

CHAPITRE 1

Quantification of the Scientific Diaspora

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Introduction

The quantification of expatriate scientists and engineers (S&Es) provides information in three main sections: 1) the international comparison of foreign S&E graduate student flows and stay rates; 2) the presence of foreign-born scientists and engineers in the U.S. labor force, and 3) the reverse flow of S&E knowledge. The international flow of foreign students compares their graduate enrollment in the United States, the United Kingdom and France, and includes some information on Japan and Germany. Doctoral degrees earned by foreign students and their stay rates are compared across the three major countries. The section on foreign-born scientists and engineers provides an overview of their level of education, fields of study, fields of occupation, sector of employment, visa status and whether they perform R&D. A final section describes some modes for the transfer of S&E knowledge by foreign-born scientists to their home countries.

Background

The international flow of foreign students and professional scientists and engineers is a subset of a larger phenomenon of increased migration of labor to advanced industrial countries. The wave of immigration during the past three decades, both legal and illegal, is a search for economic opportunities, as were prior large migrations. Migration to the United States increased after the Immigration Reform Act of 1965, but is on a smaller scale than migrations of the late 19th century¹. The migration of people to Western Europe has also increased in the last several decades. The breakup of the Soviet Union accelerated the flow of Central and Eastern Europeans into Western Europe, and increased the migration that had already begun from Africa via southern Italy. For several decades, laborers from the Indian subcontinent have traveled to Southeast Asian developing countries and the Middle East. The availability of plane travel has increased such worker mobility². Just as the larger phenomenon of migration of labor is increasing in the world, the subset of the international flow of foreign students and scientists and engineers is also increasing.

International Comparison of Foreign Student Enrollment, Degrees and Stay Rates

Enrollment

The major conduit for foreign-born scientists and engineers to the United States is through enrollment in advanced S&E degree programs³. The flow of foreign students into graduate science and engineering departments in the United States (and other major industrialized countries) is increasing, despite a temporary decline in foreign graduate student enrollment in the United States from 1994 through 1996⁴. (See Appendix figure 1.).

¹ From 1880 to 1920, immigrants entering the United States represented an annual rate of 10 immigrants per 1,000 of the U.S. population. Since 1992, the annual rate of U.S. immigration has been 2-3 immigrants per 1,000 of the U.S. population (*Statistical Yearbook*, 2000).

² New air routes fly jumbo jets directly between South India and Kuwait; most of the skilled labor in Kuwait travels from India.

³ Almost 68 percent of the foreign-born scientists and engineers conducting research in the United States in 1993 attended a U.S. university (SESTAT, 1993).

⁴ The decline in foreign students in the United States from 1993 to 1996 is partly explained by fewer Chinese students coming to the United States during the few years after Tiananmen Square and the Chinese Student Protection Act. Chinese student enrollment in U.S. S&E graduate programs declined from 28,823 in 1993 to 24,871 in 1995 and then continued to increase in subsequent years. However, the number of graduate S&E students from India, South Korea, and Taiwan, also declined in various years in the 1990s because of expanded opportunities for graduate education within their own countries or regional economies.

Some of the factors that have fostered this flow to advanced countries are an increasing focus on academic research and declining college-age populations. The recruitment of foreign S&E graduate students to maintain and strengthen academic R&D efforts is considered to be of increasing importance to innovation. The policies of the European Union (EU) to foster comparable degrees and transferable credits also augment the inter-European mobility of students and faculty (NSB, 2002).

United States

The U.S. Survey of Graduate Students and Postdoctorates in Science and Engineering shows that more than 120,000 foreign students were enrolled in U.S. S&E graduate programs in 2000. Foreign graduate students represent a significant proportion of total graduate students in engineering (45 percent), mathematics (39 percent) and computer science (46 percent) (NSF 2002). Except for Canada, the 10 top countries of origin of foreign students to the United States are in the Asian region. Trends in enrollment from particular Asian countries and economies show a decline through most of the 1990s for students from Taiwan, a leveling off of students from South Korea, and an increasing number of students from China and India, after a temporary drop (NSB, 2002).

United Kingdom

The United Kingdom (U.K.) has traditionally educated numerous foreign students, many of whom have come from Britain's former colonies in Asia and North America (particularly India, Malaysia, and Canada). U.K. universities increased enrollment of foreign students within their graduate S&E departments from 28,848 in 1995 to 36,631 in 1999, raising the overall percentage of foreign S&E students at the graduate level from 28.9 to 31.5. Percentages in some S&E fields are higher: 37.6 percent in engineering and 40 percent in social and behavioral sciences (NSB, 2002).

With recent EU policies fostering mobility, U.K. universities are receiving more students from within EU countries. By 1999, the number of foreign graduate students from other EU countries was three times higher than the number of foreign students from Britain's former colonies (Malaysia, Hong Kong and India). Graduate students from EU countries represent approximately 7 percent of the graduate students in sciences in U.K. universities and approximately 11 percent of the graduate engineering students. Chinese students, who represent about one-third of foreign S&E graduate students at universities in the United States, make up only 4 percent of S&E graduate students at U.K. universities. After Greece, German students account for the highest number of foreign graduate students at U.K. universities (NSB, 2002).

France

Foreign students also are attracted to France for graduate programs in S&E fields. French universities have a long tradition of educating foreign students and have a broad base of countries of origin of foreign doctoral students (more than 150), primarily developing countries in Africa, Latin America, and Asia. Approximately 15 percent of the foreign students in French doctoral programs come from neighboring European countries. In 1998, most of the 17,000 foreign doctoral students who entered French universities enrolled in S&E fields. Foreign students enrolled in S&E doctoral programs represent about 26 percent of S&E doctoral enrollment, somewhat smaller than the proportion of foreign students in U.S. graduate enrollment (NSB, 2002).

Japan and Germany

Japan and Germany also are attempting to bolster their enrollment of foreign students in S&E fields. Japan's goal of 100,000 foreign students, first promulgated in the early 1980s, has never been met but is once again being discussed as a serious target. In 1999, 55,000 foreign students enrolled in Japanese universities, mainly at the undergraduate level (34,000) and concentrated in social sciences (13,000) and engineering (3,000). In that year, about 22,000

foreign students enrolled in graduate programs in Japan, mainly from China and South Korea, representing 10 percent of the graduate students in S&E fields. Germany is also recruiting foreign students from India and China to fill its research universities, particularly in engineering and computer sciences (NSB, 2002).

Doctoral Degrees Earned by Foreign Students

In the past decade, a significant number of foreign students have entered advanced industrial countries to earn S&E doctoral degrees. In the United States, the number of such degrees earned by foreign students increased much faster (7.8 percent annually) than the number earned by U.S. citizens (2 percent annually). The number of foreign students earning doctoral degrees in S&E increased from 5,000 in 1986 to almost 11,000 in the peak year of 1996, with declines in succeeding years and an upturn in 2000⁵. (See Appendix figure 2.) During the 1986-2000 period, foreign students earned approximately 128,600 doctoral degrees in S&E fields from U.S. universities. China is the top country of origin of these foreign students; more than 26,000 Chinese earned S&E doctoral degrees at universities in the United States during this period (NSF/SRS, 2001).

Like the United States, the United Kingdom and France have a large percentage of foreign students in their S&E doctoral programs. In 1999, foreign students earned 44 percent of the doctoral engineering degrees awarded by U.K. universities, 30 percent of those awarded by French universities, and 49 percent of those awarded by universities in the United States. In that same year, foreign students earned more than 31 percent of the doctoral degrees awarded in mathematics/computer sciences in France, 38 percent of those awarded in the United Kingdom, and 47 percent of those awarded in the United States (NSB, 2002). In addition, Japan and Germany have a modest but growing percentage of foreign students among their S&E doctoral degree recipients.

The major providers of doctoral S&E education in the world, the United States, the United Kingdom, and France, serve different countries and regions. In 1999, Germany was the top country of origin of foreign S&E doctoral degree recipients in the United Kingdom; China was the top country of origin of foreign students earning S&E doctoral degrees in the United States; and Algeria was the top country of origin of foreign students studying for S&E doctoral degrees in France (NSB, 2002).

Stay Rates

Historically, around half of the foreign students who earned S&E degrees at universities in the United States reported that they planned to stay in the United States, and a smaller proportion had firm offers to do so. In 1990, for example, 45 percent of all foreign S&E doctoral degree recipients planned to remain in the United States after completing their degree, and 32 percent had received firm offers (NSB, 1998). With the declining number of foreign doctoral recipients in the United States (See Appendix figure 2) and increasing employment opportunities of the late 1990s, however, these percentages increased significantly. By 1999, more than 72 percent of foreign doctoral recipients in S&E fields planned to stay in the United States, and 50 percent accepted firm offers to do so (NSB, 2002). These firm offers were mainly for postdoctorate appointments and industrial employment in research and development (R&D) (NSB, 1998).

Foreign doctoral students' plans to stay in the United States differ by region of origin. Those from East and South Asia receive the highest number of doctoral degrees by far and constitute the highest percentage of students who plan to stay in the United States. Countries within regions also differ significantly. In Asia, China and India have higher-than-average firm stay rates in the United States, and South Korea and Taiwan have lower-than-average firm stay rates. In North America, Mexico has a far lower stay rate than Canada. The United Kingdom has the highest stay rate among European countries; in 1999, 79 percent planned to stay in the

⁵ Numbers include students on both temporary and permanent visas but not naturalized citizens.

United States after earning their doctorate in S&E fields, and 62 percent had firm offers to do so (NSB, 2002).

Recently, the Social Science Research Council surveyed the rates of return of African Ph.D. recipients trained in U.S. and Canadian universities between 1986 and 1996. The survey found that 63 percent of these recipients were employed in their home country or a neighboring African country by 1999⁶. The factors that correlated with returning home were the home country of the degree holder, field of study, and type of funding for graduate study. Economic opportunities, political stability, and institutional conditions for establishing a professional career correlated with high return rates. The fields of agricultural and biological sciences, which receive high funding priorities in some African countries, also correlated with high return rates (NSB, 2002).

Data somewhat similar to “plans to stay” in the annual Survey of Earned Doctorates (SED) are available on the first destination of foreign doctoral students in the United Kingdom and France after earning their degree. Data from the U.K. Higher Education Statistics Agency show that, in 1998, most foreign S&E doctoral degree recipients at U.K. universities returned home after earning their degree. All doctoral recipients from Malaysia and Turkey at U.K. universities returned to their home country. Ireland is the only exception, with 45 percent of doctoral recipients returning to Ireland as their first destination after receiving their degree (NSB, 2002).

Doctoral survey data from the French Ministry of Education, Research, and Technology show that the return rate for foreign S&E doctoral recipients is lower in France than in the United Kingdom. Data are not available on the return rates of French foreign doctoral recipients by countries of origin, but return rates are available by S&E field of study. In 1998, the overall return rate of foreign doctoral recipients from France to their countries of origin was 28 percent in natural sciences and 20 percent in engineering fields (NSB, 2002).

Foreign Born Scientists and Engineers in the U.S. Labor Force

The international flow of scientific personnel is an integral component of the modern world's creation and diffusion of knowledge and much research is attempting to quantify this flow and determine its significance. Some recent research has shown that foreign-born scientists and engineers make exceptional contributions to U.S. science in several areas, including membership in S&E academies, publication of highly cited research, and the founding of innovative companies (Stephan and Levin, 1999). Compared to their presence in the U.S. S&E labor force, foreign-born scientists and engineers are disproportionately represented in the National Academy of Sciences and the National Academy of Engineering. Foreign-born scientists and engineers are among the most highly cited authors in their fields and the founders/chairs of biotechnology firms (NSF/SRS, 2001).

Data presented in this section provide minimum estimates of foreign-born scientists and engineers in the United States based on the National Science Foundation's, Scientists and Engineers Statistical Data System (SESTAT), for 1993, 1995, 1997 and 1999. After 1993, these SESTAT data include only foreign-born individuals with a degree from the United States, and do not reflect the results of the rising immigration into the United States during the 1990s.

These data include several characteristics of foreign-born science and engineering degree holders in the United States, including their level of education, field of study, field of occupation, sector of employment, citizenship status, and whether research is their primary work activity. Text tables and figures provide overall trends of foreign-born scientists and engineers residing in the United States in the 1990s. See Appendix tables A-1 to 6 for these characteristics of foreign-born scientists and engineers in the United States by individual

⁶ SED shows that 64 percent of African doctoral recipients planned to stay in the United States; however, because many were in biological sciences, they may have stayed for a postdoctorate for a few years and then returned to Africa. SSRC findings are relatively consistent with Finn's research on stay rates several years after Ph.D. attainment (Finn, 1999). Finn's work shows that about 44 percent of African doctoral recipients were working in the United States several years after receiving their Ph.D.

country of origin, listed alphabetically. A second set of Appendix tables (B-1 to 6) sorts these countries by region.

Level of Education

Foreign-born S&E degree holders⁷ residing in the United States are concentrated at the highest levels of educational qualifications. In 1999, they represented around 26 percent of the total doctoral degree holders in the United States, 15 percent of the total master's degree holders and nearly 11 percent of the total bachelor's degree holders. The percentages in the 1999 survey are very likely an underestimation⁸. These percentages remained relatively stable during the 1990s. (See Appendix text table 1.)

If one considers only individuals with their highest degree in S&E fields, over the decade of the 1990s, the number of foreign born S&E degree holders at the doctoral level reached over 190,000, and at the master's level, over 360,000. (See Appendix text table 1a and figure 3.)

Among the foreign-born S&E degree holders in the United States, the majority (65 percent at all levels, and 69 percent at the doctoral level) are from Asia and Western Europe. (See Appendix text table 2.) The 10 top countries of origin of foreign-born S&E degree holders at the doctoral level include China, India, the United Kingdom, Taiwan, Canada, Germany, Iran, countries of the former Soviet Union (FSU), Korea and the Philippines. China and India alone make up 35 percent of the foreign-born S&E doctoral degree holders in the United States. (See Appendix text table 3.)

Field of Study

Foreign-born degree holders residing in the United States are more likely than native-born to hold their degrees in engineering, math and computer sciences and physical sciences. In 1999, over 30 percent of foreign-born degree holders held their degrees in engineering, compared to 17 percent of native-born degree holders. In contrast, native-born degree holders are more likely than foreign-born to hold their degrees in the social and behavioral sciences. (See Appendix text table 4.) But the reader is reminded that the SESTAT data after 1993 include only foreign-born individuals with a degree from the United States.

Throughout the 1990s, foreign-born degree holders in engineering in the United States increased from 420,000 to almost 470,000. In this same time period, foreign-born degree holders in mathematics and computer sciences increased from 166,000 to over 200,000, and foreign-born degree holders in the physical sciences increased between 121,000 and 127,000. (See Appendix figure 4.) In 1999, these foreign-born residents represented 20 percent of the total engineering degree holders, 17 percent of the total mathematics and computer science degree holders, and 16 percent of the total degree holders in the physical sciences. These percentages were relatively stable over the 1990s. (See text Appendix table 4.)

Field of Occupation

In 1999, foreign-born S&E degree holders made up less than 13 percent of the total number of S&E degree holders employed in the United States. However, the foreign-born are more concentrated than the native-born in engineering, mathematics and computer science occupations. In 1999, 34 percent of the foreign-born S&E degree-holders residing in the United

⁷ These data include residents who hold a degree in science or engineering at any level; a resident's highest degree may be in a non-science and engineering field, e.g., an undergraduate engineering degree and a master's degree in business administration (MBA).

⁸ Because NSF's demographic data collection system is unable to refresh its sample of those with S&E degrees from foreign institutions (as opposed to foreign-born individuals with a new U.S. degree, who are sampled) more than once per decade, counts of foreign-born scientists and engineers are likely to be underestimates. Foreign-degreed scientists and engineers are included in the 1999 estimates only to the extent that they were in the United States in April 1990. In 1993, 34.1 percent of foreign-born doctorate recipients in S&E and 49.1 percent of foreign-born bachelor's recipients in S&E had acquired their degrees from foreign schools.

States were employed in these occupations combined; 20 percent of native-born S&E degree-holders were employed in these occupations combined. (See Appendix text table 5.)

By 1999, over 246,000 foreign-born S&E degree holders were employed as engineers in the United States, and 211,000 were employed as mathematicians and computer scientists, (see Appendix figure 5), contributing around 20 percent of the labor force in these occupations in the United States. (See Appendix text table 5.) The Asian region provided over half of the foreign-born scientists and engineers in these occupations. (See Appendix text table 6.)

The top country of origin of foreign-born scientists and engineers in the United States differs by occupation group. China is the top country of origin of foreign-born S&Es employed in physical and life science occupations, while India leads in engineering, mathematics, and computer science occupations. Germany is the top country of origin of foreign-born employed in social science occupations, and India and the Philippines are the leading countries of origin in non science and engineering occupations⁹. (See Appendix text table 7.)

Sector of Employment

U.S. industry employs over two-thirds of all S&E degree holders in the United States, and an even higher proportion of foreign-born S&E degree holders. In 1999, U.S. industry accounted for over 71 percent of the employment of foreign-born scientists and engineers in the United States. In that same year, the education sector employed 18 percent of foreign-born scientists and engineers, and the government sector 11 percent. These percentages of employment by sector were relatively stable over the decade. (See Appendix text table 8.)

Foreign-born scientists and engineers contribute significantly to U.S. scientific personnel, particularly in industry and higher education. By 1999, the foreign-born contributed an additional 959,000 scientists and engineers to the U.S. industrial labor force, representing 13 percent of the total science and engineering industrial labor force. (See Appendix figure 6.)

The top countries of origin of foreign-born scientists and engineers employed in U.S. industry, education and government are mainly from the Asian and Western European regions (see Appendix text table 9), with some differences in rank-ordering of countries across these three sectors of employment. (See Appendix text table 10.)

Within the education sector, foreign-born scientists and engineers are less than 13 percent of the total scientists and engineers (See Appendix text table 7), but they are concentrated in faculties of engineering, mathematics and computer sciences and the physical sciences. Data reported elsewhere from SESTAT 1997 showed that among scientists and engineers whose primary job was teaching at four-year colleges and universities in the United States, 36 percent of the engineering faculty were foreign-born, 26 percent of the mathematics and computer sciences faculty were foreign-born, and 20 percent of the faculty in the physical sciences were foreign-born. These faculties are mainly from Asia and Europe. (See Appendix text table 11.)

The largest number of foreign-born faculty is from India and China. (See Appendix text table 12.) While expatriate scientists and engineers from any one country represent a small percentage of overall S&E faculty (see appendix text table 13), they have an opportunity for networking with home-country institutions. S&E departments within U.S. universities which are headed by foreign-born scientists and engineers can readily arrange memoranda of understanding for exchange of students and faculty with their home institutions. For example, the Materials Science Department of Northwestern University, headed by an alumnus of IIT Bombay, has arranged for the exchange of students and faculty from IIT Bombay with his department (M. G. K. Menon, 2002).

Citizenship Status

The majority of foreign-born science and engineer degree holders in the United States become naturalized U.S. citizens. In 1999, 73 percent of foreign-born S&E degree holders held

⁹ In NSF's SESTAT data, non-S&E occupations include health fields e.g., medical doctors and nurses.

U.S. citizenship. Another 21 percent had permanent visa status, and 6.5 percent held temporary visas. (See Appendix text table 14.)

Trends in the 1990s show an increasing number of foreign-born science and engineering degree holders with U.S. citizenship residing in the United States, from 850,000 in 1993 to over 1.1 million in 1999. (See Appendix figure 7.) Throughout the decade, between 75,000 and 100,000 foreign-born S&E degree holders residing in the United States held temporary visas, representing a small minority of the total foreign-born degree holders, between 4 and 8 percent. (See Appendix text table 14.)

R&D as Primary Work Activity

Foreign-born scientists and engineers contribute significantly to U.S. research and development (R&D) personnel. In 1999, foreign-born science and engineering degree holders residing in the United States represented 18 percent of those conducting R&D as their primary activity, down from 22 percent in 1997. (See Appendix text table 15.) Figure 8 shows that in the 1990s, between 450,000 and 600,000 foreign-born scientists and engineers were primarily conducting research, with the largest concentration of foreign-born R&D personnel employed in the United States in 1997.

Reverse Flow of S&E Knowledge

Foreign-born scientists and engineers who remain abroad represent a potential “brain drain” from their country of origin, but they also have an opportunity to gain enhanced research experience before returning home. Reverse flow back home is increasing for countries with increasing S&E employment in higher education and research institutes. Little is known about the broader diffusion of S&E knowledge by foreign-born scientists and engineers who remain abroad, through activities such as cooperative research, short-term visits, and networking with scientists in their home countries.

Systematic data are not available on the contributions that returning Ph.D.-holding scientists and engineers make to the science and technology (S&T) infrastructure of their home countries. Evidence suggests that they fill prominent positions in universities and research institutes. For example, college catalogs of universities in developing countries show the location of the doctoral education of science and engineering (S&E) faculty. Senior academic staff and directors of research centers typically receive their doctoral education from research universities in the United States, the United Kingdom, or France¹⁰. The following are four broad categories of reverse flow that contribute to the circulation of S&T knowledge. Location and duration distinguish them. The first two categories relate to actually moving back home for permanent or temporary positions. The last two categories relate to short and long-term activities conducted with the home country while employed abroad.

Employment Offers to Scientists and Engineers Trained Abroad

Taiwan and South Korea have been the places most able to immediately absorb Ph.D.-holding scientists and engineers trained abroad who can contribute through teaching and research in universities and research parks (NSB, 1998). Research and development (R&D) centers of foreign businesses in these countries also employ returning scientists and engineers, e.g., Motorola Korea Software Research Center and the South Korea International Business Machines (IBM) Tivoli Software Development Center. Microsoft, Hewlett-Packard, and IBM are also establishing multinational R&D centers in China. A relatively small percentage of South Korean and Taiwanese doctoral recipients from universities in the United States plan to stay in the United States. Many of those who remain in the United States to pursue academic or industrial research experience eventually return to their home country.

¹⁰ See, for example, the international academic credentials of the S&E faculty in recent college catalog of Bilkent University, Ankara, Turkey, and Hong Kong University of Science and Technology.

In contrast, China and India can offer S&T employment to only a small fraction of their students who earn advanced degrees in S&E fields at universities in the United States. Most of these students remain in the United States, initially for postdoctoral research and then for research in industry (NSB, 1998). Those who do return later are usually recruited for a national research priority; for example, the recently established Brain Research Center in New Delhi hired top Indian scientists from home and abroad. The human genome center at the Chinese Academy of Science's Institute of Genetics in China attracted top young Chinese microbiologists and geneticists for 20 research groups formed in Beijing and Shanghai to sequence part of the human genome. More programs are being created in China to attract outstanding scientists and engineers to top faculty positions and to lead research programs in their disciplines (NSB, 2002).

Besides immediate or delayed returns, reverse flow to a home country sometimes occurs after a long, distinguished scientific career abroad. Incidents of prominent scientists returning to their countries are noted in science journals. For example, Yuan T. Lee earned a doctorate in chemistry at the University of California–Berkeley, headed a top laboratory, and eventually earned a Nobel Prize for his research. Many years later, he returned home to head Taiwan's *Academia Sinica*, a collection of 21 research institutes.

Temporary Positions for Scientists and Engineers Trained or Working Abroad

Besides various permanent positions, reverse flow can be the result of an offer for an attractive temporary S&E position or for access to high-technology parks with desirable conditions. For example, the government of Ireland's Science and Technology Agency (FORFAS) is funding basic science with five-year grants that are attempting to draw Irish scientists and engineers back to establish laboratories in Irish universities. (Previously educated in Ireland, the graduates left for employment in the United Kingdom or the United States.) Although not offered permanent positions, they have funding to lead a research area for five years¹¹. A different type of temporary arrangement is China and Taiwan's use of preferential status (no taxes for two to three years) for those who will try to start up a company within an industrial park. Another example of a temporary position is transferring to an R&D position within a multinational firm operating in the home country or accepting a two- to three-year appointment in the home country while maintaining ties in the United States. For example, in 2001, Hong Kong University of Science and Technology hired Dr. Paul Chu of the University of Houston as its new president for a three-year appointment, but he maintains his laboratory on High Temperature Superconductivity in Houston (NSB, 2002).

Long-Term Collaborative Research Arrangements

Some scientists remain abroad but establish and maintain a long-term relationship with researchers in their home country through periodic visits, international conferences and workshops, short courses and workshops at their home institutions, and collaborative research. For example, Samuel Ting, Nobel laureate in physics, Professor at the Massachusetts Institute of Technology (MIT), and member of Taiwan's *Academia Sinica*, encourages collaboration of teams of scientists in 16 countries and Taiwan. As chairman of the Alpha Magnetic Spectrometer (AMS) research program under the Department of Energy and National Aeronautics and Space Administration (NASA), Ting established international collaboration with Taiwanese researchers to manufacture all AMS electronics. In addition, U.S. cooperative science programs with China and India funded by the National Science Foundation often provide grants to Chinese and Indian scientists in the United States collaborating with a home-country scientist (NSB, 2002)¹².

¹¹ Personal communication with Rhona Dempsey, Manager, S&E Indicators, Science & Technology Division, The National Policy and Advisory Board for Enterprise, Trade, Science, Technology and Innovation (FORFAS), NSF, Arlington, VA, March, 2001.

¹² See abstracts of awards for grants and workshops with China and India at the NSF website: <http://www.nsf.gov>.

Intermittent Networking

Another mechanism for scientific information flow is networking of scientists abroad with scientists in their home country. Because of economic and political crises, several Latin American countries have lost scientists and engineers to other countries in the region or outside Latin America. Colombia was the first to attempt to link to these “lost” scientists and engineers working abroad and to reframe the concept from “brain drain” to “brain gain”. In the early 1990s, the Caldas program in Colombia linked all expatriate Colombian scientists to advise on scientific and economic development schemes. Approximately 40 countries have since devised such networking schemes, and others are working to implement programs (Meyer, 2001).

Some countries are able to use all types of reverse flow, absorbing their scientists and engineers in temporary or permanent positions and promoting links through international collaboration or visits.

Conclusions

The group of traditional host countries for many foreign graduate students (United States, France, and United Kingdom) is expanding to include Japan and Germany. Because mobility of people is the main mechanism for technology transfer, the flow of foreign students abroad and reverse flow of students back to their home countries provide an opportunity for S&T development. Whether S&E education abroad eventually contributes to the home country depends on its S&T policy and commitment to employing highly skilled professionals. China and many other developing countries have shown that they need not be able to offer employment to their scientists and engineers educated abroad to receive their scientific advice on development schemes or research directions. Research is needed on the appropriate mix of foreign S&E doctoral recipients who “stay abroad” and “return home” for mutual benefit to the host and sending countries. The beneficial mix of immediate and delayed returns and the variety of cooperative activities associated with reverse flow are likely to differ for individual countries, regions, and stages of development (NSB, 2002).

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APPENDIX

Figures and tables

Jean Johnson

Figures 1 to 8

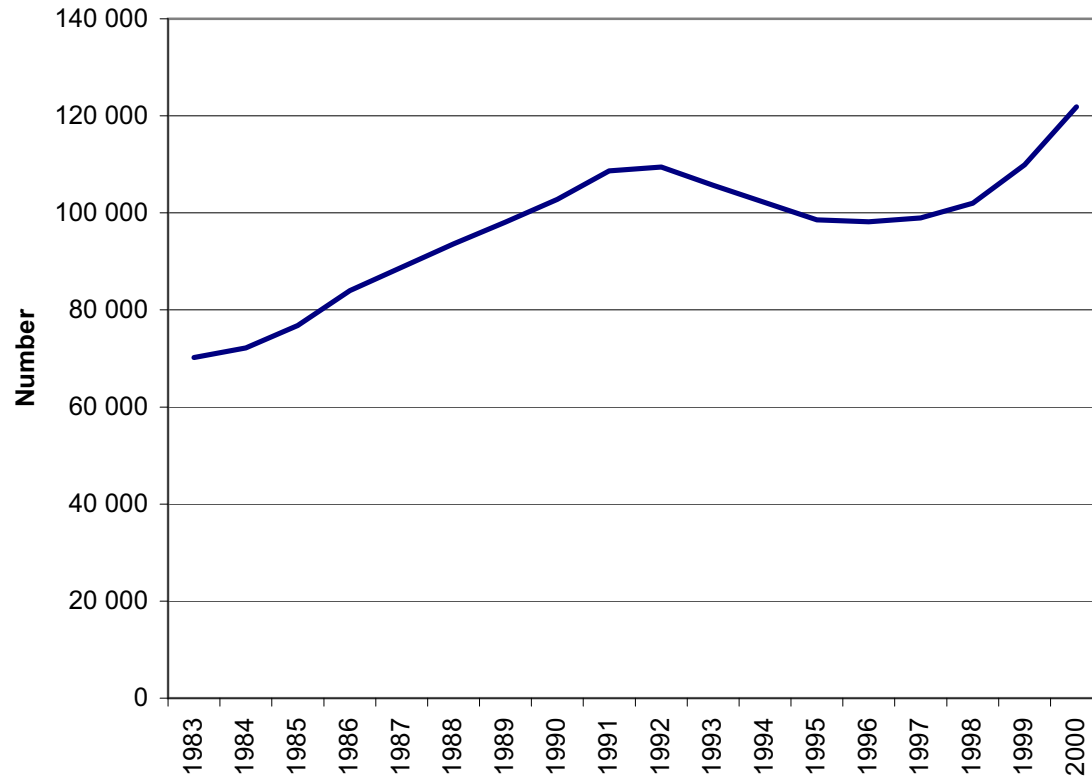
Text Table 1 to 15

Appendix table A

Appendix table B

Figure 1.

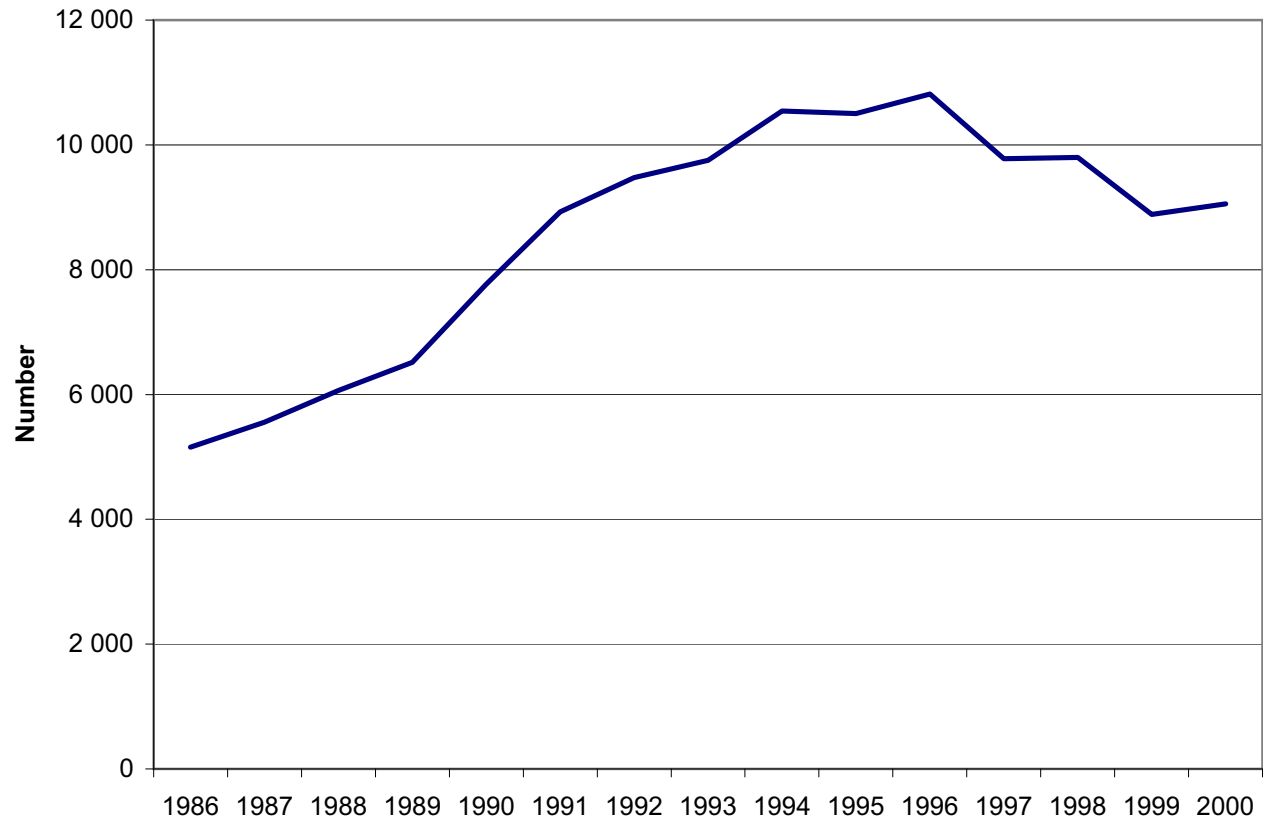
Foreign student enrollment in graduate science & engineering programs in U.S. universities



SOURCE: National Science Foundation, Division of Science Resources Statistics, *Graduate Students and Postdoctorates in Science and Engineering: Fall, 2000* .

Figure 2.

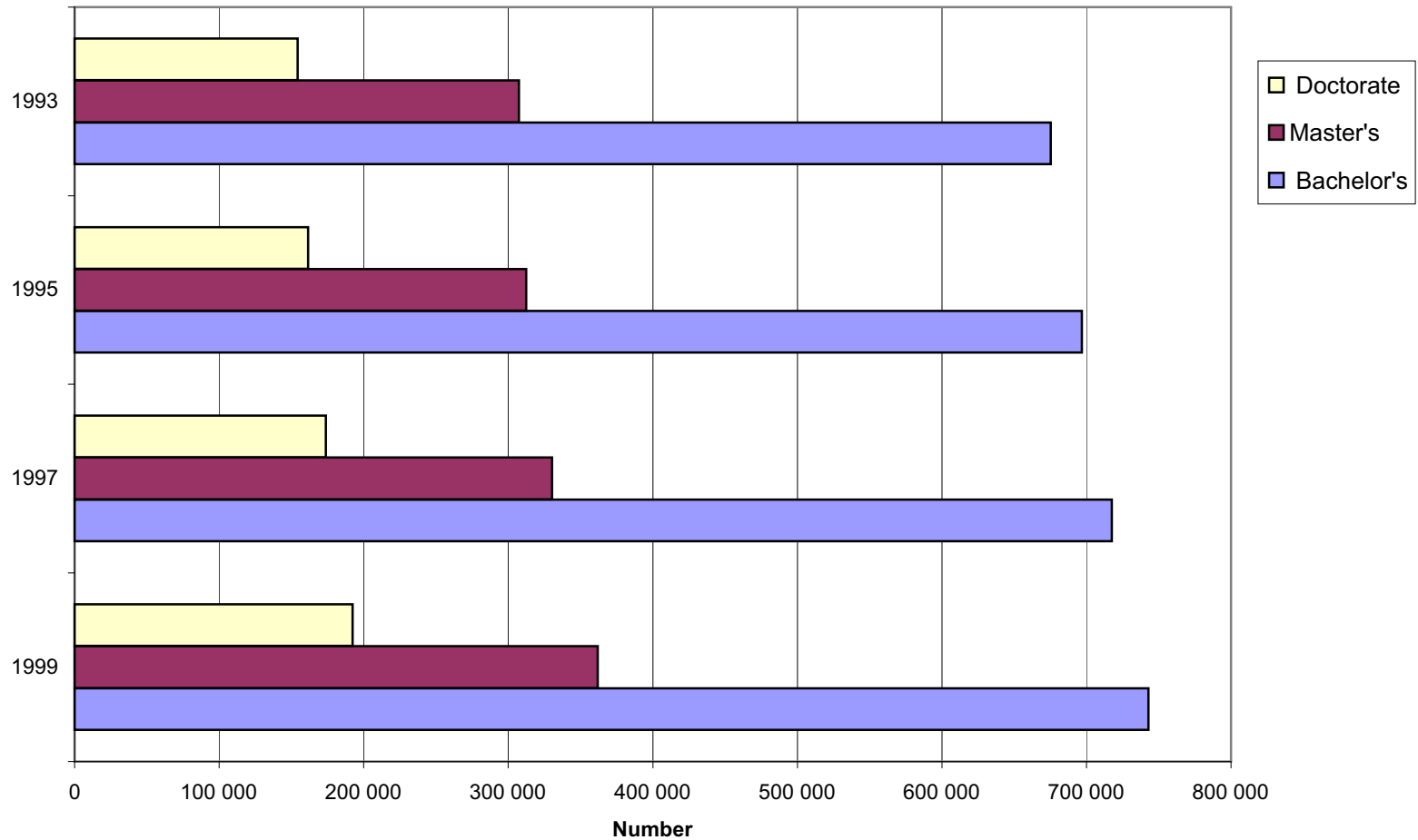
Doctoral degrees in science & engineering fields earned by foreign students in U.S. universities



SOURCE: National Science Foundation, Division of Science Resources Statistics, *Science and Engineering Doctorate Awards: 2000*, NSF 02-305. (Arlington Va, 22230).

Figure 3

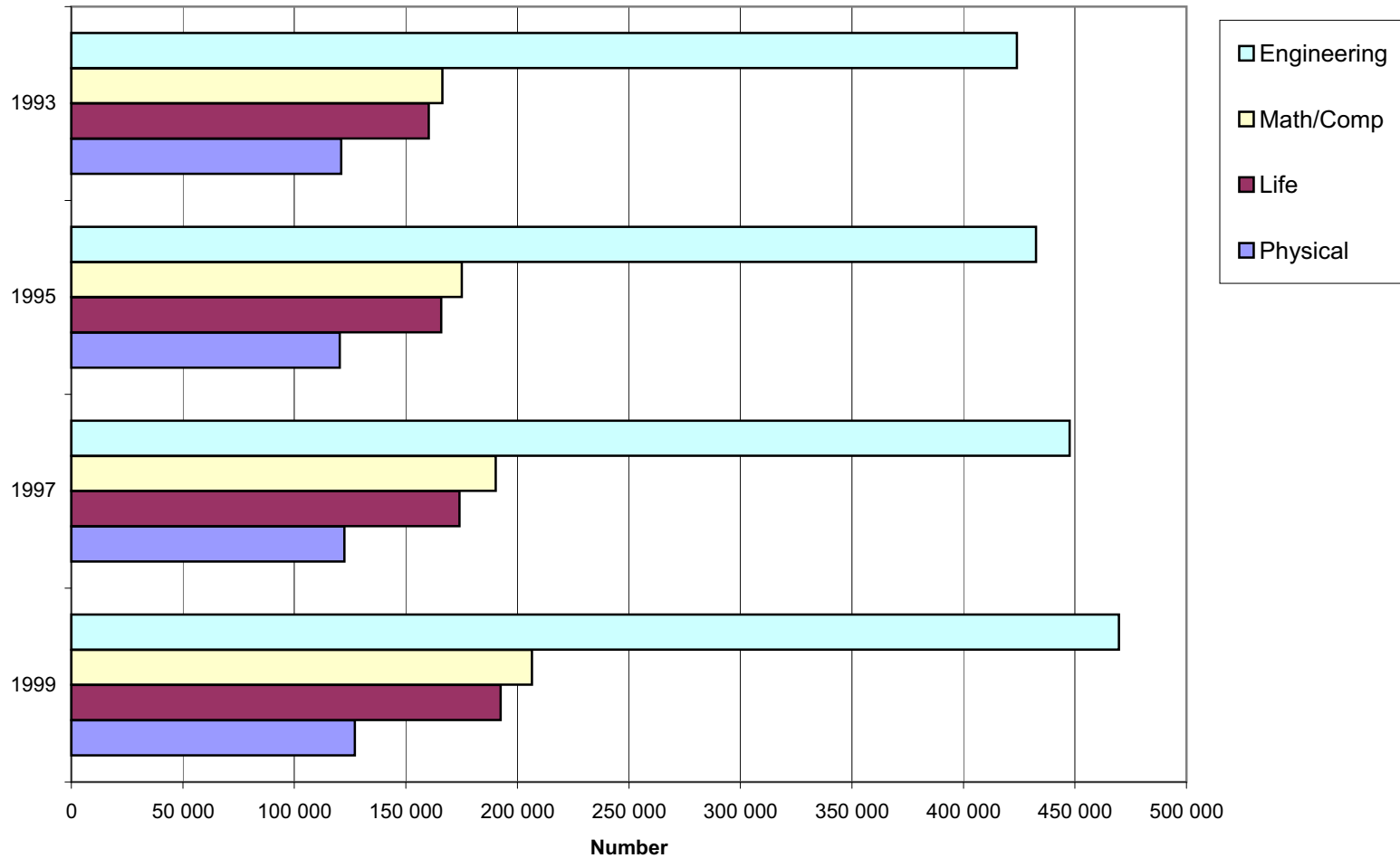
Foreign-born residents in the United States who hold an S&E degree as their highest degree, by education level: 1993-1999



SOURCE: National Science Foundation, Division of Science Resources Statistics, (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Figure 4

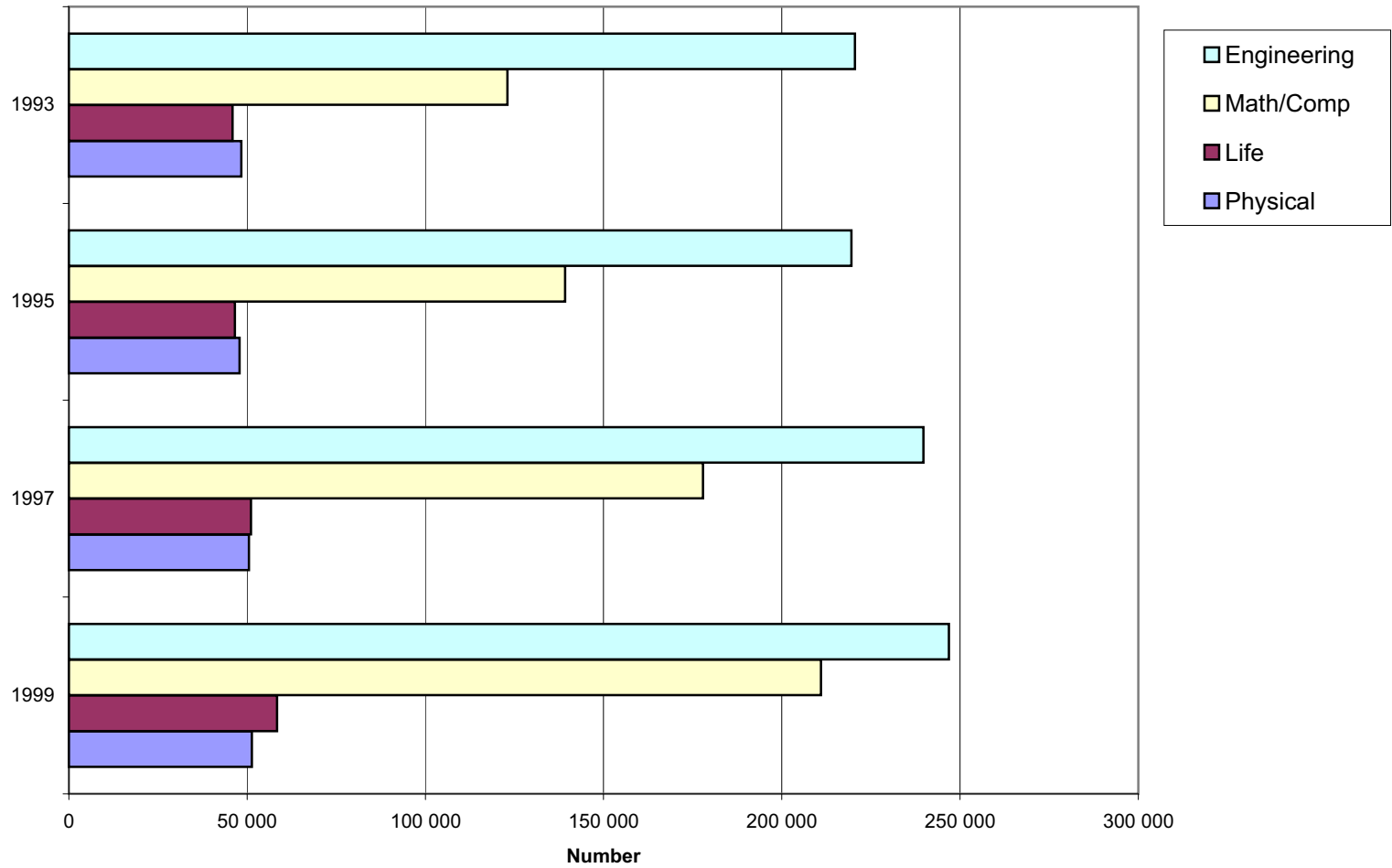
**Foreign-born S&E degree holders residing in the United States by field of highest degree:
1993-1999**



SOURCE: National Science Foundation, Division of Science Resources Statistics, (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

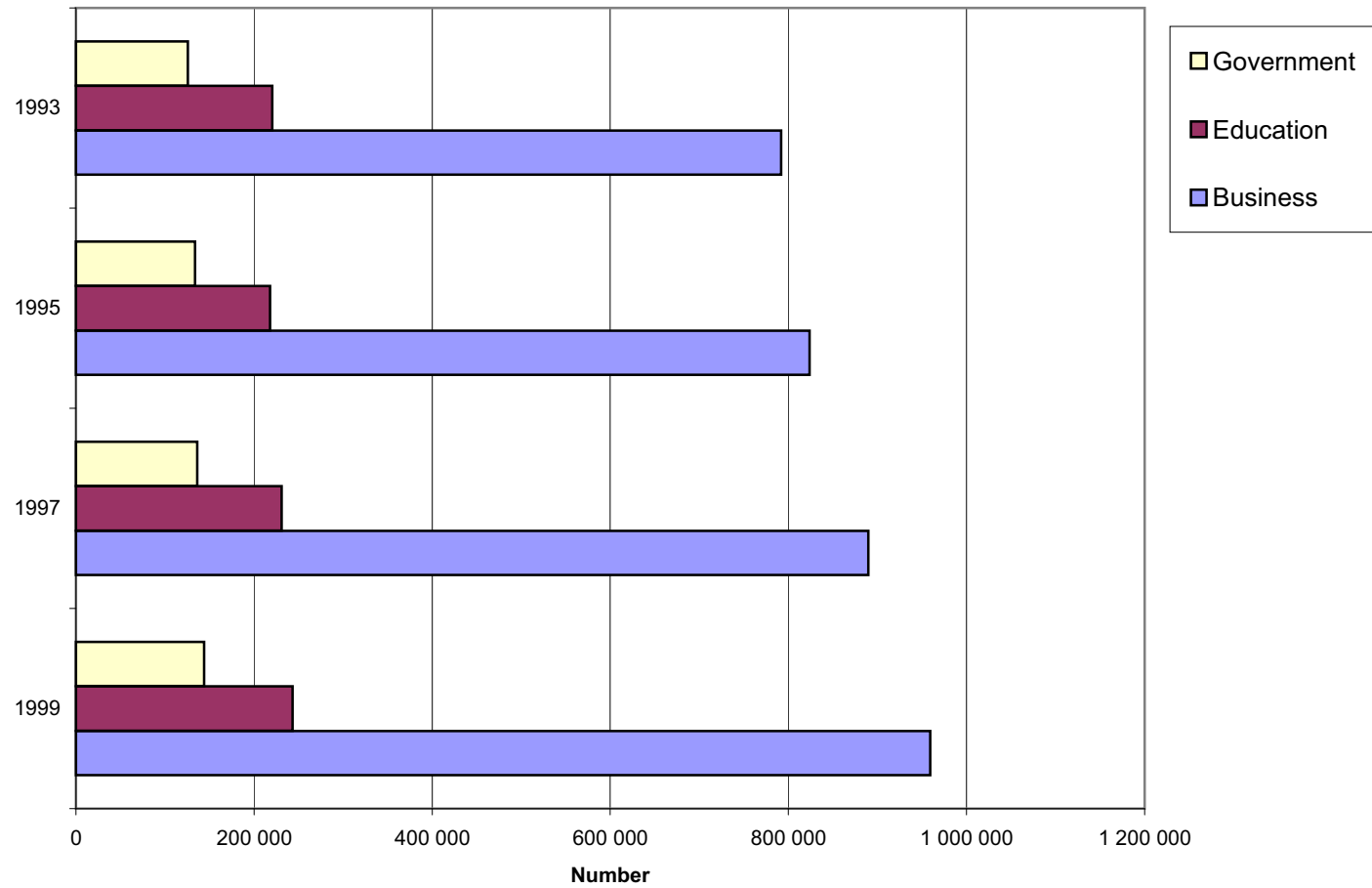
Figure 5

Foreign-born S&E degree holders by field of occupation



SOURCE: National Science Foundation, Division of Science Resources Statistics, (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

