

Reduce cognitive load

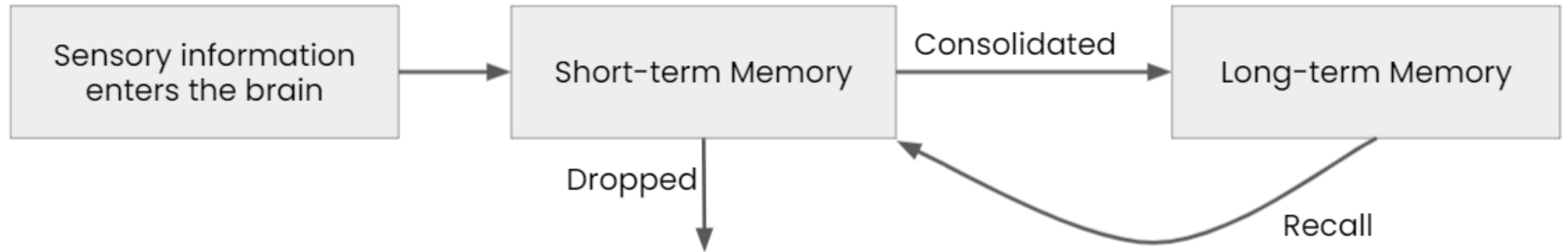
DATA VISUALIZATION IN POWER BI



Kevin Feasel
CTO, Faregame Inc

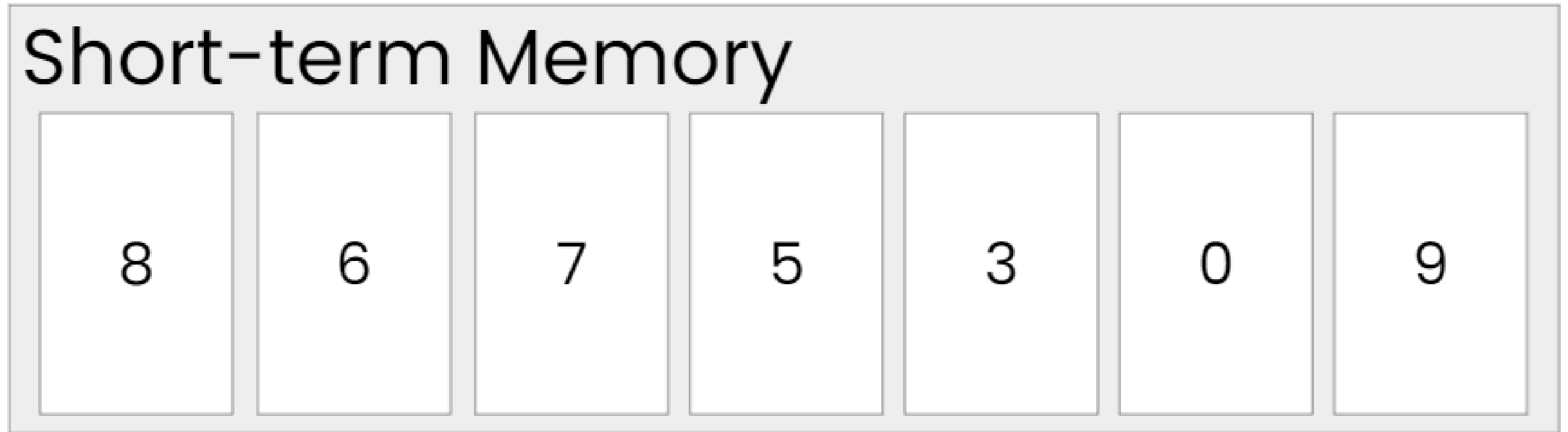
Short-term memory

This is a simplified version of the way humans process signals.



