

Citation Classics

Steel, Robert G D & Torrie, James H. *Principles and procedures of statistics.*
New York: McGraw, 1960.

This book is a valuable reference text for all scientific fields, especially the experimental sciences. James H. Torrie, coauthor of the book, died in 1976. [The *SCF*[®] indicates that this book was cited 1,381 times in the period 1961-1975.]

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"The taste of success is sweet! I believe I speak for James H. Torrie, as well as myself, when I say that the wide acceptance of *Principles and Procedures* has been very satisfying to its authors. The satisfaction is all the greater because it was unexpected.

"Perhaps Torrie and I should have been more optimistic. Very many factors were in our favor. Foremost, I think, is that ours was a happy association at all times and the rare differences of opinion were quickly and easily resolved. A second important factor was that we had a testing period of four or five years, during which time we, he on the Wisconsin campus and I at Cornell, taught from earlier drafts of the book in mimeo form with each student having his own copy. We listened to the criticisms of upwards of a thousand students and faculty and the resulting input caused many drastic changes in content and organization as we progressed through successive revisions. Closer to publication, suggestions by conscientious reviewers were carefully studied and appraised and they, too, made a vital impact. One 'criticism' provided a small laugh for the two of us when a reviewer stated, rather positively we thought, that he could recognize which chapters were the work of which author, especially as we ourselves could no longer make that distinction, so deeply buried in revisions was the original. I must acknowledge the great contribution of Cornell in providing time, typing and

mimeoing without limitation.

"How did it come to be written? My memory is a short one. Perhaps a book salesman making his rounds suggested it. In any event, Jim and I were co-workers from 1949 to 1952 at the University of Wisconsin. He was already firmly established as a plant breeder and applied statistician; I was fresh from Iowa State with a Ph.D. in statistics. Both of us had felt for some time that the field of statistics needed a new text, for teaching as a reference source for workers in subject matter areas. Our proposed text would be a real alternative to others already in existence and provide a new approach to the study of statistics, particularly at the graduate level. If you can forgive the conceit, we thought we knew what that approach should be and what material should be included. A year later, when I left for Cornell, I took with me the first plan of the book and a few chapters in manuscript form.

"Over the years, the book grew slowly because of the geographic separation of the authors and the priorities we had to give to our university commitments, but it did grow. In fact, it grew too much and the publisher said this many pages and no more. 'We were compelled to control our enthusiasm. We became more selective about techniques and exposition was tightened up. Eventually we were reduced to condensing every paragraph. We felt we had won the battle when one reviewer remarked that every sentence has to be read with care.

"The time arrived when we had to have closer collaboration and I spent a Sabbatic leave at the Mathematics Research Center at the University of Wisconsin. On winter nights of that year, seven years after its conception, *Principles and Procedures* was put into shape for the publisher.

"A few years after *Principles and Procedures* appeared, it became clear that a revision was needed. Mistakenly or not, we chose instead to concentrate our energies on a new text at the undergraduate level. James H. Torrie lived long enough to see this in print, for which I am extremely grateful, but I regret that he did not have the additional satisfaction of knowing that *Principles and Procedures* is a highly-cited classic."