

Chapter 3 Example:

Simpson's paradox example:

It's the last inning of important game. Your team is a run down with the bases loaded and two outs. The pitcher is due up, so you'll be sending in a pinch-hitter. There are 2 batters available on the bench. Whom should you send in to bat?

| Player | Overall | vs LHP | vs RHP |
|---------------|-------------------|------------------|-------------------|
| A | 33 for 103 (.320) | 28 for 81 (.346) | 5 for 22 (.227) |
| B | 46 for 151 (.305) | 12 for 32 (.375) | 34 for 119 (.286) |

A's batting average is higher than B's (.320 vs. .305), so he looks like the better choice. Consider the issue that it matters whether the pitcher throws right- or left-handed.

It turns out that B has a higher batting average against both right- and left-handed pitching, even though his overall average is lower.

Here's the explanation. B hits better against both right- and left-handed pitchers. So no matter the pitcher, B is a better choice. So why is his batting "average" lower? B sees a lot more right-handed pitchers than A, and (at least for these guys) right-handed pitchers are harder to hit. For some reason, A is used mostly against left-handed pitchers, so A has a higher overall average.