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TRENDS

The Value of Education as Trade

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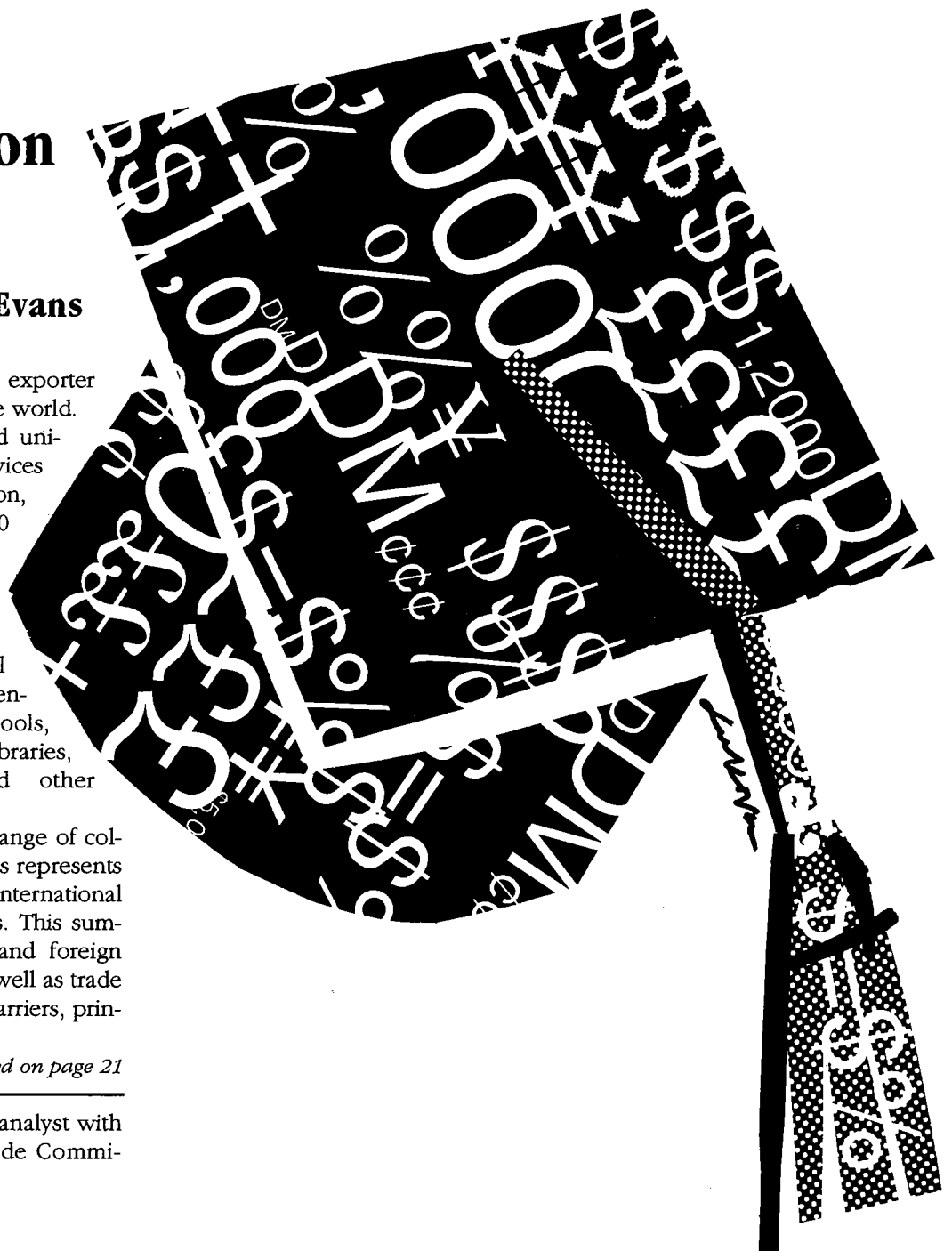
The U.S. is the leading exporter of education services in the world. In 1993, U.S. colleges and universities generated a services trade surplus of \$6.0 billion, which represented about 10 percent of the total U.S. services trade surplus.

The education services industry consists of academic or technical instruction through elementary and secondary schools, colleges and universities, libraries, vocational schools and other schools.

The international exchange of college and university students represents 90 percent or more of international trade in education services. This summary examines the U.S. and foreign industries and markets, as well as trade flows and nontariff trade barriers, principally from 1990 to 1994.

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The Value of Education as Trade

A History

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 U.S. 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.

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 U.S., in part as a result of the Cold War.

U.S. Industry Profile

College and university education, or "higher education," accounts for the largest share of revenues among post-secondary 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.

U.S. colleges and universities numbered 3,632 during the 1993/94 school year. Private four-year institutions, account for 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.

This decline reportedly resulted from enactment of the Higher Education Act of 1992, which made it more difficult for students attending private schools to receive aid.

California, New York, and Pennsylvania have the greatest number of higher education institutions.

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.

