

How Rare is Pete Alonso's 53 Home Run Season?

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Goal:

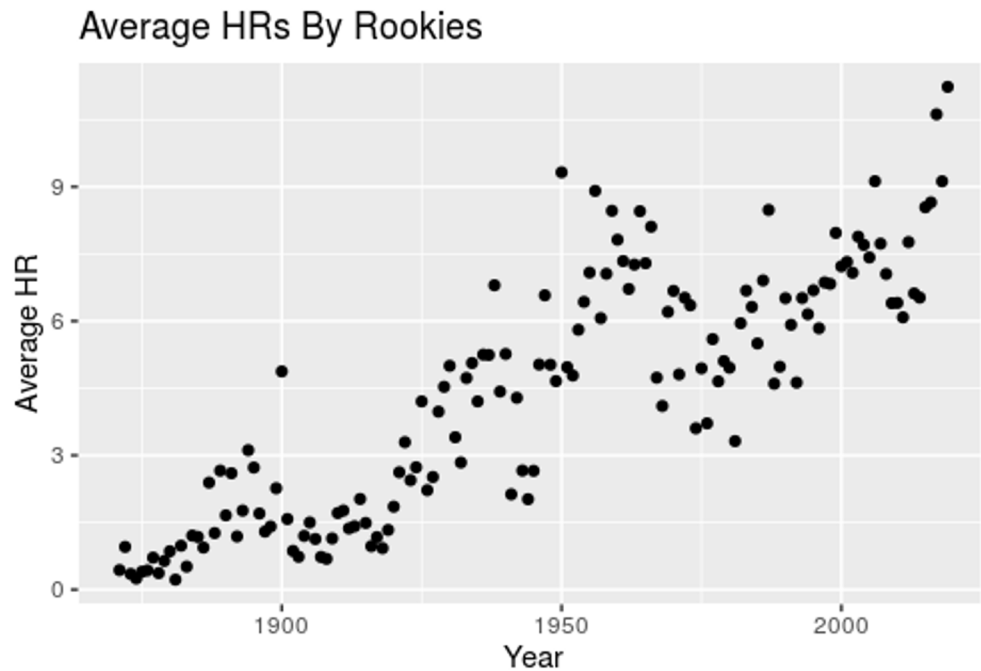
To determine how rare was Pete Alonso's 53 Home Run season?

Background

- Pete Alonso of the Mets hit 53 HR in his rookie season in 2019
- He broke the HR record for rookies &
- He broke the Mets all time single season HR record

