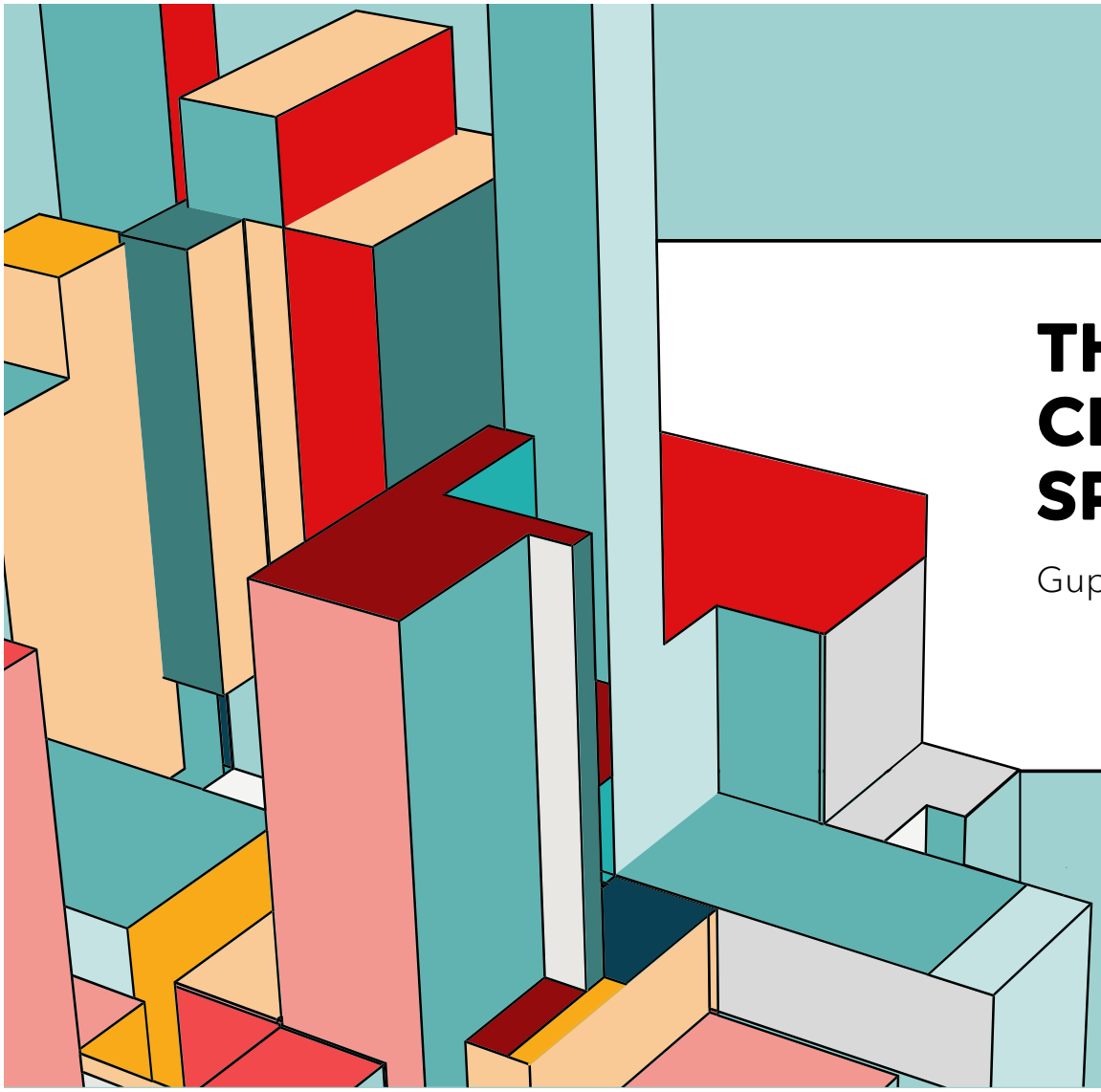