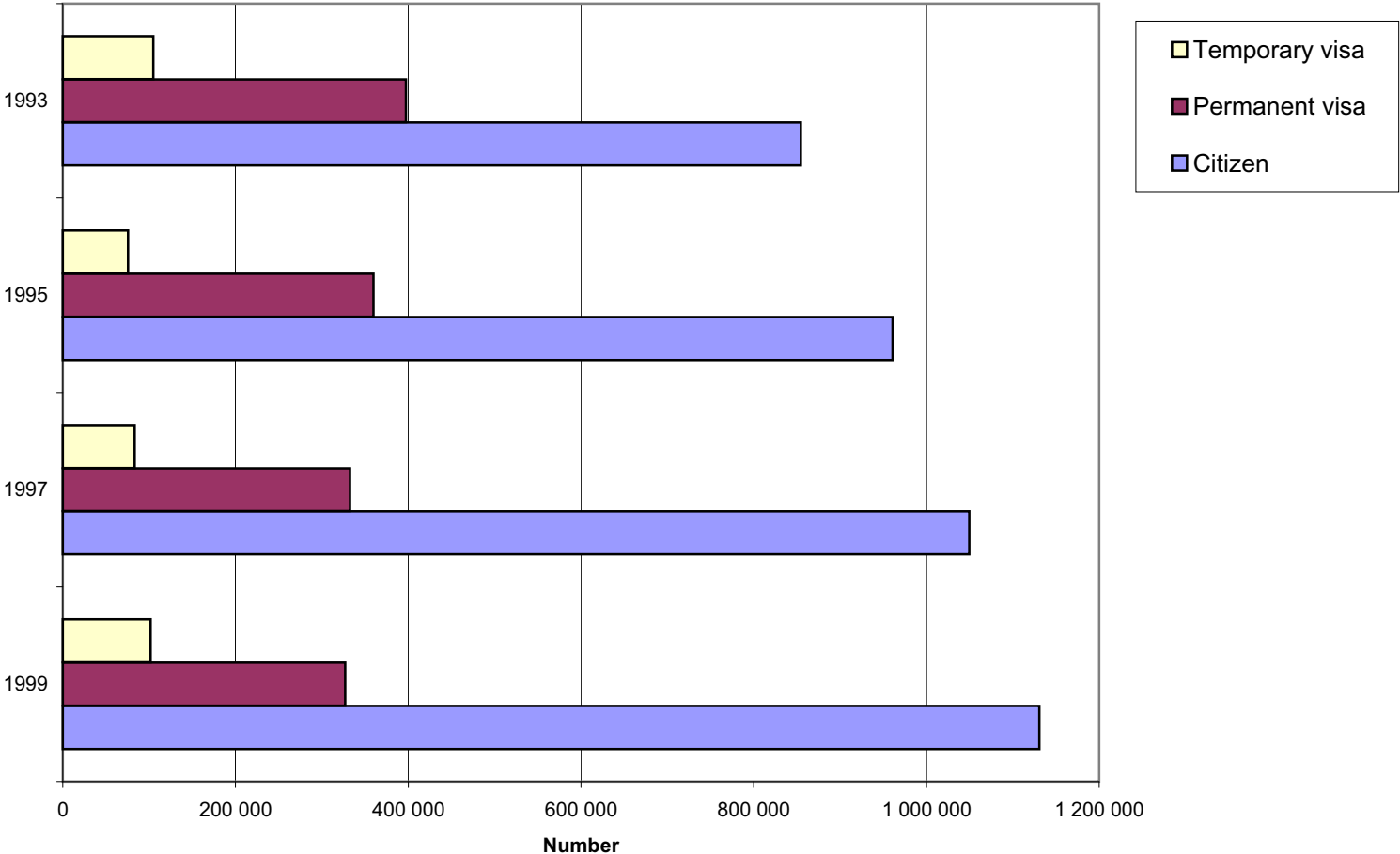
Figure 6
Foreign-born scientists and engineers in the United States by sector of employment



SOURCE: National Science Foundation, Division of Science Resources Statistics, (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Figure 7

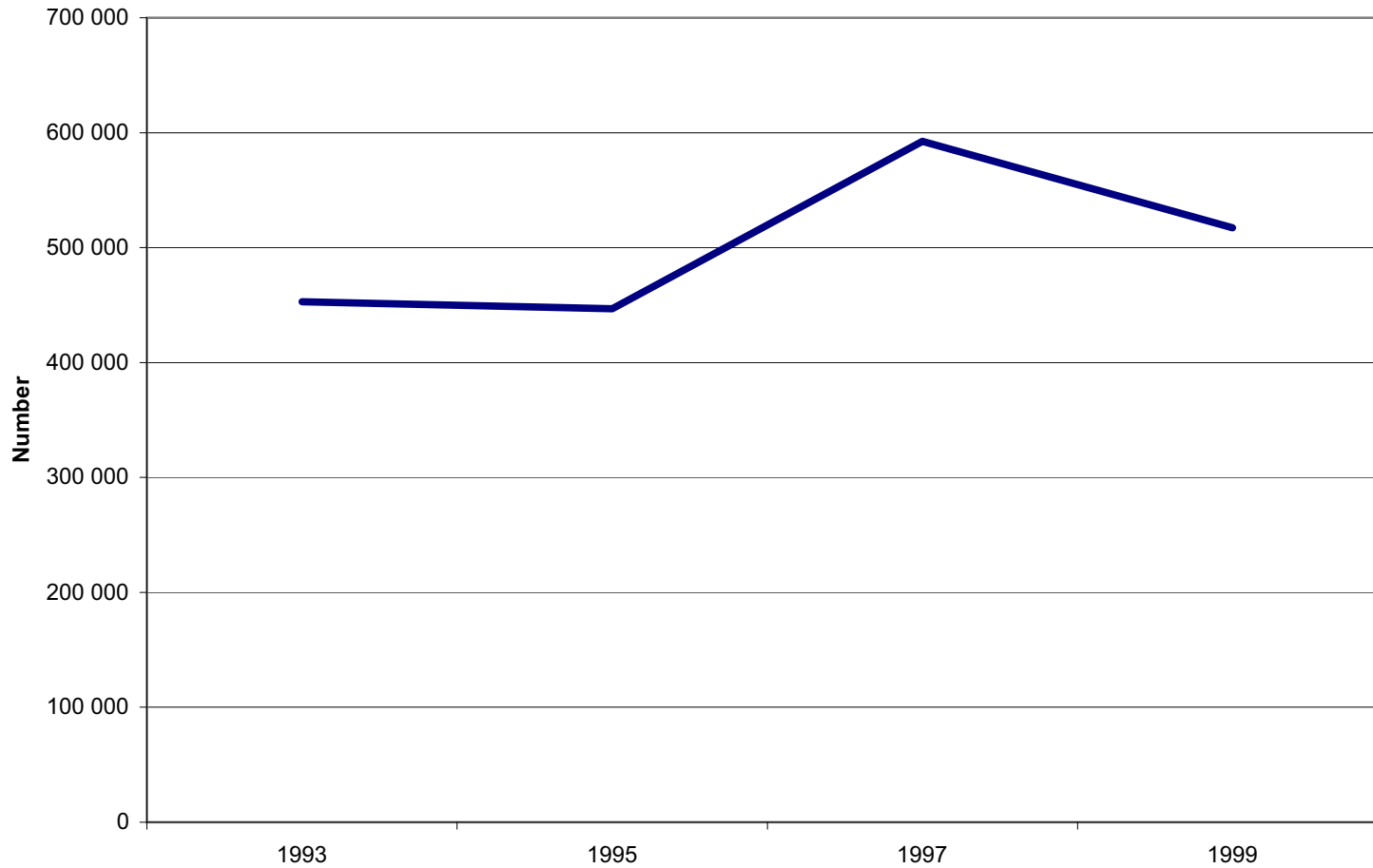
Foreign-born S&E degree holders residing in the United States by citizenship status



SOURCE: National Science Foundation, Division of Science Resources Statistics, (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Figure 8.

Foreign-born S&E degree holders in the United States who perform R&D as a primary activity: 1993-1999



SOURCE: National Science Foundation, Division of Science Resources Statistics, (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Text table 1.

Residents in the United States who Hold an S&E Degree at Any Level, by Education Level of Their Highest Degree and Place of Birth: 1993-1999

	Total	Education level of Highest Degree			
		Bachelor's	Master's	Professional degree	Doctorate
1993					
Total S&E degree holders in U.S.	11 021 400	6 529 600	2 891 600	908 400	691 800
Native-born	9 664 300	5 829 800	2 471 300	838 500	524 700
Foreign-born	1 357 100	699 800	420 300	69 900	167 100
% foreign-born	12,3	10,7	14,5	7,7	24,2
1995					
Total S&E degree holders in U.S.	11 456 600	6 811 400	3 017 500	893 800	733 900
Native-born	10 060 200	6 091 900	2 585 600	826 300	556 400
Foreign-born	1 396 000	719 300	431 700	67 500	177 500
% foreign-born	12,2	10,6	14,3	7,6	24,2
1997					
Total S&E degree holders in U.S.	11 962 000	7 055 800	3 199 100	933 000	774 100
Native-born	10 496 400	6 315 000	2 740 400	857 900	583 100
Foreign-born	1 465 200	740 500	458 600	75 100	191 000
% foreign-born	12,2	10,5	14,3	8,0	24,7
1999					
Total S&E degree holders in U.S.	12 490 100	7 278 900	3 411 200	978 000	822 000
Native-born	10 930 600	6 513 700	2 906 600	899 800	610 500
Foreign-born	1 559 500	765 200	504 600	78 200	211 500
% foreign-born	12,5	10,5	14,8	8,0	25,7

NOTES: See Appendix table 1 for foreign-born S&E degree holders residing in the United States by place of birth. Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Foreign-Born Science & Engineering Degree Holders Residing in the United States by Education Level: 1993-1999

	1993	1995	1997	1999
Bachelor's	699 800	719 300	740 500	765 200
Master's	420 300	431 700	458 600	504 600
Doctorate	167 100	177 500	191 000	211 500
Professional	69 900	67 500	75 100	78 200

Source: National Science Foundation/Division of Science Resources Statistics SESTAT file.

Text table 1a.

**Residents in the United States who Hold an S&E Degree as Their Highest Degree,
by Education Level and Place of Birth: 1993-1999**

	1993	Education level of highest degree		
		Total	Bachelor's	Master's
Total S&E degree holders in U.S.	8 571 000	6 402 200	1 571 900	589 600
Native-born	7 433 100	5 726 700	1 264 500	435 417
Foreign-born	1 137 500	675 200	307 400	154 200
% foreign-born	13,3	10,5	19,6	26,2
1995				
Total S&E degree holders in U.S.	8 923 400	6 674 700	1 618 500	620 509
Native-born	7 751 246	5 977 700	1 306 100	459 000
Foreign-born	1 171 900	696 800	312 400	161 540
% foreign-born	13,1	10,4	19,3	26,0
1997				
Total S&E degree holders in U.S.	9 272 800	6 909 400	1 699 500	654 900
Native-born	8 049 982	6 191 600	1 369 200	481 100
Foreign-born	1 222 500	717 600	330 300	173 800
% foreign-born	13,2	10,4	19,4	26,5
1999				
Total S&E degree holders in U.S.	9 614 600	7 131 300	1 775 800	698 500
Native-born	8 317 000	6 388 500	1 414 000	506 100
Foreign-born	1 297 600	742 800	361 800	192 400
% foreign-born	13,5	10,4	20,4	27,5

NOTES: See Appendix table 1a for foreign-born S&E degree holders residing in the United States by place of birth.

Data include residents who hold a science or engineering degree as their highest degree.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

	1999	1997	1995	1993
Bachelor's	742 800	717 600	696 800	675 200
Master's	361 800	330 300	312 400	307 400
Doctorate	192 400	173 800	161 540	154 200

	1993	1995	1997	1999
Bachelor's	675 200	696 800	717 584	742 800
Master's	307 400	312 400	330 281	361 800
Doctorate	154 200	161 540	173 798	192 400

Text table 2.

Foreign-born residents in the United States who hold an S&E degree as their highest degree, by education level and region of birth: 1999

	Total	Education level of highest degree		
		Bachelor's	Master's	Doctorate
Foreign-born	1 297 600	742 800	361 800	192 400
Region of birth of foreign-born				
Asia	614 900	319 800	197 100	97 400
Western Europe	218 800	133 500	49 200	35 300
North America	91 100	64 600	16 500	9 800
Middle East	90 300	49 800	27 100	13 000
Eastern Europe, including FSU	86 700	43 900	28 100	13 800
South America	69 300	46 700	14 800	7 400
Central America & Caribbean	63 500	47 100	11 400	4 400
Africa	49 800	27 300	12 800	9 000
Oceania	13 200	8 300	2 800	2 200

FSU = countries of the former Soviet Union.

NOTE: The total of all regions does not add to total foreign-born because of suppressed cells in the individual country data.

SOURCE: National Science Foundation, Division of Science Resources Studies, Scientists and Engineers Statistical Data System (SESTAT), 1999.

Text table 3.

Foreign-born S&E doctoral degree holders in the United States, by 10 top countries of origin: 1999

	S&E Doctorate
Foreign-born	192 400
Top countries	
China	37 900
India	30 100
UK	13 100
Taiwan	10 900
Canada	8 400
Germany	7 200
Iran	4 800
FSU 1/	4 600
Korea	4 500
Philippines	3 400

FSU = countries of the former Soviet Union.

NOTE: Database does not have immigrants to the United States after the 1990 Census who received their higher education in another country.

SOURCE: National Science Foundation, Division of Science Resources Studies, Scientists and Engineers Statistical Data System (SESTAT), 1999.

By education level and 10 top countries of origin: 1999

	Total	By level of highest S&E degree			
		Bachelor's	Master's	Doctorate	
Foreign-born	1 297 600	742 800	361 800	192 400	
Top countries		Top countries	Top countries	Top countries	
India	164 600	India 61 200	India 73 400	China 37 900	
China	135 300	Philippines: 58 800	China 50 400	India 30 100	
Germany	69 800	China 46 900	Taiwan 30 000	UK 13 100	
Philippines	67 000	Germany 46 700	Germany 15 700	Taiwan 10 900	
UK	65 400	UK 40 400	UK 12 000	Canada 8 400	
Taiwan	64 800	Canada 39 500	Iran 11 600	Germany 7 200	
Canada	59 400	Vietnam 38 600	Canada 11 300	Iran 4 800	
Korea	46 700	Korea 33 600	FSU 1/ 11 200	FSU 1/ 4 600	
Vietnam	44 300	Mexico 25 100	Korea 8 700	Korea 4 500	
Iran	39 900	Taiwan 23 900	Poland 7 000	Philippines: 3 400	

FSU = countries of the former Soviet Union.

NOTE: Database does not have immigrants to the United States after the 1990 Census who received their higher education in another country.

SOURCE: National Science Foundation, Division of Science Resources Studies, Scientists and Engineers Statistical Data System (SESTAT), 1999.

Text table 4.

Science & Engineering Degree Holders in the United States by Field of Highest Degree and Place of Birth: 1993-99

	Total	Field of highest degree					Non-S/E						
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering							
1993													
Total S&E degree holders in U.S.	11 021 600	760 700	1 322 600	1 046 400	3 224 600	2 216 700	2 450 600						
Native-born	9 664 500	639 700	1 162 300	880 000	2 958 700	1 792 700	2 231 100						
Foreign-born	1 357 100	121 000	160 300	166 400	265 900	424 000	219 500						
% foreign-born	12,3	15,9	12,1	15,9	8,2	19,1	9,0						
% of native-born by field of study	100,0	6,6	12,0	9,1	30,6	18,5	23,1						
% of foreign-born by field of study	100,0	8,9	11,8	12,3	19,6	31,2	16,2						
1995													
Total S&E degree holders in U.S.	11 456 500	763 100	1 392 000	1 090 400	3 422 800	2 254 900	2 533 300						
Native	10 060 200	642 800	1 226 100	915 400	3 144 600	1 822 200	2 309 100	6,4	12,2	9,1	31,3	18,1	23,0
Foreign-born total	1 395 900	120 300	165 800	175 100	278 000	432 600	224 100	8,6	11,9	12,5	19,9	31,0	16,1
% foreign-born	12,2	15,8	11,9	16,1	8,1	19,2	8,8						
% of native-born by field of study	100,0	6,4	12,2	9,1	31,3	18,1	23,0						
% of foreign-born by field of study	100,0	8,6	11,9	12,5	19,9	31,0	16,1						
1997													
Total S&E degree holders in U.S.	11 962 000	773 700	1 475 800	1 135 900	3 595 500	2 291 800	2 689 300						
Native	10 496 300	651 300	1 301 700	945 500	3 307 200	1 844 100	2 446 500	6,2	12,4	9,0	31,5	17,6	23,3
Foreign-born total	1 465 100	122 400	174 000	190 300	288 100	447 600	242 700	8,4	11,9	13,0	19,7	30,6	16,6
% foreign-born	12,2	15,8	11,8	16,8	8,0	19,5	9,0						
% of native-born by field of study	100,0	6,2	12,4	9,0	31,5	17,6	23,3						
% of foreign-born by field of study	100,0	8,4	11,9	13,0	19,7	30,6	16,6						
1999													
Total S&E degree holders in U.S.	12 489 700	777 400	1 582 900	1 185 600	3 745 200	2 323 300	2 875 300						
Native-born	10 930 400	650 300	1 390 400	979 100	3 443 600	1 853 600	2 613 400						
Foreign-born	1 559 300	127 100	192 500	206 500	301 600	469 700	261 900						
% foreign-born	12,5	16,3	12,2	17,4	8,1	20,2	9,1						
% of native-born by field of study	100,0	5,9	12,7	9,0	31,5	17,0	23,9						
% of foreign-born by field of study	100,0	8,2	12,3	13,2	19,3	30,1	16,8						

NOTE: See Appendix table 2 for foreign-born S&E degree holders residing in the United States by place of birth. Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

	1999	1997	1995	1993
Physical	127100	122400	120300	121000
Life	192500	174000	165800	160300
Math/Comp	206500	190300	175100	166400
Engineering	469700	447600	432600	424000

Text table 5.

Science and Engineering Degree Holders Employed in the United States by Occupation Group and Place of Birth: 1993-99

	Total	Occupation group					Engineering	Non-S/E					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences								
1993													
Total S&E Degree Holders employed in U.S.	9 199 800	271 000	275 400	678 100	266 200	1 219 000	6 490 100						
Native-born	8 062 200	222 600	229 500	555 100	237 000	998 500	5 819 500						
Foreign-born	1 137 600	48 400	45 900	123 000	29 200	220 500	670 600						
% foreign-born	12,4	17,9	16,7	18,1	11,0	18,1	10,3						
% native-born by occupation group	100,0	2,8	2,8	6,9	2,9	12,4	72,2						
% foreign-born by occupation group	100,0	4,3	4,0	10,8	2,6	19,4	58,9						
1995													
Total S&E Degree Holders Employed in U.S.	9 570 100	268 400	282 700	763 400	293 800	1 243 200	6 718 600						
Native	8 394 100	220 500	236 100	624 200	264 000	1 023 700	6 025 600	2,6	2,8	7,4	3,1	12,2	71,8
Foreign-born total	1 175 700	47 900	46 600	139 200	29 800	219 500	692 700	4,1	4,0	11,8	2,5	18,7	58,9
% foreign-born	12,3	17,8	16,5	18,2	10,1	17,7	10,3						
% native-born by occupation group	100,0	2,6	2,8	7,4	3,1	12,2	71,8						
% foreign-born by occupation group	100,0	4,1	4,0	11,8	2,5	18,7	58,9						
1997													
Total S&E degree holders employed in U.S.	10 057 600	280 200	302 500	883 100	328 800	1 282 800	6 980 200						
Native	8 800 400	229 700	251 400	705 200	295 300	1 043 100	6 275 700	2,6	2,9	8,0	3,4	11,9	71,3
Foreign-born total	1 256 800	50 500	51 100	177 900	33 600	239 700	704 000	4,0	4,1	14,2	2,7	19,1	56,0
% foreign-born	12,5	18,0	16,9	20,1	10,2	18,7	10,1						
% native-born by occupation group	100,0	2,6	2,9	8,0	3,4	11,9	71,3						
% foreign-born by occupation group	100,0	4,0	4,1	14,2	2,7	19,1	56,0						
1999													
Total S&E Degree Holders employed in U.S.	10 479 900	294 100	323 500	1 007 100	344 000	1 290 300	7 220 900						
Native-born	9 133 600	242 800	265 100	796 100	306 700	1 043 400	6 479 500						
Foreign-born	1 346 300	51 300	58 400	211 000	37 300	246 900	741 400						
% foreign-born	12,8	17,4	18,1	21,0	10,8	19,1	10,3						
% native-born by occupation group	100,0	2,7	2,9	8,7	3,4	11,4	70,9						
% foreign-born by occupation group	100,0	3,8	4,3	15,7	2,8	18,3	55,1						

NOTE: See Appendix table 3 for foreign-born S&E degree holders residing in the United States by place of birth.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

	1999	1997	1995	1993
Physical	51300	50500	47900	48400
Life	58 400	51 100	46 600	45900
Math/Comp	211 000	177 900	139 200	123000
Engineering	246 900	239 700	219 500	220500

Text table 6.

Foreign-born S&E degree holders employed in the United States by occupation group and region of birth: 1999

	Total	Occupation group					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
Foreign-born	1 346 300	51 300	58 400	211 000	37 300	246 900	741 400
Region of birth of foreign-born							
Asia	632 400	24 800	29 100	127 700	8 900	133 400	305 300
West Europe	225 200	9 100	11 300	25 800	9 300	29 000	135 500
Middle East	93 700	2 100	2 500	10 500	2 000	22 000	52 500
North America	91 500	2 400	3 400	9 200	3 900	12 700	59 800
South America	81 000	1 700	2 000	7 400	3 600	10 300	54 600
Eastern Europe, including FSU	76 200	4 700	2 700	12 000	1 400	16 600	38 200
Central America & Caribbean	73 800	700	1 400	5 500	1 500	8 500	51 600
Africa	55 600	1 300	2 100	5 700	2 300	9 400	33 100
Oceania	16 100	1 100	400	1 700	500	2 100	10 200

FSU = countries of the former Soviet Union.

NOTE: The total of all regions does not add to total foreign-born because of suppressed cells in the individual country data.

SOURCE: National Science Foundation, Division of Science Resources Studies, Scientists and Engineers Statistical Data System (SESTAT), 1999.

Text table 7.

Foreign-born S&E degree holders employed in the United States by 10 top countries of origin and occupation group: 1999

	Total occupations	Occupation groups					
		Foreign-born	Physical sciences		Life sciences		Math/Comp sciences
Foreign-born	1 346 300	Foreign-born	51 300		58 400		211 000
Top countries		Top countries					
India	181 500	China	9 400	China	10 300	India	41 200
China	127 700	India	5 900	India	8 700	China	33 900
Germany	69 900	UK	3 800	UK	4 600	Taiwan	18 700
UK	69 900	Germany	2 800	Taiwan	3 000	Vietnam	9 100
Philippines	69 300	Philippines	2 400	Canada	2 900	Germany	8 400
Taiwan	66 000	Canada	2 200	Germany	2 900	UK	8 100
Canada	59 100	Taiwan	1 800	Korea	2 100	FSU 1/	7 900
Korea	45 100	Poland	1 800	Italy	1 400	Korea	6 500
Vietnam	44 500	Japan	1 200	Japan	1 300	Canada	6 300
Iran	40 400	Vietnam	1 100	Vietnam	1 100	Iran	5 100
		Occupation groups					
		Social sciences		Engineering		Non-science & engineering	
		Foreign-born	37 300		246 900		741 400
		Top countries					
		Germany	3 300	India	40 000	India	82 800
		Canada	3 200	China	28 500	Philippines	50 500
		India	2 800	Taiwan	13 200	Germany	44 500
		UK	2 800	Vietnam	12 500	China	44 100
		China	1 500	Philippines	11 000	UK	41 100
		Taiwan	1 400	Iran	10 100	Canada	37 100
		Columbia	1 200	UK	9 600	Taiwan	27 900
		Greece	900	Germany	8 100	Korea	27 000
		Korea	800	Korea	7 800	Iran	23 000
		Argentina	800	Canada	7 300	Mexico	22 700

FSU = Countries of the former Soviet Union.

NOTE: Database does not have immigrants to the United States after the 1990 Census who received their higher education in another country.

SOURCE: National Science Foundation, Division of Science Resources Studies, Scientists and Engineers Statistical Data System (SESTAT), 1999.

Text table 8.

Science and Engineering Degree Holders Employed in the United States, by Sector and Place of Birth: 1993-99

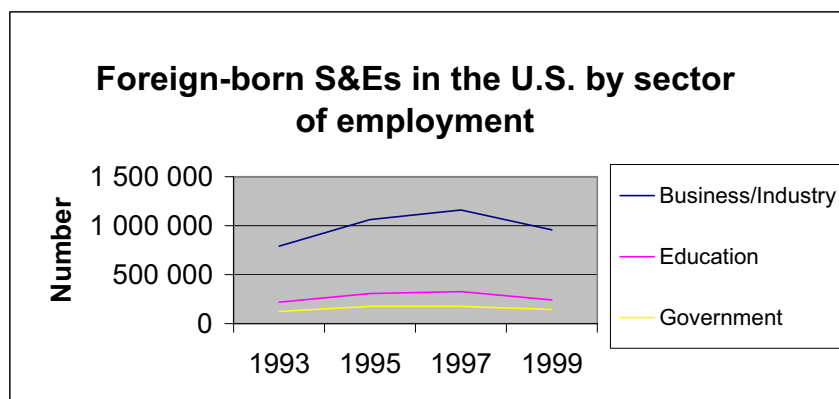
	Total	Sector		
		Business /Industry	Education	Government
1993				
Total S&E degree holders employed in U.S.	9 200 000	6 220 300	1 680 200	1 299 500
Native-born	8 062 200	5 428 500	1 459 700	1 174 000
Foreign-born	1 137 800	791 800	220 500	125 500
% foreign-born	12,4	12,7	13,1	9,7
% native-born employed in each sector	100,0	67,3	18,1	14,6
% of foreign employed in each sector	100,0	69,6	19,4	11,0
1995				
Total S&E Degree Holders Employed in U.S.	9 569 900	6 487 700	1 766 100	1 316 100
Native	8 394 000	5 663 800	1 548 000	1 182 200
Foreign-born total	1 175 700	823 800	218 100	133 800
% foreign-born	12,3	12,7	12,3	10,2
% native-born employed in each sector	100,0	67,5	18,4	14,1
% of foreign employed in each sector	100,0	70,1	18,6	11,4
1997				
Total S&E Degree Holders Employed in U.S.	10 057 500	6 863 300	1 890 500	1 303 700
Native	8 800 400	5 973 400	1 659 700	1 167 300
Foreign-born total	1 256 700	889 800	230 800	136 100
% foreign-born	12,5	13,0	12,2	10,4
% native-born employed in each sector	100,0	67,9	18,9	13,3
% of foreign employed in each sector	100,0	70,8	18,4	10,8
1999				
Total S&E degree holders employed in U.S.	10 479 800	7 176 700	1 960 400	1 342 700
Native-born	9 133 500	6 217 600	1 717 200	1 198 700
Foreign-born	1 346 300	959 100	243 200	144 000
% foreign-born	12,8	13,4	12,4	10,7
% native-born employed in each sector	100,0	68,1	18,8	13,1
% of foreign employed in each sector	100,0	71,2	18,1	10,7

NOTE: See Appendix table 4 for foreign-born S&E degree holders residing in the United States by place of birth.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

	1999	1997	1995	1993
Business	959 100	889 800	823 800	791 800
Education	243 200	230 800	218 100	220 500
Government	144 000	136 100	133 800	125 500



Text table 9.

Foreign-born S&E degree holders in the United States by sector of employment and region of birth: 1999

	Sector of employment			
	Total	Business /Industry	Education	Government
Foreign-born	1 346 300	959 100	243 200	144 000
Region of birth of foreign-born				
Asia	632 400	466 200	97 400	65 300
West Europe	225 200	156 400	46 700	20 100
Middle East	93 700	66 900	18 600	7 500
North America	91 500	66 100	16 900	8 400
South America	81 000	56 500	16 700	6 900
Eastern Europe, including FSU	76 200	55 800	14 400	5 500
Central America & Caribbean	73 800	46 000	14 500	11 300
Africa	55 600	33 700	13 000	8 600
Oceania	16 100	11 500	3 300	800

FSU = countries of the former Soviet Union

NOTE: The total of all regions does not add to total foreign-born because of suppressed cells in the individual country data.

SOURCE: National Science Foundation, Division of Science Resources Studies, Scientists and Engineers Statistical Data System (SESTAT), 1999.

Text table 10.

Foreign-born S&E degree holders employed in the United States, by 10 top countries of origin and sector of employment: 1999

	Sector of employment		
	Industry	Education	Government
Foreign-born total	959 100	243 200	144 000
10 top countries of origin		10 top countries of origin	10 top countries of origin
India	133 700	India 30 600	India 17 200
China	96 400	China 21 000	Philippines 12 500
Taiwan	51 300	UK 14 200	China 10 300
UK	50 600	Germany 10 800	Germany 9 100
Germany	50 000	Canada 10 600	Vietnam 5 500
Philippines	48 600	Taiwan 9 500	Taiwan 5 200
Canada	44 100	Philippines 8 300	UK 5 100
Korea	34 100	Korea 6 600	Japan 4 600
Vietnam	32 900	Iran 6 500	Korea 4 400
Iran	30 200	Japan 6 300	Canada 4 300

NOTE: Database does not have immigrants to the United States after the 1990 Census who received their higher education in another country.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1999.

Text table 11.

Science & Engineering Faculty in U.S. Higher Education, by Teaching Field and Region of Origin: 1997

	Total S&E	Teaching field				
		Physical sciences	Life sciences	Math/comp sciences	Social sciences	Engineering
Number						
Total S&E faculty	224 707	37 020	53 055	44 375	65 509	24 748
U.S. origin	179 698	29 598	45 502	32 976	55 870	15 753
Foreign origin	45 009	7 422	7 553	11 399	9 639	8 995
Region of origin						
Asia	23 559	3 541	3 250	6 315	4 630	5 823
Europe	11 822	2 738	2 377	2 825	2 338	1 544
North America	2 307	209	596	544	878	80
Central & South America	3 164	370	655	714	880	545
Africa	3 060	309	468	743	662	878
Abroad, not specified	1 097	255	207	258	251	125
Percent						
Total S&E faculty	100,0	100,0	100,0	100,0	100,0	100,0
U.S. origin	80,0	80,0	85,8	74,3	85,3	63,7
Foreign origin	20,0	20,0	14,2	25,7	14,7	36,3
Region of origin						
Asia	10,5	9,6	6,1	14,2	7,1	23,5
Europe	5,3	7,4	4,5	6,4	3,6	6,2
North America	1,0	0,6	1,1	1,2	1,3	0,3
Central & South America	1,4	1,0	1,2	1,6	1,3	2,2
Africa	1,4	0,8	0,9	1,7	1,0	3,5
Abroad, not specified	0,5	0,7	0,4	0,6	0,4	0,5

NOTES: Data include scientists and engineers whose first job is in S&E postsecondary teaching at four-year college and universities in the United States. Data exclude scientists and engineers who teach in S&E fields in two-year or community colleges, or who teach as a secondary job.

SOURCE: National Science Foundation, Division of Science Resources Statistics, (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1997.

Text table 12.

Major Places of Origin of Foreign-Born Science & Engineering Faculty in U.S. Higher Education, by Field of Teaching: 1997

	Total S&E	Field of Teaching				
		Physical sciences	Life sciences	Math/comp sciences	Social sciences	Engineering
Total S&E faculty	224 707	37 020	53 055	44 375	65 509	24 748
Foreign origin	45 009	7 422	7 553	11 399	9 639	8 995
Total S&E faculty from major places of origin	21 545	3 665	3 340	5 261	4 495	4 784
India	6 876	688	1014	2 086	1 491	1 597
China	4 830	939	591	1 745	642	913
United Kingdom	3 426	942	848	318	607	711
Taiwan	1 820	122	177	431	351	739
Germany	1 309	422	227	137	463	60
South Korea	1 218	336	189	96	451	146
Greece	1 044	196	190	163	353	142

NOTES: Data include scientists and engineers whose first job is in S&E postsecondary teaching at four-year college and universities in the United States. Data exclude scientists and engineers who teach in S&E fields in two-year or community colleges, or who teach as a secondary job.

SOURCE: National Science Foundation, Division of Science Resources Statistics, (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1997.

Text table 13.

**Percentage of Science & Engineering Faculty in U.S.
Universities, by Major Places of Origin: 1997**

	S&E faculty	
	Number	Percentage
Total S&E faculty	224 707	100,0
U.S.-born	179 698	80,0
Foreign-born	45 009	20,0
Total S&E faculty from major countries of origin	21 545	9,6
India	6 876	3,1
China	4 830	2,1
United Kingdom	3 426	1,5
Taiwan	1 820	0,8
Germany	1 309	0,6
South Korea	1 218	0,5
Greece	1 044	0,5
Japan	1 022	0,5
Other	23 464	10,4

NOTES: Data include scientists and engineers whose first job is in S&E postsecondary teaching at four-year college and universities in the United States. Data exclude scientists and engineers who teach in S&E fields in two-year or community colleges, or who teach as a secondary job.

SOURCE: National Science Foundation, Division of Science Resources Statistics, (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1997.

Text table 14.

**Citizenship Status of Science and Engineering Degree Holders Residing in the United States,
by Place of Birth: 1993-1999**

	Total	Citizenship status		
		Citizen	Permanent visa	Temporary visa
1993				
Total S&E degree holders in U.S.	11 024 500	10 520 000	399 300	105 200
Native-born	9 664 300	9 662 200	1 800	300
Foreign-born	1 357 100	854 700	397 500	104 900
% foreign-born	12,3	8,1	99,5	99,7
% of foreign-born within each status	100,0	63,0	29,3	7,7
1995				
Total S&E degree holders in U.S.	11 456 800	11 020 000	361 000	75 800
Native	10 060 700	10 059 200	1 300	200
Foreign-born total	1 395 900	960 800	359 600	75 500
% foreign-born	12,2	8,7	99,6	99,6
% of foreign-born within each status	100,0	76,1	19,8	4,1
1997				
Total S&E degree holders in U.S.	11 966 900	11 550 000	333 500	83 400
Native	10 501 800	10 500 300	1 100	400
Foreign-born total	1 465 200	1 049 700	332 400	83 100
% foreign-born	12,2	9,1	99,7	99,6
% of foreign-born within each status	100,0	78,4	17,3	4,3
1999				
Total S&E degree holders in U.S.	12 489 400	12 060 000	328 900	102 500
Native-born	10 930 000	10 930 000	1 900	700
Foreign-born	1 559 400	1 130 600	327 000	101 800
% foreign-born	12,5	9,4	99,4	99,3
% of foreign-born within each status	100,0	72,5	21,0	6,5

NOTE: See Appendix table 5 for foreign-born S&E degree holders residing in the United States by place of birth.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

	1999	1997	1995	1993
Citizen	1 130 600	1 049 700	960 800	854 700
Permanent visa	327 000	332 400	359 600	397 500
Temporary visa	101 800	83 100	75 500	104 900

Text table 15.

Science & Engineering Degree Holders in the United States Who Conduct R&D as Their Major Activity, by Place of Birth: 1993-99

	Total	R&D is major activity	
		No	Yes
1993			
Total S&E degree holders in U.S.	11 021 600	8 336 500	2 685 100
Native-born	9 664 400	7 432 200	2 232 200
Foreign-born	1 357 200	904 300	452 900
% foreign-born	12,3	10,8	16,9
% of native-born S&Es in R&D	100,0	76,9	23,1
% of foreign-born S&Es in R&D	100,0	66,6	33,4
1995			
Total S&E degree holders in U.S.	11 456 600	8 754 200	2 702 400
Native	10 060 300	7 804 600	2 255 700
Foreign-born total	1 396 000	949 300	446 700
% foreign-born	12,2	10,8	16,5
% of native-born S&Es in R&D	100,0	77,6	22,4
% of foreign-born S&Es in R&D	100,0	68,0	32,0
1997			
Total S&E degree holders in U.S.	11 962 100	9 242 000	2 720 100
Native	10 496 500	8 245 400	2 251 100
Foreign-born total	1 588 800	996 200	592 600
% foreign-born	13,3	10,8	21,8
% of native-born S&Es in R&D	100,0	78,6	21,4
% of foreign-born S&Es in R&D	100,0	62,7	37,3
1999			
Total S&E degree holders in U.S.	12 489 900	9 626 900	2 863 000
Native-born	10 930 500	8 584 800	2 345 700
Foreign-born	1 559 400	1 042 100	517 300
% foreign-born	12,5	10,8	18,1
% of native-born S&Es in R&D	100,0	78,5	21,5
% of foreign-born S&Es in R&D	100,0	66,8	33,2

NOTE: See Appendix table 6 for foreign-born S&E degree holders residing in the United States by place of birth.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

	1993	1995	1997	1999
R&D	452 900	446 700	592 600	517 300

Appendix table A-1.

**Residents in the United States who Hold an S&E Degree at Any Level,
by Education Level of Their Highest Degree and Place of Birth: 1993-1999**

	Total	Education level of Highest Degree			
		Bachelor's	Master's	Professional degree	Doctorate
1999					
Total S&E degree holders in U.S.	12 490 100	7 278 900	3 411 200	978 000	822 000
Native-born	10 930 600	6 513 700	2 906 600	899 800	610 500
Foreign-born	1 559 500	765 200	504 600	78 200	211 500
% foreign-born	12,5	10,5	14,8	8,0	25,7
Place of birth					
Afghanistan	2 300	1 300	600	S	300
Argentina	12 500	4 600	4 600	S	2 700
Australia	5 400	2 900	600	S	1 400
Austria	5 400	2 200	1 500	S	1 200
Bangladesh	5 200	1 500	3 300	S	400
Belgium	5 900	2 200	2 200	S	1 100
Bolivia	2 900	1 300	1 400	S	200
Brazil	9 100	5 400	2 700	S	800
Bulgaria	1 000	S	S	S	400
Burma	3 200	2 900	S	S	200
Cameroon	1 600	S	900	S	100
Canada	76 900	41 300	18 700	7 000	9 900
Chile	3 500	1 600	700	S	700
China	147 900	48 200	58 800	2 700	38 100
Columbia	15 800	9 200	4 400	1 200	1 000
Costa_Rica	2 500	1 600	800	S	100
Cuba	25 700	12 800	7 900	2 500	2 500
Cyprus	2 000	S	900	S	700
Czechoslovakia	6 600	3 300	1 700	S	900
Denmark	2 800	2 200	S	S	200
Dominican_Rep.	8 700	5 700	1 500	S	400
Egypt	12 500	5 500	4 000	S	2 500
El_Salvador	2 600	2 000	500	S	100
Equador	6 800	3 500	1 900	S	400
Ethiopia	4 100	1 600	1 700	S	800
FSU	40 600	22 800	12 200	S	4 600
Finland	3 300	1 000	1 700	S	600
France	15 200	5 600	5 600	1 700	2 200
Germany	85 600	47 800	24 200	6 100	7 500
Ghana	3 800	1 500	1 200	S	1 200
Greece	12 400	5 200	5 000	S	1 900
Guatemala	2 100	S	700	S	500
Haiti	5 800	3 900	800	S	600
Hungary	9 500	3 200	3 200	S	2 500
India	200 000	65 200	95 200	5 900	33 600
Indonesia	7 100	3 200	3 100	S	400
Iran	47 500	23 700	15 600	3 000	5 200

Iraq	3 700	1 500	1 100	S	1 100
Ireland	4 200	1 300	2 000	S	900
Israel	12 900	6 300	3 400	1 500	1 700
Italy	19 000	8 600	6 400	S	2 800
Jamaica	16 600	9 500	5 300	S	600
Japan	38 400	22 500	10 500	2 000	3 400
Jordan	4 900	2 100	1 900	S	700
Kenya	3 400	2 000	1 000	S	400
Korea	53 400	34 200	12 200	2 200	4 800
Kuwait	2 700	1 400	1 200	S	200
Laos	4 500	4 100	S	S	S
Lebanon	14 000	6 300	3 900	2 400	1 400
Malaysia	8 000	4 000	2 600	S	800
Mexico	37 400	25 800	8 900	1 400	1 400
Nepal	1 400	S	S	S	400
Netherlands	9 900	4 400	3 100	S	2 400
Nicaragua	5 000	2 700	1 200	S	500
Nigeria	10 500	4 700	3 500	S	2 100
Norway	3 600	2 300	900	S	200
Other_Africa	19 600	10 000	6 600	S	2 400
Other_Americas	13 100	7 600	2 800	1 800	1 000
Other_Asia	5 700	4 000	800	S	500
Other_Europe	4 900	3 200	800	S	500
Other_Oceania	13 000	6 400	4 100	1 700	800
Pakistan	19 000	6 300	9 800	1 200	1 700
Palestine	2 600	1 000	900	S	700
Panama	8 700	5 200	2 200	S	400
Peru	9 600	6 200	2 500	S	800
Philippines	78 400	60 400	10 000	3 700	4 300
Poland	22 900	10 200	8 400	S	3 600
Portugal	3 400	2 500	700	S	100
Romania	11 200	4 600	4 900	S	1 500
Singapore	3 000	1 500	1 200	S	200
South Africa	6 300	3 500	1 100	S	1 000
Spain	7 200	3 400	2 900	S	1 000
Sri Lanka	5 400	2 300	1 900	S	1 200
Surinam	8 100	3 900	2 800	S	600
Sweden	3 900	1 400	1 600	S	700
Switzerland	4 400	1 800	1 200	S	1 200
Syria	5 300	3 200	1 400	S	500
Taiwan	72 200	24 100	35 200	1 800	11 200
Thailand	8 800	4 100	3 600	S	900
Trinidad/Tobago	7 000	4 500	1 800	S	300
Turkey	13 000	5 300	5 500	S	1 900
UK	80 600	41 100	18 200	6 300	15 000
Venezuela	8 900	5 200	2 000	S	800
Vietnam	49 200	38 900	7 500	1 300	1 500
Yugoslavia	4 100	1 500	1 300	S	1 300

Appendix table A-1 cont.

	Total	Education level			
		Bachelor's	Master's	Professional degree	Doctorate
1997					
Total S&E degree holders in	11 962 000	7 055 800	3 199 100	933 000	774 100
Native-born	10 496 400	6 315 000	2 740 400	857 900	583 100
Foreign-born	1 465 200	740 500	458 600	75 100	191 000
% foreign-born	12,2	10,5	14,3	8,0	24,7
Place of birth					
Afghanistan	2 900	2 300	S	S	300
Argentina	10 600	3 400	4 000	900	2 200
Australia	4 400	2 200	400	500	1 200
Austria	5 400	2 400	1 300	S	1 200
Bangladesh	5 300	1 500	3 300	S	400
Belgium	4 700	1 700	2 100	S	600
Bolivia	2 600	1 400	1 100	S	100
Brazil	8 500	5 200	2 200	S	600
Bulgaria	900	S	400	S	200
Burma	3 600	3 300	S	S	200
Cameroon	1 600	900	500	S	200
Canada	70 500	39 200	16 900	5 800	8 500
Chile	3 500	1 400	700	S	700
China	133 400	47 300	51 300	2 500	32 300
Columbia	14 600	8 800	3 800	900	1 000
Costa_Rica	2 300	1 700	500	S	100
Cuba	27 000	13 400	8 100	2 400	3 100
Cyprus	1 600	700	400	S	500
Czechoslovakia	6 300	2 800	1 900	S	1 200
Denmark	2 900	2 000	600	S	200
Dominican_Rep.	6 300	4 000	900	900	600
Egypt	13 700	7 000	3 700	S	2 400
El_Salvador	2 800	1 700	1 000	S	100
Equador	6 300	3 300	1 600	S	800
Ethiopia	3 600	1 600	1 500	S	600
FSU	37 100	20 500	11 600	700	4 300
Finland	3 700	1 000	2 200	S	500
France	14 400	5 700	4 900	1 700	2 000
Germany	81 800	46 400	21 700	6 700	7 000
Ghana	3 400	800	1 400	S	1 100
Greece	11 600	4 700	4 300	S	2 000
Guatemala	1 900	S	900	S	400
Haiti	5 400	3 500	500	800	700
Hungary	8 900	3 100	2 700	900	2 200
India	186 100	65 300	84 200	6 300	30 300
Indonesia	6 300	2 500	3 100	S	500
Iran	47 900	25 500	13 700	2 800	5 900
Iraq	3 700	1 600	1 000	S	1 100
Ireland	5 100	2 100	1 700	S	1 000
Israel	12 400	6 000	3 800	1 200	1 400
Italy	16 900	7 800	5 300	1 000	2 800

Jamaica	16 000	10 600	4 300	S	400
Japan	35 700	20 200	9 900	2 000	3 600
Jordan	4 700	2 100	1 800	S	700
Kenya	3 200	2 000	800	S	300
Korea	52 200	33 000	12 500	2 200	4 500
Kuwait	2 200	1 200	800	S	100
Laos	2 900	2 300	S	S	S
Lebanon	14 200	6 600	4 100	2 000	1 500
Malaysia	6 800	3 700	2 000	S	600
Mexico	34 200	22 000	9 000	1 700	1 500
Nepal	1 100	S	S	S	200
Netherlands	9 700	5 100	2 400	S	2 100
Nicaragua	4 600	2 700	1 100	S	400
Nigeria	9 100	3 600	3 200	S	1 600
Norway	3 400	2 000	900	S	200
Other_Africa	17 500	8 800	5 900	S	2 400
Other_Americas	12 000	7 500	2 100	1 600	700
Other_Asia	4 400	3 300	500	S	400
Other_Europe	3 300	1 900	600	S	400
Other_Oceania	15 200	8 400	4 800	1 300	700
Pakistan	17 800	6 000	8 900	1 200	1 800
Palestine	2 800	1 400	700	S	600
Panama	8 200	5 300	1 800	S	400
Peru	9 100	6 000	2 000	S	700
Philippines	85 200	67 400	9 600	4 500	3 600
Poland	22 100	9 900	7 900	S	3 600
Portugal	2 900	2 000	700	S	200
Romania	9 200	3 800	4 000	S	1 200
Singapore	3 400	2 300	1 000	S	100
South Africa	5 600	2 900	1 400	S	800
Spain	5 700	3 100	2 000	S	500
Sri Lanka	4 500	1 600	1 800	S	1 000
Surinam	6 800	3 700	2 100	S	400
Sweden	3 600	1 500	1 200	S	500
Switzerland	4 300	1 900	1 100	S	1 100
Syria	4 600	2 800	800	S	600
Taiwan	69 600	21 900	36 000	1 400	10 300
Thailand	8 100	4 900	2 500	S	600
Trinidad/Tobago	6 200	4 300	1 300	S	300
Turkey	10 300	4 000	4 700	S	1 400
UK	73 400	38 400	17 200	4 800	13 000
Venezuela	7 800	4 200	2 200	S	700
Vietnam	44 700	35 600	6 500	1 400	1 100
Yugoslavia	5 100	2 200	1 800	S	1 100

Appendix table A-1 cont.

