

Foreword

James W. Wilkie

Although the studies in this volume are not directly related to one another in that they deal with diverse economic, political, and social aspects of Mexico, Cuba, and Latin America, they have a common denominator in that they expand our knowledge about methods and findings in quantitative Latin American Studies. We are concerned here with examining complexity in the meaning of data in order that it have deeper meaning in its *qualitative* as well as quantitative dimension. A predominant theme in the studies suggests that new interpretation in the social sciences involves assessment of qualities as they intermesh with quantities in time dimension. Thus, analysis that concentrates on only one of two dimensions of quality, quantity, and time may obscure our perspective on the affairs of mankind.

If we are now well past the stage where it was necessary to justify the need for quantitative analysis in the various scholarly disciplines, the increasing sophistication of quantitative practitioners and acceptance by nonpractitioners have led to a paradox. Statistical studies are used to "prove" revisionist interpretations or to suggest alternative hypotheses. Yet the suspicion exists among many scholars that quantitative analysis enables practitioners to play elegant games in their never ending search for a yet newer computer program to present the results with more sophistication. Nonpractitioners who formerly resisted quantitative study have come to recognize and support it, even if they admit that they do not understand it and remain skeptical of its methods and findings. Practitioners debate whether statistical treatments and weights assigned to data are "right" or "wrong."

Our paradox has been aggravated by the fact that recent publications about quantitative studies have tended to stress the ways data can be quantitatively manipulated instead of analyzing the quality of statistics under consideration.¹ An exception to this tendency is the analysis "Lies, Damn Lies, and Argentine GDP," by Laura Randall,² who shows how

five different estimates of Argentine real gross domestic product yield different gauges of the success or failure of Perón's first government set in a time-series perspective ranging from the 1930s to the 1960s. Yet after an excellent summary of methodology in each of the time-series estimates, she wonders which estimate is "correct." Unfortunately her *tongue-in-cheek* answer may lead one to believe that one estimate (showing Perón to have been much more successful than previously thought) can be demonstrated to be "correct" also by a qualitative assessment (that Perón's support was based not upon "mindless and stomachless charisma" but upon his success in industrial policy translated into better living conditions). The problem here is that the quantitative estimates of Argentine manufacturing growth rate analyzed ably by Randall are not qualitatively (or quantitatively) related to production of food except in an indirect way — agricultural production actually suffered at the expense of industrial growth. Nevertheless, Randall helps us to understand how the estimates were made in order to analyze their meaning and to know how the choice of a base year affects the results. After assessing the limits of all estimates Randall implicitly suggests that the "truth" is not easily ascertainable: whereas it is desirable, for example, to use 1943 and not 1960 as a base year for calculations in order not to overassess the importance of branches of production that were virtually nonexistent between 1945 and 1958, neither the series based on 1943 nor the series based on 1960 is adjusted for changes in the quality of products.

To conclude that there is no "correct" answer seems to discourage an appreciation of statistics rather than to promote an appreciation of our enhanced understanding of the societal processes at work in all their glorious complexity. After all, where would scholars be if matters were simple and they had nothing to explain!

How can data be quantitatively analyzed for meaning? How can they be qualitatively assessed with observations directly appropriate to the case? How can we use partial or questionable data and still arrive at useful conclusions? These are problems addressed by the studies herein.

¹ E.g., Roberts S. Byars and Joseph L. Love, eds., *Quantitative Social Science Research on Latin America* (Urbana: University of Illinois Press, 1973); but see the article by Alejandro Portes on "Sociology and the Use of Secondary Data," in *ibid.*, pp. 208-261.

² *Latin American Research Review* 11:1 (1976), pp. 137-158.

Donald B. Keesing tests reliability and meaning in the Mexican population censuses since 1900 in order to question a qualitative view that unemployment has been an extremely serious problem in that country. Moreover, he suggests that by keeping minimum wages relatively low in relation to other factors in economic production, Mexico has encouraged employment, in contrast with the situation in the United States where relatively high minimum wages have priced employees out of the labor market. Keesing stresses the high unemployment rates for women, which I explored in an earlier research (Wilkie, 1971). His study shows how, through an examination of internal consistency from census to census we can begin to understand the meaning of employment, unemployment, and underemployment in a developing country like Mexico. Implications for governmental policy are numerous and should be heeded if data collection on employment is to improve. By enmeshing us in the details of census materials, Keesing forces us to reshape our thinking on unemployment, a major problem in the social history of our time.

