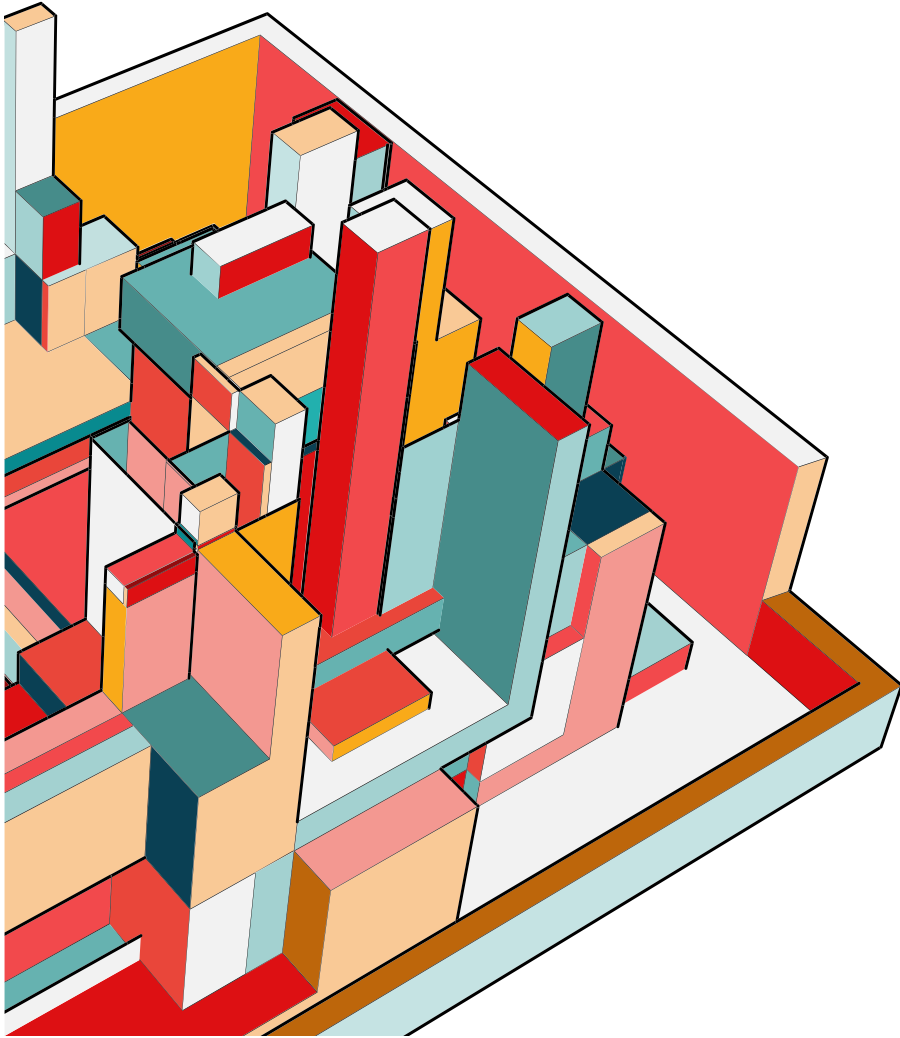


An abstract graphic design featuring a teal background. On the left side, there is a cluster of colorful 3D rectangular blocks in shades of red, orange, yellow, and teal, arranged in a stepped, architectural fashion. On the right side, a white rectangular box contains the title and author information.