	Total	Education level			
		Bachelor's	Master's	Professional degree	Doctorate
1995					
Total S&E degree holders in	11 456 600	6 811 400	3 017 500	893 800	733 900
Native-born	10 060 200	6 091 900	2 585 600	826 300	556 400
Foreign-born	1 396 000	719 300	431 700	67 500	177 500
% foreign-born	12,2	10,6	14,3	7,6	24,2
Place of birth					
Afghanistan	2 300	1 600	S	S	300
Argentina	9 500	2 800	3 800	900	2 000
Australia	4 500	2 700	300	S	1 100
Austria	5 800	2 700	1 200	600	1 300
Bangladesh	4 800	1 300	2 900	S	600
Belgium	5 600	2 200	2 400	S	700
Bolivia	2 200	1 200	1 000	S	100
Brazil	8 100	4 800	2 300	S	600
Bulgaria	600	S	300	S	200
Burma	3 500	3 000	S	S	200
Cameroon	1 300	800	500	S	100
Canada	67 400	38 000	16 200	5 800	7 500
Chile	3 100	1 100	700	S	700
China	120 700	46 300	45 900	2 200	26 300
Columbia	12 600	8 200	2 700	800	900
Costa_Rica	2 000	1 200	600	S	300
Cuba	26 900	13 300	7 700	2 500	3 300
Cyprus	1 500	S	600	S	400
Czechoslovakia	6 300	2 500	2 300	S	1 100
Denmark	2 600	1 800	500	S	300
Dominican_Rep.	6 500	4 400	700	S	800
Egypt	13 700	6 900	4 100	S	2 200
El_Salvador	3 200	2 100	1 100	S	100
Equador	5 900	3 100	1 500	S	700
Ethiopia	3 900	1 900	1 500	S	500
FSU	36 900	20 000	11 700	700	4 400
Finland	3 200	1 000	1 500	S	600
France	14 400	6 400	4 400	1 800	1 800
Germany	73 400	41 600	19 200	5 700	6 900
Ghana	3 500	500	1 600	S	1 200
Greece	11 500	5 500	3 500	S	1 900
Guatemala	1 700	400	700	S	300
Haiti	5 400	3 600	400	S	700
Hungary	9 100	3 000	2 900	900	2 300
India	172 400	64 000	75 700	5 500	27 200
Indonesia	6 300	2 600	3 000	S	500
Iran	47 300	25 800	14 100	2 300	5 100
Iraq	3 900	2 000	900	S	1 000
Ireland	4 600	1 900	1 700	S	700
Israel	11 200	5 600	2 800	1 300	1 500
Italy	16 300	7 500	5 200	800	2 800

Jamaica	15 000	10 400	3 800	S	400
Japan	34 800	19 900	9 700	1 600	3 600
Jordan	5 000	2 400	1 900	S	500
Kenya	3 000	1 900	700	S	200
Korea	52 200	33 300	12 500	1 500	4 800
Kuwait	1 700	1 200	400	S	100
Laos	2 500	2 100	S	S	S
Lebanon	13 800	6 300	4 300	1 700	1 600
Malaysia	5 600	3 100	1 600	S	600
Mexico	32 100	21 700	7 400	1 600	1 300
Nepal	900	S	S	S	200
Netherlands	8 800	4 400	2 200	S	2 000
Nicaragua	4 000	2 600	700	S	300
Nigeria	8 600	3 600	2 800	900	1 300
Norway	3 500	2 300	800	S	200
Other_Africa	16 300	8 100	5 800	S	1 900
Other_Americas	10 800	7 000	1 800	1 500	600
Other_Asia	5 000	3 000	1 000	S	500
Other_Europe	2 900	1 500	1 000	S	200
Other_Oceania	15 800	8 600	5 200	1 200	700
Pakistan	16 400	6 400	7 600	1 000	1 500
Palestine	2 700	1 300	600	S	600
Panama	7 500	5 300	1 300	S	300
Peru	9 100	5 800	2 400	S	700
Philippines	88 700	70 200	11 000	4 000	3 400
Poland	21 900	9 400	8 000	S	3 800
Portugal	2 500	1 800	500	S	100
Romania	8 300	3 400	3 700	S	1 100
Singapore	2 700	1 800	700	S	200
South Africa	5 300	2 500	1 400	S	1 000
Spain	6 300	3 100	2 600	S	600
Sri Lanka	4 000	1 700	1 500	S	700
Surinam	5 600	3 100	1 800	S	400
Sweden	3 900	1 500	1 500	S	500
Switzerland	4 000	1 300	1 400	S	1 200
Syria	4 500	2 400	1 200	S	600
Taiwan	69 200	21 200	36 400	1 000	10 600
Thailand	8 000	4 300	2 800	S	800
Trinidad/Tobago	5 200	3 600	1 100	S	200
Turkey	9 400	4 000	3 700	S	1 500
UK	69 700	37 200	16 100	4 100	12 300
Venezuela	7 400	4 000	2 100	S	600
Vietnam	39 300	31 000	6 100	1 200	1 000
Yugoslavia	5 800	3 100	1 400	S	1 200

Appendix table A-1 cont.

	Total	Education level			
		Bachelor's	Master's	Professional degree	Doctorate
1993					
Total S&E degree holders in	11 021 400	6 529 600	2 891 600	908 400	691 800
Native-born	9 664 300	5 829 800	2 471 300	838 500	524 700
Foreign-born	1 357 100	699 800	420 300	69 900	167 100
% foreign-born	12,3	10,7	14,5	7,7	24,2
Place of birth					
Afghanistan	2 200	1 500	S	S	300
Argentina	9 400	3 400	3 600	600	1 900
Australia	5 400	3 200	900	S	1 100
Austria	7 400	3 700	1 400	900	1 400
Bangladesh	4 700	1 500	2 500	S	500
Belgium	4 700	1 800	1 900	S	800
Bolivia	2 000	1 100	800	S	100
Brazil	8 000	4 400	2 600	400	600
Bulgaria	400	S	200	S	S
Burma	4 100	3 400	300	S	200
Cameroon	1 200	800	400	S	S
Canada	66 300	36 400	16 000	6 600	7 300
Chile	3 200	1 300	800	500	600
China	114 200	45 700	43 500	2 500	22 600
Columbia	12 400	8 100	2 500	1 000	900
Costa_Rica	2 300	1 200	600	S	300
Cuba	27 000	14 000	7 400	2 800	2 800
Cyprus	1 100	300	400	S	400
Czechoslovakia	7 800	3 900	2 300	400	1 300
Denmark	2 400	1 300	600	S	400
Dominican_Rep.	6 000	3 800	600	700	900
Egypt	13 400	6 900	3 800	400	2 300
El_Salvador	2 900	2 000	900	S	100
Equador	5 700	2 900	1 700	500	600
Ethiopia	3 600	1 600	1 300	S	600
FSU	35 800	18 100	12 400	700	4 600
Finland	3 000	1 100	1 100	S	700
France	14 100	6 200	4 100	2 000	1 900
Germany	67 900	36 600	19 000	5 200	7 100
Ghana	3 400	600	1 500	S	1 100
Greece	11 800	5 700	3 900	S	1 700
Guatemala	1 900	S	1 000	S	300
Haiti	5 100	3 400	700	500	600
Hungary	8 100	2 800	2 700	700	1 900
India	160 900	60 900	68 000	7 300	24 700
Indonesia	6 100	2 800	2 700	S	400
Iran	45 900	25 000	13 800	1 800	5 300
Iraq	4 300	2 100	1 000	S	900
Ireland	5 000	2 500	1 600	S	600
Israel	10 600	5 200	2 800	1 000	1 600
Italy	15 700	6 600	4 900	1 100	3 100

Jamaica	13 700	9 800	3 100	400	400
Japan	35 800	21 500	9 400	1 400	3 500
Jordan	4 900	2 600	1 500	S	700
Kenya	3 200	2 000	700	S	300
Korea	52 100	33 100	12 900	1 300	4 700
Kuwait	1 500	1 100	400	S	100
Laos	1 300	1 100	S	S	S
Lebanon	13 700	6 400	4 400	1 400	1 400
Malaysia	5 600	2 700	1 900	S	700
Mexico	32 500	20 900	8 300	2 000	1 300
Nepal	600	S	S	S	200
Netherlands	10 500	5 400	3 000	S	2 000
Nicaragua	3 400	2 100	700	S	200
Nigeria	7 200	2 900	2 600	600	1 000
Norway	3 500	2 300	600	S	300
Other_Africa	17 000	8 500	5 700	800	2 100
Other_Americas	10 400	5 900	1 800	1 900	700
Other_Asia	4 300	2 400	1 100	S	400
Other_Europe	2 600	1 400	800	S	200
Other_Oceania	17 900	10 200	5 700	1 000	1 000
Pakistan	16 600	6 900	7 700	700	1 300
Palestine	2 900	1 700	500	S	600
Panama	7 900	5 000	2 200	600	200
Peru	9 700	6 500	2 200	500	500
Philippines	85 600	68 200	10 000	4 400	3 100
Poland	22 800	9 800	8 300	900	3 800
Portugal	2 600	1 800	600	S	100
Romania	8 600	3 300	4 100	S	1 100
Singapore	2 700	1 600	900	S	100
South Africa	4 600	2 100	1 100	400	1 000
Spain	5 100	2 000	2 400	S	500
Sri Lanka	4 100	1 800	1 500	S	700
Surinam	6 200	4 100	1 500	300	300
Sweden	4 300	1 800	1 700	S	500
Switzerland	3 400	1 200	1 100	S	1 000
Syria	4 600	2 800	1 200	S	500
Taiwan	68 400	18 600	38 600	1 100	10 100
Thailand	7 300	3 600	2 800	S	600
Trinidad/Tobago	5 000	3 800	900	S	100
Turkey	9 800	3 800	3 900	400	1 700
UK	65 900	35 800	15 000	3 600	11 500
Venezuela	7 900	5 200	1 800	600	400
Vietnam	35 800	28 100	5 400	1 300	1 000
Yugoslavia	5 600	3 200	1 500	S	900

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Appendix table A-1a.

**Residents in the United States who Hold an S&E Degree as Their Highest Degree,
by Education Level and Place of Birth: 1993-1999**

	Total	Education level of highest degree		
		Bachelor's	Master's	Doctorate
1999				
Total S&E degree holders in U.S.	9 614 600	7 131 300	1 775 800	698 500
Native-born	8 317 000	6 388 500	1 414 000	506 100
Foreign-born	1 297 600	742 800	361 800	192 400
% foreign-born	13,5	10,4	20,4	27,5
Afghanistan	2 100	1 300	500	300
Argentina	9 600	3 900	3 000	2 700
Australia	4 200	2 500	300	1 400
Austria	4 700	2 200	1 300	1 200
Bangladesh	4 900	1 500	2 900	400
Belgium	4 500	2 200	1 500	700
Bolivia	1 600	1 100	S	200
Brazil	8 000	5 400	1 800	800
Bulgaria	1 000	S	S	400
Burma	3 200	2 900	S	200
Cameroon	1 600	S	900	100
Canada	59 400	39 500	11 300	8 400
Chile	2 800	1 600	400	700
China	135 300	46 900	50 400	37 900
Columbia	12 700	8 500	3 300	1 000
Costa Rica	2 000	1 600	S	100
Cuba	18 300	12 800	3 500	2 000
Cyprus	1 700	S	600	700
Czechoslovakia	5 600	3 300	1 300	900
Denmark	2 800	2 200	S	200
Dominican Rep.	7 000	5 700	900	400
Egypt	10 100	5 100	2 700	2 200
El Salvador	2 600	2 000	500	100
Equador	4 600	3 500	1 000	S
Ethiopia	3 600	1 600	1 200	800
FSU	38 000	22 000	11 200	4 600
Finland	2 300	1 000	600	600
France	10 800	5 600	3 300	1 900
Germany	69 800	46 700	15 700	7 200
Ghana	3 200	1 500	900	900
Greece	10 200	5 200	3 100	1 900
Guatemala	1 100	S	600	200
Haiti	5 300	3 900	800	600
Hungary	7 400	2 900	2 600	1 900
India	164 600	61 200	73 400	30 100
Indonesia	5 900	3 200	2 200	400
Iran	39 900	23 600	11 600	4 800
Iraq	3 300	1 500	900	900
Ireland	3 000	1 300	900	800

Israel	9 400	6 000	2 100	1 300
Italy	14 200	8 400	3 400	2 500
Jamaica	11 400	9 300	1 700	400
Japan	30 700	22 500	5 400	2 800
Jordan	3 900	2 100	1 100	700
Kenya	2 500	1 700	300	400
Korea	46 700	33 600	8 700	4 500
Kuwait	2 400	1 400	800	200
Laos	4 000	3 800	S	S
Lebanon	10 700	6 000	3 400	1 300
Malaysia	6 600	4 000	1 800	800
Mexico	31 700	25 100	5 200	1 400
Nepal	1 000	S	S	400
Netherlands	7 700	4 100	2 000	1 600
Nicaragua	3 700	2 700	800	200
Nigeria	8 200	4 500	2 400	1 300
Norway	2 600	2 100	S	200
Other Africa	15 700	9 700	3 600	2 400
Other Americas	9 700	7 600	1 500	600
Other Asia	5 300	4 000	800	500
Other Europe	4 200	3 200	500	500
Other Oceania	9 000	5 800	2 500	800
Pakistan	14 700	6 100	6 900	1 700
Palestine	2 600	1 000	900	700
Panama	6 300	4 900	1 300	100
Peru	9 100	6 200	2 100	800
Philippines	67 000	58 800	4 900	3 400
Poland	20 100	9 900	7 000	3 200
Portugal	3 300	2 500	600	100
Romania	10 500	4 300	4 700	1 500
Singapore	2 600	1 300	1 200	200
South Africa	4 900	3 200	800	900
Spain	6 000	3 400	1 800	900
Sri Lanka	4 600	2 100	1 400	1 200
Surinam	4 700	3 900	600	200
Sweden	3 700	1 400	1 600	700
Switzerland	3 600	1 600	900	1 200
Syria	5 100	3 200	1 400	500
Taiwan	64 800	23 900	30 000	10 900
Thailand	6 600	4 100	2 100	500
Trinidad/Tobago	5 800	4 200	1 300	300
Turkey	11 300	5 000	4 300	1 900
UK	65 400	40 400	12 000	13 100
Venezuela	6 500	5 000	1 100	400
Vietnam	44 300	38 600	4 500	1 200
Yugoslavia	4 100	1 500	1 300	1 300

Appendix table A-1a cont.

1997

	Total	Education level of highest degree		
		Bachelor's	Master's	Doctorate
Total S&E degree holders in U.S.	9 272 800	6 909 400	1 699 500	654 900
Native-born	8 049 982	6 191 600	1 369 200	481 100
Foreign-born	1 222 500	717 600	330 300	173 800
% foreign-born	13,2	10,4	19,4	26,5
Place of birth				
Afghanistan	2 200	1 800	S	300
Argentina	8 000	2 900	3 000	2 200
Australia	3 300	1 900	200	1 200
Austria	4 800	2 400	1 200	1 200
Bangladesh	5 000	1 500	3 100	400
Belgium	3 300	1 500	1 200	600
Bolivia	1 700	1 200	300	100
Brazil	7 000	5 200	1 200	600
Bulgaria	900	S	400	200
Burma	3 600	3 300	S	200
Cameroon	1 600	900	500	200
Canada	54 900	37 900	9 300	7 500
Chile	2 200	1 200	200	700
China	122 900	46 400	44 300	32 200
Columbia	12 200	8 300	3 000	900
Costa Rica	2 100	1 700	300	100
Cuba	18 800	13 400	3 500	1 900
Cyprus	1 400	700	200	500
Czechoslovakia	5 200	2 800	1 500	900
Denmark	2 900	2 000	600	200
Dominican Rep.	5 100	4 000	600	600
Egypt	11 500	6 600	2 800	2 200
El Salvador	2 500	1 700	700	100
Equador	4 400	3 200	1 100	S
Ethiopia	3 000	1 600	900	600
FSU	35 000	19 700	10 700	4 300
Finland	2 400	1 000	900	500
France	10 500	5 500	3 300	1 700
Germany	65 900	45 300	13 700	6 800
Ghana	2 700	800	1 200	800
Greece	9 400	4 500	2 900	2 000
Guatemala	900	S	600	200
Haiti	4 500	3 500	500	500
Hungary	6 900	2 900	2 200	1 800
India	153 200	61 500	64 500	27 000
Indonesia	5 300	2 500	2 300	500
Iran	41 100	25 000	10 500	5 600
Iraq	3 400	1 600	900	800
Ireland	3 800	2 100	800	900
Israel	9 500	6 000	2 500	1 100

Italy	13 400	7 600	3 200	2 600
Jamaica	12 500	10 300	1 900	400
Japan	27 900	20 100	4 800	3 000
Jordan	4 100	2 100	1 300	700
Kenya	2 400	1 800	400	300
Korea	45 000	32 000	9 200	3 700
Kuwait	1 900	1 200	500	100
Laos	2 400	2 000	S	S
Lebanon	10 900	6 400	3 100	1 400
Malaysia	5 700	3 500	1 600	600
Mexico	28 600	21 400	5 700	1 500
Nepal	700	S	S	200
Netherlands	8 100	4 600	2 000	1 400
Nicaragua	3 400	2 700	500	200
Nigeria	6 600	3 400	2 200	1 100
Norway	2 000	1 600	S	200
Other Africa	13 900	8 500	3 000	2 400
Other Americas	9 500	7 500	1 400	600
Other Asia	4 100	3 300	400	400
Other Europe	2 800	1 900	400	400
Other Oceania	11 700	7 400	3 500	700
Pakistan	13 000	5 400	5 900	1 800
Palestine	2 700	1 400	700	600
Panama	6 200	5 100	900	200
Peru	8 500	6 000	1 800	700
Philippines	74 100	66 000	5 200	2 900
Poland	19 400	9 600	6 400	3 300
Portugal	2 800	2 000	500	200
Romania	8 600	3 800	3 600	1 200
Singapore	3 400	2 300	1 000	100
South Africa	4 000	2 600	600	700
Spain	4 900	3 000	1 400	500
Sri Lanka	3 500	1 400	1 100	1 000
Surinam	4 300	3 700	400	100
Sweden	3 000	1 300	1 200	500
Switzerland	3 400	1 700	600	1 100
Syria	4 300	2 800	800	600
Taiwan	61 800	21 400	30 500	9 800
Thailand	6 200	4 300	1 500	400
Trinidad/Tobago	5 100	4 000	700	300
Turkey	8 800	3 800	3 600	1 400
UK	60 900	37 700	11 400	11 800
Venezuela	5 500	4 000	1 100	400
Vietnam	40 500	35 400	4 100	900
Yugoslavia	4 800	2 200	1 500	1 100

Appendix table A-1a cont.

1995

	Total	Education level of highest degree		
		Bachelor's	Master's	Doctorate
Total S&E degree holders in U.S.	8 923 400	6 674 700	1 618 500	620 509
Native-born	7 751 246	5 977 700	1 306 100	459 000
Foreign-born	1 171 900	696 800	312 400	161 540
% foreign-born	13,1	10,4	19,3	26,0
Afghanistan	1 700	1 200	S	300
Argentina	7 000	2 300	2 600	2 000
Australia	3 700	2 400	100	1 100
Austria	4 900	2 700	1 100	1 100
Bangladesh	4 400	1 300	2 600	500
Belgium	3 900	2 000	1 400	500
Bolivia	1 600	1 100	500	100
Brazil	6 500	4 800	1 200	600
Bulgaria	600	S	300	200
Burma	3 400	3 000	S	200
Cameroon	1 300	800	500	100
Canada	52 300	37 000	8 600	6 600
Chile	2 000	900	200	700
China	109 900	45 500	38 400	25 900
Columbia	10 800	7 800	2 200	900
Costa Rica	1 900	1 200	500	300
Cuba	19 300	13 300	3 700	2 300
Cyprus	1 100	S	200	400
Czechoslovakia	5 100	2 500	1 700	800
Denmark	2 600	1 800	500	300
Dominican Rep.	5 700	4 400	500	800
Egypt	11 700	6 700	3 000	2 000
El Salvador	3 000	2 100	800	100
Equador	4 100	3 100	1 000	S
Ethiopia	3 700	1 900	1 300	500
FSU	34 900	19 300	10 900	4 400
Finland	2 400	1 000	700	600
France	10 500	6 200	2 900	1 400
Germany	60 000	40 500	12 700	6 800
Ghana	2 700	500	1 200	1 000
Greece	10 000	5 300	2 900	1 800
Guatemala	1 200	400	700	100
Haiti	4 200	3 300	400	500
Hungary	7 000	2 800	2 300	1 900
India	141 800	60 100	56 800	24 500
Indonesia	5 400	2 600	2 300	500
Iran	41 300	25 400	11 000	4 900
Iraq	3 600	2 000	800	900
Ireland	3 500	1 900	900	600
Israel	8 900	5 600	2 000	1 200
Italy	13 000	7 300	3 200	2 600

Jamaica	11 900	10 200	1 300	400
Japan	27 600	19 500	5 300	2 800
Jordan	4 400	2 400	1 400	500
Kenya	2 300	1 700	400	200
Korea	46 200	32 200	9 600	4 300
Kuwait	1 600	1 200	S	100
Laos	2 200	1 900	S	S
Lebanon	10 500	5 900	3 100	1 500
Malaysia	4 900	3 100	1 200	600
Mexico	27 100	21 200	4 600	1 300
Nepal	600	S	S	200
Netherlands	7 400	4 000	2 000	1 400
Nicaragua	3 200	2 600	500	100
Nigeria	6 000	3 300	1 900	800
Norway	2 300	2 000	S	200
Other Africa	13 000	7 600	3 500	1 900
Other Americas	8 600	7 000	1 200	500
Other Asia	4 400	3 000	600	500
Other Europe	2 500	1 500	800	200
Other Oceania	12 500	8 200	3 500	700
Pakistan	12 200	5 900	4 900	1 500
Palestine	2 400	1 100	600	600
Panama	6 100	5 100	900	100
Peru	8 000	5 600	1 700	700
Philippines	76 900	68 600	5 400	3 000
Poland	19 100	9 100	6 600	3 400
Portugal	2 400	1 800	500	100
Romania	7 700	3 400	3 300	1 000
Singapore	2 700	1 800	700	200
South Africa	3 900	2 300	600	900
Spain	5 100	2 700	2 000	400
Sri Lanka	3 200	1 600	900	700
Surinam	3 700	3 100	500	100
Sweden	3 300	1 300	1 500	500
Switzerland	3 000	1 200	600	1 200
Syria	4 200	2 400	1 200	600
Taiwan	63 300	20 800	32 100	10 300
Thailand	6 300	3 800	1 900	500
Trinidad/Tobago	4 100	3 400	600	200
Turkey	8 000	3 800	2 700	1 500
UK	57 900	36 600	10 200	11 100
Venezuela	5 200	3 900	1 100	300
Vietnam	35 800	30 800	4 200	800
Yugoslavia	5 400	3 100	1 100	1 200

Japan	29 600	20 700	6 100	2 800
Jordan	4 500	2 600	1 200	700
Kenya	2 300	1 600	400	300
Korea	47 200	32 300	10 500	4 400
Kuwait	1 400	1 100	200	100
Laos	1 300	1 100	S	S
Lebanon	10 400	5 900	3 100	1 300
Malaysia	4 700	2 700	1 400	600
Mexico	27 300	20 600	5 500	1 100
Nepal	400	S	S	200
Netherlands	8 300	4 900	1 800	1 600
Nicaragua	2 700	2 100	400	100
Nigeria	5 000	2 800	1 600	700
Norway	2 400	2 000	100	300
Other Africa	13 500	8 000	3 500	2 000
Other Americas	7 300	5 800	1 000	500
Other Asia	3 900	2 400	900	400
Other Europe	2 200	1 400	600	200
Other Oceania	14 200	9 600	3 800	800
Pakistan	12 700	6 300	5 100	1 300
Palestine	2 700	1 600	500	600
Panama	6 300	4 800	1 300	200
Peru	8 500	6 300	1 600	500
Philippines	73 100	65 200	5 000	2 900
Poland	19 800	9 500	6 900	3 300
Portugal	2 300	1 700	500	100
Romania	7 900	3 300	3 500	1 100
Singapore	2 600	1 600	800	100
South Africa	3 400	1 800	600	900
Spain	4 100	1 900	1 900	400
Sri Lanka	3 200	1 700	900	700
Surinam	4 800	3 900	700	200
Sweden	3 700	1 600	1 600	500
Switzerland	2 600	1 000	600	1 000
Syria	4 300	2 800	1 100	500
Taiwan	61 500	18 200	33 800	9 600
Thailand	5 600	3 200	2 000	400
Trinidad/Tobago	4 200	3 500	500	100
Turkey	8 400	3 700	3 200	1 600
UK	55 700	35 100	9 900	10 600
Venezuela	6 200	5 000	900	300
Vietnam	32 700	27 900	3 800	900
Yugoslavia	5 500	3 200	1 300	900

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Appendix table A-2.

S&E Degree Holders in the United States by Field of Highest Degree and Place of Birth: 1993-1999

	Total	Field of highest degree					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1999							
Total S&E degree holders in U.S.	12 489 700	777 400	1 582 900	1 185 600	3 745 200	2 323 300	2 875 300
Native-born	10 930 400	650 300	1 390 400	979 100	3 443 600	1 853 600	2 613 400
Foreign-born	1 559 300	127 100	192 500	206 500	301 600	469 700	261 900
% foreign-born	12,5	16,3	12,2	17,4	8,1	20,2	9,1
Place of birth							
Afghanistan	2 300	400	S	S	S	900	S
Argentina	12 500	1 000	1 800	1 400	2 400	2 900	2 900
Australia	5 400	300	300	1 100	1 100	1 200	1 300
Austria	5 400	500	300	200	2 800	800	S
Bangladesh	5 200	1 100	S	1 600	S	1 600	S
Belgium	5 900	200	900	S	1 700	1 500	1 500
Bolivia	2 900	S	S	S	700	S	1 300
Brazil	9 100	100	600	1 200	2 900	3 200	1 200
Bulgaria	1 000	200	S	300	S	S	S
Burma	3 200	700	300	700	S	800	S
Cameroon	1 600	S	100	S	S	700	S
Canada	76 900	7 500	11 300	7 600	21 500	11 600	17 500
Chile	3 500	300	300	200	1 100	900	S
China	147 900	20 100	19 900	28 800	15 400	51 000	12 600
Columbia	15 800	200	2 400	700	6 100	3 300	3 100
Costa_Rica	2 500	S	600	S	S	800	S
Cuba	25 700	1 900	2 800	1 900	5 600	6 100	7 400
Cyprus	2 000	S	S	S	300	900	S
Czechoslovakia	6 600	600	600	1 100	1 200	2 200	S
Denmark	2 800	400	S	S	700	1 100	S
Dominican_Rep.	8 700	S	800	1 100	3 100	1 800	1 700
Egypt	12 500	600	1 100	1 400	900	6 000	2 400
El_Salvador	2 600	S	S	S	1 200	400	S
Equador	6 800	600	S	S	1 500	1 700	2 200
Ethiopia	4 100	700	1 200	S	800	600	S
FSU	40 600	3 300	4 000	10 000	7 600	13 000	2 600
Finland	3 300	800	S	S	100	900	S
France	15 200	600	1 800	1 000	4 100	3 300	4 300
Germany	85 600	7 800	10 600	9 200	26 300	15 800	15 800
Ghana	3 800	S	900	200	1 100	900	S
Greece	12 400	800	700	1 700	2 900	4 100	2 200
Guatemala	2 100	S	100	S	500	200	S
Haiti	5 800	400	1 400	800	1 600	1 100	S
Hungary	9 500	1 300	1 000	1 000	1 600	2 500	2 100
India	200 000	16 100	24 100	29 400	26 700	68 300	35 400
Indonesia	7 100	S	800	700	1 200	2 600	1 200
Iran	47 500	2 700	5 200	5 300	5 300	21 500	7 600
Iraq	3 700	S	600	S	S	1 800	S
Ireland	4 200	S	300	800	1 000	700	1 200
Israel	12 900	700	1 000	1 100	3 000	3 600	3 500
Italy	19 000	1 400	1 600	1 900	3 900	5 500	4 800

Jamaica	16 600	1 000	2 100	1 500	4 100	2 700	5 200
Japan	38 400	2 900	4 600	3 300	12 200	7 800	7 700
Jordan	4 900	100	200	S	400	3 000	S
Kenya	3 400	100	800	S	900	S	S
Korea	53 400	4 000	8 000	5 800	12 500	16 300	6 700
Kuwait	2 700	S	S	S	S	1 400	S
Laos	4 500	S	S	S	1 100	1 700	S
Lebanon	14 000	500	900	1 700	2 100	5 600	3 300
Malaysia	8 000	400	1 000	1 300	800	3 100	1 400
Mexico	37 400	1 800	2 000	3 200	12 500	12 200	5 700
Nepal	1 400	S	S	S	S	500	S
Netherlands	9 900	1 100	2 000	500	1 900	2 300	2 200
Nicaragua	5 000	S	1 500	S	900	800	1 300
Nigeria	10 500	900	1 900	600	3 000	1 900	2 300
Norway	3 600	S	S	S	700	1 300	S
Other_Africa	19 600	1 000	2 500	3 200	3 700	5 300	4 000
Other_Americas	13 100	700	1 900	2 000	3 700	1 400	3 400
Other_Asia	5 700	400	900	1 200	1 000	1 800	S
Other_Europe	4 900	900	900	300	900	1 200	S
Other_Oceania	13 000	1 000	900	S	3 500	3 600	4 000
Pakistan	19 000	900	1 600	2 600	2 900	6 700	4 300
Palestine	2 600	S	400	S	800	1 100	S
Panama	8 700	S	1 500	S	2 200	2 200	2 400
Peru	9 600	400	1 500	700	3 400	3 200	S
Philippines	78 400	6 800	13 200	6 900	11 600	28 600	11 300
Poland	22 900	2 300	2 800	2 400	3 600	8 900	2 800
Portugal	3 400	S	400	S	1 500	900	S
Romania	11 200	1 100	900	1 800	1 100	5 400	S
Singapore	3 000	S	S	1 000	300	700	S
South Africa	6 300	S	1 000	600	1 800	1 300	1 500
Spain	7 200	900	1 200	900	2 000	1 100	1 200
Sri Lanka	5 400	700	1 400	500	500	1 500	S
Surinam	8 100	S	1 600	800	800	1 300	3 400
Sweden	3 900	500	200	600	1 700	600	S
Switzerland	4 400	900	1 000	600	700	400	S
Syria	5 300	100	S	1 300	S	3 300	S
Taiwan	72 200	4 000	7 600	19 300	7 500	26 400	7 400
Thailand	8 800	600	1 300	800	1 500	2 500	2 200
Trinidad/Tobago	7 000	S	400	800	2 200	2 200	1 100
Turkey	13 000	1 000	600	1 700	2 100	5 900	1 700
UK	80 600	10 600	10 700	7 500	18 400	18 300	15 200
Venezuela	8 900	100	1 000	900	1 300	3 200	2 400
Vietnam	49 200	1 700	6 700	10 000	6 300	19 600	4 900
Yugoslavia	4 100	500	400	400	600	2 200	S

Appendix table A-2 cont.

	Field of highest degree						
	Total	Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1997							
Total S&E degree holders in U.S.	11 962 000	773 700	1 475 800	1 135 900	3 595 500	2 291 800	2 689 300
Native	10 496 300	651 300	1 301 700	945 500	3 307 200	1 844 100	2 446 500
Foreign-born total	1 465 100	122 400	174 000	190 300	288 100	447 600	242 700
% foreign-born	12,2	15,8	11,8	16,8	8,0	19,5	9,0
Afghanistan	2 900	500	300	S	S	1 100	S
Argentina	10 600	700	1 600	1 200	2 000	2 500	2 500
Australia	4 400	300	200	1 200	800	800	1 000
Austria	5 400	600	300	400	2 600	900	600
Bangladesh	5 300	1 000	S	1 500	S	1 700	S
Belgium	4 700	100	700	200	1 200	1 200	1 400
Bolivia	2 600	S	400	S	700	S	900
Brazil	8 500	100	900	800	2 900	2 200	1 500
Bulgaria	900	S	S	S	S	S	S
Burma	3 600	800	400	700	900	800	S
Cameroon	1 600	S	400	S	S	400	S
Canada	70 500	6 700	10 300	6 800	20 000	11 100	15 600
Chile	3 500	300	400	S	900	600	1 200
China	133 400	18 400	16 900	24 000	15 800	47 800	10 500
Columbia	14 600	300	2 200	500	5 900	3 300	2 400
Costa_Rica	2 300	S	S	S	S	900	S
Cuba	27 000	2 100	3 100	2 100	5 600	5 800	8 300
Cyprus	1 600	S	S	S	500	600	S
Czechoslovakia	6 300	400	600	1 000	900	2 200	1 100
Denmark	2 900	300	300	S	1 000	900	S
Dominican_Rep.	6 300	S	900	700	2 200	1 200	1 200
Egypt	13 700	1 100	1 200	1 500	1 700	6 000	2 200
El_Salvador	2 800	S	800	S	800	600	S
Equador	6 300	S	S	900	1 200	1 500	2 000
Ethiopia	3 600	500	500	700	500	600	S
FSU	37 100	3 400	4 500	7 400	6 200	13 400	2 200
Finland	3 700	700	S	S	400	800	1 300
France	14 400	700	2 100	1 200	3 700	2 900	3 900
Germany	81 800	7 300	9 400	8 600	23 500	17 000	15 800
Ghana	3 400	300	800	S	800	600	S
Greece	11 600	900	600	2 000	2 200	3 700	2 300
Guatemala	1 900	S	100	S	400	S	1 000
Haiti	5 400	400	1 200	500	1 600	800	1 000
Hungary	8 900	1 300	1 100	600	1 400	2 500	2 000
India	186 100	17 600	21 600	26 700	25 200	62 000	32 900
Indonesia	6 300	400	800	500	1 000	2 600	1 000
Iran	47 900	2 700	4 600	5 600	4 900	23 300	6 900
Iraq	3 700	S	700	S	S	1 500	S
Ireland	5 100	400	300	900	1 300	1 100	1 200
Israel	12 400	600	1 000	1 900	2 900	3 200	2 900
Italy	16 900	1 100	1 700	1 600	4 100	4 800	3 500
Jamaica	16 000	1 000	2 000	1 500	5 000	3 000	3 500
Japan	35 700	2 400	4 800	2 800	11 300	6 700	7 800
Jordan	4 700	200	200	500	500	2 800	S

Kenya	3 200	S	900	S	900	S	S
Korea	52 200	4 400	7 100	5 000	12 700	15 800	7 300
Kuwait	2 200	S	S	500	S	1 300	S
Laos	2 900	S	S	S	S	900	S
Lebanon	14 200	600	800	1 800	2 000	5 700	3 200
Malaysia	6 800	500	500	1 000	700	3 000	1 000
Mexico	34 200	1 600	1 700	2 800	10 900	11 600	5 600
Nepal	1 100	S	100	S	S	S	S
Netherlands	9 700	800	1 700	600	2 100	2 800	1 600
Nicaragua	4 600	300	1 200	S	1 000	900	1 200
Nigeria	9 100	900	1 200	500	2 500	1 500	2 500
Norway	3 400	S	100	S	S	1 100	1 300
Other_Africa	17 500	800	2 000	3 000	3 500	4 600	3 600
Other_Americas	12 000	800	1 500	2 300	3 100	1 800	2 500
Other_Asia	4 400	300	400	1 300	700	1 300	S
Other_Europe	3 300	600	500	300	500	900	S
Other_Oceania	15 200	1 000	1 100	800	4 200	4 600	3 500
Pakistan	17 800	800	1 600	2 000	3 000	5 700	4 800
Palestine	2 800	S	300	S	600	1 300	S
Panama	8 200	200	1 100	S	2 700	1 900	1 900
Peru	9 100	700	1 400	600	3 100	2 700	600
Philippines	85 200	6 900	13 900	7 500	14 900	30 900	11 100
Poland	22 100	2 100	2 800	2 600	3 500	8 400	2 700
Portugal	2 900	S	400	S	1 100	900	S
Romania	9 200	800	900	1 300	1 000	4 600	600
Singapore	3 400	S	S	1 000	900	800	S
South Africa	5 600	S	500	400	1 800	1 000	1 600
Spain	5 700	500	1 000	600	1 600	1 300	800
Sri Lanka	4 500	600	1 000	300	300	1 400	1 100
Surinam	6 800	S	1 400	800	600	1 300	2 500
Sweden	3 600	400	100	S	1 500	600	S
Switzerland	4 300	1 000	700	400	1 100	300	900
Syria	4 600	400	S	1 000	S	2 500	S
Taiwan	69 600	3 600	6 700	18 700	7 100	25 600	7 800
Thailand	8 100	500	900	1 300	1 400	2 000	1 900
Trinidad/Tobago	6 200	S	400	800	1 800	2 000	1 100
Turkey	10 300	700	400	1 400	1 900	4 400	1 500
UK	73 400	8 900	9 200	6 600	18 300	17 800	12 500
Venezuela	7 800	100	900	800	1 100	2 600	2 300
Vietnam	44 700	2 400	5 000	10 400	4 000	18 700	4 200
Yugoslavia	5 100	400	900	200	1 000	2 400	S

Appendix table A-2 cont.

	Field of highest degree						
	Total	Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1995							
Total S&E degree holders in U.S.	11 456 500	763 100	1 392 000	1 090 400	3 422 800	2 254 900	2 533 300
Native	10 060 200	642 800	1 226 100	915 400	3 144 600	1 822 200	2 309 100
Foreign-born total	1 395 900	120 300	165 800	175 100	278 000	432 600	224 100
% foreign-born	12,2	15,8	11,9	16,1	8,1	19,2	8,8
Afghanistan	2 300	400	S	S	S	900	S
Argentina	9 500	800	1 400	1 000	1 500	2 300	2 500
Australia	4 500	200	600	1 100	1 200	500	900
Austria	5 800	400	300	500	2 700	900	900
Bangladesh	4 800	900	200	1 200	600	1 600	S
Belgium	5 600	200	700	200	1 700	1 200	1 700
Bolivia	2 200	S	S	S	600	500	S
Brazil	8 100	200	700	800	2 600	2 200	1 600
Bulgaria	600	S	S	S	S	S	S
Burma	3 500	700	400	600	800	900	S
Cameroon	1 300	S	300	S	S	S	S
Canada	67 400	6 800	8 900	6 400	18 700	11 500	15 100
Chile	3 100	200	300	200	600	600	1 200
China	120 700	16 100	15 500	21 000	14 700	42 500	10 800
Columbia	12 600	200	1 700	900	4 900	3 100	1 800
Costa_Rica	2 000	S	500	S	400	700	S
Cuba	26 900	2 000	2 700	2 100	6 200	6 300	7 600
Cyprus	1 500	S	S	S	300	500	S
Czechoslovakia	6 300	400	300	1 000	1 100	2 300	1 200
Denmark	2 600	300	300	S	900	800	S
Dominican_Rep.	6 500	200	1 000	500	2 700	1 300	800
Egypt	13 700	1 300	1 300	1 400	1 600	6 100	2 000
El_Salvador	3 200	S	700	S	1 000	1 000	S
Equador	5 900	500	S	600	1 300	1 700	1 800
Ethiopia	3 900	500	500	500	1 100	1 000	S
FSU	36 900	3 000	4 500	6 600	5 000	15 800	2 000
Finland	3 200	700	100	S	700	700	900
France	14 400	500	2 700	1 000	3 700	2 700	3 900
Germany	73 400	7 000	8 300	8 200	20 500	16 000	13 400
Ghana	3 500	200	900	300	600	800	800
Greece	11 500	1 000	600	2 000	2 600	3 900	1 500
Guatemala	1 700	200	100	S	900	S	S
Haiti	5 400	300	900	400	1 700	900	1 200
Hungary	9 100	1 200	1 300	700	1 300	2 500	2 100
India	172 400	17 400	20 600	22 800	26 200	54 700	30 600
Indonesia	6 300	300	900	500	1 200	2 500	900
Iran	47 300	3 300	4 400	5 600	4 600	23 400	6 000
Iraq	3 900	600	700	S	800	1 500	S
Ireland	4 600	400	200	700	1 000	1 100	1 100
Israel	11 200	600	700	1 900	3 000	2 700	2 300
Italy	16 300	1 400	1 700	1 400	3 800	4 800	3 200
Jamaica	15 000	900	2 000	1 000	4 800	3 200	3 100
Japan	34 800	2 500	5 400	2 100	11 300	6 300	7 200
Jordan	5 000	200	200	600	500	2 800	S

Kenya	3 000	200	700	S	1 000	400	S
Korea	52 200	4 700	6 500	4 900	12 900	17 100	6 000
Kuwait	1 700	S	S	S	S	1 100	S
Laos	2 500	S	S	S	S	1 000	S
Lebanon	13 800	700	700	1 900	1 700	5 500	3 300
Malaysia	5 600	300	600	900	600	2 400	800
Mexico	32 100	1 500	2 000	2 800	9 900	11 000	4 900
Nepal	900	S	S	S	S	S	S
Netherlands	8 800	1 000	1 400	500	1 700	2 700	1 400
Nicaragua	4 000	S	1 300	S	600	700	800
Nigeria	8 600	600	1 100	800	2 300	1 100	2 600
Norway	3 500	S	S	500	800	1 000	1 200
Other_Africa	16 300	900	2 100	1 900	4 000	4 200	3 300
Other_Americas	10 800	600	1 200	2 200	3 000	1 600	2 200
Other_Asia	5 000	400	600	1 300	800	1 400	S
Other_Europe	2 900	500	200	S	600	900	S
Other_Oceania	15 800	1 300	1 200	1 200	4 600	4 300	3 300
Pakistan	16 400	1 100	1 700	1 800	2 200	5 500	4 200
Palestine	2 700	100	400	300	500	1 100	S
Panama	7 500	S	1 000	S	2 400	2 300	1 400
Peru	9 100	800	1 100	100	2 900	3 000	1 200
Philippines	88 700	6 600	15 000	7 600	15 800	31 900	11 700
Poland	21 900	2 500	2 600	2 600	3 200	8 200	2 900
Portugal	2 500	S	300	S	1 100	900	S
Romania	8 300	700	800	1 100	1 000	4 200	600
Singapore	2 700	200	S	1 000	500	500	S
South Africa	5 300	400	600	400	1 600	900	1 400
Spain	6 300	500	800	600	2 200	1 000	1 200
Sri Lanka	4 000	500	1 200	300	S	1 200	800
Surinam	5 600	200	1 100	500	500	1 400	1 900
Sweden	3 900	300	100	400	1 600	900	S
Switzerland	4 000	800	700	500	600	500	1 100
Syria	4 500	400	300	800	S	2 300	S
Taiwan	69 200	4 000	7 500	19 300	6 300	26 200	6 000
Thailand	8 000	600	1 200	1 100	1 400	2 000	1 700
Trinidad/Tobago	5 200	S	300	600	1 700	1 500	1 000
Turkey	9 400	600	600	1 000	2 000	3 800	1 400
U.S.	426 200	28 300	56 500	43 600	225 300	68 500	4 100
UK	69 700	8 900	8 500	6 600	17 100	16 900	11 800
Venezuela	7 400	300	700	700	1 300	2 200	2 100
Vietnam	39 300	2 200	3 200	9 400	3 300	17 800	3 500
Yugoslavia	5 800	600	1 000	200	800	2 800	S

Appendix table A-2 cont.

	Field of highest degree						
	Total	Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1993							
Total S&E degree holders in U.S.	11 021 600	760 700	1 322 600	1 046 400	3 224 600	2 216 700	2 450 600
Native	9 664 500	639 700	1 162 300	880 000	2 958 700	1 792 700	2 231 100
Foreign-born total	1 357 100	121 000	160 300	166 400	265 900	424 000	219 500
% foreign-born	12,3	15,9	12,1	15,9	8,2	19,1	9,0
Afghanistan	2 200	S	200	S	S	1 000	S
Argentina	9 400	700	1 700	1 000	1 600	2 400	2 100
Australia	5 400	400	700	1 100	1 700	600	900
Austria	7 400	1 200	400	500	2 800	1 400	1 200
Bangladesh	4 700	1 100	200	1 100	1 000	900	400
Belgium	4 700	200	600	200	1 100	1 200	1 300
Bolivia	2 000	S	S	S	400	600	S
Brazil	8 000	400	1 200	700	1 900	2 200	1 700
Bulgaria	400	S	S	S	S	S	S
Burma	4 100	800	400	700	900	800	S
Cameroon	1 200	S	S	S	S	400	S
Canada	66 300	6 700	8 400	6 500	16 200	12 700	15 800
Chile	3 200	100	400	100	800	700	1 100
China	114 200	15 200	14 300	18 800	15 400	40 100	10 500
Columbia	12 400	400	1 600	800	4 100	3 500	2 000
Costa_Rica	2 300	S	400	S	700	500	400
Cuba	27 000	2 100	3 100	2 500	6 500	5 700	7 200
Cyprus	1 100	200	S	S	200	500	S
Czechoslovakia	7 800	600	300	900	1 700	2 900	1 300
Denmark	2 400	200	200	300	800	700	S
Dominican_Rep.	6 000	300	1 300	S	2 200	1 200	800
Egypt	13 400	1 100	1 400	1 000	1 600	6 600	1 700
El_Salvador	2 900	S	700	500	600	800	S
Ecuador	5 700	400	S	500	1 000	1 800	1 700
Ethiopia	3 600	500	400	500	1 200	700	S
FSU	35 800	3 100	4 300	5 400	4 500	16 300	2 200
Finland	3 000	600	100	S	700	800	700
France	14 100	600	2 200	1 000	3 700	2 700	3 800
Germany	67 900	6 700	7 300	7 700	18 600	14 300	13 300
Ghana	3 400	100	600	300	900	700	700
Greece	11 800	1 200	600	1 800	2 600	3 700	2 000
Guatemala	1 900	100	300	S	800	200	S
Haiti	5 100	400	1 300	200	1 200	1 000	900
Hungary	8 100	1 000	1 200	600	1 200	2 500	1 500
India	160 900	18 100	18 700	18 800	25 200	49 700	30 400
Indonesia	6 100	300	900	700	800	2 700	800
Iran	45 900	2 900	4 000	6 000	4 500	22 800	5 500
Iraq	4 300	400	700	200	700	1 900	500
Ireland	5 000	300	400	800	1 100	1 300	1 100
Israel	10 600	700	800	1 600	2 900	2 700	1 900
Italy	15 700	1 300	1 800	1 200	3 000	4 800	3 600
Jamaica	13 700	800	2 200	1 000	4 400	2 800	2 500
Japan	35 800	2 700	5 000	2 200	11 400	8 300	6 100
Jordan	4 900	200	400	700	300	2 900	S

Kenya	3 200	200	600	300	900	400	900
Korea	52 100	4 700	7 300	5 700	12 600	17 000	4 800
Kuwait	1 500	S	S	500	S	800	S
Laos	1 300	S	S	S	S	600	S
Lebanon	13 700	700	700	2 000	1 200	5 800	3 300
Malaysia	5 600	600	600	700	500	2 300	1 000
Mexico	32 500	1 600	2 700	3 000	9 900	10 100	5 200
Nepal	600	S	S	S	S	S	S
Netherlands	10 500	1 200	1 400	500	2 200	3 100	2 200
Nicaragua	3 400	200	1 000	S	500	700	700
Nigeria	7 200	500	900	800	1 600	1 300	2 200
Norway	3 500	100	100	300	800	1 100	1 100
Other_Africa	17 000	1 100	2 400	1 600	4 300	4 100	3 600
Other_Americas	10 400	400	1 000	2 000	2 200	1 700	3 100
Other_Asia	4 300	300	300	1 300	700	1 300	S
Other_Europe	2 600	400	S	400	400	800	S
Other_Oceania	17 900	1 700	1 700	1 100	5 200	4 400	3 600
Pakistan	16 600	1 200	1 600	2 100	2 800	4 900	3 900
Palestine	2 900	300	300	200	700	1 100	S
Panama	7 900	200	800	S	2 500	2 600	1 700
Peru	9 700	1 000	1 200	400	2 300	3 700	1 300
Philippines	85 600	6 300	13 200	7 200	15 500	30 800	12 600
Poland	22 800	2 500	2 700	2 900	3 600	8 200	3 000
Portugal	2 600	S	300	100	1 200	600	S
Romania	8 600	900	900	600	1 200	4 300	800
Singapore	2 700	S	500	600	700	700	S
South Africa	4 600	300	400	400	1 500	800	1 200
Spain	5 100	400	700	400	1 400	1 300	1 000
Sri Lanka	4 100	300	1 100	200	600	1 000	800
Surinam	6 200	800	1 000	700	800	1 500	1 400
Sweden	4 300	200	300	500	1 600	1 100	600
Switzerland	3 400	500	500	400	500	700	800
Syria	4 600	300	400	900	200	2 400	300
Taiwan	68 400	4 800	7 400	19 500	5 200	24 700	6 900
Thailand	7 300	600	1 100	900	1 200	1 800	1 700
Trinidad/Tobago	5 000	S	300	800	1 600	1 500	800
Turkey	9 800	700	600	1 000	1 800	4 300	1 400
UK	65 900	8 300	8 000	6 100	16 700	16 500	10 200
Venezuela	7 900	200	1 000	1 200	1 300	2 500	1 800
Vietnam	35 800	2 100	3 100	9 200	2 100	16 100	3 200
Yugoslavia	5 600	500	800	300	1 100	2 800	S

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Appendix table A-3.