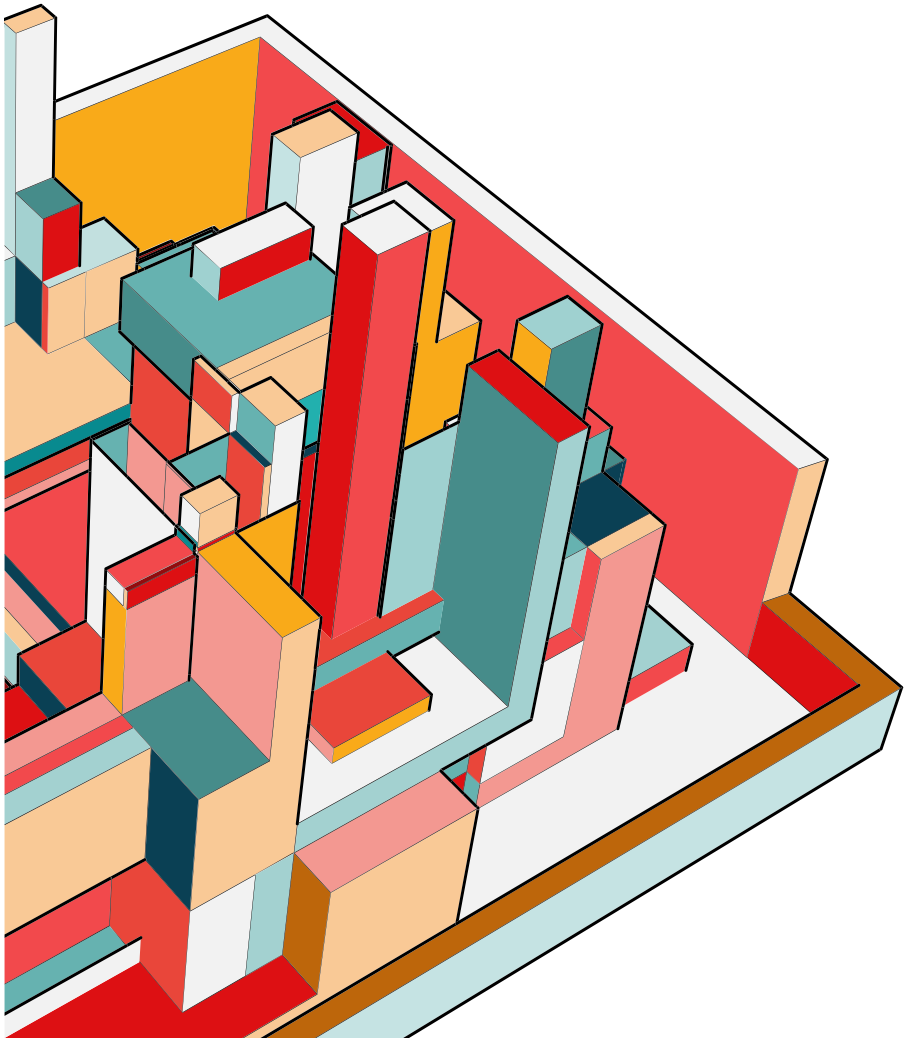


