the proposal for a separate and more generously endowed agency—the Kennedy bill calls for an initial three-year budget of \$1,200 million. But the only group to support the Cancer Society in testimony before Senator Kennedy's subcommittee in March was the American Heart Association. Campbell Moses, medical director of the Heart Association, told the subcommittee he was in favour of spinning off the NCI as a separate agency and moreover that "an exactly parallel effort is even more appropriate in the field of heart disease". This statement was as neat a demonstration as could be wished of the chief argument adduced by the bill's opponents, that other institutes would want to quit the NIH if the NCI were allowed out.

Critics of the Kennedy proposal included Dr Philip Lee, assistant secretary of HEW for health and scientific affairs during the Johnson Administration, and Dr James A. Shannon, former director of the National Institutes of Health. At the Kennedy subcommittee hearings, Lee produced a letter from Shannon which described the proposed separation of the NCI as "without merit and dangerously destructive". The creation of an independent cancer authority, Shannon said, would represent no improvement on present NIH processes and would "unleash forces of a divisive character which would quickly destroy the integrity of NIH". Shannon went on to predict that "in a very short time, orderly governance would be replaced by anarchy, and instead of a judiciously balanced program of biomedical research, program emphasis would be entirely determined by uncritical zealots, by experts in advertising and public relations and by rapacious 'empire builders'".

Shannon was similarly abrupt in his views of the programmed, NASA-like research methods which the cancer panel has emphasized as a principal selling point of the proposed new agency. Organized research programmes of this type, Shannon said, had been mounted during his time as director of the NIH; they were "encouraged to operate in styles somewhat akin to those employed on the various NASA and big weapons projects", yet despite the managerial competence of those in charge and the size of the investments, "the results have been modest. The reason, as you well recognize, is the inadequacy of the science base."

Other opponents of the Kennedy bill included the Association of American Medical Colleges and the 11,000 member Federation of American Societies for Experimental Biology. John A. D. Cooper, president of the AAMC, told the subcommittee that establishment of a separate cancer authority would duplicate many research teams and

laboratories, which would probably "dilute efforts against other killing and crippling diseases as well as against cancer". And last week a group of nearly 80 professors and department chairmen at medical schools sent a telegram to President Nixon opposing the creation of a separate authority.

The intellectual advantage in the preliminary skirmishing about the proposed new cancer agency probably lies with the Administration forces, but the Administration has now shot most of its bolts and can but wait and see how the proposal fares in Congress. The Kennedy bill is due to be voted on this week by the Senate health subcommittee, several members of whom are said to be opposed to it. If it passes this hurdle, the bill's sponsorship by 52 senators as good as assures its passage through the Senate in some form or other, subject to whatever amendments may be introduced from the floor. Meanwhile the White House, unable to disguise the political rivalry between Nixon and Kennedy which is the principal cause of the conflict, has at least tried to draw a veil over the parallel in-fighting among the scientific

community between cancer researchers and other biomedical scientists. In a letter to the *Washington Post* on March 3, Edward E. David, the President's Science Adviser, said he hoped the public had not acquired any impression that there was an active conflict among scientists over the issue. "There is not now nor will there be, in my opinion, any time or energy wasted on in-fighting. . . ." David assured *Post* readers. "Very few scientists of my acquaintance would participate in such a clearly unproductive activity."

IMMIGRATION

Brain Drain Unplugged

by our Washington Correspondent

RECENT statements that the brain drain of scientists to the United States had halted or was even going into reverse seem to have been premature. The latest figures released by the National Science Foundation show that in the year up to June 30, 1970, the influx of scientists and engineers from other countries was the largest in the past 20 years, and greater by 30 per cent than

New Council for NASA

by our Washington Correspondent

AFTER nearly a year's hiatus, the National Aeronautics and Space Administration has re-established its system of internal science advisory boards. The new arrangement, known as the Space Program Advisory Council or SPAC, consists of a council and four separate committees dealing with applications, physical sciences, space systems, and life sciences (the latter including both space medicine and the search for extraterrestrial life). The council and its four committees replace a considerably more elaborate system of some 15 separate committees such as the lunar and planetary missions board, the astronomy board and other groups of outside scientists who advised NASA on all aspects of the space programme.

The old system was allowed to lapse about a year ago, one of the reasons being a directive from Congress that NASA should cut down on its extensive employment of outside consultants (although scientists were not paid for attending meetings of the advisory boards, travel expenses were considerable). The new system represents an economy, though NASA officials stress that the mixed nature of current and future payloads calls for a wide and interdisciplinary composition of the science advisory boards instead of a batch of specialist committees each dealing with a separate aspect as before.

Members of the new committees, NASA officials say, have been specially chosen for their ability to give advice across a range of fields. Even so, it will be difficult for a single committee to encompass the expertise necessary to advise on the details of individual payloads. In the opinion of one experienced adviser on the space programme, NASA will probably have to recruit further *ad hoc* committees to advise on particular payloads, as was the practice under the former advisory system.

Chairman of the new Space Program Advisory Council is Brian O'Brien, a 73 year old but energetic physics consultant with long experience in advising the Department of Defense on space matters and an expertise in optical physics. Although the new system represents a reduction in the number of scientific advisers NASA can afford, the agency will still have available to it the Space Science Board of the National Academy of Sciences. NASA may well rely increasingly upon the Space Science Board for expert advice, even though the board's most recent report (see *Nature*, **230**, 142; 1971) made major criticisms of priorities assigned by NASA to various aspects of the space programme such as the Grand Tour missions to the outer planets and Planetary Explorer missions to the inner planets.