S&E Degree Holders Employed in the United States by Place of Birth and Occupation Group: 1993-1999

1999	Occupation group						
	Total	Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
Total employed S&E degree holders	10 479 900	294 100	323 500	1 007 100	344 000	1 290 300	7 220 900
Native	9 133 600	242 800	265 100	796 100	306 700	1 043 400	6 479 500
Foreign-born total	1 346 300	51 300	58 400	211 000	37 300	246 900	741 400
% foreign-born	12,8	17,4	18,1	21,0	10,8	19,1	10,3
Place of birth							
Afghanistan	2 100	S	S	S	S	700	1 000
Argentina	10 400	600	900	1 300	800	1 000	5 800
Australia	5 100	300	200	400	500	800	2 900
Austria	3 700	S	S	500	600	700	1 700
Bangladesh	4 900	600	S	900	S	1 200	2 300
Belgium	4 600	S	500	300	400	900	2 300
Bolivia	2 900	S	S	S	S	S	2 500
Brazil	7 800	200	100	500	600	1 300	5 100
Bulgaria	900	100	S	S	S	S	500
Burma	3 100	S	100	1 300	S	S	1 700
Cameroon	1 600	S	S	S	S	600	600
Canada	59 100	2 200	2 900	6 300	3 200	7 300	37 100
Chile	3 100	S	100	400	100	300	2 100
China	127 700	9 400	10 300	33 900	1 500	28 500	44 100
Columbia	14 300	200	S	1 000	1 200	1 800	10 100
Costa_Rica	2 200	S	400	S	S	S	600
Cuba	20 800	400	500	1 900	300	3 400	14 400
Cyprus	1 800	S	S	S	500	300	700
Czechoslovakia	5 000	500	S	300	S	500	3 600
Denmark	2 100	S	S	S	S	S	1 400
Dominican_Rep.	7 800	S	S	900	400	1 100	5 500
Egypt	10 500	300	300	1 500	200	3 000	5 100
El_Salvador	2 300	S	S	S	S	200	1 200
Equador	6 200	400	S	S	S	900	4 600
Ethiopia	3 600	200	200	S	S	200	2 500
FSU	32 200	1 000	1 100	7 900	400	6 000	15 800
Finland	2 200	S	S	S	S	S	1 200
France	13 100	400	600	1 600	200	1 700	8 600
Germany	69 900	2 800	2 900	8 400	3 300	8 100	44 500
Ghana	3 800	S	100	200	100	700	2 600
Greece	10 700	300	100	1 500	900	2 000	5 900
Guatemala	1 600	S	100	S	S	S	1 200
Haiti	5 000	S	S	600	S	300	4 000
Hungary	6 700	400	500	600	400	1 000	3 800
India	181 500	5 900	8 700	41 200	2 800	40 000	82 800
Indonesia	6 000	S	S	900	S	1 500	3 400
Iran	40 400	800	700	5 100	700	10 100	23 000
Iraq	3 200	S	S	S	S	900	1 800
Ireland	3 600	S	S	S	300	800	1 800
Israel	11 200	200	100	1 400	300	1 100	8 200
Italy	16 700	900	1 400	1 900	400	2 700	9 500

Jamaica	15 200	300	400	1 400	600	1 800	10 700
Japan	33 300	1 200	1 300	3 400	700	5 300	21 500
Jordan	4 700	S	100	S	S	2 200	2 000
Kenya	3 400	S	100	S	200	S	2 500
Korea	45 100	1 000	2 100	6 500	800	7 800	27 000
Kuwait	2 700	S	S	S	S	1 000	1 500
Laos	4 500	S	S	S	S	900	2 600
Lebanon	12 300	600	500	1 500	S	2 300	7 000
Malaysia	7 600	S	600	1 800	600	2 200	2 400
Mexico	32 400	200	500	2 900	700	5 400	22 700
Nepal	1 300	S	S	S	S	S	S
Netherlands	8 000	200	400	800	200	600	5 800
Nicaragua	4 600	S	S	S	S	300	3 200
Nigeria	10 200	600	300	800	100	1 100	7 200
Norway	2 300	S	S	S	S	500	1 100
Other_Africa	17 700	200	700	2 400	1 200	3 400	10 000
Other_Americas	12 100	100	400	1 400	700	1 500	7 900
Other_Asia	5 100	400	S	800	S	700	3 000
Other_Europe	4 000	S	S	600	S	500	2 600
Other_Oceania	11 000	800	200	1 300	S	1 300	7 300
Pakistan	16 800	500	300	2 900	600	5 500	7 000
Palestine	1 900	S	200	S	200	200	1 300
Panama	7 800	S	S	700	S	700	5 900
Peru	8 300	200	400	600	200	1 400	5 500
Philippines	69 300	2 400	900	4 200	300	11 000	50 500
Poland	18 500	1 800	800	1 800	500	4 000	9 500
Portugal	2 600	S	S	S	S	S	1 600
Romania	9 700	600	S	900	S	3 900	4 200
Singapore	1 900	S	S	700	S	S	1 000
South Africa	4 800	S	400	800	500	400	2 600
Spain	5 600	S	400	800	200	700	3 400
Sri Lanka	4 800	500	500	1 000	200	1 000	1 700
Surinam	7 500	S	S	400	S	600	6 000
Sweden	2 700	400	S	800	S	200	1 100
Switzerland	3 500	300	400	500	S	S	1 900
Syria	4 100	100	S	600	S	1 300	1 700
Taiwan	66 000	1 800	3 000	18 700	1 400	13 200	27 900
Thailand	6 900	S	200	400	S	1 400	4 700
Trinidad/Tobago	6 500	S	S	S	200	700	4 900
Turkey	11 400	400	900	1 900	300	2 600	5 300
UK	69 900	3 800	4 600	8 100	2 800	9 600	41 100
Venezuela	8 400	S	100	1 800	S	1 500	5 000
Vietnam	44 500	1 100	1 100	9 100	S	12 500	20 700
Yugoslavia	3 200	300	300	500	100	1 200	800

Appendix table A-3 cont.

	Total	Occupation group					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1997							
Total S&E degree holders employed in	10 057 600	280 200	302 500	883 100	328 800	1 282 800	6 980 200
Native	8 800 400	229 700	251 400	705 200	295 300	1 043 100	6 275 700
Foreign-born total	1 256 800	50 500	51 100	177 900	33 600	239 700	704 000
% foreign-born	12,5	18,0	16,9	20,1	10,2	18,7	10,1
Afghanistan	2 800	S	S	S	S	1 000	1 300
Argentina	8 700	300	900	1 000	400	1 100	4 900
Australia	4 000	400	200	800	300	500	1 900
Austria	4 200	S	200	500	400	800	2 100
Bangladesh	5 000	500	S	700	S	1 100	2 600
Belgium	3 900	S	500	S	400	500	2 300
Bolivia	2 400	S	S	S	300	S	1 700
Brazil	7 200	200	200	800	400	800	4 900
Bulgaria	600	S	S	S	S	S	S
Burma	3 500	S	S	800	S	S	2 300
Cameroon	1 600	S	S	S	S	500	800
Canada	53 500	2 600	3 000	5 500	3 500	5 700	33 200
Chile	3 200	200	200	100	200	400	2 100
China	115 700	8 400	8 700	27 100	2 100	28 100	41 200
Columbia	13 400	200	100	600	400	2 200	9 900
Costa_Rica	2 000	S	S	S	S	900	900
Cuba	22 500	300	500	1 300	300	3 800	16 400
Cyprus	1 500	S	S	S	300	400	500
Czechoslovakia	4 200	400	S	300	S	300	3 100
Denmark	2 200	S	S	S	S	300	1 500
Dominican_Rep.	6 000	S	S	200	S	700	5 000
Egypt	11 700	700	300	1 600	200	3 400	5 500
El_Salvador	2 100	S	S	S	300	300	1 400
Equador	6 100	S	S	S	S	1 100	4 500
Ethiopia	3 600	200	500	800	S	300	1 800
FSU	29 000	1 100	900	5 000	200	6 800	15 100
Finland	2 600	S	S	S	S	S	1 500
France	12 400	400	700	1 700	700	1 200	7 800
Germany	67 200	2 900	2 500	7 700	2 500	9 500	42 000
Ghana	3 200	S	S	S	300	500	2 100
Greece	10 800	400	400	1 400	700	2 300	5 500
Guatemala	1 800	S	100	S	S	S	1 400
Haiti	4 400	S	S	S	S	500	3 700
Hungary	6 900	600	400	300	400	800	4 300
India	164 400	6 800	7 800	33 600	3 000	36 500	76 700
Indonesia	5 200	400	S	500	S	1 000	3 200
Iran	41 000	1 100	700	5 200	600	11 100	22 400
Iraq	3 300	S	100	300	S	800	2 000
Ireland	4 600	S	100	300	400	500	3 000
Israel	11 800	200	300	1 800	600	1 500	7 300
Italy	13 900	400	1 500	1 700	600	2 900	6 900
Jamaica	13 200	300	200	1 600	200	1 500	9 400
Japan	31 200	600	1 400	3 400	700	4 800	20 300
Jordan	4 300	200	S	300	S	1 900	1 800

Kenya	2 700	S	S	S	100	300	2 100
Korea	42 900	1 300	2 000	5 400	800	7 500	25 900
Kuwait	2 100	S	S	200	S	900	1 000
Laos	2 400	S	S	S	S	S	1 800
Lebanon	12 700	600	600	1 600	400	2 200	7 300
Malaysia	6 500	S	300	1 900	200	2 300	1 700
Mexico	30 200	300	400	2 100	800	4 600	22 100
Nepal	1 000	S	S	S	S	S	S
Netherlands	7 600	100	600	900	200	600	5 200
Nicaragua	3 700	S	S	S	S	300	3 100
Nigeria	9 000	300	600	700	600	900	5 900
Norway	2 400	S	S	S	S	300	1 600
Other_Africa	16 000	300	900	2 600	500	3 000	8 800
Other_Americas	10 800	500	400	1 300	400	800	7 400
Other_Asia	4 000	400	S	700	S	300	2 400
Other_Europe	2 600	200	S	400	S	300	1 300
Other_Oceania	11 800	1 000	200	900	S	1 800	7 900
Pakistan	16 000	400	500	2 300	600	3 400	8 800
Palestine	2 400	S	100	300	100	300	1 600
Panama	7 700	S	S	500	S	1 000	5 800
Peru	7 900	S	400	200	200	1 500	5 400
Philippines	74 100	2 300	1 400	3 900	1 000	11 400	54 100
Poland	17 500	1 100	800	1 900	600	3 900	9 400
Portugal	2 000	S	S	S	S	S	1 300
Romania	8 100	300	S	900	S	3 200	3 500
Singapore	1 700	S	S	500	S	400	700
South Africa	4 200	S	S	600	400	400	2 500
Spain	4 500	S	200	400	100	900	2 700
Sri Lanka	4 200	400	300	600	200	900	1 900
Surinam	5 200	S	S	300	S	500	4 100
Sweden	2 800	400	S	S	S	S	1 700
Switzerland	3 700	500	300	800	S	200	1 500
Syria	4 100	S	S	700	S	1 000	1 900
Taiwan	61 600	1 900	1 900	15 500	700	14 000	27 500
Thailand	6 900	200	100	500	S	1 600	4 400
Trinidad/Tobago	5 600	S	S	S	100	900	3 900
Turkey	9 000	300	300	1 600	200	2 800	3 800
UK	64 200	3 700	3 100	6 100	1 600	8 900	40 800
Venezuela	7 000	100	100	1 400	S	1 600	3 700
Vietnam	41 200	1 100	200	9 300	700	12 600	17 300
Yugoslavia	3 600	200	100	200	200	1 400	1 400

Appendix table A-3 cont.

	Total	Occupation group					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1995							
Total S&E Degree Holders Employed in	9 570 100	268 400	282 700	763 400	293 800	1 243 200	6 718 600
Native	8 394 100	220 500	236 100	624 200	264 000	1 023 700	6 025 600
Foreign-born total	1 175 700	47 900	46 600	139 200	29 800	219 500	692 700
% foreign-born	12,3	17,8	16,5	18,2	10,1	17,7	10,3
Afghanistan	2 800	S	S	S	S	S	1 000
Argentina	8 700	400	900	700	300	1 000	4 400
Australia	4 000	200	100	300	200	500	2 700
Austria	4 200	S	100	200	500	600	3 100
Bangladesh	5 000	300	400	S	S	1 100	2 700
Belgium	3 900	S	100	300	S	800	3 300
Bolivia	2 400	S	S	S	300	300	1 400
Brazil	7 200	100	200	800	300	500	5 600
Bulgaria	600	S	S	S	S	S	S
Burma	3 500	S	S	900	S	700	1 900
Cameroon	1 600	S	S	S	S	S	500
Canada	53 500	2 700	2 100	4 600	2 600	5 300	34 900
Chile	3 200	300	300	S	300	500	1 300
China	115 700	7 400	8 200	20 200	1 500	23 600	41 800
Columbia	13 400	300	S	500	400	1 600	9 100
Costa_Rica	2 000	S	S	S	S	S	1 100
Cuba	22 500	600	600	1 200	300	3 200	16 500
Cyprus	1 500	S	S	S	100	400	400
Czechoslovakia	4 200	300	100	500	S	300	3 600
Denmark	2 200	S	S	S	S	400	1 000
Dominican_Rep.	6 000	S	S	S	S	700	4 900
Egypt	11 700	500	300	1 500	200	2 600	5 500
El_Salvador	2 100	S	S	S	S	400	1 900
Equador	6 100	300	S	S	S	1 000	4 200
Ethiopia	3 600	100	200	500	100	600	1 800
FSU	29 000	1 100	800	3 900	S	6 200	16 000
Finland	2 600	300	300	S	S	400	1 100
France	12 400	300	700	1 200	800	1 300	7 900
Germany	67 200	1 900	2 300	6 200	2 900	8 800	36 900
Ghana	3 200	300	100	200	300	600	2 000
Greece	10 800	400	400	900	800	2 400	4 900
Guatemala	1 800	S	S	S	S	S	800
Haiti	4 400	S	S	S	S	500	3 300
Hungary	6 900	500	500	400	400	1 200	3 900
India	164 400	7 300	6 100	24 400	2 100	32 200	75 300
Indonesia	5 200	200	200	S	S	1 100	3 200
Iran	41 000	1 100	800	4 600	500	11 100	22 200
Iraq	3 300	S	200	400	S	600	2 200
Ireland	4 600	S	S	S	100	400	2 900
Israel	11 800	300	100	1 400	300	1 100	5 600
Italy	13 900	600	1 400	1 400	500	2 500	7 000
Jamaica	13 200	100	100	1 000	100	1 500	10 200
Japan	31 200	800	1 200	1 600	1 000	4 300	21 200
Jordan	4 300	200	100	S	S	1 900	2 100

Kenya	2 700	S	S	S	200	S	1 700
Korea	42 900	1 800	1 700	4 600	600	8 200	24 800
Kuwait	2 100	S	S	S	S	400	900
Laos	2 400	S	S	S	S	600	700
Lebanon	12 700	600	500	800	S	2 500	7 500
Malaysia	6 500	S	300	900	S	1 800	1 900
Mexico	30 200	300	400	1 400	500	4 500	20 400
Nepal	1 000	S	S	S	S	S	S
Netherlands	7 600	200	300	400	200	1 400	4 700
Nicaragua	3 700	S	S	S	S	100	2 800
Nigeria	9 000	200	700	600	300	600	5 500
Norway	2 400	S	S	S	S	700	1 500
Other_Africa	16 000	400	700	2 100	700	3 100	7 900
Other_Americas	10 800	800	500	800	300	900	6 500
Other_Asia	4 000	300	S	800	S	700	2 100
Other_Europe	2 600	S	S	400	S	300	1 700
Other_Oceania	11 800	700	400	1 000	S	1 500	8 700
Pakistan	16 000	500	500	1 000	400	2 900	7 500
Palestine	2 400	200	100	S	S	500	1 400
Panama	7 700	S	S	S	S	700	5 600
Peru	7 900	S	S	600	S	1 100	5 600
Philippines	74 100	1 600	1 300	4 400	900	12 000	55 900
Poland	17 500	1 000	900	2 000	600	3 600	9 400
Portugal	2 000	S	S	S	400	500	1 000
Romania	8 100	200	S	500	S	2 500	3 400
Singapore	1 700	S	S	600	S	400	700
South Africa	4 200	200	S	600	500	S	2 700
Spain	4 500	S	200	300	200	400	4 400
Sri Lanka	4 200	300	400	400	S	800	1 800
Surinam	5 200	S	S	400	S	400	4 300
Sweden	2 800	300	S	S	S	200	2 000
Switzerland	3 700	600	200	300	S	300	1 500
Syria	4 100	S	S	500	S	700	2 000
Taiwan	61 600	1 600	2 100	13 000	600	13 700	27 800
Thailand	6 900	100	S	400	S	1 500	4 400
Trinidad/Tobago	5 600	S	S	S	S	800	3 700
Turkey	9 000	300	300	900	500	1 800	4 600
UK	60 000	3 700	3 000	5 600	1 800	8 300	37 600
Venezuela	6 500	300	200	1 000	S	700	4 200
Vietnam	35 900	800	300	7 500	400	11 600	15 300
Yugoslavia	4 100	200	200	300	100	800	2 500

Appendix table A-3 cont.

	Total	Occupation group					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1993							
Total S&E Degree Holders Employed in	9 199 800	271 000	275 400	678 100	266 200	1 219 000	6 490 100
Native	8 062 200	222 600	229 500	555 100	237 000	998 500	5 819 500
Foreign-born total	1 137 600	48 400	45 900	123 000	29 200	220 500	670 600
% foreign-born	12,4	17,9	16,7	18,1	11,0	18,1	10,3
Afghanistan	1 900	S	S	S	S	700	1 000
Argentina	7 700	500	900	500	400	900	4 500
Australia	4 600	200	200	300	200	500	3 200
Austria	5 500	100	200	300	300	900	3 700
Bangladesh	3 800	300	100	200	S	800	2 300
Belgium	3 900	S	200	300	200	500	2 500
Bolivia	1 800	S	S	S	100	200	1 200
Brazil	7 400	100	200	700	300	1 100	4 900
Bulgaria	400	S	S	S	S	S	S
Burma	3 700	S	S	700	S	300	2 500
Cameroon	900	S	S	S	S	S	400
Canada	51 300	2 100	2 100	3 900	2 700	6 300	34 100
Chile	2 800	100	300	100	400	300	1 600
China	96 100	7 400	8 000	14 400	1 400	23 200	41 700
Columbia	10 500	100	300	900	200	2 200	6 800
Costa_Rica	2 000	S	100	S	S	300	1 400
Cuba	23 400	700	500	1 500	700	3 400	16 700
Cyprus	1 000	100	S	S	S	400	400
Czechoslovakia	6 200	500	S	600	100	800	4 100
Denmark	1 800	100	S	300	100	300	900
Dominican_Rep.	4 800	S	S	S	S	700	3 800
Egypt	10 300	500	400	900	200	2 800	5 700
El_Salvador	2 600	S	300	400	S	400	1 300
Equador	5 400	S	S	S	S	1 100	3 800
Ethiopia	3 100	300	100	200	S	500	2 000
FSU	26 500	700	1 000	4 300	200	7 400	12 800
Finland	2 400	200	200	S	100	300	1 500
France	12 300	300	800	1 400	500	1 500	7 900
Germany	54 900	2 600	1 800	4 500	2 800	7 600	35 600
Ghana	3 200	200	100	200	300	700	1 800
Greece	10 500	400	100	1 600	200	2 000	6 100
Guatemala	1 400	S	100	S	S	S	900
Haiti	3 900	S	S	S	S	600	3 100
Hungary	6 300	500	500	500	300	1 300	3 100
India	138 100	7 100	6 100	18 900	2 200	31 700	72 200
Indonesia	4 700	300	100	600	S	1 200	2 300
Iran	38 800	700	600	4 500	500	10 300	22 200
Iraq	3 300	200	200	200	S	700	2 000
Ireland	4 400	S	S	400	200	600	3 100
Israel	9 500	400	200	1 300	400	1 300	5 900
Italy	12 900	500	1 100	900	600	2 600	7 200
Jamaica	12 400	200	100	1 200	300	1 600	8 900
Japan	31 200	1 200	1 400	1 800	1 000	4 900	20 900
Jordan	4 500	100	100	300	S	1 700	2 200

Kenya	2 700	S	S	600	200	500	1 300
Korea	41 200	1 900	1 900	3 500	500	8 000	25 500
Kuwait	1 500	S	S	S	S	600	700
Laos	1 000	S	S	S	S	500	400
Lebanon	12 100	500	600	1 000	S	3 400	6 500
Malaysia	5 300	200	300	600	300	1 700	2 200
Mexico	27 400	500	700	1 600	500	4 500	19 500
Nepal	600	S	S	S	S	S	S
Netherlands	8 900	200	400	500	500	900	6 400
Nicaragua	2 900	S	S	S	S	200	2 400
Nigeria	6 300	300	400	400	400	600	4 200
Norway	2 600	100	S	400	S	500	1 400
Other_Africa	15 400	300	700	1 300	800	2 500	9 700
Other_Americas	9 200	600	400	800	200	1 100	6 100
Other_Asia	3 200	300	S	600	100	500	1 700
Other_Europe	2 500	100	S	300	100	400	1 600
Other_Oceania	14 200	700	600	1 400	600	2 000	8 900
Pakistan	13 300	500	400	1 200	300	3 200	7 800
Palestine	2 400	S	200	100	S	500	1 400
Panama	6 200	S	S	500	100	700	4 900
Peru	8 800	100	400	500	100	1 500	6 300
Philippines	73 100	1 500	1 200	4 000	600	11 500	54 300
Poland	17 300	1 300	700	1 700	400	3 200	10 100
Portugal	2 100	S	S	S	300	500	1 200
Romania	6 500	300	S	200	100	2 100	3 700
Singapore	1 800	S	S	700	S	400	600
South Africa	3 800	300	300	400	300	500	2 100
Spain	4 600	S	200	500	100	600	3 100
Sri Lanka	3 200	300	500	400	100	600	1 300
Surinam	5 600	S	100	500	200	800	3 900
Sweden	3 300	200	S	200	100	200	2 400
Switzerland	2 900	300	200	700	200	600	900
Syria	3 600	100	100	500	S	900	1 900
Taiwan	59 100	2 300	2 400	12 800	1 000	12 800	27 800
Thailand	6 400	100	400	400	S	1 200	4 300
Trinidad/Tobago	4 600	100	S	200	100	900	3 300
Turkey	8 400	200	200	1 300	400	1 900	4 500
UK	56 400	3 500	3 100	4 700	2 000	8 100	35 000
Venezuela	6 900	300	100	800	100	1 600	3 900
Vietnam	31 800	800	200	6 800	100	9 700	14 300
Yugoslavia	4 400	200	S	500	200	1 100	2 400

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.
Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Appendix table A-4.

**S&E Degree Holders Employed in the United States by Place of Birth
and Sector of Employment: 1993-1999**

	1999			
	Total	Sector of employment		
		Business /Industry	Education	Government
Total S&E Degree Holders Employed in U.S.	10 479 800	7 176 700	1 960 400	1 342 700
Native	9 133 500	6 217 600	1 717 200	1 198 700
Foreign-born total	1 346 300	959 100	243 200	144 000
% foreign-born	12,8	13,4	12,4	10,7
Place of birth				
Afghanistan	2 100	1 400	600	S
Argentina	10 400	6 100	3 000	1 300
Australia	5 100	2 900	1 800	S
Austria	3 700	1 900	1 000	800
Bangladesh	4 900	3 200	S	1 200
Belgium	4 600	3 100	1 200	S
Bolivia	2 900	1 800	800	S
Brazil	7 800	5 700	1 600	600
Bulgaria	900	400	500	S
Burma	3 100	2 200	400	S
Cameroon	1 600	700	500	S
Canada	59 100	44 100	10 600	4 300
Chile	3 100	2 100	800	S
China	127 700	96 400	21 000	10 300
Columbia	14 300	9 500	3 300	1 500
Costa_Rica	2 200	1 500	400	300
Cuba	20 800	13 000	4 600	3 300
Cyprus	1 800	1 100	600	S
Czechoslovakia	5 000	3 500	1 100	S
Denmark	2 100	1 200	500	S
Dominican_Rep.	7 800	5 200	1 500	1 100
Egypt	10 500	6 400	2 200	1 900
El_Salvador	2 300	1 200	900	S
Equador	6 200	4 800	400	1 000
Ethiopia	3 600	2 600	600	500
FSU	32 200	24 700	5 000	2 500
Finland	2 200	1 600	600	S
France	13 100	8 300	4 200	600
Germany	69 900	50 000	10 800	9 100
Ghana	3 800	2 400	800	600
Greece	10 700	6 500	2 700	1 500
Guatemala	1 600	400	600	S
Haiti	5 000	3 500	1 100	S
Hungary	6 700	4 900	1 200	500
India	181 500	133 700	30 600	17 200
Indonesia	6 000	3 700	1 800	S
Iran	40 400	30 200	6 500	3 800
Iraq	3 200	2 100	800	S
Ireland	3 600	2 400	1 100	S

Israel	11 200	6 900	3 600	700
Italy	16 700	12 300	2 600	1 800
Jamaica	15 200	10 100	2 900	2 200
Japan	33 300	22 400	6 300	4 600
Jordan	4 700	3 100	500	1 100
Kenya	3 400	2 300	600	500
Korea	45 100	34 100	6 600	4 400
Kuwait	2 700	2 400	S	S
Laos	4 500	3 500	S	S
Lebanon	12 300	8 900	2 400	1 000
Malaysia	7 600	5 900	900	700
Mexico	32 400	22 000	6 300	4 100
Nepal	1 300	700	200	S
Netherlands	8 000	5 600	2 000	500
Nicaragua	4 600	2 800	1 300	S
Nigeria	10 200	5 000	3 200	2 000
Norway	2 300	1 700	500	S
Other_Africa	17 700	10 700	4 000	3 100
Other_Americas	12 100	8 300	1 800	2 000
Other_Asia	5 100	4 100	800	S
Other_Europe	4 000	2 200	1 700	S
Other_Oceania	11 000	8 600	1 500	800
Pakistan	16 800	12 400	1 500	2 900
Palestine	1 900	1 600	300	S
Panama	7 800	5 200	S	2 200
Peru	8 300	6 300	1 900	S
Philippines	69 300	48 600	8 300	12 500
Poland	18 500	13 400	3 700	1 400
Portugal	2 600	1 700	300	S
Romania	9 700	6 300	2 300	1 100
Singapore	1 900	1 700	200	S
South Africa	4 800	3 600	1 100	S
Spain	5 600	3 200	1 800	700
Sri Lanka	4 800	3 300	1 300	S
Surinam	7 500	4 600	2 400	500
Sweden	2 700	1 800	600	S
Switzerland	3 500	2 300	900	S
Syria	4 100	2 900	800	400
Taiwan	66 000	51 300	9 500	5 200
Thailand	6 900	4 700	1 300	800
Trinidad/Tobago	6 500	3 100	1 200	2 200
Turkey	11 400	7 700	3 100	500
UK	69 900	50 600	14 200	5 100
Venezuela	8 400	7 300	700	S
Vietnam	44 500	32 900	6 100	5 500
Yugoslavia	3 200	2 600	600	S

Appendix table A-4 cont.

	Sector of employment			
	Total	Business /Industry	Education	Government
1997				
Total S&E Degree Holders Employed in U.S.	10 057 500	6 863 300	1 890 500	1 303 700
Native	8 800 400	5 973 400	1 659 700	1 167 300
Foreign-born total	1 256 700	889 800	230 800	136 100
% foreign-born	12,5	13,0	12,2	10,4
Afghanistan	2 800	2 000	500	S
Argentina	8 700	5 500	2 300	900
Australia	4 000	2 400	1 300	300
Austria	4 200	2 400	900	800
Bangladesh	5 000	3 100	1 100	900
Belgium	3 900	2 600	1 100	S
Bolivia	2 400	1 400	600	S
Brazil	7 200	5 300	1 400	400
Bulgaria	600	200	400	S
Burma	3 500	2 600	100	S
Cameroon	1 600	700	500	S
Canada	53 500	38 800	11 700	3 000
Chile	3 200	1 800	1 000	400
China	115 700	84 900	20 900	9 900
Columbia	13 400	8 900	3 400	1 100
Costa_Rica	2 000	1 400	300	S
Cuba	22 500	14 600	5 000	2 900
Cyprus	1 500	900	500	S
Czechoslovakia	4 200	2 900	900	400
Denmark	2 200	1 400	600	S
Dominican_Rep.	6 000	3 900	1 100	1 000
Egypt	11 700	7 800	1 900	2 000
El_Salvador	2 100	1 300	700	S
Equador	6 100	4 800	S	800
Ethiopia	3 600	2 500	500	500
FSU	29 000	22 200	4 100	2 700
Finland	2 600	2 000	600	S
France	12 400	7 000	4 100	1 300
Germany	67 200	46 000	11 900	9 300
Ghana	3 200	1 800	700	600
Greece	10 800	6 900	2 900	900
Guatemala	1 800	700	500	600
Haiti	4 400	2 400	900	1 100
Hungary	6 900	5 100	1 300	400
India	164 400	120 900	27 900	15 500
Indonesia	5 200	3 500	1 200	S
Iran	41 000	30 100	7 400	3 500
Iraq	3 300	2 000	1 000	400
Ireland	4 600	2 900	1 400	S
Israel	11 800	8 500	2 700	600
Italy	13 900	9 900	1 900	2 100
Jamaica	13 200	9 100	2 500	1 700
Japan	31 200	23 100	4 900	3 200

Jordan	4 300	2 500	800	1 000
Kenya	2 700	2 200	200	S
Korea	42 900	31 300	7 500	4 100
Kuwait	2 100	1 600	200	S
Laos	2 400	1 600	S	S
Lebanon	12 700	8 600	3 400	700
Malaysia	6 500	4 900	1 200	S
Mexico	30 200	21 300	6 300	2 600
Nepal	1 000	500	100	S
Netherlands	7 600	5 800	1 100	600
Nicaragua	3 700	2 400	800	S
Nigeria	9 000	4 700	2 600	1 600
Norway	2 400	1 700	500	S
Other_Africa	16 000	9 800	3 700	2 500
Other_Americas	10 800	7 100	2 300	1 400
Other_Asia	4 000	3 200	400	300
Other_Europe	2 600	1 800	800	S
Other_Oceania	11 800	9 100	1 300	1 400
Pakistan	16 000	10 600	2 700	2 700
Palestine	2 400	1 800	500	S
Panama	7 700	4 700	600	2 500
Peru	7 900	5 900	1 500	400
Philippines	74 100	51 300	9 600	13 100
Poland	17 500	12 900	2 800	1 800
Portugal	2 000	1 300	500	S
Romania	8 100	5 600	1 500	1 000
Singapore	1 700	1 200	500	S
South Africa	4 200	3 000	1 000	S
Spain	4 500	2 700	900	900
Sri Lanka	4 200	2 100	1 700	400
Surinam	5 200	2 700	2 200	400
Sweden	2 800	2 000	600	S
Switzerland	3 700	2 500	700	S
Syria	4 100	3 100	700	300
Taiwan	61 600	48 600	8 700	4 300
Thailand	6 900	4 700	1 100	1 100
Trinidad/Tobago	5 600	2 900	1 200	1 400
Turkey	9 000	6 200	2 500	400
UK	64 200	46 500	12 900	4 900
Venezuela	7 000	5 400	700	1 000
Vietnam	41 200	30 400	4 100	6 700
Yugoslavia	3 600	3 000	500	S

Appendix table A-4 cont.

	Sector of employment			
	Total	Business /Industry	Education	Government
1995				
Total S&E Degree Holders Employed in U.S.	9 569 900	6 487 700	1 766 100	1 316 100
Native	8 394 000	5 663 800	1 548 000	1 182 200
Foreign-born total	1 175 700	823 800	218 100	133 800
% foreign-born	12,3	12,7	12,3	10,2
Afghanistan	1 600	1 200	300	S
Argentina	7 700	4 700	2 200	900
Australia	4 100	2 500	1 200	400
Austria	4 600	2 800	900	800
Bangladesh	4 700	2 900	1 200	700
Belgium	5 000	3 100	1 400	500
Bolivia	2 200	1 700	300	S
Brazil	7 500	6 000	1 200	S
Bulgaria	600	S	200	S
Burma	3 500	2 700	300	S
Cameroon	1 200	600	300	S
Canada	52 200	38 100	10 900	3 200
Chile	2 900	1 600	1 000	S
China	102 600	72 400	20 200	9 900
Columbia	12 000	8 400	2 900	800
Costa_Rica	1 700	1 000	400	S
Cuba	22 500	15 100	4 300	3 100
Cyprus	1 100	900	200	S
Czechoslovakia	4 700	3 000	1 000	700
Denmark	1 900	1 200	500	S
Dominican_Rep.	5 700	3 400	1 200	1 100
Egypt	10 700	7 600	1 500	1 700
El_Salvador	3 000	1 300	1 500	200
Equador	5 600	4 700	500	400
Ethiopia	3 500	2 600	400	500
FSU	28 200	20 400	4 200	3 600
Finland	2 300	1 600	600	S
France	12 300	7 000	3 800	1 400
Germany	59 000	38 100	11 500	9 400
Ghana	3 400	2 100	1 000	400
Greece	9 800	6 200	2 500	1 100
Guatemala	1 100	400	500	S
Haiti	4 000	1 700	1 200	1 100
Hungary	6 800	4 900	1 300	600
India	147 500	106 800	26 700	14 000
Indonesia	5 000	3 700	1 100	S
Iran	40 300	29 100	6 500	4 700
Iraq	3 500	2 300	900	300
Ireland	4 100	2 700	1 200	S
Israel	8 800	6 100	2 200	500
Italy	13 400	8 900	2 500	1 900
Jamaica	13 100	8 500	2 200	2 400

Japan	30 000	21 400	4 500	4 100
Jordan	4 500	3 000	800	700
Kenya	2 500	1 600	400	500
Korea	41 800	30 200	7 400	4 300
Kuwait	1 400	1 000	S	S
Laos	1 600	900	S	S
Lebanon	11 900	8 300	2 600	1 000
Malaysia	4 900	4 100	500	300
Mexico	27 600	19 500	5 200	2 900
Nepal	900	S	200	S
Netherlands	7 200	5 500	1 100	700
Nicaragua	3 200	1 900	600	700
Nigeria	7 900	4 200	2 100	1 500
Norway	2 800	1 700	700	S
Other_Africa	14 800	8 700	4 000	2 000
Other_Americas	9 800	6 400	2 300	1 100
Other_Asia	3 900	2 700	800	500
Other_Europe	2 600	2 000	300	S
Other_Oceania	12 300	9 400	1 300	1 600
Pakistan	12 900	8 900	1 900	2 100
Palestine	2 300	1 600	600	S
Panama	7 000	4 200	700	2 200
Peru	7 600	5 100	2 000	S
Philippines	76 200	54 200	9 900	12 100
Poland	17 500	13 000	2 800	1 600
Portugal	2 000	1 400	300	S
Romania	6 600	4 600	1 400	600
Singapore	1 800	1 300	400	S
South Africa	4 400	2 700	1 100	S
Spain	5 800	3 300	1 800	800
Sri Lanka	3 800	2 100	1 400	300
Surinam	5 100	2 800	2 100	S
Sweden	2 800	2 000	500	S
Switzerland	3 300	2 300	700	S
Syria	3 600	2 700	700	S
Taiwan	58 900	45 700	8 600	4 600
Thailand	6 700	4 500	1 500	800
Trinidad/Tobago	4 700	2 400	800	1 500
Turkey	8 500	6 300	2 200	S
UK	60 000	43 900	10 600	5 600
Venezuela	6 500	5 100	600	800
Vietnam	35 900	27 300	3 500	5 100
Yugoslavia	4 100	3 200	800	S

Appendix table A-4 cont.

	Sector of employment			
	Total	Business /Industry	Education	Government
1993				
Total S&E Degree Holders Employed in U.S.	9 200 000	6 220 300	1 680 200	1 299 500
Native	8 062 200	5 428 500	1 459 700	1 174 000
Foreign-born total	1 137 800	791 800	220 500	125 500
% foreign-born	12,4	12,7	13,1	9,7
Afghanistan	1 900	1 600	200	200
Argentina	7 700	5 500	1 900	300
Australia	4 600	2 600	1 400	600
Austria	5 500	3 600	1 200	700
Bangladesh	3 800	2 600	700	500
Belgium	3 900	2 300	1 300	S
Bolivia	1 800	1 500	100	S
Brazil	7 400	5 600	1 500	300
Bulgaria	400	300	S	S
Burma	3 700	2 800	200	700
Cameroon	900	500	S	S
Canada	51 300	37 600	10 500	3 200
Chile	2 800	1 700	800	300
China	96 100	62 500	24 800	8 800
Columbia	10 500	6 600	2 900	1 100
Costa_Rica	2 000	1 100	600	400
Cuba	23 400	15 900	4 600	3 000
Cyprus	1 000	700	300	S
Czechoslovakia	6 200	4 400	900	800
Denmark	1 800	900	700	S
Dominican_Rep.	4 800	3 600	700	500
Egypt	10 300	6 700	1 400	2 200
El_Salvador	2 600	1 800	700	S
Equador	5 400	4 300	600	400
Ethiopia	3 100	2 000	700	500
FSU	26 500	20 400	3 300	2 800
Finland	2 400	1 400	800	100
France	12 300	7 600	3 100	1 600
Germany	54 900	35 300	10 700	8 900
Ghana	3 200	2 000	700	600
Greece	10 500	7 100	2 300	1 000
Guatemala	1 400	800	400	200
Haiti	3 900	2 300	900	700
Hungary	6 300	4 200	1 400	600
India	138 100	99 200	24 500	14 400
Indonesia	4 700	3 100	1 300	400
Iran	38 800	28 500	6 200	4 000
Iraq	3 300	2 300	600	500
Ireland	4 400	3 300	800	S
Israel	9 500	6 400	2 700	400
Italy	12 900	9 000	2 500	1 400
Jamaica	12 400	7 800	2 500	2 100

Japan	31 200	22 300	5 400	3 400
Jordan	4 500	3 000	900	600
Kenya	2 700	1 900	600	200
Korea	41 200	29 900	8 100	3 200
Kuwait	1 500	1 000	S	300
Laos	1 000	800	S	S
Lebanon	12 100	8 100	2 600	1 300
Malaysia	5 300	4 100	1 000	S
Mexico	27 400	18 500	5 900	3 000
Nepal	600	400	100	S
Netherlands	8 900	6 400	1 500	1 000
Nicaragua	2 900	1 700	700	S
Nigeria	6 300	4 000	1 600	800
Norway	2 600	1 900	500	S
Other_Africa	15 400	9 200	3 600	2 700
Other_Americas	9 200	5 000	2 200	2 000
Other_Asia	3 200	2 000	500	700
Other_Europe	2 500	1 800	400	300
Other_Oceania	14 200	10 100	2 800	1 300
Pakistan	13 300	10 200	1 900	1 100
Palestine	2 400	1 700	700	100
Panama	6 200	3 700	900	1 600
Peru	8 800	6 700	1 700	400
Philippines	73 100	52 500	8 800	11 800
Poland	17 300	13 200	2 600	1 500
Portugal	2 100	1 600	400	S
Romania	6 500	4 500	1 600	400
Singapore	1 800	1 200	500	S
South Africa	3 800	2 700	1 000	100
Spain	4 600	3 000	1 000	600
Sri Lanka	3 200	1 600	1 300	300
Surinam	5 600	2 800	2 000	800
Sweden	3 300	2 000	900	S
Switzerland	2 900	2 000	700	100
Syria	3 600	2 700	600	200
Taiwan	59 100	42 500	10 700	6 000
Thailand	6 400	4 200	1 700	400
Trinidad/Tobago	4 600	2 700	500	1 400
Turkey	8 400	5 700	2 300	400
UK	56 400	41 000	11 100	4 300
Venezuela	6 900	5 000	1 000	900
Vietnam	31 800	23 600	3 700	4 500
Yugoslavia	4 400	3 600	800	S

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Appendix table A-5.

S&E Degree Holders in the United States by Place of Birth

and Citizenship Status: 1993-1999

	1999	Citizenship status		
		Total	Citizen	Permanent visa
Total S&E degree holders in U.S.	12 489 400	12 060 000	328 900	102 500
Native	10 930 000	10 930 000	1 900	700
Foreign-born total	1 559 400	1 130 600	327 000	101 800
% foreign-born	12,5	9,4	99,4	99,3
% of foreign-born within each status	100,0	72,5	21,0	6,5
Place of birth				
Afghanistan	2 300	2 200	S	S
Argentina	12 500	9 300	2 100	1 100
Australia	5 400	2 300	2 700	400
Austria	5 400	4 500	700	S
Bangladesh	5 200	3 500	700	1 100
Belgium	5 900	3 200	2 200	S
Bolivia	2 900	2 400	500	S
Brazil	9 100	5 000	2 500	1 600
Bulgaria	1 000	400	300	300
Burma	3 200	3 100	S	S
Cameroon	1 600	500	400	700
Canada	76 900	46 600	27 200	3 000
Chile	3 500	2 600	700	200
China	147 900	88 200	40 900	18 800
Columbia	15 800	12 900	2 500	400
Costa_Rica	2 500	1 800	600	S
Cuba	25 700	25 000	700	S
Cyprus	2 000	1 000	700	S
Czechoslovakia	6 600	5 600	600	400
Denmark	2 800	2 000	700	S
Dominican_Rep.	8 700	7 100	1 400	200
Egypt	12 500	10 600	1 200	700
El_Salvador	2 600	2 000	600	S
Equador	6 800	5 700	800	200
Ethiopia	4 100	2 600	1 100	300
FSU	40 600	35 100	3 800	1 700
Finland	3 300	1 200	1 800	S
France	15 200	10 800	3 900	600
Germany	85 600	76 100	8 700	900
Ghana	3 800	2 700	900	200
Greece	12 400	9 600	1 700	1 000
Guatemala	2 100	2 000	S	S
Haiti	5 800	4 800	900	S
Hungary	9 500	8 900	500	S
India	200 000	124 100	53 700	22 200
Indonesia	7 100	4 400	1 400	1 300
Iran	47 500	38 000	8 800	700
Iraq	3 700	3 400	S	S
Ireland	4 200	3 000	1 100	S

Israel	12 900	10 700	1 800	400
Italy	19 000	16 100	2 300	600
Jamaica	16 600	11 800	4 200	600
Japan	38 400	25 700	8 400	4 300
Jordan	4 900	4 300	400	S
Kenya	3 400	1 000	1 900	500
Korea	53 400	42 000	8 700	2 600
Kuwait	2 700	2 000	400	400
Laos	4 500	4 400	S	S
Lebanon	14 000	12 400	1 400	200
Malaysia	8 000	2 600	3 400	2 100
Mexico	37 400	28 200	7 700	1 600
Nepal	1 400	600	500	300
Netherlands	9 900	6 700	2 500	700
Nicaragua	5 000	3 900	900	S
Nigeria	10 500	6 500	3 600	500
Norway	3 600	2 000	1 000	700
Other_Africa	19 600	12 500	4 000	3 200
Other_Americas	13 100	9 300	3 000	800
Other_Asia	5 700	4 800	600	300
Other_Europe	4 900	2 400	1 500	1 000
Other_Oceania	13 000	8 600	3 900	500
Pakistan	19 000	14 000	3 400	1 600
Palestine	2 600	2 400	200	S
Panama	8 700	8 400	S	S
Peru	9 600	6 700	2 100	900
Philippines	78 400	68 800	9 000	600
Poland	22 900	18 900	3 900	200
Portugal	3 400	2 300	1 000	S
Romania	11 200	9 100	1 000	1 100
Singapore	3 000	1 600	1 100	300
South Africa	6 300	5 000	1 300	S
Spain	7 200	4 700	1 600	1 000
Sri Lanka	5 400	3 200	1 000	1 200
Surinam	8 100	6 100	2 000	S
Sweden	3 900	1 900	1 500	400
Switzerland	4 400	3 600	700	S
Syria	5 300	4 600	300	S
Taiwan	72 200	55 000	11 300	5 900
Thailand	8 800	6 100	1 700	1 000
Trinidad/Tobago	7 000	4 100	2 600	300
Turkey	13 000	8 600	2 000	2 400
UK	80 600	48 400	30 700	1 500
Venezuela	8 900	5 400	2 800	600
Vietnam	49 200	46 000	3 000	S
Yugoslavia	4 100	2 700	900	500

Appendix table A-5 cont.