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. In addition, students in U.S. institutions can change programs easily, whereas European institutions tend to prepare students for a single career track.

U.S. Government Programs

Federal legislation 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.

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. Since its establishment in 1946, 125,000 students and teachers from abroad have participated.

When a foreign resident needs short-term training or long-term academic study, USAID sponsors the individual as a student in the U.S. During the 1992/93 school year, USAID sponsored 14,382 participants. Thirty-nine percent were enrolled in academic programs at U.S. colleges and universities, and 61 percent received technical training. The cost varies by institution and pro-

gram, averaging approximately \$20,000 to \$25,000 per year for tuition, a stipend, health insurance, and books.

Factors that Affect Demand

•Price

The price of higher education principally includes tuition, miscellaneous fees, and living expenses. The U.S. Department of Education has estimated that in the 1993-94 school year, in-state undergraduates who live on campus spent \$7,918. For out-of-state and foreign students, tuition and fees were higher, averaging \$10,323.

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.

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.

•Tastes and Preferences

Foreign citizens reportedly choose to study in the U.S. 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.

Consumer Characteristics

•U.S. Students

Domestic students account for 91 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. During the school years 1989/90 to 1993/94, domestic enrollment increased by approximately 4.5 percent.

Most full-time students are between the ages of 18 and 24. In contrast most part-time students tend to be 25 and older. Attendance status and gender are split almost evenly between full-time and part-time, and male and female. The overwhelming majority of students in the U.S. are studying at the undergraduate level, rather than at the graduate level.

The most popular disciplines taught in the U.S. include: business and management, health sciences, education, engineering, and liberal arts. Business and management attract the largest group of students, accounting for 18 percent of total enrollment.

•Foreign Students

As noted the U.S. hosts more foreign students than any other country in the world, accounting for nearly one-third of the global industry's total. During the 1993/94 school year, there were 449,749 foreign students in U.S. colleges and universities, accounting for three percent of total U.S. enrollment.

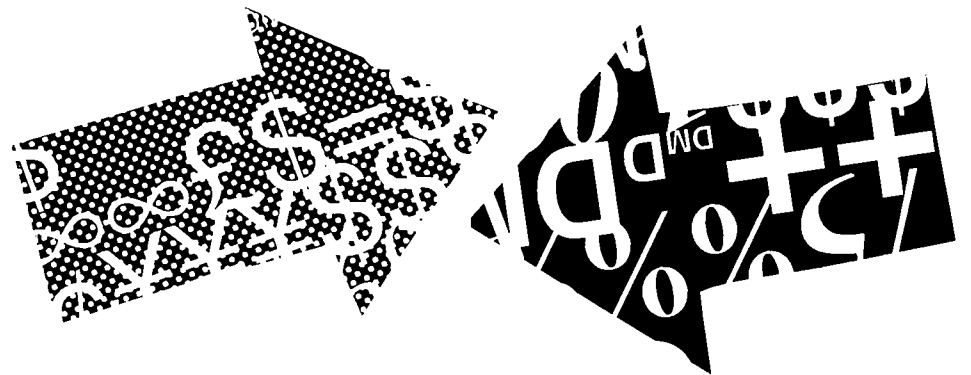
During 1989-93, foreign student enrollment grew at rates ranging between 3 and 6 percent per annum.

Foreign student characteristics generally differ from those of U.S. students. The gender mix of foreign students is uneven; 62 percent are male and 32 percent are female. Level of study is very different from that in the U.S. as a whole, with 47.5 percent of foreign students studying at the undergraduate level, and 44.7 percent studying at the graduate level.

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. 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. For mathematics, physical sciences, and life sciences, foreign students received



53 percent, 43 percent, and 32 percent, respectively, of U.S. doctoral degrees.

Foreign Industry Profiles

Other major exporters include France, the United Kingdom, and Germany. 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.

•France

In 1990, France had 72 universities, 300 *grandes écoles*, and 68 two-year colleges, also known as *Instituts universitaires de technologie (IUTs)*. In 1991, the teaching staff in universities totaled 50,331 teachers, resulting in a student-teacher ratio of approximately 24:1 in universities, significantly higher than the U.S. ratio of 16:1.

Domestic enrollment in 1991 in all French higher education institutions

numbered 1.7 million students. Foreign enrollment reached 139,863 students, or about 8 percent of total enrollment.

French education is available at little cost to the student, domestic or foreign. Foreign students' demand for French education is principally rooted in their home countries' historical ties to France. During the 1992/93 school year, 38 percent of African students attending college outside Africa matriculated in French institutions.

Overall, the U.S. and France do not export education services to the same markets. 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 funds for living expenses.

•United Kingdom

The higher education system consists of several different types of institutions. In 1990 there were 46 universities, 30 polytechnics, four postgraduate institutions, a distance-learning university and various other colleges of higher education. In 1992, the polytechnics became degree-granting universities. In 1994, two-year associate degrees offered by Colleges of Further Education were introduced.

