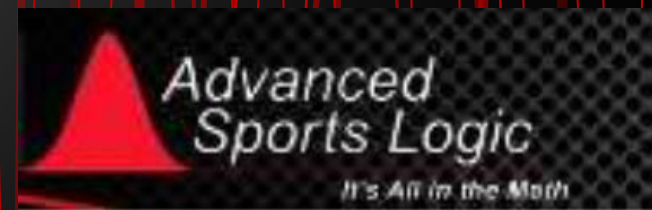# Projection Rating System

Sponsored by Advanced Sports Logic

By John Lucker, Patrick Maynard, and Matthew Poppa

Advised by Jon P. Abraham

The Challenge

- Identify important statistics for fantasy football

- Develop a method to evaluate projection systems

- Based on rigorous statistical methods

- Compare thousands of projections to the actual data

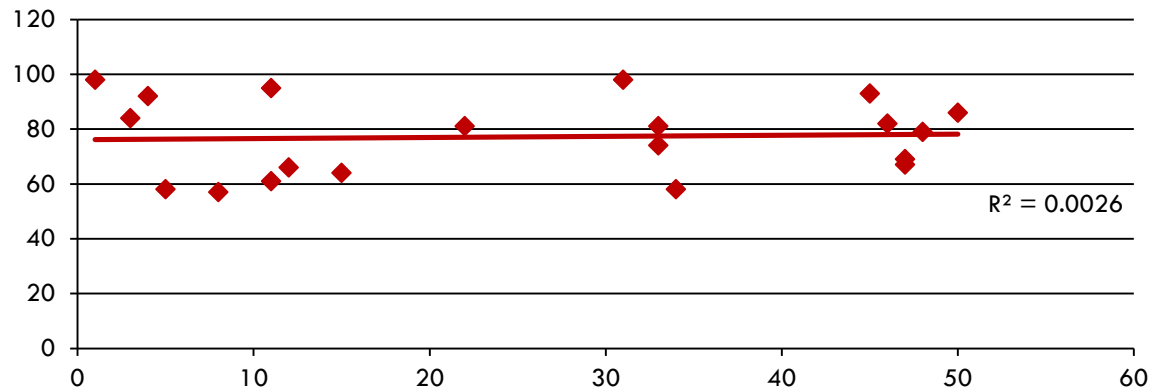- End with a score

Correlation

- Measures the linear association of two variables
- Ranges from -1 to 1
- Trend Measurement
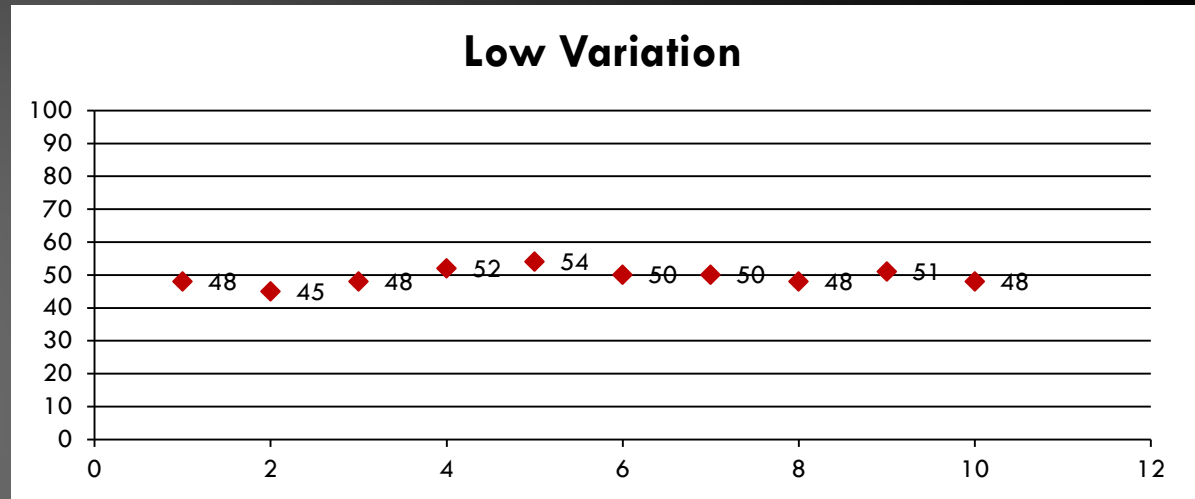
Correlation Examples

