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<table>
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<tr>
<th>Amount Financed</th>
<th>Months</th>
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<th>APR</th>
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<td>$2,022.22</td>
<td>13.36</td>
<td>31.40</td>
<td>12.37%</td>
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John O. Harney

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This kind of thing had been happening to me ever since we started putting together the cover stories for this issue of Connection. There I was looking at an advertisement in another magazine, heralding, "Dubai: Your New Base for World Markets," and I was seeing my long-lost stamp collection. Seeing a blue postage stamp from Dubai.

The stamp depicted the New York City World's Fair of 1964, surrounded by a mix of English and Arabic words. Like stamps from the other "Trucial States," Dubai's portrayed the obligatory sheikh, but also U.S. satellites and things American like the New York City skyline. The stamps were glossy and modern. My brother, a fellow stamp collector, and I thought they were "fake."

We also discerned—from the stamps—that the Trucial States were Arab, newly rich, and somehow connected with the West.

The reason for my nostalgia was simple. The cover stories in this issue of Connection explore our relationship with the world around us. For me, that relationship began with stamps.

Eventually, I swapped my entire stamp collection, "Statesman" album and all, for one football card of an all-pro New York Giants defensive back. As trades go, it was a mugging. Nonetheless, I was lucky. With encouragement from our parents, my brothers and sisters and I held on to our collections long enough to pick up a lasting sense of the world.

Enough so that when Azerbaijan fought in the streets early this year, I pictured paper-thin stamps from Azerbaijan, the image of a farmer against the sunrise, and the ominous overprint: "Occupation." Some years earlier when Britain engaged Argentina in the Falkland Islands, and too many Americans said the "What Islands?", I remembered my Falklands stamps depicting sheep and fishing boats, all under the watchful eye of Queen Elizabeth.

My context for the Tiananmen Square massacre came from an early lesson in geopolitics. My oldest brother, having moved to Canada where trade relations with the Communist world were maintained, was able to "smuggle" us a set of stamps depicting gymnasts from the People's Republic of China. We would surely be arrested if caught with the "Red" Chinese stamps in the United States, we thought.

Poster-style tributes to workers and tractors aroused our suspicions about East Bloc countries. The queen's visage on stamps from places like the Seychelles in the Indian Ocean taught us of colonialism. We puzzled over richly colored stamps from Croatia and other places that had seemed to disappear from the face of the earth, at least temporarily.

It was up to the schools to fine-tune our images of the world, to tell us, for example, that the Orange Free State was not a citrus paradise, but a land of apartheid. But the teachers would have had little chance at success had it not been for rainy afternoons at home, hoovering over the stamp album.

It turns out, our avocation had blinded me to one important fact: On average, Americans have an atrocious understanding of geography and foreign culture. That problem, of course, has commanded new attention with the realization that knowledge of geography is now a pocketbook issue.

Our lead story is based on the premise that foreign markets are growing faster than U.S. markets, that the world is "shrinking." If we want to maintain a decent standard of living, we had better start understanding our world. As of 1987, exports represented only 6 percent of U.S. gross domestic product, compared with 26 percent in West Germany, 23 percent in Canada, and 10 percent in Japan, according to the Organization for Economic Cooperation and Development.

Leaders of New England economic development and trade agencies say a lack of international cultural awareness among executives and entrepreneurs is a chief reason many businesses have not begun exporting. Could we perhaps suggest a hobby for those folks?
Corporate Giving

New England corporations gave a smaller portion of their charitable dollar to education than those in any other region of the United States in 1988, the most recent year for which data is available.

A sample of New England corporations earmarked 17 percent of their total gifts to education, compared with a national average of 37 percent, according to a survey of major donors by the Conference Board and the Council for Aid to Education.

Growing concern with the quality of education in grades K-12 has led to a national decline in the share of total education gifts sent to colleges and universities. This trend is especially pronounced in New England, the only region where corporate giving to precollege programs exceeded 10 percent of corporations' total budgets for education support, according to the survey.

Of the $61 million that New England corporations contributed to education, about half went to higher education. Ten percent of the corporate support for higher education was directed to college programs that target elementary- and secondary-school populations.

Higher Ed: Fat and Sassy?

The much-touted, much-criticized national education goals adopted by the National Governors' Association and the White House earlier this year say relatively little about colleges and universities, but enough to raise the hackles of the nation's chief higher-education lobby.

The "goals document" contends that while the federal government should play a role in ensuring that students have access to college, higher education "must use existing resources far more productively than it does at present, and must be held more accountable for what students do or do not learn."

