

Major Declines in Admissions of Immigrant Scientists and Engineers in Fiscal Year 1994

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S&E immigration was stable in the 1980's but changed dramatically in the 1990's because of the 1990 Immigration Act.

The United States is a country of immigrants. Over the years the inflow of immigrants has included significant numbers of scientists and engineers (S&Es). Since 1968, the National Science Foundation (NSF) has tracked the S&E portion of total immigration as an important part of understanding the character of, and changes in, the United States S&E workforce. The data are derived from the annual compilations made by the Immigration and Naturalization Service (INS) of aliens admitted to the United States for legal permanent residence.¹

S&E Immigration stable during the 1980's, but increases sharply 1990-93

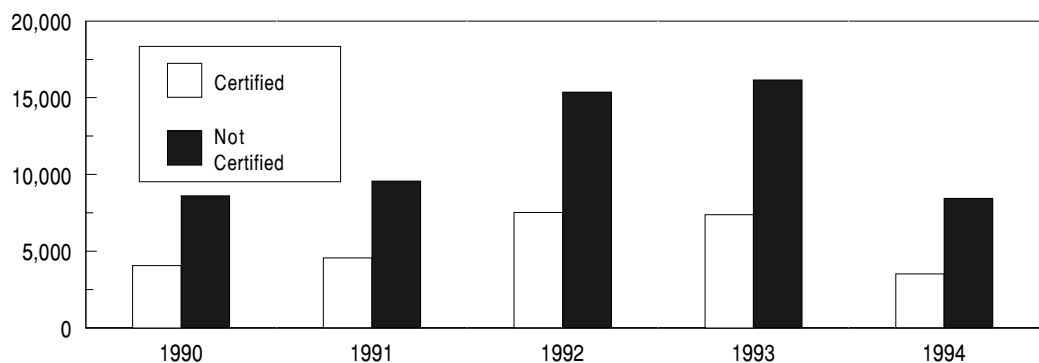
During the decade of the 1980's, S&E immigration was quite stable at about 12,000 S&Es annually. This changed dramatically from 1990-93 as a result of the changes enacted in the Immigration Act of 1990. The Act increased immigra-

tion for highly skilled workers by allowing them to enter the United States on permanent visas with a labor certification. By 1993, the number of S&Es admitted to the United States on permanent visas had almost doubled to 23,534. These numbers were increased by the Chinese Student Protection Act of 1992, stimulated by the 1989 Tianamen Square incident. Chinese students temporarily residing in the United States were allowed to adjust to permanent resident status in 1993.

1994 Drop in S&Es admitted on permanent visas

While the two Acts clearly motivated major increases in S&E immigration from 1990 to 1993, the data for 1994 suggest a return to the S&E immigration pattern of the 1980s (see Chart 1). The number of S&Es admitted in 1994 was 17,403—a significant decline (down 26 percent) from the previous year. According to the INS, this decline was caused by a lack of demand for employment-based

Chart 1. Scientists and engineers admitted to the United States on permanent visas by labor certification: 1990-94



SOURCE: National Science Foundation/SRS, using unpublished data provided by the Department of Justice/Immigration and Naturalization Service.

¹ 1994 Statistical Yearbook of the Immigration and Naturalization Service.

Electronic Dissemination

SRS data are available through the World Wide Web (<http://www.nsf.gov/sbe/srs/stats.htm>) For NSF's Telephonic Device for the Deaf, dial 703-306-0090. If you are a user of electronic mail and have access to the internet, you may order publications electronically. Send requests to pubs@nsf.gov. In your request, include the NSF publication number and title, your name, and a complete mailing address.

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admissions. The data confirm this view, but they also show large increases in 1992 and 1993 of non-certified admissions.

Distribution of declines among S&E occupations

Over the past decades, engineering occupations have predominated among immigrant S&Es, making up nearly two-thirds of the total. Given the overall decline of S&E immigration from 1993 to 1994 of 26 percent, engineering occupations also decreased 26 percent over the previous year. Immigration of mathematical scientists and computer specialists was further reduced by 33 percent. Natural scientists decreased by only 20 percent, and social scientists dropped by 26 percent from the 1993 total.

temporarily residing in the United States to adjust to permanent resident status in 1993. In 1993 1,403 Chinese students were issued immigrant visas (permanent residence status) under the CSPA. In 1994 S&Es admitted under this Act had decreased by 17 percent to a total of 1,163.

Most of the Chinese nationals admitted under the Act chose the Pacific Coast area as their intended residence in 1994. This contrasts with the 1993 data which showed the largest of the Chinese student nationals residing in the East North Central area. In both years there were about 10 engineering students to every one in the natural sciences and the computer sciences. Only a few students were in the social sciences.

