

Arrest in Golden State Killer case 'probably not a lucky find at all, but a totally expected one'

A DNA database [led police to the Golden State Killer suspect](#) through data his distant cousins had uploaded. Now, population genetics researchers have calculated the probability that your relatives have given their genetic information to a similar database.

[According to their calculations](#), chances are most of us would have a handful of third cousins in a 1-million-person database, about a hundred if the database contains 5 million people, and over 200 in a 10-million-person database. At any of these sizes, chances are near 100 percent that the database would contain at least one person who is your fourth cousin or beyond.

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There are important limitations to these numbers. They assume that the population in these databases is a random sample of the population at large, which it's probably not. (I'd bet money that it skews white, wealthy, and [Mormon](#).) They also assume no inbreeding and that people select their partners totally at random. And finally, they're averages; it's possible that just by chance you don't have any relatives interested in genealogy, or on the flip side that your mom and sister are working on a family tree and have convinced all your close relatives to participate.

But the bottom line, these scientists say, is that that law enforcement finding a suspect's family's DNA in a public database was probably not a lucky find at all, but a totally expected one.

Read full, original post: [You Probably Already Have Cousins in a DNA Database](#)