In a letter to colleagues, American Council on Education President Robert H. Atwell says that observation is "illustrative of a growing perception that higher education is, if not fat and sassy, generously funded in contrast to other levels of education."

Vacancies Up

Every May, the New England Board of Higher Education surveys the region's public and independent campuses to find out how many fall-semester spots remain open for freshmen and transfer students as of May 1. The main purpose is to give New England students a last shot at fall placement. But the surveys increasingly tell a story of demographic change and admissions dilemmas.

NEBHE's 31st annual "vacancy survey," conducted this spring, reveals that New England colleges had the toughest time predicting fall enrollments in more than a decade. As of the first of May, 170 New England colleges and universities still had more than 19,000 fall-term openings for qualified freshmen. That's an 11-percent increase in reported freshman vacancies over May 1, 1988.

Why? The main reason is that the number of college-age Americans is plummeting, especially in New England. The region's high-school graduating class of 1990 was expected to reflect a 12-percent decline in numbers from the class of 1988, according to national projections.

If the regional demographic dip brings any good news, it should be that higher education is becoming a buyer's market, right? Not exactly. An informal NEBHE survey indicates tuitions are rising at two or three times the rate of inflation.

Boiling an Icon

Homarus americanus has found its way onto to Maine license plates and any number of souvenirs. But what you know better as the "Maine lobster" has also been used to "reinforce social class, define cultural insider and outsider, and sell status and self-esteem in the mass marketplace," according to George H. Lewis, a transplanted Maine native who teaches sociology at the University of the Pacific in Stockton, Calif. The following are excerpts from an article by Lewis, which appeared in a recent issue of Food and Foodways (Vol. 3, No. 4), an international journal devoted to cultural aspects of food:

"Most people in America, when presented with the image of a fresh-cooked lobster, think automatically of the coast of Maine. In image, homarus americanus is wedded to the state, even though technically it can be found along a 1,300-mile stretch of the Atlantic Coast from Cape Hatteras to Labrador and is caught, commercially sold and shipped from many sea-bordered American states, as well as from Canada. In fact, Canadian lobstermen outnumber [American lobstermen] by more than two to one. They provide at least half the lobster sold in the United States, whether or not it is sold under the name of "Maine lobster." Yet no matter how many lobsters are caught, shipped or eaten out of state, the lobster is a symbol of Maine in much the same way maple sugar is of Vermont (though Maine has more maple trees than does Vermont)."

"The abundance of lobster, and its definition as low-status food continued into the early 1800s. ... Gradually, the significance of the lobster as a part of the regional culture of Maine began to be defined. But this definition was crafted more by literate summer visitors who had adopted the state and saw in the lobster a symbol of uniqueness than it was by local residents, who saw lobsters traditionally as a low-status food item but one that was now, due to outside demand and heavy fishing, becoming both scarcer and higher-priced. To the locals, a common symbol of their hand-to-mouth everyday existence had been taken over by outsiders and, like their land, priced beyond their means. In addition, their culture was being redefined for them by these outsiders, who insisted on the lobster as symbol of the state and its residents."
Trade Balance?

No surprise that New England’s land-grant universities are the leading recipients of SAT score reports from students in their home states. But they also draw significant interest from students throughout the six-state region, according to an analysis of College Board data. The following chart shows how the main campuses of each of New England’s land-grants rank among all colleges and universities in terms of the number of SAT score reports they received from college-bound seniors in each New England state in 1989.

<table>
<thead>
<tr>
<th>State</th>
<th>UConn</th>
<th>UMaine</th>
<th>UMass</th>
<th>UNH</th>
<th>URI</th>
<th>UVM</th>
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<tbody>
<tr>
<td>Connecticut</td>
<td>1st</td>
<td>*</td>
<td>19th</td>
<td>18th</td>
<td>5th</td>
<td>16th</td>
</tr>
<tr>
<td>Maine</td>
<td>23rd</td>
<td>1st</td>
<td>24th</td>
<td>3rd</td>
<td>32nd</td>
<td>12th</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>29th</td>
<td>38th</td>
<td>1st</td>
<td>8th</td>
<td>18th</td>
<td>19th</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>20th</td>
<td>13th</td>
<td>12th</td>
<td>1st</td>
<td>25th</td>
<td>6th</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>11th</td>
<td>*</td>
<td>16th</td>
<td>10th</td>
<td>1st</td>
<td>19th</td>
</tr>
<tr>
<td>Vermont</td>
<td>38th</td>
<td>24th</td>
<td>22nd</td>
<td>7th</td>
<td>*</td>
<td>1st</td>
</tr>
<tr>
<td>* Not reported</td>
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Making a Compact

Officials in 12 Midwestern states are exploring creation of a higher education compact allowing colleges and universities in member states to share equipment, expertise and funding.