The "magical number seven"

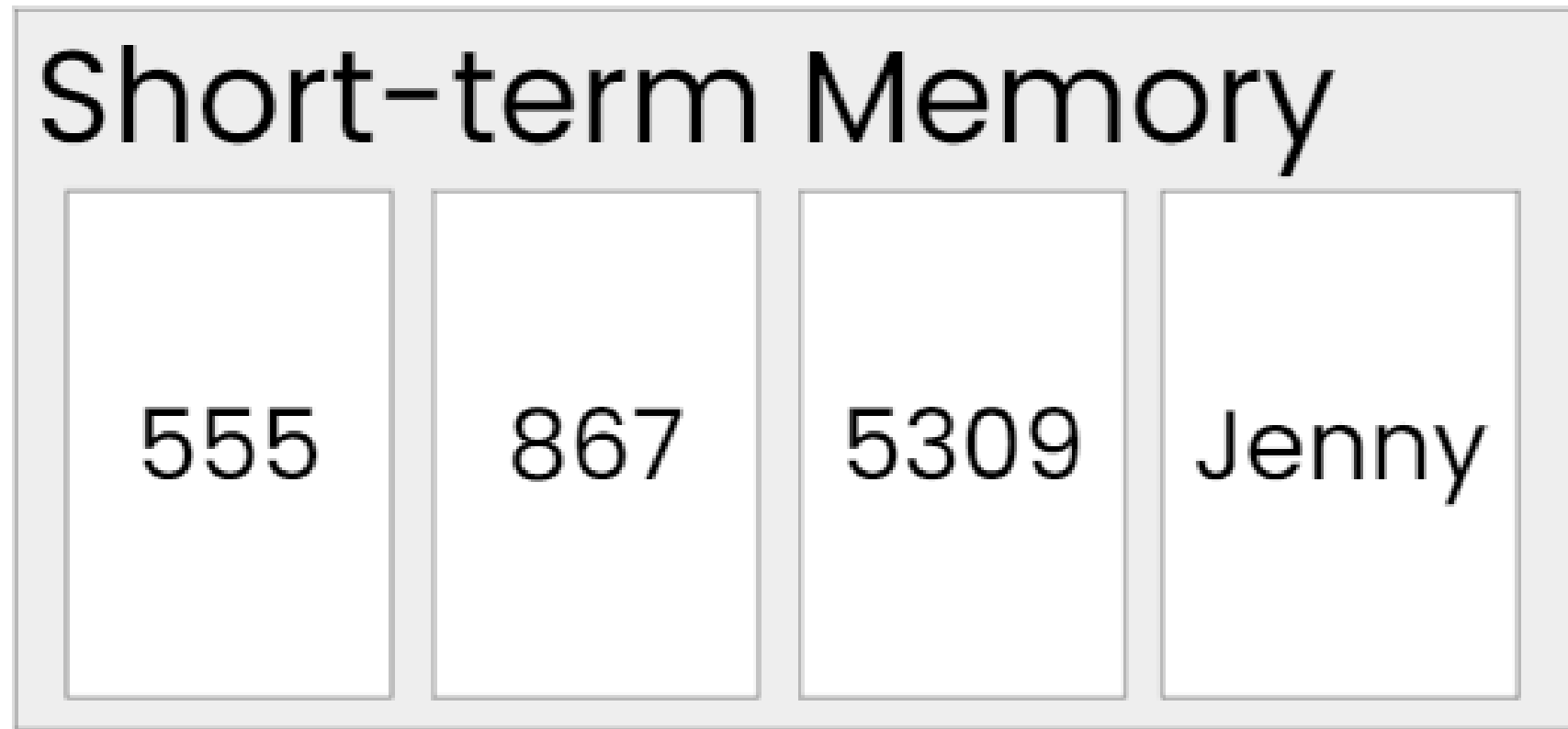
George Miller's research discovered that humans can tend to hold seven (plus or minus two) pieces of information at a time in short-term memory.



¹ Miller, G. A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review*, 63(2), 81-97.

Or maybe 4?

