



BUYING THE **AMERICAN MIND**

**Japan's Quest For U.S. Ideas
In Science, Economic Policy
And The Schools**



Stephanie Epstein

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1910 K Street N.W., Suite 802

Washington, DC 20006

(202) 223-0299

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They say that knowledge is power. I used to think so,
but I now know that they mean money.

Lord Byron

Stephanie Epstein is a **freelance** writer and editor who specializes in topics related to **U. S.** economic policy. She has been a policy consultant on projects for the Department of Defense, the Department of **Labor**, the Congressional Economic Leadership Institute, and several major U.S. corporations. Epstein is the coauthor of *Intellectual Property at Crossroads* (1990) and the editor of *American Assets: An Examination of Foreign Direct Investment in the United States* (1988). She holds an **A.B.** in history and political science from Duke University and is an **M.B.A.** candidate at the **Wharton** School at the University of Pennsylvania.

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Daniel Ikenson researched and helped draft the final section of the study. Ikenson is a 1986 graduate of **Susquehanna University**, where he received a B. A. in political science. In addition to his work with the Center, Ikenson is a trade policy research analyst with a Washington law **firm** and is pursuing a master's degree in economics at George Washington University.

Christine Stavem holds a journalism degree from the University of Arizona. As the Center's Senior Associate, she is the principal researcher for a 1992 study that will examine military restrictions on **U.S.** media coverage.

Janice Forry received a B. A. in foreign studies and communications from The American University in 1990. From 1990 to **mid-1991**, **she** has worked on issues related to the domestic savings and loan crisis as a Research Assistant at the Center. She is currently teaching English in Czechoslovakia.

Sandra Litsinger graduated from **Tulane** University in **1991**, where she received a B. A. in **history**. Since that time, **she** has worked as a freelance writer and as a Research Assistant at the Center.

Bill Hogan, who edited this **study**, is currently a managing editor of the *National Journal*. An award-winning investigative journalist, Hogan formerly was the Senior Editor of **Regardie's** magazine.

Charles Lewis is the founder and Executive Director of the Center for Public Integrity. For 11 years, he did investigative reporting at ABC News and CBS News, most recently as a producer for the program, "**60 Minutes**."

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OVERVIEW

In recent years, the American media have given considerable attention to Japan's substantial economic presence in the **United States**. Some reports have scrutinized Japan's sales of Toyotas and Hondas, its acquisition of film studios and prime real estate, its investments in Treasury bills or securities firms. Other reports have examined Japanese maneuvering in the American political system. But relatively little notice has been given to another striking **phenomenon**: **Japan's** quest for **American ideas**, whether to exploit them or to influence them.

The Japanese clearly are willing to spend sizable sums for this acquisition of the American mind. Calculations of publicly reported funding indicate that over the past decade, Japanese interests have poured more than \$4.5 billion into U.S. scientific, educational and economic policy endeavors. These funds have been used to buy **into** U.S. university research on advanced technologies with significant commercial or military potential. They have been used to hire away leading American scientists. They have been used to sway grassroots opinion, develop educational materials for American schools, and help finance think tanks whose policy studies are generally to Japan's liking.

For their money, the Japanese get the obvious benefits, including direct access to university science findings, influence over what some U.S. students learn about Japan, and distribution of public policy views that coincide with their own.

For example, the General Accounting Office, **Congress' watchdog arm**, reports that the Japanese have achieved several industrial breakthroughs as a result of their participation in U.S. university research. The GAO found in 1989 that such U.S. ties enabled Toyota to devise new stress sensors for its autos, Asahi Chemical to computerize its manufacturing processes, and Toshiba to develop new ways of recording images on computerized disks.

In effect, **U.S.** taxpayers have been helping to subsidize these Japanese companies, since much of the **scientific** work at U.S. universities is funded by Washington. At the Massachusetts Institute of Technology, for example, 57 Japanese companies pay total annual fees of \$2.6 million to learn about MIT advances in emerging technologies through the **university's Industrial Liaison Program**. But the federal government spends more than \$400 million a year to support MIT research.

The prospect of gaining Japanese money **also** has had its effect on what some Americans say or think about **Japan**. When U.S. Secretary of Education **Lamar Alexander** was Governor of Tennessee, for example, he wrote a book called *Friends: Japanese and Tennesseans*, explaining that states could lure Japanese investment if they "**learned** [their] Japanese **manners**." His first piece of advice to other state officials: "**Never** mention the **war**."

An examination of textbooks written in Japan and circulated here suggests that Secretary **Alexander's** advice about World War II may be heeded by some of those teaching U.S. students. One such textbook, on Japanese **history**, **omits any mention of Japan's** attack on Pearl Harbor. Another characterizes Japan's bloody invasion of Manchuria in 1932 as simply the "creation of the state of **Manchuria**."

Japanese investments in American think tanks, meanwhile, help spread views favored by Tokyo in U.S. policy debates. This is *not* to suggest that American policy analysts who benefit from Japanese funding alter their positions to fit Japanese preferences; there is no evidence that this has been happening. Rather, it is to state that, as with other

interests, the Japanese help finance those already espousing positions they like and wish to see more widely accepted.

Thus, most funding goes to think tanks whose scholars tend to argue that too much is made of unfair Japanese trade practices, that the United States shouldn't retaliate with protective trade measures against Tokyo, or that Japanese direct investment doesn't jeopardize American interests. These are, of course, all legitimate and respected positions. They may even be the dominant views inside the Washington Beltway. Opinion surveys indicate, however, that they aren't accepted by most Americans.

If Japanese interests get their money's worth in each of these cases, it is without much public awareness about which Japanese companies our tax dollars might be assisting or which Japanese groups are helping to sponsor other information we receive.

For example, while U.S. colleges and universities in the mid-1980s were required to **report** on foreign funding, this legal requirement no **longer** exists. Some universities must still report very large individual contracts with foreign sponsors to the Department of Commerce's Bureau of Economic Analysis, but these numbers are **aggregated** with other trade data and kept confidential from other government agencies, Congress, and the American public. As a result, nobody knows the exact level of such Japanese spending today or what it is supporting. University scientists performing contract work for foreign governments — even if they work in areas deemed critical by the U.S. Department of **Defense** -- need not disclose how much money they are getting, who is giving it, or what they are doing for it.

Similarly, America's public school system is free from reporting requirements when it comes to foreign sponsors. Those abroad can pay to train American teachers and help them distribute teaching materials here, as some Japanese interests do, but nobody has to tell that to students or their parents. And there is surely no legal requirement for private think tanks to identify foreign sponsorship.

Yet, given the large stakes involved — the competitiveness of American industries, the beliefs of our children, the evidence used in major American policy debates — it seems reasonable to ask whether we should, at a minimum, expect full disclosure in each of these instances. This study therefore recommends:

Creation of a national commission to examine foreign financial participation in scientific research at U.S. colleges and universities, foreign sponsorship of what is taught in American schools, and foreign support for U.S. policy research establishments.

This commission, which should issue a report to the President within two years, should address, at the least, the following questions:

***Should** Washington reinstate the federal requirement for colleges and universities to report any sizable funding from foreign sources?

***Should** there be special reporting requirements for U.S. scientists who receive foreign funding for work considered sensitive to our national security?

*Should abstracts and summaries of educational materials available through the U.S. Department of Education include disclosure of any foreign sponsorship?

*Should increased funding be provided for training of elementary and secondary school teachers on such international subjects as U.S. relations with Japan?

*Should U.S. think tanks and other research institutes, especially those focusing on U.S. economic and defense policies, disclose sizable foreign sponsorship of their work?

*Should Congress, other federal agencies, and the American public have access to data now compiled by the Department of Commerce?

The commission should be mindful of the immense importance of federal research funding and of the vital role of academic freedom, whether in public schools, in colleges and universities or in research institutes. It should in no way seek to stifle the search for knowledge or to curb public debate, only to examine whether the nation would benefit from increased disclosure of funding sources involved in these areas.

Chapter I: Gaining a Foothold in University Research

[T]he new Japanese strategies call for total control of what now matters. To be competitive, the argument goes, Japan requires leadership in technology. . . and firm control of what my Japanese friends are beginning to call "brain capital." The Japanese are willing to pay large sums to gain access to knowledge, above all, through financing of research in Western (mainly U.S.) universities .

Peter F. Drucker

In 1986, Congress amended the Higher Education Act by requiring (through Section 1209) that all U.S. colleges and universities which received foreign funding of \$250,000 or more report such income to the U.S. Secretary of Education.¹ In 1989, Congress allowed the amendment to expire. The evidence suggests that the law should be reinstated -- and enforced more carefully than when it was in effect.

Department of Education records show that U.S. colleges and universities reported receipts of \$22.7 million from Japanese sources between 1986 and August 1989, when the reporting law expired. Yet published accounts of foreign money given to U.S. colleges and universities show that, since 1986, Japanese government and business organizations have funneled more than \$175 million to American colleges and universities, and two-thirds of these funds were earmarked for scientific research and teaching.²

Japanese investment in the scientific work of the U.S. university system has grown at a rapid clip -- indeed, at a pace far quicker than money from private American interests. Today, for instance, many university research programs paid for by Japanese businesses study advanced applications of such fields as biotechnology and computer science, in which commercial competition between the United States and Japan is fierce. Japanese companies and government organizations also sponsor a number of U.S. university studies in such fields as materials research and microelectronics, which are directly or indirectly linked to U.S. military efforts. The coincidence of heavy Japanese funding in all of these areas with stiff technological and commercial competition between the United States and Japan has prompted considerable debate in government, academic, and business circles over whether Japanese financial support for U.S. university research gives Japanese companies undue access to American technology, or whether it indirectly promotes U.S. research in areas of interest to Japan at the expense of other interests.

But there is no systematic way to track Japanese or other foreign sponsorship of university research. Representative Nita Lowey of New York has introduced a bill specifically aimed at reinstating Section 1209, but there has been little activity on Capitol Hill to suggest that the Lowey measure will be passed. Although seven states - Connecticut, Missouri, New York, Florida, Illinois, Pennsylvania, and Texas - require that public colleges and universities disclose foreign funding above specified levels, legislatures in the remaining 43 states have either voted down similar measures or have not considered them at all.³

The Department of Commerce's Bureau of Economic Analysis does require that some universities report individual contracts with foreign interests. However, BEA data only includes very large contracts -- \$250,000 and above for some, \$500,000 and above for others. Data received by BEA is reported only in the aggregate -- as part of its figures on total exports of U.S. "services" -- and specific information about either total U.S. university funding or money received by individual universities is kept secret from other government agencies, Congress and the public.⁴ Finally, BEA has no monitoring

device to ensure that universities comply with its reporting requirements. In February 1991, Representative Gerald Solomon, also of New York, introduced a bill that would **require** U.S. government agencies or public universities to obtain **the** Pentagon's approval before negotiating with a "controlled" foreign government any agreement that would involve the transfer of U.S. scientific or technical information. Solomon's bill would monitor only U.S. technology transfers to the Soviet Union, the Peoples' Republic of China, and other nations not militarily allied with the United States. Given radical shifts in the political and military regimes in the Soviet Union and elsewhere, together with the likely unwillingness of the Department of Defense to assume the administrative burden of reviewing so many proposed science arrangements, **Solomon's** bill is also unlikely to move forward.

Regardless of whether Solomon's bill is adopted, however, its mere introduction is significant: it suggests that there may be some deep concern among Washington legislators about the easy accessibility of U.S. government-sponsored research to foreigners — particularly when the research is conducted in fields key to U.S. commercial or military **security**. In light of increasing Japanese involvement in the U. S. basic **research** system, such concerns seem **warranted**. Over the past decade, Japanese businesses and government organizations have forged strong financial alliances with the U.S. research community, particularly through America's top research universities. Through these alliances, Japanese interests now have considerable access to America's technology research base. Whether access by the Japanese — America's premier trade competitor and technological rival — might somehow compromise the international technological, economic or military position of the United States is the focus of the section that follows.

The Lure of America's Basic Research System

Japanese companies already have a massive, often enviable system for applied commercial innovation -- a system that has brought it global dominance in such industries as commercial electronics, automobiles, and integrated circuitry. What the Japanese historically have lacked, however, is a first-rate basic research infrastructure. Although Japanese companies doubled their research expenditures between March 1989 and March 1990, the Japanese government's research and development budget is only 0.5 percent **of the country's** Gross National Product. Most other industrialized countries, by contrast, have a public research budget about twice that proportion.

The absence of a strong basic research system in Japan has forced many Japanese companies to rely on Western research programs for much of their basic science work. As the Financial Times has reported:

Given Japan's economic success, it is tempting to conclude that the level of government-funded R&D is irrelevant to the development of technologically **advanced industries**. . . . But that argument ignores the extent to which Japan has borrowed wholesale from the scientific research of other countries, much of it done in **state-funded** universities. . . . **[V]**irtually all the products on which the success of the world-beating Japanese electronics industry is based come from discoveries made in Western **laboratories**.⁵

The Japanese acknowledge that many in the United States believe they are technological "copycats," or that they only improve on basic American innovations

because they have none of their own. As the Japan Economic Journal recently reported: "In the U.S., Japan is perceived as a taker from, not a contributor to, international science."⁶

The ongoing efforts of Japanese companies to tap into the **U.S.** basic research system is testimony to the immense value that Japanese firms attach to university science in the United States. In a survey of Japanese companies with operations in the United States, the Japan Society found that the third most important reason for building their U.S. facilities — after winning U.S. market share and moving closer to other Japanese affiliates in America — was these firms' desire to gain access to American science and **technology**.⁷

It would be hard for Japanese firms to keep secret their attraction to American science. The technology trade balance between Japan and the United States, which measures the value of patents and licenses purchased by Japan from America and vice-versa, reflects that U.S. exports to Japan of intellectual capital far exceed what we buy from the Japanese: In 1988, Japan paid \$1.52 billion for U.S. technology, while American firms paid only \$590 million, or one-third that **much**, for Japanese **technology**.⁸

Basic American research largely is conducted in the laboratories of the nation's research universities -- and **U.S.** universities owe much of their world-class reputation to massive financing by **U.S.** taxpayers. In the aftermath of World War II, it became increasingly clear that U.S. **military** success depended on technological preeminence. In response, the federal government raised its financial commitment to university sciences, with the understanding that discoveries would be provided either to the government directly or would be transferred to the U.S. military-industrial sector, where companies could adapt innovations for government use. As the Cold War intensified in the late 1950s and early 1960s, the government funneled even more money to university research programs; Americans knew that, with equal scientific expertise, their foreign rivals could pose a serious threat to U.S. national security. In the late 1970s and 1980s, as trade concerns mounted, funding for research universities was stepped up **again**, reflecting an increased awareness of the vast commercial potential of the work of university scientists.

Because cumulative information about government spending on university research prior to the 1970s does not exist, no one can say exactly how much American taxpayers have spent to build the research capacity of the **nation's** university system. By 1980, university research cost federal agencies — including the Department of Defense, the National Science Foundation, the National Institutes of **Health**, the Atomic Energy Commission, and the National Aeronautics and Space Administration — roughly \$2 billion each year. By 1988, the annual cost was \$6 billion. In the last decade, then, Americans have spent something in the neighborhood of \$22 billion to underwrite university science.⁹

American corporations also contribute significant sums to university research budgets. The first major industry-university research program was begun in 1948, at the Massachusetts Institute of Technology (MIT). Today, nearly 3,000 **U.S. firms** participate in such "liaison" programs at 40 **universities**.¹⁰ In addition to cementing research relationships, American firms provide direct support for university science — and much of that support is also underwritten by the federal government. Companies now receive large research and development (R&D) tax credits when they finance university research programs. As a result, they sponsor state-of-the-art scientific work through such mechanisms as unrestricted grants, endowed professorships or chairs, and research contracts.

The effects of American government and business investment in university research have been enormous: In the last decades alone, American schools, the federal

government and domestic companies have built an unparalleled foundation of intellectual capital. In U.S. university laboratories, and with the hundreds of thousands of scientists, doctors, and engineers trained by the higher education system, America's investment in its schools has led to the discovery, use, and commercialization of numerous innovations now considered key to U.S. national security, and dozens of others that lie in the forefront of global, technology-based trade. By all measures, the university system has helped to place the United States at the lead as a world military power and a formidable trading partner.

Enter Japan

For a wide array of reasons, the U.S. economy has experienced some decline relative to its overseas competitors since the early 1980s. Entire American industries -- from automobiles and microelectronics to banking and real estate -- are in deep trouble. Similarly, the federal government is faced with a staggering national debt of several trillion dollars. In such an economic climate, it is difficult for American business and government to maintain -- not to mention expand -- their funding for university research and teaching programs.

But the university system requires continued and growing funding for critical research programs. Although government and business investment in college and university programs is **high**, many schools have reached out to new sources to supplement their research budgets.

Published reports reveal that Japan is the largest single foreign source of funding for American university research. Several universities, mindful that Japanese organizations are willing and able to contribute substantially to their research and general endowment funds, have opened Tokyo offices to tap Japanese corporate and private donors for gifts. The first university to establish a Tokyo office was the Massachusetts Institute of Technology, which founded its Japanese fund-raising operation in 1975, and has received more total funding from Japanese sources than any other U.S. university except **Harvard**. The University of California at Berkeley -- the third-ranking recipient of Japanese funding -- also has a Tokyo office, which opened in 1988, in the midst of its most recent capital campaign. Carnegie Mellon University's Tokyo office opened just last year, and "keeps the university's name and information about its activities in nearly daily circulation in that city."¹¹

Not all universities have had to establish Tokyo offices to attract Japanese **funding**. Many simply send senior **officials** to Japan on regular fund-raising trips. In the fall of 1988, for instance, the president of Mississippi State University went to Japan on an economic development trip and returned with a \$1 million gift from the Honda Motor **Company**.¹² Other universities need not send representatives overseas at all, since a number of Japanese organizations that fund their activities have established offices in the United States to facilitate closer relationships with the schools and other groups they sponsor. In the last decade, for example, 13 Japanese corporate foundations -- including the Hitachi Foundation, the Subaru of America Foundation, the Toyota Foundation and the Panasonic Foundation -- have opened U.S. offices.

