Brain Drain: The Sound and The Fury

A Senate subcommittee seeks to separate fact from fancy in this emotion-charged issue

Salting a friend's wounds; an ad from a London paper.

Albert Einstein fled Germany in 1932 to come to the United States.

Enrico Fermi fled Italy a few years later.

Alfred North Whitehead left Cambridge for Harvard, not in flight from political threats but in search of new opportunities.

Ever since the time of Aristotle, the tradition of the wandering scholar has been a noble one.

But now the free flow of scientists from one nation to another is a source of international concern and fears about the ultimate effects of the "brain drain" are gaining momentum.

In recent months the U.S. has borne the brunt of growing criticism from the governments of some nations whose scientists and skilled workers are emmigrating to this country. Britain's Harold Wilson has commented on the numbers of English doctors finding jobs in U.S. hospitals and Russian Premier Aleksey Kosygin charged in a recent visit to Western Europe that U.S. immigration policies are draining Europe's best talent. Israel is concerned over the loss of her best people to the U.S.

For all the furor, however, there is very little objective data on either the scope or nature of this phenomenon. ". . . The situation needs perspective and clarification," says Senator Edward Kennedy (D-Mass.) who is chairing hearings of the Senate Subcommittee on Immigration that opened last week. The "brain drain" issue is "threatening our relations with several governments, and the credibility of our national objective to assist the development of other nations through foreign aid and other channels," Kennedy said in his opening statement.

Charles Frankel, Assistant Secretary of State for Educational and Cultural Affairs, testified that the flow of skilled and talented people to the U.S. is "considerably less than most discussions would suggest," and pointed out that the impact of the "brain drain" on other countries varies widely. Dismissing charges that Government financed exchange programs or national immigration laws contribute significantly to the exodus of scientists from other countries, he said "the largest part of the 'brain drain' involves the recruitment of trained adults by American industry, universities, hospitals, and research organizations." Evidence he has gathered on the issue shows that about 70 percent of these persons come from "well-developed" countries in Europe and North America, and from Japan, New Zealand and Australia, not from poorer, developing lands.

However, figures do show that the number of immigrants from Asia has gone up within the last year, or since the passage of the Immigration and Nationality Act of 1965 which Senator Kennedy steered through Congress. The Act abolished the use of national quotas for immigrants, setting instead a U.S. total of 170,000 persons on a more-or-less first-come first-served basis. Preferential treatment is given to applicants with professional or technical skills. The fact that "pooled places" from unused national quotas opened up more opportunities for Asian scientists to come to this country may account for the higher number entering this year, but this is "not typical of what may be expected in the future," Frankel says.

Various proposals to slow the "brain drain," if indeed its existence is determined, have called for changes in U.S. immigration laws and policies. However, witnesses at the first day of the hearings generally agreed that the problem is an international one that cannot be solved by unilateral action by the U.S. Furthermore, there was consensus that moves to hamper the free movement of people would do little to contribute to the brain-power needs of other nations and would be contrary to all traditions for the exchange of ideas. Other witnesses were Eugene V. Rostow, Under Secretary of State for Political Affairs, and Dr. Charles V. Kidd of the President's Office of Science and Technology.

The locus of the problem of a "brain drain" lies in other nations, not in the U.S., they said. Dr. Kidd describes it as the influence of "pull" and "push" forces. "Highly trained people are 'pulled' to the United States by such things as high incomes, personal free-

dom, political stability, a strong diversified research and development program in government, universities and industry," he says. And, they are sometimes "pushed" out by their own countries. Economic incentive and strong research programs are not always a sufficient lure, Dr. Kidd says, citing the fact that immigration from stable nations like Venezuela and Brazil is low. "Push" forces such as political instability, rigid institutional structures in universities, low salary scales because of an unwillingness to promote scientists on grounds of ability, and a dearth of intellectual colleagues are seen as equally related to the exodus of talent. The solution rests with reform within more than with changes in U.S. immigration policies, he believes.

Senator Kennedy summarizes his view, saying the "brain drain" issue is "festering with little joint concern and action within the international community. For this reason, I want to suggest that our Government take the initiative—preferably through the United Nations—in calling for an international conference of interested governments to explore, in depth, the international migration of talent and skills, and the problem of brain drain from the less developed areas of the world." Such a conference is the likely outcome of the hearings which are expected to continue for another three or four weeks. It's too early to predict the likelihood of new legislation.