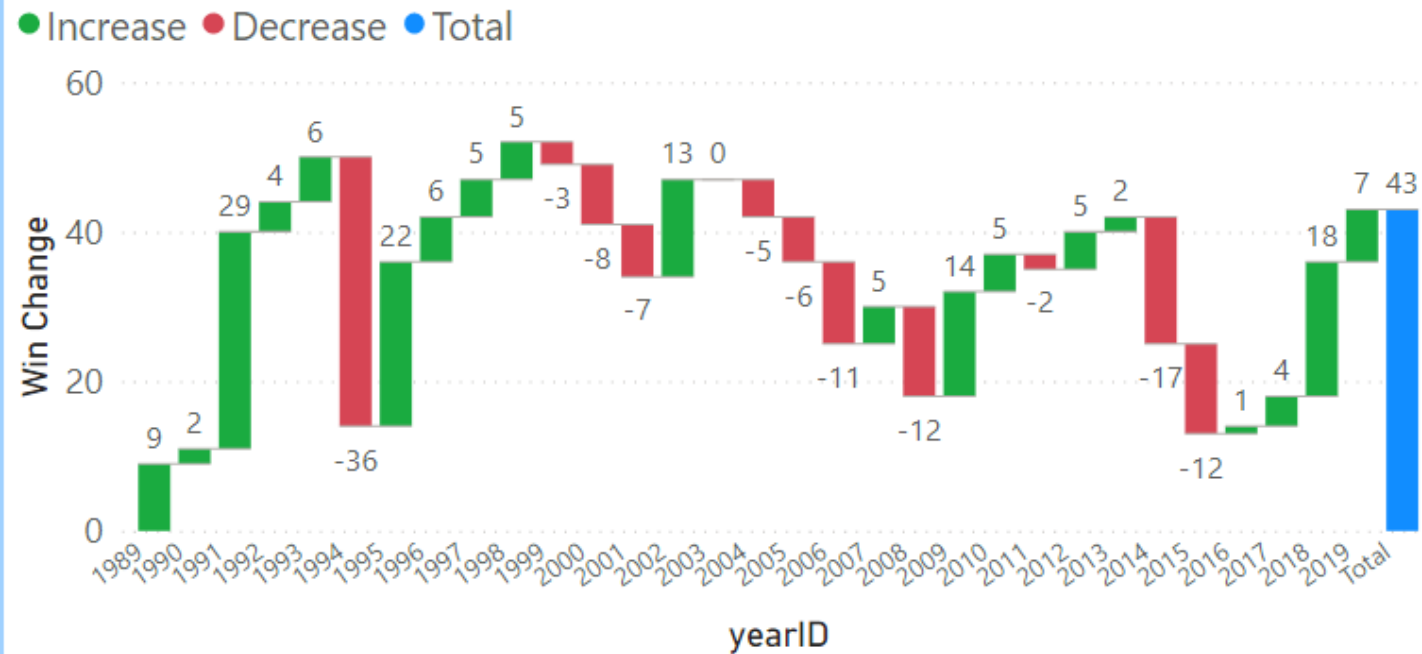
Further research indicates that this may be closer to 4 +/- 1 but that we can "chunk" information together.



¹ Cowan, N (2001). The magical number 4 in short-term memory: a reconsideration of mental storage capacity. Behavioral Brain Science, 24(1), 87-114.

