

Industry & Trade Summary

Education Services



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PREFACE

In 1991 the United States International Trade Commission initiated its current *Industry and Trade Summary* series of informational reports on the thousands of products imported into and exported from the United States. Each summary addresses a different industry area and contains information on U.S. and foreign producers, trade barriers, and industry trends. Also included is an analysis of the basic factors affecting trends in consumption, production, and international trade, as well as those bearing on the competitiveness of U.S. industries in domestic and foreign markets.¹

This report on education services principally covers the period 1990 through 1994 and represents one of approximately 250 to 300 individual reports to be produced in this series. Listed below are the individual summary reports published to date on service industries.

<i>USITC publication number</i>	<i>Publication date</i>	<i>Title</i>
2456	November 1991	Insurance
2569	October 1992	Advertising
2594	February 1993	Legal Services
2638	June 1993	Commercial Banking
2864	March 1995	Leasing
2920	September 1995	Education Services

¹ The information and analysis provided in this report are for the purpose of this report only. Nothing in this report should be construed to indicate how the Commission would find in an investigation conducted under statutory authority covering the same or similar subject matter.

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INTRODUCTION

Scope of the Summary

The education services industry consists of academic or technical instruction through elementary and secondary schools, colleges and universities, libraries, vocational schools, and other schools. This report principally focuses on services provided through colleges and universities.¹ The international exchange of college and university students represents 90 percent or more of international trade in education services. The summary examines the U.S. and foreign industries and markets, as well as trade flows and nontariff trade barriers, principally from 1990 to 1994.

International Trade in Education Services

Trade in education services has developed for cultural, economic, and political reasons. In the immediate aftermath of World War II, European countries sent students to the United States as the war had destroyed many institutions of higher education in Europe. Enrollment by non-European students increased after the simultaneous liberalization of U.S. immigration laws and the termination of strict national origin limitations in 1965.²

Flows of students from countries such as Korea, Taiwan, India, Thailand, Vietnam, Iran, and Egypt usually can be dated from the period when these nations became the recipients of large amounts of technical and military assistance from the United States, in part as a result of the Cold War.³ With the end of the Cold War, it is expected that the number of students from Central Europe and the former Soviet Union will increase.⁴

Current Conditions

The United States is the leading exporter of education services in the world. U.S. colleges and universities generated a services trade surplus of \$6.0 billion in 1993.⁵ This represents about 10 percent

¹ SIC code 822, Colleges, Universities, and Professional Schools. Executive Office of the President, Office of Management and Budget (OMB), *Standard Industrial Classification Manual 1987* (Washington, DC: OMB, 1987).

² National Science Foundation (NSF), *Foreign Citizens in U.S. Science and Engineering: History, Status and Outlook* (Washington, DC: NSF, 1986), p. ix.

³ Craufurd D. Goodwin, ed., *International Investment in Human Capital, Overseas Education for Development* (New York, NY: Institute of International Education (IIE), 1993), p. 41.

⁴ Todd M. Davis, ed., *Open Doors 1993/1994: Report on International Educational Exchange* (New York, NY: IIE, 1994), p. 10.

⁵ U.S. Department of Commerce, Bureau of Economic Analysis (BEA), "U.S. International Sales and Purchases of Private Services," *Survey of Current Business*, Sept. 1994, p. 136.

of the total U.S. services trade surplus. Currently, the largest export market for U.S. higher education services is Asia, particularly China, Japan, Taiwan, India, and Korea.

Other major exporters include the United Kingdom, France, and Germany. These countries maintain advantages in certain regional markets because of close historical relationships and, in the case of the latter two, low tuition prices. U.S. students principally import education services from Europe, particularly France, the United Kingdom, and Spain. U.S. imports principally result from cultural and educational exchanges through study abroad programs.

The international market for education is expected to continue growing, in large part due to increasing global economic integration. As integration occurs, U.S. citizens likely will find it necessary to become more knowledgeable about foreign cultures, languages, and lifestyles. This knowledge will facilitate the conduct of business in foreign markets. U.S. exports of education services may provide additional benefits to the U.S. economy over the longer term. Such benefits may arise from increased imports of U.S. goods and services by former students once they assume positions in their home countries' private and public sectors.⁶

U.S. INDUSTRY PROFILE

Industry Structure

Industry Institutions

The U.S. education system consists of three major segments: primary education, secondary education, and postsecondary education (figure 1). Postsecondary education includes college and university education, vocational training, and continuing professional education.⁷ College and university education, also called "higher education," accounts for the largest share of revenues among postsecondary institutions. U.S. higher education institutions include two-year junior and community colleges, and colleges and universities that offer undergraduate, graduate, professional, and postdoctoral programs.

Number of Institutions and Distribution

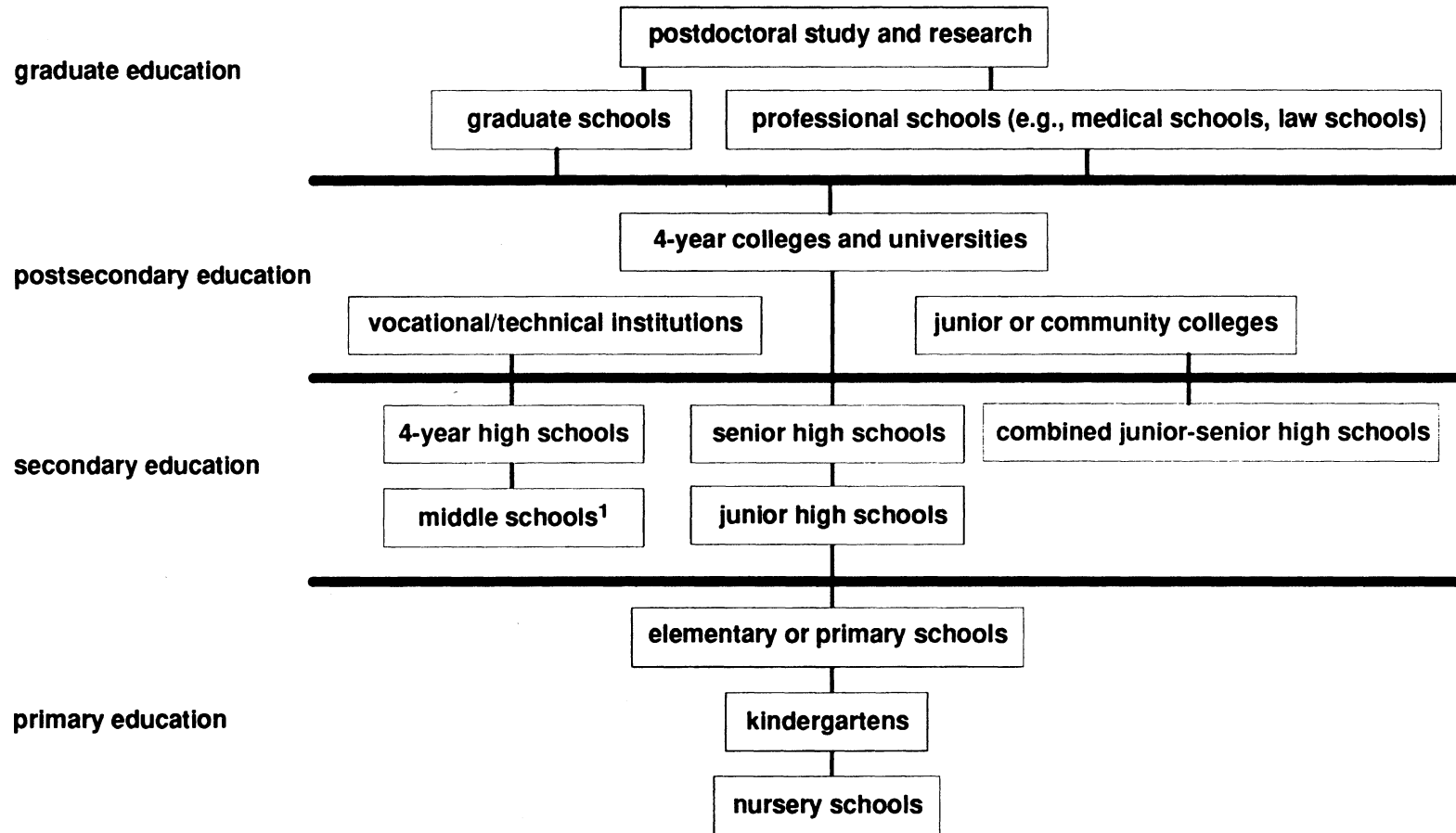
U.S. colleges and universities numbered 3,632 during the 1993/94 school year.⁸ The most numerous type are private four-year institutions, accounting for

⁶ Marianthi Zikopoulos, ed., *Open Doors 1992/1993: Report on International Educational Exchange* (New York, NY: IIE, 1993), p. 8.

⁷ See glossary of terms in appendix A for further explanation and definitions.

⁸ Education data are recorded for an academic year, which typically spans parts of two calendar years.

Figure 1
Structure of U.S. education system



¹ Middle schools typically include grades 6-8, and four-year high schools include grades 9-12. A slightly different path for students involves a junior high school including grades 7-9 and a senior high school including grades 10-12.

44 percent of the total. Despite overall growth during 1990-93, the number of U.S. higher education institutions declined slightly during the 1993/94 school year due to the closing of 24 two-year private schools (table 1). This decline reportedly resulted from enactment of the Higher Education Act of 1992, which changed Federal regulations regarding student aid, making it more difficult for students attending private schools to receive aid.⁹ California, New York, and Pennsylvania have the greatest number of higher education institutions (table 2),¹⁰ reflecting the location of large U.S. cities and populations.

⁹ Representative of Career College Association, telephone interview by USITC staff, Washington, DC, Dec. 20, 1994.

¹⁰ U.S. Department of Education (DOE), National Center for Education Statistics (NCES), *Digest of Education Statistics 1994*, 30th ed. (Washington, DC: NCES, 1994), p. 243.

