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LET'S PAY FOR THE BRAIN DRAIN

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LET'S PAY FOR THE BRAIN DRAIN

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Economic planners have only recently recognized that migration of local talent from less developed countries (LDCs) can cancel out even very large capital transfers and technical assistance from advanced nations. Even so, some social scientists and government officials have not fully recognized the need for U.S. policy to offset, counteract, or compensate for the "brain drain."

The State Department deserves much credit for initiating discussions on this issue. Yet a seminar it held in June 1966 shrugged off a need for a U.S. brain drain policy by arguing that the primary locus of the problem--and by inference the primary responsibility for its solution--lies in developing countries. An administration interagency report last April reached a similar conclusion. Thus there has been little headway in translating growing concern about the issue into possible strategies to deal with it.

One U.S. policy alternative--which almost everyone rejects--is to put up barriers to the movement of skilled and talented persons from LDCs. This would involve recasting our immigration legislation and possibly returning to a quota system like that which preceeded the liberal Immigration Act of 1965. Then, as now, such a policy carries inescapable implications of discrimination, involuntary servitude, and inefficient use of certain strategic manpower resources.

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A second possibility is the reformulation of training that foreign nationals get in the United States so that it is specifically relevant for LDCs and less appropriate for a modern industrial economy, together with encouraging these countries to develop ample and imaginative educational and employing institutions back home. This is proceeding now--but slowly. It is the ultimate answer, of course, but it probably involves a higher level of development than now in most LDCs and a necessarily slow process of institutional change both here and abroad.

A third short-run alternative is for the U.S. and other developed nations to provide indemnities for manpower resources. Since we pay for physical product imports from other countries, why shouldn't we also compensate underdeveloped countries for human capital they send us? Indeed, compensation might be earmarked for assisting LDCs to improve their domestic training institutions or even to create needed jobs for professionals.

While policy has been slow in coming, the seriousness of the brain drain problem has become steadily more apparent. Meanwhile, public attention is focussing on the matter. A team from the President's Office of Science and Technology has been touring developed countries to explore solutions. The Adlai Stevenson Institute of International Affairs began a study on brain drain in October. In July, a staff report of the House Research and Technical Programs Subcommittee claimed that to the extent that the brain drain undermines development, "it also defeats a major U.S. foreign policy objective for the sake of which this country is currently spending about $3.7 billion per year in bilateral and multilateral foreign aid."

This study, released by the subcommittee chairman Representative Henry Reuss (D. Wis.), showed that the brain drain of professional and technical workers to the United States increased 58 percent over the decade ending in 1966--from 18,995 to 30,039. At the same time, the emigration of physical and biological scientists, engineers, and physicians which represented about 30 percent of professional and technical migrtion to the United States, increased 77 percent. Movement of scientists, engineers, and physicians to the U.S. from LDCs is increasing. In fiscal 1966 alone it rose 40 percent over 1965; between 1956 and 1966 the developing countries' share of all scientists, engineers, and physicians migrating to the U.S. rose from 33 to 46 percent. In 1966, U.S. colleges and universities graduated about 6,000 students from LDCs in these fields. In that same year, 4,390 scientists, engineers, and physicians from these countries migrated to the United States, giving a net gain to LDCs of only three in ten.

Even this calculation probably overstates the gain to LDCs, however. Most professionals from LDCs who migrate to the U.S. have job experience, while new graduates usually return home or go to third countries (as required by their exchange visitor visa). How many of these remigrate after the termination of the two years they are required to spend out of this country is unknown.

Skilled professionals who migrate from LDCs to the United States are often products of a highly selective educational system in their countries. They may migrate here either because institutions at home are not able to employ them due to short-sightedness or lack of funds, or because they are forced out by political problems. Or professionals may simply succumb to the lure of higher wages together with its accompanying

package of perquisites--research funds, further training possibilities, intellectual environment, security, political stability, and social amenities--in the United States.

Those who stay here even when their country wants them back often argue that their contribution to a field of study can be greater here. In some cases this is a rationalization; in other cases it is unquestionably true.