Why now? “Almost all the states in the Midwest are facing difficult economic times, so there is a lot of pressure to economize and work together,” says Michigan state Sen. William Sederburg, a driving force behind the effort.

Member states could include: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota and Wisconsin.

The compact language doesn’t specify projects, but calls for consideration of interstate exchange programs similar to the New England Board of Higher Education’s more than 30-year-old Regional Student Program (RSP).

The RSP enables thousands of New England residents to attend out-of-state public colleges and universities within the six-state region and pay those institutions in-state tuition rates, plus a surcharge, if the academic program they are pursuing is not offered by public institutions in their home state.

Sederburg says the Midwestern compact also would forge joint programs aimed at economic development, international education and educational telecommunications.

The compact idea was initiated by the Midwestern Legislative Conference. To enact the compact, five of the 12 states must approve the idea by 1995. With Kansas and Missouri already on board, organizers think the minimum five approvals could come by next summer.

MD Assistance Reinvented

It’s a fact that doctors fresh out of medical school generally face enormous debts, so few pursue lower-paying public service jobs in areas like the inner city. Those areas, as a result, tend to become "underserved."

The Massachusetts League of Community Health Centers is backing a bill in the state Legislature that would encourage indebted, primary-care doctors to practice in medically underserved areas. The carrot: $20,000 a year in loan "forgiveness" for three years.

If the idea sounds familiar, that’s because the New England Board of Higher Education’s Massachusetts Health Sciences Student Contract Program provided similar incentives until last July when the state eliminated funding for the program. The NEBHE-initiated program provided tuition assistance to financially needy state residents who studied medicine, physical therapy, occupational therapy, veterinary medicine and optometry. In exchange, students promised to practice in Massachusetts for six months of "return service" for every year of tuition aid. Medical students promised to practice in underserved areas of the state when they finished their residencies.

The new proposal, if adopted, could attract indebted doctors to the underserved areas immediately. Under the plan, 20 doctors would be accepted into the program in the first year at a cost to the state of $400,000.

Prognosis? “There appears to be great scrutiny of any program requesting new money this year,” says Jim Kanak, deputy director of the League. That sounds familiar, too.

Yankee Ingenuity

Every state dollar awarded by Connecticut’s “Yankee Ingenuity Initiative” has attracted $2.69 from private and federal sources, according to the state Department of Higher Education, which runs the initiative.

The initiative, part of Gov. William A. O’Neill’s High Technology Strategy of 1983, encompasses three separate grant programs supporting high-tech research, instruction and equipment.

From 1984 through 1989, the state provided $16 million for the grants. That has attracted $43 million from corporate, federal and other sources, according to the department.

Charles Goodyear Research and Development Grants are awarded for joint research projects between higher-education institutions and business and must be matched by participating businesses. Elias Howe Public College & University Grants are awarded for research and instruction projects at public colleges and universities. Apollos Kinsky Collaborative Grants go to joint projects between the state’s public and independent colleges.

According to the Department of Higher Education, the grants have led to two patents (17 more are pending), four invention disclosures and 12 patent applications.

The governor’s high-tech initiative was launched in response to A Threat to Excellence, a 1982 report by the New England Board of Higher Education, which called for a variety of public-private partnerships to support research and technology.
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Richard G. King
1922-1990
JOHN C. HOY

Richard Gordon King, NEBHE senior fellow and former vice president for research, died suddenly of a heart attack near his home in Mont Vernon, N.H. on April 3, 1990. His loss has been deeply felt by all members of the New England Board of Higher Education staff and among his many colleagues throughout New England.

Dick King was one of the principal architects of student financial-aid policies in the United States. He served as the first executive director of the College Scholarship Service of The College Board and was instrumental in designing the strategy for what became the National Merit Scholarship Program.

Dick did his undergraduate studies at Williams College. His more than 40-year career in higher education began at Harvard University, where he worked as a graduate student in the Office of Financial Aid and Admissions. He then became director of Harvard's Office of Tests, now the Office of Institutional Research and Evaluation. After his accomplished tenure with The College Board, Dick returned to Harvard as associate director of admissions and financial aid, and later, director of Harvard's Office of Graduate and Career Plans. He also served as secretary of the Commission on Higher-Education Institutions of the New England Association of Schools and Colleges.

In the late 1960s, Dick was a lecturer at Harvard's Graduate School of Education, where he undertook assignments working with universities in Guatemala and Nigeria.