	1997	Citizenship status			
		Total	Citizen	Permanent visa	Temporary visa
Total S&E degree holders in U.S.		11 966 900	11 550 000	333 500	83 400
Native		10 501 800	10 500 300	1 100	400
Foreign-born total		1 465 200	1 049 700	332 400	83 100
% foreign-born		12,2	9,1	99,7	99,6
% of foreign-born within each status		100,0	78,4	17,3	4,3
Afghanistan		2 900	2 600	S	S
Argentina		10 600	8 500	1 400	700
Australia		4 400	1 600	2 400	300
Austria		5 400	4 500	700	S
Bangladesh		5 300	3 000	1 900	400
Belgium		4 700	2 800	1 800	S
Bolivia		2 600	1 800	800	S
Brazil		8 500	5 400	2 200	1 000
Bulgaria		900	600	100	S
Burma		3 600	3 500	S	S
Cameroon		1 600	200	600	800
Canada		70 500	41 800	25 900	2 700
Chile		3 500	2 900	400	200
China		133 400	82 300	38 300	12 800
Columbia		14 600	11 100	2 900	500
Costa_Rica		2 300	1 300	900	S
Cuba		27 000	25 900	1 100	S
Cyprus		1 600	700	600	300
Czechoslovakia		6 300	5 300	600	400
Denmark		2 900	2 000	800	S
Dominican_Rep.		6 300	5 500	700	S
Egypt		13 700	11 600	1 500	600
El_Salvador		2 800	1 800	700	S
Equador		6 300	4 700	1 600	S
Ethiopia		3 600	1 900	1 500	200
FSU		37 100	32 700	3 500	900
Finland		3 700	1 300	2 100	S
France		14 400	10 600	3 000	700
Germany		81 800	72 000	8 500	1 200
Ghana		3 400	2 100	1 100	200
Greece		11 600	9 500	1 000	1 200
Guatemala		1 900	1 400	400	S
Haiti		5 400	4 500	800	S
Hungary		8 900	8 100	800	S
India		186 100	113 900	52 400	19 800
Indonesia		6 300	4 400	1 400	500
Iran		47 900	35 100	12 100	700
Iraq		3 700	2 800	900	S
Ireland		5 100	3 400	1 700	S
Israel		12 400	10 400	1 800	200
Italy		16 900	14 400	2 300	300
Jamaica		16 000	11 400	4 500	S

Japan	35 700	24 100	7 300	4 200
Jordan	4 700	3 800	500	500
Kenya	3 200	1 900	1 200	100
Korea	52 200	40 700	8 800	2 700
Kuwait	2 200	1 600	400	200
Laos	2 900	2 400	S	S
Lebanon	14 200	11 400	2 600	100
Malaysia	6 800	2 300	2 300	2 200
Mexico	34 200	23 700	9 600	1 000
Nepal	1 100	400	500	200
Netherlands	9 700	6 100	3 100	400
Nicaragua	4 600	3 200	1 300	S
Nigeria	9 100	4 600	4 000	400
Norway	3 400	2 400	800	S
Other_Africa	17 500	11 500	3 800	2 100
Other_Americas	12 000	8 000	3 300	700
Other_Asia	4 400	3 900	400	100
Other_Europe	3 300	1 700	1 000	600
Other_Oceania	15 200	9 900	4 200	1 100
Pakistan	17 800	12 700	3 600	1 600
Palestine	2 800	2 600	S	S
Panama	8 200	7 300	800	S
Peru	9 100	6 100	2 000	1 000
Philippines	85 200	74 200	10 000	1 000
Poland	22 100	17 200	4 500	300
Portugal	2 900	2 000	800	S
Romania	9 200	7 700	1 100	400
Singapore	3 400	1 300	1 800	300
South Africa	5 600	4 100	1 000	S
Spain	5 700	4 200	800	700
Sri Lanka	4 500	2 600	1 500	500
Surinam	6 800	5 200	1 300	S
Sweden	3 600	1 800	1 800	S
Switzerland	4 300	3 000	1 000	300
Syria	4 600	3 600	200	800
Taiwan	69 600	51 400	12 700	5 600
Thailand	8 100	4 600	3 000	500
Trinidad/Tobago	6 200	3 200	2 800	S
Turkey	10 300	7 300	1 600	1 400
UK	73 400	40 700	31 100	1 500
Venezuela	7 800	5 100	2 300	400
Vietnam	44 700	42 500	2 200	S
Yugoslavia	5 100	4 200	600	300

Appendix table A-5 cont.

	1995	Citizenship status			
		Total	Citizen	Permanent visa	Temporary visa
Total S&E degree holders in U.S.		11 456 800	11 020 000	361 000	75 800
Native		10 060 700	10 059 200	1 300	200
Foreign-born total		1 395 900	960 800	359 600	75 500
% foreign-born		12,2	8,7	99,6	99,6
% of foreign-born within each status		100,0	76,1	19,8	4,1
Afghanistan		2 300	1 900	S	S
Argentina		9 500	7 100	1 700	700
Australia		4 500	1 600	2 400	600
Austria		5 800	5 100	700	S
Bangladesh		4 800	2 000	2 400	500
Belgium		5 600	3 000	2 100	400
Bolivia		2 200	1 700	400	S
Brazil		8 100	5 100	2 400	700
Bulgaria		600	400	S	S
Burma		3 500	3 500	S	S
Cameroon		1 300	S	500	500
Canada		67 400	40 600	25 300	1 600
Chile		3 100	2 700	300	100
China		120 700	76 300	37 400	7 000
Columbia		12 600	8 800	3 300	600
Costa_Rica		2 000	1 300	800	S
Cuba		26 900	25 700	1 100	S
Cyprus		1 500	800	400	300
Czechoslovakia		6 300	5 900	S	S
Denmark		2 600	1 800	800	S
Dominican_Rep.		6 500	4 600	1 700	S
Egypt		13 700	11 100	1 800	900
El_Salvador		3 200	2 200	700	S
Equador		5 900	4 400	1 400	S
Ethiopia		3 900	1 900	1 800	200
FSU		36 900	29 100	7 200	600
Finland		3 200	1 400	1 800	S
France		14 400	10 200	3 100	1 100
Germany		73 400	63 900	7 800	1 700
Ghana		3 500	2 000	1 200	400
Greece		11 500	9 800	1 000	700
Guatemala		1 700	1 100	600	S
Haiti		5 400	4 100	1 200	S
Hungary		9 100	7 900	1 000	200
India		172 400	99 100	56 900	16 400
Indonesia		6 300	4 100	1 500	700
Iran		47 300	31 700	14 100	1 500
Iraq		3 900	3 100	700	S
Ireland		4 600	3 000	1 500	S
Israel		11 200	9 100	1 700	400
Italy		16 300	13 300	2 600	400
Jamaica		15 000	10 000	4 700	300

Japan	34 800	21 900	7 900	5 100
Jordan	5 000	4 100	300	500
Kenya	3 000	1 500	1 300	200
Korea	52 200	37 900	11 000	3 200
Kuwait	1 700	1 200	200	300
Laos	2 500	2 300	S	S
Lebanon	13 800	10 500	2 600	700
Malaysia	5 600	2 000	2 300	1 400
Mexico	32 100	18 800	12 000	1 300
Nepal	900	400	400	S
Netherlands	8 800	5 300	3 000	400
Nicaragua	4 000	2 400	1 600	S
Nigeria	8 600	4 100	4 200	200
Norway	3 500	2 400	1 000	S
Other_Africa	16 300	9 800	4 300	2 300
Other_Americas	10 800	6 800	3 100	1 000
Other_Asia	5 000	3 800	600	600
Other_Europe	2 900	1 900	1 000	100
Other_Oceania	15 800	9 800	5 300	700
Pakistan	16 400	11 800	3 400	1 100
Palestine	2 700	2 600	S	S
Panama	7 500	7 100	S	S
Peru	9 100	5 500	2 700	1 000
Philippines	88 700	71 900	14 900	1 800
Poland	21 900	16 400	4 700	800
Portugal	2 500	1 600	800	S
Romania	8 300	7 400	800	S
Singapore	2 700	1 100	1 200	400
South Africa	5 300	3 500	1 600	S
Spain	6 300	3 800	1 900	600
Sri Lanka	4 000	2 300	1 300	500
Surinam	5 600	4 500	900	S
Sweden	3 900	1 300	2 400	S
Switzerland	4 000	3 000	800	200
Syria	4 500	3 200	500	700
Taiwan	69 200	47 000	15 600	6 600
Thailand	8 000	4 400	2 900	700
Trinidad/Tobago	5 200	2 900	2 200	S
Turkey	9 400	6 400	2 300	700
UK	69 700	36 900	32 000	800
Venezuela	7 400	4 600	2 600	S
Vietnam	39 300	37 500	1 800	S
Yugoslavia	5 800	4 700	600	400

Appendix table A-5 cont.

	1993	Citizenship status			
		Total	Citizen	Permanent visa	Temporary visa
Total S&E degree holders in U.S.		11 024 500	10 520 000	399 300	105 200
Native		9 664 300	9 662 200	1 800	300
Foreign-born total		1 357 100	854 700	397 500	104 900
% foreign-born		12,3	8,1	99,5	99,7
% of foreign-born within each status		100,0	63,0	29,3	7,7
Afghanistan		2 200	1 600	600	S
Argentina		9 400	6 000	2 800	600
Australia		5 400	1 700	2 800	800
Austria		7 400	6 300	1 000	S
Bangladesh		4 700	1 700	2 600	400
Belgium		4 700	2 100	1 900	700
Bolivia		2 000	1 600	300	S
Brazil		8 000	4 800	1 900	1 300
Bulgaria		400	200	S	S
Burma		4 100	3 400	700	S
Cameroon		1 200	200	600	S
Canada		66 300	38 300	26 300	1 700
Chile		3 200	2 700	400	200
China		114 200	68 100	25 900	20 200
Columbia		12 400	7 400	4 200	900
Costa_Rica		2 300	1 200	800	S
Cuba		27 000	25 700	1 300	S
Cyprus		1 100	500	300	300
Czechoslovakia		7 800	7 500	300	S
Denmark		2 400	1 600	600	100
Dominican_Rep.		6 000	3 500	2 300	S
Egypt		13 400	10 200	2 500	600
El_Salvador		2 900	1 400	1 000	400
Equador		5 700	3 500	2 100	S
Ethiopia		3 600	1 500	1 800	300
FSU		35 800	25 100	10 400	300
Finland		3 000	1 200	1 600	S
France		14 100	10 100	2 700	1 300
Germany		67 900	58 500	7 500	1 800
Ghana		3 400	1 400	1 800	200
Greece		11 800	9 500	1 700	600
Guatemala		1 900	1 100	800	S
Haiti		5 100	3 600	1 600	S
Hungary		8 100	6 900	1 000	200
India		160 900	83 600	65 000	12 300
Indonesia		6 100	3 500	1 600	1 000
Iran		45 900	25 800	18 700	1 400
Iraq		4 300	3 000	800	500
Ireland		5 000	2 700	2 200	S
Israel		10 600	7 800	2 200	700
Italy		15 700	12 200	2 900	600
Jamaica		13 700	8 800	4 800	200

Japan	35 800	18 100	8 900	8 800
Jordan	4 900	3 300	900	600
Kenya	3 200	1 500	1 500	S
Korea	52 100	33 600	12 200	6 200
Kuwait	1 500	800	600	S
Laos	1 300	1 100	S	S
Lebanon	13 700	9 500	2 900	1 300
Malaysia	5 600	1 600	2 700	1 300
Mexico	32 500	17 500	13 200	1 800
Nepal	600	S	400	S
Netherlands	10 500	6 500	3 500	500
Nicaragua	3 400	1 500	1 900	S
Nigeria	7 200	2 400	4 600	200
Norway	3 500	2 500	800	S
Other_Africa	17 000	9 000	5 500	2 600
Other_Americas	10 400	5 700	4 000	700
Other_Asia	4 300	2 800	600	800
Other_Europe	2 600	1 400	1 000	300
Other_Oceania	17 900	9 500	6 200	2 200
Pakistan	16 600	10 900	3 900	1 800
Palestine	2 900	2 500	S	500
Panama	7 900	7 400	600	S
Peru	9 700	4 700	3 700	1 400
Philippines	85 600	63 900	18 800	3 000
Poland	22 800	15 700	6 400	700
Portugal	2 600	1 500	900	100
Romania	8 600	6 800	1 700	200
Singapore	2 700	900	1 300	500
South Africa	4 600	2 700	1 300	600
Spain	5 100	2 900	1 400	800
Sri Lanka	4 100	2 200	1 400	400
Surinam	6 200	4 700	1 300	200
Sweden	4 300	1 500	2 300	500
Switzerland	3 400	2 100	700	500
Syria	4 600	3 300	900	300
Taiwan	68 400	37 800	21 200	9 400
Thailand	7 300	3 600	3 300	400
Trinidad/Tobago	5 000	2 600	2 000	400
Turkey	9 800	6 100	2 500	1 200
UK	65 900	31 900	32 400	1 600
Venezuela	7 900	4 900	2 300	800
Vietnam	35 800	33 800	1 900	S
Yugoslavia	5 600	4 300	1 000	400

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.
Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Appendix table A-6.

**S&E Degree Holders in the United States
by Country of Birth and by Whether
R&D is a Major Work Activity: 1993-1999**

	R&D is a major work activity		
	Total	No	Yes
1999			
Total S&E degree holders in U.S.	12 489 900	9 626 900	2 863 000
Native	10 930 500	8 584 800	2 345 700
Foreign-born total	1 559 400	1 042 100	517 300
% foreign-born	12,5	10,8	18,1
Place of birth			
Afghanistan	2 300	1 100	1 200
Argentina	12 500	8 300	4 200
Australia	5 400	3 300	2 100
Austria	5 400	4 000	1 400
Bangladesh	5 200	3 500	1 800
Belgium	5 900	4 700	1 200
Bolivia	2 900	1 900	1 000
Brazil	9 100	7 500	1 600
Bulgaria	1 000	500	500
Burma	3 200	2 400	900
Cameroon	1 600	900	700
Canada	76 900	58 700	18 200
Chile	3 500	2 000	1 500
China	147 900	77 200	70 700
Columbia	15 800	11 200	4 700
Costa_Rica	2 500	1 400	1 000
Cuba	25 700	19 800	5 900
Cyprus	2 000	1 200	800
Czechoslovakia	6 600	5 600	1 000
Denmark	2 800	2 200	600
Dominican_Rep.	8 700	6 800	1 900
Egypt	12 500	8 100	4 400
El_Salvador	2 600	1 700	900
Equador	6 800	4 800	2 000
Ethiopia	4 100	3 100	1 100
FSU	40 600	29 100	11 500
Finland	3 300	2 500	900
France	15 200	11 000	4 200
Germany	85 600	62 200	23 400
Ghana	3 800	2 400	1 400
Greece	12 400	8 000	4 400
Guatemala	2 100	1 500	700
Haiti	5 800	4 200	1 500
Hungary	9 500	7 800	1 800
India	200 000	124 800	75 200
Indonesia	7 100	4 500	2 600
Iran	47 500	31 400	16 200
Iraq	3 700	2 300	1 400

Ireland	4 200	3 200	1 000
Israel	12 900	9 700	3 100
Italy	19 000	12 300	6 700
Jamaica	16 600	11 700	4 800
Japan	38 400	25 500	12 900
Jordan	4 900	2 900	2 000
Kenya	3 400	2 600	900
Korea	53 400	36 100	17 300
Kuwait	2 700	1 500	1 200
Laos	4 500	2 900	1 600
Lebanon	14 000	9 100	4 900
Malaysia	8 000	3 600	4 400
Mexico	37 400	29 900	7 500
Nepal	1 400	600	900
Netherlands	9 900	7 800	2 000
Nicaragua	5 000	3 600	1 300
Nigeria	10 500	8 100	2 400
Norway	3 600	2 500	1 100
Other_Africa	19 600	13 600	6 000
Other_Americas	13 100	10 000	3 100
Other_Asia	5 700	3 600	2 100
Other_Europe	4 900	3 000	2 000
Other_Oceania	13 000	9 300	3 600
Pakistan	19 000	11 800	7 200
Palestine	2 600	1 900	700
Panama	8 700	7 100	1 600
Peru	9 600	6 800	2 800
Philippines	78 400	58 000	20 400
Poland	22 900	14 700	8 300
Portugal	3 400	2 700	700
Romania	11 200	6 700	4 500
Singapore	3 000	2 200	700
South Africa	6 300	4 500	1 900
Spain	7 200	4 600	2 600
Sri Lanka	5 400	2 800	2 600
Surinam	8 100	6 800	1 300
Sweden	3 900	2 800	1 100
Switzerland	4 400	3 200	1 200
Syria	5 300	3 500	1 800
Taiwan	72 200	44 200	28 100
Thailand	8 800	7 500	1 300
Trinidad/Tobago	7 000	5 000	2 000
Turkey	13 000	7 300	5 600
UK	80 600	53 100	27 500
Venezuela	8 900	6 400	2 500
Vietnam	49 200	29 300	19 900
Yugoslavia	4 100	2 000	2 000

Appendix table A-6 cont.

	R&D is a major work activity		
	Total	No	Yes
1997			
Total S&E degree holders in U.S.	11 962 100	9 242 000	2 720 100
Native	10 496 500	8 245 400	2 251 100
Foreign-born total	1 588 800	996 200	592 600
% foreign-born	13,3	10,8	21,8
Afghanistan	2 900	1 500	1 400
Argentina	10 600	7 400	3 100
Australia	4 400	3 100	1 200
Austria	5 400	4 100	1 200
Bangladesh	5 300	3 600	1 600
Belgium	4 700	3 300	1 400
Bolivia	2 600	2 100	500
Brazil	8 500	6 700	1 800
Bulgaria	900	500	400
Burma	3 600	2 300	1 400
Cameroon	1 600	1 100	500
Canada	70 500	52 600	17 900
Chile	3 500	2 600	800
China	133 400	71 100	62 300
Columbia	14 600	11 100	3 500
Costa_Rica	2 300	1 000	1 300
Cuba	27 000	21 800	5 200
Cyprus	1 600	900	700
Czechoslovakia	6 300	4 400	1 900
Denmark	2 900	2 400	400
Dominican_Rep.	6 300	5 100	1 200
Egypt	13 700	8 800	4 900
El_Salvador	2 800	2 100	600
Equador	6 300	4 800	1 500
Ethiopia	3 600	2 600	1 000
FSU	37 100	24 300	12 800
Finland	3 700	2 600	1 000
France	14 400	9 200	5 200
Germany	81 800	60 200	21 500
Ghana	3 400	2 000	1 400
Greece	11 600	7 100	4 500
Guatemala	1 900	1 000	900
Haiti	5 400	4 900	500
Hungary	8 900	6 300	2 600
India	186 100	118 300	67 800
Indonesia	6 300	4 700	1 600
Iran	47 900	32 900	15 000
Iraq	3 700	2 200	1 400
Ireland	5 100	3 400	1 700
Israel	12 400	8 100	4 300
Italy	16 900	11 500	5 400
Jamaica	16 000	13 100	3 000
Japan	35 700	24 700	11 000

Jordan	4 700	3 000	1 800
Kenya	3 200	2 900	300
Korea	52 200	36 100	16 100
Kuwait	2 200	1 100	1 000
Laos	2 900	2 400	500
Lebanon	14 200	9 700	4 500
Malaysia	6 800	3 800	3 000
Mexico	34 200	27 100	7 100
Nepal	1 100	700	400
Netherlands	9 700	7 900	1 800
Nicaragua	4 600	3 100	1 500
Nigeria	9 100	6 200	2 900
Norway	3 400	3 100	300
Other_Africa	17 500	11 900	5 600
Other_Americas	12 000	9 800	2 200
Other_Asia	4 400	2 400	2 000
Other_Europe	3 300	2 200	1 100
Other_Oceania	15 200	10 900	4 400
Pakistan	17 800	12 000	5 900
Palestine	2 800	2 300	500
Panama	8 200	7 100	1 000
Peru	9 100	6 400	2 600
Philippines	85 200	66 900	18 400
Poland	22 100	12 900	9 200
Portugal	2 900	2 300	600
Romania	9 200	5 400	3 800
Singapore	3 400	3 000	400
South Africa	5 600	3 800	1 800
Spain	5 700	4 300	1 400
Sri Lanka	4 500	2 700	1 800
Surinam	6 800	5 800	1 000
Sweden	3 600	2 600	900
Switzerland	4 300	3 000	1 300
Syria	4 600	2 900	1 700
Taiwan	69 600	42 700	26 900
Thailand	8 100	6 400	1 700
Trinidad/Tobago	6 200	4 700	1 500
Turkey	10 300	6 500	3 800
UK	73 400	50 100	23 300
Venezuela	7 800	5 600	2 300
Vietnam	44 700	25 500	19 200
Yugoslavia	5 100	3 300	1 900

Appendix table A-6 cont.

	R&D is a major work activity		
	Total	No	Yes
1995			
Total S&E degree holders in U.S.	11 456 600	8 754 200	2 702 400
Native	10 060 300	7 804 600	2 255 700
Foreign-born total	1 396 000	949 300	446 700
% foreign-born	12,2	10,8	16,5
Afghanistan	2 300	2 100	200
Argentina	9 500	6 500	3 100
Australia	4 500	3 500	1 000
Austria	5 800	4 800	1 000
Bangladesh	4 800	3 400	1 400
Belgium	5 600	3 700	1 900
Bolivia	2 200	1 500	700
Brazil	8 100	6 300	1 800
Bulgaria	600	S	300
Burma	3 500	2 400	1 200
Cameroon	1 300	1 000	300
Canada	67 400	49 300	18 100
Chile	3 100	1 600	1 500
China	120 700	68 000	52 700
Columbia	12 600	9 000	3 600
Costa_Rica	2 000	1 400	600
Cuba	26 900	21 600	5 300
Cyprus	1 500	700	800
Czechoslovakia	6 300	4 800	1 400
Denmark	2 600	1 500	1 200
Dominican_Rep.	6 500	5 100	1 500
Egypt	13 700	8 700	5 000
El_Salvador	3 200	2 100	1 100
Equador	5 900	4 600	1 300
Ethiopia	3 900	2 500	1 400
FSU	36 900	24 800	12 100
Finland	3 200	1 900	1 300
France	14 400	9 800	4 600
Germany	73 400	54 100	19 300
Ghana	3 500	2 100	1 400
Greece	11 500	6 900	4 700
Guatemala	1 700	1 400	300
Haiti	5 400	4 600	800
Hungary	9 100	6 400	2 700
India	172 400	110 200	62 300
Indonesia	6 300	4 000	2 300
Iran	47 300	31 600	15 600
Iraq	3 900	3 000	900
Ireland	4 600	3 100	1 400
Israel	11 200	8 400	2 800
Italy	16 300	11 100	5 200
Jamaica	15 000	11 200	3 800
Japan	34 800	24 600	10 300

Jordan	5 000	2 900	2 100
Kenya	3 000	2 500	500
Korea	52 200	36 600	15 500
Kuwait	1 700	1 200	400
Laos	2 500	2 000	500
Lebanon	13 800	9 300	4 500
Malaysia	5 600	3 300	2 400
Mexico	32 100	25 400	6 600
Nepal	900	600	300
Netherlands	8 800	6 900	1 900
Nicaragua	4 000	2 600	1 400
Nigeria	8 600	6 300	2 300
Norway	3 500	2 100	1 400
Other_Africa	16 300	11 100	5 200
Other_Americas	10 800	8 000	2 900
Other_Asia	5 000	3 300	1 800
Other_Europe	2 900	2 400	500
Other_Oceania	15 800	12 000	3 800
Pakistan	16 400	11 800	4 700
Palestine	2 700	2 100	600
Panama	7 500	6 100	1 400
Peru	9 100	7 400	1 700
Philippines	88 700	68 800	19 900
Poland	21 900	14 400	7 600
Portugal	2 500	2 100	400
Romania	8 300	5 000	3 300
Singapore	2 700	1 900	800
South Africa	5 300	3 600	1 700
Spain	6 300	4 100	2 200
Sri Lanka	4 000	2 300	1 700
Surinam	5 600	4 200	1 400
Sweden	3 900	3 200	600
Switzerland	4 000	2 200	1 900
Syria	4 500	2 900	1 600
Taiwan	69 200	41 200	28 000
Thailand	8 000	5 500	2 600
Trinidad/Tobago	5 200	4 100	1 100
Turkey	9 400	5 200	4 200
UK	69 700	45 400	24 300
Venezuela	7 400	5 300	2 000
Vietnam	39 300	22 600	16 700
Yugoslavia	5 800	4 200	1 700

Appendix table A-6 cont.

	R&D is a major work activity		
	Total	No	Yes
1993			
Total S&E degree holders in U.S.	11 021 600	8 336 500	2 685 100
Native	9 664 400	7 432 200	2 232 200
Foreign-born total	1 357 200	904 300	452 900
% foreign-born	12,3	10,8	16,9
Afghanistan	2 200	1 300	900
Argentina	9 400	6 100	3 300
Australia	5 400	4 200	1 200
Austria	7 400	6 000	1 400
Bangladesh	4 700	3 000	1 600
Belgium	4 700	3 200	1 600
Bolivia	2 000	1 400	600
Brazil	8 000	5 500	2 500
Bulgaria	400	200	200
Burma	4 100	3 400	700
Cameroon	1 200	1 000	200
Canada	66 300	49 100	17 200
Chile	3 200	2 000	1 300
China	114 200	63 500	50 800
Columbia	12 400	9 000	3 500
Costa_Rica	2 300	1 200	1 100
Cuba	27 000	19 700	7 300
Cyprus	1 100	600	500
Czechoslovakia	7 800	5 500	2 300
Denmark	2 400	1 600	800
Dominican_Rep.	6 000	4 600	1 400
Egypt	13 400	9 100	4 200
El_Salvador	2 900	2 200	700
Equador	5 700	3 600	2 100
Ethiopia	3 600	2 200	1 400
FSU	35 800	23 100	12 800
Finland	3 000	2 000	1 000
France	14 100	9 300	4 800
Germany	67 900	50 300	17 600
Ghana	3 400	1 800	1 600
Greece	11 800	8 100	3 700
Guatemala	1 900	1 300	600
Haiti	5 100	4 100	1 000
Hungary	8 100	5 000	3 100
India	160 900	101 000	59 900
Indonesia	6 100	3 900	2 200
Iran	45 900	30 100	15 800
Iraq	4 300	3 000	1 200
Ireland	5 000	3 400	1 600
Israel	10 600	7 100	3 500
Italy	15 700	9 600	6 100
Jamaica	13 700	10 900	2 800
Japan	35 800	23 000	12 800

Jordan	4 900	2 900	2 000
Kenya	3 200	2 400	900
Korea	52 100	35 900	16 200
Kuwait	1 500	1 100	500
Laos	1 300	700	600
Lebanon	13 700	8 800	4 900
Malaysia	5 600	3 100	2 500
Mexico	32 500	25 300	7 200
Nepal	600	400	100
Netherlands	10 500	8 200	2 300
Nicaragua	3 400	2 700	600
Nigeria	7 200	4 700	2 500
Norway	3 500	2 800	700
Other_Africa	17 000	10 700	6 400
Other_Americas	10 400	7 300	3 100
Other_Asia	4 300	2 900	1 400
Other_Europe	2 600	1 700	1 000
Other_Oceania	17 900	13 300	4 500
Pakistan	16 600	11 700	4 800
Palestine	2 900	2 200	800
Panama	7 900	6 700	1 200
Peru	9 700	7 100	2 600
Philippines	85 600	65 800	19 800
Poland	22 800	15 700	7 200
Portugal	2 600	1 700	800
Romania	8 600	5 200	3 400
Singapore	2 700	1 900	800
South Africa	4 600	2 800	1 800
Spain	5 100	3 300	1 800
Sri Lanka	4 100	2 400	1 700
Surinam	6 200	4 500	1 700
Sweden	4 300	3 200	1 100
Switzerland	3 400	1 500	1 900
Syria	4 600	3 100	1 500
Taiwan	68 400	37 500	30 900
Thailand	7 300	5 600	1 700
Trinidad/Tobago	5 000	3 800	1 200
Turkey	9 800	5 400	4 400
UK	65 900	43 000	22 900
Venezuela	7 900	5 400	2 500
Vietnam	35 800	19 900	15 900
Yugoslavia	5 600	3 500	2 100

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Appendix table B-1.

**Residents in the United States who Hold an S&E Degree at Any Level,
by Education Level of Their Highest Degree and Place of Birth: 1993-1999**

		Total	Education level of Highest Degree			
			Bachelor's	Master's	Professional degree	Doctorate
1999						
Total S&E degree holders in U.S.		12 490 100	7 278 900	3 411 200	978 000	822 000
Native-born		10 930 600	6 513 700	2 906 600	899 800	610 500
Foreign-born		1 559 500	765 200	504 600	78 200	211 500
% foreign-born		12,5	10,5	14,8	8,0	25,7
REGION	PLACE OF BIRTH	TOTAL				
Asia		713 100	328 700	256 300	20 800	103 900
1	India	200 000	65 200	95 200	5 900	33 600
1	China	147 900	48 200	58 800	2 700	38 100
1	Philippines	78 400	60 400	10 000	3 700	4 300
1	Taiwan	72 200	24 100	35 200	1 800	11 200
1	Korea	53 400	34 200	12 200	2 200	4 800
1	Vietnam	49 200	38 900	7 500	1 300	1 500
1	Japan	38 400	22 500	10 500	2 000	3 400
1	Pakistan	19 000	6 300	9 800	1 200	1 700
1	Thailand	8 800	4 100	3 600	S	900
1	Malaysia	8 000	4 000	2 600	S	800
1	Indonesia	7 100	3 200	3 100	S	400
1	Other_Asia	5 700	4 000	800	S	500
1	Sri Lanka	5 400	2 300	1 900	S	1 200
1	Bangladesh	5 200	1 500	3 300	S	400
1	Laos	4 500	4 100	S	S	S
1	Burma	3 200	2 900	S	S	200
1	Singapore	3 000	1 500	1 200	S	200
1	Afghanistan	2 300	1 300	600	S	300
1	Nepal	1 400	S	S	S	400
South America		90 300	48 500	25 800	3 000	9 000
2	Colombia	15 800	9 200	4 400	1 200	1 000
2	Other_Americas	13 100	7 600	2 800	1 800	1 000
2	Argentina	12 500	4 600	4 600	S	2 700
2	Peru	9 600	6 200	2 500	S	800
2	Brazil	9 100	5 400	2 700	S	800
2	Venezuela	8 900	5 200	2 000	S	800
2	Surinam	8 100	3 900	2 800	S	600
2	Equador	6 800	3 500	1 900	S	400
2	Chile	3 500	1 600	700	S	700
2	Bolivia	2 900	1 300	1 400	S	200

Central America & Caribbean	84 700	47 900	22 700	2 500	6 000
3 Cuba	25 700	12 800	7 900	2 500	2 500
3 Jamaica	16 600	9 500	5 300	S	600
3 Dominican_Rep.	8 700	5 700	1 500	S	400
3 Panama	8 700	5 200	2 200	S	400
3 Trinidad/Tobago	7 000	4 500	1 800	S	300
3 Haiti	5 800	3 900	800	S	600
3 Nicaragua	5 000	2 700	1 200	S	500
3 El_Salvador	2 600	2 000	500	S	100
3 Costa_Rica	2 500	1 600	800	S	100
3 Guatemala	2 100	S	700	S	500
East Europe, including Former Soviet Union	95 900	45 600	31 700	0	14 800
4 FSU	40 600	22 800	12 200	S	4 600
4 Poland	22 900	10 200	8 400	S	3 600
4 Romania	11 200	4 600	4 900	S	1 500
4 Hungary	9 500	3 200	3 200	S	2 500
4 Czechoslovakia	6 600	3 300	1 700	S	900
4 Yugoslavia	4 100	1 500	1 300	S	1 300
4 Bulgaria	1 000	S	S	S	400
Africa	61 800	28 800	20 000	0	10 500
5 Other_Africa	19 600	10 000	6 600	S	2 400
5 Egypt	12 500	5 500	4 000	S	2 500
5 Nigeria	10 500	4 700	3 500	S	2 100
5 South Africa	6 300	3 500	1 100	S	1 000
5 Ethiopia	4 100	1 600	1 700	S	800
5 Ghana	3 800	1 500	1 200	S	1 200
5 Kenya	3 400	2 000	1 000	S	400
5 Cameroon	1 600	S	900	S	100
Middle East	108 600	50 800	35 800	6 900	14 100
6 Iran	47 500	23 700	15 600	3 000	5 200
6 Lebanon	14 000	6 300	3 900	2 400	1 400
6 Turkey	13 000	5 300	5 500	S	1 900
6 Israel	12 900	6 300	3 400	1 500	1 700
6 Syria	5 300	3 200	1 400	S	500
6 Jordan	4 900	2 100	1 900	S	700
6 Iraq	3 700	1 500	1 100	S	1 100
6 Kuwait	2 700	1 400	1 200	S	200
6 Palestine	2 600	1 000	900	S	700
6 Cyprus	2 000	S	900	S	700
North America	114 300	67 100	27 600	8 400	11 300
7 Canada	76 900	41 300	18 700	7 000	9 900
7 Mexico	37 400	25 800	8 900	1 400	1 400

Western Europe	271 700	136 200	78 000	14 100	39 500
8 Germany	85 600	47 800	24 200	6 100	7 500
8 UK	80 600	41 100	18 200	6 300	15 000
8 Italy	19 000	8 600	6 400	S	2 800
8 France	15 200	5 600	5 600	1 700	2 200
8 Greece	12 400	5 200	5 000	S	1 900
8 Netherlands	9 900	4 400	3 100	S	2 400
8 Spain	7 200	3 400	2 900	S	1 000
8 Belgium	5 900	2 200	2 200	S	1 100
8 Austria	5 400	2 200	1 500	S	1 200
8 Other_Europe	4 900	3 200	800	S	500
8 Switzerland	4 400	1 800	1 200	S	1 200
8 Ireland	4 200	1 300	2 000	S	900
8 Sweden	3 900	1 400	1 600	S	700
8 Norway	3 600	2 300	900	S	200
8 Portugal	3 400	2 500	700	S	100
8 Finland	3 300	1 000	1 700	S	600
8 Denmark	2 800	2 200	S	S	200
Oceania	18 400	9 300	4 700	1 700	2 200
9 Other_Oceania	13 000	6 400	4 100	1 700	800
9 Australia	5 400	2 900	600	S	1 400

Appendix B-1 cont.

	Total	Education level			
		Bachelor's	Master's	Professional degree	Doctorate
1997					
Total S&E degree holders in U.S.	11 962 000	7 055 800	3 199 100	933 000	774 100
Native-born	10 496 400	6 315 000	2 740 400	857 900	583 100
Foreign-born	1 465 200	740 500	458 600	75 100	191 000
% foreign-born	12,2	10,5	14,3	8,0	24,7
REGION PLACE OF BIRTH	TOTAL				
Asia	674 000	324 400	233 100	21 500	91 800
1 India	186 100	65 300	84 200	6 300	30 300
1 China	133 400	47 300	51 300	2 500	32 300
1 Philippines	85 200	67 400	9 600	4 500	3 600
1 Taiwan	69 600	21 900	36 000	1 400	10 300
1 Korea	52 200	33 000	12 500	2 200	4 500
1 Vietnam	44 700	35 600	6 500	1 400	1 100
1 Japan	35 700	20 200	9 900	2 000	3 600
1 Pakistan	17 800	6 000	8 900	1 200	1 800
1 Thailand	8 100	4 900	2 500	S	600
1 Malaysia	6 800	3 700	2 000	S	600
1 Indonesia	6 300	2 500	3 100	S	500
1 Bangladesh	5 300	1 500	3 300	S	400
1 Sri Lanka	4 500	1 600	1 800	S	1 000
1 Other_Asia	4 400	3 300	500	S	400
1 Burma	3 600	3 300	S	S	200
1 Singapore	3 400	2 300	1 000	S	100
1 Afghanistan	2 900	2 300	S	S	300
1 Laos	2 900	2 300	S	S	S
1 Nepal	1 100	S	S	S	200
South America	81 800	44 900	21 800	3 400	7 900
2 Columbia	14 600	8 800	3 800	900	1 000
2 Other_Americas	12 000	7 500	2 100	1 600	700
2 Argentina	10 600	3 400	4 000	900	2 200
2 Peru	9 100	6 000	2 000	S	700
2 Brazil	8 500	5 200	2 200	S	600
2 Venezuela	7 800	4 200	2 200	S	700
2 Surinam	6 800	3 700	2 100	S	400
2 Equador	6 300	3 300	1 600	S	800
2 Chile	3 500	1 400	700	S	700
2 Bolivia	2 600	1 400	1 100	S	100
Central America & Caribbean	80 700	47 200	20 400	4 100	6 500
3 Cuba	27 000	13 400	8 100	2 400	3 100
3 Jamaica	16 000	10 600	4 300	S	400
3 Panama	8 200	5 300	1 800	S	400
3 Dominican_Rep.	6 300	4 000	900	900	600
3 Trinidad/Tobago	6 200	4 300	1 300	S	300
3 Haiti	5 400	3 500	500	800	700
3 Nicaragua	4 600	2 700	1 100	S	400
3 El_Salvador	2 800	1 700	1 000	S	100
3 Costa_Rica	2 300	1 700	500	S	100
3 Guatemala	1 900	S	900	S	400

East Europe, including					
Former Soviet Union	89 600	42 300	30 300	1 600	13 800
4 FSU	37 100	20 500	11 600	700	4 300
4 Poland	22 100	9 900	7 900	S	3 600
4 Romania	9 200	3 800	4 000	S	1 200
4 Hungary	8 900	3 100	2 700	900	2 200
4 Czechoslovakia	6 300	2 800	1 900	S	1 200
4 Yugoslavia	5 100	2 200	1 800	S	1 100
4 Bulgaria	900	S	400	S	200
Africa	57 700	27 600	18 400	0	9 400
5 Other_Africa	17 500	8 800	5 900	S	2 400
5 Egypt	13 700	7 000	3 700	S	2 400
5 Nigeria	9 100	3 600	3 200	S	1 600
5 South Africa	5 600	2 900	1 400	S	800
5 Ethiopia	3 600	1 600	1 500	S	600
5 Ghana	3 400	800	1 400	S	1 100
5 Kenya	3 200	2 000	800	S	300
5 Cameroon	1 600	900	500	S	200
Middle East	104 400	51 900	31 800	6 000	13 800
6 Iran	47 900	25 500	13 700	2 800	5 900
6 Lebanon	14 200	6 600	4 100	2 000	1 500
6 Israel	12 400	6 000	3 800	1 200	1 400
6 Turkey	10 300	4 000	4 700	S	1 400
6 Jordan	4 700	2 100	1 800	S	700
6 Syria	4 600	2 800	800	S	600
6 Iraq	3 700	1 600	1 000	S	1 100
6 Palestine	2 800	1 400	700	S	600
6 Kuwait	2 200	1 200	800	S	100
6 Cyprus	1 600	700	400	S	500
North America	104 700	61 200	25 900	7 500	10 000
7 Canada	70 500	39 200	16 900	5 800	8 500
7 Mexico	34 200	22 000	9 000	1 700	1 500
Western Europe	252 800	129 700	70 200	14 200	35 300
8 Germany	81 800	46 400	21 700	6 700	7 000
8 UK	73 400	38 400	17 200	4 800	13 000
8 Italy	16 900	7 800	5 300	1 000	2 800
8 France	14 400	5 700	4 900	1 700	2 000
8 Greece	11 600	4 700	4 300	S	2 000
8 Netherlands	9 700	5 100	2 400	S	2 100
8 Spain	5 700	3 100	2 000	S	500
8 Austria	5 400	2 400	1 300	S	1 200
8 Ireland	5 100	2 100	1 700	S	1 000
8 Belgium	4 700	1 700	2 100	S	600
8 Switzerland	4 300	1 900	1 100	S	1 100
8 Finland	3 700	1 000	2 200	S	500
8 Sweden	3 600	1 500	1 200	S	500
8 Norway	3 400	2 000	900	S	200
8 Other_Europe	3 300	1 900	600	S	400
8 Denmark	2 900	2 000	600	S	200
8 Portugal	2 900	2 000	700	S	200
Oceania	19 600	10 600	5 200	1 800	1 900
9 Other_Oceania	15 200	8 400	4 800	1 300	700
9 Australia	4 400	2 200	400	500	1 200

Appendix B-1 cont.

	Total	Education level			
		Bachelor's	Master's	Professional degree	Doctorate
1995					
Total S&E degree holders in U.S.	11 456 600	6 811 400	3 017 500	893 800	733 900
Native-born	10 060 200	6 091 900	2 585 600	826 300	556 400
Foreign-born	1 396 000	719 300	431 700	67 500	177 500
% foreign-born	12,2	10,6	14,3	7,6	24,2
REGION PLACE OF BIRTH	TOTAL				
Asia	639 300	316 800	218 400	18 000	83 000
1 India	172 400	64 000	75 700	5 500	27 200
1 China	120 700	46 300	45 900	2 200	26 300
1 Philippines	88 700	70 200	11 000	4 000	3 400
1 Taiwan	69 200	21 200	36 400	1 000	10 600
1 Korea	52 200	33 300	12 500	1 500	4 800
1 Vietnam	39 300	31 000	6 100	1 200	1 000
1 Japan	34 800	19 900	9 700	1 600	3 600
1 Pakistan	16 400	6 400	7 600	1 000	1 500
1 Thailand	8 000	4 300	2 800	S	800
1 Indonesia	6 300	2 600	3 000	S	500
1 Malaysia	5 600	3 100	1 600	S	600
1 Other_Asia	5 000	3 000	1 000	S	500
1 Bangladesh	4 800	1 300	2 900	S	600
1 Sri Lanka	4 000	1 700	1 500	S	700
1 Burma	3 500	3 000	S	S	200
1 Singapore	2 700	1 800	700	S	200
1 Laos	2 500	2 100	S	S	S
1 Afghanistan	2 300	1 600	S	S	300
1 Nepal	900	S	S	S	200
Central America & Caribbean	74 300	41 100	20 100	3 200	7 300
2 Columbia	12 600	8 200	2 700	800	900
2 Other_Americas	10 800	7 000	1 800	1 500	600
2 Argentina	9 500	2 800	3 800	900	2 000
2 Peru	9 100	5 800	2 400	S	700
2 Brazil	8 100	4 800	2 300	S	600
2 Venezuela	7 400	4 000	2 100	S	600
2 Equador	5 900	3 100	1 500	S	700
2 Surinam	5 600	3 100	1 800	S	400
2 Chile	3 100	1 100	700	S	700
2 Bolivia	2 200	1 200	1 000	S	100
Central America & Caribbean	77 400	46 900	18 100	2 500	6 700
3 Cuba	26 900	13 300	7 700	2 500	3 300
3 Jamaica	15 000	10 400	3 800	S	400
3 Panama	7 500	5 300	1 300	S	300
3 Dominican_Rep.	6 500	4 400	700	S	800
3 Haiti	5 400	3 600	400	S	700
3 Trinidad/Tobago	5 200	3 600	1 100	S	200
3 Nicaragua	4 000	2 600	700	S	300
3 El_Salvador	3 200	2 100	1 100	S	100
3 Costa_Rica	2 000	1 200	600	S	300
3 Guatemala	1 700	400	700	S	300

East Europe, including					
Former Soviet Union	88 900	41 400	30 300	1 600	14 100
4 FSU	36 900	20 000	11 700	700	4 400
4 Poland	21 900	9 400	8 000	S	3 800
4 Hungary	9 100	3 000	2 900	900	2 300
4 Romania	8 300	3 400	3 700	S	1 100
4 Czechoslovakia	6 300	2 500	2 300	S	1 100
4 Yugoslavia	5 800	3 100	1 400	S	1 200
4 Bulgaria	600	S	300	S	200
Africa	55 600	26 200	18 400	900	8 400
5 Other_Africa	16 300	8 100	5 800	S	1 900
5 Egypt	13 700	6 900	4 100	S	2 200
5 Nigeria	8 600	3 600	2 800	900	1 300
5 South Africa	5 300	2 500	1 400	S	1 000
5 Ethiopia	3 900	1 900	1 500	S	500
5 Ghana	3 500	500	1 600	S	1 200
5 Kenya	3 000	1 900	700	S	200
5 Cameroon	1 300	800	500	S	100
Middle East	101 000	51 000	30 500	5 300	12 900
6 Iran	47 300	25 800	14 100	2 300	5 100
6 Lebanon	13 800	6 300	4 300	1 700	1 600
6 Israel	11 200	5 600	2 800	1 300	1 500
6 Turkey	9 400	4 000	3 700	S	1 500
6 Jordan	5 000	2 400	1 900	S	500
6 Syria	4 500	2 400	1 200	S	600
6 Iraq	3 900	2 000	900	S	1 000
6 Palestine	2 700	1 300	600	S	600
6 Kuwait	1 700	1 200	400	S	100
6 Cyprus	1 500	S	600	S	400
North America	99 500	59 700	23 600	7 400	8 800
7 Canada	67 400	38 000	16 200	5 800	7 500
7 Mexico	32 100	21 700	7 400	1 600	1 300
Western Europe	239 000	123 700	65 700	13 000	34 100
8 Germany	73 400	41 600	19 200	5 700	6 900
8 UK	69 700	37 200	16 100	4 100	12 300
8 Italy	16 300	7 500	5 200	800	2 800
8 France	14 400	6 400	4 400	1 800	1 800
8 Greece	11 500	5 500	3 500	S	1 900
8 Netherlands	8 800	4 400	2 200	S	2 000
8 Spain	6 300	3 100	2 600	S	600
8 Austria	5 800	2 700	1 200	600	1 300
8 Belgium	5 600	2 200	2 400	S	700
8 Ireland	4 600	1 900	1 700	S	700
8 Switzerland	4 000	1 300	1 400	S	1 200
8 Sweden	3 900	1 500	1 500	S	500
8 Norway	3 500	2 300	800	S	200
8 Finland	3 200	1 000	1 500	S	600
8 Other_Europe	2 900	1 500	1 000	S	200
8 Denmark	2 600	1 800	500	S	300
8 Portugal	2 500	1 800	500	S	100
Oceania	20 300	11 300	5 500	1 200	1 800
9 Other_Oceania	15 800	8 600	5 200	1 200	700
9 Australia	4 500	2 700	300	S	1 100

Appendix B-1 cont.

