Association Affairs

Operations Research Council

"The Application of Operations Research to Governmental Problems" was the subject of a symposium held during the AAAS annual meeting (27 December 1966) under the sponsorship of the Washington Operations Research Council, Washington, D.C. The program was arranged by and presided over by John G. Honig (president, Washington Operations Research Council). The meeting emphasized the use of operations research in the nondefense government sector.

John H. Moss (Office of the Surgeon General) discussed criteria for the evaluation and acceptance of operations research activities in nondefense government areas. He noted the difficulty of applying quantitative techniques to evaluate the effectiveness of agencies which have largely administrative and very generalized functions (Park Service, Public Health Service, FAA, and Social Security Administration). Only parts of the missions (subgoals) of these agencies lend themselves to some quantitative analysis. The measures of effectiveness must therefore be optimized on the subgoals rather than analyzing the worth of each subgoal to the mission of the agency as a whole. Moss described a number of analyses related to subgoals in the agencies mentioned.

William P. Allman (Chicago and Northwestern Railway Company) described a large-scale computer, simulation model which was designed to analyze operating policies of freight trains on a railroad network. This work was performed while Allman was on the staff of the Technical Analysis Division of the National Bureau of Standards. In this simulation model, freight cars flow through the railroad network in accordance with specified operating policies, car sorting policies, and yard operations. The model permits experimentation with alternate car-operating policies and can predict potential improvements. It is believed that the benefit derived from such models lies in their use for planning operations for merged railroad systems.

George Suzuki (National Bureau of Standards) discussed an analytical model of patent application flow in the Patent Office. He described the various paths a patent can take from its initial receipt in the Patent Office to its final disposition as either a granted patent or an abandoned application. The many possible nodes in the patent application "flow," an evaluation of what happens at each branch, and the time delays involved were discussed. The model has been computerized for the evaluation of improved procedures in the Patent Office and an improved utilization of patent examiners and their time.

Alfred Blumstein (President's National Crime Commission) described an analytical model of a total law enforcement system from the detection of the crime through the criminal's return to society following his punishment. The intervening steps, police actions, court actions, punishments, and probations were discussed. Blumstein stressed the difficulty in obtaining data to serve as inputs for this model. He also described a submodel which dealt with the police actions in the apprehension of the criminal and solution of the crime. The effect of witnesses, evidence, command and control functions were analyzed. The difficulties in evaluating these models as cost-effectiveness models were reviewed.

Walter H. A. Hahn, Jr. (Environmental Science Services Administration) spoke about the advantages and difficulties with the new Program Planning and Budgeting Systems when applied to the civilian sector of government. The initial difficulty of defining a department's mission in a way to permit some quantitative analyses to be performed to evaluate the operation must not be underrated. There are additional great problems in many areas where several departments or agencies serve a common interest. There is no doubt that the PPBS procedure will be implemented in the nondefense government sector but there are several basic problems that still have to be solved.

JOHN G. HONIG
Washington Operations Research Council, Washington, D.C.

Academy of Psychosomatic Medicine

The Academy of Psychosomatic Medicine was elected as an affiliate at the AAAS annual meeting in Washington, D.C., 30 December 1966. The object of the Academy, established in 1952, is to apply the principles of current scientific knowledge to the practice of medicine and dentistry. The best concept of modern medical and dental practice assumes total care of the physical and emotional needs of the patient. The manifestations of organic disease are often accompanied by changes in attitudes, feelings, and behavior which are amenable to treatment. The effective use of the interpersonal relationship is as important as the therapy chosen. All therapy—medical, surgical, pharmacological, or physical—is a mode of communication. The response to treatment often depends on the doctor's understanding of the emotional needs of the patient through his illness. The principal therapeutic function is to understand, relieve, and eliminate the causes of suffering.

The objectives of the Academy are to advance scientific knowledge, and relate the practice of medicine and dentistry to the interaction of mind, body, and environment through study, laboratory and clinical research; to cooperate with other workers in these and related disciplines; to provide a forum for the presentation and discussion of these problems; to publish the results of research; to facilitate total and comprehensive care, and to help the physician or dentist to learn when psychiatric consultation and treatment are essential.

The members of the Academy are members of the medical profession or related disciplines, engaged as practitioners, teachers, or research workers in the field of psychosomatic medicine or any of its branches.

EDWIN DUNLOP
Academy of Psychosomatic Medicine, 150 Emory Street, Attleboro, Massachusetts 02703

AAAS Socio-Psychological Prize

Through the generosity of an anonymous donor, the AAAS offers an annual prize of $1000 for an essay in socio-psychological inquiry that furthers understanding of the psychological-social-cultural behavior of human

beings. The prize is intended to encourage studies and analyses of social behavior based on explicitly stated assumptions or postulates leading to conclusions or deductions that are verifiable by systematic empirical research; to encourage in social inquiry the development and application of the kind of dependable methodology that has proved so fruitful in the natural sciences.