Dick was fluent in Spanish and German. He wrote wonderfully clean, strong prose. The Provincial Universities of Mexico: A Comparative Study of Growth and Development, which Dick co-authored, is a rich book illustrative of his clear thinking and deep interest in international development. He was intensely concerned with the global community and served as a trustee and president of the Foundation of the University of the Valley in Guatemala.

In 1970, Dick accepted a professorship at the University of Alabama in Birmingham. He returned to the Boston area in 1974 as director of education at Boston's Museum of Science. The museum's former president, Bradford Washburn, noted that “Dick King was one of the best leaders of science museum education in the past 50 years.”

Throughout his life, Dick believed deeply in the concept of providing equal access to higher education without regard to race, sex, religion or financial circumstances. Politically nonpartisan by nature, he always voted his conscience in support of those who stood for social progress and educational equity.

As a teenager in 1938, Dick attended school in Germany, where his father, a Williams College professor, was on sabbatical. Those, of course, were the years when Nazism was on the rise. The experience clearly instilled in Dick a lifelong rejection of ideologies and a suspicion of ideologies. His predisposition to see and understand both sides of any issue before taking a position benefited all who knew him personally and professionally.

Dick served as a naval officer in the submarine service during World War II, and later rose to the rank of captain in the U.S. Naval Reserve. He was an intense patriot, believing profoundly in freedom of speech, the necessity of freely debating tough questions and the efficacy of compromise.

Dick liked to get things straight. He was always thoughtful and thorough in his recommendations to NEBHE and in his representation of the board before committees of the U.S. Congress and other government bodies. He served as New England liaison to the National Center for Education Statistics and advisor to the American Council on Education.

In his work at NEBHE, whether with younger staff, mature researchers at our colleges and universities, or strangers who simply desired sound information or guidance, Dick was always a generous man with a warm wit and a touching sense of curiosity about all those with whom he became acquainted. He made their problems his own and helped solve them. He was a lovely colleague on good days and bad.

Dick King's legacy at NEBHE, throughout New England and indeed, throughout the world, will continue to be revealed over time.

John C. Hoy is president of NEBHE and publisher of Connection.
South African Scholarships

Your article on the Open Society Scholars Fund in the Winter 1990 issue of Connection reinforced my support for the program. In addition to the institutions represented in your article as participants, you can add the Council for Advancement and Support of Education (CASE), District One.

CASE, through its districts, serves as the professional association of institutional advancement. District One (New England and Eastern Canada) was the first to adopt a socially responsible and South Africa-free investment policy. It followed that action by voting to participate in the Open Society Scholars Fund, beginning in 1990. Funds were allocated to one student for three years.

... You may want to consider, in addition to individual institutions, urging the other various educational associations to support the fund.

David J. Whaley
Immediate Past Chair
CASE, District One

Mandela’s Release

With Nelson Mandela’s release on Feb. 11, 1990, the people of South Africa—and the international community—face a crucial choice.

President F.W. De Klerk’s actions ... demonstrate that he and his government have made their choice for peaceful negotiation. [These actions include: complete legalization of the African National Congress and several other groups; ending of restrictions on political activity by 33 anti-apartheid organizations; release of all persons serving sentences based on their membership or activity in a political organization or party; abolition of media restrictions; the immediate suspension of the death penalty in all cases; and the decision to abolish the Separate Amenities Act.]

In short, Mr. De Klerk’s actions present a historic opportunity to complete the total dismantlement of apartheid and to negotiate a new constitutional future for South Africa based on democracy and justice for all.

As President De Klerk stated on Feb. 2, and again when announcing the release of Mr. Mandela, he and his government are seeking in good faith to begin negotiations for a new, democratic constitution with the following aims: universal franchise; guarantee of individual rights; protection of minorities against domination; and equality of all persons before an independent judiciary.

Mr. De Klerk’s invitation to the African National Congress, and to all parties in South Africa, to begin negotiations is clear and unconditional: “It is time for us to break out of the cycle of violence and break through to peace and reconciliation. The time for negotiation has arrived.”

If we are to make this breakthrough, the response of all of us—in South Africa and in the United States—to the choice between negotiations or stalemate and violence will be crucial in the days ahead.

America’s voice carries great weight in this choice. Americans who wish to see apartheid dismantled and negotiations begin for a new South Africa can make a difference by urging all parties to come without delay to the negotiating table and join in creating a new South Africa.