The welfare of the receiving country, the income of émigrés, and maybe even their disciplines are enhanced by the move to a more developed country. Yet from the viewpoint of the underdeveloped country, each professional who migrates permanently represents a substantial financial loss to his homeland. Even if the recipient nation has assumed the marginal costs of graduate training, the expenses of primary, secondary, and usually undergraduate education have been covered by a poorer country whose training budget is woefully inadequate for its burgeoning population. For every talented person who migrates, the less developed country has subsidized a richer people by the benefits of an investment which it would ordinarily amortize over a lifetime of work. (This subsidy is reduced only by remunerations the émigré sends home or by professional counsel or increments to general knowledge contributed by him which flow to the LDC at reduced or zero cost.)

As compensation for this emigrant capital, U.S. policy makers must begin to consider using some measure of the "brain drain" as an allocation criterion in deciding how foreign aid should be apportioned among countries. Those who know how difficult it is to quantify the migration of talent and skills may pass off this suggestion as introducing a fuzzy

concept into the "bag of tools" which is used to decide assistance allotments. But current criteria are seldom more precise. Humanitarianism, internal security, political pressures, desire to expand U.S. exports, and internal stability--factors that if anything, are less amenable to well defined measurement than the brain drain--figure among the devices that are currently used in dividing up foreign aid.

Compensation may help these countries, perhaps through grants which are so designated to create or subsidize existing professional positions where they are most needed. Compensation might come in the form of extraordinary aid to educational institutions in these countries, and, on occasion, as stop-gap technical assistance. It should, however, be a net addition to the foreign aid that a country would otherwise receive.

Placing an exact dollar figure on the head of each émigré will simply not be possible, given the state of present knowledge. To date, such agencies as the Immigration and Naturalization Service have never received the funding they need to refine gross trends into more precise co-efficients on the extent of the brain drain.

Another problem is that there is no exact agreement on what statistical series are most definitive. At exactly what point does a person become sufficiently skilled or talented to be a net resource to the LDC, instead of just another consumer of scarce goods? Who counts as a permanent talent loss? If only those with immigrant visas are enumerated, one overlooks the fact that a few of these undoubtedly do plan to return home some day. Others with more temporary visa arrangements may have no such intentions. How long after the receipt of an advanced degree is one permitted to remain in another country before entering statistics as a brain drain debit at home? Any emigrant is probably

a potential returnee until his death, and if he goes home after acquiring substantial experience in another country, the benefits to his homeland may be greater (when compared to formal and on-the-job training costs) than if he returned immediately after completing his graduate education.

Yet the gross trends (such as numbers of immigrant visas granted, foreign students currently studying in the United States who have no intention of returning, and transfers of temporary to permanent visas) are clear enough to allow us to begin with at least some tilting of the foreign aid package in the direction of countries where these measurements show the largest talent loss. The problem should probably not be couched in terms of absolute numbers, however. Rather, a value should be attached to those crucial, highly qualified professionals who are especially needed to carry out the country's development plans.

That foreign aid be used to compensate countries who lose out to the brain drain does not suggest that the extent of the brain drain represents the only or even the major yardstick for allocation of foreign assistance. Indeed, other criteria may be so compelling that they cancel out any brain drain consideration. And when a case can be made that internal political conditions have driven talent from the country, there will be little justification for compensatory payments. Likewise, if the developing countries cannot demonstrate that their institutions are attempting to productively employ professionals to the limit of their resources and in the skills for which they are trained, there is little need for compensation. Thus policy makers and researchers working together must not only determine more refined measurements for the extent of the brain drain and its impact on specific countries but try to ascertain its causes.

Initially, a program of brain drain compensation might originate with economic planners from LDCs who would, on the basis of available data, put before AID officials their case for added assistance by showing how talent loss has thwarted development plans. Eventually, countries that regularly gain talent should be required to make contributions to an international fund that might be set up in the United Nations. In this manner a mechanism could be set in motion so that Great Britain could repay India or even that Mexico could indemnify Bolivia for talent losses.

