

About 2 x 2 Contingency Table Analysis

Thank you for using Fisher 2. This program is absolutely free. You can give this copy to any friend of yours or upload to any commercial and non-commercial telecom services. You can include this program even in a commercial product if you retain this help message as it is.

First select four input (or, technically “edit”) boxes in the table by checking them. You must select exactly four input boxes. No more or no less, or the program will beep you. Only the numbers in these input boxes are independent, and other numbers are calculated based on them. Select four boxes wisely.

You can input actual numbers as well as mathematic formulae, like $12+3$, $2*(2^{(4-2)})$, or $\exp(5)$. The functions the program can handle are +, -, *, /, ^, sin, cos, log, exp, (, and).

After having set your data into the input boxes, just press “Go” or the RETURN key. First it does chi-square analysis. If any number of the table is less than or equal to five, it'll automatically apply Yate's continuity correction. Then it calculates the probability based on this chi-square value.

Next you'll get an odds ratio (or a “relative risk” in a cohort study). If any number in the 2 x 2 table is zero, it'll employ Haldane's correction to get a finite result.

Then comes a neat part. It calculates two probabilities based on the Fisher's exact probability test (FET). One is the probability that the specific observed combination of numbers happens (observed table), and the other is that the observed and less unlikely combinations of numbers occur (one-tail analysis). Use the one-tail analysis unless you're dealing with exceptional problems.

The FET algorithm is ultrafast, precise, and can handle exceptionally large numbers. If you're using 68040-based Macintosh, I bet you can't read the “calculating...” message in many cases.

You can save calculation as a TEXT file. Select 'Start New Archive...' from the File menu. Once you select an archive file, the results are automatically saved into the archive file whenever you press “Go” or RETURN. You can also open an existing archive file (or any TEXT file) and append new results to it.

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