Viewpoint: NFL drug testing and the sexes of grandchildren
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By Andrew Brod – Contributing Writer

After the Carolina Panthers’ Dec. 17 game against New Orleans, Panther safety Eric Reid announced that he’d been selected for post-game drug testing for the seventh time in 11 games. The system for choosing which 10 players are tested after each game is supposed to be random, so seven times is too many, right?

Reid thought so. After the New Orleans game, he tweeted a photo of the testing notice with a sarcastic caption: “Random.”

Many reporters, coaches and players agreed that this couldn’t have been mere chance. Reid’s coach, Ron Rivera, said “if my name came up that many times, I would buy a lottery ticket.”

Reid signed with the Panthers in September. He’s suing the NFL for collusion for keeping him out of the league after he knelt in protest next to San Francisco quarterback Colin Kaepernick during the 2016 season. Perhaps he has a right to feel targeted.

But do the numbers support the claim that he’s a target of the NFL’s drug policy? No, they don’t.

Admittedly, it’s very unlikely for a particular player to be selected six times in 11 games (the seventh test was mandatory and isn’t relevant to the randomness issue). By my calculation, based on 10 players selected after each game out of 71 test-eligible players per team, the probability of a given player being selected randomly as many times as Reid is 0.19 percent. That corresponds to odds of one in 525.

But that’s not the right way to frame the issue, and it reminds me of a trick question from college. A math professor told the class about a grandmother who’d correctly guessed
the sexes of each of her eight grandchildren. Isn’t that amazing? We said yeah, that’s amazing. The odds of a given grandmother being right all eight times is one in 256.

We were wrong, though. The professor explained that so long as there are 256 grandmothers with eight grandchildren out there guessing sexes, we’d expect one to get them all right. When you frame this as the probability of some grandmother somewhere accomplishing this feat, it’s not so improbable.

The logic is the same for Reid’s drug tests. It’s very unlikely for a particular player to be selected as often as he has, but it’s very likely for some player to be selected that often. After all, with 32 teams, there are close to 2,300 test-eligible players in the league. We would expect about four players each year to be tested six or more times in 11 games! The probability of one of more players getting tested as often as Reid is quite high.

Some have pushed back on this logic. Isn’t it still improbable that someone who’s suing the league would be selected so often? But we can always go in after the fact and find things that make the outcome seem unlikely. What are the odds of a red-haired quarterback from Spokane being selected six times in 11 games? How about the odds for an albino tight end whose parents immigrated from France?

Many people want to believe that the NFL is targeting Reid via drug testing, but their belief isn’t borne out by the data. Reid’s results could have been generated by a random selection process. Is Reid being targeted in other ways? Maybe. But not this way.

Reid and the Panthers played another game on Dec. 23, against Atlanta. He’s tweeted since that game, but so far nothing about drug testing. I have to guess that he wasn’t selected for testing this time, which makes it six times in 12 games. That’s something we can expect to happen to seven NFL players each year.

I support Kaepernick and Reid and their kneeling protests. But I also support math.

Andrew Brod is a senior research fellow in UNCG’s Center for Business and Economic Research. Reach him at 336-707-6439 or acbrod@uncg.edu. An archive of his columns is available at http://cber.uncg.edu.