Comparative Analysis of Pitching Performance: KBO vs MLB

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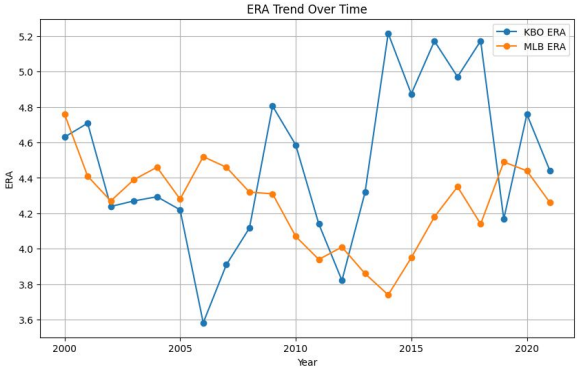
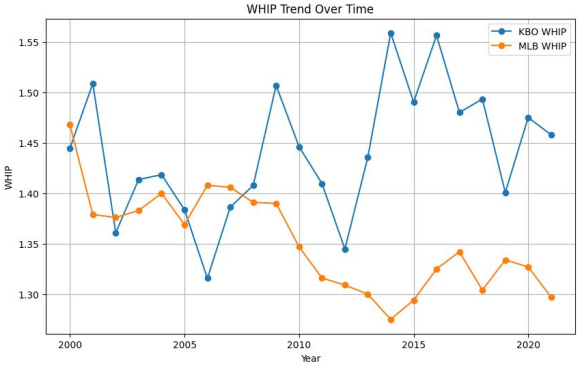
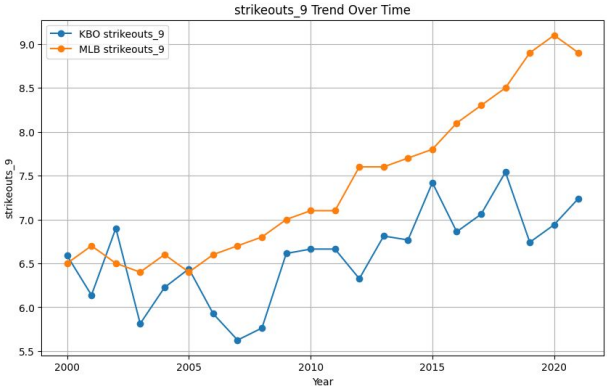
Table of Contents

League-Wide Pitching Performance Trends







KBO

- Higher and more variable ERA and WHIP over the years
- Strikeouts per 9 innings remain steady, with slight increases.

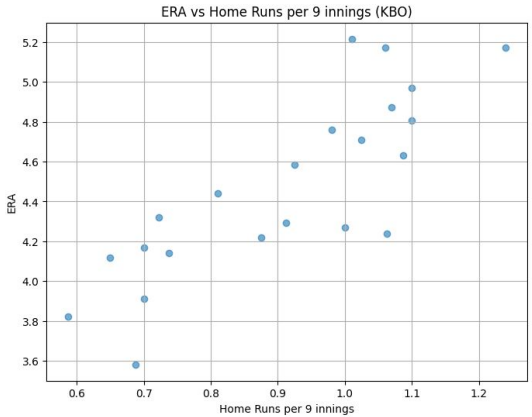
MLB

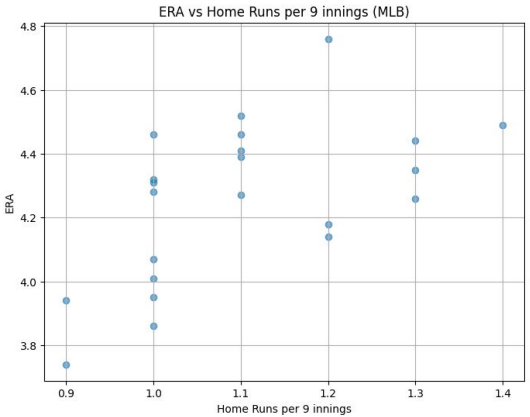
- Lower and more stable ERA and WHIP over time
- Consistent rise in strikeouts per 9 innings.

Key Insight:

MLB shows more consistent pitching performance with improving strikeout rates, while KBO exhibits greater variability in ERA and WHIP, indicating different pitching strategies or league dynamics.