Although **some** of the money that U.S. universities receive from Japanese sources is used for the traditional "charitable" programs (cultural exhibits, for example), most is earmarked for advanced technology programs or for university-industry programs that emphasize science and engineering. A 1985 study of Japanese foundation spending in the United States found that 60 percent of the organizations focused their U.S. spending on scientific, technological or medical **programs**.¹³ **Indeed**, we found that nearly 70

percent of publicly disclosed Japanese funding for U.S. universities since 1986 has been for science (see Appendix A).

Foreign funding for American higher education programs is, of course, nothing new. Individuals and companies — even governments — from every continent have long donated money to a wide array of American schools, for a wide array of programs. In the last **five** years, however, Japanese contributions have far outpaced contributions from other nations. Furthermore, the Japanese seem to target their funding of American universities at research in advanced technology sectors that have been labeled "critical" by the Department of Defense. Finally, **and not surprisingly, it is these "critical industry" research programs that have, in the last several decades, received the most prior support from the U.S. government.**

The convergence of these three issues has raised serious concern about whether the Japanese should have such unrestricted access to America's university research programs -- programs built by American taxpayers and intended to support U.S. economic and security interests. "With startling new clarity and **detail**, indicators of technical vigor are depicting a world in which the United States rapidly gives ground to its Japanese **competition**," the New York Times reported in May 1991.¹⁴ It is possible that continued Japanese funding of certain high-technology university research programs simply exacerbates this trend.

What Japanese Sponsors Get

While total Japanese investments in America have slowed since the late 1980s, Japanese spending on U.S. university research has not. On the contrary, 1989 and 1990 marked a sharp increase in the Japanese sponsorship of U.S. university science. This pattern (particularly relative to the slower growth of Japanese investment in the United States in general) suggests that, for a number of important reasons, Japanese government and industry recognize the immense potential value of American basic research. It also implies that the Japanese believe they are getting at least as much from these investments (and almost certainly more, from a long-term perspective) as they are spending up front.

Considering the technological areas into which much of this Japanese funding flows — like biotechnology and advanced computer science — it is little wonder that an investment in the early stages of research by a premier research institution would be likely to pay **off**. These fields are among a handful considered the most promising for the future of world trade, and they are also largely undeveloped commercially. Moreover, they are fields in which the United States is a world leader or in a close race with Japan for first place.

Technology Transfer and the Learning Curve

In the current economic and military environment, state-of-the-art technology — from the memory **capacity** of microprocessors to the honing devices on military weapons systems -- is of enormous importance, both for industrial profit and for national security. Where there is potential for industrial application, the long-term value of research in emerging and established industries alike depends on where a company or a country is positioned along the research "learning **curve**."

A number of American companies, mindful of the value of their own efforts to climb different technology learning curves, are leery of accepting foreign sponsors or partners in their research and manufacturing efforts. Many of them fear that foreign

partners will use the technologies they develop to become formidable competitors. The director of the Commerce Department's Office of Microelectronics and Instrumentation calls this a method of "bleeding" American technology, warning that some foreign ties could lead to a transfer of key manufacturing technology to overseas rivals.¹⁵ Economists Paul **Krugman** and Edward Graham explain the economic drive for this overseas technology transfer:

[V]aluable externalities arise from the complex intellectual activities undertaken by firms, especially R&D. Firms, however, like to keep their sophisticated activities near the headquarters. When a firm with **foreign** headquarters acquires or displaces a U.S. firm in the U.S. market, it is therefore likely to shift the sophisticated activities **abroad**.¹⁶

It is not unlikely that Japanese investment in American university research will ultimately have the **same "headquarterseffect."** For just as they have funded—or sought to fund—research and production in high-technology American companies, Japanese firms often sponsor research in American universities, where the U.S. technology learning curve often begins, because they wish to enter or advance in certain commercial sectors.

By funding university **research**, Japanese sponsors move up the learning curve in four important ways:

1. Negotiating licensing agreements with university innovators;
2. Arranging cooperative ventures through which sponsors gain access to university research and researchers, but without reciprocal access;
3. Obtaining information about university research findings before the findings are made public; and
4. Creating long-term, liaison relationships with universities known for their research in certain high-technology industries.

Licensing Agreements: In 1990, a Japanese cosmetics **firm**, Shiseido, negotiated the largest corporate research agreement with an academic institution in U.S. history: It pledged \$85 million, to be paid over 10 years, to establish the Harvard Cutaneous Biology Research Center in partnership with Massachusetts General Hospital (MGH). The center's primary focus of research is biotechnology, a budding industry in which the United States now commands the global lead, both in research and in product sales.

Although the agreement gives MGH patent rights on all research findings, Shiseido will get all licenses to develop, manufacture, and sell resulting commercial products. The hospital, an affiliate of the Harvard Medical School, will get the one-time fee and continuing royalty payments for any center discoveries that do make their way to the market. But MGH will have to license to Shiseido the rights to manufacture and sell those products in any market the Japanese firm chooses to enter.

A license is a highly valuable **commodity**. On the one hand, ownership of a license may prevent another firm—including the institution that owns the patent on the product

- from manufacturing, selling, or distributing that product in any market in which the license applies. On the other hand, it enables its owner to learn how to make and sell a product that it has not spent the time to develop itself. In this sense, a license carries immense growth potential: Particularly for high-technology **industries**, a **firm's** success with one product line often determines how successful it will be with that **product's** future generations. Thus, a firm that owns a license to make and sell a product effectively buys the opportunity to learn more about how the product is designed and engineered, what is required internally and externally to produce and market the product, and how to make future variations of the product.

For a relatively young industry like biotechnology, licensing rights may be even more valuable. Massive potential for discovery and **commercialization** has drawn dozens of firms (mainly American) to the biotechnology sector, but thus far there are only nine biotechnology products commercially available. Like Microsoft in the computer software industry, or Honda in the small-sized automobile industry, firms that establish a strong and early lead in biotechnology are likely to dominate this industry for some time to come.

Today, American companies like Genentech, **AmGen** and others hold the biotechnology lead. But Japanese firms like Shiseido are showing a keen interest in breaking into the field. Stephen Atkinson, Harvard University's director of technology licensing, says, "The way [U.S. firms] got to be preeminent in biotech is that we kept beating everybody else in **discoveries**."¹⁷ If the discoveries that emerge from America's premier university laboratories are licensed to foreign rivals, as MGH's are certain to be, U.S. firms will **find** it harder to maintain their market position.

"Cooperative Ventures": In April 1990, the University of California at Irvine (**UCI**) announced the opening of the Hitachi Chemical Research Center, a \$16.5 million biotechnology facility located next to the UCI College of Medicine. At the site's ground-breaking **ceremony**, Governor George **Deukmejian** declared, "California's commitment to advancing the state's lead in research and development is underscored by the cooperative effort that led to the beginning of this (**facility**)."¹⁸ UCI medical school Assistant Dean L. Wade Rose echoed the Governor's sentiment in **August** 1989, when he told *Business Week* that "This (**facility**) provides us with a window on Japan in our front **yard**."¹⁹

But the nature of the **Hitachi-UCI** arrangement raises serious questions about whether UCI will have a window on **Japan**, or whether it is Japan that will have a window on the considerable biotechnology research efforts that have been underway for several years at the California state campus. The agreement negotiated between Hitachi and UCI suggests that the window will indeed be **Japan's**, and that this window will actually be more like a one-way mirror.

Hitachi's relationship with UCI dates back to 1983, when the company -- whose president was friendly with a member of **UCI's** Board of Regents — helped the university to lure a prominent biochemist onto its staff and gave UCI \$3 million to endow that professor's chair. In the late 1980s, when UCI was in the midst of negotiating the construction of a new biotechnology facility with a U.S. sponsor, the negotiations fell through, and UCI **was** left without its research center. The school called on Hitachi, which agreed to build the facility — but only under certain conditions.

The Hitachi Chemical Research Center, called the "**Plumwood House**" on campus, was constructed and equipped entirely with Hitachi funds on a plot of land given to Hitachi free of charge by UCI. The top two floors of the building are occupied by Hitachi Chemical; the first floor is used by university researchers. **Akio Kigoshi**, the director of public relations at Hitachi Chemical Research, confirms that no university

personnel are permitted access to Hitachi's portion, although Hitachi personnel have unrestricted access to UCI's research facilities **downstairs**.²⁰ Although Hitachi's facility is located on land that was in effect given by the state of California, the center's official research guidelines explicitly state:

Access to the HCR (Hitachi Chemical Research) space is restricted whereas access to the UCI portion of the building is open to the same degree as any other building on campus.²¹

Hitachi Chemical Research does employ several U.S. scientists. Five of them used to be on UCI's research staff. Hitachi may, moreover, separately enter into research arrangements with any current UCI faculty researcher. Indeed, says **Akio Kigoshi**, the Japanese company began its first such project — a biotechnology research contract -- with a UCI professor late this **summer**.²²

UCI will also see some value from the partnership, though comparatively speaking, its potential gains seem much smaller than Hitachi's. In the first place, Hitachi agreed to turn over the 40,000-square-foot research facility to UCI at the end of Hitachi's "lease" (though the land is rent-free). The "lease," however, **does not** expire until the year 2030. By then much of the plant, **property**, and equipment are likely to be obsolete, and all of the critical early developments in biotechnology are likely to have been made.

UCI also has the right to patent whatever discoveries are produced by its own researchers, or to co-patent whatever is jointly discovered by Hitachi and UCI researchers. Hitachi, however, has the first right to license all of UCI's discoveries. Moreover, because no interaction is permitted between UCI and Hitachi in Hitachi's two floors of research space, any innovations that are "co-produced" will be done on UCI's facilities.

According to UCI officials, research undertaken in the new biotechnology laboratories has significant commercial promise; currently, the research agenda is focused on developing drugs for Alzheimer's disease and other neurological disorders (an area in which UCI's faculty has significant expertise) and on producing new **biomedical** electronic equipment. But Assistant Dean Rose argues that the university's arrangement with Hitachi should not be viewed in the context of its commercial implications. He says that the arrangement has little to do with international economics, but rather is intended to promote the international flow of scientific information. "Research doesn't have any boundaries. Knowledge is relevant. Countries are irrelevant," he told the Orange County Register.²³

But there are many who believe otherwise. Neil Oran of Business Week writes:

Equal access is always hard to measure. But for an indication, it's not enough to look for the answer in the scientific journals. The real results will appear in the annual reports of Japanese or American companies.²⁴

In light of what UCI has conceded to Hitachi, it seems unlikely that the results of UCI's research will appear in the annual reports of an American firm.

Early Access to Findings: With the exception of research performed through contracts negotiated with private parties, scientific discovery at the university level is

considered "basic," not commercial or company-confidential. And since the findings of university basic research are regularly reported in scientific journals, it has been suggested that foreign sponsors of university research programs may get no more information about those projects than everyone else. MIT President Paul Gray maintains:

Data and other results from the international research community are shared among investigators the world over in journals, professional meetings, informal gatherings and casual **conversations**. Even the smallest incremental scientific advances are published as quickly as possible, not only to help establish professional reputations but also to allow colleagues to review, test, and build on the **information**.²⁵

The University of Southern California's Center for Neural Engineering, which is headed by Dr. Michael **Arbib**, is explicitly chartered to research applications for "smart" computers, or those that "think" for themselves. This research lies at the heart of the **U.S.-Japanese** race to produce and commercialize "intelligent" manufacturing systems - what Tokyo calls the "Sixth Generation Computer Project" and Washington terms the "New Information Processing Technologies Initiative." Arbib says that his laboratory's findings frequently are provided to corporate sponsors six months to a year before they are published. Several of this program's sponsors are Japanese companies, and one of them has an exclusive contract agreement with this USC program.

A report by an MIT faculty panel notes that "(E)arly access to research results may provide [sponsors with] a small commercial advantage. . . ."²⁶ In such industries as advanced computing, where products are likely to become obsolete in a short period of time, a six-month or one-year advantage is frequently enough to permit a company to introduce its product before its competitors. As Harvard's Atkinson says, "In business, the most valuable thing you can have is a head **start**."²⁷

Liaison Relationships: Among America's research universities, MIT is known for its Industrial Liaison Program (**ILP**), through which 245 corporate members participate in MIT research. MIT President Paul Gray says that the program was "designed to give members a 'window' on emerging technologies."²⁸ Since MIT established the ILP in 1948, 39 other research-intensive universities in the United States have created similar programs, through which corporate sponsors attend special **symposia**, visit campus laboratories, meet with university faculty and administrators, and receive private research updates.

Although American firms constitute most of the corporate ILP members at MIT, the largest single foreign corporate participant is **Japan**. In exchange for their sponsorship, 57 Japanese companies in the **MIT/ILP** program receive "assistance in keeping abreast of work at the **Institute**," according to a May 1991 MIT report. The report maintains that none of the corporate sponsors has "privileged access" to the school, but also acknowledges that "there is an advantage for a company that uses the ILP to learn about research of interest and to obtain information and contact with the faculty more efficiently," and that a number of ILP relationships "do involve serious, substantive transfers of **knowledge**."²⁹ David Noble, a history professor who once taught at MIT, **is more direct:** Liaison **programs**, he says, "have become a conduit of a massive giveaway to industry, including foreign **companies**."³⁰ Noble formerly served on MIT's faculty, but was denied tenure. He has filed a lawsuit against the school, alleging that his tenure was not granted because he has been critical of MIT's ILP program.

A 1989 study by the General Accounting Office, in fact, found that industrial liaison programs in America's top universities have been responsible for a number of major Japanese **breakthroughs**. As a result of their participation in U.S. industrial liaison programs, Toyota Motor Company was able to devise new engineering stress sensors for its automobiles; **Asahi Chemical Company learned** to computerize its manufacturing processes; and Toshiba found new methods of recording images on computerized **disks**.³¹

The average fees for participation in MIT's liaison program are \$33,000 for U.S. firms and \$46,000 for foreign firms.³² Gray says MIT's liaison program is an important means of open scientific research -- "the **goose** that lays the golden **egg**."³³ Despite the fact that MIT's program will bring the university \$8 million in 1991,³⁴ Gray insists that "most programs barely break **even**."³⁵

Deborah Rogers, a senior manager for Digital Equipment Corporation's External Research **Program**, oversees the company's research relationships with universities. She says that the best-run liaison programs give members an opportunity to have regular exchanges with universities in areas of direct relevance to their operations. Rogers notes that these exchanges can be invaluable, because the university's "knowledge flow" can often be captured and passed on to the sponsoring companies: "The name of the game in the **future**," Roger says, "is knowledge **flow**."³⁶

Science Subsidies from the American Taxpayer

Because the federal government historically has paid for the lion's share of research in U.S. university laboratories, the buildup of technological expertise in the last half-century may have cost American taxpayers hundreds of billions of dollars. In 1980, Congress changed the law to permit universities to own patent rights on research that was federally financed. As a result, most U.S. research universities have established systems for patenting and then licensing the discoveries their researchers generate, though much of this research work has been supported -- directly or indirectly -- by taxpayer dollars.

The high cost of America's research infrastructure, which was intended to enable the nation to generate first-rate scientific research, may in fact be a significant subsidy to Japanese and other foreign firms that buy into university research programs. In other words, when Japanese sponsors invest in a particular research program in an American university, they are buying the knowledge and experience that America has created over many decades. Simple economics show that the United States is getting only a tiny fraction of its investment back when it permits such "cheap" access to its university science facilities.

In 1989 Congressional hearings, Erich **Bloch**, who was then the director of the National Science Foundation, said that he was "pretty sure that the Government is subsidizing the export of technology indirectly, because that information is available to anybody inside the country or outside the **country**."³⁷

The economic data seems to support Bloch's conclusion: MIT, for instance, receives some \$425 million each year in federal research dollars, while Japanese firms pay roughly \$3 million each year for access to MIT's research. In public universities, the subsidization of Japanese investment by American taxpayers is even greater. There, state governments and state taxpayers have augmented the federal government's underwriting of foreign access to American university science.

Carl **Ledbetter**, a technology policy consultant and formerly the president of Control Data Corporation's supercomputer division, says, "The Japanese are smarter

than Americans about understanding the long-term value of this research and development.'''³⁸ As he sees it, the difference between what the Japanese should pay for access to university programs and what they actually pay is money that the Japanese spend instead to improve their own economic initiatives. As many Japanese industries have surpassed their American counterparts, thus driving many high-tech firms out of business, Ledbetter says, "We are using American taxpayer dollars to destroy American jobs."

Ledbetter would exact reimbursement from Japanese interests and others whose firms benefit from U.S. university research. "We must calculate the net present value of **America's** sunk capital costs borne **not by universities but by taxpayers**," he says. "We should not let (foreign interests invest) until they pay back these costs. This is a perfectly appropriate, field-leveling economic **effect**."