In spite of its inevitable international nature, the problem is of prime importance to the U.S., Frankel says, because in the long run this country cannot bear the burden of a world in which most countries have inadequate intellectual resources and technological skills and, therefore, have to rely on the U.S. or one of the other big nations for their well-being.

Science Deferments Under The Gun

For the last three years, a major effort of key science policy makers in Washington has been to increase the flow of scientific and technical manpower into the nation's scientific arsenal. And science students, and scientists, considered to be in "critical or essential occupations," were offered draft exemption in the national interest.

Now there is new national need, apparently more critical: The need for a "fair and equitable" draft system.

And the exemptions scientists and students in the sciences were once offered are in danger of being washed away.

The National Advisory Commission on Selective Service balanced out in favor of individual fairness in its recommendations to President Johnson proposing a new lottery system for drafting men into the military. And President Johnson last week passed most of the Commission's recommendations on to the Congress, coming down hard for "fairness," rather than draft deferments.

A fair and equitable draft means, in essence, that young scientists lose the privileged position they have held since the second World War.

Until now deferments have been granted to students, both graduate and undergraduate, and to men in critical occupations. These include a long list of scientists, technicians, engineers and even laboratory glassblowers. What happens, says the National Advisory Commission on Selective Service, in its report is that deferments pyramid into actual exemptions from service. Men go from college to privileged occupations to marriage and finally from draft age, leaving military service to the noncollegiates—an increasingly sore point.

As of January, despite Vietnam, there were 237,000 men deferred for occupation, plus all the full time students. In contrast, only 19,000 were deferred during the Korean War during which regulations on deferments were tightened.

Thus, the fundamental issue before the Commission was one of fairness and ethics, says executive director Bradley H. Patterson. Fifteen years ago, military service was taking millions of men and the major problem was "Whom should you spare?" says Patterson. Now the service takes very few and spares millions. The problem is to find an equitable way to select those few.

Consequently, the Commission recommends and President Johnson proposes that no more deferments be granted to postgraduates, excepting dental and medical students. Though the President did not mention critical occupations, no such deferred category would exist under the new system.

In the President's words, the governing concept for selection should be "one of equal and uniform treatment for all men in like circumstances."

All of which has lead Mrs. Betty Vetter, executive director of the Scientific Manpower Commission, which represents scientific societies, to term the proposed system "terrible."

It considers only individual fairness, not national interest, she says. Science, in fact, needs many more people than are now available, says Mrs. Vetter.

Actually, occupational deferment under the new system would amount to a non-issue. By dropping the critical draft age to 19, the President can, in effect, flank the problem. Few 19-year-olds are in critical occupations.

But many are in mathematical studies requiring continuity, says Mrs. Vetter, and a two-year interruption at any point in the sequence could be "deadly."

The belief that men return to college after service is based on experience with students in other disciplines, such as the humanities, she points out. But students in sciences requiring mathematics may have a difficult time recouping their losses. "Once you lose that batch, they are too hard to recover," she says.

Mrs. Vetter maintains the present regulations based on national interest are much superior to those stressing fairness, and should moreover be broadened. They need updating to include people such as computer experts.

Russians Want a Piece Of U.S. SST Market

Last spring, the Soviet Union dropped a public relations bomb on the rest of the world by introducing a huge jet transport plane called the AN-22, years ahead of the Lockheed C-5A and Boeing 747 super-haulers now being built in this country. They made their grandstand play by flying the plane unannounced to the Paris International Air Show, where it grabbed headlines from a variety of exotic jets, helicopters and other aircraft.

Last week, the Central Intelligence Agency reported that the Russians are going to try it again, this time in even more dramatic fashion, by turning up at the Paris Show opening in May with the world's first supersonic transport, the Tupolev 144. The British-French Concorde will not be ready to fly for a year, and the U.S. version, the Boeing 2707, not until 1971.

While such an SST coup would be valuable as a prestige victory, it would have no effect, as things stand now, on the sales of the U.S. plane, since airlines here could not buy a Russian aircraft even if they wanted to. But the Soviet Union is trying to change all that—it is after a piece of the U.S. market. This would be a rich prize, since potential sales figures for the U.S. SST have been estimated as high as 1,500 aircraft, though half that amount is a more reasonable figure, compared to as few as 20 planes for the Soviet version.

Russia has requested that the U.S. consider the possibility of reciprocal marketing arrangements for commercial aircraft, according to the Federal Aviation Agency. The initial overtures were made in New York City in Janu-