THE EQUITABLE CHARITY OF NCAA SPORTS

Gupta, Schwartzman, Spooner & Payne



RESEARCH QUESTION

To what extent can the ratio of male to female athletic scholarships predict the male to female ratio of recruitment funds?

PROBLEM CONTEXT

University

+

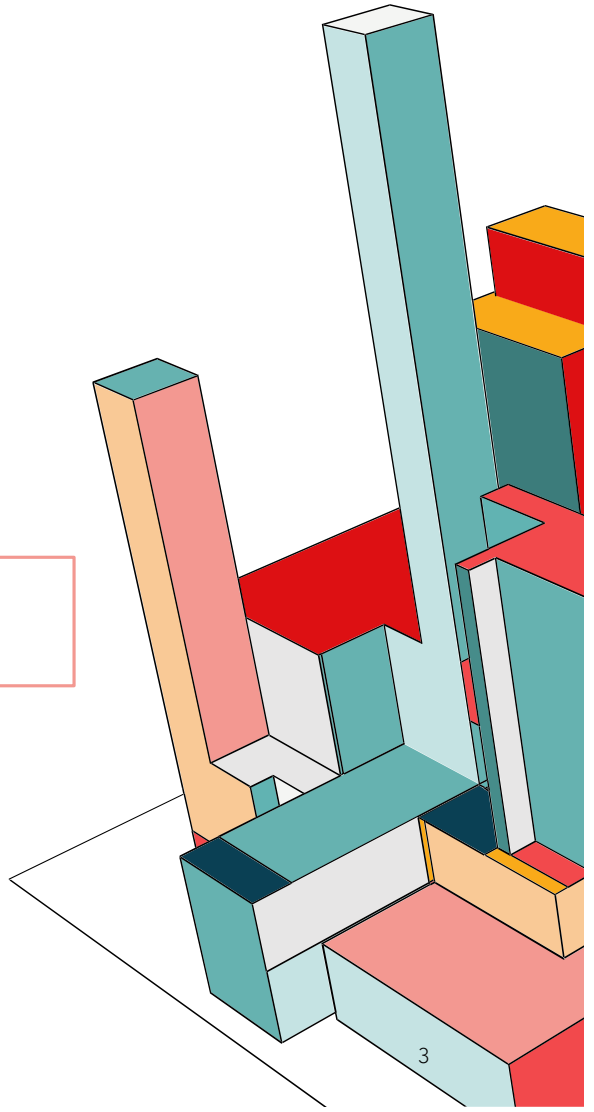
Athletes

+

Money

=

What is the relationship?



WHAT DOES THE LITERATURE SAY?

1

Division 1 Sports

Largest gaps observed

2

Football vs. No Football

Largest funding allocation discrepancies

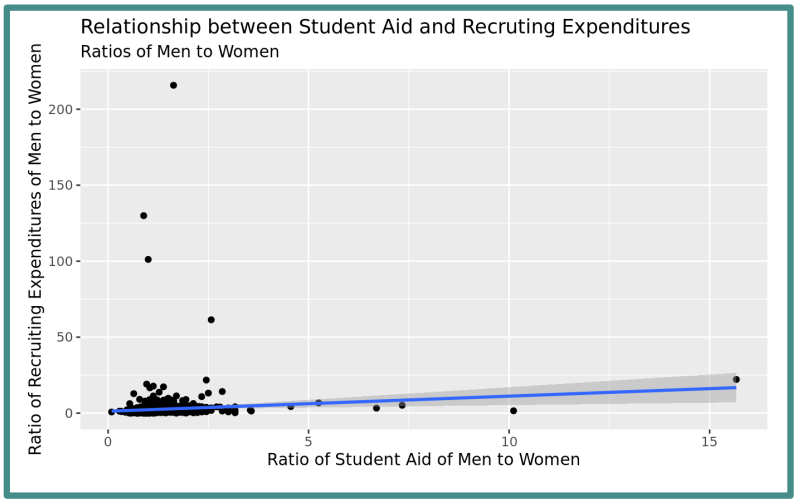
3

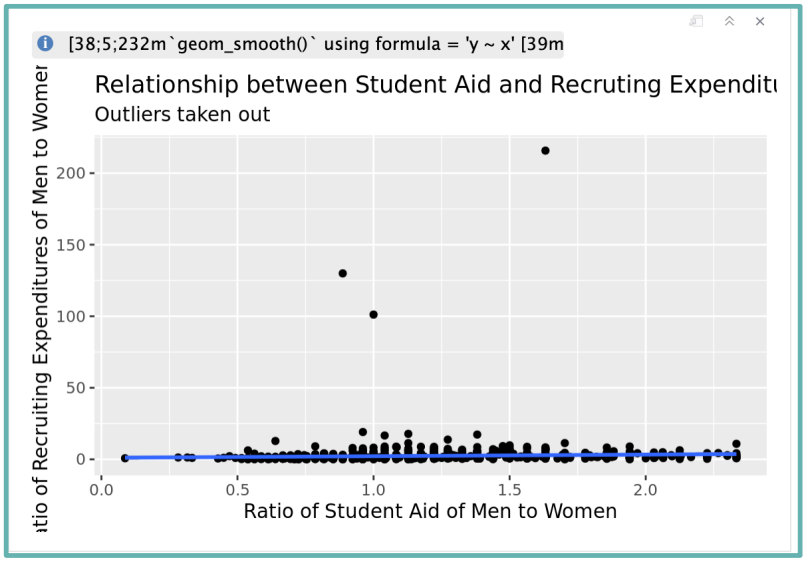
Gender

Men > Women

Meredith, L. (2017, June 21). NCAA Title IX Report: Spending up, gender gaps remain. The Seattle Times.

METHODOLOGY





METHODOLOGY

What statistical analyses did we perform?