Ledbetter knows that America's tradition of open research -- publishing findings and sharing them with other researchers in other nations - is vital. The problem, he says, is that where direct access to its research and researchers is **concerned**, the United States is not charging investors enough. In the case of the Shiseido biotech investment at Harvard, for instance, Ledbetter says:

It is true that the Japanese gain enormous advantage by having had the foresight to invest in the program. They were smart, and we shouldn't complain. They bought the technology. **But** is \$85 million a **fair price**? It misses being a fair price by some calculation that reflects the investment of the United States government, over time, in the institution.³⁹

Access to America's Defense-Related Research

Perhaps the most obvious issue related to foreign sponsorship of U.S. university research is that, because many universities conduct research in fields considered critical to U.S. military systems (and paid for by U.S. taxpayers), the involvement of foreign firms promotes potential conflict with regard to U.S. national security.

Much of the U.S. university scientific research financed by Japanese companies has either direct or indirect application to U.S. military systems. Like any companies that sponsor **research**, Japanese firms are certain to use whatever they can from the work of **America's** university scientists to improve the position of their own high-technology products and processes. For industries like semiconductors, lasers, and "intelligent" manufacturing, the implications of this technology transfer go beyond pure economics: these are fields considered "critical" by the Department of Defense to U.S. national security. And all too **often**, when Japanese firms have gained ground in these industries, they have done so at the expense of their American rivals. A prolonged pattern of decline in the U.S. military-industrial sector -- as America has already witnessed in microelectronics and semiconductor equipment manufacturing, for example — forces the Pentagon to rely more heavily on foreign sources (Japan, in both cases) for its supply of key military technologies.

The Pentagon already depends **entirely** on Japanese and a handful of other foreign suppliers for the semiconductors needed to build a dozen U.S. military systems. Among the systems in which America has no choice but to use foreign chips are the Defense Satellite Communication System, the F-16 Fighting Falcon, the **M-1** Tank, and the Integrated Underwater Surveillance **System**.⁴⁰ If the Japanese are able to take what they learn in U.S. university microelectronics laboratories -- **or**, for that matter, in other

advanced research facilities that study defense-related sciences — and use that information to displace the remaining U.S. semiconductor manufacturers, there may soon be other weapons systems for which the Pentagon can no longer get U.S. parts. The extent to which advances in Japanese military-industrial firms are the result of their work with U.S. universities is a good measure of the extent to which the government has *de facto* paid for its own inability to obtain critical technologies at home.

Yet some universities that have had long-standing research relationships with the Pentagon, the Department of Energy, NASA and other defense-related **federal** agencies regularly collaborate with Japanese firms on research. In February 1988, for instance, the University of Oklahoma entered a cooperative electronics research agreement with Hitachi America Ltd., the Norman-based microelectronics division of the Japanese electronics conglomerate. Though Hitachi is said to have negotiated the arrangement as a favor to Representative Dave McCurdy of Oklahoma (who in 1986 helped the Japanese firm battle the threat of high tariffs on computer parts it was importing from **Tokyo**), the deal prompted considerable local political controversy when word leaked out that this agreement had been signed without the approval of the University's Board of **Regents**.⁴¹

According to minutes of an April 6-7, 1988 meeting of the Oklahoma University Board of Regents, Elwood Kemp, then the chairman of the board, voiced his concern that the Hitachi arrangement might give the Japanese firm too much access to sensitive electronics **research**.⁴²

The University of Oklahoma has close research ties to “**nearly** all of the major federal **agencies**,” according to David Ballew, assistant dean for research at the school's college of engineering. Last year, the university received grants from the National Institutes of **Health**, the National Science Foundation, the Department of Defense, and the Federal Aviation Administration. Total 1990 government research support for the University of Oklahoma was approximately \$6 million, Ballew said. That figure is roughly double the amount the university got from federal sources in 1986. All told, the federal government has supported the University of Oklahoma's research base to the tune of \$15 million to \$20 million over the last 5 years.⁴³ Hitachi, meanwhile, is required to pay nothing for access to the school's proprietary research information, according to a copy of the agreement signed in 1988.⁴⁴

Despite Kemp's concerns, the Regents ultimately approved the Hitachi agreement. In a 1991 interview, current Regents' Chairwoman Barbara Tuttle called Kemp “an older gentleman who had served in World War II” who “has just not adjusted to the current **situation**.” Tuttle asked that this study not include any discussion of the Hitachi controversy. “We really don't want to open up that can of worms again,” she **said**.⁴⁵

POLICY ROOTS OF THE DEBATE

Equal Access and the Free Flow of Science

“**Science** is basically **international**,” says USC's Michael **Arbib**.⁴⁶ For the most part, Arbib is referring to the fact that universities regularly publish the results of their research. Publishing, of course, is how university research faculty earn their professional reputations. As a result, most major U.S. research universities have long-standing links with research institutions in Europe and Japan.

Just as university researchers publish their discoveries for their **colleagues** to review, test, and build on, they also participate in dozens of international scientific conferences and exchanges. Without question, this collaborative process enables

scientists in one country to learn from those in another. It is also, of course, how companies learn from university scientists from around the world, and often how they **decide** which research projects to undertake themselves.

Not surprisingly, many in academe worry that efforts to hinder foreign access to U.S. **university** research would violate their long-standing standards of international cooperation. Like **Arbib**, many within the U.S. university community fear that prohibiting Japanese investment in certain U.S. scientific programs would make the United States stand out as "protectionist" or, worse, would dissuade Japan and other nations from giving American researchers access to their findings.

There is a difference, however, between publishing the findings of scientific research and permitting foreign interests to invest and often take part in research related to key high-technology industries — particularly those in which America is struggling to keep pace. Second, and perhaps more important, there is evidence that American researchers do not have the same access to Japanese laboratories.

It is true that the Japanese government has taken steps to open its government-funded laboratories to the United States -- largely because of pressure from the U.S. government and private U.S. interests angered by the **imbalanced** flow of scientific **information**. But access to publicly funded research in Japan does not really compare with access in the United States: The U.S. government funds 40 percent of all U.S. research, while the Japanese government finances only 20 percent of all Japanese research. Moreover, Japan's publicly funded research is not nearly as well regarded as America's. In Japan, government research budgets **have** been cut **significantly**, and while the nation's equipment and facilities are top-notch, there are not enough qualified scientists to use them. By most accounts, Japan's **publicly funded** science is sub-par. One journalist in Tokyo calls Japanese university research "probably the poorest Japan has to **offer**."⁴⁷ Another offers this forecast:

It is likely that while the quality of Japan's publicly funded research programme will improve at the margins . . . there is little prospect of the transformation of universities into genuine centres of scientific **excellence**.⁴⁸

The best Japanese research is to be found in the laboratories of Japan's major corporations. Although some Japanese companies have opened their doors to American scientists, most have not. The Japanese companies that do permit U.S. scientists entree, moreover, tend to be in industries which have more to learn from U.S. research — biotechnology and aerospace **engineering**, for example -- than vice versa. As for the rest of Japanese industry, a 1990 survey by the National Science Foundation found that half of the Japanese respondents were unwilling to let in American "**investigators**."⁴⁹

While it is true that Japanese science is, on the whole, less accessible than American science, it is also true that American scientists probably do not take full advantage of research opportunities that exist in **Japan**. Most American scientists do not speak Japanese, and many are unwilling to relocate so far away to continue their work.

Still, the U.S. government does not believe that existing opportunities for American scientists in Japan are adequate. Phyllis **Genther**, the director of the Commerce Department's Japan Technology Program, says that U.S. negotiators continue to press for "equal **technology** transfer from **Japan**."⁵⁰ According to Genther, **the** ability of Japanese interests to utilize America's most prominent scientific asset -- its basic research program — warrants similar access for American interests to **Japan's** best-known scientific asset — its system of **commercialization**. In particular, Genther says, the Department of

Commerce would like to see Japan open its doors and let American scientists participate in the development of optical device technology, process technology, and robotics.

Thus far, the Japanese government has been unwilling to grant such access. The United States and Japan have agreed to discuss technology transfer issues again during the forthcoming bilateral Science and Technology Talks. The Japanese government has already submitted its initial position paper to the United States. Genther says that Japan's proposal is inequitable, mainly because it offers to open research programs to U.S. firms "in areas where we're already ahead." Whether any agreement will result, or whether the issue of technology transfer will be resolved to the satisfaction of the U.S. government and U.S. industry, is uncertain. The talks may last well into 1992.

Japanese "Corporate Citizenship"

The traditional benefits of financing university programs in America — encouraging learning in key fields, supporting a school's long-term ability to conduct research, establishing an alliance with a prestigious research institution - represent real economic value to both the sponsoring firm and the university. The federal government encourages such sponsorship through tax policy because such benefits ultimately accrue to the nation as a whole. An enhanced knowledge base leads not only to a more valuable basic research system, but also to the graduation of more intellectually capable students who will be greater assets to the country when they enter the work force.

Except for some explicit, contractual arrangements between U.S. companies and U.S. research universities, American corporate funding of university science is not a *quid pro quo* arrangement: U.S. companies do not give money to schools with the proviso that the schools in turn provide certain specified data, or the blueprints for certain products. But for many Japanese companies, the notion of indirect social benefits from corporate spending is a relatively new phenomenon, because there is no similar tradition in Japan. "The concept of private citizens working for the public cause is something new to us," Yoshifumi Matsuda, a senior Japanese Foreign Affairs official, told *Business Week* in 1988.⁵¹ Indeed, while the U.S. government encourages corporate philanthropy with tax incentives, the Japanese government taxes charitable donations as if they were retained revenues.

Most Japanese companies were, therefore, introduced to the notion of corporate philanthropy and "good corporate citizenship" when they began to build facilities in the United States. But in the last several years, Japanese companies have spent hundreds of millions of dollars learning to be American-style philanthropists. Craig Smith, the editor and publisher of *Corporate Philanthropy Report*, says that "Japanese corporate philanthropy is the fastest-growing dimension of American corporate philanthropy."⁵² At least 13 Japanese company foundations are now operating in the United States.⁵³ Today, many Japanese companies with U.S. facilities sponsor cultural exhibits, state and local educational improvement programs, community recreational activities and other special events. The Panasonic Foundation's "School Reform Partnership Program," for example, spent nearly \$2 million from 1985 to 1990 to aid urban school districts in America that serve large numbers of economically underprivileged children.⁵⁴ In 1990, Japanese companies gave \$13.5 million to the United Way. And in 1991, the Toyota Foundation will make more than \$100,000 in grants to the National Hispanic Scholarship Fund.⁵⁵

But there are some who believe that not all of Japan's charitable giving is motivated by charitable aims. The Washington Post cites the cynicism of one manager of a major Japanese corporation: Japanese corporate contributions are "just a gesture made out of fear

of foreign criticism that Japanese companies are unfair and that they don't share responsibilities for their community. There is no indigenous ground for this move."⁵⁶ As Smith puts it:

Long considered alien to **Japan**, philanthropy may be now the most favored way for Japanese businessmen to "build rapport" with leery Americans. The threat of protectionism, clever tax avoidance techniques, and the hope of technology **transfer** are the factors making the recent creation of Japanese giving programs just the start of a broader **trend**.⁵⁷

The way in which some Japanese organizations perceive American philanthropic initiatives seems to support such a conclusion. In a 1989 article titled "Hitachi's Drive To Be '**Good Citizen**' Pays Off," the Japan Economic Journal asserted that Hitachi, once faced with animosity from the U.S. corporate and government community, was now a welcome guest in the United States, thanks to the fact that it had established a large charitable foundation in Washington, DC in late 1985:

The company always seemed to be at the center of some bilateral trade issue — the dumping of microchips, copyright infringement, predatory pricing practices. . . . Nowadays, however, company officials are getting a warmer reception in the capital. And instead of the Justice Department, they are more likely to drop by to visit the First Family.⁵⁸

Given their lack of experience with "corporate citizenship," it may not be surprising that some Japanese companies still seek direct returns on their philanthropic investments. As economist **Edward** Lincoln has **remarked**, '**The Japanese** just don't have the same kind of eleemosynary background in their society, and the first thing they ask when they give money is what do we **get**.'⁵⁹

Some university administrators say that Japanese financial supporters do not generally understand that the '**payoff**' from corporate sponsorship is more indirect than it would be in the private sector. Others say that some Japanese firms still believe that their sponsorship entitles them to control key aspects of the programs they fund. Robert **Bartlett**, deputy director of development for Cornell University, says that most of the Japanese firms his office comes into contact with "don't seem to have a concept of the looseness" of Cornell's other relationships with American **companies**⁶⁰. Bayley Mason, director of development for Harvard University, adds that Japanese firms have tried to place restrictions or have made other demands when they have funded Harvard researchers and their projects. Harvard, he says, is careful not to give away *too much* to Japanese funders. When it comes to yielding to specific sponsors' demands, he says, "We are relative **purists**."⁶¹

Are U.S. Firms Abandoning U.S. Universities?

Universities typically pay only the salaries of their research faculty; funds needed for equipment and materials, research assistance and other overhead expenses are raised, as a rule, from outside sources. To open one new research facility, a university might have to attract as much as \$20 million or \$30 million from the private sector.

But university fund-raising officials lament that U.S. sources for research dollars are becoming scarce. Many American companies have had to cut back their own internal research budgets, and only a handful have been able to allocate more for university research today than they did in prior years. In the meantime, with the number of foreign alumni growing and the reputation of U.S. university research widening, funds from overseas (and Japan in particular) are now more accessible than ever. Thus, many university fund-raisers — not to mention university researchers, who often must solicit funding for their own research — worry that limiting Japanese access to their research will also limit the pool of available resources to their universities, and thus the scope or the amount of research that they are able to undertake.

Some in the university community attribute their reliance on foreign research support to the **tightfistedness** of American firms. USC's Michael Arbib says that the U.S. business community is simply too shortsighted to commit the funding universities need for research: "American firms are unable to take advantage of what's in their own **backyard.**" Harvard University's Stephen Atkinson agrees. "The purpose of university research **is to go** into brave, long-term, highly ambitious projects. This tends to clash with the short-term thinking of a lot of U.S. industry," he says. Japanese firms, by contrast, "are much more tolerant of the long term."

Many universities say that they solicit Japanese money because they do not get enough funding from American interests. "When sources of support . . . diminish, the natural instinct is to try and replenish them from some other **place,**" Atkinson says. "Foreign companies (including the Japanese) are very aggressive **funders.**"

Harvard raises \$200 million to \$300 million a year from private sources, mostly from American firms and American foundations. Atkinson says that American firms are giving more to Harvard than ever before — but he complains that the rate of growth of U.S. corporate funding is much slower than the rate of growth of foreign funding. Japanese interests alone now supply the university with nearly five percent of its annual, privately raised budget. And despite the fact that the vast majority of Harvard's budget still comes from U.S. sources, Atkinson says, "we'd prefer to be getting more money from the U.S." Atkinson says that he spends a lot of time courting American firms, "but **they** don't respond as well" to funding requests as do foreign companies. American firms "think they know everything we know, and familiarity tends to breed **contempt.**"

Total U.S. corporate financial support for American education is considered enormous: in 1990, American firms gave U.S. schools \$5.9 billion.⁶² While some American firms may be forced to cut support for university programs, the educational funding programs of others suggest anything but shortsightedness. Exxon, for instance, estimates that it has spent \$300 million on university programs since 1955, when the company created a separate office for external education initiatives. Last year, Kodak spent \$11 million on university programs, and Xerox maintains more than 80 such programs with U.S. universities.

The Department of Commerce's Genther says that the universities "may not be trying hard enough" to recruit domestic support, especially for scientific research initiatives that she believes many U.S. firms would fund if the schools pressed harder. The schools "are so often interested in doing their research that they just go for the money" as soon as they can get it, she says. Japanese money may simply be the easiest to get.

Genther adds that, while U.S. industry spends more than foreign companies do on university research, the growing Japanese investments in campus laboratories can

generally be attributed to "individual cases in individual industries that Japan targets — especially in electronics and **biotechnology**." Genther agrees with the criticism that American companies often find it difficult to focus on long-term research projects. But she also claims that large Japanese companies are able to reduce the risk inherent in long-term research projects - more so, at least, than U.S. companies -- through the traditional Japanese practice of inter-firm association, known as the *keiretsu* system. "We don't have companies here of the same scale as the *keiretsu*," she says.

The United States has no laws that explicitly prohibit foreign participation in U.S. university research. Although the university officials interviewed for this report said that they would certainly comply with any such laws, if enacted, they also emphasized that their schools were not responsible for setting such policies.

Until some restrictions are enacted, USC's Arbib says, universities that perform contractual research for foreign firms should simply sign "sophisticated contracts like the ones (USC) has." USC gives its Japanese clients the right to license what USC's scientists discover. Arbib insists that universities should not have to regulate their programs to keep out certain funders, since American research "is a very valuable commodity on the international market."

Arbib agrees that the task of restricting Japanese access to U.S. higher education programs -- if there must be restrictions — should not be the charge of U.S. universities. "It is not up to the university to set American economic policy," he maintains. Atkinson agrees: "When you get to the issue of turning down money, it gets to be a very dicey question," he says. "But should U.S. universities make economic policy for the country? We would prefer that this be the task of the people in Washington who were elected to do that."

Chapter II: Harnessing American Brainpower

The principal product of a university, after all, is its graduates. And it is the graduates who are the most effective means of transferring technologies from university to industry.

Paul Gray, President of MIT

The most important part of any country's basic research infrastructure is the scientists who perform its research. Although Japan has first-rate commercial scientists, a lack of funding and a lesser reputation in its government and university laboratories has left those facilities in deep need of brainpower. According to the Japanese Science and Technology Agency, Japan faces a shortage of more than half a million scientific researchers by the year 2005.¹

Because Japanese firms already have a lead in a number of industries, this pending shortage probably does not pose an immediate threat. But in other young industries -- robotics and optics, for example -- a long-term "market lead" has not yet been defined. Moreover, there are a **handful** of others - like theoretical computing and biotechnology -- in **which** the United States retains a competitive advantage. If Japan wants to be on the cutting edge of these fields, it must have an adequate supply of top-quality scientists to lead the way.