Flexibility

Flexibility within programs and institutions enhances U.S. competitiveness in higher education. Unlike other major exporters, the U.S. higher education system features a highly developed private sector as well as a mature community and junior college system. The diverse U.S. system accommodates students with varying levels of preparation and motivation.¹¹ For instance, foreign students with minimal English skills can improve their language skills in numerous English as a Foreign Language centers.

¹¹ IIE, *International Investment in Human Capital*, p. 42.

Table 1
U.S. institutions of higher education,¹ by type of institution, the 1990/91 school year to the 1993/94 school year

Institution	1990/91	1991/92	1992/93	1993/94
Public				
Two-year	972	999	1,024	1,021
Four-year	595	599	600	604
Total (public)	1,567	1,598	1,624	1,625
Private				
Two-year	446	445	445	421
Four-year	1,546	1,558	1,569	1,586
Total (private)	1,992	2,003	2,014	2,007
Total				
Two-year	1,418	1,444	1,469	1,442
Four-year	2,141	2,157	2,169	2,190
Total (public and private)	3,559	3,601	3,638	3,632

¹ Includes colleges designated as institutions of higher education by the Higher Education General Information Survey system.

Source: U.S. Department of Education (DOE), National Center for Education Statistics (NCES), *Digest of Education Statistics 1994*, 30th ed. (Washington, DC: NCES, 1994), p. 242.

Table 2
Geographic concentration of U.S. institutions of higher education, by type of institution, the 1993/94 school year

State	Two-year schools			Four-year schools			All schools		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
California	108	38	146	31	151	182	139	189	328
New York	46	48	94	42	178	220	88	226	314
Pennsylvania	20	52	72	45	102	147	65	154	219
Texas	66	15	81	40	57	97	106	72	178
Illinois	50	14	64	12	93	105	62	107	169
Ohio	37	27	64	24	68	92	61	95	156
North Carolina	58	8	66	17	39	56	75	47	122
Massachusetts	17	13	30	14	73	87	31	86	117
Georgia	53	11	64	19	33	52	72	44	116
Florida	30	15	45	9	54	63	39	69	108

Source: U.S. Department of Education (DOE), National Center for Education Statistics (NCES), *Digest of Education Statistics 1994*, 30th ed. (Washington, DC: NCES, 1994), p. 243.

On an institutional level, flexible admission policies enable students to matriculate throughout the calendar year. This is a distinctive feature of the U.S. system.¹² In addition, students in U.S. institutions can change programs easily, whereas European institutions tend to prepare students for a single career track. For instance, in French institutions, it can be difficult for students to take courses and accumulate academic credit in departments outside their major field of study.

Employment, Labor-Intensity, and Wages

The higher education industry employs associate, adjunct, interim, and assistant professors, as well as instructors and lecturers. During 1987-91, the number of teachers in U.S. institutions of higher education increased by an average annual rate of 1 percent, reaching 826,000 by the end of the period.¹³ In part, due to growth in the number of professors, the student-faculty ratio of 17 students per professional faculty member in 1976 fell to 16 students per member in 1991.¹⁴ As the student-faculty ratio declines, students obtain more individual attention from professors, which may further increase the attractiveness of U.S. higher education institutions.

¹² Ibid.

¹³ DOE, *Digest of Education Statistics 1994*, p. 230.

¹⁴ Ibid., p. 168.

Higher education institutions devote approximately 51 percent of current-fund expenditures¹⁵ to instruction and research.¹⁶ The wages of professors vary by type of institution, academic rank, and field of instruction (table 3 and table 4). On average, private-sector instructors earn a higher salary than their counterparts in the public sector. Professors at four-year schools reportedly have a higher average salary, with a few exceptions, than their peers at two-year schools due to fewer and less stringent hiring guidelines at two-year institutions.¹⁷

With respect to rank, full professors consistently earn a higher salary than both associate and assistant professors. With respect to field of study, demand is greatest for teachers of law, engineering, health sciences, business and management, and computer and information skills. Consequently, these instructors earn the highest pay. These instructors earn high salaries because they have high earnings potential outside academia, and therefore must be bid away from alternative occupations.

¹⁵ DOE defines current-fund expenditures as money spent to meet current operating costs, excluding capital expenditures and investments.

¹⁶ DOE, *Digest of Education Statistics 1994*, p. 334.

¹⁷ Representative of the American Association of Community and Junior Colleges, telephone interview by USITC staff, Washington, DC, Sept. 8, 1994.

Table 3
Average salary levels, by institution, academic rank, and affiliation, the 1993/94¹ school year

Institution/Academic rank	Affiliation			
	All	Public	Private	Church-related
Doctoral-level institutions				
Professor	\$68,700	\$64,860	\$82,520	\$72,000
Associate	48,630	47,170	54,880	51,990
Assistant	41,130	39,860	46,230	43,440
Comprehensive institutions²				
Professor	56,450	55,690	59,610	58,200
Associate	45,070	44,660	46,150	46,090
Assistant	37,420	37,220	37,790	38,160
General baccalaureate institutions				
Professor	50,080	49,720	56,780	45,000
Associate	39,960	41,010	43,110	37,060
Assistant	33,450	34,320	35,690	31,490
Two-year colleges with ranks				
Professor	48,670	49,120	38,190	32,240
Associate	40,550	41,030	33,170	28,860
Assistant	34,670	35,090	29,540	25,420

¹ Sample includes 2,278 institutions.

² Comprehensive institutions offer diverse post-baccalaureate programs, but do not engage in significant doctoral-level education.

Source: Julia Ridgely, ed., "The Annual Report on the Economic Status of the Profession," *Academe*, vol. 80, No. 2 (March/April 1994), p. 17.

Table 4
Average salary levels, by field of study, the 1993/94 school year

	Salary levels		
	Professors	Associates	Assistants
All major fields	\$65,186	\$47,709	\$41,367
Agribusiness	59,178	45,028	38,081
Architecture	59,322	45,187	36,547
Business and management	77,535	61,140	57,573
Communications	58,933	43,853	46,246
Computer and information	75,964	57,039	49,242
Education	56,605	43,388	35,287
Engineering	77,985	55,155	47,753
Foreign languages	57,344	41,410	33,767
Health sciences	77,913	57,149	49,814
Home economics	57,157	43,797	35,956
Interdisciplinary studies	61,808	42,194	32,657
Law	89,777	64,103	59,217
Letters	56,744	41,063	33,665
Library science	61,827	43,352	35,795
Mathematics	63,776	45,510	38,604
Performing arts	52,459	39,635	32,052
Philosophy and religion	58,424	41,259	35,506
Physical sciences	65,914	45,746	39,361
Psychology	62,567	43,401	36,589
Public affairs	62,435	45,199	37,192
Social sciences	62,351	43,842	36,603

Source: Julia Ridgely, ed., "The Annual Report on the Economic Status of the Profession," *Academe*, vol. 80, No. 2 (March/April 1994), p. 11.

U.S. Government Programs

Federal legislation¹⁸ promotes student exchanges through the Fulbright program of the U.S. Information Agency (USIA) and the training and education programs of the U.S. Agency for International Development (USAID). These programs reduce costs incurred by the student, serving to promote their enrollment in U.S. institutions.

In the 1993/94 school year, the Fulbright Program provided 1,100 new grants to foreign graduate students attending U.S. universities, and approximately 3,000 renewal awards to foreign students. The U.S. Congressional appropriation for the Fulbright Program in fiscal year 1994 was \$125 million. The Fulbright Program is multinationally funded, so other nations contribute financial resources as well. Since its establishment in 1946, 125,000 students and teachers from abroad have participated in the program.¹⁹

The USAID has established various field missions throughout the world, each with specific projects. When a foreign resident needs short-term training or

long-term academic study, USAID sponsors the individual as a student in the United States. During the 1992/93 school year, USAID sponsored 14,382 participants who attended formal academic or technical training in the United States. Thirty-nine percent were enrolled in academic programs at U.S. colleges and universities, and 61 percent received technical training.²⁰ The cost varies by institution and program, averaging approximately \$20,000 to \$25,000 per year for tuition, a stipend, health insurance, and books.²¹

Factors that Affect Demand

Price

The price of higher education principally includes tuition, miscellaneous fees, and living expenses. The U.S. Department of Education (DOE) has estimated average annual tuition, fees, and room and board paid by in-state students who attend undergraduate²² programs and live on campus. For the 1993/94 school year, the average price for these students was \$7,918 (table 5).²³ For out-of-state and foreign students,

¹⁸ Federal legislation that promotes student exchange includes: the United States Information and Exchange Act of 1948, 22 U.S.C. 1431 et seq.; the Mutual Education and Cultural Exchanges Act of 1961, 22 U.S.C. 2451 et seq.; the Foreign Assistance Act of 1961, 75 Stat. 424 U.S.; and the International Education Act of 1966, 20 U.S.C. 1171 et seq.

¹⁹ U.S. Information Agency (USIA), *The Fulbright Program Fact Sheet 1994* (Washington, DC: USIA, 1994), p. 1.

²⁰ U.S. Agency for International Development (USAID), *Participant Training Program Pamphlet* (Washington, DC: USAID, 1994).

²¹ Representative of USAID, telephone interview by USITC staff, Washington, DC, Sept. 19, 1994.

²² The *Digest of Education Statistics* does not include corresponding data for other postsecondary programs such as graduate programs.

²³ DOE, *Digest of Education Statistics 1994*, p. 311.

Table 5
Average undergraduate in-state tuition, fees, room and board rates in the United States, the 1993/94¹ school year

Rates	National average	Public institutions	Private institutions
Tuition and required fees	\$3,810	\$1,939	\$10,594
Two-year	1,392	1,114	6,343
Four-year	5,111	2,543	10,994
Dormitory rooms	2,061	1,877	2,498
Two-year	1,355	1,204	2,113
Four-year	2,113	1,937	2,513
Board fees ²	2,047	1,880	2,440
Two-year	1,725	1,688	1,981
Four-year	2,067	1,894	2,451
Total tuition, room and board	7,918	5,695	15,532
Two-year	4,471	4,006	10,437
Four-year	9,291	6,374	15,958

¹ Averages are weighted by 1991 enrollment level.

