

driving their price up. Obviously, additional tools are needed to assist planners and policy makers in developing priorities for spending available funds and for gauging overall needs now and in the future. Those who make the plans and decisions for outdoor recreation do not have the benefit of information that would be generated in a private market situation. We believe that this problem can be overcome to a considerable degree by the development of a model of the kind of market that does exist.

Assumptions and constraints

Participation in outdoor recreation is known to be dependent upon many considerations. People have certain amounts of leisure time available to spend on recreation—after work, on weekends, on vacations, upon retirement, etc. These blocks of time can be measured, along with the way in which people are spending them. People with college educations frequently have more diverse recreation interests than people who do not. Younger people, who constitute an increasingly larger share of our population, are more active in outdoor recreation than other age groups, and their interests are different. Increases in disposable family income, tied to general economic productivity as are increases in leisure time, educational attainment, and other considerations, mean that more money is available for recreation travel and equipment. The new affluence present in large segments of our society should also mean that, as a Nation, we can spend more on providing leisure-time opportunities (resources and facilities), and these opportunities, in turn, will stimulate increased participation.

Many of these considerations and other variables that appear to be producing increased use of recreation areas and facilities are measurable. These variables can be introduced in an equation which represents, or models, the existing situation. In other words, it simulates what is happening in the present "market." Once this has been done satisfactorily and the relationship between the variables is determined, the effect of changes in the "market"—caused by acquiring certain types of resources or developing certain kinds of facilities—may be determined by introducing these elements in a model.

Illustrative research examples

The Bureau of Outdoor Recreation has a contract study underway by the Bureau of Economic Research at Rutgers University for development of a supply-demand model for estimating the demand for specific types and quantities of recreation resources and facilities. The model will be designed to accomplish this in relation to individual major outdoor recreation activities. Estimates will be made for 1980 and 2000 at the Census Division level as well as nationally. The relative significance for participation in an activity of each of the important variables interacting in the outdoor recreation system will be determined through multiple regression analysis.

The data for the model will come from a number of sources. The major source is the interview records from the 1965 Survey of Outdoor Recreation Activities and the 1960-61 National Recreation Survey, both conducted by the Bureau of the Census. These data will provide a measure of participation in individual activities for incorporation in the model. They will also provide data on the socio-economic characteristics of the consumer. On the supply side, the main source will be the Bureau of Outdoor Recreation's nationwide inventory of public outdoor recreation areas and facilities. In addition, certain other data obtained from Bureau of the Census sources will be incorporated in the model. These data collection projects are discussed briefly.

Survey of participation in outdoor recreation activities

The main ingredients for the model being developed by Rutgers University are the interview records of the 1965 Survey of Outdoor Recreation Activities, sponsored by the Bureau of Outdoor Recreation, and the 1960-61 National Recreation Survey, sponsored by the Outdoor Recreation Resources Review Commission.

In both surveys, Bureau of the Census interviewers determined the frequency of the respondent's participation in major activities in terms of the number of different days on which he did an activity while on his vacation, other overnight recreation trips, outings, or at other times when there were a few available hours. In addition, the respondent's education, family income, age, sex, color, family size, occupation, and other socio-economic characteristics were recorded in the survey. Certain preference information also was among the primary content of the interview.