Without enough scientists at home, Japan now finds itself looking elsewhere for research talent. **Recently**, the Japanese **have** been recruiting some of America's brightest scientists to help them explore new, potentially lucrative projects and to bring them up to speed in areas where they may have fallen behind. **Japan's** companies, government agencies and universities have in fact initiated a large-scale effort to export the ingenuity of America's scientists. In the spring of 1991, a Japanese government official told the Christian Science Monitor that Japan would indeed like to rebuild its own basic research facilities, using the American system as a model.² Japan's recent "brain drain" on the American research community suggests that the Japanese are already doing just that. To date, Japanese private and public science organizations have:

1. Recruited U.S. scientists to come to Japan;
2. Set up corporate laboratories in the United States, and hired American researchers to work in them;
3. Negotiated contracts through which American scientists teach the Japanese how to set up their own basic research facilities; and
4. Sent Japanese researchers to work in publicly funded U.S. laboratories, where they learn from American scientists.

Although sharing some scientific information is commonplace, this pattern of hiring America's most prominent scientific minds seems rather another phenomenon. Japanese companies and public laboratories that directly or indirectly access the work of American scientists can buy themselves entree into fields chartered by those scientists in America's labs, or ensure that they will be better poised to compete in industries in which America has established a head start. In the meantime, the outflow of scientific

innovation deprives the United States of access to its most prized technological assets, and it also deprives American firms of the years of future innovation that will result from many of these scientists' work.

Many in the United States are troubled by this possibility. James Morgan, Chairman and Chief Executive Officer of Applied Materials Inc., a U.S. semiconductor firm, says, "The question is, does the U.S. want to control its economic destiny or have someone else do it for us?"³

Importing American Scientists

For many years, the U.S. government and private American interests have complained that the Japanese restricted access to their research laboratories, even though Japanese scientists generally were welcome in American labs. In the late 1980s, the Japanese government bowed to U.S. pressures and opened some of the country's lab doors to Americans. As of 1988, the Japanese government says, nearly 4,500 U.S. scientists were conducting research in Japan, and many believe that number is now significantly higher.⁴

But most, if not all, of those American scientists work in Japan's public laboratories, research facilities from which American scientists have the least to gain -- and those which conduct research in fields where the Japanese have the most to gain from American ingenuity. In the Japanese government and university labs open to U.S. scientists, the research work is notably inferior to that done in Japan's private sector. Even among the handful of Japanese companies that do give American scientists access, the projects in which our scientists participate (and often those that they oversee) are in industries where Japan trails the United States, both in basic research and in product development. For the most part, these firms are large conglomerates trying to break into emerging technologies, and they need American help to catch up and keep pace.

In 1990, for example, Japan's Ministry of International Trade and Industry (MITI) signed up some of America's best jet engine scientists for a seven-year, \$220-million hypersonic engine program. If the program is successful, scientists at MITI will produce engines that reduce the flight time between New York and Tokyo by more than 70 percent. And "(n)o matter how cautious U.S. companies try to be, Japanese engineers will absorb a wealth of information..."⁵

The MITI jet engine project is one of several research programs initiated by the Japanese to explore new terrain in the aerospace industry -- a field long dominated by American firms, and one that the Japanese government and Japanese firms are eager to enter. At the University of Tokyo, Otis Chen now works as a visiting professor in the department of aerospace materials. For 15 years, Dr. Chen was an engineer with United Technologies.

The Japanese are equally eager to break into advanced computer sciences and biotechnology, two other fields in which American research excels. Stephen Peters, a U.S. expert on "intelligent" robots, was for many years a research scientist with the Jet Propulsion Laboratory in Pasadena, California, which is funded entirely by NASA and managed by CalTech University. Today, Peters conducts robotics research for the Tsukuba Electrotechnical Laboratory, Japan's largest government research facility.

Some Japanese efforts to enlist American computer research scientists have in fact sparked controversy in Washington. In 1990 and 1991, MITI officials tried to enlist several leading U.S. scientists -- at AT&T-Bell Laboratories, the University of Southern

California, and elsewhere - to help Japan conduct the basic research for its proposed "New Information Processing Technologies" program. The program, expected to take 10 years to complete, is aimed at advancing the capabilities of computer systems. Among other things, the Japanese government hopes to produce computers that can "think" for themselves, and to commercialize a process for using light instead of electrons to perform high-speed calculating functions.

A White House official remarked in a memorandum that the project might "pose a serious competitive threat" to the U.S. computer industry, and that Japan's efforts to tap computer scientists in American universities — who are considered the best in the world — for help on the project would permit the Japanese to set the international research agenda on advanced computing. He wrote:

The American academic community is eager to take MITI's money, in any amounts and on whatever terms. We in the federal government cannot stand idly by, and I don't think we can successfully block their access to our research community.⁶

Since this memo was reported in the summer of 1991 by the *Washington Post*, the White House has refused to comment on this issue. It is unclear whether there has been any follow-up by the federal government, although the *Post* did report that the U.S. government had told Japan that such recruiting efforts were inappropriate and should cease. There may be similar fears about Japan's efforts to make headway in the budding biotechnology industry as well. A number of American genetics specialists are now working for Japan, helping the Japanese gain ground in this highly competitive market. John Wood, an American molecular biologist who once worked "at a major [U.S.] Pharmaceuticals company,"⁷ is now conducting his genetics research for Japan's **Genosphere** biological research project, one of several genetics research programs on which the Japanese government spends \$15 million annually.⁸ Meanwhile, Japan has turned down requests from the U.S. government to provide financial support for the Human Genome Organization (HUGO), a **U.S.-sponsored** biotechnology program that's intended to promote international understanding of genetic science. Japanese politicians have said that they declined pressures to support HUGO because it would not provide adequate, direct benefits to Japan, either economically or **technologically**.⁹

Coming to America

Although the Japanese are trying hard to bring American scientists to Japan, these recruiting efforts are not always successful. Many U.S. researchers are reluctant to relocate to a country so far away, where they do not speak the language and where the professional culture is so different from their own. **As a result**, a number of **Japan's** largest companies are building new research laboratories in the United States, where they are more likely to engage the help of university and private-sector scientists.

An increasing number of Japanese corporate labs, in fact, are showing up near the campuses of America's most prestigious research universities. Japan's Canon Corporation, for example, has a laboratory in Palo Alto, California, where Stanford University is based. Both NEC and Matsushita have new research laboratories in Princeton, N.J. In the spring of 1991, Mitsubishi was said to be considering opening a research center in Cambridge, Massachusetts, near both Harvard and MIT.

Given their proximity to the new Japanese facilities, American university research

faculty are regularly courted by Japanese companies. Some Japanese firms **have** even enlisted the aid of prominent **U.S.** scientists to do their recruiting work for them. Michael Harrison, a well-known computer scientist at the University of California at Berkeley, was enlisted by Matsushita to help it hire America's most **talented** computer scientists. Harrison told a Washington Post reporter that word had leaked out about his recruiting role and that he had been getting a number of calls from **job-seekers**.¹⁰ **Already**, Matsushita -- which has built eight U.S. research facilities to **date**, most recently in San Jose, California — has four Princeton computer scientists "on leave" and working in its New Jersey facility to help get the firm's program started. At NEC's Princeton lab, 35 American **Ph.D.s** are now working on that company's new basic research program.

But it isn't always necessary for Japanese firms to move so close to American schools to lure away American scientists. Often, big salaries and guaranteed, long-term research contracts are enough of an incentive. Researchers may earn 20 to **30** percent more working for a Japanese corporate laboratory than for an American lab. Some of those who have been courted by Japanese firms say that a well-known **U.S. scientist** can earn a salary of up to \$250,000 to \$300,000, while a recent Ph.D. graduate can make as much as \$70,000. Moreover, such a job in the corporate sector ensures scientists that they will not need to rely on short-term federal grants for their research work.

In 1989, when Hitachi opened a semiconductor research lab in Brisbane, California, it advertised for three engineers — and got 70 applicants. Kenji **Kaneko**, a senior researcher at the facility, told one reporter: "In Japan, we guarantee long-term employment and long-term projects. That's well-known among American researchers, so many want to join us."¹¹ Dr. William Gear, once a computer scientist at the University of Illinois, is now vice president for NEC's computer science research division in the United States. Gear says that he left the academic community because NEC offered him the chance to conduct his research without having to worry about where he would get the funds he **needed**.¹²

Hiring American Tutors

In early 1991, the Media Laboratory at MIT received a \$10 million endowment gift from Japan. Income from the \$10 million endowment will pay for a striking technology transfer between MIT and Japan's Nihon University.

MIT's Media Lab researches new applications for video, film, and computer technologies. Nicholas Negroponte, the director of the Media Laboratory, explains that MIT researchers work closely with American industry in such areas as consumer electronics and so-called "display" technologies.¹³ Yet despite their collaboration with U.S. companies in this area — not to mention the millions of dollars that MIT has received over the last decade in government support for its computer research work — MIT scientists are now teaching a nonprofit research affiliate of Nihon University how to duplicate its computer laboratory in Japan.

Sending Their Own Investigators

Japanese companies also capitalize on scientific knowledge flow by sending employees to a laboratory to learn from its researchers. The Department of Commerce's Phyllis **Genther** explains, "Technology transfer happens best through person-to-person contact."

"Giving money doesn't provide direct results; what sponsors get is access and alliances," says Bayley Mason of Harvard University.¹⁴ As Mason explains, many Japanese firms that invest in university programs require that the universities permit some of the Japanese firms' researchers to take part in Harvard's research projects. In most cases, researchers enroll in the universities as graduate students; in other cases, they become research staff in the university labs.

Chapter III: Educating the American Public

We . . . are **planning** to carry out a grassroots PR campaign in an attempt to eliminate **the U.S.-Japan trade friction**. We would **like to call** for the **cooperation** and understanding of all those businessmen in direct contact with the U.S. . . . With the experience and knowledge you have gained from your successes in achieving deep penetration of Japanese brand names and the establishment of your enterprises in the U.S. market, we are confident that this campaign will prove a success.

Akio Morita, Chairman,
Electronic Industries Association of Japan and the
Sony Corporation

In 1985, this was Akio **Morita's** call to arms. Six years later, it is clear that many of his colleagues have taken heed. Japanese firms, working closely with Japanese foundations and government agencies, have organized and set in motion a massive campaign to change what Americans think about Japan. The public relations efforts are most pronounced in states where Japanese firms have large financial interests. There, politicians and businessmen have been recruited to advance Japanese interests and to educate the public about the need for more amicable bilateral relations.

Though less overt, the campaign is equally pervasive -- and has been in effect much longer -- in America's elementary and secondary schools. For more than a decade, Japanese interests have paid for American teachers to travel to and learn about Japan, to bring their knowledge back to American classrooms, and to teach their students and fellow educators what they have recently been taught. According to Charles von **Loewenfeldt**, a consultant who helps the Japanese government teach American educators about Japan, the result is that American students are learning more about Japan than ever before -- and some of what they learn is biased toward Japan's economic interests.

Working Through State Officials: The Case of Tennessee

In a planning paper titled "Grassroots PR Campaign," the Electronic Industries Association of Japan outlined a program through which Japanese companies with business interests in the United States would work to improve **Japan's image** in American communities. The project called for flooding American states and cities with information about Japan, expounding the benefits of Japanese investment to the United States, and the extent to which the success of Japanese firms improves the health of local economies. If this mass-education campaign was successful, the paper **explained**, Japanese companies would "have more impact on the Federal government."¹

Toward that aim, the **EIAJ** paper proposed that Japanese firms work to convey the following basic messages to Americans:

1. Direct investment by Japanese corporations in the U.S. is creating job opportunities and thus contributing to the U.S. society.
2. Japanese corporation activities in each of the states are contributing to the **revitalization** of these regional economies and thus contributing to society as a whole.

3. Japanese corporations are providing products that satisfy the needs of the U.S. consumers, thus contributing to the development of society and the enhancement of the standard of living in the **U.S.**
4. The industrial structures of the U.S. and Japan have a deeper level of mutual interdependence and an increased degree of mutual **reliance**.²

If Americans could be convinced that all of this were true - that there was no need for concern about **the** loss of control over domestic industries, or **the** loss of high value-added jobs in industries that were displaced by Japanese investment in the United States, or **the** loss of ownership of key technologies purchased along with industries bought by the Japanese - then they would be more likely to support Japan's long-term aims in the United States without fear of controversy, either in state capitals or in Washington, D.C.

One state in which Japanese firms have had great success in swaying public opinion is Tennessee. Today, in fact, a number of Tennessee school and political officials may actually be doing the job for Japan: they publish papers, distribute videotapes, and hold seminars to tell local business leaders and citizens how important it is to maintain friendly relations with Japanese firms, how valuable Japanese investment has been to Tennessee's economy, and how **superior Japanese firms are to American firms**. Of course, the willingness of **Tennesseans** to adopt this position may have something to do with the fact that, for the last decade, the state has waged a campaign to recruit as much Japanese direct investment as possible. What **Tennessee's** leaders seem to have found is that **the** best way to **get** and keep Japanese investment is to promote a positive image of Japan in America, particularly among the local constituency.

In **1985**, four professors with the University of Tennessee at Chattanooga produced a videotape and an accompanying study guide for local high school teachers titled "**Intercultural Contact: The Japanese in Rutherford County, Tennessee.**" Rutherford County is home to one of Tennessee's best-known Japanese investments, a massive Nissan **automotive** plant in **the** town of Smyrna. The economics section of the **teachers'** guide focuses on the plants Japanese firms own in the county and the superiority of Japanese industry over American industry.

One lesson the authors provide attempts to teach students the differences between Japanese firms and American firms to demonstrate why Japanese firms are more successful. In this exercise - a reprint of a U.S. News and World Report study released originally in 1985 — teachers are given a checklist of worker qualities by which their students can compare American and Japanese workers (reprinted on the next page).

By tallying which country's workers are "better" in each of the 10 categories provided -- among them, "hard work," "ambition," and "advanced skills" -- **the** exercise teaches educators and students alike that Japan's workers on the whole are better than America's (by seven to three, according to the scores the authors post). More troublesome is that the statements made about workers in both countries are broad generalizations; some are untrue and some are simply misleading.

In the "LOYALTY" category, for example, the exercise explains that Japanese workers are better because they anticipate spending their entire career working for one firm. Japanese companies, it says, "take a paternalistic interest in **employees**" in exchange for their loyalty. But the writers fail to acknowledge, for example, that Japan has no organized labor sector to speak of, largely because unions were squashed following the American occupation of Japan. As a result, most Japanese workers have minimal

<u>United States</u>	Who's Better	<u>Japan</u>
	Concern for <u>Quality</u>	
	Japanese workers possess an almost religious desire to do jobs well. They pay attention to detail. Many Americans just want to finish the job.	X
	<u>Initiative</u>	
X	On an individual level, Americans are willing to take the lead. They are concerned with who gets credit for exceptional work.	
	<u>Hard Work</u>	
	The work ethic is strong in both countries, but the experts give the Japanese a slight edge because they routinely put in extra hours . Their company is the central focus in their lives.	X
	<u>Honesty</u>	
	Because of strong identification with their company, Japanese are less likely to steal office supplies or cheat on time cards and expense accounts.	X
	<u>Ambition</u>	
X	America's individualistic culture encourages workers to strive to get ahead. Japanese, though ambitious, try not to stand out, especially early in their careers.	
	<u>Loyalty</u>	
	The average Japanese worker expects to spend an entire career at one firm . Companies, in turn, take a paternalistic interest in employees.	X
	<u>Basic Skills</u>	
	Japan's schools produce graduates with good basic skills. Japanese learn discipline and good work habits that they transfer to the job.	X
	<u>Advanced Skills</u>	
X	A close call. Workers in both nations are highly educated, but the U.S. has more college graduates and white-collar professionals.	
	<u>Reliability</u>	
	Japanese are reluctant to show up late or call in sick, largely because they don't want to let down their bosses and co-workers. Many skip parts of their vacations.	X
	<u>Cooperativeness</u>	
	Japanese subordinate individual concerns to group needs. This fosters a spirit of togetherness that is especially effective on the assembly line.	X

negotiating leverage with their firms; many have little choice but to be loyal, for fear of losing their jobs.

In two of the three categories in which the guide says that American workers are "better" than Japanese workers, the report still manages to use these superlatives to paint a negative picture of the American work force. American workers are alleged to have an edge in the categories of "**INITIATIVE**," "**AMBITION**," and "**ADVANCED SKILLS**." But this guide suggests that Americans have more work initiative because "They are concerned with who gets credit for exceptional **work**," and not necessarily because they might simply be motivated to take the lead. American workers, the report says, are more ambitious than their Japanese counterparts because the "Japanese, though ambitious, try not to stand **out**."'⁵

It would be difficult for any of the Japanese firms in Tennessee not to appreciate an educational package aimed at teaching Tennessee educators and students only good things about Japanese industry.