Cognitive load

Atlanta Win Total Changes 1989-2019



2019 Wins

97

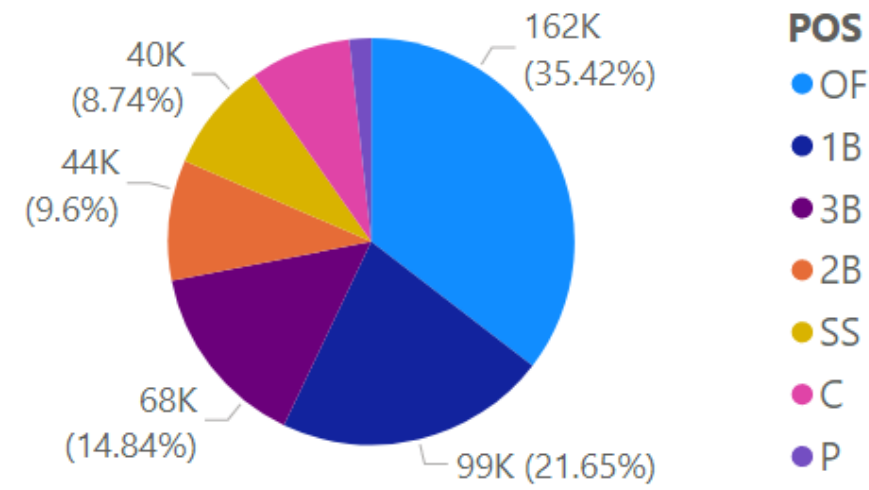
2019 Losses

65

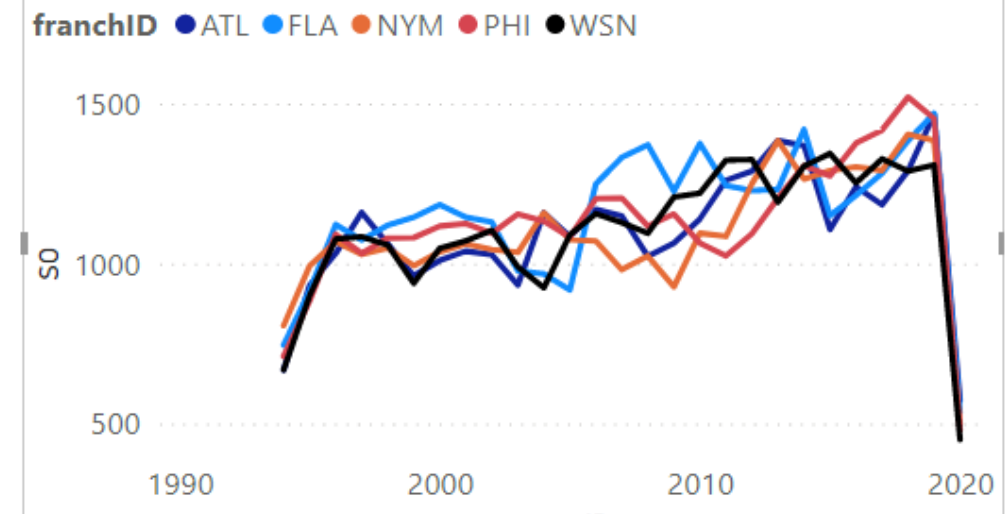
2019 Attendance

2655100

HR by POS, All Teams All Time



Strikeouts by Year, NL East

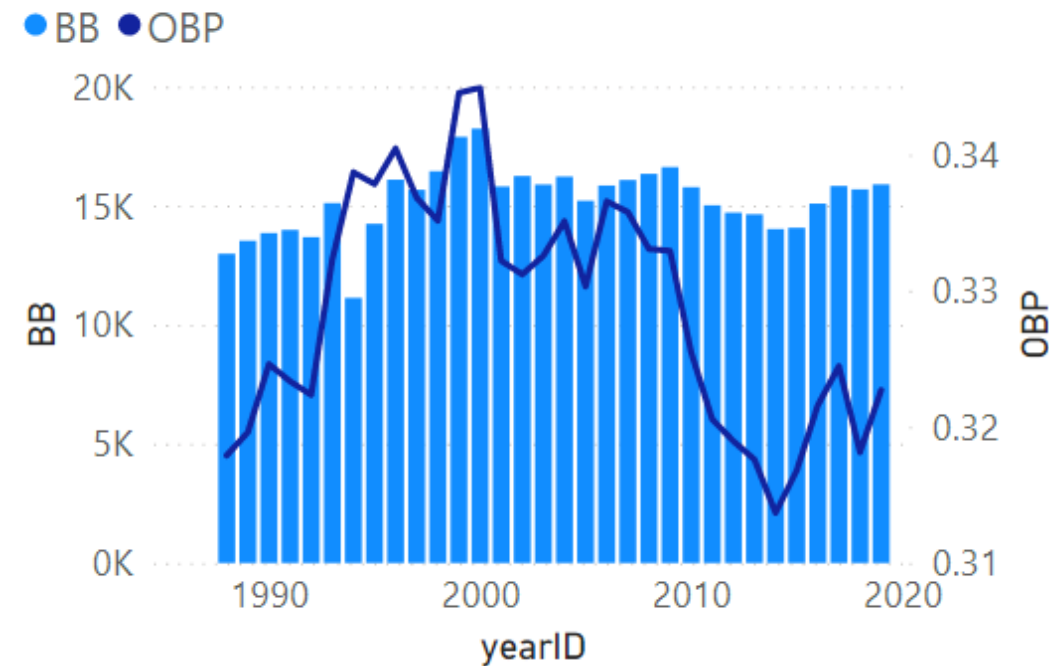


