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## Report: Penn professors' findings contradict Clemens' report on his career stats

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Was a report released last month by [Roger Clemens'](#) agent supporting the Rocket's late-career statistical improvement just smoke and mirrors? An analysis of that report published Sunday says yes.

The linchpin of Clemens' report stated there were examples of an aging pitcher improving his statistics as he got older. An examination of those conclusions claim there were several flaws in the methodology of those findings, according to a report in The New York Times.

Clemens' agent, Randy Hendricks, shared an 18,000-word statistical report last month to try to explain how a pitcher could improve when most of his contemporaries were slowing down. One of the goals of the report was to dispute the claims of Clemens' former trainer, Brian McNamee, that Clemens took steroids and human growth hormone later in his career.

"Clemens' longevity was due to his ability to adjust his style of pitching as he got older, incorporating his very effective split-finger fastball to offset the decrease in the speed of his regular fastball caused by aging," the Clemens report said.

University of Pennsylvania's Wharton School professors Eric Bradlow, Shane Jensen, Justin Wolfers and Adi Wyner wrote their opinions of Clemens' report in Sunday's editions of The New York Times. The group said that while Clemens accurately used examples of pitchers such as Nolan Ryan, [Randy Johnson](#) and [Curt Schilling](#) that pitched well late in their careers, Clemens' report "artificially minimizes the chances that Clemens' numbers will seem unusual. Statisticians call this problem selection bias."

The professors also suggested something was amiss with Clemens' statistics.

"Our reading is that the available data on Clemens' career strongly hint that some unusual factors may have been at play in producing his excellent late-career statistics."

The Penn professors did their own examination of pitchers who had durability similar to Clemens and used parameters including pitchers who started at least 10 games in at least 15 seasons and pitched at least 3,000 innings since 1968. Thirty one pitchers fell into this group in addition to Clemens.

The examination focused on the comparison of two common pitching stats for the sample group -- ERA and walks plus hits per nine innings -- and compared them to Clemens.

When looking at those numbers, the professors found Clemens' late-career success was statistically unusual. Most pitchers in this category peaked with their best numbers around the age of 30 while their declines started in their mid-30s -- about the time Clemens has been accused of using steroids. Clemens has vehemently denied using steroids or HGH.

When analyzing Clemens' numbers, the professors state, Clemens' statistics did the opposite of the rest of the sample. The Rocket's stats declined as he neared his 30th birthday but then spiked again in his late 30s and

early 40s.

The account in The Times also notes that Clemens' report focuses heavily on his ERA during his career. The Penn professors point out that that statistic can be heavily affected by outside influences other than the quality of the pitcher's performance, including the ability of a team's defense.

While the professors say Clemens' numbers appear unusual, there is no way to link them to steroids or HGH.

"In any analysis of his career statistics, it is impossible to say whether this unusual factor was performance-enhancing drugs," they wrote in The Times.

*The Associated Press contributed to this report.*

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