There is little to suggest that Tennessee's business and political officials have done otherwise, and much to suggest that their efforts to paint a favorable picture of Japan have resulted in a massive influx of Japanese investment in recent years. Indeed, Tennessee has several organizations whose sole purpose is to maintain good relations between the state and Japanese businesses located there. The largest of these groups are the Japan-Tennessee Society, the Japan Center of Tennessee and **Tennessee-Japan** Friends in Commerce (**TJFC**). When TJFC was launched in 1988, its new chairman — former Lieutenant Governor and Speaker of the Tennessee State Senate Frank **Gorrell** -- explained, "One of the main hopes of **Tennessee-Japan** Friends in Commerce is that the understanding of the mutual benefits of the friendship between Japan and Tennessee will help make that friendship grow even stronger, allowing Tennessee to continue to lead the United States in attracting Japanese investment."'⁶

In 1986, when he was the Governor of Tennessee, **Lamar** Alexander wrote the text of **Friends: Japanese and Tennesseans**, a 190-page picture book that focuses on the physical similarities between Japan and Tennessee. In the introduction, Alexander explained that being deferential to Japanese interests makes it much easier to lure Japanese money:

"**Don't** discuss the **War**." That's the Supreme Command, the one thing an American Governor seeking Japanese investment does *not* do. . . By early **1985**, ten percent or **\$1.2** billion of all Japanese investment in the fifty United States was in one state: Tennessee. We had learned our Japanese **manners**."⁷

Now that Alexander is the U.S. Secretary of Education, would he still advocate such an error of omission to gain favors — financial or otherwise -- from Japan?

Teaching Our Teachers: Bilateral Economics 101

Author Pat Choate says that "there is nothing wrong with Japan wanting to promote a favorable image of itself to **America**."⁸ What does seem wrong is that America's official channels are allowing themselves to be used by Japanese interests that seek to promote **Japan's** image of itself in the United States. America's state and local school boards, state government officials, public universities, national educational

school boards, state government officials, public universities, national educational organizations — even the U.S. Department of Education — help facilitate Japan's public relations campaign in America. These are the vehicles for teaching America's future leaders what the Japanese want them to know about Japan.

Today, many American elementary and secondary educators involved in Japanese studies have gained their insights through programs sponsored by the Japanese government. What many American students now learn about Japan is contained in teaching materials produced or supported by Japanese organizations. Many of the public university programs that supply teaching materials about Japan to U.S. schools are funded by a single Japanese foundation. Even the federal government's official clearinghouse for educational materials distributes lists of textbooks, videotapes, and lesson plans funded by the Japanese.

This is not meant to suggest that Americans should not learn about other cultures from other countries, or, for that matter, that what American children are learning about Japan is entirely inaccurate. In part, Japanese intervention in American classrooms has helped to fill a troublesome gap in what American children and American educators know about Japan. Some of what the Japanese pay to be taught in American classrooms helps to dispel myths that many American children believe about Japan -- that the Japanese drive around in rickshaws, that they wear only kimonos, or that Japanese children are fundamentally different from American children. Other efforts have been designed to help Americans learn more about Japan on their own. In 1990, for instance, Japanese Prime Minister Toshiki Kaifu announced that the Japanese government would spend \$330 million to teach American educators how to speak, read, and write **Japanese**.⁹

But through a widening array of programs, the Japanese are also attempting to teach Americans some basic lessons in international economics. Some of these lessons, which are aimed at both American educators and at the elementary and high school students they teach, paint a one-sided picture of Japanese economic practices and the bilateral trade relationship.

Japan Study Tours

In 1977, the Japan Foundation, a cultural arm of the Japanese government, initiated its "**Japan Study Tour**" program for American educators. The tour is organized and run by consultant von Loewenfeldt, who has been a paid agent of **Japan's government** and private interests since the late 1950s.¹⁰ In 1980, von Loewenfeldt says, after he "prevailed upon the Japanese private sector" to fund a similar program, Japan's **Keizai Koho Center** (or the Institute for Social and Economic Affairs) added a second annual trip to teach faculty and administrators of American elementary and secondary schools more about **Japan**.¹¹

Each educator on the trip spends 16 days visiting with Japanese families, touring Japanese schools, meeting with Japanese business leaders, and learning about Japan's history and culture. Von Loewenfeldt and his staff are responsible for conducting all pre-trip publicity, coordinating logistics, arranging for Japanese government escorts, and handling follow-up communications with participating educators.¹² All expenses are paid by the Japanese. An administrator who has been on the trip estimates the cost per participant at more than \$ 10,000.¹³ Today, with 500 alumni in all 50 states, the Japanese have spent in the neighborhood of \$10 million for the "**study tour**": \$5 million on travel and accommodations for the educators, \$3 million to \$4 million for von Loewenfeldt and his staff, and perhaps \$1 million to \$2 million on follow-up programs.

"There is Too Much Japan-Bashing"

Von Loewenfeldt says that his involvement in the study tours was motivated by what he believes is American "misunderstanding (of) the U.S.-Japan relationship," particularly when it comes to the economic differences between the two nations. He believes that American resentment of Japan's trade position is the result of "a great deal of ignorance" in the United States, and he sees the program as a way to improve what Americans -- in this case, American teachers and students — know and think about the Japanese:

There is too much Japan-bashing. It is too easy to blame Japan for many of our own economic ills without sufficient regard as to the real causes of those problems. We have to understand why they are succeeding the way they are. If we give teachers that knowledge, they will understand better.¹⁴

Frederick Risinger, a former president of the National Council for Social Studies and currently the head of the national Educational Resources and Information Clearinghouse, has participated in two of von Loewenfeldt's Japan study tours. He says that programs like von Loewenfeldt's are an important means of helping American educators to bring intercultural information into their classrooms, but that there is also a danger in permitting other countries to pay for this sort of teacher training. "As a profession," he says, "we leave ourselves open to being bought."

Risinger recalls that his second trip, in 1983, included three educators from Flint, Michigan, which is home to a major General Motors manufacturing facility. Before they arrived in Japan, he says, the Michigan delegation seemed hostile to the Japanese, partly because of GM's struggle to fend off stiff Japanese competition and the degree to which GM's troubles had taken a toll on Flint. "But at the end of the trip," which included stays at lavish hotels, extensive tours of Japanese historical and cultural institutions, catered social events and interactions with local Japanese families, "everyone was very pleased," Risinger says.¹⁵

Such favorable impressions of the Japanese are expected to be conveyed by study tour participants when they get home. In their classrooms and school districts, educators can teach their students the "facts" of the bilateral trade controversy. Even a kindergartener, says von Loewenfeldt, can be taught to "understand" why the Japanese are economically superior to America. In reference to the long-standing controversy over U.S. car sales in Japan, von Loewenfeldt says, a teacher can explain that American cars don't sell in Japan because American car companies do not make vehicles suitable for the Japanese:

Take the child and show him an American automobile and a Japanese automobile. Ask the child which automobile has the steering wheel on the right, and which one on the left. Then the child learns that no American company has learned to put the wheel on the right side of the car.¹⁶

That, of course, is nonsense. As the Motor Vehicle Association of America will tell you, all of America's major U.S. car companies can and do make automobiles with right-side steering columns. In Great Britain, where vehicles are required to have steering wheels on the right side, nearly 600,000 American cars were sold in 1990 alone.¹⁷

The Ripple Effect

In the mid-1970s, von **Loewenfeldt** and his associates conducted an extensive study to determine how best to get information about Japan into America's classrooms. Susan **Brossy Crosier**, von **Loewenfeldt's** business partner, explains, "If we wanted American children to learn about **Japan**, we had to convince their classroom teachers of the importance of teaching about **Japan**."¹⁸

But the intention of program organizers is to ensure that their efforts have an impact well beyond the classroom of each teacher who participates. The **program's** 44 annual participants are chosen based on two main criteria: A lack of familiarity with **Japan**, and a plan to bring their new "**insights**" into as many American classrooms as possible. The application for the program asks prospective participants how they plan to use the information they gain while in **Japan**, and how they can tap their professional network — other teachers and administrators, local school boards, and local, state, and national educational organizations -- to ensure that the information provided by the program will be used by the greatest possible number of American educators and conveyed to the greatest possible number of American students.

In a speech delivered to the U.S.-Japan Foundation in 1982, Crosier explained the intended "ripple effect" of the Japan study tours: "One teacher who has **visited Japan** can infect hundreds, even thousands, of other teachers with his or her **enthusiasm**."¹⁹

What Alumni Produce

When they return from Japan, says von **Lowenfeldt**, study tour alumni are very active in promoting Japan studies programs in American schools, and they work hard to share their information about Japan with fellow educators. Many alumni organize local and regional teachers' workshops; others lecture in their area to those eager to introduce Japan to their own classes. Nearly all alumni prepare teaching materials — lesson plans, sample assignments, even videotapes — for use in local classrooms.

Risinger insists that, as a rule, the teachers materials are not biased toward Japan's interests: "In no way can the materials produced be seen as **pro-Japanese propaganda**," he said, with the possible exception of teaching materials for U.S.-Japan economics.²⁰

Linda Miller is a social studies teacher at **Virginia's** Fairfax High School and the **state's** 1989 "Teacher of the **Year**." Since returning from the **1988 Keizai Koho** Center study tour, Miller has prepared hundreds of pages of lesson plans and teaching guides about Japan for her own students and for other teachers, she has held workshops and seminars aimed at showing other educators how to teach about **Japan**, she has organized special "Japan Days" for her school, and she has served as an educational consultant to Newsweek.

Among the lesson plans Miller has prepared and distributed is "Japan Today: A Resource Teaching **Guide**." The economics section of the lesson plan includes two news articles, both of which focus on "Japan-bashing" in Congress. One article depicts the now-famous incident in which **U.S.** legislators smashed Toshiba electronics equipment on the steps of the Capitol to protest the illegal sale by a Toshiba subsidiary of proprietary military technology to the Soviet Union.

Miller's economics section includes four other items. One is a letter to Japan's Prime Minister from Members of the Japanese Diet explaining, among other things, that

those who argue that Japanese semiconductor export practices could hurt the U.S. semiconductor industry are **misguided**, and that bilateral trade imbalances are largely due to American macroeconomic failures. Another is a statement by the Japanese Diet on the impact of the 1988 Omnibus Trade Act, called "Protectionist Moves in **America**." The third and fourth are **U.S.-Japan** trade data supplied by the **Keizai Koho** Center.

Rita Geiger is a social studies consultant to the Oklahoma State Department of Education. After participating in one of the Japan Study Tours in the early 1980s, Geiger returned and prepared a Japan studies curriculum guide. Oklahoma State School Superintendent John M. Folks wrote in the foreword to the 200-page book that "The guide is aimed at creating an understanding of and appreciation for our neighbor, **Japan**."²¹ The guide was approved by the Oklahoma State Department of Education in **1983**, and revised in 1987. It is now available as a teaching resource in all Oklahoma secondary schools.

In the economics section of Geiger's curriculum guide are a number of suggested activities to familiarize students with **U.S.-Japan** trade patterns. In one exercise, students are asked to list Japanese products purchased by consumers in Oklahoma in one column, and U.S. products bought by Japanese consumers in another. "For example," says the exercise, "Oklahoma exports oil and soybeans, Japan imports oil and soybeans; Oklahoma imports motorcycles, Japan exports **motorcycles**." The point is to impress upon students that Americans buy only things from Japan that they want, while Japanese consumers import things that they need. Teachers are told to ask their students the following:

Which products listed on your charts are necessities and which are luxuries?
Based on your charts, does Japan import more necessities or luxuries? Does
Oklahoma import more necessities or luxuries?²²

Little mention is made of the billions of dollars' worth of technology that Japan imports each year when it buys American patents or when it acquires American companies. There is no mention of the fact that Japan is one of the world's biggest importers of consumer luxury items — expensive watches, high-priced retail clothing, leather goods — from the United States and Europe. There is no mention of the products and services Japan bars or restricts from its markets, from necessities like rice to luxuries like financial services, or, for that matter, of restrictive U.S. trade policies as well. Instead, a simplistic — and distorted — picture is presented to impressionable students.

Helping Universities Help The Schools

In addition to producing their own materials and relying on the work of their fellow educators, many teachers turn to public and private universities to provide lesson plans, reference books, and other works for teaching about Japan. With Japanese foundation funding, a number of such resource centers have sprung up across the country, aimed at providing such information and materials about Japan to American educators. For example, on the subject of economics, the materials funded by the **U.S.-Japan** Foundation are heavily tilted toward controversial positions of the Japanese government, and opposed by many U.S. interests.

In cramped office space at Columbia University, the East Asian Curriculum Project (EACP) develops and disseminates textbook materials for high school teachers and sponsors workshops that mainly address how to teach American students about Japan and China. EACP Associate Director Mike Chambers explains that the main purpose of

the program is to “fill the knowledge gap” of American high school teachers who have learned little about Japan, China and the rest of Southeast Asia.²³

EACP's major publication on Japanese studies is called Contemporary Japan: A Teaching Workbook (With Topical Lessons and Units to Supplement Secondary School Textbooks). The EACP guide offers a highly detailed series of recommended student activities and provides several background papers that teachers can use to learn about U.S.-Japan economics, foreign policy issues, and recent bilateral trade controversies.

In sharp contrast to the concerns of many American economists, the workbook offers this guide to understanding U.S.-Japan trade imbalances: First, that the American public and U.S. policy-makers should not concern themselves with the ongoing bilateral trade conflict:

[A]ccording to economic theory, we do not need to worry about trade imbalances because market forces cause them to disappear.

Second, that the roots of the persistent bilateral trade deficit are irrelevant:

It does not matter whether the bilateral trade deficit is caused by protectionist policies in Japan or by spending policies in the United States.

And finally, that the U.S. government should beware of acting too harshly to remedy the trade deficit with Japan, lest such actions wreak havoc on the global economy:

Attempts by the United States to solve this problem unilaterally are likely to result in a recession in the United States and reduced growth in the world at large.²⁴

Columbia's EACP program is not linked with the Japan Study Tour organization; its activities on Japan are funded by annual grants from the U.S.-Japan Foundation (USJF), which are earmarked for the production of Japanese studies materials and seminars. The U.S.-Japan Foundation is a New York-based organization that was endowed with a multi-million-dollar grant from the Japan Shipbuilding Industry Association. The earnings on this endowment, together with returns on investments made with this seed money, are the Foundation's only source of income.

Both the Shipbuilding Industry Association and the USJF (whose advisers include former Presidents Jimmy Carter and Gerald Ford) were the brainchildren of Japanese billionaire Ryoichi Sasakawa. Sasakawa, now 91 years old, was jailed as a war criminal in World War II for organizing and leading a band of ultra-nationalist rebels, and according to State Department documents, was “one of the worst offenders, outside the military, in developing in Japan a policy of totalitarianism and aggression. He was active in the war and grew rich off ill-gotten gains.”²⁵

In some cases, Sasakawa's reputation has made his educational funding efforts the subject of considerable controversy.²⁶ At the University of California at Berkeley, for instance, a Sasakawa/Shipbuilding Industry Association \$1 million donation for a university fellowship prompted considerable controversy on campus. When it was announced the university would accept the gift, the school

newspaper published a front-page story titled "Fascist Endows Fellowship; University **Accepts** \$1 Million from **Japan's 'Godfather'.**" Today, officials of the Foundation **deny** any formal association with **Sasakawa**.

The Foundation has found willing recipients in nearly a dozen such university resource programs across **the** country. In fact, **the** grants to these schools **are part** of a decade-old **USJF** initiative called the "Program for Teaching About **Japan**," which has thus far spent about \$10 million on Japan studies programs based in American universities, where educational materials are prepared and symposia are organized for American elementary and secondary school **teachers**. A handful of schools in Japan also receive **USJF** money to conduct international teaching programs there.

The initial **USJF** effort began at Stanford University. In addition to Stanford and Columbia, other schools that receive substantial **USJF** funding are the University of Alabama, the University of Alaska, East Carolina University, the University of Kansas, the University of Maryland, the University of Minnesota, and Texas Tech University. In 1988 and 1989 alone, these universities received nearly \$3 million in **USJF** funding. Together with the Five College Center in **Amherst**, Massachusetts, and the Boulder, **Colorado-based** Social Science Education Consortium, these schools provide information and materials to educators in 43 states and the District of Columbia. 28

The **USJF** provides a large portion of the money to support a Japan studies program at the University of Maryland — called **MARJiS**, for **Mid-Atlantic Region Japan-in-the-Schools** — which serves as a resource center for elementary and secondary school teachers in **Maryland**, Virginia, West Virginia, and the District of Columbia. At the old entrance to the Center, which is in the university main library, was a large poster of American tourists in **Japan**. In large print the poster read:

Our Friends in Japan
Our Friends Across the Nation
Our Friends At the **U.S.-Japan** Foundation

Former Center Coordinator **Miyuki Yoshikami** says that **the role** of the **MARJiS** staff is to provide expertise for American teachers on the behavior of the Japanese people.

For example, many people want to know why [**U.S.** companies] have such a difficult time getting in the Japanese market. We try to...**help** them understand Japan's reluctance to let Americans into their market. We try to explain Japanese customs and culture. We help them understand Japan's reluctance to let American [products] in.²⁹

Like the Japan Foundation and the **Keizai Koho** Center, **MARJiS** also sponsors annual Japan study tours. Yoshikami says that teachers who take the 18-day trip "**go** through Japan vertically and **horizontally**," touring local inns, staying with Japanese families, spending a day at Hiroshima peace park, then visiting Tokyo. "We can see the difference between teachers who have been to Japan on our program and those who **haven't** been to Japan," she says. "The content of our program creates a real sensitivity [to **Japan**]."³⁰ She adds that teachers who participate in the **MARJiS** tours are expected to "**justify the time and expense**" of the tour borne by **MARJiS** and the **USJF** by "**spreading the knowledge**" they gained on the trip.