Reducing cognitive load

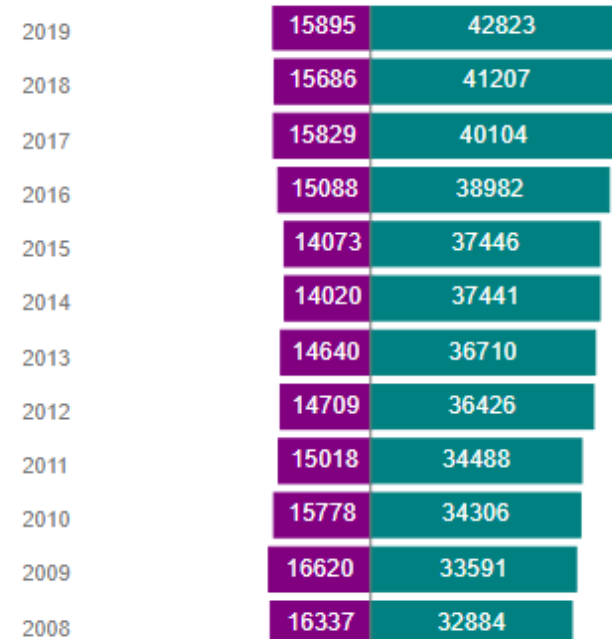
Quick wins in reducing cognitive load:

1. Tailor the page to your audience
2. Focus on one story per report page
3. Strike the balance between information-rich visuals and confusing the audience