		Education level				
		Total	Bachelor's	Master's	Professional degree	Doctorate
1993						
Total S&E degree holders in U.S.		11 021 400	6 529 600	2 891 600	908 400	691 800
Native-born		9 664 300	5 829 800	2 471 300	838 500	524 700
Foreign-born		1 357 100	699 800	420 300	69 900	167 100
% foreign-born		12,3	10,7	14,5	7,7	24,2
REGION PLACE OF BIRTH	TOTAL					
Asia	612 400	305 400	209 200	20 000	75 100	
1 India	160 900	60 900	68 000	7 300	24 700	
1 China	114 200	45 700	43 500	2 500	22 600	
1 Philippines	85 600	68 200	10 000	4 400	3 100	
1 Taiwan	68 400	18 600	38 600	1 100	10 100	
1 Korea	52 100	33 100	12 900	1 300	4 700	
1 Japan	35 800	21 500	9 400	1 400	3 500	
1 Vietnam	35 800	28 100	5 400	1 300	1 000	
1 Pakistan	16 600	6 900	7 700	700	1 300	
1 Thailand	7 300	3 600	2 800	S	600	
1 Indonesia	6 100	2 800	2 700	S	400	
1 Malaysia	5 600	2 700	1 900	S	700	
1 Bangladesh	4 700	1 500	2 500	S	500	
1 Other_Asia	4 300	2 400	1 100	S	400	
1 Burma	4 100	3 400	300	S	200	
1 Sri Lanka	4 100	1 800	1 500	S	700	
1 Singapore	2 700	1 600	900	S	100	
1 Afghanistan	2 200	1 500	S	S	300	
1 Laos	1 300	1 100	S	S	S	
1 Nepal	600	S	S	S	200	
Central America & Caribbean	74 900	42 900	19 300	6 300	6 600	
2 Columbia	12 400	8 100	2 500	1 000	900	
2 Other_Americas	10 400	5 900	1 800	1 900	700	
2 Peru	9 700	6 500	2 200	500	500	
2 Argentina	9 400	3 400	3 600	600	1 900	
2 Brazil	8 000	4 400	2 600	400	600	
2 Venezuela	7 900	5 200	1 800	600	400	
2 Surinam	6 200	4 100	1 500	300	300	
2 Equador	5 700	2 900	1 700	500	600	
2 Chile	3 200	1 300	800	500	600	
2 Bolivia	2 000	1 100	800	S	100	
Central America & Caribbean	75 200	45 100	18 100	5 000	5 900	
3 Cuba	27 000	14 000	7 400	2 800	2 800	
3 Jamaica	13 700	9 800	3 100	400	400	
3 Panama	7 900	5 000	2 200	600	200	
3 Dominican_Rep.	6 000	3 800	600	700	900	
3 Haiti	5 100	3 400	700	500	600	
3 Trinidad/Tobago	5 000	3 800	900	S	100	
3 Nicaragua	3 400	2 100	700	S	200	
3 El_Salvador	2 900	2 000	900	S	100	
3 Costa_Rica	2 300	1 200	600	S	300	
3 Guatemala	1 900	S	1 000	S	300	

East Europe, including					
Former Soviet Union	89 100	41 100	31 500	2 700	13 600
4 FSU	35 800	18 100	12 400	700	4 600
4 Poland	22 800	9 800	8 300	900	3 800
4 Romania	8 600	3 300	4 100	S	1 100
4 Hungary	8 100	2 800	2 700	700	1 900
4 Czechoslovakia	7 800	3 900	2 300	400	1 300
4 Yugoslavia	5 600	3 200	1 500	S	900
4 Bulgaria	400	S	200	S	S
Africa	53 600	25 400	17 100	2 200	8 400
5 Other_Africa	17 000	8 500	5 700	800	2 100
5 Egypt	13 400	6 900	3 800	400	2 300
5 Nigeria	7 200	2 900	2 600	600	1 000
5 South Africa	4 600	2 100	1 100	400	1 000
5 Ethiopia	3 600	1 600	1 300	S	600
5 Ghana	3 400	600	1 500	S	1 100
5 Kenya	3 200	2 000	700	S	300
5 Cameroon	1 200	800	400	S	S
Middle East	99 300	51 000	29 900	4 600	13 200
6 Iran	45 900	25 000	13 800	1 800	5 300
6 Lebanon	13 700	6 400	4 400	1 400	1 400
6 Israel	10 600	5 200	2 800	1 000	1 600
6 Turkey	9 800	3 800	3 900	400	1 700
6 Jordan	4 900	2 600	1 500	S	700
6 Syria	4 600	2 800	1 200	S	500
6 Iraq	4 300	2 100	1 000	S	900
6 Palestine	2 900	1 700	500	S	600
6 Kuwait	1 500	1 100	400	S	100
6 Cyprus	1 100	300	400	S	400
North America	98 800	57 300	24 300	8 600	8 600
7 Canada	66 300	36 400	16 000	6 600	7 300
7 Mexico	32 500	20 900	8 300	2 000	1 300
Western Europe	229 900	117 200	63 700	12 800	33 800
8 Germany	67 900	36 600	19 000	5 200	7 100
8 UK	65 900	35 800	15 000	3 600	11 500
8 Italy	15 700	6 600	4 900	1 100	3 100
8 France	14 100	6 200	4 100	2 000	1 900
8 Greece	11 800	5 700	3 900	S	1 700
8 Netherlands	10 500	5 400	3 000	S	2 000
8 Austria	7 400	3 700	1 400	900	1 400
8 Spain	5 100	2 000	2 400	S	500
8 Ireland	5 000	2 500	1 600	S	600
8 Belgium	4 700	1 800	1 900	S	800
8 Sweden	4 300	1 800	1 700	S	500
8 Norway	3 500	2 300	600	S	300
8 Switzerland	3 400	1 200	1 100	S	1 000
8 Finland	3 000	1 100	1 100	S	700
8 Other_Europe	2 600	1 400	800	S	200
8 Portugal	2 600	1 800	600	S	100
8 Denmark	2 400	1 300	600	S	400
Oceania	23 300	13 400	6 600	1 000	2 100
9 Other_Oceania	17 900	10 200	5 700	1 000	1 000
9 Australia	5 400	3 200	900	S	1 100

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

The SESTAT data show the foreign-born S&E degree holders residing in the United States from 84 individual countries, and provide the total for each country. However, since small numbers are suppressed in SESTAT tabulations for confidentiality, the finer breakout of the foreign-born data by field of highest degree is suppressed in some fields in some countries. The total of all regions does not add to total foreign-born because of suppressed cells in the individual country data.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Appendix table B-1a.

Residents in the United States who Hold an S&E Degree as Their Highest Degree, by Education Level and Place of Birth: 1993-1999

		Total	Education level of highest degree		
			Bachelor's	Master's	Doctorate
1999					
Total S&E degree holders in U.S.		9 614 600	7 131 300	1 775 800	698 500
Native-born		8 317 000	6 388 500	1 414 000	506 100
Foreign-born		1 297 600	742 800	361 800	192 400
% foreign-born		13,5	10,4	20,4	27,5
Asia	Total	614 900	319 800	197 100	97 400
	1 India	164 600	61 200	73 400	30 100
	1 China	135 300	46 900	50 400	37 900
	1 Philippines	67 000	58 800	4 900	3 400
	1 Taiwan	64 800	23 900	30 000	10 900
	1 Korea	46 700	33 600	8 700	4 500
	1 Vietnam	44 300	38 600	4 500	1 200
	1 Japan	30 700	22 500	5 400	2 800
	1 Pakistan	14 700	6 100	6 900	1 700
	1 Malaysia	6 600	4 000	1 800	800
	1 Thailand	6 600	4 100	2 100	500
	1 Indonesia	5 900	3 200	2 200	400
	1 Other Asia	5 300	4 000	800	500
	1 Bangladesh	4 900	1 500	2 900	400
	1 Sri Lanka	4 600	2 100	1 400	1 200
	1 Laos	4 000	3 800	S	S
	1 Burma	3 200	2 900	S	200
	1 Singapore	2 600	1 300	1 200	200
	1 Afghanistan	2 100	1 300	500	300
	1 Nepal	1 000	S	S	400
South America	Total	69 300	46 700	14 800	7 400
	2 Columbia	12 700	8 500	3 300	1 000
	2 Other Americas	9 700	7 600	1 500	600
	2 Argentina	9 600	3 900	3 000	2 700
	2 Peru	9 100	6 200	2 100	800
	2 Brazil	8 000	5 400	1 800	800
	2 Venezuela	6 500	5 000	1 100	400
	2 Surinam	4 700	3 900	600	200
	2 Ecuador	4 600	3 500	1 000	S
	2 Chile	2 800	1 600	400	700
	2 Bolivia	1 600	1 100	S	200

Central America & Caribbean	63 500	47 100	11 400	4 400
3 Cuba	18 300	12 800	3 500	2 000
3 Jamaica	11 400	9 300	1 700	400
3 Dominican Rep.	7 000	5 700	900	400
3 Panama	6 300	4 900	1 300	100
3 Trinidad/Tobago	5 800	4 200	1 300	300
3 Haiti	5 300	3 900	800	600
3 Nicaragua	3 700	2 700	800	200
3 El Salvador	2 600	2 000	500	100
3 Costa Rica	2 000	1 600	S	100
3 Guatemala	1 100	S	600	200
East Europe, including Former Soviet Union	86 700	43 900	28 100	13 800
4 FSU	38 000	22 000	11 200	4 600
4 Poland	20 100	9 900	7 000	3 200
4 Romania	10 500	4 300	4 700	1 500
4 Hungary	7 400	2 900	2 600	1 900
4 Czechoslovakia	5 600	3 300	1 300	900
4 Yugoslavia	4 100	1 500	1 300	1 300
4 Bulgaria	1 000	S	S	400
Africa	49 800	27 300	12 800	9 000
5 Other Africa	15 700	9 700	3 600	2 400
5 Egypt	10 100	5 100	2 700	2 200
5 Nigeria	8 200	4 500	2 400	1 300
5 South Africa	4 900	3 200	800	900
5 Ethiopia	3 600	1 600	1 200	800
5 Ghana	3 200	1 500	900	900
5 Kenya	2 500	1 700	300	400
5 Cameroon	1 600	S	900	100
Middle East	90 300	49 800	27 100	13 000
6 Iran	39 900	23 600	11 600	4 800
6 Turkey	11 300	5 000	4 300	1 900
6 Lebanon	10 700	6 000	3 400	1 300
6 Israel	9 400	6 000	2 100	1 300
6 Syria	5 100	3 200	1 400	500
6 Jordan	3 900	2 100	1 100	700
6 Iraq	3 300	1 500	900	900
6 Palestine	2 600	1 000	900	700
6 Kuwait	2 400	1 400	800	200
6 Cyprus	1 700	S	600	700
North America	91 100	64 600	16 500	9 800
7 Canada	59 400	39 500	11 300	8 400
7 Mexico	31 700	25 100	5 200	1 400

Western Europe	218 800	133 500	49 200	35 300
8 Germany	69 800	46 700	15 700	7 200
8 UK	65 400	40 400	12 000	13 100
8 Italy	14 200	8 400	3 400	2 500
8 France	10 800	5 600	3 300	1 900
8 Greece	10 200	5 200	3 100	1 900
8 Netherlands	7 700	4 100	2 000	1 600
8 Spain	6 000	3 400	1 800	900
8 Austria	4 700	2 200	1 300	1 200
8 Belgium	4 500	2 200	1 500	700
8 Other Europe	4 200	3 200	500	500
8 Sweden	3 700	1 400	1 600	700
8 Switzerland	3 600	1 600	900	1 200
8 Portugal	3 300	2 500	600	100
8 Ireland	3 000	1 300	900	800
8 Denmark	2 800	2 200	S	200
8 Norway	2 600	2 100	S	200
8 Finland	2 300	1 000	600	600
Oceania	13 200	8 300	2 800	2 200
9 Other Oceania	9 000	5 800	2 500	800
9 Australia	4 200	2 500	300	1 400

Appendix table B-1a cont.

1997

	Total	Education level of highest degree		
		Bachelor's	Master's	Doctorate
Total S&E degree holders in U.S.	9 272 800	6 909 400	1 699 500	654 900
Native-born	8 049 982	6 191 600	1 369 200	481 100
Foreign-born	1 222 500	717 600	330 300	173 800
% foreign-born	13,2	10,4	19,4	26,5
REGION	Place of birth			
Asia		580 500	314 100	179 500
1	India	153 200	61 500	64 500
1	China	122 900	46 400	44 300
1	Philippines	74 100	66 000	5 200
1	Taiwan	61 800	21 400	30 500
1	Korea	45 000	32 000	9 200
1	Vietnam	40 500	35 400	4 100
1	Japan	27 900	20 100	4 800
1	Pakistan	13 000	5 400	5 900
1	Thailand	6 200	4 300	1 500
1	Malaysia	5 700	3 500	1 600
1	Indonesia	5 300	2 500	2 300
1	Bangladesh	5 000	1 500	3 100
1	Other Asia	4 100	3 300	400
1	Burma	3 600	3 300	S
1	Sri Lanka	3 500	1 400	1 100
1	Singapore	3 400	2 300	1 000
1	Laos	2 400	2 000	S
1	Afghanistan	2 200	1 800	S
1	Nepal	700	S	S
South America		63 300	43 200	13 500
2	Columbia	12 200	8 300	3 000
2	Other Americas	9 500	7 500	1 400
2	Peru	8 500	6 000	1 800
2	Argentina	8 000	2 900	3 000
2	Brazil	7 000	5 200	1 200
2	Venezuela	5 500	4 000	1 100
2	Equador	4 400	3 200	1 100
2	Surinam	4 300	3 700	400
2	Chile	2 200	1 200	200
2	Bolivia	1 700	1 200	300

Central America & Caribbean	61 100	46 400	10 200	4 500
3 Cuba	18 800	13 400	3 500	1 900
3 Jamaica	12 500	10 300	1 900	400
3 Panama	6 200	5 100	900	200
3 Dominican Rep.	5 100	4 000	600	600
3 Trinidad/Tobago	5 100	4 000	700	300
3 Haiti	4 500	3 500	500	500
3 Nicaragua	3 400	2 700	500	200
3 El Salvador	2 500	1 700	700	100
3 Costa Rica	2 100	1 700	300	100
3 Guatemala	900	S	600	200
East Europe, including Former Soviet Union	80 800	41 000	26 300	12 800
4 FSU	35 000	19 700	10 700	4 300
4 Poland	19 400	9 600	6 400	3 300
4 Romania	8 600	3 800	3 600	1 200
4 Hungary	6 900	2 900	2 200	1 800
4 Czechoslovakia	5 200	2 800	1 500	900
4 Yugoslavia	4 800	2 200	1 500	1 100
4 Bulgaria	900	S	400	200
Africa	45 700	26 200	11 600	8 300
5 Other Africa	13 900	8 500	3 000	2 400
5 Egypt	11 500	6 600	2 800	2 200
5 Nigeria	6 600	3 400	2 200	1 100
5 South Africa	4 000	2 600	600	700
5 Ethiopia	3 000	1 600	900	600
5 Ghana	2 700	800	1 200	800
5 Kenya	2 400	1 800	400	300
5 Cameroon	1 600	900	500	200
Middle East	88 100	51 000	24 100	12 800
6 Iran	41 100	25 000	10 500	5 600
6 Lebanon	10 900	6 400	3 100	1 400
6 Israel	9 500	6 000	2 500	1 100
6 Turkey	8 800	3 800	3 600	1 400
6 Syria	4 300	2 800	800	600
6 Jordan	4 100	2 100	1 300	700
6 Iraq	3 400	1 600	900	800
6 Palestine	2 700	1 400	700	600
6 Kuwait	1 900	1 200	500	100
6 Cyprus	1 400	700	200	500
North America	83 500	59 300	15 000	9 000
7 Canada	54 900	37 900	9 300	7 500
7 Mexico	28 600	21 400	5 700	1 500

Western Europe	204 300	125 700	45 300	32 600
8 Germany	65 900	45 300	13 700	6 800
8 UK	60 900	37 700	11 400	11 800
8 Italy	13 400	7 600	3 200	2 600
8 France	10 500	5 500	3 300	1 700
8 Greece	9 400	4 500	2 900	2 000
8 Netherlands	8 100	4 600	2 000	1 400
8 Spain	4 900	3 000	1 400	500
8 Austria	4 800	2 400	1 200	1 200
8 Ireland	3 800	2 100	800	900
8 Switzerland	3 400	1 700	600	1 100
8 Belgium	3 300	1 500	1 200	600
8 Sweden	3 000	1 300	1 200	500
8 Denmark	2 900	2 000	600	200
8 Other Europe	2 800	1 900	400	400
8 Portugal	2 800	2 000	500	200
8 Finland	2 400	1 000	900	500
8 Norway	2 000	1 600	S	200
Oceania	15 000	9 300	3 700	1 900
9 Other Oceania	11 700	7 400	3 500	700
9 Australia	3 300	1 900	200	1 200

Appendix table B-1a cont.

1995

		Total	Education level of highest degree		
			Bachelor's	Master's	Doctorate
Total S&E degree holders in U.S.		8 923 400	6 674 700	1 618 500	620 509
Native-born		7 751 246	5 977 700	1 306 100	459 000
Foreign-born		1 171 900	696 800	312 400	161 540
% foreign-born		13,1	10,4	19,3	26,0
REGION					
Asia	Total	552 900	306 700	166 900	77 300
1	India	141 800	60 100	56 800	24 500
1	China	109 900	45 500	38 400	25 900
1	Philippines	76 900	68 600	5 400	3 000
1	Taiwan	63 300	20 800	32 100	10 300
1	Korea	46 200	32 200	9 600	4 300
1	Vietnam	35 800	30 800	4 200	800
1	Japan	27 600	19 500	5 300	2 800
1	Pakistan	12 200	5 900	4 900	1 500
1	Thailand	6 300	3 800	1 900	500
1	Indonesia	5 400	2 600	2 300	500
1	Malaysia	4 900	3 100	1 200	600
1	Bangladesh	4 400	1 300	2 600	500
1	Other Asia	4 400	3 000	600	500
1	Burma	3 400	3 000	S	200
1	Sri Lanka	3 200	1 600	900	700
1	Singapore	2 700	1 800	700	200
1	Laos	2 200	1 900	S	S
1	Afghanistan	1 700	1 200	S	300
1	Nepal	600	S	S	200
South America	Total	57 500	39 600	12 200	5 900
2	Columbia	10 800	7 800	2 200	900
2	Other Americas	8 600	7 000	1 200	500
2	Peru	8 000	5 600	1 700	700
2	Argentina	7 000	2 300	2 600	2 000
2	Brazil	6 500	4 800	1 200	600
2	Venezuela	5 200	3 900	1 100	300
2	Equador	4 100	3 100	1 000	S
2	Surinam	3 700	3 100	500	100
2	Chile	2 000	900	200	700
2	Bolivia	1 600	1 100	500	100

Central America & Caribbean	60 600	46 000	9 900	4 900
3 Cuba	19 300	13 300	3 700	2 300
3 Jamaica	11 900	10 200	1 300	400
3 Panama	6 100	5 100	900	100
3 Dominican Rep.	5 700	4 400	500	800
3 Haiti	4 200	3 300	400	500
3 Trinidad/Tobago	4 100	3 400	600	200
3 Nicaragua	3 200	2 600	500	100
3 El Salvador	3 000	2 100	800	100
3 Costa Rica	1 900	1 200	500	300
3 Guatemala	1 200	400	700	100
East Europe, including Former Soviet Union	79 800	40 200	26 200	12 900
4 FSU	34 900	19 300	10 900	4 400
4 Poland	19 100	9 100	6 600	3 400
4 Romania	7 700	3 400	3 300	1 000
4 Hungary	7 000	2 800	2 300	1 900
4 Yugoslavia	5 400	3 100	1 100	1 200
4 Czechoslovakia	5 100	2 500	1 700	800
4 Bulgaria	600	S	300	200
Africa	44 600	24 800	12 400	7 400
5 Other Africa	13 000	7 600	3 500	1 900
5 Egypt	11 700	6 700	3 000	2 000
5 Nigeria	6 000	3 300	1 900	800
5 South Africa	3 900	2 300	600	900
5 Ethiopia	3 700	1 900	1 300	500
5 Ghana	2 700	500	1 200	1 000
5 Kenya	2 300	1 700	400	200
5 Cameroon	1 300	800	500	100
Middle East	86 000	49 800	23 000	12 200
6 Iran	41 300	25 400	11 000	4 900
6 Lebanon	10 500	5 900	3 100	1 500
6 Israel	8 900	5 600	2 000	1 200
6 Turkey	8 000	3 800	2 700	1 500
6 Jordan	4 400	2 400	1 400	500
6 Syria	4 200	2 400	1 200	600
6 Iraq	3 600	2 000	800	900
6 Palestine	2 400	1 100	600	600
6 Kuwait	1 600	1 200	S	100
6 Cyprus	1 100	S	200	400
North America	79 400	58 200	13 200	7 900
7 Canada	52 300	37 000	8 600	6 600
7 Mexico	27 100	21 200	4 600	1 300

Western Europe	194 700	119 800	43 900	30 800
8 Germany	60 000	40 500	12 700	6 800
8 UK	57 900	36 600	10 200	11 100
8 Italy	13 000	7 300	3 200	2 600
8 France	10 500	6 200	2 900	1 400
8 Greece	10 000	5 300	2 900	1 800
8 Netherlands	7 400	4 000	2 000	1 400
8 Spain	5 100	2 700	2 000	400
8 Austria	4 900	2 700	1 100	1 100
8 Belgium	3 900	2 000	1 400	500
8 Ireland	3 500	1 900	900	600
8 Sweden	3 300	1 300	1 500	500
8 Switzerland	3 000	1 200	600	1 200
8 Denmark	2 600	1 800	500	300
8 Other Europe	2 500	1 500	800	200
8 Finland	2 400	1 000	700	600
8 Portugal	2 400	1 800	500	100
8 Norway	2 300	2 000	S	200
Oceania	16 200	10 600	3 600	1 800
9 Other Oceania	12 500	8 200	3 500	700
9 Australia	3 700	2 400	100	1 100

Appendix table B-1a cont.

		1993	Education level of highest degree		
		Total	Bachelor's	Master's	Doctorate
Total S&E degree holders in U.S.		8 571 000	6 402 200	1 571 900	589 600
Native-born		7 433 100	5 726 700	1 264 500	435 417
Foreign-born		1 137 500	675 200	307 400	154 200
% foreign-born		13,3	10,5	19,6	26,2
REGION					
Asia	Total	527 700	294 100	162 400	70 400
1	India	130 500	56 900	51 000	22 500
1	China	103 700	44 900	36 600	22 200
1	Philippines	73 100	65 200	5 000	2 900
1	Taiwan	61 500	18 200	33 800	9 600
1	Korea	47 200	32 300	10 500	4 400
1	Vietnam	32 700	27 900	3 800	900
1	Japan	29 600	20 700	6 100	2 800
1	Pakistan	12 700	6 300	5 100	1 300
1	Thailand	5 600	3 200	2 000	400
1	Indonesia	5 300	2 800	2 200	400
1	Malaysia	4 700	2 700	1 400	600
1	Bangladesh	4 300	1 500	2 300	500
1	Other Asia	3 900	2 400	900	400
1	Burma	3 600	3 400	S	200
1	Sri Lanka	3 200	1 700	900	700
1	Singapore	2 600	1 600	800	100
1	Afghanistan	1 800	1 300	S	300
1	Laos	1 300	1 100	S	S
1	Nepal	400	S	S	200
South America	Total	58 400	41 300	11 600	5 400
2	Columbia	10 400	7 700	2 000	700
2	Peru	8 500	6 300	1 600	500
2	Argentina	7 300	3 000	2 500	1 900
2	Other Americas	7 300	5 800	1 000	500
2	Brazil	6 400	4 400	1 300	600
2	Venezuela	6 200	5 000	900	300
2	Surinam	4 800	3 900	700	200
2	Equador	3 900	2 900	1 000	S
2	Chile	2 100	1 200	300	600
2	Bolivia	1 500	1 100	300	100

Central America & Caribbean	59 700	44 000	10 100	4 800
3 Cuba	19 900	14 000	3 600	2 200
3 Jamaica	11 200	9 300	1 500	400
3 Panama	6 300	4 800	1 300	200
3 Dominican Rep.	5 200	3 800	500	900
3 Haiti	4 200	3 300	500	500
3 Trinidad/Tobago	4 200	3 500	500	100
3 El Salvador	2 700	2 000	700	100
3 Nicaragua	2 700	2 100	400	100
3 Costa Rica	1 900	1 200	400	200
3 Guatemala	1 400	S	700	100
East Europe, including Former Soviet Union	80 400	39 900	27 400	12 600
4 FSU	33 700	17 300	11 800	4 500
4 Poland	19 800	9 500	6 900	3 300
4 Romania	7 900	3 300	3 500	1 100
4 Hungary	6 600	2 700	2 100	1 800
4 Czechoslovakia	6 500	3 900	1 600	1 000
4 Yugoslavia	5 500	3 200	1 300	900
4 Bulgaria	400	S	200	S
Africa	43 000	23 800	11 600	7 600
5 Other Africa	13 500	8 000	3 500	2 000
5 Egypt	11 600	6 600	2 900	2 100
5 Nigeria	5 000	2 800	1 600	700
5 South Africa	3 400	1 800	600	900
5 Ethiopia	3 300	1 600	1 100	600
5 Ghana	2 700	600	1 100	1 000
5 Kenya	2 300	1 600	400	300
5 Cameroon	1 200	800	400	S
Middle East	85 500	49 800	23 500	12 200
6 Iran	40 400	24 600	10 800	4 900
6 Lebanon	10 400	5 900	3 100	1 300
6 Israel	8 700	5 100	2 200	1 300
6 Turkey	8 400	3 700	3 200	1 600
6 Jordan	4 500	2 600	1 200	700
6 Syria	4 300	2 800	1 100	500
6 Iraq	3 800	2 100	900	800
6 Palestine	2 700	1 600	500	600
6 Kuwait	1 400	1 100	200	100
6 Cyprus	900	300	300	400
North America	77 800	55 800	14 100	7 800
7 Canada	50 500	35 200	8 600	6 700
7 Mexico	27 300	20 600	5 500	1 100

Western Europe	186 300	112 900	42 200	31 100
8 UK	55 700	35 100	9 900	10 600
8 Germany	54 700	35 700	12 100	6 800
8 Italy	12 100	6 200	3 000	2 900
8 France	10 300	5 900	2 900	1 500
8 Greece	9 800	5 400	2 800	1 600
8 Netherlands	8 300	4 900	1 800	1 600
8 Austria	6 200	3 700	1 200	1 300
8 Spain	4 100	1 900	1 900	400
8 Ireland	3 900	2 400	900	600
8 Sweden	3 700	1 600	1 600	500
8 Belgium	3 400	1 600	1 200	600
8 Switzerland	2 600	1 000	600	1 000
8 Norway	2 400	2 000	100	300
8 Denmark	2 300	1 300	600	400
8 Finland	2 300	1 100	500	700
8 Portugal	2 300	1 700	500	100
8 Other Europe	2 200	1 400	600	200
Oceania	18 800	12 600	4 200	1 900
9 Other Oceania	14 200	9 600	3 800	800
9 Australia	4 600	3 000	400	1 100

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality. The SESTAT data show the foreign-born S&E degree holders residing in the United States from 84 individual countries, and provide the total for each country. However, since small numbers are suppressed in SESTAT tabulations for confidentiality, the finer breakout of the foreign-born data by field of highest degree is suppressed in some fields in some countries. The total of all regions does not add to total foreign-born because of suppressed cells in the individual country data.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and

Appendix table B-2.

S&E Degree Holders in the United States by Field of Highest Degree and Place of Birth: 1993-1999

	Total	Field of highest degree					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1999							
Total S&E degree holders in U.S.	12 489 700	777 400	1 582 900	1 185 600	3 745 200	2 323 300	2 875 300
Native-born	10 930 400	650 300	1 390 400	979 100	3 443 600	1 853 600	2 613 400
Foreign-born	1 559 300	127 100	192 500	206 500	301 600	469 700	261 900
% foreign-born	12,5	16,3	12,2	17,4	8,1	20,2	9,1
REGION Place of birth							
Asia total	713 100	60 800	91 400	113 900	101 500	242 400	95 100
1 India	200 000	16 100	24 100	29 400	26 700	68 300	35 400
1 China	147 900	20 100	19 900	28 800	15 400	51 000	12 600
1 Philippines	78 400	6 800	13 200	6 900	11 600	28 600	11 300
1 Taiwan	72 200	4 000	7 600	19 300	7 500	26 400	7 400
1 Korea	53 400	4 000	8 000	5 800	12 500	16 300	6 700
1 Vietnam	49 200	1 700	6 700	10 000	6 300	19 600	4 900
1 Japan	38 400	2 900	4 600	3 300	12 200	7 800	7 700
1 Pakistan	19 000	900	1 600	2 600	2 900	6 700	4 300
1 Thailand	8 800	600	1 300	800	1 500	2 500	2 200
1 Malaysia	8 000	400	1 000	1 300	800	3 100	1 400
1 Indonesia	7 100	S	800	700	1 200	2 600	1 200
1 Other_Asia	5 700	400	900	1 200	1 000	1 800	S
1 Sri Lanka	5 400	700	1 400	500	500	1 500	S
1 Bangladesh	5 200	1 100	S	1 600	S	1 600	S
1 Laos	4 500	S	S	S	1 100	1 700	S
1 Burma	3 200	700	300	700	S	800	S
1 Singapore	3 000	S	S	1 000	300	700	S
1 Afghanistan	2 300	400	S	S	S	900	S
1 Nepal	1 400	S	S	S	S	500	S
South America total	90 300	3 400	11 100	7 900	23 900	21 100	19 900
2 Columbia	15 800	200	2 400	700	6 100	3 300	3 100
2 Other_Americas	13 100	700	1 900	2 000	3 700	1 400	3 400
2 Argentina	12 500	1 000	1 800	1 400	2 400	2 900	2 900
2 Peru	9 600	400	1 500	700	3 400	3 200	S
2 Brazil	9 100	100	600	1 200	2 900	3 200	1 200
2 Venezuela	8 900	100	1 000	900	1 300	3 200	2 400
2 Surinam	8 100	S	1 600	800	800	1 300	3 400
2 Equador	6 800	600	S	S	1 500	1 700	2 200
2 Chile	3 500	300	300	200	1 100	900	S
2 Bolivia	2 900	S	S	S	700	S	1 300
Central Amer & Caribbean	84 700	3 300	11 200	6 100	21 400	18 300	19 100
3 Cuba	25 700	1 900	2 800	1 900	5 600	6 100	7 400
3 Jamaica	16 600	1 000	2 100	1 500	4 100	2 700	5 200
3 Dominican_Rep.	8 700	S	800	1 100	3 100	1 800	1 700
3 Panama	8 700	S	1 500	S	2 200	2 200	2 400
3 Trinidad/Tobago	7 000	S	400	800	2 200	2 200	1 100
3 Haiti	5 800	400	1 400	800	1 600	1 100	S
3 Nicaragua	5 000	S	1 500	S	900	800	1 300
3 El_Salvador	2 600	S	S	S	1 200	400	S
3 Costa_Rica	2 500	S	600	S	S	800	S
3 Guatemala	2 100	S	100	S	500	200	S
Eastern Europe	95 900	9 300	9 700	17 000	15 700	34 200	7 500
4 FSU	40 600	3 300	4 000	10 000	7 600	13 000	2 600
4 Poland	22 900	2 300	2 800	2 400	3 600	8 900	2 800
4 Romania	11 200	1 100	900	1 800	1 100	5 400	S
4 Hungary	9 500	1 300	1 000	1 000	1 600	2 500	2 100
4 Czechoslovakia	6 600	600	600	1 100	1 200	2 200	S
4 Yugoslavia	4 100	500	400	400	600	2 200	S
4 Bulgaria	1 000	200	S	300	S	S	S

Africa	61 800	3 300	9 500	6 000	12 200	16 700	10 200
5 Other_Africa	19 600	1 000	2 500	3 200	3 700	5 300	4 000
5 Egypt	12 500	600	1 100	1 400	900	6 000	2 400
5 Nigeria	10 500	900	1 900	600	3 000	1 900	2 300
5 South Africa	6 300	S	1 000	600	1 800	1 300	1 500
5 Ethiopia	4 100	700	1 200	S	800	600	S
5 Ghana	3 800	S	900	200	1 100	900	S
5 Kenya	3 400	100	800	S	900	S	S
5 Cameroon	1 600	S	100	S	S	700	S
Middle East	108 600	5 100	8 900	11 100	14 000	48 100	16 100
6 Iran	47 500	2 700	5 200	5 300	5 300	21 500	7 600
6 Lebanon	14 000	500	900	1 700	2 100	5 600	3 300
6 Turkey	13 000	1 000	600	1 700	2 100	5 900	1 700
6 Israel	12 900	700	1 000	1 100	3 000	3 600	3 500
6 Syria	5 300	100	S	1 300	S	3 300	S
6 Jordan	4 900	100	200	S	400	3 000	S
6 Iraq	3 700	S	600	S	S	1 800	S
6 Kuwait	2 700	S	S	S	S	1 400	S
6 Palestine	2 600	S	400	S	800	1 100	S
6 Cyprus	2 000	S	S	S	300	900	S
North America	114 300	9 300	13 300	10 800	34 000	23 800	23 200
7 Canada	76 900	7 500	11 300	7 600	21 500	11 600	17 500
7 Mexico	37 400	1 800	2 000	3 200	12 500	12 200	5 700
Western Europe	271 700	27 400	32 600	25 200	71 300	59 800	48 400
8 Germany	85 600	7 800	10 600	9 200	26 300	15 800	15 800
8 UK	80 600	10 600	10 700	7 500	18 400	18 300	15 200
8 Italy	19 000	1 400	1 600	1 900	3 900	5 500	4 800
8 France	15 200	600	1 800	1 000	4 100	3 300	4 300
8 Greece	12 400	800	700	1 700	2 900	4 100	2 200
8 Netherlands	9 900	1 100	2 000	500	1 900	2 300	2 200
8 Spain	7 200	900	1 200	900	2 000	1 100	1 200
8 Belgium	5 900	200	900	S	1 700	1 500	1 500
8 Austria	5 400	500	300	200	2 800	800	S
8 Other_Europe	4 900	900	900	300	900	1 200	S
8 Switzerland	4 400	900	1 000	600	700	400	S
8 Ireland	4 200	S	300	800	1 000	700	1 200
8 Sweden	3 900	500	200	600	1 700	600	S
8 Norway	3 600	S	S	S	700	1 300	S
8 Portugal	3 400	S	400	S	1 500	900	S
8 Finland	3 300	800	S	S	100	900	S
8 Denmark	2 800	400	S	S	700	1 100	S
Oceania	18 400	1 300	1 200	1 100	4 600	4 800	5 300
9 Other_Oceania	13 000	1 000	900	S	3 500	3 600	4 000
9 Australia	5 400	300	300	1 100	1 100	1 200	1 300

Appendix B-2 cont.

	Total	Field of highest degree					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1997							
Total S&E degree holders in U.S.	11 962 000	773 700	1 475 800	1 135 900	3 595 500	2 291 800	2 689 300
Native	10 496 300	651 300	1 301 700	945 500	3 307 200	1 844 100	2 446 500
Foreign-born total	1 465 100	122 400	174 000	190 300	288 100	447 600	242 700
% foreign-born	12,2	15,8	11,8	16,8	8,0	19,5	9,0
Asia total	674 000	61 100	82 000	104 700	99 900	228 800	91 400
1 India	186 100	17 600	21 600	26 700	25 200	62 000	32 900
1 China	133 400	18 400	16 900	24 000	15 800	47 800	10 500
1 Philippines	85 200	6 900	13 900	7 500	14 900	30 900	11 100
1 Taiwan	69 600	3 600	6 700	18 700	7 100	25 600	7 800
1 Korea	52 200	4 400	7 100	5 000	12 700	15 800	7 300
1 Vietnam	44 700	2 400	5 000	10 400	4 000	18 700	4 200
1 Japan	35 700	2 400	4 800	2 800	11 300	6 700	7 800
1 Pakistan	17 800	800	1 600	2 000	3 000	5 700	4 800
1 Thailand	8 100	500	900	1 300	1 400	2 000	1 900
1 Malaysia	6 800	500	500	1 000	700	3 000	1 000
1 Indonesia	6 300	400	800	500	1 000	2 600	1 000
1 Bangladesh	5 300	1 000	S	1 500	S	1 700	S
1 Sri Lanka	4 500	600	1 000	300	300	1 400	1 100
1 Other_Asia	4 400	300	400	1 300	700	1 300	S
1 Burma	3 600	800	400	700	900	800	S
1 Singapore	3 400	S	S	1 000	900	800	S
1 Afghanistan	2 900	500	300	S	S	1 100	S
1 Laos	2 900	S	S	S	S	900	S
1 Nepal	1 100	S	100	S	S	S	S
South America total	81 800	3 000	10 700	7 900	21 500	18 500	18 400
2 Columbia	14 600	300	2 200	500	5 900	3 300	2 400
2 Other_Americas	12 000	800	1 500	2 300	3 100	1 800	2 500
2 Argentina	10 600	700	1 600	1 200	2 000	2 500	2 500
2 Peru	9 100	700	1 400	600	3 100	2 700	600
2 Brazil	8 500	100	900	800	2 900	2 200	1 500
2 Venezuela	7 800	100	900	800	1 100	2 600	2 300
2 Surinam	6 800	S	1 400	800	600	1 300	2 500
2 Ecuador	6 300	S	S	900	1 200	1 500	2 000
2 Chile	3 500	300	400	S	900	600	1 200
2 Bolivia	2 600	S	400	S	700	S	900
Central America & Caribbean	80 700	4 000	10 800	5 600	21 100	17 100	19 200
3 Cuba	27 000	2 100	3 100	2 100	5 600	5 800	8 300
3 Jamaica	16 000	1 000	2 000	1 500	5 000	3 000	3 500
3 Panama	8 200	200	1 100	S	2 700	1 900	1 900
3 Dominican_Rep.	6 300	S	900	700	2 200	1 200	1 200
3 Trinidad/Tobago	6 200	S	400	800	1 800	2 000	1 100
3 Haiti	5 400	400	1 200	500	1 600	800	1 000
3 Nicaragua	4 600	300	1 200	S	1 000	900	1 200
3 El_Salvador	2 800	S	800	S	800	600	S
3 Costa_Rica	2 300	S	S	S	S	900	S
3 Guatemala	1 900	S	100	S	400	S	1 000
Eastern Europe	89 600	8 400	10 800	13 100	14 000	33 500	8 600
4 FSU	37 100	3 400	4 500	7 400	6 200	13 400	2 200
4 Poland	22 100	2 100	2 800	2 600	3 500	8 400	2 700
4 Romania	9 200	800	900	1 300	1 000	4 600	600
4 Hungary	8 900	1 300	1 100	600	1 400	2 500	2 000
4 Czechoslovakia	6 300	400	600	1 000	900	2 200	1 100
4 Yugoslavia	5 100	400	900	200	1 000	2 400	S
4 Bulgaria	900	S	S	S	S	S	S

Africa	162 100	8 800	15 500	18 800	25 000	61 300	24 400
5 Other_Africa	17 500	800	2 000	3 000	3 500	4 600	3 600
5 Egypt	13 700	1 100	1 200	1 500	1 700	6 000	2 200
5 Nigeria	9 100	900	1 200	500	2 500	1 500	2 500
5 South Africa	5 600	S	500	400	1 800	1 000	1 600
5 Ethiopia	3 600	500	500	700	500	600	S
5 Ghana	3 400	300	800	S	800	600	S
5 Kenya	3 200	S	900	S	900	S	S
5 Cameroon	1 600	S	400	S	S	400	S
6 Iran	47 900	2 700	4 600	5 600	4 900	23 300	6 900
6 Lebanon	14 200	600	800	1 800	2 000	5 700	3 200
6 Israel	12 400	600	1 000	1 900	2 900	3 200	2 900
6 Turkey	10 300	700	400	1 400	1 900	4 400	1 500
6 Jordan	4 700	200	200	500	500	2 800	S
6 Syria	4 600	400	S	1 000	S	2 500	S
6 Iraq	3 700	S	700	S	S	1 500	S
6 Palestine	2 800	S	300	S	600	1 300	S
6 Kuwait	2 200	S	S	500	S	1 300	S
6 Cyprus	1 600	S	S	S	500	600	S
North America	104 700	8 300	12 000	9 600	30 900	22 700	21 200
7 Canada	70 500	6 700	10 300	6 800	20 000	11 100	15 600
7 Mexico	34 200	1 600	1 700	2 800	10 900	11 600	5 600
Western Europe	252 800	24 300	29 100	23 400	66 200	59 000	47 100
8 Germany	81 800	7 300	9 400	8 600	23 500	17 000	15 800
8 UK	73 400	8 900	9 200	6 600	18 300	17 800	12 500
8 Italy	16 900	1 100	1 700	1 600	4 100	4 800	3 500
8 France	14 400	700	2 100	1 200	3 700	2 900	3 900
8 Greece	11 600	900	600	2 000	2 200	3 700	2 300
8 Netherlands	9 700	800	1 700	600	2 100	2 800	1 600
8 Spain	5 700	500	1 000	600	1 600	1 300	800
8 Austria	5 400	600	300	400	2 600	900	600
8 Ireland	5 100	400	300	900	1 300	1 100	1 200
8 Belgium	4 700	100	700	200	1 200	1 200	1 400
8 Switzerland	4 300	1 000	700	400	1 100	300	900
8 Finland	3 700	700	S	S	400	800	1 300
8 Sweden	3 600	400	100	S	1 500	600	S
8 Norway	3 400	S	100	S	S	1 100	1 300
8 Other_Europe	3 300	600	500	300	500	900	S
8 Denmark	2 900	300	300	S	1 000	900	S
8 Portugal	2 900	S	400	S	1 100	900	S
Oceania	19 600	1 300	1 300	2 000	5 000	5 400	4 500
9 Other_Oceania	15 200	1 000	1 100	800	4 200	4 600	3 500
9 Australia	4 400	300	200	1 200	800	800	1 000

Appendix B-2 cont.

	Total	Field of highest degree					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1995							
Total S&E degree holders in U.S.	11 456 500	763 100	1 392 000	1 090 400	3 422 800	2 254 900	2 533 300
Native	10 060 200	642 800	1 226 100	915 400	3 144 600	1 822 200	2 309 100
Foreign-born total	1 395 900	120 300	165 800	175 100	278 000	432 600	224 100
% foreign-born	12,2	15,8	11,9	16,1	8,1	19,2	8,8
Asia total	639 300	58 900	80 500	95 800	98 600	216 400	84 200
1 India	172 400	17 400	20 600	22 800	26 200	54 700	30 600
1 China	120 700	16 100	15 500	21 000	14 700	42 500	10 800
1 Philippines	88 700	6 600	15 000	7 600	15 800	31 900	11 700
1 Taiwan	69 200	4 000	7 500	19 300	6 300	26 200	6 000
1 Korea	52 200	4 700	6 500	4 900	12 900	17 100	6 000
1 Vietnam	39 300	2 200	3 200	9 400	3 300	17 800	3 500
1 Japan	34 800	2 500	5 400	2 100	11 300	6 300	7 200
1 Pakistan	16 400	1 100	1 700	1 800	2 200	5 500	4 200
1 Thailand	8 000	600	1 200	1 100	1 400	2 000	1 700
1 Indonesia	6 300	300	900	500	1 200	2 500	900
1 Malaysia	5 600	300	600	900	600	2 400	800
1 Other_Asia	5 000	400	600	1 300	800	1 400	S
1 Bangladesh	4 800	900	200	1 200	600	1 600	S
1 Sri Lanka	4 000	500	1 200	300	S	1 200	800
1 Burma	3 500	700	400	600	800	900	S
1 Singapore	2 700	200	S	1 000	500	500	S
1 Laos	2 500	S	S	S	S	1 000	S
1 Afghanistan	2 300	400	S	S	S	900	S
1 Nepal	900	S	S	S	S	S	S
South America	74 300	3 800	8 200	7 000	19 200	18 600	16 300
2 Columbia	12 600	200	1 700	900	4 900	3 100	1 800
2 Other_Americas	10 800	600	1 200	2 200	3 000	1 600	2 200
2 Argentina	9 500	800	1 400	1 000	1 500	2 300	2 500
2 Peru	9 100	800	1 100	100	2 900	3 000	1 200
2 Brazil	8 100	200	700	800	2 600	2 200	1 600
2 Venezuela	7 400	300	700	700	1 300	2 200	2 100
2 Ecuador	5 900	500	S	600	1 300	1 700	1 800
2 Surinam	5 600	200	1 100	500	500	1 400	1 900
2 Chile	3 100	200	300	200	600	600	1 200
2 Bolivia	2 200	S	S	S	600	500	S
Central American & Caribbean	77 400	3 600	10 500	4 600	22 400	17 900	15 900
3 Cuba	26 900	2 000	2 700	2 100	6 200	6 300	7 600
3 Jamaica	15 000	900	2 000	1 000	4 800	3 200	3 100
3 Panama	7 500	S	1 000	S	2 400	2 300	1 400
3 Dominican_Rep.	6 500	200	1 000	500	2 700	1 300	800
3 Haiti	5 400	300	900	400	1 700	900	1 200
3 Trinidad/Tobago	5 200	S	300	600	1 700	1 500	1 000
3 Nicaragua	4 000	S	1 300	S	600	700	800
3 El_Salvador	3 200	S	700	S	1 000	1 000	S
3 Costa_Rica	2 000	S	500	S	400	700	S
3 Guatemala	1 700	200	100	S	900	S	S
Eastern Europe	88 900	8 400	10 500	12 200	12 400	35 800	8 800
4 FSU	36 900	3 000	4 500	6 600	5 000	15 800	2 000
4 Poland	21 900	2 500	2 600	2 600	3 200	8 200	2 900
4 Hungary	9 100	1 200	1 300	700	1 300	2 500	2 100
4 Romania	8 300	700	800	1 100	1 000	4 200	600
4 Czechoslovakia	6 300	400	300	1 000	1 100	2 300	1 200
4 Yugoslavia	5 800	600	1 000	200	800	2 800	S
4 Bulgaria	600	S	S	S	S	S	S
Africa	55 600	4 100	7 500	5 300	12 200	14 500	10 100
5 Other_Africa	16 300	900	2 100	1 900	4 000	4 200	3 300
5 Egypt	13 700	1 300	1 300	1 400	1 600	6 100	2 000
5 Nigeria	8 600	600	1 100	800	2 300	1 100	2 600
5 South Africa	5 300	400	600	400	1 600	900	1 400
5 Ethiopia	3 900	500	500	500	1 100	1 000	S
5 Ghana	3 500	200	900	300	600	800	800
5 Kenya	3 000	200	700	S	1 000	400	S
5 Cameroon	1 300	S	300	S	S	S	S

Middle East	101 000	6 500	8 000	12 100	13 400	44 700	13 000
6 Iran	47 300	3 300	4 400	5 600	4 600	23 400	6 000
6 Lebanon	13 800	700	700	1 900	1 700	5 500	3 300
6 Israel	11 200	600	700	1 900	3 000	2 700	2 300
6 Turkey	9 400	600	600	1 000	2 000	3 800	1 400
6 Jordan	5 000	200	200	600	500	2 800	S
6 Syria	4 500	400	300	800	S	2 300	S
6 Iraq	3 900	600	700	S	800	1 500	S
6 Palestine	2 700	100	400	300	500	1 100	S
6 Kuwait	1 700	S	S	S	S	1 100	S
6 Cyprus	1 500	S	S	S	300	500	S
North America	99 500	8 300	10 900	9 200	28 600	22 500	20 000
7 Canada	67 400	6 800	8 900	6 400	18 700	11 500	15 100
7 Mexico	32 100	1 500	2 000	2 800	9 900	11 000	4 900
Western Europe	239 000	23 900	26 900	23 100	63 300	56 900	43 300
8 Germany	73 400	7 000	8 300	8 200	20 500	16 000	13 400
8 UK	69 700	8 900	8 500	6 600	17 100	16 900	11 800
8 Italy	16 300	1 400	1 700	1 400	3 800	4 800	3 200
8 France	14 400	500	2 700	1 000	3 700	2 700	3 900
8 Greece	11 500	1 000	600	2 000	2 600	3 900	1 500
8 Netherlands	8 800	1 000	1 400	500	1 700	2 700	1 400
8 Spain	6 300	500	800	600	2 200	1 000	1 200
8 Austria	5 800	400	300	500	2 700	900	900
8 Belgium	5 600	200	700	200	1 700	1 200	1 700
8 Ireland	4 600	400	200	700	1 000	1 100	1 100
8 Switzerland	4 000	800	700	500	600	500	1 100
8 Sweden	3 900	300	100	400	1 600	900	S
8 Norway	3 500	S	S	500	800	1 000	1 200
8 Finland	3 200	700	100	S	700	700	900
8 Other_Europe	2 900	500	200	S	600	900	S
8 Denmark	2 600	300	300	S	900	800	S
8 Portugal	2 500	S	300	S	1 100	900	S
Oceania	20 300	1 500	1 800	2 300	5 800	4 800	4 200
9 Other_Oceania	15 800	1 300	1 200	1 200	4 600	4 300	3 300
9 Australia	4 500	200	600	1 100	1 200	500	900

Appendix B-2 cont.

