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SCIENCE

Aid to the U.S.

Information concerning the flow of trained scientists and engineers to the United States has recently been summarized in a National Science Foundation report, and information on immigration of all classes of workers, in a Department of Labor report. In the 10 years from 1952 through 1961, 30,000 trained engineers migrated to the U.S. So did 9000 natural scientists (with the equivalent of a bachelor's degree or higher), 14,000 physicians and surgeons, 28,000 nurses, 12,000 technicians, and 16,000 skilled machinists and tool and die makers. One can compute the meaning of some of these figures in several ways.

In numbers. The 30,000 engineers are nearly as many as will graduate this year from U.S. schools of engineering; in the past 10 years they have augmented our own graduates by 10 percent.

In dollars. The total cost of rearing a child and educating him through college can be estimated—in very round numbers—at $35,000. At this rate, the investment in the 39,000 scientists and engineers who have come here in the 10-year period comes to 1¼ billion dollars. The cost of rearing and training the other groups enumerated above can be estimated at about 2¼ billion dollars. We have been saved these amounts of money, for the immigrants have come in their productive years, ready to add, to the amount saved, the value of the contributions they will make to industrial production, research, and education. By the time they retire, their contribution will be large indeed.

In enriching the labor force. The Department of Labor report compares all immigrants with our total labor force and demonstrates that the mixture is enriched by immigration. The immigrant group includes relatively more professional and technical personnel and more craftsmen than does the labor force at large.

At the top level in science—and now we are no longer considering only the period since 1952—migrants from other countries have greatly enriched the United States. The Hungarians are proverbial. But consider also the distinguished contributions of American scientists who once were Chinese, or German, or British, or of some other national origin. Turning from anecdotal to statistical evidence of the enrichment brought by immigration, we find that 17 percent of the members of the National Academy of Sciences were born and educated abroad, and an additional 7 percent were born abroad but received a good portion of their education here. Over 60 Americans have received the Nobel Prize in physics, chemistry, or physiology or medicine. A fourth of them were born in other countries.

Too many factors are involved for us to try to draw up here a balance sheet of scientific and technological credits and debits, but in considering the various kinds of aid this country offers to other peoples, we do well to remember that American science and engineering profit greatly from the contributions of men and women who come here from other countries.—D.W.