² Data reflect 20 meals per week.

Source: U.S. Department of Education (DOE), National Center for Education Statistics (NCES), *Digest of Education Statistics 1994*, 30th ed. (Washington, DC: NCES, 1994), p. 311.

tuition and fees were higher, averaging \$10,323.²⁴ In addition, off-campus living expenses are higher than on-campus room and board. In general, prices are lower in public institutions than in private institutions, and lower still in two-year institutions than in four-year institutions.

In contrast to other countries, U.S. higher education institutions offer an extensive variety of fellowships, work-study programs, and teaching or research assistantships to undergraduate and graduate students, domestic or foreign, for application toward tuition prices. In 1989, approximately 18 percent of all graduate students in U.S. institutions received such aid.²⁵

The price of foreign nationals' education in the United States can be affected by currency exchange rates. When U.S. students participate in study-abroad programs, typically they pay all fees to the home institution in U.S. dollars. The home institution forwards the payment to the foreign institution. However, when foreign students attend U.S. colleges and universities, they must pay the U.S. institution directly in U.S. dollars. When the foreign currency is converted to dollars, the exchange rate can increase or decrease the U.S. price of education according to the value of the dollar.

For instance, according to a U.S. higher education industry representative, Japanese students' enrollment in U.S. colleges and universities has increased in recent years due to the weakening of the dollar relative to the yen.²⁶ Conversely, exchange rate changes have had

adverse effects on enrollment levels of students from Latin America and Africa, many of whose home currencies have devalued relative to the dollar.

Tastes and Preferences

Other important factors that affect foreign demand for U.S. education services are students' tastes and preferences. Foreign citizens reportedly choose to study in the United States for the following reasons: the prestige and reputation associated with U.S. higher education and degrees; the greater access afforded by the size, diversity, and flexibility of the U.S. system; and the value of proficiency in the English language and knowledge of U.S. culture and business practices.²⁷ The high quality of U.S. education also attracts many foreign students. U.S. colleges and universities often have the best scientific and technical research facilities in the world.

Consumer Characteristics

U.S. Students

Domestic students account for 97 percent of enrollees in U.S. institutions of higher education. Total domestic enrollment in institutions of higher education numbered approximately 14 million students in the fall of 1993.²⁸ During the school years 1989/90 to 1993/94, domestic enrollment increased by approximately 4.5 percent.²⁹

²⁷ Representatives of the U.S. higher education industry, interviews by USITC staff, Washington, DC; Hyannis, MA; and Fayetteville, AR, Oct. 13-Nov. 7, 1994.

²⁸ IIE, *Open Doors 1993/1994*, p. 2. This data includes enrollment only in accredited institutions surveyed by IIE.

²⁹ Ibid.

²⁴ Representative of DOE, telephone interview by USITC staff, Washington, DC, Nov. 9, 1994.

²⁵ DOE, *Digest of Education Statistics 1994*, p. 320.

²⁶ Representative of International Advisory Services, telephone interview by USITC staff, Washington, DC, Oct. 13, 1994.

Most full-time students are between the ages of eighteen and twenty-four years old (table 6). In contrast, most part-time students tend to be twenty-five years of age and older. Attendance status and gender are split almost evenly between full-time and part-time, and male and female (table 7). The overwhelming majority of students in the United States are studying at the undergraduate level, rather than at the graduate level. The most popular disciplines taught in the United States include: business and management, health sciences, education, engineering, and liberal arts (figure 2). Business and management attract the largest group of students, accounting for 18 percent of total enrollment.

Foreign Students

As noted, the United States hosts more foreign students than any other country in the world, accounting for nearly one-third of the global industry's total.³⁰ During the 1993/94 school year, there were 449,749 foreign students in U.S. colleges and universities, accounting for 3 percent of total U.S. enrollment. During 1989-93, foreign student enrollment grew at rates ranging between 3 and 6 percent per annum.³¹

Foreign student characteristics generally differ from those of U.S. students. The gender mix of

³⁰ Although the United States hosts more foreign students than any other country, the share of the total student population comprised by foreign students is highest in France.

³¹ IIE, *Open Doors 1993/1994*, p. 11.

foreign students is uneven; sixty-two percent are male and thirty-eight percent are female.³² Level of study is very different from that in the United States as a whole, with 47.5 percent of foreign students studying at the undergraduate level, and 44.7 percent³³ studying at the graduate level.³⁴ Because many foreign students study at the graduate level, the average age of foreign students is believed to be somewhat higher than the U.S. average age. However, U.S. and foreign students tend to pursue similar majors. Business and management attract the largest group of foreign students, accounting for 19.4 percent of the total.³⁵ Other popular disciplines include engineering, physical and life sciences, and math and computer science.

In graduate programs for certain disciplines, foreign students comprise a significant portion of the student population. During the 1991/92 school year, non-U.S. citizens with either a temporary or permanent visa received approximately 58 percent of the U.S. doctoral degrees in engineering.³⁶ For mathematics, physical sciences, and life sciences, foreign students received 53 percent, 43 percent, and 32 percent, respectively, of U.S. doctoral degrees.³⁷

³² *Ibid.*, p. 132.

³³ The remaining 7.8 percent are enrolled in non-degree or intensive English language programs, or are in practical training.

³⁴ IIE, *Open Doors 1993/1994*, p. 128.

³⁵ *Ibid.*, p. 120.

³⁶ DOE, *Digest of Education Statistics 1994*, p. 300.

³⁷ *Ibid.*

Table 6
Total fall enrollment in U.S. institutions of higher education, by age and attendance status, 1991
(1,000 students)

Age	Total ¹	Full-time	Part-time
All ages	14,359	8,115	6,244
14 to 17 years old	121	114	7
18 and 19 years old	2,713	2,408	305
20 and 21 years old	2,768	2,299	469
22 to 24 years old	2,286	1,496	790
25 to 29 years old	2,134	868	1,266
30 to 34 years old	1,468	401	1,067
35 years and older	2,867	528	2,339

¹ Because of rounding, figures may not add to the totals shown.

Source: U.S. Department of Education (DOE), National Center for Education Statistics (NCES), *Digest of Education Statistics 1994*, 30th ed. (Washington, DC: NCES, 1994), p. 178.

Table 7
Total fall enrollment in U.S. institutions of higher education, by attendance status, gender, and level of study, 1989 to 1992

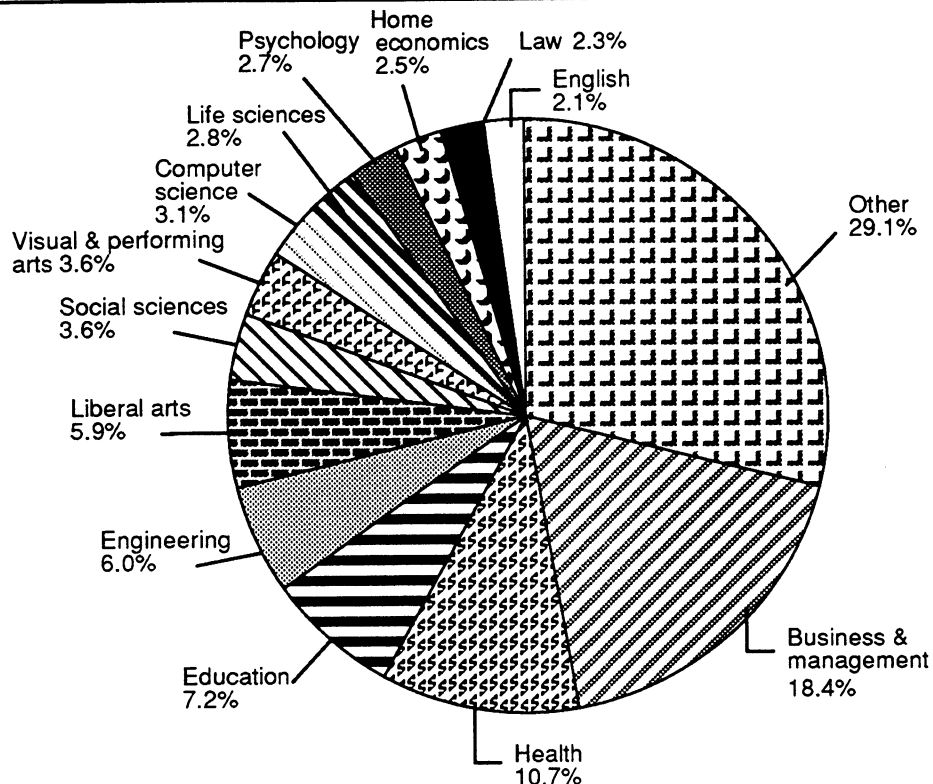
Year	Total	Full-time	Part-time	Men	Women	Undergrads ¹	Graduates ¹
1989	13,538,560	7,660,950	5,877,610	6,190,015	7,348,545	11,743,000	1,522,000
1990	13,818,637	7,820,985	5,997,652	6,283,909	7,534,728	11,959,000	1,586,000
1991	14,358,953	8,115,329	6,243,624	6,501,844	7,857,109	12,439,000	1,639,000
1992 ²	14,491,226	8,165,318	6,325,908	6,526,089	7,965,137	12,540,000	1,670,000

¹ Because of rounding, figures may not add to the totals shown.

² Preliminary data.

Source: U.S. Department of Education (DOE), National Center for Education Statistics (NCES), *Digest of Education Statistics 1994*, 30th ed. (Washington, DC: NCES, 1994), p. 176.

Figure 2
Enrollment in U.S. institutions of higher education, by major field of study, fall 1989



Source: U.S. Department of Education (DOE), National Center for Education Statistics (NCES), *Digest of Education Statistics 1994*, 30th ed. (Washington, DC: NCES, 1994), p. 214.