	Total	Field of highest degree					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1993							
Total S&E degree holder:	11 021 600	760 700	1 322 600	1 046 400	3 224 600	2 216 700	2 450 600
Native	9 664 500	639 700	1 162 300	880 000	2 958 700	1 792 700	2 231 100
Foreign-born total	1 357 100	121 000	160 300	166 400	265 900	424 000	219 500
% foreign-born	12,3	15,9	12,1	15,9	8,2	19,1	9,0
Asia total	612 400	59 100	75 900	89 700	96 600	204 700	83 100
1 India	160 900	18 100	18 700	18 800	25 200	49 700	30 400
1 China	114 200	15 200	14 300	18 800	15 400	40 100	10 500
1 Philippines	85 600	6 300	13 200	7 200	15 500	30 800	12 600
1 Taiwan	68 400	4 800	7 400	19 500	5 200	24 700	6 900
1 Korea	52 100	4 700	7 300	5 700	12 600	17 000	4 800
1 Japan	35 800	2 700	5 000	2 200	11 400	8 300	6 100
1 Vietnam	35 800	2 100	3 100	9 200	2 100	16 100	3 200
1 Pakistan	16 600	1 200	1 600	2 100	2 800	4 900	3 900
1 Thailand	7 300	600	1 100	900	1 200	1 800	1 700
1 Indonesia	6 100	300	900	700	800	2 700	800
1 Malaysia	5 600	600	600	700	500	2 300	1 000
1 Bangladesh	4 700	1 100	200	1 100	1 000	900	400
1 Other_Asia	4 300	300	300	1 300	700	1 300	S
1 Burma	4 100	800	400	700	900	800	S
1 Sri Lanka	4 100	300	1 100	200	600	1 000	800
1 Singapore	2 700	S	500	600	700	700	S
1 Afghanistan	2 200	S	200	S	S	1 000	S
1 Laos	1 300	S	S	S	S	600	S
1 Nepal	600	S	S	S	S	S	S
South America	74 900	4 400	9 100	7 400	16 400	20 600	16 200
2 Columbia	12 400	400	1 600	800	4 100	3 500	2 000
2 Other_Americas	10 400	400	1 000	2 000	2 200	1 700	3 100
2 Peru	9 700	1 000	1 200	400	2 300	3 700	1 300
2 Argentina	9 400	700	1 700	1 000	1 600	2 400	2 100
2 Brazil	8 000	400	1 200	700	1 900	2 200	1 700
2 Venezuela	7 900	200	1 000	1 200	1 300	2 500	1 800
2 Surinam	6 200	800	1 000	700	800	1 500	1 400
2 Ecuador	5 700	400	S	500	1 000	1 800	1 700
2 Chile	3 200	100	400	100	800	700	1 100
2 Bolivia	2 000	S	S	S	400	600	S
Central America & Caribbean	75 200	4 100	11 400	5 000	21 000	17 000	15 000
3 Cuba	27 000	2 100	3 100	2 500	6 500	5 700	7 200
3 Jamaica	13 700	800	2 200	1 000	4 400	2 800	2 500
3 Panama	7 900	200	800	S	2 500	2 600	1 700
3 Dominican_Rep.	6 000	300	1 300	S	2 200	1 200	800
3 Haiti	5 100	400	1 300	200	1 200	1 000	900
3 Trinidad/Tobago	5 000	S	300	800	1 600	1 500	800
3 Nicaragua	3 400	200	1 000	S	500	700	700
3 El_Salvador	2 900	S	700	500	600	800	S
3 Costa_Rica	2 300	S	400	S	700	500	400
3 Guatemala	1 900	100	300	S	800	200	S
Eastern Europe	89 100	8 600	10 200	10 700	13 300	37 000	8 800
4 FSU	35 800	3 100	4 300	5 400	4 500	16 300	2 200
4 Poland	22 800	2 500	2 700	2 900	3 600	8 200	3 000
4 Romania	8 600	900	900	600	1 200	4 300	800
4 Hungary	8 100	1 000	1 200	600	1 200	2 500	1 500
4 Czechoslovakia	7 800	600	300	900	1 700	2 900	1 300
4 Yugoslavia	5 600	500	800	300	1 100	2 800	S
4 Bulgaria	400	S	S	S	S	S	S
Africa	53 600	3 800	6 700	4 900	12 000	15 000	10 300
5 Other_Africa	17 000	1 100	2 400	1 600	4 300	4 100	3 600
5 Egypt	13 400	1 100	1 400	1 000	1 600	6 600	1 700
5 Nigeria	7 200	500	900	800	1 600	1 300	2 200
5 South Africa	4 600	300	400	400	1 500	800	1 200
5 Ethiopia	3 600	500	400	500	1 200	700	S
5 Ghana	3 400	100	600	300	900	700	700
5 Kenya	3 200	200	600	300	900	400	900
5 Cameroon	1 200	S	S	S	S	400	S

Middle East	99 300	6 400	7 900	13 100	12 500	45 200	12 900
6 Iran	45 900	2 900	4 000	6 000	4 500	22 800	5 500
6 Lebanon	13 700	700	700	2 000	1 200	5 800	3 300
6 Israel	10 600	700	800	1 600	2 900	2 700	1 900
6 Turkey	9 800	700	600	1 000	1 800	4 300	1 400
6 Jordan	4 900	200	400	700	300	2 900	S
6 Syria	4 600	300	400	900	200	2 400	300
6 Iraq	4 300	400	700	200	700	1 900	500
6 Palestine	2 900	300	300	200	700	1 100	S
6 Kuwait	1 500	S	S	500	S	800	S
6 Cyprus	1 100	200	S	S	200	500	S
North America	98 800	8 300	11 100	9 500	26 100	22 800	21 000
7 Canada	66 300	6 700	8 400	6 500	16 200	12 700	15 800
7 Mexico	32 500	1 600	2 700	3 000	9 900	10 100	5 200
West Europe	229 900	23 400	24 900	22 200	59 200	56 100	42 900
8 Germany	67 900	6 700	7 300	7 700	18 600	14 300	13 300
8 UK	65 900	8 300	8 000	6 100	16 700	16 500	10 200
8 Italy	15 700	1 300	1 800	1 200	3 000	4 800	3 600
8 France	14 100	600	2 200	1 000	3 700	2 700	3 800
8 Greece	11 800	1 200	600	1 800	2 600	3 700	2 000
8 Netherlands	10 500	1 200	1 400	500	2 200	3 100	2 200
8 Austria	7 400	1 200	400	500	2 800	1 400	1 200
8 Spain	5 100	400	700	400	1 400	1 300	1 000
8 Ireland	5 000	300	400	800	1 100	1 300	1 100
8 Belgium	4 700	200	600	200	1 100	1 200	1 300
8 Sweden	4 300	200	300	500	1 600	1 100	600
8 Norway	3 500	100	100	300	800	1 100	1 100
8 Switzerland	3 400	500	500	400	500	700	800
8 Finland	3 000	600	100	S	700	800	700
8 Other_Europe	2 600	400	S	400	400	800	S
8 Portugal	2 600	S	300	100	1 200	600	S
8 Denmark	2 400	200	200	300	800	700	S
Oceania	23 300	2 100	2 400	2 200	6 900	5 000	4 500
9 Other_Oceania	17 900	1 700	1 700	1 100	5 200	4 400	3 600
9 Australia	5 400	400	700	1 100	1 700	600	900

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

The SESTAT data show the foreign-born S&E degree holders residing in the United States from 84 individual countries, and provide the total for each country. However, since small numbers are suppressed in SESTAT tabulations for confidentiality, the finer breakout of the foreign-born data by field of highest degree is suppressed in some fields in some countries. The total of all regions does not add to total foreign-born because of suppressed cells in the individual country data.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Appendix table B-3.

**S&E Degree Holders Employed in the United States by Place of Birth
and Occupation Group: 1993-1999**

	1999 Total	Occupation group					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
Total employed S&E degree holders	10 479 900	294 100	323 500	1 007 100	344 000	1 290 300	7 220 900
Native	9 133 600	242 800	265 100	796 100	306 700	1 043 400	6 479 500
Foreign-born total	1 346 300	51 300	58 400	211 000	37 300	246 900	741 400
% foreign-born	12,8	17,4	18,1	21,0	10,8	19,1	10,3
Place of birth							
Asia total	632 400	24 800	29 100	127 700	8 900	133 400	305 300
1 India	181 500	5 900	8 700	41 200	2 800	40 000	82 800
1 China	127 700	9 400	10 300	33 900	1 500	28 500	44 100
1 Philippines	69 300	2 400	900	4 200	300	11 000	50 500
1 Taiwan	66 000	1 800	3 000	18 700	1 400	13 200	27 900
1 Korea	45 100	1 000	2 100	6 500	800	7 800	27 000
1 Vietnam	44 500	1 100	1 100	9 100	S	12 500	20 700
1 Japan	33 300	1 200	1 300	3 400	700	5 300	21 500
1 Pakistan	16 800	500	300	2 900	600	5 500	7 000
1 Malaysia	7 600	S	600	1 800	600	2 200	2 400
1 Thailand	6 900	S	200	400	S	1 400	4 700
1 Indonesia	6 000	S	S	900	S	1 500	3 400
1 Other_Asia	5 100	400	S	800	S	700	3 000
1 Bangladesh	4 900	600	S	900	S	1 200	2 300
1 Sri Lanka	4 800	500	500	1 000	200	1 000	1 700
1 Laos	4 500	S	S	S	S	900	2 600
1 Burma	3 100	S	100	1 300	S	S	1 700
1 Afghanistan	2 100	S	S	S	S	700	1 000
1 Singapore	1 900	S	S	700	S	S	1 000
1 Nepal	1 300	S	S	S	S	S	S
South America	81 000	1 700	2 000	7 400	3 600	10 300	54 600
2 Columbia	14 300	200	S	1 000	1 200	1 800	10 100
2 Other_Americas	12 100	100	400	1 400	700	1 500	7 900
2 Argentina	10 400	600	900	1 300	800	1 000	5 800
2 Venezuela	8 400	S	100	1 800	S	1 500	5 000
2 Peru	8 300	200	400	600	200	1 400	5 500
2 Brazil	7 800	200	100	500	600	1 300	5 100
2 Surinam	7 500	S	S	400	S	600	6 000
2 Equador	6 200	400	S	S	S	900	4 600
2 Chile	3 100	S	100	400	100	300	2 100
2 Bolivia	2 900	S	S	S	S	S	2 500

Central America & Caribbean	73 800	700	1 400	5 500	1 500	8 500	51 600
3 Cuba	20 800	400	500	1 900	300	3 400	14 400
3 Jamaica	15 200	300	400	1 400	600	1 800	10 700
3 Dominican_Rep.	7 800	S	S	900	400	1 100	5 500
3 Panama	7 800	S	S	700	S	700	5 900
3 Trinidad/Tobago	6 500	S	S	S	200	700	4 900
3 Haiti	5 000	S	S	600	S	300	4 000
3 Nicaragua	4 600	S	S	S	S	300	3 200
3 El_Salvador	2 300	S	S	S	S	200	1 200
3 Costa_Rica	2 200	S	400	S	S	S	600
3 Guatemala	1 600	S	100	S	S	S	1 200
Eastern Europe	76 200	4 700	2 700	12 000	1 400	16 600	38 200
4 FSU	32 200	1 000	1 100	7 900	400	6 000	15 800
4 Poland	18 500	1 800	800	1 800	500	4 000	9 500
4 Romania	9 700	600	S	900	S	3 900	4 200
4 Hungary	6 700	400	500	600	400	1 000	3 800
4 Czechoslovakia	5 000	500	S	300	S	500	3 600
4 Yugoslavia	3 200	300	300	500	100	1 200	800
4 Bulgaria	900	100	S	S	S	S	500
Africa	55 600	1 300	2 100	5 700	2 300	9 400	33 100
5 Other_Africa	17 700	200	700	2 400	1 200	3 400	10 000
5 Egypt	10 500	300	300	1 500	200	3 000	5 100
5 Nigeria	10 200	600	300	800	100	1 100	7 200
5 South Africa	4 800	S	400	800	500	400	2 600
5 Ghana	3 800	S	100	200	100	700	2 600
5 Ethiopia	3 600	200	200	S	S	200	2 500
5 Kenya	3 400	S	100	S	200	S	2 500
5 Cameroon	1 600	S	S	S	S	600	600
Middle East	93 700	2 100	2 500	10 500	2 000	22 000	52 500
6 Iran	40 400	800	700	5 100	700	10 100	23 000
6 Lebanon	12 300	600	500	1 500	S	2 300	7 000
6 Turkey	11 400	400	900	1 900	300	2 600	5 300
6 Israel	11 200	200	100	1 400	300	1 100	8 200
6 Jordan	4 700	S	100	S	S	2 200	2 000
6 Syria	4 100	100	S	600	S	1 300	1 700
6 Iraq	3 200	S	S	S	S	900	1 800
6 Kuwait	2 700	S	S	S	S	1 000	1 500
6 Palestine	1 900	S	200	S	200	200	1 300
6 Cyprus	1 800	S	S	S	500	300	700
North America	91 500	2 400	3 400	9 200	3 900	12 700	59 800
7 Canada	59 100	2 200	2 900	6 300	3 200	7 300	37 100
7 Mexico	32 400	200	500	2 900	700	5 400	22 700

West Europe	225 200	9 100	11 300	25 800	9 300	29 000	135 500
8 Germany	69 900	2 800	2 900	8 400	3 300	8 100	44 500
8 UK	69 900	3 800	4 600	8 100	2 800	9 600	41 100
8 Italy	16 700	900	1 400	1 900	400	2 700	9 500
8 France	13 100	400	600	1 600	200	1 700	8 600
8 Greece	10 700	300	100	1 500	900	2 000	5 900
8 Netherlands	8 000	200	400	800	200	600	5 800
8 Spain	5 600	S	400	800	200	700	3 400
8 Belgium	4 600	S	500	300	400	900	2 300
8 Other_Europe	4 000	S	S	600	S	500	2 600
8 Austria	3 700	S	S	500	600	700	1 700
8 Ireland	3 600	S	S	S	300	800	1 800
8 Switzerland	3 500	300	400	500	S	S	1 900
8 Sweden	2 700	400	S	800	S	200	1 100
8 Portugal	2 600	S	S	S	S	S	1 600
8 Norway	2 300	S	S	S	S	500	1 100
8 Finland	2 200	S	S	S	S	S	1 200
8 Denmark	2 100	S	S	S	S	S	1 400
Oceania	16 100	1 100	400	1 700	500	2 100	10 200
9 Other_Oceania	11 000	800	200	1 300	S	1 300	7 300
9 Australia	5 100	300	200	400	500	800	2 900

Appendix B-3 cont.

1997	Total	Occupation group					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
Total S&E degree holders employed in U.S.	10 057 600	280 200	302 500	883 100	328 800	1 282 800	6 980 200
Native	8 800 400	229 700	251 400	705 200	295 300	1 043 100	6 275 700
Foreign-born total	1 256 800	50 500	51 100	177 900	33 600	239 700	704 000
% foreign-born	12,5	18,0	16,9	20,1	10,2	18,7	10,1
Asia total	590 300	24 700	24 600	106 700	10 000	126 900	294 100
1 India	164 400	6 800	7 800	33 600	3 000	36 500	76 700
1 China	115 700	8 400	8 700	27 100	2 100	28 100	41 200
1 Philippines	74 100	2 300	1 400	3 900	1 000	11 400	54 100
1 Taiwan	61 600	1 900	1 900	15 500	700	14 000	27 500
1 Korea	42 900	1 300	2 000	5 400	800	7 500	25 900
1 Vietnam	41 200	1 100	200	9 300	700	12 600	17 300
1 Japan	31 200	600	1 400	3 400	700	4 800	20 300
1 Pakistan	16 000	400	500	2 300	600	3 400	8 800
1 Thailand	6 900	200	100	500	S	1 600	4 400
1 Malaysia	6 500	S	300	1 900	200	2 300	1 700
1 Indonesia	5 200	400	S	500	S	1 000	3 200
1 Bangladesh	5 000	500	S	700	S	1 100	2 600
1 Sri Lanka	4 200	400	300	600	200	900	1 900
1 Other_Asia	4 000	400	S	700	S	300	2 400
1 Burma	3 500	S	S	800	S	S	2 300
1 Afghanistan	2 800	S	S	S	S	1 000	1 300
1 Laos	2 400	S	S	S	S	S	1 800
1 Singapore	1 700	S	S	500	S	400	700
1 Nepal	1 000	S	S	S	S	S	S
South American tot.	71 900	1 500	2 300	5 700	2 300	10 000	48 600
2 Columbia	13 400	200	100	600	400	2 200	9 900
2 Other_Americas	10 800	500	400	1 300	400	800	7 400
2 Argentina	8 700	300	900	1 000	400	1 100	4 900
2 Peru	7 900	S	400	200	200	1 500	5 400
2 Brazil	7 200	200	200	800	400	800	4 900
2 Venezuela	7 000	100	100	1 400	S	1 600	3 700
2 Equador	6 100	S	S	S	S	1 100	4 500
2 Surinam	5 200	S	S	300	S	500	4 100
2 Chile	3 200	200	200	100	200	400	2 100
2 Bolivia	2 400	S	S	S	300	S	1 700
Central American & Caribbean	69 000	600	800	3 600	900	9 900	51 000
3 Cuba	22 500	300	500	1 300	300	3 800	16 400
3 Jamaica	13 200	300	200	1 600	200	1 500	9 400
3 Panama	7 700	S	S	500	S	1 000	5 800
3 Dominican_Rep.	6 000	S	S	200	S	700	5 000
3 Trinidad/Tobago	5 600	S	S	S	100	900	3 900
3 Haiti	4 400	S	S	S	S	500	3 700
3 Nicaragua	3 700	S	S	S	S	300	3 100
3 El_Salvador	2 100	S	S	S	300	300	1 400
3 Costa_Rica	2 000	S	S	S	S	900	900
3 Guatemala	1 800	S	100	S	S	S	1 400

Eastern Europe	69 900	3 700	2 200	8 600	1 400	16 400	36 800
4 FSU	29 000	1 100	900	5 000	200	6 800	15 100
4 Poland	17 500	1 100	800	1 900	600	3 900	9 400
4 Romania	8 100	300	S	900	S	3 200	3 500
4 Hungary	6 900	600	400	300	400	800	4 300
4 Czechoslovakia	4 200	400	S	300	S	300	3 100
4 Yugoslavia	3 600	200	100	200	200	1 400	1 400
4 Bulgaria	600	S	S	S	S	S	S
Africa total	52 000	1 500	2 300	6 300	2 100	9 300	29 500
5 Other_Africa	16 000	300	900	2 600	500	3 000	8 800
5 Egypt	11 700	700	300	1 600	200	3 400	5 500
5 Nigeria	9 000	300	600	700	600	900	5 900
5 South Africa	4 200	S	S	600	400	400	2 500
5 Ethiopia	3 600	200	500	800	S	300	1 800
5 Ghana	3 200	S	S	S	300	500	2 100
5 Kenya	2 700	S	S	S	100	300	2 100
5 Cameroon	1 600	S	S	S	S	500	800
Middle East total	92 200	2 400	2 100	12 000	2 200	22 900	49 600
6 Iran	41 000	1 100	700	5 200	600	11 100	22 400
6 Lebanon	12 700	600	600	1 600	400	2 200	7 300
6 Israel	11 800	200	300	1 800	600	1 500	7 300
6 Turkey	9 000	300	300	1 600	200	2 800	3 800
6 Jordan	4 300	200	S	300	S	1 900	1 800
6 Syria	4 100	S	S	700	S	1 000	1 900
6 Iraq	3 300	S	100	300	S	800	2 000
6 Palestine	2 400	S	100	300	100	300	1 600
6 Kuwait	2 100	S	S	200	S	900	1 000
6 Cyprus	1 500	S	S	S	300	400	500
North America total	83 700	2 900	3 400	7 600	4 300	10 300	55 300
7 Canada	53 500	2 600	3 000	5 500	3 500	5 700	33 200
7 Mexico	30 200	300	400	2 100	800	4 600	22 100
West Europe	211 600	9 000	10 100	21 900	7 600	29 200	128 700
8 Germany	67 200	2 900	2 500	7 700	2 500	9 500	42 000
8 UK	64 200	3 700	3 100	6 100	1 600	8 900	40 800
8 Italy	13 900	400	1 500	1 700	600	2 900	6 900
8 France	12 400	400	700	1 700	700	1 200	7 800
8 Greece	10 800	400	400	1 400	700	2 300	5 500
8 Netherlands	7 600	100	600	900	200	600	5 200
8 Ireland	4 600	S	100	300	400	500	3 000
8 Spain	4 500	S	200	400	100	900	2 700
8 Austria	4 200	S	200	500	400	800	2 100
8 Belgium	3 900	S	500	S	400	500	2 300
8 Switzerland	3 700	500	300	800	S	200	1 500
8 Sweden	2 800	400	S	S	S	S	1 700
8 Finland	2 600	S	S	S	S	S	1 500
8 Other_Europe	2 600	200	S	400	S	300	1 300
8 Norway	2 400	S	S	S	S	300	1 600
8 Denmark	2 200	S	S	S	S	300	1 500
8 Portugal	2 000	S	S	S	S	S	1 300
Oceania	15 800	1 400	400	1 700	300	2 300	9 800
9 Other_Oceania	11 800	1 000	200	900	S	1 800	7 900
9 Australia	4 000	400	200	800	300	500	1 900

Appendix B-3 cont.

	Total	Occupation group					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1995							
Total S&E Degree Holders Employed in U.S.	9 570 100	268 400	282 700	763 400	293 800	1 243 200	6 718 600
Native	8 394 100	220 500	236 100	624 200	264 000	1 023 700	6 025 600
Foreign-born total	1 175 700	47 900	46 600	139 200	29 800	219 500	692 700
% foreign-born	12,3	17,8	16,5	18,2	10,1	17,7	10,3
Asia total	585 000	23 000	22 700	80 700	7 500	117 200	290 000
1 India	164 400	7 300	6 100	24 400	2 100	32 200	75 300
1 China	115 700	7 400	8 200	20 200	1 500	23 600	41 800
1 Philippines	74 100	1 600	1 300	4 400	900	12 000	55 900
1 Taiwan	61 600	1 600	2 100	13 000	600	13 700	27 800
1 Korea	42 900	1 800	1 700	4 600	600	8 200	24 800
1 Vietnam	35 900	800	300	7 500	400	11 600	15 300
1 Japan	31 200	800	1 200	1 600	1 000	4 300	21 200
1 Pakistan	16 000	500	500	1 000	400	2 900	7 500
1 Thailand	6 900	100	S	400	S	1 500	4 400
1 Malaysia	6 500	S	300	900	S	1 800	1 900
1 Indonesia	5 200	200	200	S	S	1 100	3 200
1 Bangladesh	5 000	300	400	S	S	1 100	2 700
1 Sri Lanka	4 200	300	400	400	S	800	1 800
1 Other_Asia	4 000	300	S	800	S	700	2 100
1 Burma	3 500	S	S	900	S	700	1 900
1 Afghanistan	2 800	S	S	S	S	S	1 000
1 Laos	2 400	S	S	S	S	600	700
1 Singapore	1 700	S	S	600	S	400	700
1 Nepal	1 000	S	S	S	S	S	S
South America	71 400	2 500	2 100	4 800	1 900	8 000	46 600
2 Columbia	13 400	300	S	500	400	1 600	9 100
2 Other_Americas	10 800	800	500	800	300	900	6 500
2 Argentina	8 700	400	900	700	300	1 000	4 400
2 Peru	7 900	S	S	600	S	1 100	5 600
2 Brazil	7 200	100	200	800	300	500	5 600
2 Venezuela	6 500	300	200	1 000	S	700	4 200
2 Equador	6 100	300	S	S	S	1 000	4 200
2 Surinam	5 200	S	S	400	S	400	4 300
2 Chile	3 200	300	300	S	300	500	1 300
2 Bolivia	2 400	S	S	S	300	300	1 400
Central America & Caribbean	69 000	700	700	2 200	400	7 900	50 800
3 Cuba	22 500	600	600	1 200	300	3 200	16 500
3 Jamaica	13 200	100	100	1 000	100	1 500	10 200
3 Panama	7 700	S	S	S	S	700	5 600
3 Dominican_Rep.	6 000	S	S	S	S	700	4 900
3 Trinidad/Tobago	5 600	S	S	S	S	800	3 700
3 Haiti	4 400	S	S	S	S	500	3 300
3 Nicaragua	3 700	S	S	S	S	100	2 800
3 El_Salvador	2 100	S	S	S	S	400	1 900
3 Costa_Rica	2 000	S	S	S	S	S	1 100
3 Guatemala	1 800	S	S	S	S	S	800

Eastern Europe	70 400	3 300	2 500	7 600	1 100	14 600	38 800
4 FSU	29 000	1 100	800	3 900	S	6 200	16 000
4 Poland	17 500	1 000	900	2 000	600	3 600	9 400
4 Romania	8 100	200	S	500	S	2 500	3 400
4 Hungary	6 900	500	500	400	400	1 200	3 900
4 Czechoslovakia	4 200	300	100	500	S	300	3 600
4 Yugoslavia	4 100	200	200	300	100	800	2 500
4 Bulgaria	600	S	S	S	S	S	S
Africa	36 000	1 300	1 300	3 400	1 600	4 400	19 700
5 Other_Africa	16 000	400	700	2 100	700	3 100	7 900
5 Egypt	11 700	500	300	1 500	200	2 600	5 500
5 Nigeria	9 000	200	700	600	300	600	5 500
5 South Africa	4 200	200	S	600	500	S	2 700
5 Ethiopia	3 600	100	200	500	100	600	1 800
5 Ghana	3 200	300	100	200	300	600	2 000
5 Kenya	2 700	S	S	S	200	S	1 700
5 Cameroon	1 600	S	S	S	S	S	500
Middle East	92 200	2 700	2 100	8 600	1 400	21 000	48 900
6 Iran	41 000	1 100	800	4 600	500	11 100	22 200
6 Lebanon	12 700	600	500	800	S	2 500	7 500
6 Israel	11 800	300	100	1 400	300	1 100	5 600
6 Turkey	9 000	300	300	900	500	1 800	4 600
6 Jordan	4 300	200	100	S	S	1 900	2 100
6 Syria	4 100	S	S	500	S	700	2 000
6 Iraq	3 300	S	200	400	S	600	2 200
6 Palestine	2 400	200	100	S	S	500	1 400
6 Kuwait	2 100	S	S	S	S	400	900
6 Cyprus	1 500	S	S	S	100	400	400
North America	83 700	3 000	2 500	6 000	3 100	9 800	55 300
7 Canada	53 500	2 700	2 100	4 600	2 600	5 300	34 900
7 Mexico	30 200	300	400	1 400	500	4 500	20 400
West Europe	207 400	8 300	9 000	17 200	8 200	29 700	122 500
8 Germany	67 200	1 900	2 300	6 200	2 900	8 800	36 900
8 UK	60 000	3 700	3 000	5 600	1 800	8 300	37 600
8 Italy	13 900	600	1 400	1 400	500	2 500	7 000
8 France	12 400	300	700	1 200	800	1 300	7 900
8 Greece	10 800	400	400	900	800	2 400	4 900
8 Netherlands	7 600	200	300	400	200	1 400	4 700
8 Ireland	4 600	S	S	S	100	400	2 900
8 Spain	4 500	S	200	300	200	400	4 400
8 Austria	4 200	S	100	200	500	600	3 100
8 Belgium	3 900	S	100	300	S	800	3 300
8 Switzerland	3 700	600	200	300	S	300	1 500
8 Sweden	2 800	300	S	S	S	200	2 000
8 Finland	2 600	300	300	S	S	400	1 100
8 Other_Europe	2 600	S	S	400	S	300	1 700
8 Norway	2 400	S	S	S	S	700	1 500
8 Denmark	2 200	S	S	S	S	400	1 000
8 Portugal	2 000	S	S	S	400	500	1 000
Oceania	15 800	900	500	1 300	200	2 000	11 400
9 Other_Oceania	11 800	700	400	1 000	S	1 500	8 700
9 Australia	4 000	200	100	300	200	500	2 700

Appendix B-3 cont.

	Total	Occupation group					
		Physical sciences	Life sciences	Math/Comp sciences	Social sciences	Engineering	Non-S/E
1993							
Total S&E Degree Holders Employed in U.S.	9 199 800	271 000	275 400	678 100	266 200	1 219 000	6 490 100
Native	8 062 200	222 600	229 500	555 100	237 000	998 500	5 819 500
Foreign-born total	1 137 600	48 400	45 900	123 000	29 200	220 500	670 600
% foreign-born	12,4	17,9	16,7	18,1	11,0	18,1	10,3
Asia	519 500	24 200	23 000	67 600	7 600	112 900	283 100
1 India	138 100	7 100	6 100	18 900	2 200	31 700	72 200
1 China	96 100	7 400	8 000	14 400	1 400	23 200	41 700
1 Philippines	73 100	1 500	1 200	4 000	600	11 500	54 300
1 Taiwan	59 100	2 300	2 400	12 800	1 000	12 800	27 800
1 Korea	41 200	1 900	1 900	3 500	500	8 000	25 500
1 Vietnam	31 800	800	200	6 800	100	9 700	14 300
1 Japan	31 200	1 200	1 400	1 800	1 000	4 900	20 900
1 Pakistan	13 300	500	400	1 200	300	3 200	7 800
1 Thailand	6 400	100	400	400	S	1 200	4 300
1 Malaysia	5 300	200	300	600	300	1 700	2 200
1 Indonesia	4 700	300	100	600	S	1 200	2 300
1 Bangladesh	3 800	300	100	200	S	800	2 300
1 Burma	3 700	S	S	700	S	300	2 500
1 Other_Asia	3 200	300	S	600	100	500	1 700
1 Sri Lanka	3 200	300	500	400	100	600	1 300
1 Afghanistan	1 900	S	S	S	S	700	1 000
1 Singapore	1 800	S	S	700	S	400	600
1 Laos	1 000	S	S	S	S	500	400
1 Nepal	600	S	S	S	S	S	S
South America	66 100	1 800	2 700	4 800	2 000	10 800	43 000
2 Columbia	10 500	100	300	900	200	2 200	6 800
2 Other_Americas	9 200	600	400	800	200	1 100	6 100
2 Peru	8 800	100	400	500	100	1 500	6 300
2 Argentina	7 700	500	900	500	400	900	4 500
2 Brazil	7 400	100	200	700	300	1 100	4 900
2 Venezuela	6 900	300	100	800	100	1 600	3 900
2 Surinam	5 600	S	100	500	200	800	3 900
2 Equador	5 400	S	S	S	S	1 100	3 800
2 Chile	2 800	100	300	100	400	300	1 600
2 Bolivia	1 800	S	S	S	100	200	1 200
Central America & Caribbean	64 200	1 000	1 100	3 800	1 200	8 800	46 700
3 Cuba	23 400	700	500	1 500	700	3 400	16 700
3 Jamaica	12 400	200	100	1 200	300	1 600	8 900
3 Panama	6 200	S	S	500	100	700	4 900
3 Dominican_Rep.	4 800	S	S	S	S	700	3 800
3 Trinidad/Tobago	4 600	100	S	200	100	900	3 300
3 Haiti	3 900	S	S	S	S	600	3 100
3 Nicaragua	2 900	S	S	S	S	200	2 400
3 El_Salvador	2 600	S	300	400	S	400	1 300
3 Costa_Rica	2 000	S	100	S	S	300	1 400
3 Guatemala	1 400	S	100	S	S	S	900

East Europe	67 600	3 500	2 200	7 800	1 300	15 900	36 200
4 FSU	26 500	700	1 000	4 300	200	7 400	12 800
4 Poland	17 300	1 300	700	1 700	400	3 200	10 100
4 Romania	6 500	300	S	200	100	2 100	3 700
4 Hungary	6 300	500	500	500	300	1 300	3 100
4 Czechoslovakia	6 200	500	S	600	100	800	4 100
4 Yugoslavia	4 400	200	S	500	200	1 100	2 400
4 Bulgaria	400	S	S	S	S	S	S
Africa	45 700	1 900	2 000	4 000	2 200	8 100	27 200
5 Other_Africa	15 400	300	700	1 300	800	2 500	9 700
5 Egypt	10 300	500	400	900	200	2 800	5 700
5 Nigeria	6 300	300	400	400	400	600	4 200
5 South Africa	3 800	300	300	400	300	500	2 100
5 Ghana	3 200	200	100	200	300	700	1 800
5 Ethiopia	3 100	300	100	200	S	500	2 000
5 Kenya	2 700	S	S	600	200	500	1 300
5 Cameroon	900	S	S	S	S	S	400
Middle East	85 100	2 300	2 200	9 200	1 300	21 700	47 700
6 Iran	38 800	700	600	4 500	500	10 300	22 200
6 Lebanon	12 100	500	600	1 000	S	3 400	6 500
6 Israel	9 500	400	200	1 300	400	1 300	5 900
6 Turkey	8 400	200	200	1 300	400	1 900	4 500
6 Jordan	4 500	100	100	300	S	1 700	2 200
6 Syria	3 600	100	100	500	S	900	1 900
6 Iraq	3 300	200	200	200	S	700	2 000
6 Palestine	2 400	S	200	100	S	500	1 400
6 Kuwait	1 500	S	S	S	S	600	700
6 Cyprus	1 000	100	S	S	S	400	400
North America	78 700	2 600	2 800	5 500	3 200	10 800	53 600
7 Canada	51 300	2 100	2 100	3 900	2 700	6 300	34 100
7 Mexico	27 400	500	700	1 600	500	4 500	19 500
West Europe	191 900	8 600	8 300	17 000	8 300	28 100	120 500
8 UK	56 400	3 500	3 100	4 700	2 000	8 100	35 000
8 Germany	54 900	2 600	1 800	4 500	2 800	7 600	35 600
8 Italy	12 900	500	1 100	900	600	2 600	7 200
8 France	12 300	300	800	1 400	500	1 500	7 900
8 Greece	10 500	400	100	1 600	200	2 000	6 100
8 Netherlands	8 900	200	400	500	500	900	6 400
8 Austria	5 500	100	200	300	300	900	3 700
8 Spain	4 600	S	200	500	100	600	3 100
8 Ireland	4 400	S	S	400	200	600	3 100
8 Belgium	3 900	S	200	300	200	500	2 500
8 Sweden	3 300	200	S	200	100	200	2 400
8 Switzerland	2 900	300	200	700	200	600	900
8 Norway	2 600	100	S	400	S	500	1 400
8 Other_Europe	2 500	100	S	300	100	400	1 600
8 Finland	2 400	200	200	S	100	300	1 500
8 Portugal	2 100	S	S	S	300	500	1 200
8 Denmark	1 800	100	S	300	100	300	900
Oceania	18 800	900	800	1 700	800	2 500	12 100
9 Other_Oceania	14 200	700	600	1 400	600	2 000	8 900
9 Australia	4 600	200	200	300	200	500	3 200

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

The SESTAT data show the foreign-born S&E degree holders residing in the United States from 84 individual countries, and provide the total for each country. However, since small numbers are suppressed in SESTAT tabulations for confidentiality, the finer breakout of the foreign-born data by field of highest degree is suppressed in some fields in some countries. The total of all regions does not add to total foreign-born because of suppressed cells in the individual country data.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and

Appendix table B-4.

**S&E Degree Holders Employed in the United States by Place of Birth
and Sector of Employment: 1993-1999**

	1999			
	Total	Sector of employment		
		Business /Industry	Education	Government
Total S&E Degree Holders Employed in U.S.	10 479 800	7 176 700	1 960 400	1 342 700
Native	9 133 500	6 217 600	1 717 200	1 198 700
Foreign-born total	1 346 300	959 100	243 200	144 000
% foreign-born	12,8	13,4	12,4	10,7
Place of birth				
Asia	632 400	466 200	97 400	65 300
1 India	181 500	133 700	30 600	17 200
1 China	127 700	96 400	21 000	10 300
1 Philippines	69 300	48 600	8 300	12 500
1 Taiwan	66 000	51 300	9 500	5 200
1 Korea	45 100	34 100	6 600	4 400
1 Vietnam	44 500	32 900	6 100	5 500
1 Japan	33 300	22 400	6 300	4 600
1 Pakistan	16 800	12 400	1 500	2 900
1 Malaysia	7 600	5 900	900	700
1 Thailand	6 900	4 700	1 300	800
1 Indonesia	6 000	3 700	1 800	S
1 Other_Asia	5 100	4 100	800	S
1 Bangladesh	4 900	3 200	S	1 200
1 Sri Lanka	4 800	3 300	1 300	S
1 Laos	4 500	3 500	S	S
1 Burma	3 100	2 200	400	S
1 Afghanistan	2 100	1 400	600	S
1 Singapore	1 900	1 700	200	S
1 Nepal	1 300	700	200	S
South America	81 000	56 500	16 700	6 900
2 Columbia	14 300	9 500	3 300	1 500
2 Other_Americas	12 100	8 300	1 800	2 000
2 Argentina	10 400	6 100	3 000	1 300
2 Venezuela	8 400	7 300	700	S
2 Peru	8 300	6 300	1 900	S
2 Brazil	7 800	5 700	1 600	600
2 Surinam	7 500	4 600	2 400	500
2 Equador	6 200	4 800	400	1 000
2 Chile	3 100	2 100	800	S
2 Bolivia	2 900	1 800	800	S
Central America & Caribbean	73 800	46 000	14 500	11 300
3 Cuba	20 800	13 000	4 600	3 300
3 Jamaica	15 200	10 100	2 900	2 200
3 Dominican_Rep.	7 800	5 200	1 500	1 100
3 Panama	7 800	5 200	S	2 200
3 Trinidad/Tobago	6 500	3 100	1 200	2 200
3 Haiti	5 000	3 500	1 100	S
3 Nicaragua	4 600	2 800	1 300	S
3 El_Salvador	2 300	1 200	900	S
3 Costa_Rica	2 200	1 500	400	300
3 Guatemala	1 600	400	600	S

East Europe	76 200	55 800	14 400	5 500
4 FSU	32 200	24 700	5 000	2 500
4 Poland	18 500	13 400	3 700	1 400
4 Romania	9 700	6 300	2 300	1 100
4 Hungary	6 700	4 900	1 200	500
4 Czechoslovakia	5 000	3 500	1 100	S
4 Yugoslavia	3 200	2 600	600	S
4 Bulgaria	900	400	500	S
Africa	55 600	33 700	13 000	8 600
5 Other_Africa	17 700	10 700	4 000	3 100
5 Egypt	10 500	6 400	2 200	1 900
5 Nigeria	10 200	5 000	3 200	2 000
5 South Africa	4 800	3 600	1 100	S
5 Ghana	3 800	2 400	800	600
5 Ethiopia	3 600	2 600	600	500
5 Kenya	3 400	2 300	600	500
5 Cameroon	1 600	700	500	S
Middle East	93 700	66 900	18 600	7 500
6 Iran	40 400	30 200	6 500	3 800
6 Lebanon	12 300	8 900	2 400	1 000
6 Turkey	11 400	7 700	3 100	500
6 Israel	11 200	6 900	3 600	700
6 Jordan	4 700	3 100	500	1 100
6 Syria	4 100	2 900	800	400
6 Iraq	3 200	2 100	800	S
6 Kuwait	2 700	2 400	S	S
6 Palestine	1 900	1 600	300	S
6 Cyprus	1 800	1 100	600	S
North America	91 500	66 100	16 900	8 400
7 Canada	59 100	44 100	10 600	4 300
7 Mexico	32 400	22 000	6 300	4 100
West Europe	225 200	156 400	46 700	20 100
8 Germany	69 900	50 000	10 800	9 100
8 UK	69 900	50 600	14 200	5 100
8 Italy	16 700	12 300	2 600	1 800
8 France	13 100	8 300	4 200	600
8 Greece	10 700	6 500	2 700	1 500
8 Netherlands	8 000	5 600	2 000	500
8 Spain	5 600	3 200	1 800	700
8 Belgium	4 600	3 100	1 200	S
8 Other_Europe	4 000	2 200	1 700	S
8 Austria	3 700	1 900	1 000	800
8 Ireland	3 600	2 400	1 100	S
8 Switzerland	3 500	2 300	900	S
8 Sweden	2 700	1 800	600	S
8 Portugal	2 600	1 700	300	S
8 Norway	2 300	1 700	500	S
8 Finland	2 200	1 600	600	S
8 Denmark	2 100	1 200	500	S
Oceania	16 100	11 500	3 300	800
9 Other_Oceania	11 000	8 600	1 500	800
9 Australia	5 100	2 900	1 800	S

Appendix B-4 cont.

	Sector of employment			
	Total	Business /Industry	Education	Government
1997				
Total S&E Degree Holders Employed in U.S.	10 057 500	6 863 300	1 890 500	1 303 700
Native	8 800 400	5 973 400	1 659 700	1 167 300
Foreign-born total	1 256 700	889 800	230 800	136 100
% foreign-born	12,5	13,0	12,2	10,4
Asia	590 300	430 500	94 200	62 200
1 India	164 400	120 900	27 900	15 500
1 China	115 700	84 900	20 900	9 900
1 Philippines	74 100	51 300	9 600	13 100
1 Taiwan	61 600	48 600	8 700	4 300
1 Korea	42 900	31 300	7 500	4 100
1 Vietnam	41 200	30 400	4 100	6 700
1 Japan	31 200	23 100	4 900	3 200
1 Pakistan	16 000	10 600	2 700	2 700
1 Thailand	6 900	4 700	1 100	1 100
1 Malaysia	6 500	4 900	1 200	S
1 Indonesia	5 200	3 500	1 200	S
1 Bangladesh	5 000	3 100	1 100	900
1 Sri Lanka	4 200	2 100	1 700	400
1 Other_Asia	4 000	3 200	400	300
1 Burma	3 500	2 600	100	S
1 Afghanistan	2 800	2 000	500	S
1 Laos	2 400	1 600	S	S
1 Singapore	1 700	1 200	500	S
1 Nepal	1 000	500	100	S
South America	71 900	48 800	15 400	6 800
2 Columbia	13 400	8 900	3 400	1 100
2 Other_Americas	10 800	7 100	2 300	1 400
2 Argentina	8 700	5 500	2 300	900
2 Peru	7 900	5 900	1 500	400
2 Brazil	7 200	5 300	1 400	400
2 Venezuela	7 000	5 400	700	1 000
2 Ecuador	6 100	4 800	S	800
2 Surinam	5 200	2 700	2 200	400
2 Chile	3 200	1 800	1 000	400
2 Bolivia	2 400	1 400	600	S
Central America & Caribbean	69 000	43 400	13 600	11 200
3 Cuba	22 500	14 600	5 000	2 900
3 Jamaica	13 200	9 100	2 500	1 700
3 Panama	7 700	4 700	600	2 500
3 Dominican_Rep.	6 000	3 900	1 100	1 000
3 Trinidad/Tobago	5 600	2 900	1 200	1 400
3 Haiti	4 400	2 400	900	1 100
3 Nicaragua	3 700	2 400	800	S
3 El_Salvador	2 100	1 300	700	S
3 Costa_Rica	2 000	1 400	300	S
3 Guatemala	1 800	700	500	600

East Europe	69 900	51 900	11 500	6 300
4 FSU	29 000	22 200	4 100	2 700
4 Poland	17 500	12 900	2 800	1 800
4 Romania	8 100	5 600	1 500	1 000
4 Hungary	6 900	5 100	1 300	400
4 Czechoslovakia	4 200	2 900	900	400
4 Yugoslavia	3 600	3 000	500	S
4 Bulgaria	600	200	400	S
Africa	52 000	32 500	11 100	7 200
5 Other_Africa	16 000	9 800	3 700	2 500
5 Egypt	11 700	7 800	1 900	2 000
5 Nigeria	9 000	4 700	2 600	1 600
5 South Africa	4 200	3 000	1 000	S
5 Ethiopia	3 600	2 500	500	500
5 Ghana	3 200	1 800	700	600
5 Kenya	2 700	2 200	200	S
5 Cameroon	1 600	700	500	S
Middle East	92 200	65 300	19 700	6 900
6 Iran	41 000	30 100	7 400	3 500
6 Lebanon	12 700	8 600	3 400	700
6 Israel	11 800	8 500	2 700	600
6 Turkey	9 000	6 200	2 500	400
6 Jordan	4 300	2 500	800	1 000
6 Syria	4 100	3 100	700	300
6 Iraq	3 300	2 000	1 000	400
6 Palestine	2 400	1 800	500	S
6 Kuwait	2 100	1 600	200	S
6 Cyprus	1 500	900	500	S
North America	83 700	60 100	18 000	5 600
7 Canada	53 500	38 800	11 700	3 000
7 Mexico	30 200	21 300	6 300	2 600
Western Europe	211 600	145 400	43 400	20 800
8 Germany	67 200	46 000	11 900	9 300
8 UK	64 200	46 500	12 900	4 900
8 Italy	13 900	9 900	1 900	2 100
8 France	12 400	7 000	4 100	1 300
8 Greece	10 800	6 900	2 900	900
8 Netherlands	7 600	5 800	1 100	600
8 Ireland	4 600	2 900	1 400	S
8 Spain	4 500	2 700	900	900
8 Austria	4 200	2 400	900	800
8 Belgium	3 900	2 600	1 100	S
8 Switzerland	3 700	2 500	700	S
8 Sweden	2 800	2 000	600	S
8 Finland	2 600	2 000	600	S
8 Other_Europe	2 600	1 800	800	S
8 Norway	2 400	1 700	500	S
8 Denmark	2 200	1 400	600	S
8 Portugal	2 000	1 300	500	S
Oceania	15 800	11 500	2 600	1 700
9 Other_Oceania	11 800	9 100	1 300	1 400
9 Australia	4 000	2 400	1 300	300

Appendix B-4 cont.

	Sector of employment			
	Total	Business /Industry	Education	Government
1995				
Total S&E Degree Holders Employed in U.S.	9 569 900	6 487 700	1 766 100	1 316 100
Native	8 394 000	5 663 800	1 548 000	1 182 200
Foreign-born total	1 175 700	823 800	218 100	133 800
% foreign-born	12,3	12,7	12,3	10,2
Asia	544 200	393 000	90 400	58 800
1 India	147 500	106 800	26 700	14 000
1 China	102 600	72 400	20 200	9 900
1 Philippines	76 200	54 200	9 900	12 100
1 Taiwan	58 900	45 700	8 600	4 600
1 Korea	41 800	30 200	7 400	4 300
1 Vietnam	35 900	27 300	3 500	5 100
1 Japan	30 000	21 400	4 500	4 100
1 Pakistan	12 900	8 900	1 900	2 100
1 Thailand	6 700	4 500	1 500	800
1 Indonesia	5 000	3 700	1 100	S
1 Malaysia	4 900	4 100	500	300
1 Bangladesh	4 700	2 900	1 200	700
1 Other_Asia	3 900	2 700	800	500
1 Sri Lanka	3 800	2 100	1 400	300
1 Burma	3 500	2 700	300	S
1 Singapore	1 800	1 300	400	S
1 Afghanistan	1 600	1 200	300	S
1 Laos	1 600	900	S	S
1 Nepal	900	S	200	S
South America	66 900	46 500	15 100	4 000
2 Columbia	12 000	8 400	2 900	800
2 Other_Americas	9 800	6 400	2 300	1 100
2 Argentina	7 700	4 700	2 200	900
2 Peru	7 600	5 100	2 000	S
2 Brazil	7 500	6 000	1 200	S
2 Venezuela	6 500	5 100	600	800
2 Ecuador	5 600	4 700	500	400
2 Surinam	5 100	2 800	2 100	S
2 Chile	2 900	1 600	1 000	S
2 Bolivia	2 200	1 700	300	S
Central America & Caribbean	66 000	39 900	13 400	12 300
3 Cuba	22 500	15 100	4 300	3 100
3 Jamaica	13 100	8 500	2 200	2 400
3 Panama	7 000	4 200	700	2 200
3 Dominican_Rep.	5 700	3 400	1 200	1 100
3 Trinidad/Tobago	4 700	2 400	800	1 500
3 Haiti	4 000	1 700	1 200	1 100
3 Nicaragua	3 200	1 900	600	700
3 El_Salvador	3 000	1 300	1 500	200
3 Costa_Rica	1 700	1 000	400	S
3 Guatemala	1 100	400	500	S

East Europe	68 500	49 100	11 700	7 100
4 FSU	28 200	20 400	4 200	3 600
4 Poland	17 500	13 000	2 800	1 600
4 Hungary	6 800	4 900	1 300	600
4 Romania	6 600	4 600	1 400	600
4 Czechoslovakia	4 700	3 000	1 000	700
4 Yugoslavia	4 100	3 200	800	S
4 Bulgaria	600	S	200	S
Africa	48 400	30 100	10 800	6 600
5 Other_Africa	14 800	8 700	4 000	2 000
5 Egypt	10 700	7 600	1 500	1 700
5 Nigeria	7 900	4 200	2 100	1 500
5 South Africa	4 400	2 700	1 100	S
5 Ethiopia	3 500	2 600	400	500
5 Ghana	3 400	2 100	1 000	400
5 Kenya	2 500	1 600	400	500
5 Cameroon	1 200	600	300	S
Middle East	85 900	61 300	16 700	7 200
6 Iran	40 300	29 100	6 500	4 700
6 Lebanon	11 900	8 300	2 600	1 000
6 Israel	8 800	6 100	2 200	500
6 Turkey	8 500	6 300	2 200	S
6 Jordan	4 500	3 000	800	700
6 Syria	3 600	2 700	700	S
6 Iraq	3 500	2 300	900	300
6 Palestine	2 300	1 600	600	S
6 Kuwait	1 400	1 000	S	S
6 Cyprus	1 100	900	200	S
North America	79 800	57 600	16 100	6 100
7 Canada	52 200	38 100	10 900	3 200
7 Mexico	27 600	19 500	5 200	2 900
Western Europe	198 900	133 700	40 900	22 200
8 UK	60 000	43 900	10 600	5 600
8 Germany	59 000	38 100	11 500	9 400
8 Italy	13 400	8 900	2 500	1 900
8 France	12 300	7 000	3 800	1 400
8 Greece	9 800	6 200	2 500	1 100
8 Netherlands	7 200	5 500	1 100	700
8 Spain	5 800	3 300	1 800	800
8 Belgium	5 000	3 100	1 400	500
8 Austria	4 600	2 800	900	800
8 Ireland	4 100	2 700	1 200	S
8 Switzerland	3 300	2 300	700	S
8 Norway	2 800	1 700	700	S
8 Sweden	2 800	2 000	500	S
8 Other_Europe	2 600	2 000	300	S
8 Finland	2 300	1 600	600	S
8 Portugal	2 000	1 400	300	S
8 Denmark	1 900	1 200	500	S
Oceania	16 400	11 900	2 500	2 000
9 Other_Oceania	12 300	9 400	1 300	1 600
9 Australia	4 100	2 500	1 200	400

Appendix B-4 cont.