Entries should present a completed analysis of a problem, the relevant data, and an interpretation of the data in terms of the postulates with which the study began. Unpublished manuscripts and manuscripts published after 1 January 1966 are eligible. The deadline for receipt of entries in the 1967 contest is 1 September. For instructions on how to submit an entry, write to: Socio-Psychological Prize Contest, AAAS, 1515 Massachusetts Avenue, NW, Washington, D.C. 20005.

18th Alaskan Science Conference

The Alaskan Science Conference in this Centennial Year of the Purchase of Alaska will be held at the University of Alaska, College, between 28 August and 2 September 1967. Visitors to the State will enjoy the new Marine Ferry System, the resurfaced Alaska Highway, and the special events in the "Centennial City" of Fairbanks. Investigators with summer field programs in Alaska are particularly encouraged to attend and sessions for field reports are scheduled.

Information and forms for reservations in University dormitories are available from the general chairman, Dr. Peter Morrison at the Institute of Arctic Biology, University of Alaska, College 99735.

AAAS–Westinghouse Science Writing Competition

Newspaper and magazine articles on the natural sciences and their engineering and technological applications are eligible for the 1967 AAAS–Westinghouse Science Writing Awards. Awards of $1000 each will be presented for outstanding nonmedical science writing in (i) newspapers of over 100,000 daily circulation, (ii) newspapers of less than 100,000 daily circulation, and (iii) magazines of general circulation. Entries must have appeared in print between 1 October 1966 and 30 September 1967.

Newspaper entries may be a single article or a series, or a group of three unrelated articles, editorials, or columns. Entries from magazines, including trade and professional journals, may be single articles or a series. Persons other than the author may nominate the articles, and up to three separate entries may be submitted in each category.

The awards are provided by the Westinghouse Educational Foundation, which is sponsored by the Westinghouse Electric Corporation. The three awards will be presented on 27 December 1967, at the annual dinner of the National Association of Science Writers during the 1967 meeting of the AAAS in New York City.

Deadline for submission of entries is 10 October 1967. For additional information, contact Grayce A. Finger, AAAS, 1515 Massachusetts Avenue, NW, Washington, D.C. 20005.

Meetings

Biomedical Research: Changing Mores

An important responsibility of today's physician is guiding the course of biomedical research in a way which preserves the interests of the individual yet still promotes advances in the public welfare. The mores of biomedical research, and how they are changing, were the subjects of a colloquium at the meeting of the American College of Physicians held in San Francisco, 10–14 April 1967.

I. S. Wright (Cornell) introduced the theme of the meeting with the comment that previous failures in civilizations have come when man's material progress was insufficiently supported by philosophical, moral, and ethical codes that withstand the test of time. Other speakers amplified this statement by citing some of the problems which confront contemporary society. Many of these problems, such as transplantation of organs and trials of new drugs, are representative of the challenge of progress. However, other problems, such as birth control, therapeutic abortion, and eugenics, reflect refinements of age-old problems still waiting to be solved.

Samuel Stumpf (Vanderbilt) warned that "technological momentum" occasionally pushes investigators into boundaries where the ethical considerations are obscure or confusing. If we are to continue to place proper value on the dignity of the individual, we may have to forego some knowledge because the price is incompatible with respect for rights of the individual. This prelude by Stumpf led naturally to a good deal of comment on "informed consent," particularly as it applies to transfer of organs and the investigation of new drugs on human beings. Signing of the consent does not absolve the investigator from being sued should the outcome prove disastrous. Joshua Lederer (Stanford) suggested that the hazards surrounding investigations in areas with unusual risks could be reduced by fair financial compensation of subjects and by insurance against failure such as is practiced in other "risk situations."

In the matter of new drugs, the risk is often taken first by the investigators themselves, who are aware of the limitations of transferring results of experiments on animals directly to human beings. Chauncey Leake (University of California, San Francisco) cited the example of his department which was responsible for five drugs now in common usage. However, he had barred other drugs from further investigation on human beings because it was always his policy to test the medication first on himself and other participating investigators after the drug had been cleared by tests on animals.

Another area of investigation possibly posing problems in the future was suggested by David Krech (University of California, Berkeley) who said he had successfully used various drugs to increase learning ability of animals. Krech reminded his audience of the many possible complications which could result from an across-the-board raising of the I.Q. of a group of people all at once. He doubted that this kind of research would find practical applications very soon.