Home Run Suppression Strategies





KBO

- Correlation between home run/9 and ERA: 0.824
- More home runs allowed = higher ERA

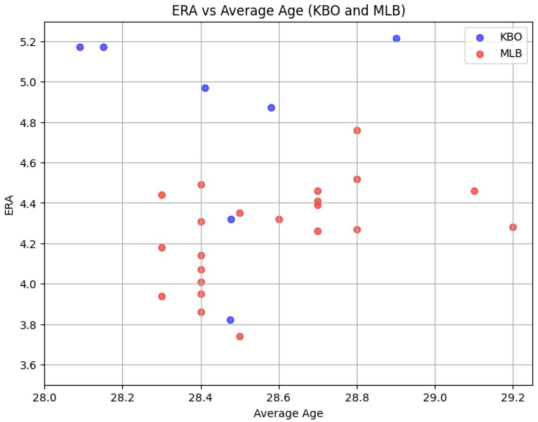
MLB

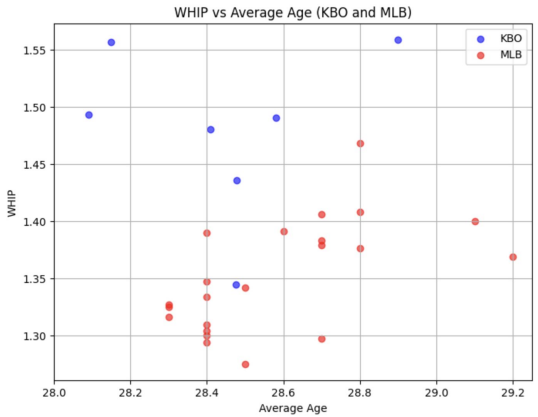
- Correlation between home run/9 and ERA: 0.562
- Moderate positive correlation

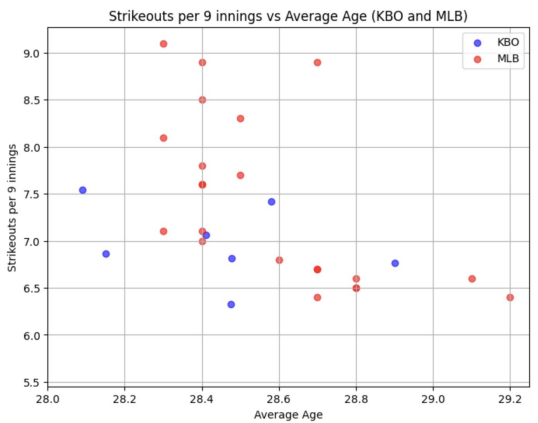
Key Insight:

KBO shows a stronger correlation, indicating that home run suppression significantly impacts pitcher effectiveness. Data from MLB suggests that other factors may be more influential to ERA beyond home run rates.

Impact of Average Age on League-Wide Performance



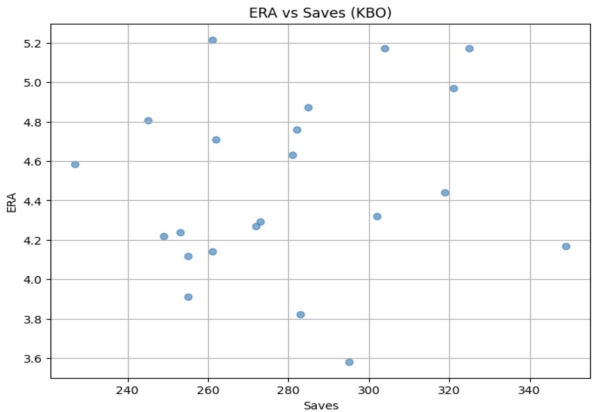


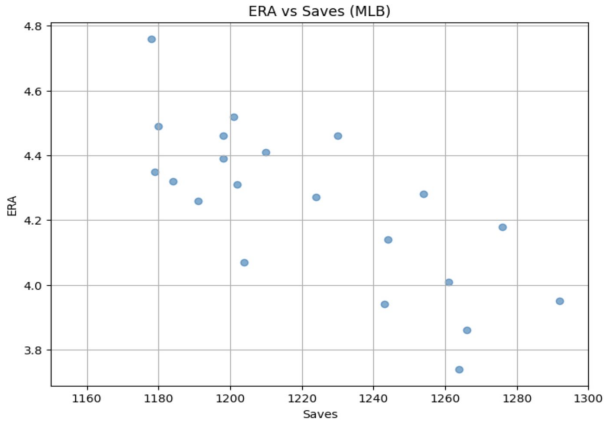


Key Insight:

No significant relationship between league-wide performance metrics (ERA, WHIP, Strikeouts per 9 innings) and age, suggesting that variations in these metrics are more influenced by other factors such as team strategy or player dynamics rather than a trend over age.

Fatigue Management and Workload Distribution





KBO

- Wide range of ERA for teams with fewer saves
- Moderate positive correlation between saves and ERA

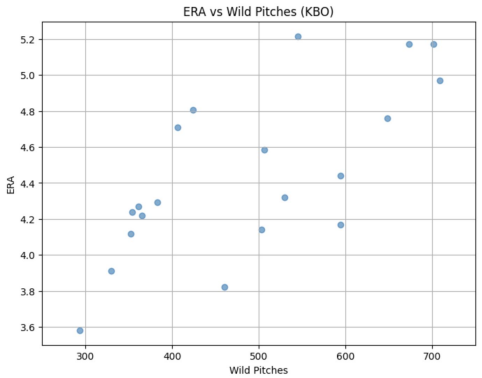
MLB

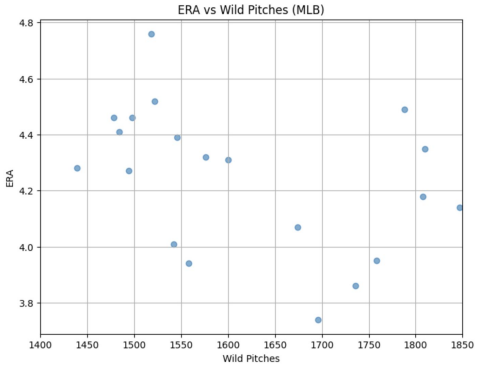
- Slight negative correlation between saves and ERA
- Teams with more saves tend to have lower ERAs

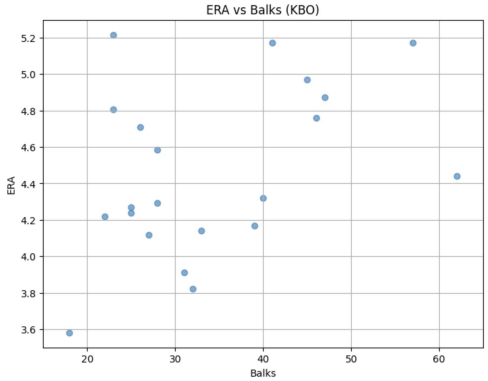
Key Insight:

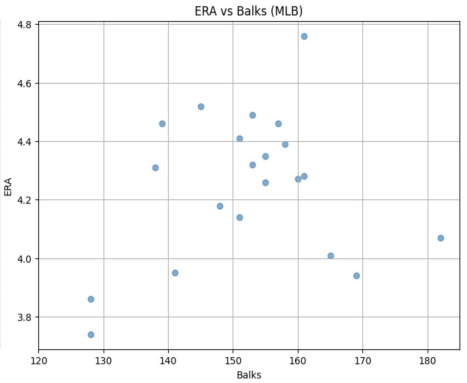
KBO shows a moderate positive relationship, indicating that managing saves effectively may influence ERA. MLB teams seem to benefit from having more saves, often corresponding to lower ERAs, suggesting efficient bullpen usage.

Impact of Special Situations









KBO

- Positive correlation between wild pitches and ERA
- Balks have a moderate positive impact on ERA

MLB

- Moderate correlation between wild pitches and ERA, but less pronounced than in KBO
- Weak relationship between balks and ERA, suggesting these events have a minor impact on overall performance

Key Insight:

Both leagues show that wild pitches correlate with higher ERA, with a stronger effect in the KBO, highlighting the importance of controlling special situations in maintaining pitching effectiveness.