FOREIGN INDUSTRY PROFILES

France

Industry Structure and Size

The Ministry for Higher Education coordinates the French system of higher education. In 1990, higher education institutions included 72 universities, 300 grandes écoles,³⁸ and 68 two-year colleges, the latter of which are also called Instituts universitaires de technologie (IUTs).³⁹ The universities offer education in the widest variety of disciplines, whereas the more selective grandes écoles train students primarily in professions such as engineering, business, economics, and teaching. The two-year colleges provide instruction in technology and business administration.

³⁸ Grandes écoles offer courses which prepare students for managerial positions in industry, commerce, and administration.

³⁹ Dr. Brigitte Mohr, ed., *Higher Education in the European Community, A Directory of Courses and Institutions in Twelve Countries*, 6th edition (Luxembourg: Commission of the European Community (CEC), 1990), pp. 109, 235, and 417.

In 1991, the teaching staff in universities⁴⁰ totalled 50,331 teachers.⁴¹ This resulted in a student-teacher ratio of approximately 24:1 in universities, significantly higher than the U.S. ratio of 16:1.

Student Enrollment

In 1991, domestic enrollment in all French higher education institutions numbered 1.7 million students.⁴² Foreign enrollment reached 139,863 students, accounting for approximately 8 percent of total enrollment.

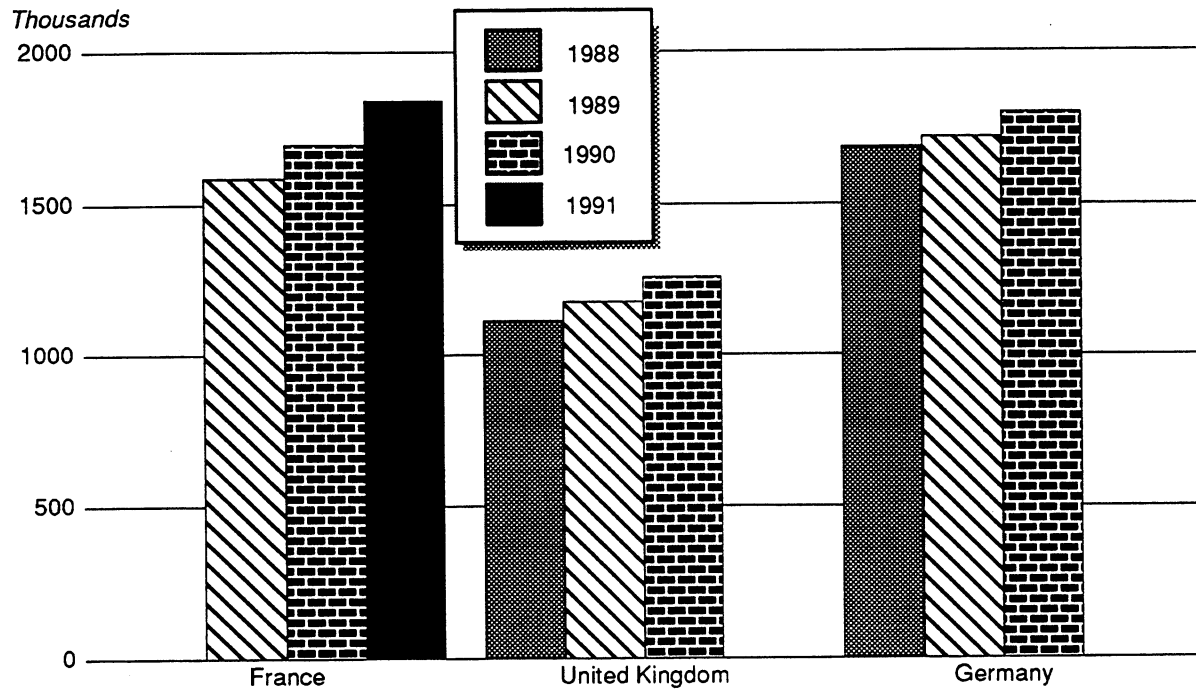
Total higher education enrollment in France grew by approximately 16 percent during 1989-91 (figure 3). Foreign student enrollment decreased by 5 percent during the 1989/90 school year, but grew by approximately 3 percent during the 1990/91 school year (figure 4).

⁴⁰ Data pertaining to total teaching staff for grandes écoles and IUTs are not available.

⁴¹ United Nations Educational, Scientific, and Cultural Organization (UNESCO), *Statistical Yearbook 1993* (Paris: UNESCO, 1993), p. 268.

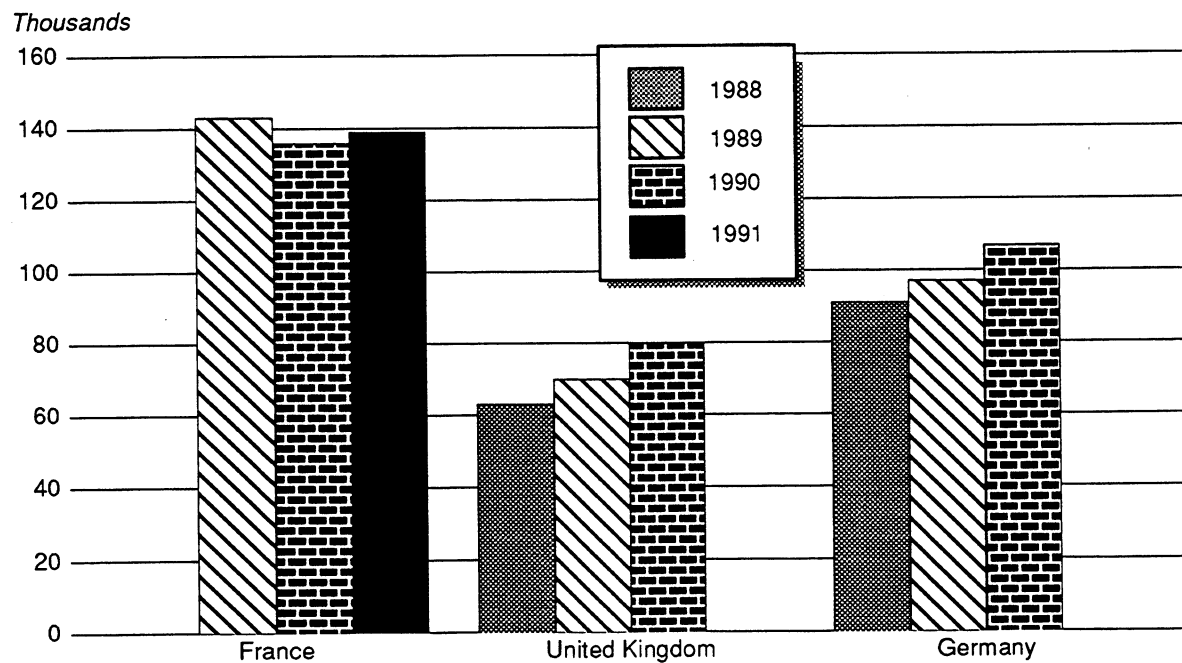
⁴² Ibid.

Figure 3
Total enrollment in institutions of higher education in France (1989 to 1991), the United Kingdom (1988 to 1990), and Germany (1988 to 1990)



Source: United Nations Educational, Scientific, and Cultural Organization (UNESCO), *Statistical Yearbook 1993* (Paris: UNESCO, 1993), pp. 268, 336.

Figure 4
Foreign enrollment in institutions of higher education in France (1989 to 1991), the United Kingdom (1988 to 1990), and Germany (1988 to 1990)



Source: United Nations Educational, Scientific, and Cultural Organization (UNESCO), *Statistical Yearbook 1993* (Paris: UNESCO, 1993), pp. 268, 336.

Competitiveness Relative to the United States

Price

French education is available at little cost to the student, domestic or foreign.⁴³ Administrative registration involves the payment of small fees. In the 1988/89 school year, such fees amounted to approximately 450 francs,⁴⁴ or \$70 to \$75.⁴⁵ Low fees attract many foreign students to France, especially students from poorer countries.

In January 1987, the Centre National des Oeuvres Universitaires (CNOUS) estimated cost-of-living rates for all students in Paris at between 3,000 and 4,600 francs per month,⁴⁶ or \$500 to \$770.⁴⁷ Foreign students reportedly need an amount that is somewhat above this range. Housing for students ranged between 700 and 2,000 francs per month,⁴⁸ or \$115 to \$335, depending on whether the student lived in a residence hall or off campus.

Tastes and Preferences

Foreign students' demand for French education is principally rooted in their home countries' historical ties to France. France has strong import and export relations and, in certain cases, a common language with its former colonies in Africa. During the 1992/93 school year, 38 percent of African students attending college outside Africa matriculated in French institutions.⁴⁹ For instance, France received 71 percent of Morocco's overseas students, and 80 percent of Algeria's overseas students.⁵⁰ Certain countries' primary and secondary education systems are designed to enable the best students to attend French universities.⁵¹

Overall, the United States and France do not export education services to the same markets. However, Germany, Greece, Italy, and Spain send students to the United States and France in comparable numbers.⁵²

⁴³ American Council on Education (ACE), *Foreign Students and Institutional Policy, Towards An Agenda For Action* (Washington, DC: ACE, 1982), p. 18.

⁴⁴ CEC, *Higher Education in the EC*, p. 231.

⁴⁵ Dollar amounts have been calculated at the 1988-89 exchange rate of approximately 6.0-6.4 FF: \$1, International Monetary Fund (IMF), *International Financial Statistics* (Washington, DC: IMF, 1994), p. 234.

⁴⁶ CEC, *Higher Education in the EC*, p. 231.

⁴⁷ Dollar amounts have been calculated at the 1987 exchange rate of 6.0 FF: \$1, IMF, *International Financial Statistics*, p. 234.

⁴⁸ CEC, *Higher Education in the EC*, p. 231.

⁴⁹ IIE, *Open Doors 1992/1993*, p. 5.