MARJiS does its own job of "spreading the knowledge" as well, providing a number of basic teaching resources for educators - "**artifacts kits**" of traditional Japanese

clothing and **children's** games, for instance, and several lesson plans and teachers' guides. One of the popular **MARJIS** teaching guides is called "What I Want To Know About Japan: Brief Answers to Questions Asked About Japan By American High School **Students**." The monograph, which was prepared and distributed by the Japan Information Center at the New York Consulate General of **Japan**, offers a series of detailed questions and answers about Japanese issues ranging from geography and climate to government and industry.

While billed by the Center and the Japanese government as a factual guide to understanding Japan, the booklet actually contains some serious errors of omission in its discussion of economic issues. In one passage, the guide responds to a question about Japanese farming practices. It quite accurately states that "Japan is the **world's** largest and most reliable customer for American farm **exports**. . ."³¹ What it does not say is that many in the U.S. farming community have protested loudly against Japan's **disallowal** of a number of American agricultural **products**, either through direct barriers or through indirect, non-tariff **barriers**.

Importing Japanese Teaching Guides

More glaring errors of omission in Japan studies materials can be found in those offered to American educators by Tokyo-based organizations funded in whole or part by the Japanese government. These groups send brochures, lesson plans, and monographs to state and local education community leaders in the United States. No one knows how many of these materials are actually used in American classrooms.

The Japan of **Today**, a 157-page, multicolor primer printed in 1989 by the International Society For Educational Information in Tokyo, gives a detailed account of the evolution of the Japanese multiparty political system and offers a succinct chronology of the **Meiji** Restoration, the period in the late 1800s and early 1900s when Japan began its first major industrial surge. Yet nowhere in the book is there information about **Japan's** famed military invasion of Manchuria in 1932 -- though this takeover was perhaps the single greatest prewar signal to the Allied Powers that Japan would pose a significant security concern in the Far East, and was characterized by economic historian Paul Kennedy as "a threat to the open-door world upon **which**, in theory, the American way of life was so **dependent**."³³

A second monograph published by the International Society for Educational **Information**, A Chronological Outline of Japanese **History**, describes **the** invasion of Manchuria simply as "the creation of the state of **Manchuria**."³⁴ And despite its minute details in other regards, the guide also omits entirely any mention of the December 7, 1941, Japanese bombing of Pearl Harbor.

In addition to errors of omission in these discussions of modern Japan, many Japan-funded teachers' guides and classroom materials also feature what are arguably one-sided accounts of the **U.S.-Japan** economic relationship.

The Japan of **Today**, for example, explains that rapidly mounting Japanese direct investment in the United States and elsewhere is "based on the perception that direct investment is the most effective means of averting the fundamental causes of friction with Japan's trade **partners**." The monograph fails to mention mounting American anxieties over the notion that such investment gives Japanese firms greater penetration of U.S. markets without the worry of tariffs and other barriers, expanded influence over major American industries, and, when Japanese firms acquire high-tech American companies,

access to some of this country's most promising innovations. And while American analysts have documented that, despite growing Japanese investment in the United States and elsewhere, Japan is often impenetrable to foreign investors, The Japan of Today asserts that Japan's foreign investment activities reflect "the realization that a mutually complementary system based on the horizontal division of labor across international borders benefits all parties involved."³⁵

Official Channels of Distribution

It is customary for educators who produce teaching materials to submit them to university educational clearinghouses, which review them and then make them available to other educators. The U.S. government has its own central clearinghouse for the same purpose. Any educator in search of teaching materials can use the Department of **Education-sponsored** Educational Resources and Information Clearinghouse (ERIC), which provides bibliographical lists of reference materials on virtually any topic taught in American schools. Educators may assume that, while the Department of Education (DoE) does not necessarily endorse the contents of each of the teaching materials it lists, **DoE/ERIC** officials have reviewed the documents for **accuracy**, timeliness and usefulness before including them in official guides for reference materials.

ERIC's Social Studies Clearinghouse is operated from Indiana University at **Bloomington** under a five-year contract with the Department of Education which is due to expire in 1992. Indiana University is also a recipient of annual grants from the U.S.-Japan Foundation, which enable it to run a National Clearinghouse for **U.S.-Japan** Studies. Risinger, the director of ERIC, was formerly the head of the National Clearinghouse.

A request submitted to **ERIC's** Social Studies Clearinghouse for teaching materials on Japan yielded **five** separate lists; of the materials listed, **roughly** half of the lesson plans and resource books are distributed directly or are sponsored indirectly by Japanese interests.

One of the resource guides referenced by ERIC was prepared by Linda **Wojtan**, who until recently was the Associate Director of **MARJIS**. According to von **Loewenfeld**, Wojtan has been an adviser to his organization, aiding with the Japan study trips for the last several years. From 1984 to 1986, she was a member of the publications board of the National Council for Social Studies.

Wojtan says that the Midwest Program for teaching about Japan is actually in the same office as is the Department of Education-contracted ERIC facility. She says that staff and resources generally are not shared, although the two groups do use common computer systems and ERIC solicits Midwest Program teaching materials for its document collection. Later this year, she says, ERIC will publish and distribute a major teaching and study tour reference book, which is being organized and written by administrators from several of the USJF-funded programs across the **country**.³⁶

Wojtan's "Free Resources for Teaching About Japan" offers educators a list of materials -- journal articles, textbooks, lesson plans and videotapes -- that they can use to teach their students about **Japan**. It covers topics from literature and culture to politics and economics. A mild disclaimer in the front of the book advises educators that "some of the **materials**" may present a one-sided perspective. Wojtan says that ERIC does not

require such a disclaimer, and that she added it herself. A review of each of the lesson plans, however, reveals that many of those included in the list were either prepared by the Japanese government or funded by a Japanese organization.

Chapter IV: Funding America's Idea Merchants

What I **fear**, therefore, is a government of experts . . . What are we for if we are to be scientifically **taken care of** by a small **number of gentlemen who** are **the** only men who understand **the** job? Because if we don't understand **the** job, then we are not free people.

Woodrow Wilson, 1912

Many of America's public policies have been born at the quasi-academic institutions **we call** "think **tanks**." Think tank scholars regularly testify before Congress. Their writings have been transformed into law. Their opinions are sought by the media and by those in or running for high political office, including the Presidency.

It should be no surprise, **then**, that Japanese interests have forged ties with these idea merchants, providing \$5.4 million between 1985 and 1990 to **five** major Washington think tanks examined in this study. Nor should it be a surprise that these funds chiefly have gone to think tanks whose works are, for the most part, to the liking of the Japanese. Washington is not overflowing with people who feed the mouths that bite them.

The overwhelming majority of this money -- in fact, all but \$80,000 — went to the Center for Strategic and International Studies (CSIS), the **Brookings** Institution, the Institute for International Economics (IIE) and the American Enterprise Institute (AEI). These establishment think tanks tend to be moderate/conservative to moderate/liberal, with scholars who are not renowned for strong attacks against Tokyo. The Heritage Foundation — which received the other \$80,000 -- is ideologically further to the right, hosting scholars who are as wont to chastise the Japanese as anyone else for sins against the free market. In short, the Japanese are promoting the development and spread -- through the think **tanks'** own publications and conferences, through the mass media, through the scholars' political networks -- of beliefs that are favorable to Japanese positions. While there's nothing improper about this arrangement (there's no evidence that scholars involved have revised any positions to please Japanese **benefactors**), it can seriously distort national debates. The views issued from think tanks often dominate the Washington debate -- even if the American citizenry strongly opposes them.

Consider, for example, four basic policy arguments widely regarded as favorable to the Japanese position, or "**pro-Japan**." Then compare where studies from these think tanks stand with opinions of the American public. First, the four "pro-Japan" arguments:

1. The amount of the U.S. trade deficit attributable to unfair Japanese trade practices is overstated.
2. The U.S. should not resort to "protective" measures to alleviate its trade.
3. Japanese direct investment poses no real threat to U.S. national security and is generally good for the U.S. economy.
4. Japan should **not** be compelled to increase its current share of the common defense **burden**.

**ECONOMIC THINK TANKS:
WHAT THEY PUBLISH ON BILATERAL ISSUES,
AND HOW MUCH THEY RECEIVE FROM JAPANESE SOURCES**

“PRO-JAPAN” POSITIONS

Think Tanks:	Institute for International Ecomonics*	Center for Strategic And International Studies	American Enterprise Institute	Heritage Foundation	Brookings Institution
Funding From 1986	\$75,000	\$245,200	\$130,000	\$16,000	\$79,500
Japanese 1987	\$285,000	\$155,000	\$150,000	\$16,000	\$146,000
Sources 1988	\$200,000	\$215,000	\$172,000	\$16,000	\$315,000
(1986-90) 1989	\$235,000	\$444,024	\$190,000	\$16,000	\$652,665
1990	\$220,000	\$753,184	\$204,000	\$16,000	\$417,519
Total	\$1,015,000	\$1,812,408	\$846,000	\$80,000	\$1,610,684
The Amount of U.S. Trade Deficit Attributable to Unfair Japanese Trade Practices Is Overstated	Agree	Agree	Agree	Agree	Agree
The U.S. Should Not Resort to "Protective" Measures to Alleviate Its Trade Deficit	Agree	No Comment	Agree	Agree	Agree
Japanese Direct Investment Poses No Real Threat to U.S. National Security and Is Generally Good for the U.S. Economy	Agree	No Comment	No Comment	Agree	Agree
Japan Should Not Be Compelled to Increase Its Current Share of the Common Defense Burden	Disagree	Agree	Agree	Disagree	Agree

"AGREE" indicates that the respective position was published in one or more studies.

"DISAGREE" indicates that the respective position was published in one or more studies.

"NO COMMENT" indicates that no position has been taken with respect to the corresponding issue.

* As reported here, Japanese funding for HE includes contributions from the United States-Japan Foundation (USJF), an organization which IIE considers to be an American source because it is located in New York and is staffed by Americans. But USJF is funded entirely by Japanese **sources**, and thus, for the purpose of this study, is considered a Japanese interest.

**ECONOMIC THINK TANKS:
WHAT THEY PUBLISH ON BILATERAL ISSUES,
AND HOW MUCH THEY RECEIVE FROM JAPANESE SOURCES**

“PRO-USA” POSITIONS

Think Tanks:	Institute for International Economics*	Center for Strategic And International Studies	American Enterprise Institute	Heritage Foundation	Brookings Institution
Funding From 1986	\$75,000	\$245,200	\$130,000	\$16,000	\$79,500
Japanese 1987	\$285,000	\$155,000	\$150,000	\$16,000	\$146,000
Sources 1988	\$200,000	\$215,000	\$172,000	\$16,000	\$315,000
(1986-90) 1989	\$235,000	\$444,024	\$190,000	\$16,000	\$652,665
1990	\$220,000	5753,184	\$204,000	\$16,000	\$417,519
Total	\$1,015,000	\$1,812,408	\$846,000	\$80,000	\$1,610,684
Unfair Japanese Trade Practices Are A Major Cause of the U.S. Trade Deficit	Disagree	Disagree	Disagree	Agree	Agree
Protective U.S. Measures Are A Viable Means of Leveling the International Trade "Playing Field"	Disagree	No Comment	Disagree	Disagree	Disagree
Japanese Direct Investment Poses A Threat to National Security, And Its Growing Rate Is Cause For Concern	Disagree	NoComment	NoComment	Disagree	Disagree
Japan Can And Should Contribute More to The Cost of the Common Defense Burden	Agree	Disagree	Agree	Agree	Disagree

"AGREE" indicates that the respective position was published in one or more studies.

"DISAGREE" indicates that the respective position was published in one or more studies.

"NO COMMENT" indicates that no position has been taken with respect to the corresponding issue.

* As reported here, Japanese funding for IIE includes contributions from the United States-Japan Foundation (USJF), an organization which IIE considers to be an American source because it is located in New York and is staffed by Americans. But USJF is funded entirely by Japanese sources, and thus, for the purpose of this study, is **considered** a Japanese interest.

ON UNFAIR JAPANESE TRADE PRACTICES

All of the think tanks getting money from Japanese sources house scholars who maintain that the amount of the U.S. trade deficit attributable to unfair Japanese trade practices is greatly exaggerated. C. Fred Bergsten, IIE's executive director and a former Treasury Department official, for example, first advanced this view in his 1985 book, *The United States-Japan Economic Problem*. Another IIE publication reiterated the view the following year when economist I. M. Destler recalled some legislators' efforts to retaliate **against** unfair Japanese trade practices:

[T]here was one small difficulty. Japanese trade policies had very little relation to the American trade imbalance that was generating such enormous pressures on Capitol Hill. Japan had not created it, and improvements in its trade behavior would not solve it, however desirable they might be on other grounds.¹

The one CSIS publication to date that has specifically addressed this issue presents the same argument. In *The United States and the Asia Pacific Region*, Martin E. Weinstein (who, at the time, held CSIS' Japan Chair, endowed by the Toyota Foundation), Eugene K. Lawson, Frederick Z. Brown and Young C. Kim state:

[E]ven if the Japanese were to comply with U.S. trade demands and buy all the ... products that U.S. producers think the Japanese ought to buy, it would amount to only \$5-10 billion of business -- less than 15 percent of the U.S. trade deficit with Japan...²

Scholars affiliated with these groups and others — AEI in particular — blame American **macroeconomic** failures for the decline in America's trade position relative to Japan. IIE's Bergsten has argued that the **persistent** U.S. budget deficit, which increased the need for foreign capital, forced regulators to maintain high U.S. interest rates. In turn, he **maintains**, this pushed up the value of the dollar relative to other **currencies**, making U.S. exports less cost-competitive in international markets.

Bergsten's arguments, together with those of IIE scholars and writers in other think tanks who have espoused similar views, have played a role in U.S. efforts to revalue the dollar in the 1980s, and may have helped dissuade the Bush Administration from levying harsh sanctions against Japan's restrictive trade practices.

But public opinion polls suggest that Americans don't heap as much blame on themselves as these scholars might wish. While no poll's wording exactly matches those of the arguments here, a 1990 CBS/New York Times survey did show that only 44 percent agree that we're blaming Japan for our own industrial **problems**.³ A much higher proportion of *Japanese* -- 68 percent - think we're using them as the scapegoats, according to a corresponding 1990 poll by the Tokyo Broadcasting System.⁴

ON AMERICAN “PROTECTIONISM”

A much sharper divergence of opinion between these scholars and the public emerges over whether the United States should retaliate against the Japanese with protective measures.

Four of the five think tanks -- IIE, AEI, Heritage and Brookings -- have published studies which maintain that the United States shouldn't resort to such protective measures. Publications of the Heritage Foundation, for example, have been highly critical of efforts to protect U.S. industry against Japanese competition. Heritage scholar Bryan T. Johnson argues in one study, The U.S.-Japan Semiconductor Agreement, that U.S. tariffs and import quotas on Japanese semiconductor shipments are the wrong way to address the decline of U.S. semiconductor firms relative to Japan's — a decline he (again) blames on U.S. macroeconomic failures.⁵

In fairness, it should be noted that Heritage scholars like Roger A. Brooks have been equally as critical of Japan's protectionist measures.

On this score, however, a 1985 report entitled Protectionism: Trade Policy in Democratic Societies by AEI scholar Jan Tumlir argues that Japanese protectionism is less pervasive than the U.S. variety — and that further restrictions on U.S. imports are unreasonable. Specifically, Tumlir maintains, "It is impossible to show that Japan is noticeably more protectionist than many other industrial countries; what can be shown is that Japan has accepted more restrictions on its exports than it has imposed on its imports."⁶

Those may be the opinions of Bryan Johnson, Jan Tumlir and others at these think tanks, but they bear no resemblance to the positions of most Americans. A 1991 Roper survey found, for example, that large majorities of Americans would deal with the U.S.-Japan trade deficit by:

- Raising import taxes on Japanese products so that they are priced as high as American-made goods.64%
- Imposing quotas on Japanese products so that fewer of them can be sold in this country.67%
- Requiring that 50% of any Japanese product sold in this country be made in this country.70%
- Pressuring the Japanese to open their doors to more American products.86%⁷

It would be difficult to show, however, that such views of the American public receive "equal time" in the Washington debate on these sensitive questions.

ON JAPANESE DIRECT INVESTMENT

The same holds for the issue of whether we should worry about Japanese direct investment in the United States.

The 1990 CBS/New York Times poll, for example, found that 64 percent of Americans regard the increase in Japanese investment **here** as a threat to American economic independence. Indeed, the corresponding Tokyo Broadcasting poll even found that a *majority* — **51** percent -- *of Japanese* say their companies' investments here pose such a threat to us. But you will be hard put to **find** studies published by the **five** think tanks expressing such a view.

Quite the contrary. In 1989, IIE released a monograph titled Foreign Direct Investment in the United States by visiting fellows Edward M. Graham and Paul R. **Krugman**. The authors contend that Japanese investments in this country pose no threat to U.S. economic or national security. Graham and Krugman conclude:

A careful assessment of the evidence on (foreign direct investment) in the United States does not justify great concern about its **effects**. . . There is little in this evidence to suggest that affiliates of foreign firms make less of a contribution to the US economy than do US-owned firms in the same industry. . . Japanese firms show surprisingly little difference in their behavior from other foreign firms.⁸

ON THE COST OF THE DEFENSE BURDEN

There has been considerable debate in Washington and elsewhere over whether the United States should push Japan to pay more of the cost to defend the democratic world. Recently, this debate has been fueled by Japan's official response to U.S. and European military efforts during the Gulf War, when Japan declined to send troops to the region to augment Allied efforts.