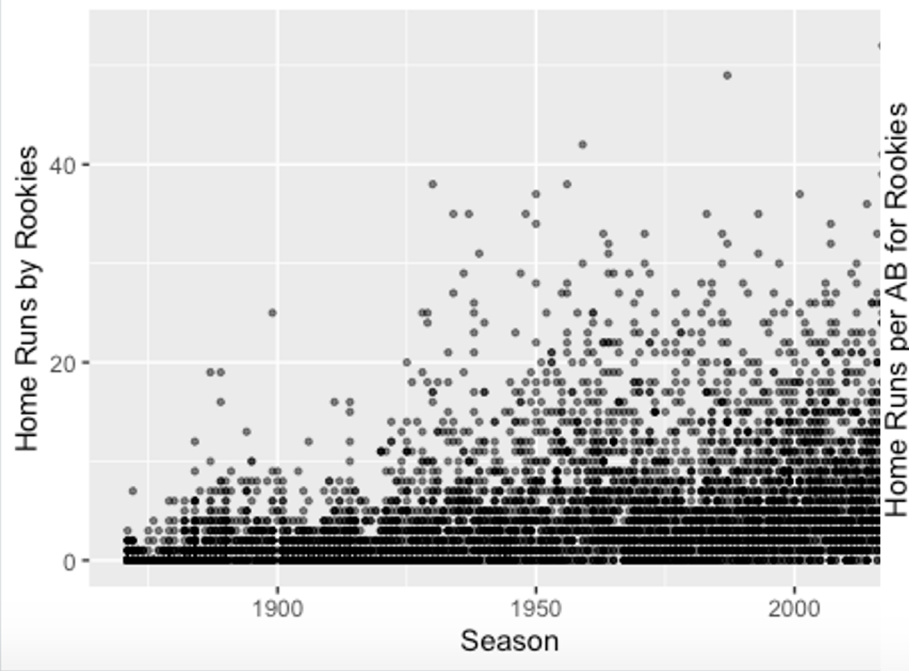


Home runs by rookies over Time

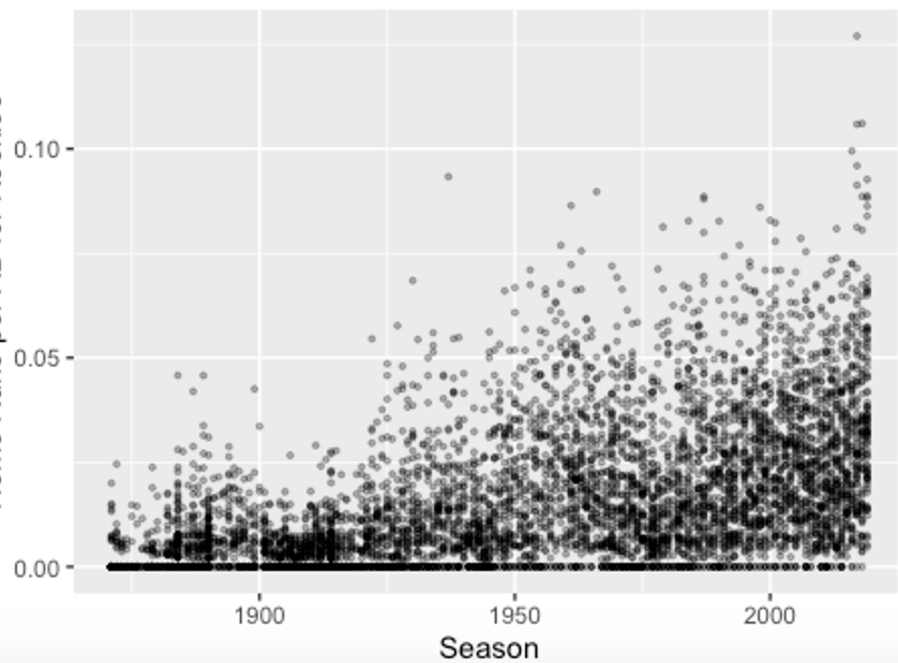


Home Runs by Rookies Over the Years

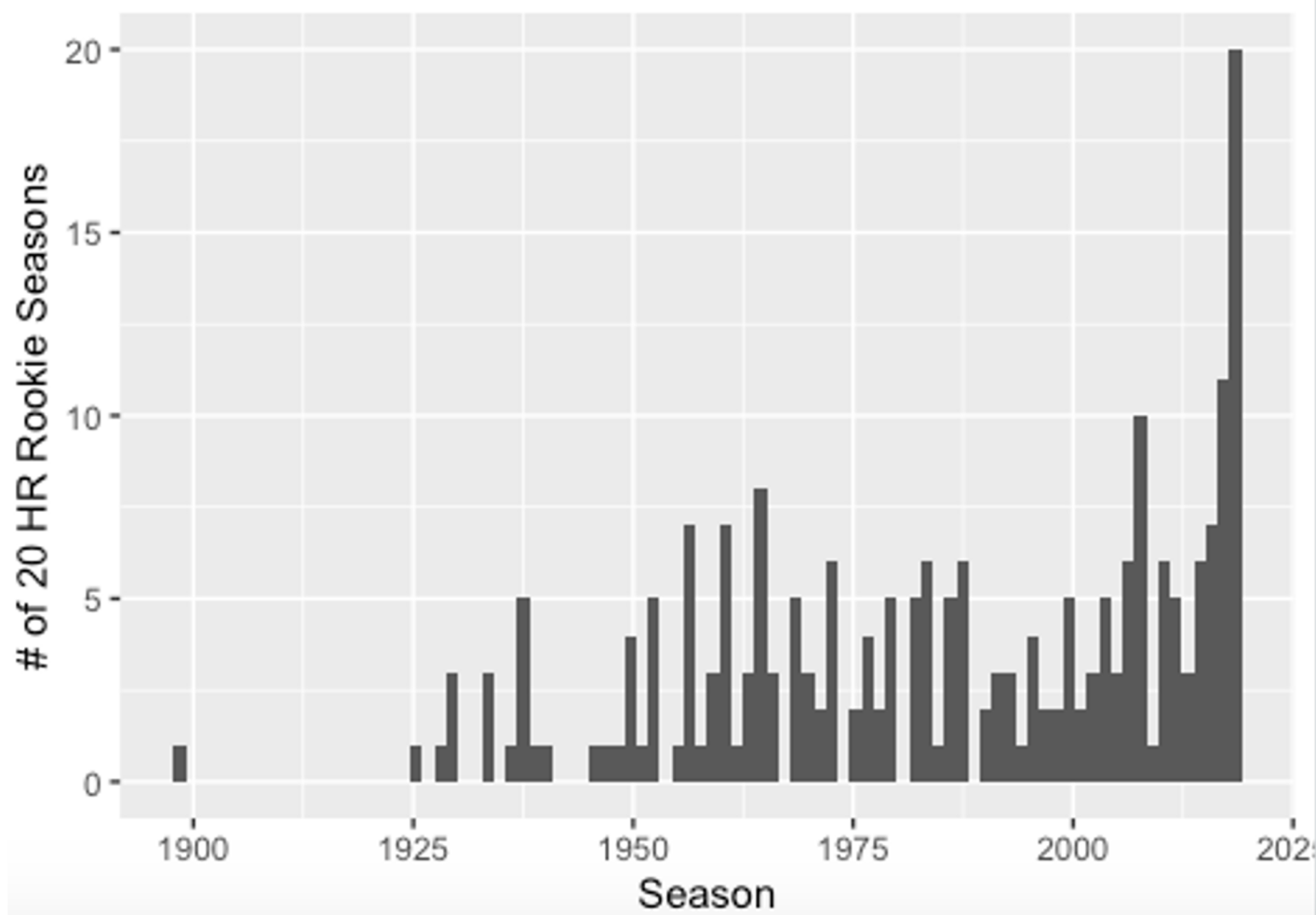
Home Runs by Rookies over Time



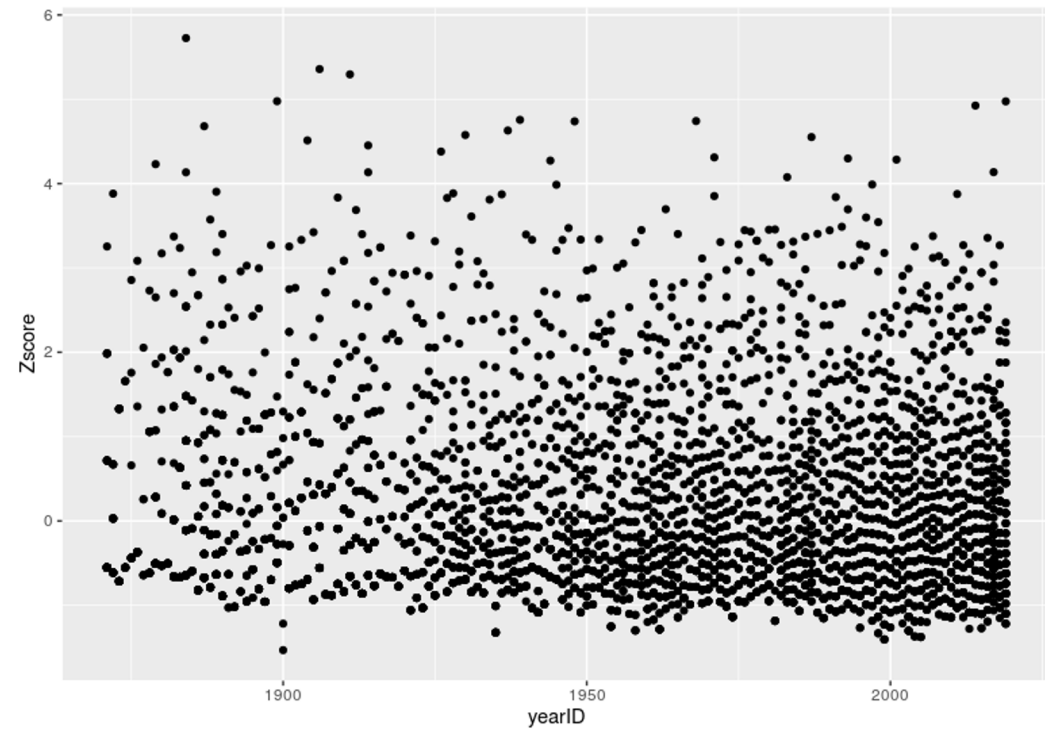
Home Runs Per At Bat by Rookies over Time



Number of 20 HR Rookie Seasons Over Time



Z Score of Rookie Home Runs



Name	Year	ZScore
Ed Crane	1884	5.73
Tim Jordan	1901	5.36
Fred Luderus	1909	5.29
Buck Freeman	1891	4.98
Pete Alonso	2019	4.97
Jose Abreu	2014	4.92
Ted Williams	1939	4.76
Reggie Jackson	1967	4.74

Conclusion

- Positive correlation in general
- Initially went up slowly and steadily
- Has shot up a lot for about the last five years
- Isn't as big of an outlier as it seems
- Throughout history similar distributions of Z Scores have been seen