# **THE EQUITABLE CHARITY OF NCAA SPORTS**

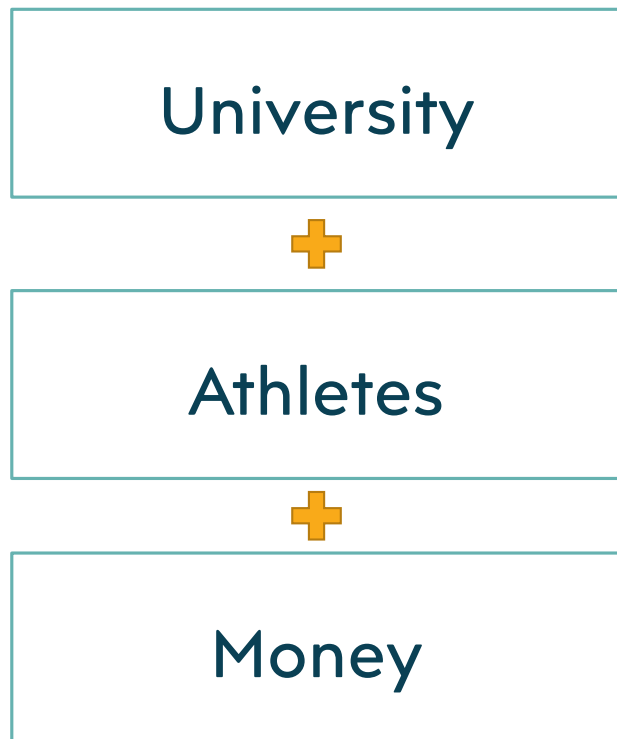
Gupta, Schwartzman, Spooner & Payne



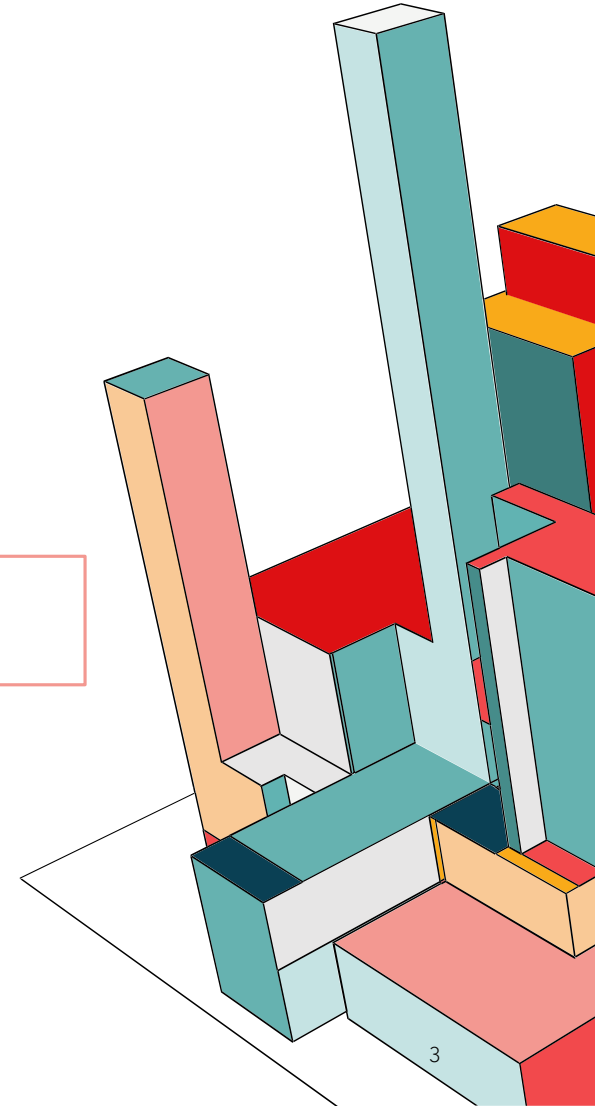
# RESEARCH QUESTION

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

# PROBLEM CONTEXT



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

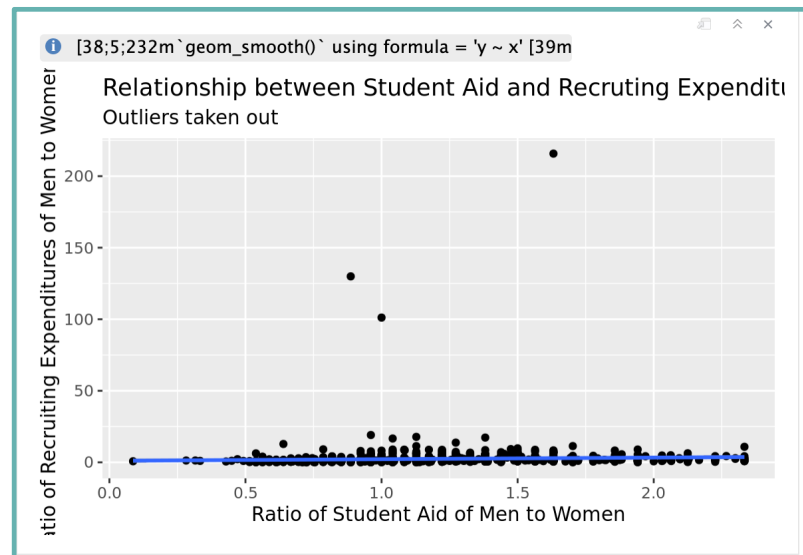
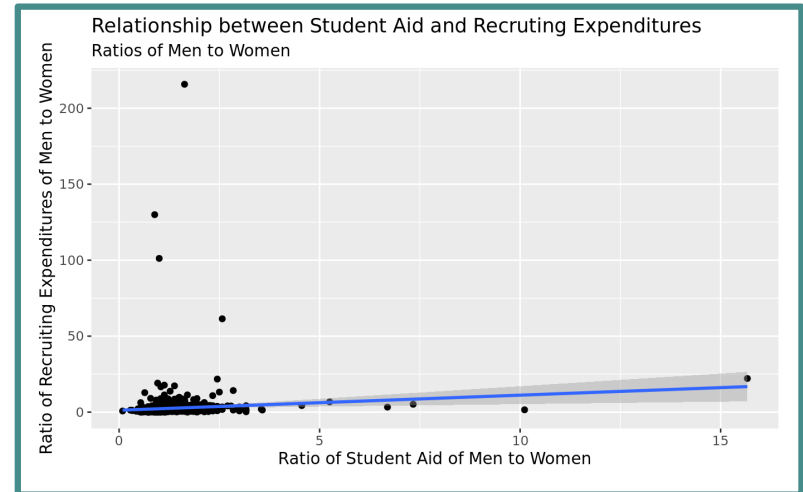
**3**