A Washington **Post-ABC** News poll found that 30 percent of Americans lost respect for Japan after the war **ended**.⁹ And according to a Business Week poll, 73 percent of Americans believe Japan didn't contribute its "fair share" to the war **effort**.¹⁰

Scholars at four of the think tanks have addressed the Japan defense issue in recent years. At two of the four — **CSIS** and **AEI** — they have maintained that the federal government should not compel Japan to increase its share of the common defense burden. (AEI has also published papers which take the opposite **position**, as have **IIE** and **Heritage**).

CSIS writers, known for considering the military and geopolitical implications of U.S. economic policy, have perhaps made the strongest statements against pushing Japan to shoulder more of the defense burden. Weinstein, Lawson, Brown and Kim specifically argue that the Japanese already contribute adequately to military efforts, and that to require more money from Japan would thus be improper: "The Japanese government contributes **more to the support of U.S. bases in their country than does any other ally**. In 1988, Japanese support costs will be \$46,500 for each U.S. service person in **Japan**."¹¹

In *Burden Sharing: The Wrong Issue*. CSIS writers Leo Reddy and David Jones contest the financial legitimacy of compelling Japan to increase its share of defense costs. They suggest that "[a]ctual U.S. savings from any feasible new burden-sharing package with the allies . . . are likely to be **meager**."¹² And in the preface of another CSIS report, executive director David Abshire and Stanley Harrison assert that those who believe Japan should pay more to maintain international military bases are simply misguided:

Pressure for Japanese rearmament would almost surely prove counterproductive; instead, efforts should be focused on enlarging Japanese economic aid to countries of strategic significance to Japan and the United States.¹³

Thus, once again, generally what the Washington establishment think tanks advocate does not necessarily reflect the mainstream of American opinion.

APPENDIX A: COLLEGE AND UNIVERSITY RECIPIENTS OF JAPANESE MONEY, 1986-1991 (Partial Listing from Publicly Available Source)	
School	Source & Itemized Amounts
Arizona State University Total=\$81,847	\$81,847 in 1990 from the American Honda Foundation to fund a demonstration project in "the preparedness of college-bound secondary school students."
Ball State University (IN) Total=\$50,000	\$50,000 in 1990 from the Toyota USA Foundation to the Center for Integrating Technology in Teaching Science.
Bard College (NY) Total=\$25,000	\$25,000 in 1986 from the Panasonic/Matsushita Electric Corporation Foundation.
Bergen Community College (NJ) Total=\$12,750	\$12,750 in 1989 from the Hitachi Foundation to sponsor the development of a model program to encourage the use of The World Game Institute, an organization that teaches geography to school children.
Blackburn College (IL) Total=\$60,000	\$10,000 in 1989 from the Panasonic/Matsushita Electric Corporation Foundation to support and develop Asian and Japanese studies. \$50,000 in 1987 from the Panasonic/Matsushita Electric Corporation Foundation to fund Japanese studies.
Bowling Green State University (OH) Total=\$41,000	\$25,000 in 1988 from the Hitachi Foundation to secure permanent institutional and financial support for a nationally recognized aesthetics education program. \$16,000 in 1987 from the Hitachi Foundation to support Shozo Sato's University of Illinois production of "Kabuki Othello."

<p>Brown University (RI)</p> <p>Total = \$36,662</p>	<p>\$16,662 in 1987 from the Panasonic/Matsushita Electric Corporation Foundation to the Institute for Secondary Education.</p> <p>\$20,000 in 1986 from the Panasonic/Matsushita Electric Corporation Foundation to the Institute for Secondary Education.</p>
<p>California State University at Stanislaus</p> <p>Total = \$99,279</p>	<p>\$99,279 between 1987 and 1989 from the Hitachi Foundation for a three-year program to improve the study of foreign language and culture in rural California schools.</p>
<p>Case Western University (OH)</p> <p>Total = \$1,000,000</p>	<p>\$1 million in the 1989 from Kyocera International, Inc. to endow a chair in ceramic and materials engineering.</p>
<p>Champlain College (VT)</p> <p>Total = \$15,000</p>	<p>\$15,000 in 1986 from Panasonic/Matsushita Electric Corporation Foundation.</p>
<p>Columbia University (NY)</p>	<p>\$175,000 in 1990 from the Toyota USA foundation for the Toyota Research Program.</p> <p>\$1.5 million in the late 1980s from the Mitsubishi Bank & Trust to the business school.</p> <p>\$2,500 in 1989 from the Mitsui USA Foundation to the business school.</p> <p>\$27,357 in 1989/1990 from the U.S.-Japan Foundation for translations of Japanese literary works.</p> <p>\$99,662 in 1989/1990 from U.S.-Japan Foundation to support the Northeast Regional Program on Japan for pre-college educators.</p> <p>\$31,833 in 1989 from the U.S.-Japan Foundation to support the Northeast Regional Program on Japan for pre-college educators in New Jersey, New York and Pennsylvania.</p>

<p>Earlham College (IN)</p> <p>Total = \$5,000</p>	<p>\$5,000 in 1989/1990 from the Hitachi Foundation to the Gary Community School Corporation to establish the study of Japanese language and culture in an urban school district of high minority population.</p>
<p>East Carolina University (NC)</p> <p>Total = \$160,656</p>	<p>\$9,500 in 1989 from the U.S.-Japan Foundation for a planning project for Japanese language teaching in North Carolina schools.</p> <p>\$151,156 in 1986 from the U.S.-Japan Foundation for a program in teaching about Japan for pre-college educators in Alabama, Georgia, North Carolina and South Carolina.</p>
<p>Evergreen State College (WA)</p> <p>Total = \$49,500</p>	<p>\$8,000 in 1989 from the Panasonic/Matsushita Electric Corporation Foundation for support of a collaborative program of faculty exchanges and workshops between six institutions.</p> <p>\$41,500 in 1986 from the Panasonic/Matsushita Electric Corporation Foundation for the Washington Center.</p>
<p>Florida International University</p> <p>Total = \$55,000</p>	<p>\$55,000 in 1990 from the Hitachi Foundation to prepare ethnically diverse students for successful competition in the international economy.</p>
<p>Glassboro State College (NJ)</p>	<p>\$5,000 in 1989 from the Subaru of America Foundation to the Glassboro State College Development Fund for "capital purposes" (i.e. equipment, building, renovation).</p> <p>\$5,000 in 1988 from the Subaru of America Foundation to the Glassboro State College Development Fund for "restricted and/or special purpose."</p> <p>\$5,000 in 1987 from the Subaru of America Foundation to the Glassboro State College Development Fund for "capital purposes" (i.e. equipment, building, renovation).</p>

<p>Illinois Institute of Technology</p> <p>Total = \$135,000</p>	<p>\$100,000 in 1989 from Omron Manufacturing of America, Inc., whose parent company is Omron Tateisi Electronics Company of Japan, for scholarships in electronic engineering.</p> <p>\$35,000 in 1987/1988 from the Hitachi Foundation to develop and implement an ethics program.</p>
<p>Indiana University</p> <p>Total = \$267,562</p>	<p>\$78,078 in 1989 from the U.S.-Japan Foundation to support the development of a central clearinghouse to collect, publish and disseminate materials on Japanese studies for pre-college educators.</p> <p>\$99,242 in 1987 from the U.S.-Japan Foundation for a program for pre-college educators in Illinois, Indiana, Iowa, Kansas, Kentucky, Missouri, Nebraska, South Dakota and Tennessee.</p> <p>\$90,242 in 1986 from the U.S.-Japan Foundation for a program for pre-college educators in Illinois, Indiana, Iowa, Kansas, Kentucky, Missouri, Nebraska, South Dakota and Tennessee.</p>
<p>Indiana University of Pennsylvania (PA)</p> <p>Total = \$20,000</p>	<p>\$20,000 in 1986 from the Panasonic/Matsushita Electric Corporation Foundation.</p>
<p>Iona College (NY)</p> <p>Total = \$80,000</p>	<p>\$80,000 in 1988 from Hitachi for faculty seminars.</p>
<p>Ithaca College (NY)</p> <p>Total = \$9,600</p>	<p>\$9,600 in 1990 from the Panasonic/Matsushita Electric Corporation Foundation to fund Japanese studies.</p>
<p>John Carroll University (OH)</p> <p>Total = \$31,830</p>	<p>\$13,665 in 1989 from the Panasonic/Matsushita Electric Corporation Foundation for faculty and curriculum development.</p> <p>\$18,165 in 1988 from the Panasonic/Matsushita Electric Corporation Foundation.</p>

<p>Johns Hopkins University (MD)</p> <p>Total=\$163,077</p>	<p>\$23,077 in 1990 from the Toyota USA Foundation to the Mathematics Institute.</p> <p>\$140,000 in 1988 from the U.S.-Japan Foundation to the National Foreign Language Center/School of Advanced International Studies to support a survey and assessment of Japanese language instruction in the United States.</p>
<p>Kean College of New Jersey</p> <p>Total=\$6,400</p>	<p>\$6,400 in 1989 from the Panasonic/ Matsushita Electric Corporation Foundation to fund Japanese studies.</p>
<p>Madonna College (MI)</p> <p>Total=\$6,000</p>	<p>\$6,000 in 1990 from the Panasonic/ Matsushita Electric Corporation Foundation to fund Japanese studies.</p>
<p>Manhattanville College (NY)</p> <p>Total=\$81,000</p>	<p>\$70,000 in 1988/1989 from the Hitachi Foundation</p> <p>\$11,000 in 1986 from the Hitachi Foundation to plan for a tri-college institute on international perspectives.</p>
<p>Mary Washington College (VA)</p> <p>Total=\$25,000</p>	<p>\$25,000 in 1990 from the American Honda Foundation.</p>
<p>Massachusetts College of Art</p> <p>Total=\$7,500</p>	<p>\$7,500 in 1988 from the Hitachi Foundation for an exhibition of murals of the 1945 destruction of Hiroshima.</p>
<p>Massachusetts Institute of Technology</p>	<p>\$1.5 million in 1990 from Nomura Securities for a chair at the Sloan School of Management.</p> <p>\$10 million in 1990 from the Ministry of International Trade and Industry for rights to use the MIT Media Laboratory.</p> <p>\$75,000 in 1990 from the Toyota USA Foundation for the International Studies Center.</p>

<p>Massachusetts Institute of Technology Continued</p> <p>Total=\$24,037,117</p>	<p>\$3 million over five years, beginning in 1990, from Nintendo Company, Ltd. for the Media Laboratory to study how children learn while at play.</p> <p>\$3 million between 1989 and 1991 from Nippon Telegraph & Telephone (NTT) Data Communications to help establish the Institute of Intelligence Technology Engineering System Laboratory computer center.</p> <p>\$12,602 in 1988 from the Hitachi Foundation for workshops in technical Japanese.</p> <p>\$64,515 in 1987 from Hitachi Foundation for a three- year grant to develop a summer program in technical Japanese.</p> <p>\$1 million in 1989 from Kyocera International, Inc. to endow a chair in ceramic and materials engineering.</p> <p>\$30.25 million between 1972 and 1990 from several Japanese corporations for 22 chairs (at an average cost of 1.375 million per chair). Over a 19 year period, this would mean approximately \$ 1.59 million per year, or \$7.96 million between 1986 and 1990.</p>
<p>Mississippi State University Total=\$1,000,000</p>	<p>\$1 million in 1988 as a "gift" from the Honda Motor Company.</p>
<p>New Jersey Institute of Technology Total=\$99,000</p>	<p>\$99,000 over two years, beginning in 1989, from Hitachi Foundation to develop cross-cultural curriculum on global environmental concerns through the use of a computer conferencing network.</p>
<p>North Carolina State University Total=\$716,000</p>	<p>\$666,000 in 1987/1988 from Kobe Steel, Ltd. to establish a chair in materials science and engineering.</p> <p>\$50,000 in 1986 from the Panasonic/ Matsushita Electric Corporation Foundation to fund Japanese studies.</p>

Northern Illinois University Total=\$100,000	\$100,000 in 1989 from Omron Manufacturing of America, Inc. , whose parent company is Omron Tateisi Electronics Company of Japan, for scholarships in electronic engineering.
Northwestern University (IL) Total=\$1,100,000	\$1 million in 1990 from Tokai Bank to endow a chair at the Kellogg Business School. \$100,000 in 1989 from Omron Manufacturing of America, Inc. , whose parent company is Omron Tateisi Electronics Company of Japan, for scholarships in electronic engineering.
Ohio State University Total=\$86,329	\$56,329 in 1990 from the Toyota USA Foundation to fund a program for junior high school students. \$30,000 in 1986 from the Panasonic/Matsushita Electric Corporation Foundation.
Oklahoma City University Total=\$50,000	\$50,000 in 1990 from the American Honda Foundation.
Pennsylvania State University	\$10,000 in 1990 from Murata Manufacturing for an industrial engineering project in human operation and inspection. \$37,000 between 1989 and 1991 from the Nippon Steel Corporation for membership in the cooperative program on coal research . \$50,000 between 1987 and 1991 from the Nippon Steel Corporation for membership in the materials research laboratory consortium for chemically bonded ceramics. \$189,000 between 1989 and 1990 from Fanuc Pharmaceutical for the Hershey Medical Center to fund a program in pharmaceuticals research. \$25,000 between 1989 and 1990 from Toshiba for membership in the diamond and related materials consortium.

Pennsylvania State University Continued	<p>\$40,000 between 1987 and 1991 from Marata Manufacturing for a membership in the Chemically Bonded Ceramics Consortium.</p> <p>\$55,000 in 1989/1990 from the Mitsubishi Kaisei Corporation for a joint transform correlator project based on optical disk systems.</p> <p>\$248,000 in 1990 from Hitachi America, Ltd. to establish the Hitachi Minority Scholarship at the Graduate School of Business Administration.</p> <p>\$250,000 in 1989 from Marata Manufacturing of Kyoto, Japan for the Department of Materials Research.</p>
Total = \$553,000	
Pepperdine University (CA) Total = \$25,000	\$25,000 in 1988 from the E. Nakamichi Foundation.
Ramapo College (NJ) Total = \$6,640	\$6,640 in 1989 from the Panasonic/Matsushita Electric Corporation Foundation to fund Japanese studies.
Roanoke College (VA) Total = \$20,000	\$20,000 in 1989 from the Panasonic/Matsushita Electric Corporation Foundation to fund Japanese studies.
Rockland Community College (NY) Total = \$7,000	\$7,000 in 1989 from the Panasonic/Matsushita Electric Corporation Foundation to fund Japanese studies.
Rose-Hulman Institute of Technology (IN) Total = \$10,000	\$10,000 in 1989 from the Panasonic/Matsushita Electric Corporation Foundation for development leading to new courses on contemporary Japan.
San Diego State University (CA) Total = \$15,000	\$15,000 in 1986 from the Panasonic/Matsushita Electric Corporation Foundation.
Santa Clara University (CA)	\$20,000 in 1988/1989 from the Panasonic/Matsushita Electric Corporation Foundation to support Redwood City Schools program.

<p>Tufts University (MA)</p> <p>Total=\$74,000</p>	<p>\$74,000 in 1986 from Hitachi Foundation for a two-year grant to support a strategic planning and institutional assessment program.</p>
<p>University of Alabama</p> <p>Total=\$278,652</p>	<p>\$88,403 in 1989 from the U.S.-Japan Foundation for the Alabama-Japan Leadership Program.</p> <p>\$101,705 in 1988 from the U.S.-Japan Foundation for the Alabama-Japan Leadership Program.</p> <p>\$6,079 in 1987 from the U.S.-Japan Foundation for the Alabama-Japan Leadership Program.</p> <p>\$82,465 in 1986 from the U.S.-Japan Foundation for the Alabama-Japan Leadership Program.</p>
<p>University of Alaska</p> <p>Total=\$22,644</p>	<p>\$22,644 in 1989 from U.S.-Japan Foundation to support teacher training and curriculum development in Japanese studies for state pre-college educators.</p>
<p>University of Arizona</p> <p>Total=\$18,000</p>	<p>\$10,000 in 1989/1990 from Hitachi Foundation for the Center for Creative Photography.</p>
<p>University of California at Berkeley</p>	<p>\$8,000 in 1986 from the Hitachi Foundation for the Center for Creative Photography.</p> <p>\$1 million in 1990 from the Japan Shipbuilding Industry Foundation to endow the Ryoichi Sasakawa Young Leaders Fellowship Fund for graduate students in the business school.</p> <p>\$100,000 in 1990 from the Toyota USA for a Student Seminar Room.</p> <p>\$500,000 in 1989 from Fanuc, Ltd. for the College of Engineering to endow a faculty chair for the study of mechanical systems.</p>

University of California at Berkeley Continued Total=\$6,100,000	\$500,000 in 1988 from Mitsubishi Bank to endow a chair in international business and finance at the School of Business Administration. \$4 million in 1987 from Japanese firms, most of which went to build a computer laboratory.
University of California at Davis Total=\$225,000	\$125,000 in 1991 from the Mitutoyo Corporation to enable students in the college's new Intelligent Manufacturing Systems-Mechatronics Laboratory to assess the accuracy of parts being tested in the lab. \$100,000 in 1989 from the Toyota USA Foundation for its Child Protection Center.
University of California at Irvine Total=\$16,500,000	\$16.5 million in 1989 from Hitachi Chemical Company to build a bio-technology research facility. Hitachi gets 2/3 of laboratory space at UCI; at the end of 40 years facility becomes property of the University.
University of California at Los Angeles Total=\$600,000	\$100,000 in 1990 from the Toyota USA Foundation for the International Student Center. \$500,000 in 1988/1989 from Nippon Sheet Glass Company to endow a chair in materials science.
University of California at Riverside Total=\$50,000	\$50,000 in 1990 from the American Honda Science and Engineering Fund to provide senior thesis research costs of science and engineering projects for minority students and women.
University of California at San Francisco	\$50,000 in 1991 from the American Honda Foundation to expand the science education partnership, which brings public school students together with University scientists. \$45,000 in 1990 from the American Honda Foundation.