⁵⁰ *Ibid.*

⁵¹ ACE, *Foreign Students and Institutional Policy*, p. 18.

⁵² IIE, *Open Doors 1992/1993*, p. 4.

Government Policies and Programs for Higher Education

France also participates in the Fulbright Program, contributing to international educational exchanges. In addition, French embassies confer various scholarships for study and grants for periods of practical training to foreign students.⁵³ Applicants who receive embassy scholarships are exempt from fees.

The French Government maintains control of incoming foreign students through the admissions process. In 1979, France began to regulate incoming foreign students through the creation of a single commission that required French language examinations, proof of pre-registration, and sufficient living expenses.⁵⁴ In addition, there are quantitative limitations on admission of foreign students in French medical and dental universities, and grandes écoles.⁵⁵ The number of foreign students admitted in medical and dental universities cannot exceed 5 percent of total French students. The grandes écoles admit foreign students according to a variable quota defined each year by the Ministry of Education.

United Kingdom

Industry Structure and Size

The higher education system in the United Kingdom (UK) consists of several different types of institutions. In 1990, there were 46 universities, 30 polytechnics, 4 postgraduate institutions, a distance-learning university, and various other colleges of higher education.⁵⁶ The distance-learning university, named the Open University, offers correspondence courses and degrees through the mail to students located outside the United Kingdom. In 1992, the polytechnics became degree-granting universities.⁵⁷ In 1994, the British system introduced two-year associate degrees offered by Colleges of Further Education. The recent additions have intensified competition for students who enjoy more alternatives with respect to institutions of higher education.⁵⁸

In 1990, the total teaching staff in universities and other higher education institutions numbered 79,300 teachers, yielding a student-teacher ratio of 16:1,⁵⁹ the same ratio found in the United States.

⁵³ CEC, *Higher Education in the EC*, p. 232.

⁵⁴ ACE, *Foreign Students and Institutional Policy*, p. 19.

⁵⁵ CEC, *Higher Education in the EC*, pp. 228-229.

⁵⁶ *Ibid.*, p. 406.

⁵⁷ Representative of U.S. higher education industry, interview by USITC staff, Fayetteville, AR, Nov. 3, 1994.

⁵⁸ *Ibid.*

⁵⁹ UNESCO, *Statistical Yearbook 1993*, p. 273.

Student Enrollment

In 1990, domestic enrollment in British higher education institutions reached 1.2 million students.⁶⁰ Foreign student enrollment in British institutions numbered 80,183 students, accounting for approximately 6 percent of total enrollment.

Total enrollment in British institutions of higher education grew by 13 percent during 1988-90 (figure 3). Enrollment by foreign students increased more rapidly, posting 27-percent growth during 1988-90 (figure 4).

Competitiveness Relative to the United States

Price

Price is the principal factor affecting foreign demand for higher education in the United Kingdom. In 1994, postgraduate⁶¹ tuition fees for non-EU overseas students ranged from 6,000 to 14,000 pounds,⁶² or approximately \$9,000 to \$21,000.⁶³ In contrast, the minimum post-graduate tuition fees for European Union (EU) students were less than 3,000 pounds, or \$4,500. The premiums charged to students from outside the EU make the United Kingdom's higher education system less attractive internationally. Such tuition fees are higher than those found on average in the U.S. higher education system.

In 1989, cost-of-living and all other expenses, excluding tuition, required approximately 4,800 to 5,500 pounds per year,⁶⁴ or \$7,680 to \$8,800.⁶⁵ Students in the United Kingdom can arrange for accommodations in a residence hall during the application process or seek private accommodations.

Tastes and Preferences

Another important factor influencing demand for British higher education is student preference, which is strongest in former colonies and other European countries. In 1992, Malaysia, Hong Kong, and Germany, the three largest importers of British education services, accounted for 23 percent of foreign students in the United Kingdom.⁶⁶ Each of these

countries maintains strong diplomatic, economic, and cultural ties with the United Kingdom. However, students from Malaysia and Hong Kong prefer the United States over the United Kingdom at a ratio of almost 2:1,⁶⁷ and Germany sent 24 percent more of its overseas students to the United States than to the United Kingdom. High British tuition fees are the primary reason for the U.S. advantage.⁶⁸

Government Policies and Programs for Higher Education

The United Kingdom also participates in the Fulbright Program. In addition, the Foreign and Commonwealth Office Scholarships and Awards Scheme operates in 140 countries and sponsors foreign students for study in the United Kingdom. Further, the government-funded Overseas Research Students Awards Scheme encourages foreign students of high ability to attend British universities. Foreign students are eligible for other scholarships such as the British Council Fellowships, the Commonwealth Scholarship and Fellowship Plan, the Marshall Scholarships, the Rhodes Scholarships, the Churchill Scholarships, and the Confederation of British Industry Scholarships.⁶⁹

In 1980, public opposition to subsidizing the education of foreign students led the British Government to increase gradually the education fees charged to foreign students. Consequently, new foreign enrollment dropped by 11 percent at universities and by 29 percent at polytechnics that year.⁷⁰ The Universities Central Council on Admissions reported that overall foreign student applications declined by 43 percent during the 1979/80 school year.⁷¹ Since then, however, gradually rising premiums charged to foreign students have not resulted in dramatic reductions in foreign attendance.

Federal Republic of Germany

Industry Structure and Size

Individual states establish higher education institutions in Germany. However, the federal government has established general principles and guidelines for higher education. There are approximately 300 institutions of higher education in

⁶⁰ Ibid.

⁶¹ Tuition fees for higher education institutions at the undergraduate level have yet to be announced.

⁶² British Council, *Tuition Fees and the Cost of Living Fact Sheet 1993/1994* (Washington, DC: British Council, 1994), pp. 3-4.

⁶³ Dollar amounts have been calculated at the 1994 exchange rate of .67 pounds: \$1, IMF, *International Financial Statistics*, p. 561.

⁶⁴ CEC, *Higher Education in the EC*, p. 417.

⁶⁵ Dollar amounts have been calculated at the 1989 exchange rate of .67 pounds: \$1, IMF, *International Financial Statistics*, p. 560.

⁶⁶ This figure does not include private sector enrollments. IIE, *Open Doors 1992/1993*, p. 7.

⁶⁷ Ibid.

⁶⁸ Representatives of the U.S. higher education industry, telephone interview by USITC staff, Washington, DC, Oct. 17, 1994.

⁶⁹ A. Prail and P.J. Denly, *Education in Britain* (Washington, DC: British Foreign and Commonwealth Office (BFCO), 1994), p. 42.

⁷⁰ ACE, *Foreign Students and Institutional Policy*, p. 20.

⁷¹ Ibid.

Germany:⁷² universities and equivalent technical institutions; colleges of education, art, and music; distance-learning institutions; and Fachhochschulen.⁷³ Most students matriculate in the universities.

In 1990, the total teaching staff in universities and other higher education institutions reached 163,140. This yields a student-teacher ratio of approximately 11:1,⁷⁴ significantly lower than the corresponding ratio of 16:1 in the United States.

Student Enrollment

In 1990, domestic enrollment in German higher education institutions numbered approximately 1.7 million students.⁷⁵ There were 107,075 foreign students, accounting for 6 percent of the total enrollment.

Total enrollment in German higher education grew by 7 percent during 1988-90 (figure 3). Foreign student enrollment grew by 16 percent during the same period (figure 4), increasing foreign students' share of the population in German institutions of higher learning.

Competitiveness Relative to the United States

Price

Except for some private institutions, foreign students do not have to pay registration fees, tuition, or examination fees at higher education institutions in Germany. There are social and student union fees for all registered students, in the amount of DM 40 to DM 60,⁷⁶ or \$25 to \$37.⁷⁷ The lack of any substantial fees for foreign students' attendance increases the attractiveness of study in Germany.

Students' cost-of-living expenses in Germany vary, but on average, foreign students spent about DM 850 per month,⁷⁸ or \$530 in 1990, the most recent year for which such data are available. Students must find accommodations themselves, which is difficult due to a shortage of student housing. Rent can constitute one-fourth to one-half of living expenses, depending on the type of accommodation.

⁷² German Academic Exchange Service (DAAD), *Studying in Germany, Information for Foreign Students on Universities* (Bonn: DAAD, 1991), p. 6.

⁷³ Fachhochschulen offer shorter courses for engineers, economists, agriculturists, social scientists, and artists.

⁷⁴ UNESCO, *Statistical Yearbook 1993*, p. 268.

⁷⁵ Ibid.

⁷⁶ CEC, *Higher Education in the EC*, p. 102.

⁷⁷ Dollar amounts have been calculated at the 1990 exchange rate of 1.6 DM: \$1, IMF, *International Financial Statistics*, p. 246.

⁷⁸ CEC, *Higher Education in the EC*, p. 109.

Tastes and Preferences

In 1989, Turkey, Iran, and Greece accounted for 13 percent, 11 percent, and 7 percent, respectively, of Germany's foreign students.⁷⁹ For Turkey and Greece, this is likely due to geographic proximity and economic ties established by Germany's post-World War II "guest worker" program. Many Turkish and Greek citizens desire to remain in Germany to obtain employment after study.

Government Policies and Programs for Higher Education

Besides participation in the Fulbright Program, other possible aid to foreign students is available from the extensive scholarship program entitled the German Academic Exchange Service (DAAD). DAAD scholarship awards are primarily based on merit, and secondly, on the applicant's financial circumstances.⁸⁰ Higher education institutions themselves do not provide assistance.

In some courses of study, between 6 and 8 percent of openings are reserved for new foreign students. However, there is an admissions limitation, "numerus clausus," that may restrict admission of foreign students.⁸¹ If the number of foreign applicants exceeds the number of openings reserved for them, the institution employs a selection procedure based on academic criteria. In addition, there are local restrictions that vary by university.