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

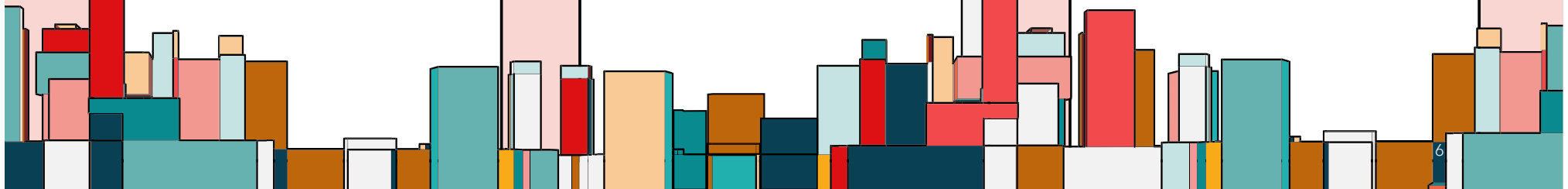
AIC is a metric for assessing the quality of statistical models. It balances how well the model fits the data with how complex the model is. A lower AIC is better.

## 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.

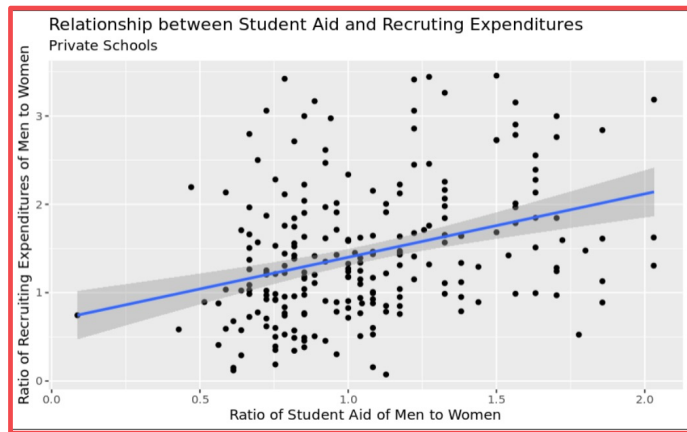
## Linear Models

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.