AIC

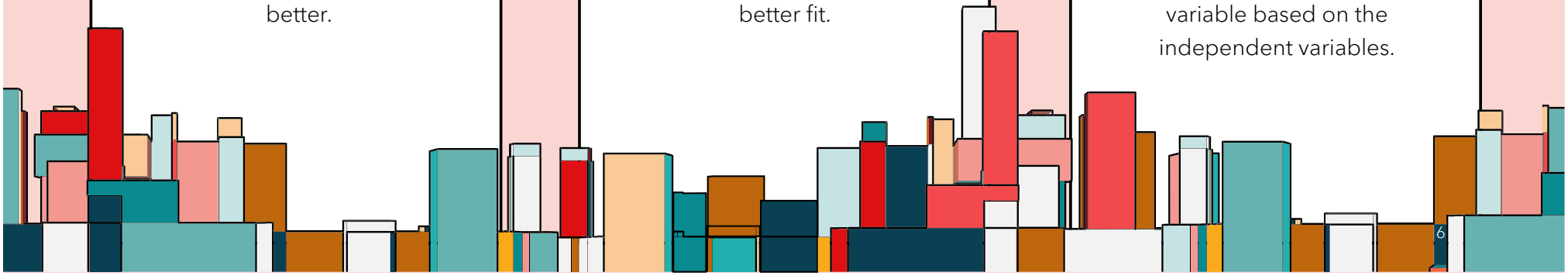
AIC is a metric for assessing the quality of statistical models. It balances how well the model fits the data with how complex the model is. A lower AIC is better.

R Squared

R-squared is a statistical measure that tells you how well the regression line fits the data. It ranges from 0 to 1, with higher values indicating a better fit.

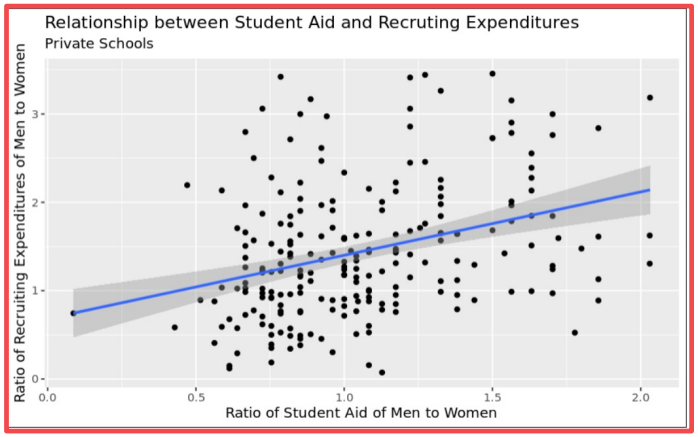
Linear Models

Linear models assume a straight-line relationship between variables and are used in regression analysis to predict the value of the dependent variable based on the independent variables.