Table 1. Decline in Number of Scientists and Engineers

Occupational field	FY 1993	FY 1994	Percentage change 1993-94
Engineers.....	14,497	10,793	-26
Natural scientists.....	3,901	3,104	-20
Mathematical scientists and computer specialists.....	4,157	2,781	-33
Social scientists.....	979	725	-26
Total.....	23,534	17,403	-26

SOURCE: National Science Foundation/SRS, using unpublished data from the U.S. Department of Justice/Immigration and Naturalization Service.

Decline in Employment-based Admissions

Employment-based admissions for incoming S&Es also declined in fiscal year 1994. Following the Immigration Act of 1990, employment-based admissions increased substantially from 4,556 in 1990 to 15,046 S&E employment-based admissions in 1992. However, by 1993 the number had dropped to 13,844, and in 1994 the number of employment-based S&E admissions declined further to 6,101.

Chinese S&E Students Adjusted to Permanent Resident Status

Stimulated by the 1989 Tiananmen Square incident, the Chinese Student Protection Act (CSPA) of 1992 permitted Chinese nationals

Russian scientists increase despite the decline while engineers slightly decline

Scientists and engineers from the newly independent states of the former U.S.S.R. and Yugoslavia admitted to the United States on permanent visas increased from the 1993 total of 1,165 to the 1994 total of 1,244. Russia supplied the largest number of immigrant S&Es in both years, 426 in 1993 and 512 in 1994 (see Chart 2). While there was a slight increase (7 percent) between 1993 and 1994 in the overall number of Russian S&E immigrants, the number of Russian engineers decreased by 2 percent, from 233 in 1993 to 228 in 1994, while Russian immigrant scientists in all fields increased by 47 percent from 193 in 1993 to 284 in 1994.

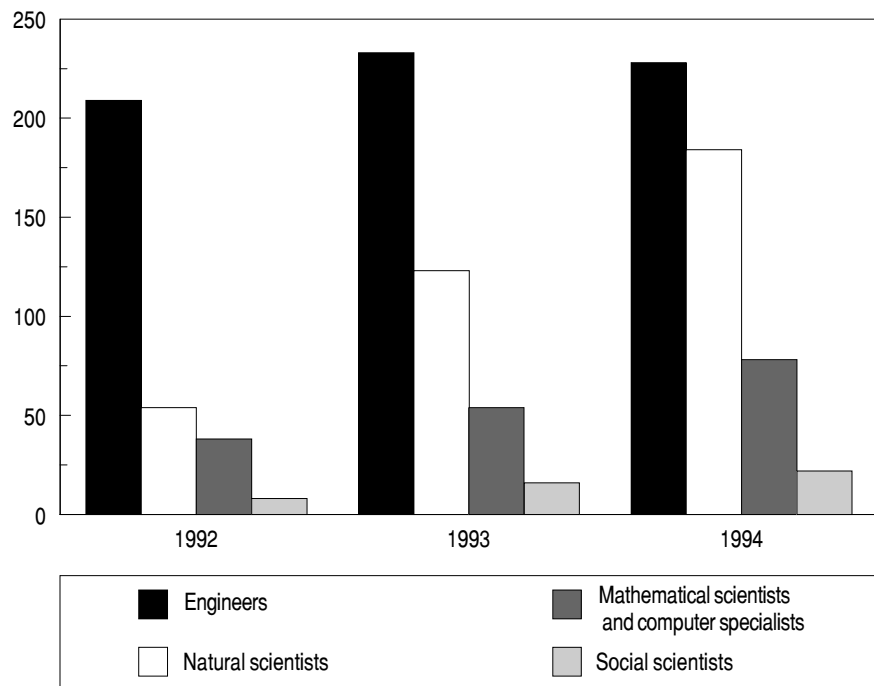
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Overall, technologists and technicians decline, except from Poland

The number of technologists and technicians admitted to the United States on permanent visas in 1994 declined, along with the overall numbers of immigrants. In 1993, the number of technologists and technicians admitted stood at 10,234 -an all-time record. Technolo-

The data presented in this Data Brief were obtained from the 1994 Immigrant Public Use Tape prepared by the Statistics Division of the Office of Strategic Planning at the Immigration and Naturalization Service. More detailed data are available in the forthcoming SRS report, *Immigrant Scientists, Engineers, and Technicians: 1994*.

Chart 2. Russian scientists and engineers admitted to the United States on permanent visas by occupation: 1992-94



SOURCE: National Science Foundation/SRS, using unpublished data provided by the U. S. Department of Justice/Immigration and Naturalization Service.

gists and technicians admitted decreased to a total of 9,528, approximately 7 percent less than the 1993 total. The majority of the technologists and technicians admitted to the United States in 1994 came from the countries of Eastern Europe. Notably, Poland is reported as the country of the last permanent residence for 2,610 immigrants with these occupations.

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