NONTARIFF BARRIERS TO U.S. IMPORTS

The United States Government does not appear to impose any formal restrictions on imports of education services. However, there may be practices among U.S. colleges and universities that impede imports. For instance, industry representatives state that the U.S. Department of Education's regulations pertaining to the Federal Direct Student Loan Program do not specifically state that these loans can be used for study abroad programs. In the absence of language that explicitly permits use of financial assistance for study abroad programs, some financial aid administrators may not have clearance to allow students to use loans for overseas study.⁸² With more consistency and

⁷⁹ IIE, *Open Doors 1992/1993*, p. 7.

⁸⁰ DAAD, *Studying in Germany*, p. 20.

⁸¹ Restrictions apply to courses in the following disciplines: architecture, business administration, biology, forestry, home economics and nutritional sciences, computer science, food chemistry, medicine, pharmacy, psychology, veterinary science, and political economy. CEC, *Higher Education in the EC*, p. 98.

⁸² NAFSA, *Letter from the NAFSA to the U.S. Department of Education*, Oct. 3, 1994.

clarity in DOE's financial assistance regulations, industry representatives maintain that students who use financial aid would be more apt to study abroad.⁸³

In addition, various institutions' credit-transfer policies may impede the use of study abroad programs. Credit-transfer policies vary at the institutional level. Often, each department or program within a university sets its own rules regarding transfer credits. Effectively, students usually must undertake elective courses while abroad, since few programs permit students to take "core" courses at foreign institutions.⁸⁴ For a technical or scientific major such as nursing, it is difficult to find specialized courses or training at the foreign institution that exactly match core courses offered by the home institution. If the credit obtained abroad does not transfer to the home institution, U.S. students may be dissuaded from undertaking foreign study.

NONTARIFF BARRIERS TO U.S. EXPORTS

U.S. Entry and Residence Regulations

There are different types of visas available for students: the F, H, and J nonimmigrant visas. Most foreign students enter the United States on an F visa.⁸⁵ The Immigration and Naturalization Service (INS) is responsible for defining visa categories and promulgating the regulations that govern the entry and activities of nonimmigrants. However, a university's "designated school official" (DSO) is responsible for determining the student's eligibility for a visa, which primarily depends on the Certificate of Eligibility, form I-20. Institutional admissions officers send an I-20 form to prospective students, who then try to obtain a visa from the U.S. Department of State's resident consulate.

Application for such nonimmigrant visas usually requires a personal appearance before a consular officer. Other than the I-20, the student must provide evidence of adequate financial resources, competence in the English language, and residence in a foreign

⁸³ Ibid.

⁸⁴ American Institute for Foreign Study Foundation (AIFS), *Innocents at Home: American Students and Overseas Study* (Washington, DC: AIFS, July 1994), p. 19.

⁸⁵ An F visa is a student visa granted to students who are pursuing a full program of study at a United States academic institution which admits foreign students; who enter the United States for a temporary stay and solely to study; and who have permanent residence in foreign countries from which they do not plan to emigrate. See appendix A, glossary of terms, for a description of other visas.

country from which they do not plan to emigrate.⁸⁶ Visa denial occurs most often when the consular officer believes that an applicant intends to immigrate to the United States.⁸⁷

The rate of denial for a student visa varies from country to country. For instance, a Japanese student has approximately a 99-percent chance of obtaining a visa for study, while Chinese and Indian students have approximately a 20-percent chance of obtaining a visa.⁸⁸ The Chinese Government estimates that fewer than one-fourth of the students that were sent overseas for study returned home.⁸⁹ Other countries that have a high rate of denial for student visas include Pakistan, Bangladesh, Russia, and most countries in Africa.⁹⁰ Some university representatives express concern that because visa eligibility reflects economic circumstances in the student's home country, current policies may discriminate against students from poorer countries, particularly in Africa and Latin America. Countries with stronger economies, including Taiwan and Korea, have greater success in sending students overseas.⁹¹

Institutional Admissions Policies

Without a central education ministry, admissions policies are made at the institutional level in the United States. Each school enrolls foreign students to achieve certain goals. For instance, some institutions enroll foreign students to increase diversity in the student population.⁹² To that end, school administrators admit specified percentages of students from certain countries. If there is a cap on the total number of foreign students at the institutional level, admissions officers must cap individual countries to achieve the desired student population. Such policies may deny admission to foreign students who otherwise meet all explicit requirements for admission.

U.S. IMPORTS

Study Abroad Programs

U.S. students import foreign education through study abroad programs, usually those sponsored by

⁸⁶ Amy Yenkin, ed., *Adviser's Manual of Federal Regulations Affecting Foreign Students and Scholars 1994*, 29th ed. (Washington, DC: NAFSA, 1994), pp. 2-6.

⁸⁷ Ibid.

⁸⁸ Representative of International Advisory Services, telephone interview by USITC staff, Washington, DC, Oct. 13, 1994.

⁸⁹ IIE, *International Investment in Human Capital*, p. 71.

⁹⁰ Representatives of the U.S. higher education industry, interview by USITC staff, Hyannis, MA, Oct. 27, 1994.

⁹¹ Representatives of the U.S. higher education industry, telephone interview by USITC staff, Washington, DC, Oct. 14, 1994.

⁹² Representatives of the U.S. higher education industry, telephone interview by USITC staff, Washington, DC, Oct. 11, 1994.

U.S. institutions. During the 1991/92 school year, 82 percent of the U.S. citizens who studied abroad enrolled in programs sponsored by U.S. institutions, 8 percent directly enrolled in foreign schools, and 10 percent enrolled in programs sponsored by a consortium of domestic and foreign colleges and universities.⁹³

Study abroad programs follow several different models, forming a continuum ranging from prolonged immersion in foreign languages and cultures to relative isolation on campus. Other options include student immersion for brief and supervised periods, student attendance at U.S. branch campuses or extensions that are simply located in foreign countries, and student participation in special projects and independent study in foreign countries.

Each option reportedly has advantages and disadvantages. Total immersion in the foreign language and culture provides a more thorough cultural experience, but requires language proficiency and greater maturity. In contrast, attendance at branch campuses often gives limited access to the foreign language and culture, but provides a typical U.S. environment for students without the required language capability.

Import Levels and Trends

Less than 1 percent of all U.S. students choose to earn a degree from foreign institutions of higher education.⁹⁴ Import penetration has remained consistently below 1 percent since efforts to track study abroad began in 1985. Seventy-eight percent of U.S. students abroad study for only one semester, summer, or quarter.⁹⁵

During the 1991/92 school year, 71,154 U.S. students studied abroad, an increase of approximately 14 percent over the 1987/88 school year level of 62,341 students.⁹⁶ In 1993, U.S. students studying abroad imported approximately \$764 million⁹⁷ in education services.⁹⁸ This amounted to less than 1 percent of total imports of private services. Since 1989, U.S. imports have increased at an average annual rate of 7 percent, from \$586 million.

⁹³ IIE, *Open Doors 1992/1993*, p. 87.

⁹⁴ AIFS, *Innocents at Home*, p. 1.

⁹⁵ IIE, *Open Doors 1992/1993*, p. 90.

⁹⁶ *Ibid.*, p. 87.

⁹⁷ BEA, *Survey of Current Business*, p. 101.

⁹⁸ BEA records education services imports as estimated tuition and living expenses of U.S. residents who study abroad. U.S. residents must receive credit from accredited U.S. institutions to be included in trade data; those who do not receive academic credit or who study on a more casual basis are not included.

Principal Foreign Suppliers

As noted, the principal foreign suppliers of education services to U.S. students are European colleges and universities. Of all U.S. students going abroad during the 1991/92 school year, 71 percent studied in Europe.⁹⁹ During the 1991/92 school year, the United Kingdom, France, Spain, and Italy supplied 52 percent of education services to the United States (figure 5 and table 8). This stems from the relative popularity of European languages.

Latin America was the second largest host to U.S. students, accounting for 12 percent of students.¹⁰⁰ Mexico registered an increase in its share between the 1989/90 school year and the 1991/92 school year. Overall, since the 1985/86 school year, the share of U.S. students in Europe has fallen by 10 percent, while the share in Latin America has risen by 5 percent.¹⁰¹

U.S. Importers

U.S. students import foreign education primarily for personal and professional enrichment.¹⁰² Students often cite the cultural experience associated with study in a foreign country, the novelty of such an opportunity, and travel opportunities as personal reasons to study abroad. In addition, students perceive foreign travel and study as appealing to potential employers.

U.S. students in study abroad programs are different from foreign students in the United States with respect to demographics and academic pursuits.¹⁰³ In the 1991/92 school year, approximately 63 percent of U.S. students abroad were female.¹⁰⁴ Ninety-two percent of U.S. students abroad were enrolled at the undergraduate level.¹⁰⁵ U.S. students abroad tend to study humanities, liberal arts, social sciences, and foreign languages (figure 6).

FOREIGN MARKETS

Export Levels and Trends

As noted, the United States exports more education services than any other country. During the 1993/94 school year, 449,749 foreign students studied in the United States.¹⁰⁶ In terms of value, U.S. exports¹⁰⁷ of

⁹⁹ IIE, *Open Doors 1992/1993*, p. 87.

¹⁰⁰ *Ibid.*

¹⁰¹ *Ibid.*, p. 88.

¹⁰² Representatives of the U.S. higher education industry, telephone interviews by USITC staff, Washington, DC, Oct. 17-19, 1994.

¹⁰³ See "Foreign Students" for a description of the characteristics of foreign students studying in the United States.

