

Comments by Dr Keith Ord on
Interpreting Economic and Social Data

Comments on Dr Winkler's 2009 book, *Interpreting Economic and Social Data: A Foundation of Descriptive Statistics*, by Dr. Keith Ord, Georgetown University, professor of Operations and Information Management and a member of ISI. These comments are based on two e-mails sent by Dr. Ord to Dr. Winkler in Spring 2010. Dr. Ord combined his e-mails, edited the result and approved this revision for general dissemination.

Othmar: Thank you so much for providing me with a copy of your book, which I have enjoyed reading. First, let me say that I am very impressed by the breadth of coverage and the deep discussion you have provided on a number of topics. Let me address some of these items, though not in any particular sequence.

Aggregates: Your classification is useful, although I feel that the economists' distinction between stocks and flows could be described more directly, as it is useful in the development of a conceptual framework.

Index numbers: the call for a transactions-based approach to the construction of a price index has a lot of appeal. It is also a political hot potato as various proposals have been mooted to scale back COL adjustments for Social Security and federal employees. You have provided a valuable discussion of the merits of the case.

Time series: I found this material rather limited. There is no discussion of more recent developments that provide for local models: exponential smoothing, state space models, ARIMA. These structures have been extended to allow for outliers and for interventions, so that some of your criticisms have been addressed in the literature. In addition, there is increased interest in using a statistical model to summarize the data and then to provide judgmental adjustments to account for recent events beyond the data or for qualitative disturbances.

Frequency distributions: amen, brother, a lot of good points, although you might have considered the effect of the log transform and the arguments for proportional growth.

Regression: the discussions of mis-specification and possible solutions are very clear.

I read Chapter 10 and was impressed. The discussion reminds me of the points that W. Edwards Deming made about the distinction between "analytical" and "enumerative" studies and I am sure he would find much to agree with in your discussion.

I share your concerns about the abuses of statistics in the social and economic sciences, especially the "publication bias" of only publishing papers with "significant" results. I have suggested to some of our colleagues that confidence intervals are much more appropriate in many cases (as you note, anything can become significant if n is large enough) but regret that I have not had much success.

I am perhaps more tolerant of some analytical procedures as they can be justified by randomization arguments, as is implied by your discussion in Appendix E. The randomization distributions quickly approach normality under reasonable conditions. Bootstrapping also allows more flexibility in the evaluation of such studies.

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I have not studied Accounting since my student days, so I do not really have any comments on Chapter 11. However, I have done a considerable amount of work with geographers over the years and although I agree that economists still tend to ignore the spatial dimension, this is changing and there is now a thriving sub-field of regional econometrics. I believe the marketing folks are waking up to these possibilities but I agree that we have a way to go.

FINAL QUESTION: Could the book serve as a text for a course for MBA students?

MBA students are too bottom-line oriented so I do not think they would be attracted to a more philosophical course. Some undergraduates might be, but the treatment of some topics requires a depth of background knowledge that few would possess. Probably the ideal level would be as an elective for a specialized Master's level course.

Thank you again for the book; it has been an interesting read and I look forward to revisiting it in the months and years ahead.

Best wishes,

Keith