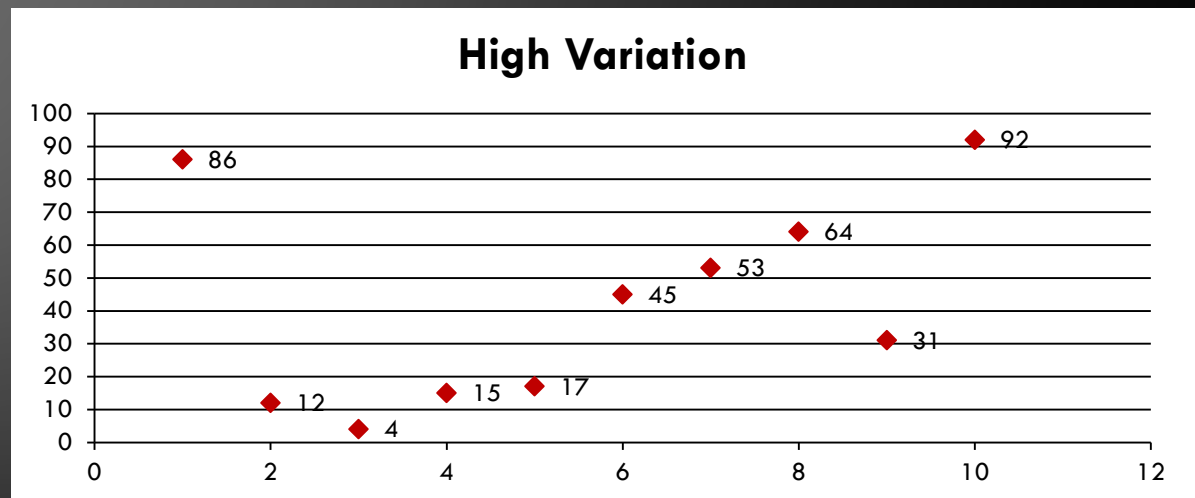**Perfectly Correlated Data**

$R^2 = 1$
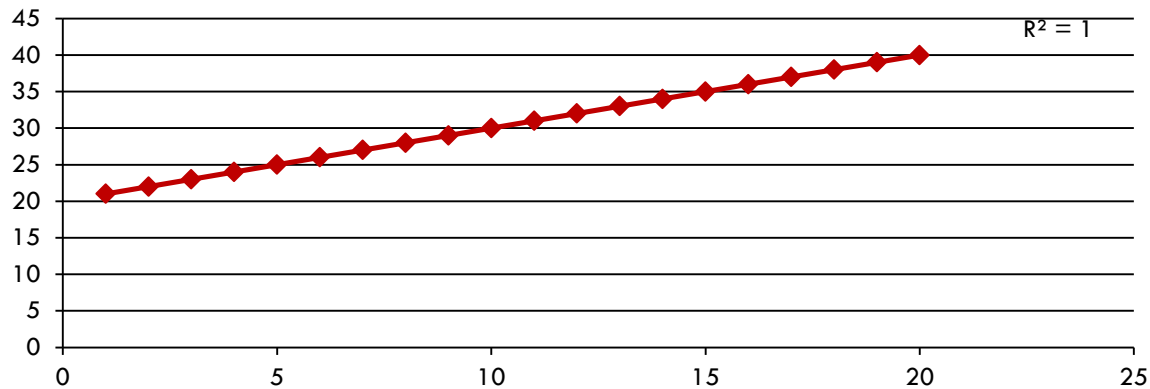
Poorly Correlated Data

$R^2 = 0.0026$

Variation Examples

- **Low Variation:**
  - 5.84

- **High Variation:**
  - 886.89
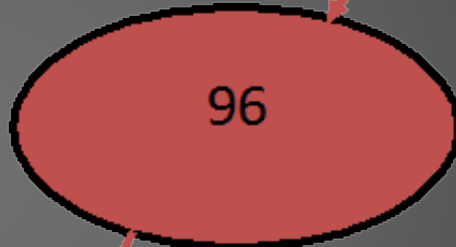
Low Variation

