

pressures vary greatly because of role differences; age; sex and other genetic factors; and variations of locus and activity patterns.

To identify adaptive mechanisms, i.e., the behavioral, physiological and ultimately morphological responses stimulated by the pursuit of goals or by attempts to manage stresses, there are needed observations and analyses of (a) manifestations of basic drives (hunger, curiosity, aggression, sexual satisfaction, play, etc.); (b) stressful events (illness, pregnancy, birth, death, conflicts, etc.); and (c) adaptive breakdowns, both physical and behavioral. Adaptation involves analysis at the levels of inter-acting groups and generational changes, as well as that of the individual, since behavioral adaptation is normally a group response and many responses (mating patterns, differential fertility) have genetic expressions.

The complexity of the work contemplated calls for a deliberately phased undertaking. Its basis will be a series of comparable studies executed by field and visiting specialist teams under individual institutions, and coordinated by a Program Director, aided by senior Working Groups (on-site selections, methods, data processing, etc.), and by a Central Office providing a data bank, etc.). To the maximum degree, use would be made of methodological data from SCIBP and of environmental information from other IBP studies. However, a good deal of new methodological and instrumental work will undoubtedly be needed, e.g., to gain effective assessments of urban micro-environments. Finally, while the basic program would be observational, a number of experiments, e.g., increments in child care resources, or nutritional improvements could well be integrated into studies once base-line data had been established.

Potential Value of the Studies.—It is hoped that the proposed research on the Ecology of Migrant Populations will—

(a) Identify and test extensively, a variety of observational techniques and measures of fitness, stress and adaptations in man.

(b) Develop a large body of factorial information on the bio-social characteristics of American populations and environments. Such data would have distinct value for many medical and socio-economic applications, as well as for fundamental knowledge.

(c) Aggregate the data into systems and to some measure, predictive models placing hitherto isolated human ecological phenomena in more meaningful contexts. This would improve both basic understanding and possibilities for effective management, especially city and regional planning, including that of health and education.

(d) Identify some specific areas—in which intervention for human welfare may be desirable or conversely, highly undesirable, e.g., the estimation of maximum tolerable levels for noise, or in mobility for given ages and other population components.

(e) Serve as the foundation for associated research undertakings on specialized theoretical or practical problems, e.g., an operational understanding of "poverty."

In sum, the program envisaged and initiated is both difficult and potentially rewarding, theoretically and practically. It is urged that biological and behavioral scientists interested in contributing to this effort through the affiliation of existing projects, the design of new ones, or in other ways, communicate with the Program Director: Dr. Adrian Ostefeld, Head, Department of Preventive Medicine and Community Health, University of Illinois College of Medicine, Chicago, Illinois.

B. Emerging programs still being developed

1. Adaptation of Peoples at High Altitudes

Effort sponsored by the Human Adaptability Subcommittee under Dr. P. T. Baker, Pennsylvania State University, as the working group convenor. It seems probable that the working group to be convened in November 1967, will develop the basis for a group of related coordinated and collaborative proposals involving both South and North American countries.

2. Latitudinal and Longitudinal Variations in Marine Species

A working group convened by Dr. F. John Vernberg of Duke Marine Laboratory in March has resulted in three individual, but related proposals. The idea of further probing for additional proposals on a coordinated basis is being assessed. Both the Environmental Physiology Subcommittee and the Productivity of Marine Communities Subcommittee are providing guidance.