	Sector of employment			
	Total	Business /Industry	Education	Government
1993				
Total S&E Degree Holders Employed in U.S.	9 200 000	6 220 300	1 680 200	1 299 500
Native	8 062 200	5 428 500	1 459 700	1 174 000
Foreign-born total	1 137 800	791 800	220 500	125 500
% foreign-born	12,4	12,7	13,1	9,7
Asia	519 500	367 100	95 400	56 400
1 India	138 100	99 200	24 500	14 400
1 China	96 100	62 500	24 800	8 800
1 Philippines	73 100	52 500	8 800	11 800
1 Taiwan	59 100	42 500	10 700	6 000
1 Korea	41 200	29 900	8 100	3 200
1 Vietnam	31 800	23 600	3 700	4 500
1 Japan	31 200	22 300	5 400	3 400
1 Pakistan	13 300	10 200	1 900	1 100
1 Thailand	6 400	4 200	1 700	400
1 Malaysia	5 300	4 100	1 000	S
1 Indonesia	4 700	3 100	1 300	400
1 Bangladesh	3 800	2 600	700	500
1 Burma	3 700	2 800	200	700
1 Other_Asia	3 200	2 000	500	700
1 Sri Lanka	3 200	1 600	1 300	300
1 Afghanistan	1 900	1 600	200	200
1 Singapore	1 800	1 200	500	S
1 Laos	1 000	800	S	S
1 Nepal	600	400	100	S
South America	66 100	44 700	14 700	6 500
2 Columbia	10 500	6 600	2 900	1 100
2 Other_Americas	9 200	5 000	2 200	2 000
2 Peru	8 800	6 700	1 700	400
2 Argentina	7 700	5 500	1 900	300
2 Brazil	7 400	5 600	1 500	300
2 Venezuela	6 900	5 000	1 000	900
2 Surinam	5 600	2 800	2 000	800
2 Ecuador	5 400	4 300	600	400
2 Chile	2 800	1 700	800	300
2 Bolivia	1 800	1 500	100	S
Central America & Caribbean	64 200	41 400	12 500	9 900
3 Cuba	23 400	15 900	4 600	3 000
3 Jamaica	12 400	7 800	2 500	2 100
3 Panama	6 200	3 700	900	1 600
3 Dominican_Rep.	4 800	3 600	700	500
3 Trinidad/Tobago	4 600	2 700	500	1 400
3 Haiti	3 900	2 300	900	700
3 Nicaragua	2 900	1 700	700	S
3 El_Salvador	2 600	1 800	700	S
3 Costa_Rica	2 000	1 100	600	400
3 Guatemala	1 400	800	400	200

East Europe	67 600	50 600	10 600	6 100
4 FSU	26 500	20 400	3 300	2 800
4 Poland	17 300	13 200	2 600	1 500
4 Romania	6 500	4 500	1 600	400
4 Hungary	6 300	4 200	1 400	600
4 Czechoslovakia	6 200	4 400	900	800
4 Yugoslavia	4 400	3 600	800	S
4 Bulgaria	400	300	S	S
Africa	45 700	29 000	9 600	7 100
5 Other_Africa	15 400	9 200	3 600	2 700
5 Egypt	10 300	6 700	1 400	2 200
5 Nigeria	6 300	4 000	1 600	800
5 South Africa	3 800	2 700	1 000	100
5 Ghana	3 200	2 000	700	600
5 Ethiopia	3 100	2 000	700	500
5 Kenya	2 700	1 900	600	200
5 Cameroon	900	500	S	S
Middle East	85 100	60 100	16 900	7 800
6 Iran	38 800	28 500	6 200	4 000
6 Lebanon	12 100	8 100	2 600	1 300
6 Israel	9 500	6 400	2 700	400
6 Turkey	8 400	5 700	2 300	400
6 Jordan	4 500	3 000	900	600
6 Syria	3 600	2 700	600	200
6 Iraq	3 300	2 300	600	500
6 Palestine	2 400	1 700	700	100
6 Kuwait	1 500	1 000	S	300
6 Cyprus	1 000	700	300	S
North America	78 700	56 100	16 400	6 200
7 Canada	51 300	37 600	10 500	3 200
7 Mexico	27 400	18 500	5 900	3 000
Western Europe	191 900	130 200	39 900	20 000
8 UK	56 400	41 000	11 100	4 300
8 Germany	54 900	35 300	10 700	8 900
8 Italy	12 900	9 000	2 500	1 400
8 France	12 300	7 600	3 100	1 600
8 Greece	10 500	7 100	2 300	1 000
8 Netherlands	8 900	6 400	1 500	1 000
8 Austria	5 500	3 600	1 200	700
8 Spain	4 600	3 000	1 000	600
8 Ireland	4 400	3 300	800	S
8 Belgium	3 900	2 300	1 300	S
8 Sweden	3 300	2 000	900	S
8 Switzerland	2 900	2 000	700	100
8 Norway	2 600	1 900	500	S
8 Other_Europe	2 500	1 800	400	300
8 Finland	2 400	1 400	800	100
8 Portugal	2 100	1 600	400	S
8 Denmark	1 800	900	700	S
Oceania	18 800	12 700	4 200	1 900
9 Other_Oceania	14 200	10 100	2 800	1 300
9 Australia	4 600	2 600	1 400	600

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.
Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.
The SESTAT data show the foreign-born S&E degree holders residing in the United States from 84 individual countries, and provide the total for each country. However, since small numbers are suppressed in SESTAT tabulations for confidentiality, the finer breakout of the foreign-born data by field of highest degree is suppressed in some fields in some countries. The total of all regions does not add to total foreign-born because of suppressed cells in the individual country data.
SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Appendix table B-6.

S&E Degree Holders in the United States by Country of Birth and by Whether R&D is a Major Work Activity: 1993-1999

	R&D is a major work activity		
	Total	No	Yes
1999			
Total S&E degree holders in U.S.	12 489 900	9 626 900	2 863 000
Native	10 930 500	8 584 800	2 345 700
Foreign-born total	1 559 400	1 042 100	517 300
% foreign-born	12,5	10,8	18,1
Asia	713 100	441 600	271 800
1 India	200 000	124 800	75 200
1 China	147 900	77 200	70 700
1 Taiwan	72 200	44 200	28 100
1 Philippines	78 400	58 000	20 400
1 Vietnam	49 200	29 300	19 900
1 Korea	53 400	36 100	17 300
1 Japan	38 400	25 500	12 900
1 Pakistan	19 000	11 800	7 200
1 Malaysia	8 000	3 600	4 400
1 Indonesia	7 100	4 500	2 600
1 Sri Lanka	5 400	2 800	2 600
1 Other_Asia	5 700	3 600	2 100
1 Bangladesh	5 200	3 500	1 800
1 Laos	4 500	2 900	1 600
1 Thailand	8 800	7 500	1 300
1 Afghanistan	2 300	1 100	1 200
1 Burma	3 200	2 400	900
1 Nepal	1 400	600	900
1 Singapore	3 000	2 200	700
South America	90 300	65 700	24 700
2 Columbia	15 800	11 200	4 700
2 Argentina	12 500	8 300	4 200
2 Other_Americas	13 100	10 000	3 100
2 Peru	9 600	6 800	2 800
2 Venezuela	8 900	6 400	2 500
2 Equador	6 800	4 800	2 000
2 Brazil	9 100	7 500	1 600
2 Chile	3 500	2 000	1 500
2 Surinam	8 100	6 800	1 300
2 Bolivia	2 900	1 900	1 000
Central America & Caribbean	84 700	62 800	21 600
3 Cuba	25 700	19 800	5 900
3 Jamaica	16 600	11 700	4 800
3 Trinidad/Tobago	7 000	5 000	2 000
3 Dominican_Rep.	8 700	6 800	1 900
3 Panama	8 700	7 100	1 600
3 Haiti	5 800	4 200	1 500
3 Nicaragua	5 000	3 600	1 300
3 Costa_Rica	2 500	1 400	1 000
3 El_Salvador	2 600	1 700	900
3 Guatemala	2 100	1 500	700

East Europe	95 900	66 400	29 600
4 FSU	40 600	29 100	11 500
4 Poland	22 900	14 700	8 300
4 Romania	11 200	6 700	4 500
4 Yugoslavia	4 100	2 000	2 000
4 Hungary	9 500	7 800	1 800
4 Czechoslovakia	6 600	5 600	1 000
4 Bulgaria	1 000	500	500
Africa	61 800	43 300	18 800
5 Other_Africa	19 600	13 600	6 000
5 Egypt	12 500	8 100	4 400
5 Nigeria	10 500	8 100	2 400
5 South Africa	6 300	4 500	1 900
5 Ghana	3 800	2 400	1 400
5 Ethiopia	4 100	3 100	1 100
5 Kenya	3 400	2 600	900
5 Cameroon	1 600	900	700
Middle East	108 600	70 800	37 700
6 Iran	47 500	31 400	16 200
6 Turkey	13 000	7 300	5 600
6 Lebanon	14 000	9 100	4 900
6 Israel	12 900	9 700	3 100
6 Jordan	4 900	2 900	2 000
6 Syria	5 300	3 500	1 800
6 Iraq	3 700	2 300	1 400
6 Kuwait	2 700	1 500	1 200
6 Cyprus	2 000	1 200	800
6 Palestine	2 600	1 900	700
North America	114 300	88 600	25 700
7 Canada	76 900	58 700	18 200
7 Mexico	37 400	29 900	7 500
Western Europe	271 700	189 800	82 000
8 UK	80 600	53 100	27 500
8 Germany	85 600	62 200	23 400
8 Italy	19 000	12 300	6 700
8 Greece	12 400	8 000	4 400
8 France	15 200	11 000	4 200
8 Spain	7 200	4 600	2 600
8 Netherlands	9 900	7 800	2 000
8 Other_Europe	4 900	3 000	2 000
8 Austria	5 400	4 000	1 400
8 Belgium	5 900	4 700	1 200
8 Switzerland	4 400	3 200	1 200
8 Norway	3 600	2 500	1 100
8 Sweden	3 900	2 800	1 100
8 Ireland	4 200	3 200	1 000
8 Finland	3 300	2 500	900
8 Portugal	3 400	2 700	700
8 Denmark	2 800	2 200	600
Oceania	18 400	12 600	5 700
9 Other_Oceania	13 000	9 300	3 600
9 Australia	5 400	3 300	2 100

Appendix B-6 cont.

	R&D is a major work activity		
	Total	No	Yes
1997			
Total S&E degree holders in U.S.	11 962 100	9 242 000	2 720 100
Native	10 496 500	8 245 400	2 251 100
Foreign-born total	1 588 800	996 200	592 600
% foreign-born	13,3	10,8	21,8
Asia	674 000	430 800	243 400
1 India	186 100	118 300	67 800
1 China	133 400	71 100	62 300
1 Taiwan	69 600	42 700	26 900
1 Vietnam	44 700	25 500	19 200
1 Philippines	85 200	66 900	18 400
1 Korea	52 200	36 100	16 100
1 Japan	35 700	24 700	11 000
1 Pakistan	17 800	12 000	5 900
1 Malaysia	6 800	3 800	3 000
1 Other_Asia	4 400	2 400	2 000
1 Sri Lanka	4 500	2 700	1 800
1 Thailand	8 100	6 400	1 700
1 Bangladesh	5 300	3 600	1 600
1 Indonesia	6 300	4 700	1 600
1 Afghanistan	2 900	1 500	1 400
1 Burma	3 600	2 300	1 400
1 Laos	2 900	2 400	500
1 Nepal	1 100	700	400
1 Singapore	3 400	3 000	400
South America	81 800	62 300	19 300
2 Columbia	14 600	11 100	3 500
2 Argentina	10 600	7 400	3 100
2 Peru	9 100	6 400	2 600
2 Venezuela	7 800	5 600	2 300
2 Other_Americas	12 000	9 800	2 200
2 Brazil	8 500	6 700	1 800
2 Ecuador	6 300	4 800	1 500
2 Surinam	6 800	5 800	1 000
2 Chile	3 500	2 600	800
2 Bolivia	2 600	2 100	500
Central America & Caribbean	80 700	63 900	16 700
3 Cuba	27 000	21 800	5 200
3 Jamaica	16 000	13 100	3 000
3 Nicaragua	4 600	3 100	1 500
3 Trinidad/Tobago	6 200	4 700	1 500
3 Costa_Rica	2 300	1 000	1 300
3 Dominican_Rep.	6 300	5 100	1 200
3 Panama	8 200	7 100	1 000
3 Guatemala	1 900	1 000	900
3 El_Salvador	2 800	2 100	600
3 Haiti	5 400	4 900	500

East Europe	89 600	57 100	32 600
4 FSU	37 100	24 300	12 800
4 Poland	22 100	12 900	9 200
4 Romania	9 200	5 400	3 800
4 Hungary	8 900	6 300	2 600
4 Czechoslovakia	6 300	4 400	1 900
4 Yugoslavia	5 100	3 300	1 900
4 Bulgaria	900	500	400
Africa	57 700	39 300	18 400
5 Other_Africa	17 500	11 900	5 600
5 Egypt	13 700	8 800	4 900
5 Nigeria	9 100	6 200	2 900
5 South Africa	5 600	3 800	1 800
5 Ghana	3 400	2 000	1 400
5 Ethiopia	3 600	2 600	1 000
5 Cameroon	1 600	1 100	500
5 Kenya	3 200	2 900	300
Middle East	104 400	69 600	34 700
6 Iran	47 900	32 900	15 000
6 Lebanon	14 200	9 700	4 500
6 Israel	12 400	8 100	4 300
6 Turkey	10 300	6 500	3 800
6 Jordan	4 700	3 000	1 800
6 Syria	4 600	2 900	1 700
6 Iraq	3 700	2 200	1 400
6 Kuwait	2 200	1 100	1 000
6 Cyprus	1 600	900	700
6 Palestine	2 800	2 300	500
North America	104 700	79 700	25 000
7 Canada	70 500	52 600	17 900
7 Mexico	34 200	27 100	7 100
Western Europe	252 800	179 300	73 000
8 UK	73 400	50 100	23 300
8 Germany	81 800	60 200	21 500
8 Italy	16 900	11 500	5 400
8 France	14 400	9 200	5 200
8 Greece	11 600	7 100	4 500
8 Netherlands	9 700	7 900	1 800
8 Ireland	5 100	3 400	1 700
8 Belgium	4 700	3 300	1 400
8 Spain	5 700	4 300	1 400
8 Switzerland	4 300	3 000	1 300
8 Austria	5 400	4 100	1 200
8 Other_Europe	3 300	2 200	1 100
8 Finland	3 700	2 600	1 000
8 Sweden	3 600	2 600	900
8 Portugal	2 900	2 300	600
8 Denmark	2 900	2 400	400
8 Norway	3 400	3 100	300
Oceania	19 600	14 000	5 600
9 Other_Oceania	15 200	10 900	4 400
9 Australia	4 400	3 100	1 200

Appendix B-6 cont.

	R&D is a major work activity		
	Total	No	Yes
1995			
Total S&E degree holders in U.S.	11 456 600	8 754 200	2 702 400
Native	10 060 300	7 804 600	2 255 700
Foreign-born total	1 396 000	949 300	446 700
% foreign-born	12,2	10,8	16,5
Asia	639 300	414 600	225 300
1 India	172 400	110 200	62 300
1 China	120 700	68 000	52 700
1 Taiwan	69 200	41 200	28 000
1 Philippines	88 700	68 800	19 900
1 Vietnam	39 300	22 600	16 700
1 Korea	52 200	36 600	15 500
1 Japan	34 800	24 600	10 300
1 Pakistan	16 400	11 800	4 700
1 Thailand	8 000	5 500	2 600
1 Malaysia	5 600	3 300	2 400
1 Indonesia	6 300	4 000	2 300
1 Other_Asia	5 000	3 300	1 800
1 Sri Lanka	4 000	2 300	1 700
1 Bangladesh	4 800	3 400	1 400
1 Burma	3 500	2 400	1 200
1 Singapore	2 700	1 900	800
1 Laos	2 500	2 000	500
1 Nepal	900	600	300
1 Afghanistan	2 300	2 100	200
South America	74 300	54 400	20 000
2 Columbia	12 600	9 000	3 600
2 Argentina	9 500	6 500	3 100
2 Other_Americas	10 800	8 000	2 900
2 Venezuela	7 400	5 300	2 000
2 Brazil	8 100	6 300	1 800
2 Peru	9 100	7 400	1 700
2 Chile	3 100	1 600	1 500
2 Surinam	5 600	4 200	1 400
2 Ecuador	5 900	4 600	1 300
2 Bolivia	2 200	1 500	700
Central America & Caribbean	77 400	60 200	17 300
3 Cuba	26 900	21 600	5 300
3 Jamaica	15 000	11 200	3 800
3 Dominican_Rep.	6 500	5 100	1 500
3 Nicaragua	4 000	2 600	1 400
3 Panama	7 500	6 100	1 400
3 El_Salvador	3 200	2 100	1 100
3 Trinidad/Tobago	5 200	4 100	1 100
3 Haiti	5 400	4 600	800
3 Costa_Rica	2 000	1 400	600
3 Guatemala	1 700	1 400	300

East Europe	88 900	59 600	29 100
4 FSU	36 900	24 800	12 100
4 Poland	21 900	14 400	7 600
4 Romania	8 300	5 000	3 300
4 Hungary	9 100	6 400	2 700
4 Yugoslavia	5 800	4 200	1 700
4 Czechoslovakia	6 300	4 800	1 400
4 Bulgaria	600	S	300
Africa	55 600	37 800	17 800
5 Other_Africa	16 300	11 100	5 200
5 Egypt	13 700	8 700	5 000
5 Nigeria	8 600	6 300	2 300
5 South Africa	5 300	3 600	1 700
5 Ethiopia	3 900	2 500	1 400
5 Ghana	3 500	2 100	1 400
5 Kenya	3 000	2 500	500
5 Cameroon	1 300	1 000	300
Middle East	101 000	67 300	33 500
6 Iran	47 300	31 600	15 600
6 Lebanon	13 800	9 300	4 500
6 Turkey	9 400	5 200	4 200
6 Israel	11 200	8 400	2 800
6 Jordan	5 000	2 900	2 100
6 Syria	4 500	2 900	1 600
6 Iraq	3 900	3 000	900
6 Cyprus	1 500	700	800
6 Palestine	2 700	2 100	600
6 Kuwait	1 700	1 200	400
North America	99 500	74 700	24 700
7 Canada	67 400	49 300	18 100
7 Mexico	32 100	25 400	6 600
Western Europe	239 000	165 300	73 800
8 UK	69 700	45 400	24 300
8 Germany	73 400	54 100	19 300
8 Italy	16 300	11 100	5 200
8 Greece	11 500	6 900	4 700
8 France	14 400	9 800	4 600
8 Spain	6 300	4 100	2 200
8 Belgium	5 600	3 700	1 900
8 Netherlands	8 800	6 900	1 900
8 Switzerland	4 000	2 200	1 900
8 Ireland	4 600	3 100	1 400
8 Norway	3 500	2 100	1 400
8 Finland	3 200	1 900	1 300
8 Denmark	2 600	1 500	1 200
8 Austria	5 800	4 800	1 000
8 Sweden	3 900	3 200	600
8 Other_Europe	2 900	2 400	500
8 Portugal	2 500	2 100	400
Oceania	20 300	15 500	4 800
9 Other_Oceania	15 800	12 000	3 800
9 Australia	4 500	3 500	1 000

Appendix B-6 cont.

	R&D is a major work activity		
	Total	No	Yes
1993			
Total S&E degree holders in U.S.	11 021 600	8 336 500	2 685 100
Native	9 664 400	7 432 200	2 232 200
Foreign-born total	1 357 200	904 300	452 900
% foreign-born	12,3	10,8	16,9
Asia	612 400	386 900	225 300
1 India	160 900	101 000	59 900
1 China	114 200	63 500	50 800
1 Taiwan	68 400	37 500	30 900
1 Philippines	85 600	65 800	19 800
1 Korea	52 100	35 900	16 200
1 Vietnam	35 800	19 900	15 900
1 Japan	35 800	23 000	12 800
1 Pakistan	16 600	11 700	4 800
1 Malaysia	5 600	3 100	2 500
1 Indonesia	6 100	3 900	2 200
1 Sri Lanka	4 100	2 400	1 700
1 Thailand	7 300	5 600	1 700
1 Bangladesh	4 700	3 000	1 600
1 Other_Asia	4 300	2 900	1 400
1 Afghanistan	2 200	1 300	900
1 Singapore	2 700	1 900	800
1 Burma	4 100	3 400	700
1 Laos	1 300	700	600
1 Nepal	600	400	100
South America	74 900	51 900	23 200
2 Columbia	12 400	9 000	3 500
2 Argentina	9 400	6 100	3 300
2 Other_Americas	10 400	7 300	3 100
2 Peru	9 700	7 100	2 600
2 Brazil	8 000	5 500	2 500
2 Venezuela	7 900	5 400	2 500
2 Ecuador	5 700	3 600	2 100
2 Surinam	6 200	4 500	1 700
2 Chile	3 200	2 000	1 300
2 Bolivia	2 000	1 400	600
Central America & Caribbean	75 200	57 200	17 900
3 Cuba	27 000	19 700	7 300
3 Jamaica	13 700	10 900	2 800
3 Dominican_Rep.	6 000	4 600	1 400
3 Panama	7 900	6 700	1 200
3 Trinidad/Tobago	5 000	3 800	1 200
3 Costa_Rica	2 300	1 200	1 100
3 Haiti	5 100	4 100	1 000
3 El_Salvador	2 900	2 200	700
3 Guatemala	1 900	1 300	600
3 Nicaragua	3 400	2 700	600

East Europe	89 100	58 200	31 100
4 FSU	35 800	23 100	12 800
4 Poland	22 800	15 700	7 200
4 Romania	8 600	5 200	3 400
4 Hungary	8 100	5 000	3 100
4 Czechoslovakia	7 800	5 500	2 300
4 Yugoslavia	5 600	3 500	2 100
4 Bulgaria	400	200	200
Africa	53 600	34 700	19 000
5 Other_Africa	17 000	10 700	6 400
5 Egypt	13 400	9 100	4 200
5 Nigeria	7 200	4 700	2 500
5 South Africa	4 600	2 800	1 800
5 Ghana	3 400	1 800	1 600
5 Ethiopia	3 600	2 200	1 400
5 Kenya	3 200	2 400	900
5 Cameroon	1 200	1 000	200
Middle East	99 300	64 300	35 100
6 Iran	45 900	30 100	15 800
6 Lebanon	13 700	8 800	4 900
6 Turkey	9 800	5 400	4 400
6 Israel	10 600	7 100	3 500
6 Jordan	4 900	2 900	2 000
6 Syria	4 600	3 100	1 500
6 Iraq	4 300	3 000	1 200
6 Palestine	2 900	2 200	800
6 Cyprus	1 100	600	500
6 Kuwait	1 500	1 100	500
North America	98 800	74 400	24 400
7 Canada	66 300	49 100	17 200
7 Mexico	32 500	25 300	7 200
Western Europe	229 900	158 900	71 100
8 UK	65 900	43 000	22 900
8 Germany	67 900	50 300	17 600
8 Italy	15 700	9 600	6 100
8 France	14 100	9 300	4 800
8 Greece	11 800	8 100	3 700
8 Netherlands	10 500	8 200	2 300
8 Switzerland	3 400	1 500	1 900
8 Spain	5 100	3 300	1 800
8 Belgium	4 700	3 200	1 600
8 Ireland	5 000	3 400	1 600
8 Austria	7 400	6 000	1 400
8 Sweden	4 300	3 200	1 100
8 Finland	3 000	2 000	1 000
8 Other_Europe	2 600	1 700	1 000
8 Denmark	2 400	1 600	800
8 Portugal	2 600	1 700	800
8 Norway	3 500	2 800	700

Oceania	23 300	17 500	5 700
9 Other_Oceania	17 900	13 300	4 500
9 Australia	5 400	4 200	1 200

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

The SESTAT data show the foreign-born S&E degree holders residing in the United States from 84 individual countries, and provide the total for each country.

However, since small numbers are suppressed in SESTAT tabulations for confidentiality, the finer breakout of the foreign-born data by field of highest degree is suppressed in some fields in some countries. The total of all regions does not add to total foreign-born because of suppressed cells in the individual country data.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.

Appendix table B-5.

S&E Degree Holders in the United States by Place of Birth and Citizenship Status: 1993-1999

	1999	Citizenship status		
		Total	Citizen	Permanent visa
Total S&E degree holders in U.S.	12 489 400	12 060 000	328 900	102 500
Native	10 930 000	10 930 000	1 900	700
Foreign-born total	1 559 400	1 130 600	327 000	101 800
% foreign-born	12,5	9,4	99,4	99,3
% of foreign-born within each status	100,0	72,5	21,0	6,5
Asia	713 100	500 300	148 800	63 600
1 India	200 000	124 100	53 700	22 200
1 China	147 900	88 200	40 900	18 800
1 Philippines	78 400	68 800	9 000	600
1 Taiwan	72 200	55 000	11 300	5 900
1 Korea	53 400	42 000	8 700	2 600
1 Vietnam	49 200	46 000	3 000	S
1 Japan	38 400	25 700	8 400	4 300
1 Pakistan	19 000	14 000	3 400	1 600
1 Thailand	8 800	6 100	1 700	1 000
1 Malaysia	8 000	2 600	3 400	2 100
1 Indonesia	7 100	4 400	1 400	1 300
1 Other_Asia	5 700	4 800	600	300
1 Sri Lanka	5 400	3 200	1 000	1 200
1 Bangladesh	5 200	3 500	700	1 100
1 Laos	4 500	4 400	S	S
1 Burma	3 200	3 100	S	S
1 Singapore	3 000	1 600	1 100	300
1 Afghanistan	2 300	2 200	S	S
1 Nepal	1 400	600	500	300
South America	90 300	65 400	19 000	5 800
2 Columbia	15 800	12 900	2 500	400
2 Other_Americas	13 100	9 300	3 000	800
2 Argentina	12 500	9 300	2 100	1 100
2 Peru	9 600	6 700	2 100	900
2 Brazil	9 100	5 000	2 500	1 600
2 Venezuela	8 900	5 400	2 800	600
2 Surinam	8 100	6 100	2 000	S
2 Equador	6 800	5 700	800	200
2 Chile	3 500	2 600	700	200
2 Bolivia	2 900	2 400	500	S
Central America & Caribbean	84 700	70 900	11 900	1 100
3 Cuba	25 700	25 000	700	S
3 Jamaica	16 600	11 800	4 200	600
3 Dominican_Rep.	8 700	7 100	1 400	200
3 Panama	8 700	8 400	S	S
3 Trinidad/Tobago	7 000	4 100	2 600	300
3 Haiti	5 800	4 800	900	S
3 Nicaragua	5 000	3 900	900	S
3 El_Salvador	2 600	2 000	600	S
3 Costa_Rica	2 500	1 800	600	S
3 Guatemala	2 100	2 000	S	S

East Europe	95 900	80 700	11 000	4 200
4 FSU	40 600	35 100	3 800	1 700
4 Poland	22 900	18 900	3 900	200
4 Romania	11 200	9 100	1 000	1 100
4 Hungary	9 500	8 900	500	S
4 Czechoslovakia	6 600	5 600	600	400
4 Yugoslavia	4 100	2 700	900	500
4 Bulgaria	1 000	400	300	300
Africa	61 800	41 400	14 400	6 100
5 Other_Africa	19 600	12 500	4 000	3 200
5 Egypt	12 500	10 600	1 200	700
5 Nigeria	10 500	6 500	3 600	500
5 South Africa	6 300	5 000	1 300	S
5 Ethiopia	4 100	2 600	1 100	300
5 Ghana	3 800	2 700	900	200
5 Kenya	3 400	1 000	1 900	500
5 Cameroon	1 600	500	400	700
Middle East	108 600	87 400	16 000	4 100
6 Iran	47 500	38 000	8 800	700
6 Lebanon	14 000	12 400	1 400	200
6 Turkey	13 000	8 600	2 000	2 400
6 Israel	12 900	10 700	1 800	400
6 Syria	5 300	4 600	300	S
6 Jordan	4 900	4 300	400	S
6 Iraq	3 700	3 400	S	S
6 Kuwait	2 700	2 000	400	400
6 Palestine	2 600	2 400	200	S
6 Cyprus	2 000	1 000	700	S
North America	114 300	74 800	34 900	4 600
7 Canada	76 900	46 600	27 200	3 000
7 Mexico	37 400	28 200	7 700	1 600
Western Europe	271 700	198 500	63 600	8 400
8 Germany	85 600	76 100	8 700	900
8 UK	80 600	48 400	30 700	1 500
8 Italy	19 000	16 100	2 300	600
8 France	15 200	10 800	3 900	600
8 Greece	12 400	9 600	1 700	1 000
8 Netherlands	9 900	6 700	2 500	700
8 Spain	7 200	4 700	1 600	1 000
8 Belgium	5 900	3 200	2 200	S
8 Austria	5 400	4 500	700	S
8 Other_Europe	4 900	2 400	1 500	1 000
8 Switzerland	4 400	3 600	700	S
8 Ireland	4 200	3 000	1 100	S
8 Sweden	3 900	1 900	1 500	400
8 Norway	3 600	2 000	1 000	700
8 Portugal	3 400	2 300	1 000	S
8 Finland	3 300	1 200	1 800	S
8 Denmark	2 800	2 000	700	S
Oceania	18 400	10 900	6 600	900
9 Other_Oceania	13 000	8 600	3 900	500
9 Australia	5 400	2 300	2 700	400

Appendix B-5 cont.

	1997	Citizenship status			
		Total	Citizen	Permanent visa	Temporary visa
Total S&E degree holders in U.S.		11 966 900	11 550 000	333 500	83 400
Native		10 501 800	10 500 300	1 100	400
Foreign-born total		1 465 200	1 049 700	332 400	83 100
% foreign-born		12,2	9,1	99,7	99,6
% of foreign-born within each status		100,0	78,4	17,3	4,3
Asia		674 000	472 800	148 100	52 400
1 India		186 100	113 900	52 400	19 800
1 China		133 400	82 300	38 300	12 800
1 Philippines		85 200	74 200	10 000	1 000
1 Taiwan		69 600	51 400	12 700	5 600
1 Korea		52 200	40 700	8 800	2 700
1 Vietnam		44 700	42 500	2 200	S
1 Japan		35 700	24 100	7 300	4 200
1 Pakistan		17 800	12 700	3 600	1 600
1 Thailand		8 100	4 600	3 000	500
1 Malaysia		6 800	2 300	2 300	2 200
1 Indonesia		6 300	4 400	1 400	500
1 Bangladesh		5 300	3 000	1 900	400
1 Sri Lanka		4 500	2 600	1 500	500
1 Other_Asia		4 400	3 900	400	100
1 Burma		3 600	3 500	S	S
1 Singapore		3 400	1 300	1 800	300
1 Afghanistan		2 900	2 600	S	S
1 Laos		2 900	2 400	S	S
1 Nepal		1 100	400	500	200
South America		81 800	58 800	18 200	4 500
2 Columbia		14 600	11 100	2 900	500
2 Other_Americas		12 000	8 000	3 300	700
2 Argentina		10 600	8 500	1 400	700
2 Peru		9 100	6 100	2 000	1 000
2 Brazil		8 500	5 400	2 200	1 000
2 Venezuela		7 800	5 100	2 300	400
2 Surinam		6 800	5 200	1 300	S
2 Equador		6 300	4 700	1 600	S
2 Chile		3 500	2 900	400	200
2 Bolivia		2 600	1 800	800	S
Central America & Caribbean		80 700	65 500	14 000	0
3 Cuba		27 000	25 900	1 100	S
3 Jamaica		16 000	11 400	4 500	S
3 Panama		8 200	7 300	800	S
3 Dominican_Rep.		6 300	5 500	700	S
3 Trinidad/Tobago		6 200	3 200	2 800	S
3 Haiti		5 400	4 500	800	S
3 Nicaragua		4 600	3 200	1 300	S
3 El_Salvador		2 800	1 800	700	S
3 Costa_Rica		2 300	1 300	900	S
3 Guatemala		1 900	1 400	400	S

East Europe	89 600	75 800	11 200	2 300
4 FSU	37 100	32 700	3 500	900
4 Poland	22 100	17 200	4 500	300
4 Romania	9 200	7 700	1 100	400
4 Hungary	8 900	8 100	800	S
4 Czechoslovakia	6 300	5 300	600	400
4 Yugoslavia	5 100	4 200	600	300
4 Bulgaria	900	600	100	S
Africa	57 700	37 900	14 700	4 400
5 Other_Africa	17 500	11 500	3 800	2 100
5 Egypt	13 700	11 600	1 500	600
5 Nigeria	9 100	4 600	4 000	400
5 South Africa	5 600	4 100	1 000	S
5 Ethiopia	3 600	1 900	1 500	200
5 Ghana	3 400	2 100	1 100	200
5 Kenya	3 200	1 900	1 200	100
5 Cameroon	1 600	200	600	800
Middle East	104 400	79 300	20 700	4 200
6 Iran	47 900	35 100	12 100	700
6 Lebanon	14 200	11 400	2 600	100
6 Israel	12 400	10 400	1 800	200
6 Turkey	10 300	7 300	1 600	1 400
6 Jordan	4 700	3 800	500	500
6 Syria	4 600	3 600	200	800
6 Iraq	3 700	2 800	900	S
6 Palestine	2 800	2 600	S	S
6 Kuwait	2 200	1 600	400	200
6 Cyprus	1 600	700	600	300
North America	104 700	65 500	35 500	3 700
7 Canada	70 500	41 800	25 900	2 700
7 Mexico	34 200	23 700	9 600	1 000
Western Europe	252 800	182 400	62 300	6 900
8 Germany	81 800	72 000	8 500	1 200
8 UK	73 400	40 700	31 100	1 500
8 Italy	16 900	14 400	2 300	300
8 France	14 400	10 600	3 000	700
8 Greece	11 600	9 500	1 000	1 200
8 Netherlands	9 700	6 100	3 100	400
8 Spain	5 700	4 200	800	700
8 Austria	5 400	4 500	700	S
8 Ireland	5 100	3 400	1 700	S
8 Belgium	4 700	2 800	1 800	S
8 Switzerland	4 300	3 000	1 000	300
8 Finland	3 700	1 300	2 100	S
8 Sweden	3 600	1 800	1 800	S
8 Norway	3 400	2 400	800	S
8 Other_Europe	3 300	1 700	1 000	600
8 Denmark	2 900	2 000	800	S
8 Portugal	2 900	2 000	800	S
Oceania	19 600	11 500	6 600	1 400
9 Other_Oceania	15 200	9 900	4 200	1 100
9 Australia	4 400	1 600	2 400	300

Appendix B-5 cont.

	1995	Citizenship status			
		Total	Citizen	Permanent visa	Temporary visa
Total S&E degree holders in U.S.		11 456 800	11 020 000	361 000	75 800
Native		10 060 700	10 059 200	1 300	200
Foreign-born total		1 395 900	960 800	359 600	75 500
% foreign-born		12,2	8,7	99,6	99,6
% of foreign-born within each status		100,0	76,1	19,8	4,1
Asia		639 300	431 200	161 500	46 000
1 India		172 400	99 100	56 900	16 400
1 China		120 700	76 300	37 400	7 000
1 Philippines		88 700	71 900	14 900	1 800
1 Taiwan		69 200	47 000	15 600	6 600
1 Korea		52 200	37 900	11 000	3 200
1 Vietnam		39 300	37 500	1 800	S
1 Japan		34 800	21 900	7 900	5 100
1 Pakistan		16 400	11 800	3 400	1 100
1 Thailand		8 000	4 400	2 900	700
1 Indonesia		6 300	4 100	1 500	700
1 Malaysia		5 600	2 000	2 300	1 400
1 Other_Asia		5 000	3 800	600	600
1 Bangladesh		4 800	2 000	2 400	500
1 Sri Lanka		4 000	2 300	1 300	500
1 Burma		3 500	3 500	S	S
1 Singapore		2 700	1 100	1 200	400
1 Laos		2 500	2 300	S	S
1 Afghanistan		2 300	1 900	S	S
1 Nepal		900	400	400	S
South America		74 300	51 200	18 800	4 100
2 Columbia		12 600	8 800	3 300	600
2 Other_Americas		10 800	6 800	3 100	1 000
2 Argentina		9 500	7 100	1 700	700
2 Peru		9 100	5 500	2 700	1 000
2 Brazil		8 100	5 100	2 400	700
2 Venezuela		7 400	4 600	2 600	S
2 Equador		5 900	4 400	1 400	S
2 Surinam		5 600	4 500	900	S
2 Chile		3 100	2 700	300	100
2 Bolivia		2 200	1 700	400	S
Central America & Caribbean		77 400	61 400	14 600	300
3 Cuba		26 900	25 700	1 100	S
3 Jamaica		15 000	10 000	4 700	300
3 Panama		7 500	7 100	S	S
3 Dominican_Rep.		6 500	4 600	1 700	S
3 Haiti		5 400	4 100	1 200	S
3 Trinidad/Tobago		5 200	2 900	2 200	S
3 Nicaragua		4 000	2 400	1 600	S
3 El_Salvador		3 200	2 200	700	S
3 Costa_Rica		2 000	1 300	800	S
3 Guatemala		1 700	1 100	600	S

East Europe	88 900	71 800	14 300	2 000
4 FSU	36 900	29 100	7 200	600
4 Poland	21 900	16 400	4 700	800
4 Hungary	9 100	7 900	1 000	200
4 Romania	8 300	7 400	800	S
4 Czechoslovakia	6 300	5 900	S	S
4 Yugoslavia	5 800	4 700	600	400
4 Bulgaria	600	400	S	S
Africa	55 600	33 900	16 700	4 700
5 Other_Africa	16 300	9 800	4 300	2 300
5 Egypt	13 700	11 100	1 800	900
5 Nigeria	8 600	4 100	4 200	200
5 South Africa	5 300	3 500	1 600	S
5 Ethiopia	3 900	1 900	1 800	200
5 Ghana	3 500	2 000	1 200	400
5 Kenya	3 000	1 500	1 300	200
5 Cameroon	1 300	S	500	500
Middle East	101 000	72 700	22 800	5 100
6 Iran	47 300	31 700	14 100	1 500
6 Lebanon	13 800	10 500	2 600	700
6 Israel	11 200	9 100	1 700	400
6 Turkey	9 400	6 400	2 300	700
6 Jordan	5 000	4 100	300	500
6 Syria	4 500	3 200	500	700
6 Iraq	3 900	3 100	700	S
6 Palestine	2 700	2 600	S	S
6 Kuwait	1 700	1 200	200	300
6 Cyprus	1 500	800	400	300
North America	99 500	59 400	37 300	2 900
7 Canada	67 400	40 600	25 300	1 600
7 Mexico	32 100	18 800	12 000	1 300
Western Europe	239 000	167 700	64 300	6 400
8 Germany	73 400	63 900	7 800	1 700
8 UK	69 700	36 900	32 000	800
8 Italy	16 300	13 300	2 600	400
8 France	14 400	10 200	3 100	1 100
8 Greece	11 500	9 800	1 000	700
8 Netherlands	8 800	5 300	3 000	400
8 Spain	6 300	3 800	1 900	600
8 Austria	5 800	5 100	700	S
8 Belgium	5 600	3 000	2 100	400
8 Ireland	4 600	3 000	1 500	S
8 Switzerland	4 000	3 000	800	200
8 Sweden	3 900	1 300	2 400	S
8 Norway	3 500	2 400	1 000	S
8 Finland	3 200	1 400	1 800	S
8 Other_Europe	2 900	1 900	1 000	100
8 Denmark	2 600	1 800	800	S
8 Portugal	2 500	1 600	800	S
Oceania	20 300	11 400	7 700	1 300
9 Other_Oceania	15 800	9 800	5 300	700
9 Australia	4 500	1 600	2 400	600

Appendix B-5 cont.

	1993	Citizenship status			
		Total	Citizen	Permanent visa	Temporary visa
Total S&E degree holders in U.S.		11 024 500	10 520 000	399 300	105 200
Native		9 664 300	9 662 200	1 800	300
Foreign-born total		1 357 100	854 700	397 500	104 900
% foreign-born		12,3	8,1	99,5	99,7
% of foreign-born within each status		100,0	63,0	29,3	7,7
Asia		612 400	372 200	173 000	66 500
1 India		160 900	83 600	65 000	12 300
1 China		114 200	68 100	25 900	20 200
1 Philippines		85 600	63 900	18 800	3 000
1 Taiwan		68 400	37 800	21 200	9 400
1 Korea		52 100	33 600	12 200	6 200
1 Japan		35 800	18 100	8 900	8 800
1 Vietnam		35 800	33 800	1 900	S
1 Pakistan		16 600	10 900	3 900	1 800
1 Thailand		7 300	3 600	3 300	400
1 Indonesia		6 100	3 500	1 600	1 000
1 Malaysia		5 600	1 600	2 700	1 300
1 Bangladesh		4 700	1 700	2 600	400
1 Other_Asia		4 300	2 800	600	800
1 Burma		4 100	3 400	700	S
1 Sri Lanka		4 100	2 200	1 400	400
1 Singapore		2 700	900	1 300	500
1 Afghanistan		2 200	1 600	600	S
1 Laos		1 300	1 100	S	S
1 Nepal		600	S	400	S
South America		74 900	46 000	23 000	6 100
2 Columbia		12 400	7 400	4 200	900
2 Other_Americas		10 400	5 700	4 000	700
2 Peru		9 700	4 700	3 700	1 400
2 Argentina		9 400	6 000	2 800	600
2 Brazil		8 000	4 800	1 900	1 300
2 Venezuela		7 900	4 900	2 300	800
2 Surinam		6 200	4 700	1 300	200
2 Equador		5 700	3 500	2 100	S
2 Chile		3 200	2 700	400	200
2 Bolivia		2 000	1 600	300	S
Central America & Caribbean		75 200	56 800	17 100	1 000
3 Cuba		27 000	25 700	1 300	S
3 Jamaica		13 700	8 800	4 800	200
3 Panama		7 900	7 400	600	S
3 Dominican_Rep.		6 000	3 500	2 300	S
3 Haiti		5 100	3 600	1 600	S
3 Trinidad/Tobago		5 000	2 600	2 000	400
3 Nicaragua		3 400	1 500	1 900	S
3 El_Salvador		2 900	1 400	1 000	400
3 Costa_Rica		2 300	1 200	800	S
3 Guatemala		1 900	1 100	800	S

East Europe	89 100	66 500	20 800	1 800
4 FSU	35 800	25 100	10 400	300
4 Poland	22 800	15 700	6 400	700
4 Romania	8 600	6 800	1 700	200
4 Hungary	8 100	6 900	1 000	200
4 Czechoslovakia	7 800	7 500	300	S
4 Yugoslavia	5 600	4 300	1 000	400
4 Bulgaria	400	200	S	S
Africa	53 600	28 900	19 600	4 500
5 Other_Africa	17 000	9 000	5 500	2 600
5 Egypt	13 400	10 200	2 500	600
5 Nigeria	7 200	2 400	4 600	200
5 South Africa	4 600	2 700	1 300	600
5 Ethiopia	3 600	1 500	1 800	300
5 Ghana	3 400	1 400	1 800	200
5 Kenya	3 200	1 500	1 500	S
5 Cameroon	1 200	200	600	S
Middle East	99 300	62 600	29 800	6 800
6 Iran	45 900	25 800	18 700	1 400
6 Lebanon	13 700	9 500	2 900	1 300
6 Israel	10 600	7 800	2 200	700
6 Turkey	9 800	6 100	2 500	1 200
6 Jordan	4 900	3 300	900	600
6 Syria	4 600	3 300	900	300
6 Iraq	4 300	3 000	800	500
6 Palestine	2 900	2 500	S	500
6 Kuwait	1 500	800	600	S
6 Cyprus	1 100	500	300	300
North America	98 800	55 800	39 500	3 500
7 Canada	66 300	38 300	26 300	1 700
7 Mexico	32 500	17 500	13 200	1 800
Western Europe	229 900	154 500	65 100	9 400
8 Germany	67 900	58 500	7 500	1 800
8 UK	65 900	31 900	32 400	1 600
8 Italy	15 700	12 200	2 900	600
8 France	14 100	10 100	2 700	1 300
8 Greece	11 800	9 500	1 700	600
8 Netherlands	10 500	6 500	3 500	500
8 Austria	7 400	6 300	1 000	S
8 Spain	5 100	2 900	1 400	800
8 Ireland	5 000	2 700	2 200	S
8 Belgium	4 700	2 100	1 900	700
8 Sweden	4 300	1 500	2 300	500
8 Norway	3 500	2 500	800	S
8 Switzerland	3 400	2 100	700	500
8 Finland	3 000	1 200	1 600	S
8 Other_Europe	2 600	1 400	1 000	300
8 Portugal	2 600	1 500	900	100
8 Denmark	2 400	1 600	600	100

Oceania	23 300	11 200	9 000	3 000
9 Other_Oceania	17 900	9 500	6 200	2 200
9 Australia	5 400	1 700	2 800	800

NOTES: S is estimated to be less than 100 individuals, or suppressed for confidentiality.

Data include residents who hold any degree in science or engineering; a resident's highest degree may be in a non-science and engineering field.

The SESTAT data show the foreign-born S&E degree holders residing in the United States from 84 individual countries, and provide the total for each country. However, since small numbers are suppressed in SESTAT tabulations for confidentiality, the finer breakout of the foreign-born data by field of highest degree is suppressed in some fields in some countries. The total of all regions does not add to total foreign-born because of suppressed cells in the individual country data.

SOURCE: National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Scientists and Engineers Statistical Data Set (SESTAT), 1993, 1995, 1997, and 1999.