High Variation

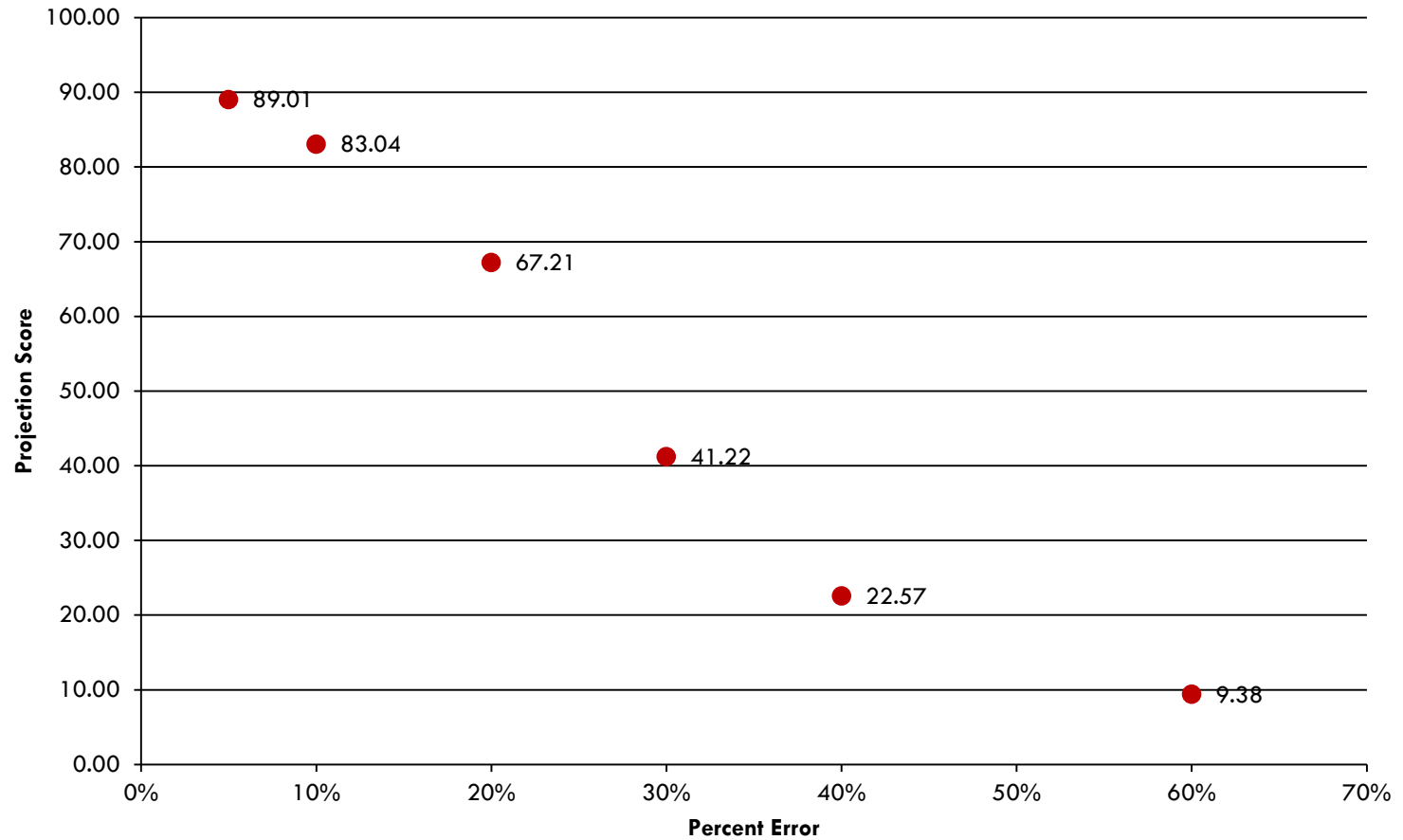# Rating Flow Chart
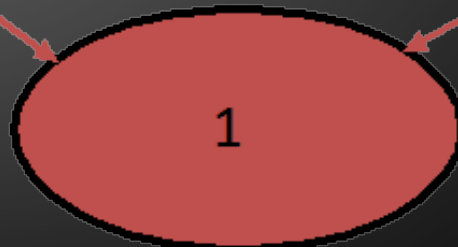
Score Components

- "Accuracy" Component – Correlation
  - How close the projection is to the actual data.

- "Variation" Component - Scaled Averaged Variance
  - How significantly the projection system would change its projections over time.