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, the same as found in the U.S.. In 1990 domestic enrollment reached 1.2 million students. Foreign student enrollment numbered 80,183 students, accounting for approximately 6 percent of total enrollment.

Price is the principal factor affect-

ing foreign demand for higher education in the U.K. In 1994, postgraduate tuition fees for non-European Union (EU) overseas students ranged from 6,000 to 14,000 pounds, or about \$9,000 to \$21,000. The premiums charged to students from outside of the EU make the U.K.'s higher education system less attractive internationally. In 1989, cost-of-living and all other expenses, excluding tuition, required approximately 4,800 to 5,500 pounds per year, or \$7,680 to \$8,800.

Demand for British higher education 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 U.K.

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.

•Federal Republic of Germany

There are approximately 300 institutions of higher education in Germany: universities and equivalent technical institutions; colleges of education, art and music; distance-learning institutions; and *Fachhochschulen*. Most students matriculate in 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, significantly lower than the corresponding ratio of 16:1 in the U.S.

In 1990, domestic enrollment numbered approximately 1.7 million students. 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. Foreign student enrollment grew by 16 percent during the same period.

Except for some private institutions, foreign students do not have to pay registration fees, tuition, or examination fees at higher education institu-

tions. There are social and student union fees for all registered students, in the amount of DM40 to DM60, or \$25 to \$37. 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 DM530 per month, or \$530 in 1990, the most



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recent year for which data are available.

In 1989, Turkey, Iran and Greece accounted for 13 percent, 11 percent, and 7 percent, respectively, of Germany's foreign students.

Scholarships are available to foreign students through the German Academic Exchange Service (DAAD). Higher education institutions themselves do not provide assistance.

However, there is an admissions limitation, "numerus clausus," that may restrict admission of foreign students.

NonTarrif Barriers to U.S. Exports

There are different types of visas available for students: the F, H, and J nonimmigrant visas. Most foreign stu-

dents enter the U.S. on an F visa. 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, students must provide evidence of adequate financial resources, competence in the English language, and residence in a foreign country from which they do not plan to emigrate. Visa denial occurs most often when the consular officer believes that an applicant intends to immigrate to the U.S.

The rate of denial for a student visa varies from country to country. For example, 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. The Chinese government estimates that fewer than one-fourth of the students who were sent overseas for study returned home. Other countries that have a high rate of denial for student visas include Pakistan, Bangladesh, Russia, and most countries in Africa.

Institutional Admissions Policies

Without a central education ministry, admissions policies are made at the institutional level in the U.S. Each school enrolls foreign students to achieve certain goals. For instance, some institutions enroll foreign students to increase diversity in the student population. 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 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.

Import Levels and Trends

Less than 1 percent of all U.S. students choose to earn a degree from foreign institutions of higher education. Seventy-eight percent of U.S. students abroad study for only one semester, summer, or quarter.

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. In 1993, U.S. students studying abroad imported approximately \$764 million in education services. This amounted to less than 1 percent of total imports of private services.

Of all U.S. students going abroad during the 1991/92 school year, 71 percent studied in Europe. During the 1991/92 school year, the United Kingdom, France, Spain and Italy supplied 52 percent of education services to the United States.

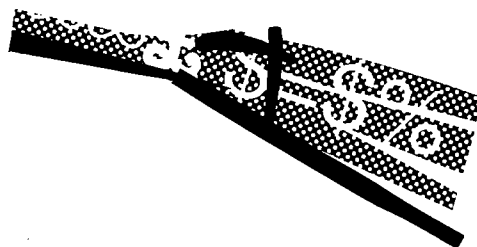
Latin America was the second largest host to U.S. students, accounting for 12 percent of students. Mexico registered an increase in its share between the 1989/90 school year and the 1991/92 school year. Overall, since

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.

U.S. students abroad tend to study humanities, liberal arts, social sciences, and foreign languages.

Export Levels and Trends

During the 1993/94 school year, 449,749 foreign students studied in the U.S. In terms of value, U.S. exports of education services totaled \$6.8 billion, or approximately four percent of total



U.S. exports of private services. 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 U.S. each from China and Japan; 8 percent each from Taiwan and India; and 7 percent from Korea. These countries consistently have sent large numbers of students to the U.S. in each of the five years covered by the summary. 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.

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

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 U.S. 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. Enrollment from Europe as a whole grew at an average annual rate of 8 percent between the 1989/90 and 1993/94 school years.

Principal Exporters

Eighty-seven percent of foreign students in the U.S. opt for a four-year college or university. Sixty-four percent attend public institutions, while 36 percent attend private institutions. 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.

U.S. Trade Balance

The trade surplus in education services has grown each year since 1989, when it was \$4.0 billion. 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.

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 culture, languages, and lifestyles. This knowledge will facilitate the conduct of business in foreign markets.

This is a synopsis of the U.S. International Trade Commissions publication 2920, an Industry & Trade Summary of Education Services covering the period 1990 through 1994.