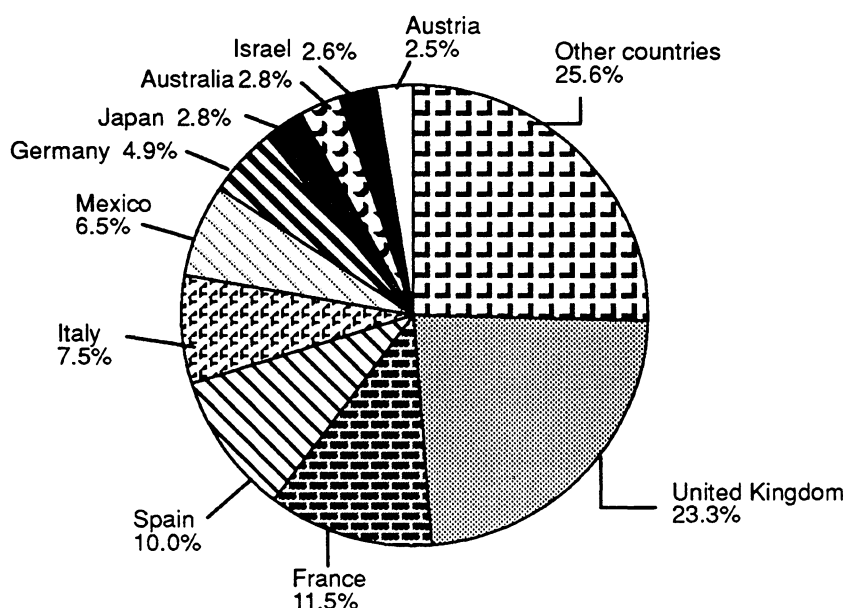
¹⁰⁴ IIE, *Open Doors 1992/1993*, p. 90.

¹⁰⁵ *Ibid.*

¹⁰⁶ IIE, *Open Doors 1993/1994*, p. vii.

¹⁰⁷ BEA records as exports estimated expenditures for tuition and living expenses by foreign residents enrolled in U.S. colleges and universities.

Figure 5
Leading host countries of U.S. study abroad students, the 1991/92 school year



Source: Marianthi Zikopoulos, ed., *Open Doors 1992/1993: Report on International Education Exchange* (New York, NY: Institute of International Education (IIE), 1993), p. 88.

Table 8
Leading host countries of U.S. study abroad students, the 1987/88 school year to the 1991/92 school year

(Percent of U.S. students abroad)

Host country	1987/88	1989/90	1991/92
United Kingdom	28.5	27.0	23.3
France	12.0	12.8	11.5
Spain	7.9	10.4	10.0
Italy	7.7	8.4	7.5
Mexico	5.3	5.0	6.5
Germany	5.0	4.7	4.9
Japan	2.2	2.1	2.8
Australia	1.0	1.6	2.8
Israel	3.5	2.6	2.6
Austria	3.1	3.0	2.5
Other countries	23.8	22.4	25.6

Source: Marianthi Zikopoulos, ed., *Open Doors 1992/1993: Report on International Educational Exchange* (New York, NY: Institute of International Education (IIE), 1993), p. 88.

education services totalled \$6.8 billion, or approximately 4 percent of total U.S. exports of private services.¹⁰⁸ Since 1989, U.S. exports of education services have increased at an average annual rate of 11 percent.

Principal Export Markets

In the 1993/94 school year, Asia was the largest export market for U.S. education services. Ten percent of foreign students came to the United States each from China and Japan; 8 percent each from Taiwan and

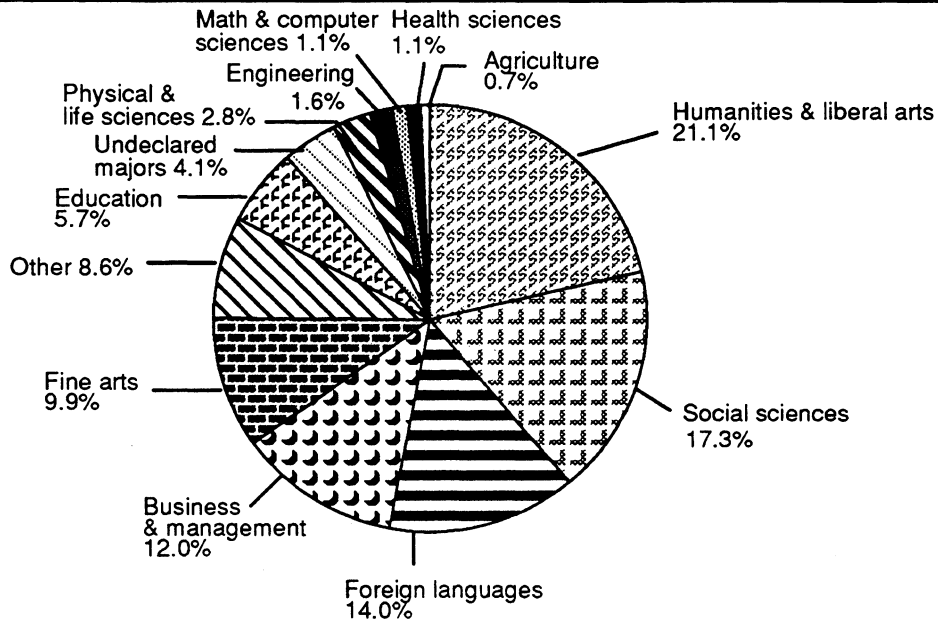
India; and 7 percent from Korea (figure 7).¹⁰⁹ These countries consistently have sent large numbers of students to the United States in each of the five years covered by this summary (table 9). Other major export markets for U.S. education services included Canada, Hong Kong, Malaysia, and Indonesia, each of which have been ranked in the top nine importing countries since the 1989 school year.¹¹⁰ The 1993/94 school year marked the seventh consecutive school year that

¹⁰⁸ BEA, *Survey of Current Business*, p. 136.

¹⁰⁹ IIE, *Open Doors 1993/1994*, p. 36.

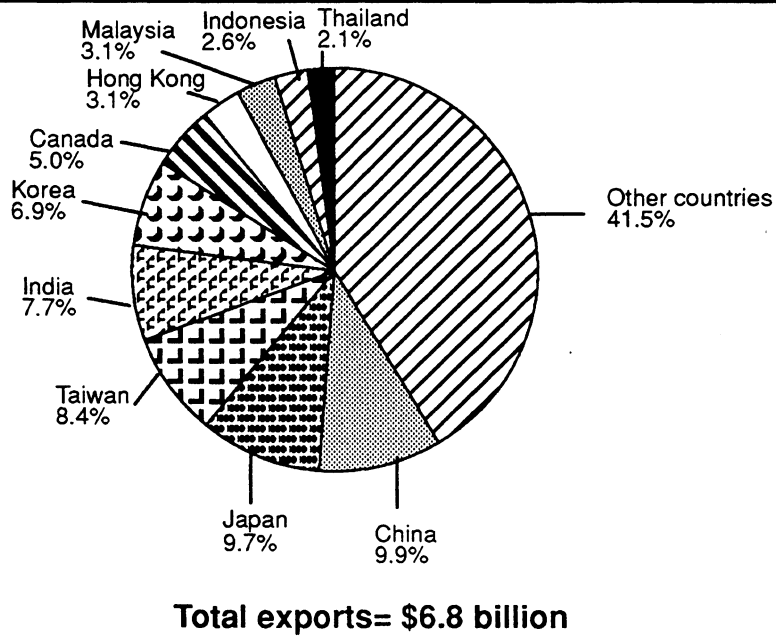
¹¹⁰ *Ibid.*

Figure 6
U.S. study abroad students by field of study, the 1991/92 school year



Source: Marianthi Zikopoulos, ed., *Open Doors 1992/1993: Report on International Education Exchange* (New York, NY: Institute of International Education (IIE), 1993), p. 89.

Figure 7
U.S. education services exports by principal markets, 1993



Source: USITC staff estimates.

Table 9
U.S. education services exports by principal markets, the 1989/90 school year to the 1993/94 school year

1989/90		1991/92		1992/93		1993/94	
Country	Foreign students	Country	Foreign students	Country	Foreign students	Country	Foreign students
China	33,390	China	42,940	China	45,130	China	44,380
Taiwan	30,960	Japan	40,700	Japan	42,840	Japan	43,770
Japan	29,840	Taiwan	35,550	Taiwan	37,430	Taiwan	37,580
India	26,240	India	32,530	India	35,950	India	34,800
Korea, Republic of	21,710	Korea, Republic of	25,720	Korea, Republic of	28,520	Korea, Republic of	31,080
Canada	17,870	Canada	19,190	Canada	20,970	Canada	22,660
Malaysia	14,110	Hong Kong	13,190	Hong Kong	14,020	Hong Kong	13,750
Hong Kong	11,230	Malaysia	12,650	Malaysia	12,660	Malaysia	13,720
Indonesia	9,390	Indonesia	10,250	Indonesia	10,920	Indonesia	11,740
Iran	7,440	Pakistan	7,690	Thailand	8,630	Thailand	9,540
United Kingdom	7,100	Thailand	8,120	Pakistan	8,020	Germany	8,510
Pakistan	7,070	Germany	7,570	Germany	7,880	Mexico	8,020
Germany, F.R.	6,750	United Kingdom	7,470	United Kingdom	7,630	United Kingdom	7,830
Thailand	6,630	Mexico	6,550	Mexico	7,580	Pakistan	7,300
Mexico	6,540	France	5,580	France	5,660	France	5,980

Source: Todd Davis, ed., *Open Doors 1993/1994: Report on International Educational Exchange* (New York, NY: Institute of International Education (IIE), 1994), p. 36.

Asians accounted for more than one-half of the foreign students in the United States. The Asian export market for U.S. education posted growth of 27 percent between the 1989/90 and 1993/94 school years.¹¹¹

Europe is the second largest export market for U.S. education. In the 1993/94 school year, Western Europe accounted for 79 percent of all European students studying in the United States.¹¹² However, Eastern Europe is one of the fastest growing markets as a result of recent political events. Since 1990, enrollment of East European students has almost tripled.¹¹³ Enrollment from Europe as a whole grew at an average annual rate of 8 percent between the 1989/90 and 1993/94 school years.¹¹⁴

Principal Exporters

U.S. institutions export education services in varying amounts, depending on individual institutional characteristics. Foreign students most often choose four-year, public institutions for study in the United

¹¹¹ Ibid., p. 6.
¹¹² Ibid., p. 33.
¹¹³ Ibid., p. 14.
¹¹⁴ Ibid.