Initial Calibration

Score Vs Percent Error
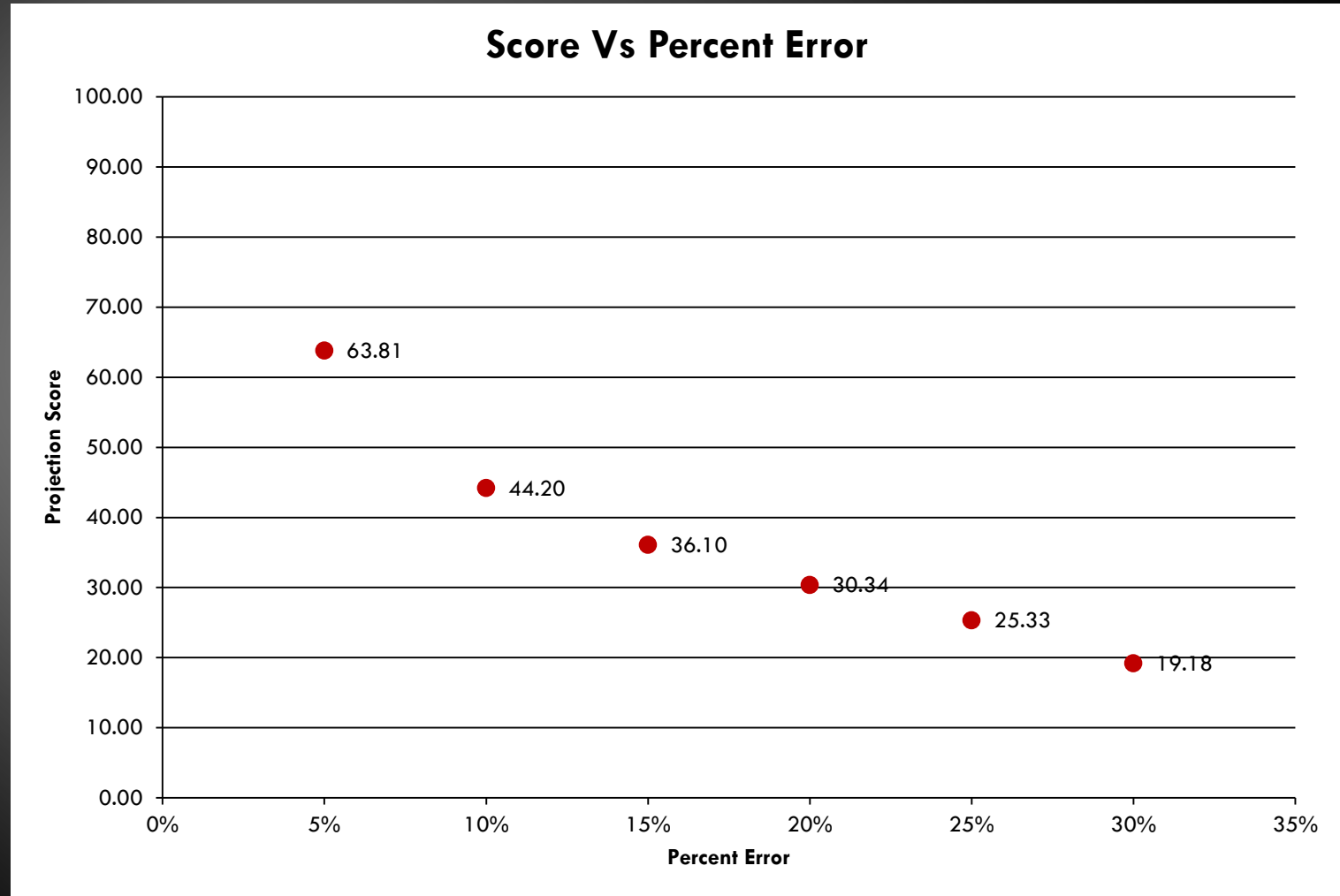
Progressive Calibration

Score Vs Max Percent Error

Final Weight Scheme

Projection Score	Weighted Average of Scores*50+50	
	Score	Weight
Post Draft	AVERAGE(B16:R16)	1
Preseason 1	AVERAGE(B17:R17)	1
Preseason 2	AVERAGE(B18:R18)	1
Preseason 3	AVERAGE(B19:R19)	1
Preseason 4	AVERAGE(B20:R20)	1
Variation	AVERAGE(C40:C56)	
Final Accuracy	AVERAGE(B21,C22,D23,E24,F25,G26,H27,I28,J29,K30,L31,M32,N33,O34,P35,Q36)	1
FA and Variation	Variation x Final Accuracy	3

Recommendations

- Use an SQL Database
- Develop a Program to calculate scores
- Explore different weighting
- Use to improve projections

Questions and Comments

- If you have any questions or comments for us please feel free to speak now.

- If future questions arise please feel free to contact us by e-mail at aslmqp13@wpi.edu