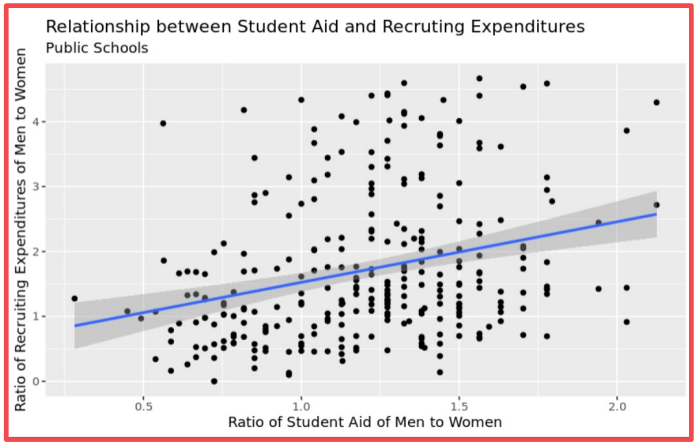


METHODOLOGY

Private Schools

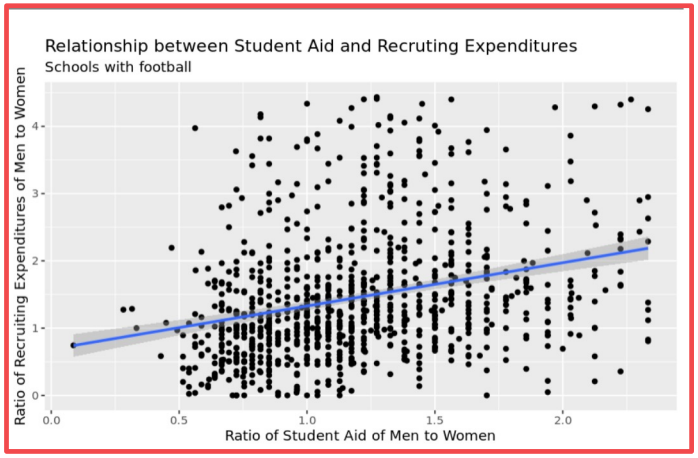


Public Schools

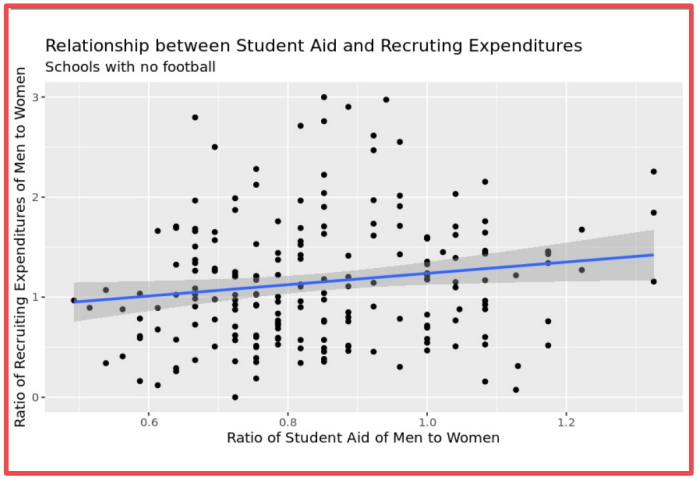


METHODOLOGY

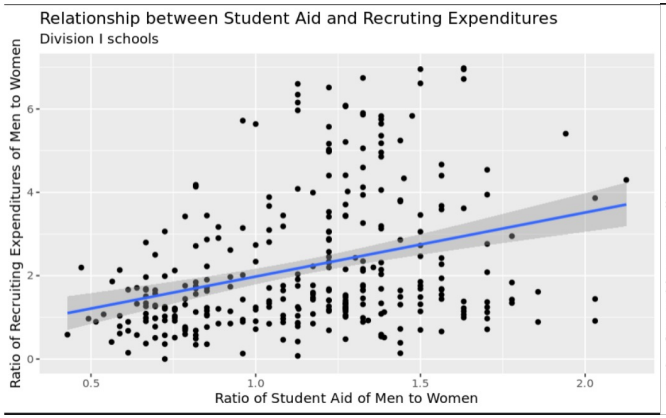
Football



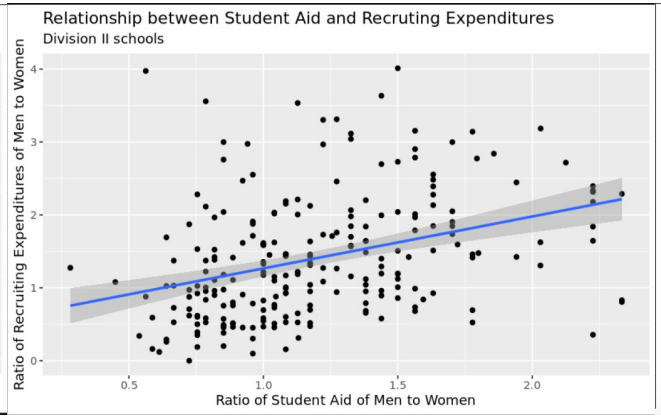
No Football



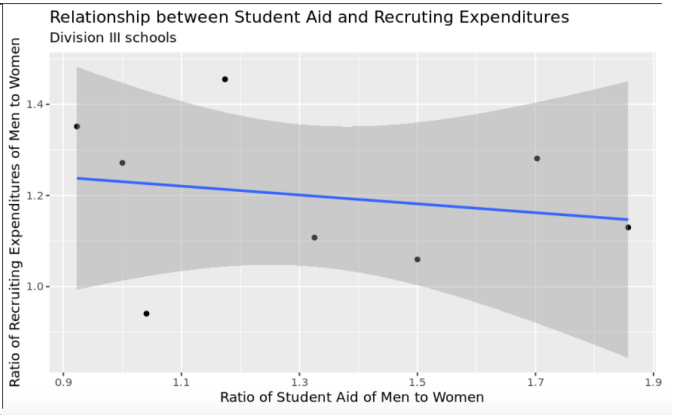
METHODOLOGY



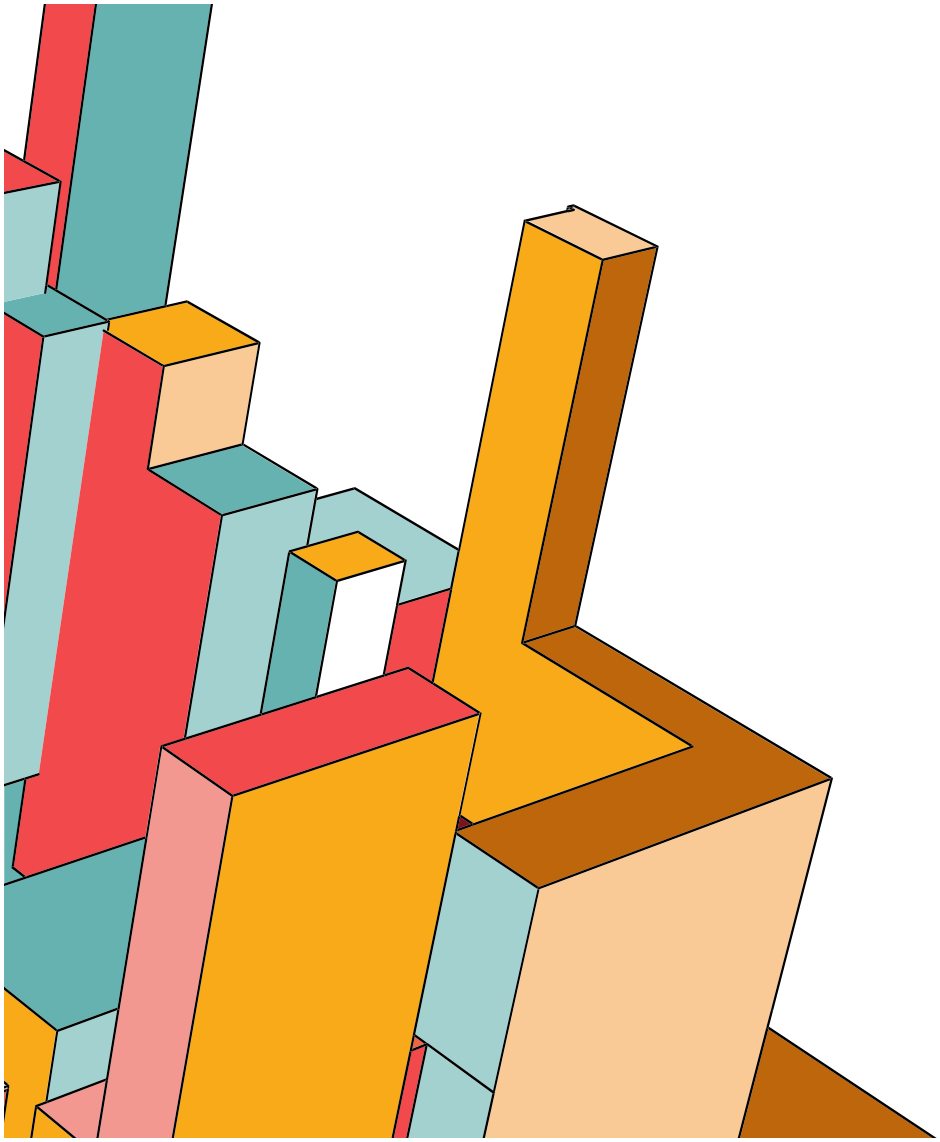
Division 1



Division 2



Division 3



RESULTS

Prediction Model

$$\hat{ratio\_mw\_ep} = 3.688 - 0.651(school\_type) - 0.829(division\_three) - .848(division\_two) - 1.592(no\_football) + 0.086(ratio\_mw\_sa)$$

Table of R Squared and AIC

Data:	All Schools	All Schools Outliers Removed	Private Schools	Public Schools
AIC:	7723.431	7409.35	490.849	869.687
R Square:	0.008	0.003	0.112	0.082