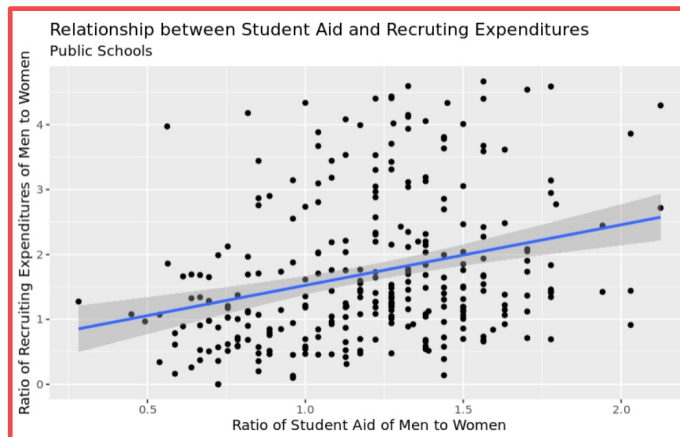


# METHODOLOGY

## Private Schools

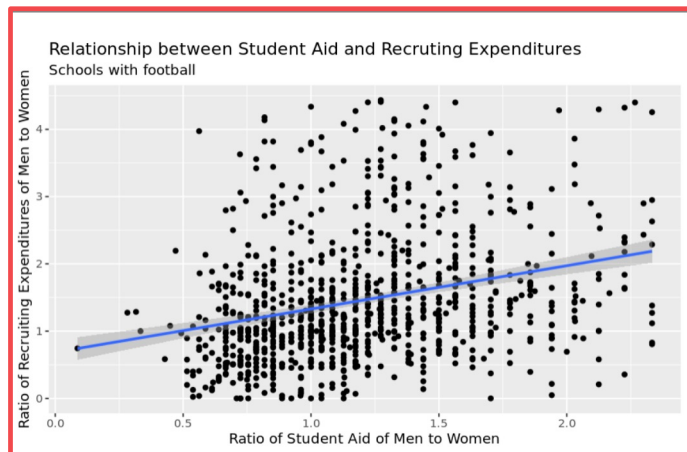


## Public Schools

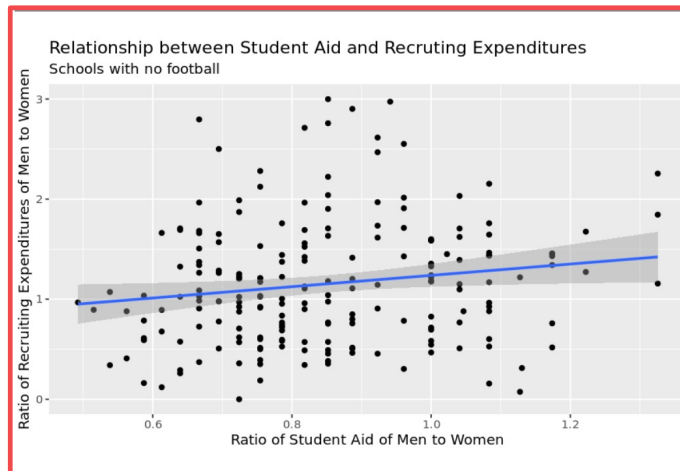


# METHODOLOGY

## Football

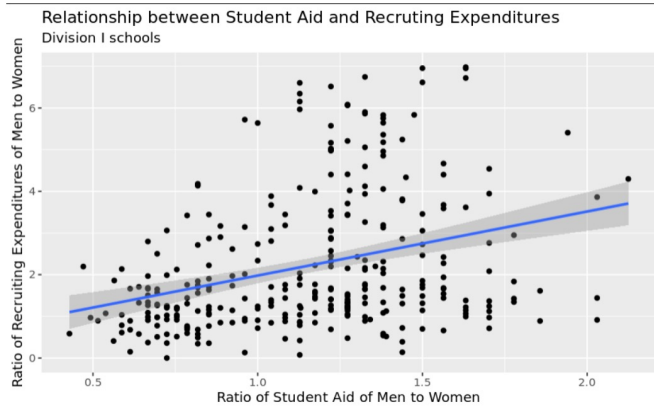


## No Football

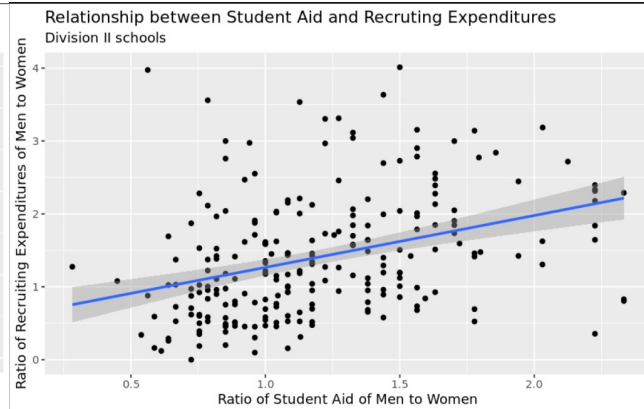




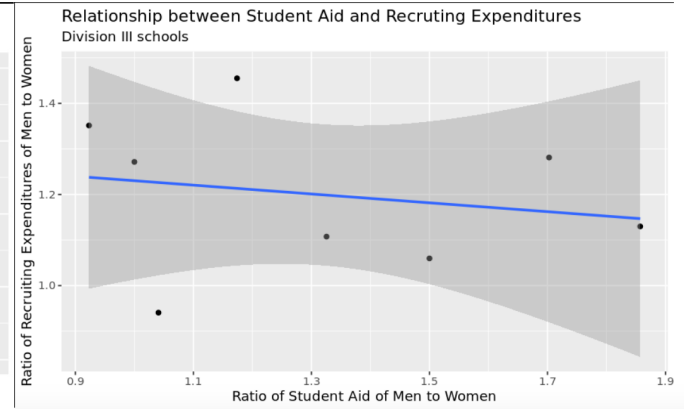
# METHODOLOGY



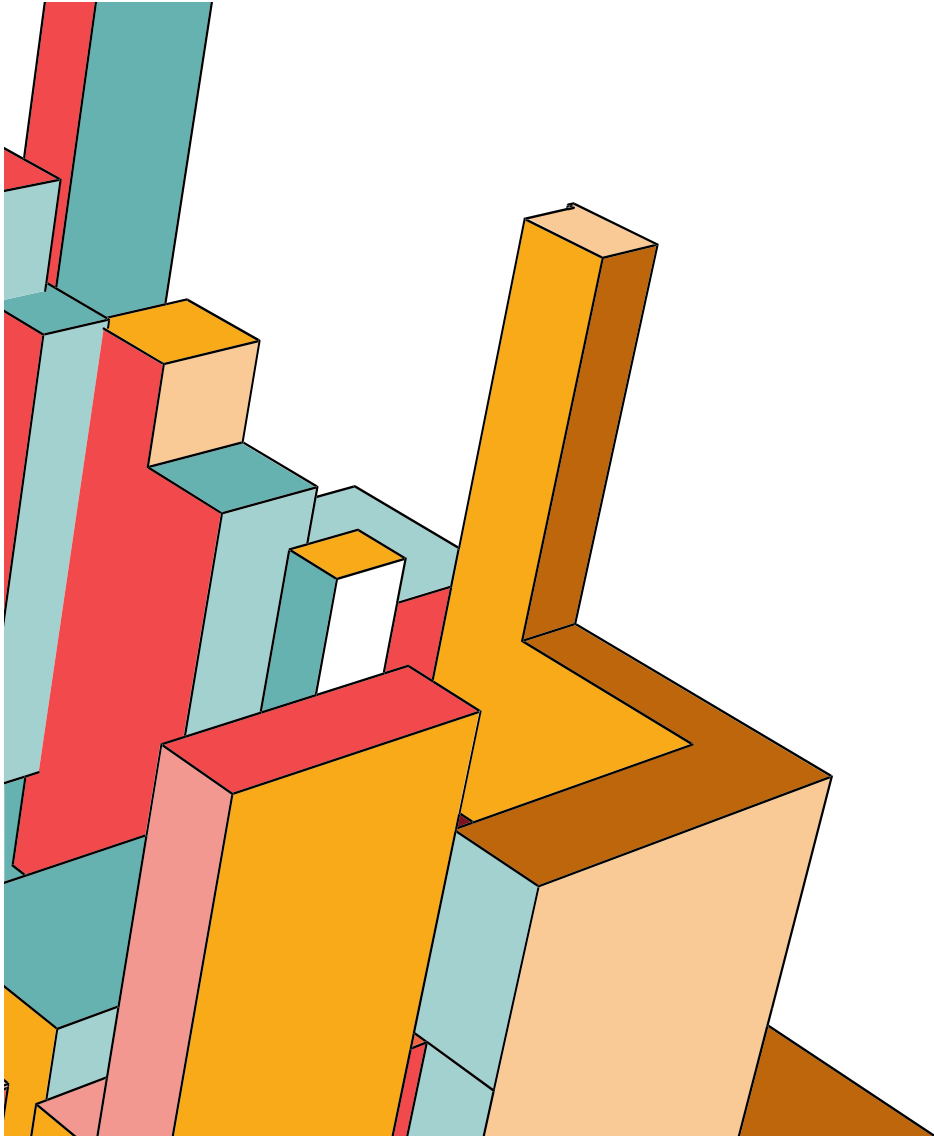
Division 1



Division 2



Division 3



# RESULTS

## Prediction Model

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

## Table of R Squared and AIC

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

<u>Data:</u>	<u>Football Schools</u>	<u>No Football Schools</u>	<u>DI Schools</u>	<u>DII Schools</u>	<u>DIII Schools</u>
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

An abstract geometric composition featuring a variety of 3D rectangular blocks in shades of red, orange, teal, and grey. These blocks are arranged in a complex, overlapping structure on the left side of the frame. To the right, a large white rectangular area is set against a solid teal background. Inside this white area, the word "DISCUSSION" is written in a bold, black, sans-serif font, with the phrase "What's next?" in a smaller, lighter font directly below it.

# DISCUSSION

What's next?