University of Wisconsin Total = \$25,000	\$25,000 in 1989 from the Hitachi Foundation for a project to enhance the development of middle school administrators and teachers of science and math.
Ursinus College (PA) Total = \$7,750	\$7,750 in 1989 from the Panasonic/ Matsushita Electric Corporation Foundation for a faculty and curriculum development program.
Vanderbilt University Total = \$30,000	\$15,000 in 1989 from the Panasonic/ Matsushita Electric Corporation Foundation for the second meeting of the George Peabody College for Teachers. \$15,000 in 1986 from the Panasonic/ Matsushita Electric Corporation Foundation to the George Peabody College for Teachers.
Virginia Commonwealth University Total = \$60,000	\$60,000 over three years , beginning in 1986, from Hitachi Foundation to collaborate Virginia's Center for Innovative Technology, the Richmond Technology and Enterprise Center, and the University in order to provide technology transfer to small businesses.
Washington University at St. Louis Total = \$500,000	\$500,000 in 1988/1989 from the Mitsubishi Kaisei Corporation to the Department of Biology for research space.
West Virginia Wesleyan College Total = \$15,000	\$15,000 in 1990 from the Panasonic/ Matsushita Electric Corporation Foundation to fund Japanese studies.
Total Amount from Schools Listed: \$175,673,675	

APPENDIX B:
UNDISCLOSED JAPANESE FUNDING TO AMERICAN UNIVERSITIES (1986-1989)
(Partial Listing from Publicly Available Source)

UNIVERSITY	TOTAL RECEIVED	AMOUNT REPORTED	AMOUNT UNDISCLOSED
Columbia University	\$ 4,823,713	\$ 790,376	\$ 4,033,337
Harvard University	\$ 8,560,673	\$ 3,260,000	\$ 5,300,673
Massachusetts Institute of Technology	\$ 5,853,117	\$ -0-	\$ 5,853,117
Stanford University	\$ 3,647,000	\$ 2,714,406	\$ 932,594
University of California at Berkeley	\$ 5,000,000	\$ -0-	\$ 5,000,000
University of California at Irvine	\$16,500,000	\$ -0-	\$16,500,000
University of California at Los Angeles	\$ 500,000	\$ -0-	\$ 500,000
University of Illinois	\$ 3,109,948	\$ -0-	\$ 3,109,948
University of Kentucky	\$ 1,000,000	\$ -0-	\$ 1,000,000
University of Michigan	\$ 1,200,000	\$ -0-	\$ 1,200,000
University of Pennsylvania	\$ 1,250,000	\$ -0-	\$ 1,250,000
University of Washington	\$ 1,000,000	\$ -0-	\$ 1,000,000
Washington University at St. Louis	\$ 500,000	\$ -0-	\$ 500,000
TOTALS:	\$52,944,451	\$ 6,764,782	\$46,179,669

SECTION 1209 OF THE HIGHER EDUCATION ACT OF 1965 stated that "whenever any institution receives a gift from or enters into a contract with a foreign source, the value of which is \$250,000 or more, considered alone or in combination with all other gifts from or contracts with that foreign source within a calendar year, the institution shall file a disclosure report with the Secretary [of Education]. A foreign source is described as a) a foreign government, including an agency of a foreign government; b) a legal entity, governmental or otherwise, created solely under the laws of a foreign state or states; c) an individual who is not a citizen or a national of the United States or a trust territory or protectorate thereof; and d) an agent including a subsidiary or affiliate of a foreign legal entity, acting on behalf of a foreign **source**." Section 1209 took effect in 1986 and expired in August 1989. No similar measure has been enacted since that time.

Source: Disclosure records of the U.S. Department of Education and published reports of contributions to U.S. universities.

ENDNOTES

CHAPTER 1

1. Higher Education Act of 1965, Section 1209, 20 U.S.C. Section 1145d.
2. These figures include only grants and donations for which there are public records.
3. Scott Jaschik, "More States Move to Require Colleges to Disclose Big Gifts From Foreigners," Chronicle of Higher Education. September 11, 1985.
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10. Report of the NSB committee on Foreign Involvement in U.S. Universities (Washington, D.C.: National Science Foundation/National Science Board, 1989).
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17. Telephone interview with Stephen Atkinson, May 30, 1991.

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19. Daniel P. **Oran**, "Advanced Bio Class? That's Over in Hitachi **Hall**," *Business Week*. August 7, 1989, **p.73**.
20. Telephone interview with **Akio Kigoshi**, September 19, 1991.
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22. Telephone interview with Akio Kigoshi, October 31, 1991.
23. Steven **Silberman**, "UCI **Home** to New High-Tech Venture." Orange County **Register**, April 24, 1990.
24. Oran, "Advanced Bio Class?" p. 74.
25. Gray, "Advantageous Liaisons," p. 42.
26. International Relationships of MIT in a Technologically Competitive World (Cambridge, MA: MIT Faculty Study Group on International Relations, May 1, 1991), **p.25**.
27. Atkinson interview.
28. Gray, "Advantageous Liaisons," p. 41.
29. International Relationships of **MIT**. p. 33.
30. Martin Tolchin, "A Debate Over Access to University **Research**," *New York Times*. December 17, 1989.
31. Tolchin, "A Debate Over Access to University **Research**."
32. International Relationships of **MIT**, p. 34.
33. Tolchin, "A Debate Over Access to University Research."
34. International Relationships of **MIT**. p. 32.
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36. Telephone interview with Deborah Amadon Rogers, May 29, 1991.
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45. Telephone Interview with Barbara Tuttle, May 30, 1991.

46. Telephone interview with Michael Arbib, May 23, 1991.

47. Helm, "Japan's Labs Open at Last."

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3. Michael **Stroud**, "More U.S. Researchers Working For Japan." **Investor's** Daily. June 3, 1991.
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9. Ibid.
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11. **Stroud**, "More U.S. Researchers Working for Japan.''
12. **Kolata**, "Japanese Labs in U.S. Luring America's Computer Experts.''
13. Nicholas **Negroponte**, "Say 'Hello' To High Tech," Newsday. January 20, 1991.
14. Mason interview.

CHAPTER 3

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2. Ibid.
3. Interview with **Vicki McNeal**, May 29, 1991.
4. Reprinted from Bibler and Ellington, "Intercultural Contact," p. 11.
5. Tom Bibler and Lucien Ellington, "Intercultural Contact: The Japanese in Rutherford County, Tennessee (A Study Guide for High School Teachers)" (Knoxville, TN: 1986).

6. Remarks of Frank **Gorrell**, reprinted in "Friends: A Success Story," October 1988.
7. **Lamar** Alexander, **Friends: Japanese and Tennesseans: A Model of U.S.-Japan Cooperation** (Tokyo/New York: **Kodansha** International Ltd., 1986), p. 15.
8. Pat Choate, **Agents of Influence**. (New York: Alfred A. Knopf, 1990), p.81.
9. Karen **Riley**, "We Want To Teach You Japanese," **Washington Times**. July 9, 1990.
10. According to statements filed by von **Loewenfeldt** with the U.S. Department of Justice, he has been a registered agent of the Japanese government and Japanese firms for 35 years. In 1956, von Loewenfeldt signed the first agreement to represent the Japanese government as a public relations agent in San Francisco. Over the next thirty years, he negotiated similar contracts with the Consulate General of Japan in San Francisco; the Embassy of Japan in Washington, D.C.; the Japanese-sponsored U.S.-Japan Trade Council; the Japan Institute for Social and Economic Affairs ("Keizai Koho Center"); the Japan External Trade Organization; the Japan Foundation; and Japan Airlines. For his representation of Japanese interests in 1979 to 1989 alone, von Loewenfeldt was paid \$2 million.
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12. Contract Between the Embassy of Japan at Washington, D.C. and Charles von Loewenfeldt, Inc., May 23, 1986; and Letter of Agreement Between Keizai Koho Center of Tokyo and Charles von Loewenfeldt, Inc., October 1985.
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22. Rita Geiger, **Japan** (Oklahoma City: Oklahoma State Department of Education/ Curriculum Section), 1983 (reprinted 1987), p. 173.
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34. The Japan of **Today**, p. 48.
35. Interview with Linda **Wojtan**, October **25**, 1991.

CHAPTER 4

1. **I.M.** Destler, American Trade Politics: System Under Stress (Washington, D.C.: Institute for International Economics, 1986), p. 180.
2. Martin E. Weinstein, Eugene K. Lawson, Frederick Z. Brown, and Young C. Kim, The United States and the Asian Pacific **Region**: Decisions for the Next President (Washington, D.C.: Center for Strategic and International Studies, 1988), p. 4.
3. New **York/CBS** Public Opinion Poll, June 1990.
4. Tokyo Broadcast System Opinion Poll, June 1990.
5. Bryan T. Johnson, "The **U.S.-Japan** Semiconductor Agreement: Keeping Up the Managed Trade Agenda," The Heritage Backgrounder. January 24, 1991.
6. Jan Tumlir, Protectionism: Trade Policy in Democratic Societies (Washington, **D.C.**: American Enterprise Institute, 1985), p. 1.
7. Roper Survey, April 1991.
8. Edward M. Graham and Paul R. **Krugman**, Foreign Direct Investment in the United States (Washington, **D.C.**: Institute for International Economics, 1990), p. 64.
9. Washington Post/ABC News Poll, March 1991.

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13. David M. Abshire and Stanley **Harrison**, Defense Economics for the 1990s (Washington, D.C.: Center for Strategic and International Studies, 1989), p. ix.

MATRIX SOURCES

“PRO-JAPAN” POSITIONS

ISSUE 1: The amount of the U.S. trade deficit attributable to unfair Japanese trade practices is overstated.

INSTITUTE FOR INTERNATIONAL ECONOMICS: (Agree)

see I.M Destler, American Trade Politics: System Under Stress (Washington, D.C.: Institute for International Economics, 1986).

see C. Fred Bergsten, America in the World Economy: A Strategy for the 1990s (Washington, D.C.: Institute for International Economics, 1988).

see C. Fred Bergsten, The United States-Japan Economic Problem (Washington, D.C.: Institute for International Economics, 1985).

CENTER FOR STRATEGIC AND INTERNATIONAL STUDIES: (Agree)

see Martin E. Weinstein, Eugene K. Lawson, Frederick Z. Brown, and Young C. Kim, The United States and the Asian Pacific Region: Decisions for the Next President (Washington, D.C.: Center for Strategic and International Studies, 1988).

AMERICAN ENTERPRISE INSTITUTE: (Agree)

see Sven W. Arndt and Lawrence Bouton, Competitiveness: The United States in World Trade (Washington, D.C.: American Enterprise Institute, 1987).

HERITAGE FOUNDATION: (Agree)

see Bryan T. Johnson, "The U.S.-Japan Semiconductor Agreement: Keeping Up the Managed Trade Agenda," The Heritage Backgrounder. January 24, 1991.

BROOKINGS INSTITUTION: (Agree)

see Phillip H. Tresize, "Japan, the Enemy?," Brookings Review. Winter 1989-1990.

ISSUE 2: The United States should not resort to "protective" measures to alleviate its trade deficit.

INSTITUTE FOR INTERNATIONAL ECONOMICS: (Agree)

see Gary Clyde Hufbauer, Diane T. Berliner, Kimberly Ann Elliott, Trade Protection in the United States: 31 Case Studies (Washington, D.C.: Institute for International Economics, 1986).

see I.M Destler, American Trade Politics: System Under Stress (Washington, D.C.: Institute for International Economics, 1986).

see C. Fred Bergsten, America in the World Economy: A Strategy for the 1990s (Washington, D.C.: Institute for International Economics, 1988).

see C. Fred Bergsten, *The United States-Japan Economic Problem* (Washington, D.C.: Institute for International Economics, 1985).

AMERICAN ENTERPRISE INSTITUTE: (Agree)

see Sven W. Arndt and Lawrence Bouton, *Competitiveness: The United States in World Trade* (Washington, D.C.: American Enterprise Institute, 1987).

see Jan Tumlir, *Protectionism: Trade Policy in Democratic Societies* (Washington, D.C.: American Enterprise Institute, 1985).

HERITAGE FOUNDATION: (Agree)

see Bryan T. Johnson, "The U.S.-Japan Semiconductor Agreement: Keeping Up the Managed Trade Agenda," *The Heritage Backgrounder*. January 24, 1991.

see Bryan T. Johnson, "Managed Trade: Making America Less Competitive," *The Heritage Backgrounder*. July 25, 1990.

see Bryan T. Johnson, "A U.S. Strategy for GATT," *The Heritage Backgrounder*. January 18, 1991.

BROOKINGS INSTITUTION: (Agree)

see Robert Z. Lawrence and Robert E. Litan, *Saving Free Trade: A Pragmatic Approach* (Washington, D.C.: The Brookings Institution, 1986).

see Phillip H. Tresize, "Japan, the Enemy?," *Brookings Review*. Winter 1989-1990.

see Kenneth Flamm, "Making New Rules: High-Tech Trade Friction and the Semiconductor Industry," *Brookings Review*. Spring 1991.

ISSUE 3: Japanese direct investment poses no real threat to U.S. national security and is generally good for the U.S. economy.

INSTITUTE FOR INTERNATIONAL ECONOMICS: (Agree)

see Edward M. Graham and Paul R. Krugman, *Foreign Direct Investment in the United States* (Washington, D.C.: Institute for International Economics, 1990).

HERITAGE FOUNDATION. (Agree)

see Bryan T. Johnson, "The U.S.-Japan Semiconductor Agreement: Keeping Up the Managed Trade Agenda," *The Heritage Backgrounder*. January 24, 1991.

BROOKINGS INSTITUTION: (Agree)

see Phillip H. Tresize, "Japan, the Enemy?," *Brookings Review*. Winter 1989-1990.

ISSUE 4: Japan should not be compelled to increase its current share of the common defense burden.

INSTITUTE FOR INTERNATIONAL ECONOMICS: (Disagree)

see **Bela** Belassa and Marcus **Noland**, Japan in the World Economy (Washington, D.C.: Institute for International Economics, 1988).

CENTER FOR STRATEGIC AND INTERNATIONAL STUDIES: (Agree)

see David M. Abshire and Stanley Harrison, Defense Economics for the 1990's: Resources, Strategies, and Options (Washington, D.C.: Center for Strategic and International Studies, 1989).

see Martin E. Weinstein, Eugene K. **Lawson**, Frederick Z. Brown, and Young C. Kim, The United States and the Asian Pacific Region: Decisions for the Next President (Washington, D.C.: Center for Strategic and International Studies, 1988).

see Leo Reddy and David Jones, Burden Sharing: The Wrong Issue (Washington, D.C.: Center for Strategic and International Studies, 1989).

AMERICAN ENTERPRISE INSTITUTE: (Agree)

see John H. **Makin** and Donald C. **Hellmann**, Sharing World Leadership?: A New Era for America and Japan (Washington, D.C.: American Enterprise Institute, 1989).

HERITAGE FOUNDATION: (Disagree)

see Richard D. Fisher, Jr., "How to Improve the U.S.-Japan Security Alliance," The Heritage Backgrounder. September 26, 1990.

BROOKINGS INSTITUTION: (Agree)

see Phillip H. Tresize, "Japan, the Enemy?," Brookings Review. Winter 1989-1990.

MATRIX SOURCES

"PRO-USA" POSITIONS

ISSUE 1: Unfair Japanese trade practices are a major cause of the U.S. trade deficit.

INSTITUTE FOR INTERNATIONAL ECONOMICS: (Disagree)

see **I.M Destler**, American Trade Politics: System Under Stress (Washington, D.C.: Institute for International Economics, 1986).

see C. Fred Bergsten, America in the World Economy: A Strategy for the 1990s (Washington, D.C.: Institute for International Economics, 1988).

see C. Fred Bergsten, The United States-Japan Economic Problem (Washington, D.C.: Institute for International Economics, 1985).

CENTER FOR STRATEGIC AND INTERNATIONAL STUDIES: (Disagree)

see Martin E. Weinstein, Eugene K. Lawson, Frederick Z. Brown, and Young C. Kim, *The United States and the Asian Pacific Region: Decisions for the Next President* (Washington, D.C.: Center for Strategic and International Studies, 1988).

AMERICAN ENTERPRISE INSTITUTE: (Disagree)

see Sven W. Arndt and Lawrence Bouton, *Competitiveness: The United States in World Trade* (Washington, D.C.: American Enterprise Institute, 1987).

HERITAGE FOUNDATION: (Agree)

see Roger A. Brooks, "A Japan That Can Say 'Yes'," *The Heritage Backgrounder*. March 29, 1990.

BROOKINGS INSTITUTION: (Agree)

see Edward J. Lincoln, *Japan's Unequal Trade* (Washington, D.C.: The Brookings Institution, 1990).

ISSUE 2: Protective U.S. measures are a viable means of
leveling the international trade "playing field."

INSTITUTE FOR INTERNATIONAL ECONOMICS: (Disagree)

see Gary Clyde Hufbauer, Diane T. Berliner, Kimberly Ann Elliott, *Trade Protection in the United States: 31 Case Studies* (Washington, D.C.: Institute for International Economics, 1986).

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