Data:	Football Schools	No Football Schools	DI Schools	DII Schools	DIII Schools
AIC:	2484.094	374.648	1167.375	554.459	-1.120
R Square:	0.079	0.025	0.103	0.127	0.039

LIMITATIONS

Source Bias

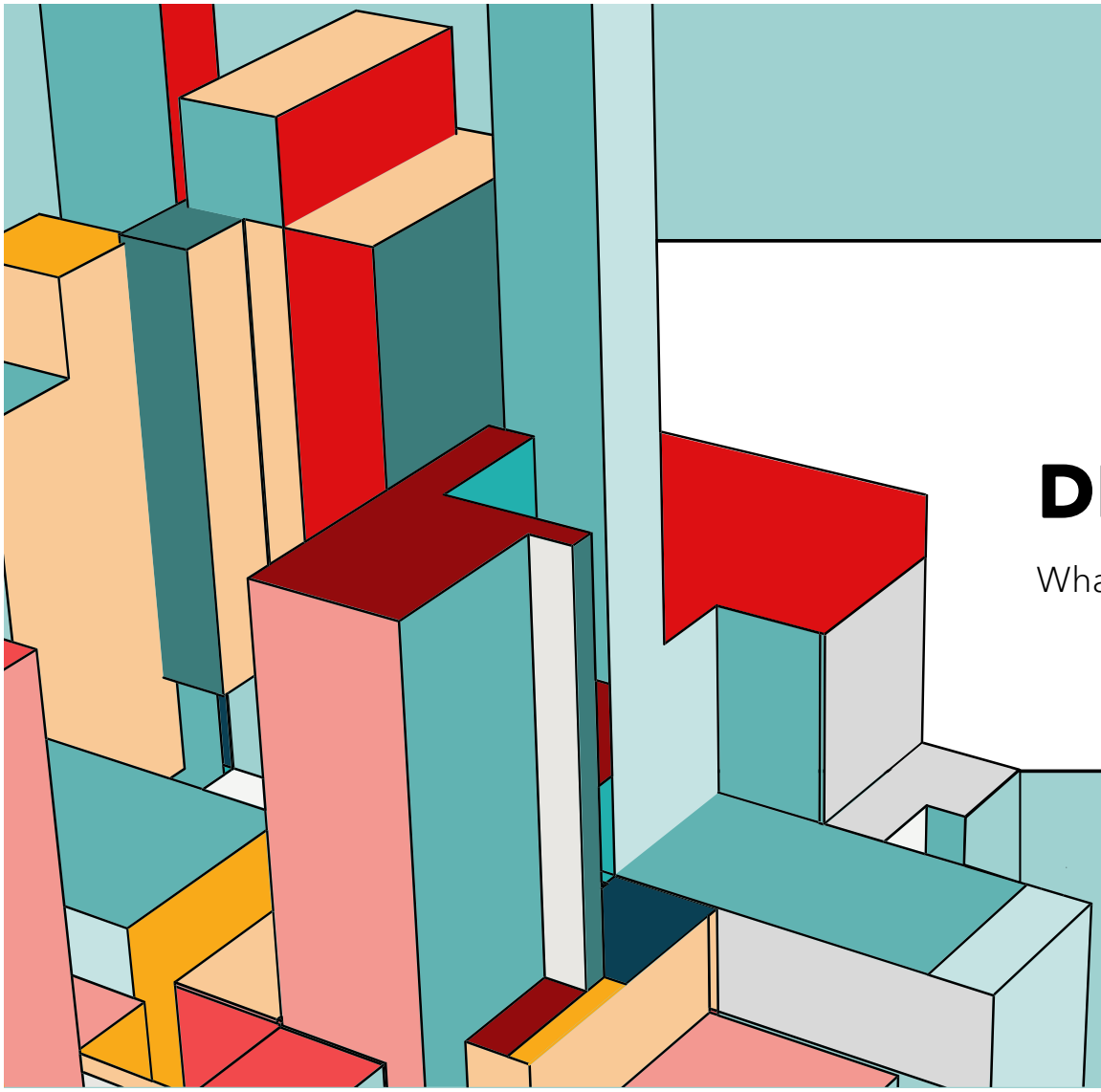
- Self reported
- Representation

Transparency

- Presentation
- Methods of analysis

Accuracy

- Inaccurate
- Incomplete



DISCUSSION

What's next?