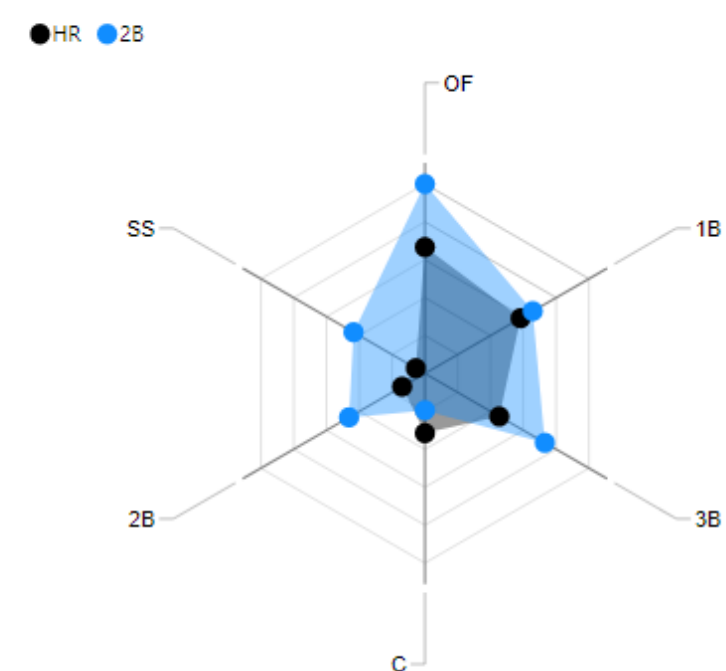
BB and OBP by yearID



BB and SO by yearID

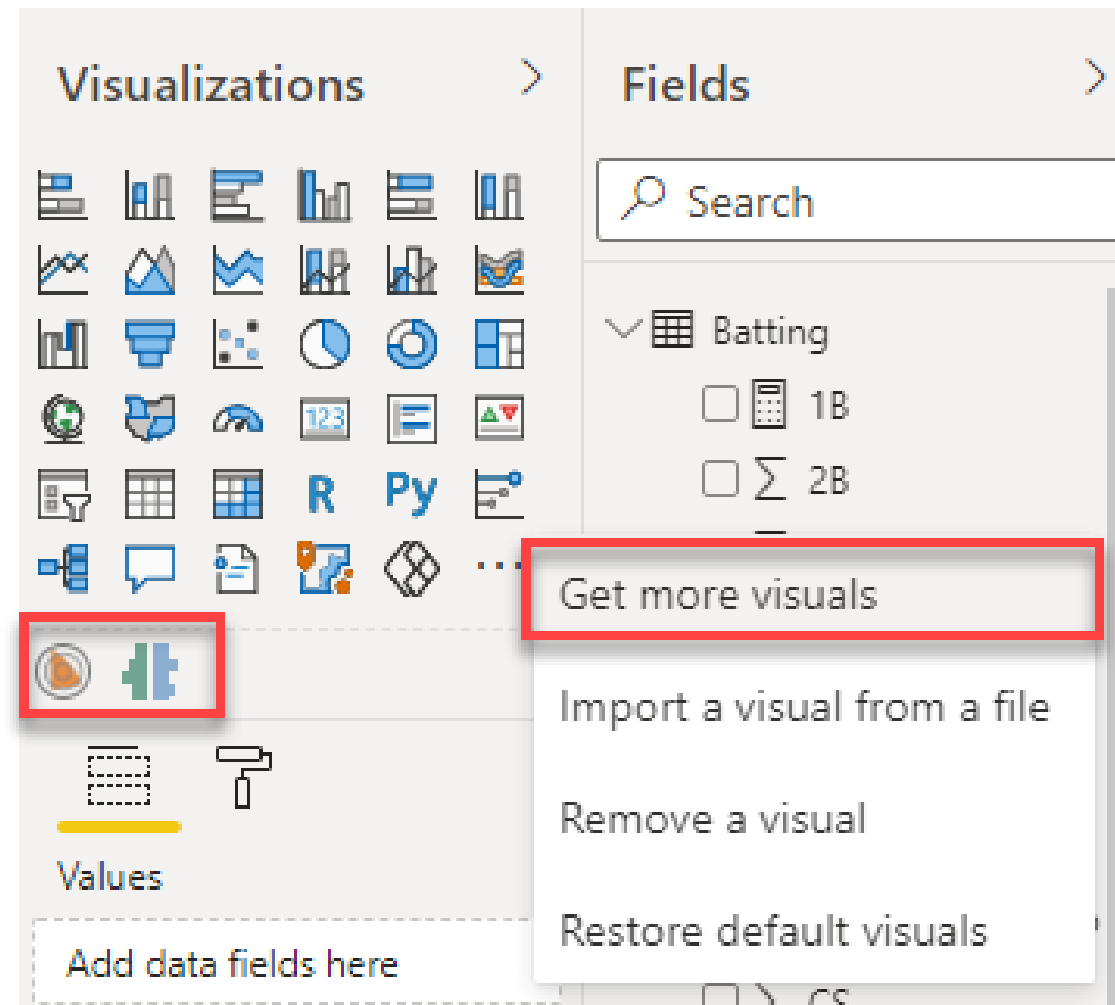


HR and 2B by POS



Custom visuals in Power BI

Custom visuals can be loaded into a Power BI report.



Microsoft AppSource

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Power BI Visuals

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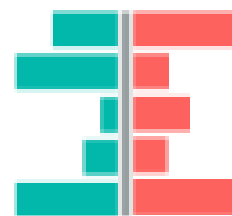
Category

Editor's Picks

All

Advanced Analytics

Data Visualizations



Tornado chart

Comparing the relative importance of variables between two groups

★★★★☆

Add

Thinking of our audience

Historian persona

- How has offensive productivity changed over time?
- Is an emphasis on power hitting a detriment elsewhere?

Let's practice!

DATA VISUALIZATION IN POWER BI

Combination charts and custom visuals

DATA VISUALIZATION IN POWER BI



Kevin Feasel
Instructor

Let's practice!

DATA VISUALIZATION IN POWER BI