One reason for our insensitivity to the economic cost of talent losses is that, with the resounding success of the Marshall Plan in mind, we often underrate the value of human resources and tend to assume that physical capital is the major bottleneck to development, as it was for Europe after World War II. In post-war Europe, however, skilled managerial and technical personnel who were trained before the war were available afterwards. In LDCs, these resources which we took for granted in Europe, remain scarce. Without underplaying the astounding array of variables that figure in the development process, economists have recently shown that skill bottlenecks may be just as important as capital equipment, and probably will become even more so as development proceeds.

Paul Miller, Assistant Secretary for Education of the Department of Health, Education, and Welfare, suggests that at least half of economic growth which is not directly the result of the traditional inputs of capital, land, and labor is due to improvements in educational levels and manpower skills. Professor Theodore Schultz, University of Chicago economist, feels that quality of human resources is the major reason that between 1945 and the mid-60's crop production in the United States rose

45 percent per acre and farm output per man almost tripled, while cropland declined by about 15 percent and the labor force halved. Physical capital has been less important, he feels, than advances of knowledge and farmers' know-how, coupled with new materials inputs (e.g., products of research representing ingenuity of trained people) that are priced so that farmers can profit from using them. It takes but one step in logic to realize that any loss of trained professionals is loss of valuable capital to LDCs--and may mean delaying development.

Another reason for hesitancy to incorporate a brain drain factor in the criteria for determining aid is that by definition we are not used to considering foreign "assistance" as a quid pro quo. In fact, however, the human capital flow for which we have not paid (or to which we have made only a marginal contribution) may already have proven a debilitating problem for some weak economies. When developers began to show concern about the brain drain at the beginning of this decade, talent was flowing mainly from already developed countries to more developed ones (from Britain to the United States, for example). Recently, however, due to our stepped-up foreign student training and because of some upgrading of educational institutions in LDCs, the percentage of total talent migration among professions involving transferrable skills from underdeveloped countries has been increasing.

In Latin America, one of the areas which has felt the recent impact of the brain drain most acutely, Chilean calculations made earlier this year--and reported in Santiago's El Mercurio--are that from 1960 to 1965 the United States has granted immigrant visas for 4,000 university trained professionals from Latin America. Estimating conservatively that each person costs $20,000 to train, El Mercurio argues that "this meant a

contribution from Latin America of $80 million to support the North American economy.

By this same criterion, the Reuss Subcommittee valued the migration of 4,390 scientists, engineers, and physicians from LDCs last year as an $88 million contribution to the United States. A higher calculation would be more realistic since this figure includes simply the cost of their education and not the potential value of their abilities.

Medical personnel represent about 50 percent of Latin America's professional loss each year. Of the professional categories of Colombians admitted to the United States as immigrants, for instance, the largest single groups in 1963, 1964, and 1965 were teachers and physicians. That this is a serious loss to Colombia is evident: while the United States has one MD for every 770 people, Colombia has one for each 2,200. There is evidence that Colombia is not making the efforts she could to retain her physicians. While the need is great, professionals tend to "pile up" in capital cities while in the hinterlands--since peasant incomes are so low and the government has made few efforts to subsidize professionals who work there--many MDs cannot make a decent living. At the same time, the ability of the United States' economy to utilize doctors is astounding and we still need many more physicians than we train.

In an extensive survey in September, the New York Times reported that there is currently a shortage of about 50,000 physicians in the United States; a study by the Brookings Institution estimates that by 1975 another 50,000 will be needed. Meanwhile, in the past 15 years the annual output of medical schools has only risen from 6,600 to 7,600. If the United States does not expand training programs for doctors (or

If MDs do not become more productive by such methods as mechanical diagnosis, group treatment, and therapy or utilization of more paramedical personnel), this leaves a gap that can only be filled by foreigners.

Importation of medical skills is much cheaper for us than developing our own facilities. The expense of developing ample facilities to prepare our own citizens to fill our current professional medical void, according to Dr. Kelly M. West of the University of Oklahoma, would be approximately $96 million a year--the cost of operating 12 new medical schools--to say nothing of building them. Charles Kidd, of the President's Office of Science and Technology, calculates the Latin American annual out-migration of medical doctors as about equal to what three large U.S. medical schools would graduate. He says that to build such facilities would take a $60 million investment and to operate them would cost $15 million a year.

