(handwritten, top right) Birth of Cornfield Logistic! :3

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Dear Henry:

I suppose the waves created by my luncheon seminar at the Coordinating Center have now spread to the Twin Cities. I am at the moment not advocating anything other than a line of inquiry that might prove fruitful. The basic thought is that there is a simple approximate adjustment of the coefficients of the multiple linear regression that converts it to a logistic so that the probabilities must be between 0 and 1. Furthermore, the accuracy of the approximate adjustment can be routinely tested. Finally, if the accuracy after adjustment leaves something to be desired, there is, I think, an iterative cycle, much simpler than the Walker-Duncan cycle, that will bring one as close as one wishes.

As I see it, this approach should be used, if it's as easy as I think, not only when the probabilities are unreasonable--somebody has to look at them and decide that--but routinely. Actually the discriminant function usually works well and is as easy as linear regression, the only reason I'm thinking about alternatives is that with 0-1 variables, there is the possibility of trouble and I prefer methods that routinely avoid trouble that can be anticipated.

I have made no effort to get this on the computer. In fact I had hoped that someone in the Coordinating Center might find it interesting enough to pursue. If you have some programming and/or statistical talent at the Twin Cities that would be interested in pursuing it, I would be happy to send on the mathematical details.

Best regards,

Jerome Cornfield
Professor of Statistics

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