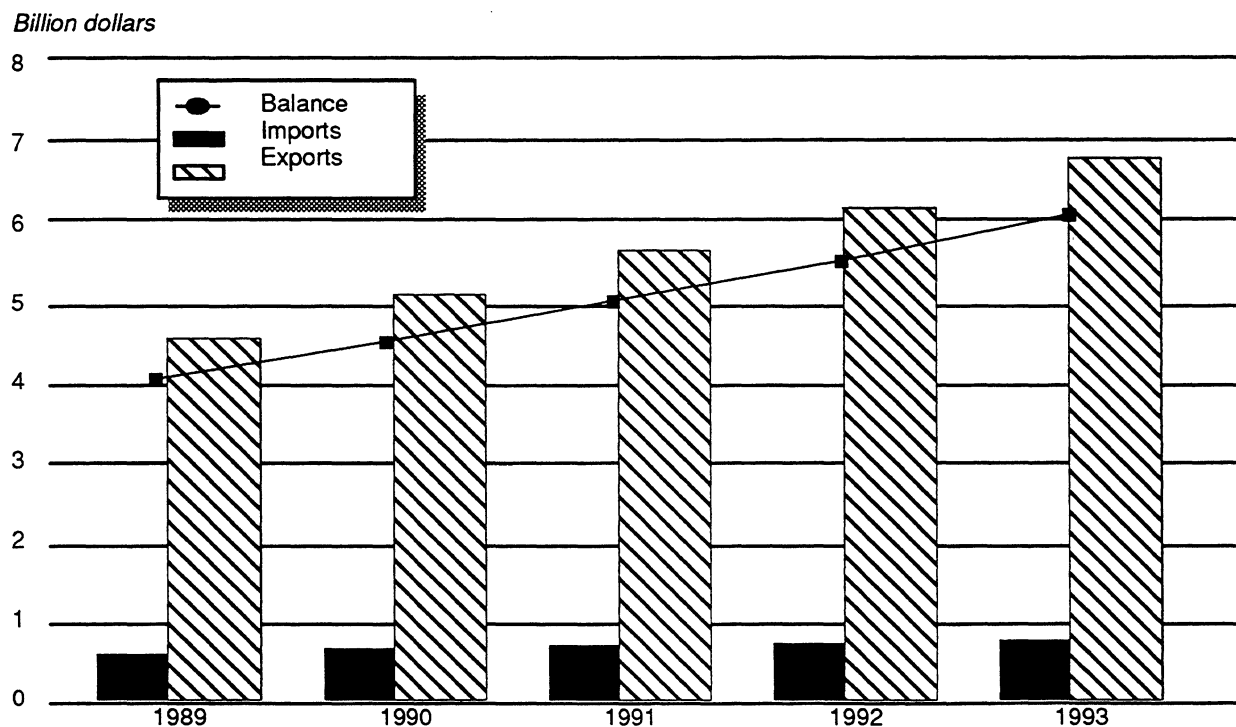
States. Eighty-seven percent of foreign students in the United States opt for a four-year college or university. Sixty-four percent of foreign students attend public institutions, while 36 percent attend private institutions.¹¹⁵ The top ten colleges in terms of enrolling foreign students remain fairly constant when the 1989/90 and 1993/94 school years are compared. Only two of the top 10 in the 1989/90 school year were not among the top 10 during the 1993/94 school year (table 10).

U.S. TRADE BALANCE

In 1993, the U.S. trade surplus in education services was \$6.0 billion, accounting for approximately 10 percent of the total U.S. services trade surplus.¹¹⁶ The trade surplus in education services has grown each year since 1989, when it was \$4.0 billion (figure 8). The education trade surplus is expected to increase as exports, growing at an average annual rate of approximately 11 percent, have increased at a faster pace than imports, growing at an average annual rate of approximately 7 percent since 1989.

¹¹⁵ IIE, *Open Doors 1992/1993*, p. 67.
¹¹⁶ BEA, *Survey of Current Business*, p. 136.

Figure 8
U.S. trade in education services, 1989 to 1993



Source: U.S. Department of Commerce, Bureau of Economic Analysis (BEA), "U.S. International Sales and Purchases of Private Services," *Survey of Current Business*, Sept. 1994, p. 136.

Table 10
Top ten U.S. institutions with most foreign students, the 1989/90 school year to the 1993/94 school year

1989/90		1992/93		1993/94	
Institution	Foreign students	Institution	Foreign students	Institution	Foreign students
Miami-Dade Community College	5,518	University of Texas, Austin	4,152	Boston University	4,547
University of Southern California	3,705	Boston University	4,084	University of Southern California	4,189
University of Texas, Austin	3,568	University of Southern California	4,038	University of Wisconsin, Madison	4,076
University of Wisconsin, Madison	3,295	University of Wisconsin, Madison	4,014	University of Texas, Austin	4,024
Boston University	3,248	New York University	3,531	New York University	3,636
University of California, Los Angeles	3,126	Ohio State University, Main Campus	3,449	Ohio State University, Main Campus ..	3,612
Ohio State University, Main Campus	2,887	Columbia University	3,338	Columbia University	3,585
Columbia University	2,849	University of Pennsylvania	3,248	University of Pennsylvania	3,436
University of Illinois, Urbana-Champaign	2,794	University of Illinois, Urbana-Champaign	3,089	University of Illinois, Urbana-Champaign	3,183
University of Pennsylvania	2,778	Texas A&M University, Main Campus ..	2,956	University of Southern Illinois, Carbondale	2,832

Source: Todd Davis, ed., *Open Doors 1993/1994: Report on International Educational Exchange* (New York, NY: Institute of International Education (IIE), 1994), p. 113.

EFFECTS OF THE NORTH AMERICAN FREE-TRADE AGREEMENT (NAFTA) AND THE GENERAL AGREEMENT ON TRADE IN SERVICES (GATS)

Trade agreements such as GATS and NAFTA are intended to liberalize trade in goods and services. Although direct benefits are limited, each agreement provides indirect benefits to the U.S. higher education industry. As GATS and NAFTA set the stage for larger volumes of trade, student flows worldwide are likely to increase.

NAFTA

U.S. education trade with Canada is not expected to change appreciably as a result of NAFTA. Mexico is expected to become a larger export market for U.S. education services, although at present, only 5 percent of Mexican workers attain an education beyond the secondary level.¹¹⁷ In 1993, the NAFTA signatories introduced the Vancouver Communique,¹¹⁸ an agreement intended to foster educational exchanges and linkages. The Communique called for establish-

¹¹⁷ Alan Adelman, "Exchanges and the North American Free-Trade Agreement," *International Educator*, vol. 1, No. 2 (Fall 1991), p. 31.

¹¹⁸ The International Symposium on Higher Education and Strategic Partnerships: The Challenge of Global Competitiveness From a North American Perspective, *Vancouver Communique*, Vancouver, British Columbia, Sept. 10-13, 1993.

ment of a research network, facilitation of credential recognition, faculty and administrator cooperation, and expansion of student exchange.¹¹⁹ In addition, outside the context of NAFTA, Mexico and the states of Arizona, Texas, and Louisiana have taken steps to increase educational exchanges, such as reciprocal tuition waivers, tuition reductions, and cost-sharing agreements.

GATS

U.S. education exports are not expected to increase as a result of the GATT Agreements. However, the GATS was a major achievement of the GATT Uruguay Round. The GATS is the first multilateral effort to place disciplines on investment and trade in services. As the first step in a long-term liberalization program, GATT members were invited to specify commitments on trade in education services, among other services. The United States' major trading partners made few commitments. India, Korea, Canada, Hong Kong, Malaysia, and Indonesia did not offer commitments regarding education services, thereby reserving the right to maintain or introduce restrictions inconsistent with market access and national treatment for education services. Japan did schedule commitments regarding education services, but these were very narrow in scope and are not expected to affect the exchange of college and university students appreciably. China and Taiwan are not GATT signatories and therefore did not submit binding commitments on education services.

¹¹⁹ Representative of NAFSA, telephone interview by USITC staff, Washington, DC, Dec. 22, 1994.

APPENDIX A
GLOSSARY OF TERMS

GLOSSARY OF TERMS

Designated School Official (DSO)	College and university foreign student advisers allowed to authorize practical training, to effect school transfers, and to approve new degree programs.
Education Services Exports	Estimated expenditures for tuition and living expenses by foreign residents enrolled in U.S. colleges and universities as recorded by the Bureau of Economic Analysis for the balance of payments.
Education Services Imports	Estimated tuition and living expenses of U.S. residents who study abroad as recorded by the Bureau of Economic Analysis for the balance of payments. U.S. residents must receive credit from accredited U.S. institutions to be included in trade data; those who do not receive academic credit or who study on a more casual basis are not included.
F Visa	A student visa granted to bona fide students who satisfy requirements for pursuing a full program of study at a United States academic institution which admits foreign students; who enter the United States for a temporary stay and solely to study; and who have permanent residence in foreign countries from which they do not intend to emigrate.
Higher Education	Study beyond secondary school at an institution that offers programs terminating in an associate, baccalaureate, or higher degree.
H Visa	A temporary visa given to persons of extraordinary ability, workers of distinguished merit and ability, workers performing services unavailable in the United States, and some trainees.
J Visa	A temporary exchange-visitor visa granted by the United States for a variety of educational purposes to students, trainees, teachers, professors, research scholars, international visitors, or professional trainees who are sponsored by an agency or organization approved for sponsorship by the Secretary of State for Exchange Visitors.
Nonimmigrant Visa	A nonimmigrant visa is a stamped or affixed entry on the passport of any alien coming to the United States for a temporary stay that will end when the purpose of travel (e.g., fulfillment of a contract) has been accomplished.
Postsecondary Education	The provision of formal instructional programs with a curriculum designed primarily for students who have completed the requirements for a high school diploma or equivalent. This includes college and university education, vocational training, and continuing professional education, but excludes avocational and adult basic education programs.