Senator Walter Mondale (D. Minn.), who has shown increasing concern about the brain drain since his first speech on the matter on the Senate floor in August 1966, has called the present medical situation a 'national disgrace.'

"That we should, in the face of such clear evidence, need doctors from countries where thousands die daily of disease, to relieve our shortage of medical manpower is inexcusable,' he wrote in the Saturday Review (March 11, 1967). He cites evidence to show that our dependence has increased: In 1951 only 9 percent of our hospital residents were foreign; by 1964, this proportion had risen to 24 percent. Recent evidence indicates that the 1967 percentage is nearly 30.

LDCs lose a much higher percentage of their total stock of physicians through migration than do the developed countries. One Pennsylvania educator claims, 'This country is simply stealing talent, and stealing it from countries that can least afford it.'

Examples of the brain drain drawn from medicine are perhaps the most glaring; of all the professions the skills of a medical doctor are among the most inter-culturally transferrable. But the brain drain affects many professions. It appears that our expanding economy has an almost insatiable ability to gobble up skilled people as fast as they are trained. We must face both an economic and a moral question as our industrial machine and accompanying services expand: if we absorb talent in which other countries have invested, hence benefitting from the lowered costs of the goods we buy and the public services we utilize, how can we fairly compensate those countries in a way that will support our claims that we care about their economic and social development? We can't, it seems, assuage our consciences by the present package of foreign aid if what we give with one hand we take away with the other.

Direct compensation in cases of brain drain is not an unusual or even unique policy suggestion. In the past half century internal 'brain drains' have occurred in the United States and we have--with a lag to be sure--responded with some compensation. Talent migration has occurred from farm to city, from south to north, from mid-continent to both coasts; more generally speaking, from low-to-high wage areas. These trends began to replace the overriding nineteenth century wave of migration from east to west as soon as the frontier closed. Imperceptible initially, these migratory currents have only recently become major concerns of policy makers, more of whom are suggesting that pockets of poverty left in their

wake be compensated more adequately than heretofore (and helped toward productivity through fiscal policies).

Existing and proposed programs to cope with problems of migration and resultant poverty, then, do not deserve to be thought of in terms of "doles." Rather, since the youngest, most able, and best educated are most apt to migrate after they receive their schooling, richer areas receive a highly selected, often skilled and, from their standpoint, nearly costless supply of labor and entrepreneurial talent (although they do not always utilize it effectively). Compensation of sending areas (if only partially) thus becomes a proper focus of public policy. The National Tax Foundation reports that in fiscal 1966 there were 33 states that got back as much or more in Federal grants as they paid in Federal taxes. Alabama, Mississippi, and Oklahoma together received about $375 million more in grants and aid than they contributed in taxes. New Jersey, on the other hand, paid $1.83 in Federal taxes for every $1 received.

Future policies will probably tend to increase rather than decrease compensation to low income, predominantly rural areas, and to states from which migration is high--even though the overall composition of the existing program will change.

Thus, while the functioning of the free market seems to work toward more income concentration, the government periodically (and in some cases the mechanism is automatic, or at least semi-automatic) sets countertrends in motion. Perhaps this precedent has some applicability for foreign aid policies which now call for compensation in some cases where a brain drain can be shown.

A compensation plan should not constitute our only short-term policy to deal with the brain drain. The Reuss committee decries the absorption

of foreign talent by U.S. government agencies. One finds it hard to justify recruitment in LDCs by our government. We may need to accept a slowdown in Federal research and development programs whenever the U.S. would have to siphon off talent from LDCs to man them.

Coping with the "brain drain" also demands a step-up of training of needed professionals (especially physicians) in this country to alleviate the temptation of drawing foreigners from their homelands. Finally, it demands that more imagination be utilized both to define the problem with greater precision and to design policies to cope with it.