on the historian's vision. But he rejects the wholesale abandonment of fairness, justice, and detachment in the recent prosecution of the past. Such "one-sided indictments," he warns, can "destroy the very fabric of national identity" (276).

Nash does hold out some hope for the future of the field. The 1990s, he believes, will bring yet another generation of young historians into the fold; he hopes that these scholars will strike a balance between the extremes of past and present interpretations of the West. In the meantime, it behooves all historians of the West who share Nash's commitment to the middle ground to write and speak clearly and forcefully on behalf of the complexities of the past. The story of the West is much more than "us" versus "them" or who oppressed whom or who despoiled what. The story of the West is triumph as well as tragedy; success, accomplishment, and contentment as much as failure, defeat, and alienation. As the study of the western past moves into its second century, moderate voices must restore balance and intellectual honesty to the field. We do not have to wait for younger scholars to begin the work; the time and the opportunity for rebirth and reinterpretation is now.

Quantitative Methods for Historians: A Guide to Research, Data, and Statistics, by Konrad H. Jarausch and Kenneth A. Hardy. Chapel Hill: University of North Carolina Press, 1991. xv, 247 pp. Tables, figures, appendixes, bibliography, index. \$37.50 cloth, \$11.95 paper.

REVIEWED BY ROBERT P. SWIERENGA, KENT STATE UNIVERSITY

Historians have needed a new elementary handbook of quantitative methods since the early 1980s when Charles Dollar and Richard Jensen's Historian's Guide to Statistics (1971) became outdated by warp-speed advances in computers and their software. Realizing this need, Konrad Jarausch, a European social historian at the University of North Carolina, and two colleagues in Germany—a statistician and a software expert—published in 1985 a German-language textbook that Jarausch, then a visiting professor in Germany, tested on his students. Favorable reactions prompted him to translate the work and recast it to meet the needs of Anglo-American students. His colleague, Kenneth Hardy, director of UNC's statistical laboratory, revised and expanded the statistical chapters of the English-language version, which constitute the middle section of the book. Jarausch wrote the first and third sections, which describe the nature of formalized research guided by theory and aided by statistics and computers and the place of quantitative methods in history. These chapters sparkle because of their clarity and insights, compared to Hardy's dull prose and often obtuse descriptions of social statistics. Hardy assumes too much of American historians, math aversive as many are.

Quantitative Methods for Historians is divided into twelve chapters, plus an appendix that contains two sample codebooks and census data sets referenced in the text, one of New England counties in 1860 and the other of Fort Moultre, South Carolina in 1850. Neither example, however, is adequately integrated into the text by way of example. In the opening chapters Jarausch assesses the pluses and minuses of quantitative methods; he briefly describes applications in economic, demographic, political, and social history; and he notes the major reference books and scholarly journals. He exudes the quiet confidence of a mature scholar who knows that quantitative methods "are here to stay" (8), and he inspires the faint of heart to follow his lead. As historians become familiar with their personal computers, Jarausch expects they will use them not only as word processors but for E-mail, data storage and file management, linking with colleagues' data bases, and even statistical analysis, which is a computer's forte.

Formal processes are essential in order to use computers fully for research. But Jarausch realizes that historians are often wary of theory-derived hypotheses, historical modeling, sampling, and probability reasoning, so he patiently describes the stylized sequence of formal methods, from forming hypotheses to collecting data to running statistical measures to interpreting the results. This is not a "rigid set of stairs," he explains, "but rather an ascending plane with many opportunities to look back to the beginning" (34). The next three chapters explain the steps in creating and managing a data set—classifying the information, keying it into the computer and rooting out errors, and writing the software instructions using SAS or SPSS programs to modify the variables, link multiple files, and generate the desired statistics.

In the closing chapters, Jarausch discusses the critical step of interpreting the descriptive tables and statistical measures. Making sense of the numbers is the most subjective and creative, but also the most neglected aspect of formal research. The author warns of the need to maintain analytical control. Otherwise, mountains of undigested data may accumulate and become "data cemeteries" (186). Software is now so user-friendly that the novice may engage in statistical overkill or superficial analysis.

As valuable as is Jarausch's discussion of the conceptual issues in quantitative methodology, this book ultimately fails in its primary purpose of providing an "introductory text" (171). The four crucial

chapters that explain how historians can use social statistics are too dense and abstract for most students. The eyes glaze over at such sentences as the following discussion of multiple correlation: "When the dependent variable is hypothesized to be causally determined by some of the independent variables, a significant or nonsignificant by coefficient has important implications for any hypothesized causal model" (153). Or again, the simple concept of dividing a frequency distribution into quartiles is explained as follows: "Just as the median value can divide a distribution into two halves, two additional values, called quartiles, can be defined which divide it into quarters. Thus, 50 percent of the cases must lie between the lower quartile value and the upper quartile value. These cases would be the 50 percent that are closest to the median value of the distribution. Moreover, exactly 25 percent of the cases must be found in each of the value ranges demarcated by the three values" (93).

Novice historical quantifiers are well advised to continue to consult Dollar and Jensen for their introduction to social statistics. In the best of all worlds, Jarausch's freshly written first and third sections of *Quantitative Methods for Historians* would be wrapped around chapters 2–4 of Dollar and Jensen's *Historian's Guide to Statistics*. That strategy would exploit the strengths of both books. Unfortunately, the latter book is long out of print. Will a historian experienced in social statistics please come forward and write an introductory text for historians? When statisticians try their hand at the task, they invariably fail.

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