To shift the approach to Mexican politics, Roderic Camp asks us to consider losers as opposed to winners within the Mexican one-party system of government. Camp shows us that the official party of the Mexican Revolution (PRI) is not as monolithic as reputed. Implicit in his research is the conclusion that, given the growing number and increasingly high qualifications of members of the PRI who aspire to governorship, coupled with the relatively fixed number of high government posts, the official party will be hard-pressed to contain internal strife. Although we can see in Camp's case studies the logic of past PRI choices for governor, we cannot forecast events because, as Camp shows, circumstance dictates choice among equally qualified people. Camp's data compiled and scored quantitatively on a qualitative basis demonstrates that incomplete data can be organized to show that the policy was not irrational as so often suspected because of the secrecy in the PRI selection of each gubernatorial nominee from among many competing pre-candidates. His systematic organization of factors involved in personnel choice within the PRI would not be credible without time-series data, and it would not be understandable without juxtaposition of qualitative elements limiting "personalism" in Mexican politics.

Turning from Mexico to Cuba, we find in Jorge Pérez López's study a method for testing the rate of industrial growth in the pre-Castro era back to 1930. This study satisfies a need for a relatively nontechnical discussion of how indexes are prepared to acquaint the nonspecialist with the limits and uses of statistics. His findings dispel some of our doubts about the reliability of government economic statistics that may have suffered political tampering. Ostensibly the problem is simple: what was the real rate of economic growth before 1959? By calculating his own index of industrial output, Dr. Pérez-López offers an independent test of official figures, his data testing the traditional Bank of Cuba figures for which no methodology was ever published. His calculated index (based upon examination of methods, cover-

age, and limits of raw data developed and computed here) indicates an appreciably faster rate of growth for the industrial sector of the Cuban economy (particularly in nonsugar activities) during 1930-58 than has previously been suggested in the literature. The implications suggest that a reevaluation needs to be made of the factors involved in Castro's rise to power in 1959.

Two of the studies announced for publication in this volume have been rescheduled. Mine on the narrowing social gap between Latin America and the United States covering the years 1950 to 1970 will now appear as a separate publication in a much expanded form.³ In its place Maj-Britt Nilsson and I have developed a technical study projecting the Health, Education, and Communication (HEC) Index back to 1940. Kenneth F. Johnson's data on democracy has been published in the *Statistical Abstract of Latin America Series*.⁴ Professor Johnson here brings his date up through 1975 and separates out the Latin America view of democracy added in 1970 in order to maintain consistency of the Fitzgibbon-Johnson Index going back to 1945.

We do not seek definitive answers to the questions raised in the studies herein but argue that the methods of understanding of data presented offer possibilities for several types of investigation such as factor and regression analysis (e.g., see the "Methodological Appendix" in Chapter 4).

Although Pierre Chaunu has attempted to distinguish between "serial" statistics and what he calls true "quantitative" analysis apparently on the grounds that the preparation of descriptive serial statistics differs radically from applying inductive principles to descriptive data,⁵ his distinction has not been generally accepted for several reasons. First, there is not always a clear line between descriptive and inductive statistics because the former may involve more than simply compiling data on a year-to-year basis; it may require conceptual adjustment, scoring, ranking, and other operations. Second, inductive methods may be used to predict missing data needed to fill in breaks in any given time series. Third, "quantitative analysis" requires more than application of classical mathematical techniques to search for substructural patterns otherwise not apparent, as is shown in the classic definition developed in the field of chemistry where the term means simply to determine the amounts and proportions of constituent parts of a whole.

In contrast with Chaunu, my own view has been to refine the definition of "quantitative studies" rather than to limit its meaning. In my view quantitative analysis encom-

³ *The Narrowing Social Gap: Latin America and the United States, 1940-1970*, *Statistical Abstract of Latin America Supplement 8* (Los Angeles: UCLA Latin America Center Publications, University of California, forthcoming).

⁴ For Kenneth F. Johnson's study, see his "Measuring the Scholarly Image of Latin American Democracy, 1945-1970," in James W. Wilkie and Paul Turovsky, eds., *Statistical Abstract of Latin America*, Volume 17 (Los Angeles: UCLA Latin American Center Publications, University of California, 1976), pp. 347-365.

⁵ See Pierre Chaunu "L'Histoire Sérielle . . ." *Revue Historique* (Paris) 243 (1970), pp. 297-320.

passes both classificatory (or descriptive) statistics and predictive (or inductive) statistics. To quote from my *Statistics and National Policy*:

The relationship of classificatory to [predictive] statistics is not always clear-cut. On the one hand, the descriptive statistics provide the raw data necessary for inductive analysis. On the other hand, when, for example, there are problems or gaps in descriptive data, inductive statistics may be utilized to test meaning or fill the gaps. And either type of quantitative analysis

may involve the study of historical data for one moment in time or for a time series.⁶

The studies in this volume are intended to illustrate this definition.

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⁶ Statistical Abstract of Latin American Supplement 3 (Los Angeles: UCLA Latin American Center Publications, University of California, 1974), pp. 6-7.