For the sample datasets, we generated random numbers assuming that the total sample size of user data is 500.

Further we considered that

* the age variable has 3 (from 0 to 2),
* var3 variable has 4 (from 0 to 3) categories,
* and we have 7 geographic units.

In other words:

* N\_age <- 3
* N\_3 <- 4
* N\_geo <- 7

Therefore, the matrix sizes for the sample\_pop\_data is 25 x 7, and the sample\_user\_data is 7 x 501.