I. INTRODUCTORY REMARKS

Anthropologists of many persuasions are becoming interested in demographic aspects of the populations they study. This springs from a more biological view of man, in which culture, biology, and ecology are seen as intimately intertwined in determining the nature of human existence. Population biology has narrowed the gap between man and other mammalian populations.

This biological gestalt is reflected in some recent developments in archaeology which aim beyond mere classification. Similarly, physical anthropologists are watching monkeys, and ethnologists are counting yams in an effort to move from a classificational to a processual outlook. Nor is the interest confined to the traditional divisions of anthropology. Applied anthropologists, medical anthropologists, and, yes, "demographic" anthropologists are studying the biomedical and biosocial aspects of various cultures. They are trying to understand the life and death processes among reservation populations, among modernizing peasants, and among the remaining pre-industrial populations who are just now becoming acculturated. We would like as well to predict the future for these groups from a demographic and ecological viewpoint.

Although the journals of ethnology, archaeology, physical anthropology, and human genetics are publishing many studies of demographic import, there has as yet been rather little generalization about anthropological populations. Recently, Acsádi and Nemeskéri (1970) have devoted an entire book to skeletal demography which generalizes about as much as any source to date; we shall use it extensively in what follows. It does not, however, provide a means of integrating new data into general models.

Besides a generally restricted scope in most works on anthropological demography, there is the ubiquitous problem of poor data. Even for late medieval times in Europe, our information is very poor (Russell 1958). Most comparative studies have been done on a very unsophisticated demographic level. Each set of data from a skeletal or living primitive population has been handled differently, each has its separate problems, and few connections have been drawn between the various works.

The interest in the population structure of anthropological populations has suggested the value of population models for a wide array of experiences common to such groups. Considering the time allocation problems of most field situations, such models should be suitable for field use, presume little demographic background, and require only a limited amount of time in their application. Further, the models should be self-contained. This work is directed toward all these goals.

The data are taken from anthropological populations, living and skeletal, historic and contemporary, and generalized demographic models for anthropological populations are derived from them. This work is specifically designed for anthropologists, and focuses on some problems which they seem to share. The census demographer of industrial nations might find the methods here presented crude, inaccurate, and often irritatingly oversimplified. No apology is necessary. The data and objectives of anthropologists do not warrant the complex methods of national demography, designed largely to extract another decimal place from the data. Only the most optimistic anthropologist would aspire to this decimal place. Its extraction would prove laborious, confusing, or even painful, and would be unlikely to increase our understanding of the processes underlying anthropological populations. The more accurate methods and the more complex studies of national demography are referred to throughout the work which follows.

As this is an anthropological study, 1 terminological problem must be acknowledged and settled at the beginning. The populations for which this work is intended shall be referred to by the terms "primitive," "pre-industrial," and "non-industrial." The terminology, as used here, does not necessarily imply an evolutionary sequence, nor any other value loading. The terms are widely
used by anthropologists. Yet, there is a strong feeling about their being pejorative, or at best benignly valuational. There is, however, general agreement on the populations with which anthropologists are concerned. Rather than letting these terms define the referent real populations, like the tail wagging the dog, the reader should let the source populations define the meaning of the terms applied to them. Let the data define the terms. More importantly, let each reader decide for himself whether these models are suited to his purposes.

Existing sets of model life tables are designed for large, contemporary populations. They are based on correlational analysis of vast amounts of data, are highly reliable, and are able to discriminate finely between groups. Anthropologists do not deal with such data, and often the demographic parameters describing their populations do not overlap with existing models.

The model life tables in the work which follows are constructed from a large number of field studies. None of these studies is free of error and inaccuracy, but the smoothed, pooled results will be as free from error as is possible at the present time. The models are presented in a manner explicitly designed to be fit to fragmentary data. To facilitate such fitting, many gross measures are advanced, not conveniently available in other sources, as well as methods of cross-checking the obtained fit. Furthermore, the models relate fertility to mortality, which is often not done, and allow us to estimate fertility when there are no direct field data.