Pieter H. Viljoen
Consul General
South Africa Consulate
General
New York, NY

Babson Missed

After reading one of your “Short Courses” in the Winter 1990 issue of Connection, I would like to point out an omission on your part that is very important to many people who are affiliated with and who attend Babson College in Wellesley, Mass.

In the story, “More of the Best,” you list the New England institutions that appeared prominently in the U.S. News and World Report 1990 college-rating issue. The story, however, failed to mention Babson College and its leadership role among the New England schools listed. Babson this year was ranked No. 1 in the business specialty school category.

Deborah C. Cox
Office of College Relations
Babson College
Wellesley, Mass.

Marian Court Mistaken

In the Winter 1990 issue, Connection reported that Marian Court Junior College is one of Massachusetts’ remaining women’s colleges. In fact, this is not the case. Marian Court Junior College has admitted men to both its day and continuing-education programs since the fall of 1988.

P. Monique Valcour
Director of Admissions
Marian Court Junior College
Swampscott, Mass.
Saving for College

In this year’s State of the Union Address, President Bush cited the need for Americans to save more. The president introduced a proposal that would create tax-advantaged Family Savings Accounts (FSAs). FSAs would permit families with annual adjusted gross incomes under $120,000 to make nondeductible contributions up to $5,000 a year to specially designated accounts. Earnings on the funds would build up tax-free, and there would be no taxes or penalties upon withdrawal if held for a minimum of seven years.

The FSA is a superb vehicle for savings and, in particular, for college savings. Saving for college has become increasingly important as college in real dollars has become extraordinarily expensive. If college inflation goes on as it has in the past decade, at a 9.8-percent average annual rate, the average cost of one year at an independent college will be $59,000 in the year 2005. Four years of college could approach nearly a quarter of a million dollars. Compounding this problem, the government has scaled back grants and student loans. Parents need to save for college. The larger the family, the greater the need to save.

Nevertheless, the Bush initiative is biased against families with a large number of children. A contribution of $5,000 per year to the FSA will have a favorable impact on funding college educations for parents with one or two children, but only a modest impact on funding college educations for families with more children.

A family with two children that has excess disposable income of $10,000 per year may need to save $5,000 per year in aggregate for their children’s college educations. They could place $5,000 in an FSA each year for this purpose. They could take the remaining $5,000, for example, and use it as equity to purchase a larger home. The interest payments on the larger mortgage are tax-deductible. Consequently, all $10,000 would be tax-sheltered.

A family with four children and excess disposable income of $10,000 per year may need to dedicate the full amount to their children’s college educations. However, only $5,000 would be eligible for the tax-advantaged FSA. If the balance of the savings were placed in a U.S. Treasury Note, for instance, the family would be subject to the maximum federal tax. Less money would be available to pay for the children’s college educations at the time of matriculation than if the full amount of funds had been placed in a tax-favored FSA.

This means that parents who raise a large family, defer consumption, save for college and invest in America, are penalized vs. more free-spending, smaller families.

FSAs for children—“Kiddie” FSAs—would remove this prejudice. The Kiddie FSA would be subject to a $2,500 annual contribution limit per child and also subject to the same $120,000 family income limitation as in the original proposal. The income limitation would restrict the massive income shifting available to wealthy taxpayers prior to the Tax Reform Act of 1986. Furthermore, the income limitation would restrict participation to lower- and middle-income Americans. The revenue loss to the U.S. Treasury would be nominal, especially compared with the gains inherent in developing productive, college-educated citizens.

The Kiddie FSA would encourage the immediate and extended family to make contributions to a child’s college savings fund at a low revenue cost to the government. Furthermore, it would remove from the present proposals the inherent bias against large families.

Peter A. Roberts
Chairman
College Savings Bank
Princeton, N.J.

Now It’s Easy to Get Your Connection in Boston

Where in the World Are Our Products Going?

An exclusive analysis of the most up-to-date trade data available reveals what we’re shipping and where it’s going

JUDITH A. BEACHLER AND STEPHEN P. COELEN

Just as high-technology industrial development was the silver lining of the cloud that hung over New England’s economy in the 1970s, expanded export trade could rescue the dismal regional economy in the ’90s.

The time couldn’t be better. Canada and the United States have a new, sweeping trade agreement, 12 Western European economies will soon be one, Japan is shedding some trade barriers, and maybe most important, New England exports could find their way into the Soviet Union and Eastern European markets not dreamed of a few years ago.

But there is work to do. New England exports grew in value by just 18 percent from 1987 to 1988, while the value of all U.S. exports jumped 27 percent, according to new figures from the Massachusetts Institute for Social and Economic Research (MISER) at the University of Massachusetts in Amherst.

The U.S.-Canada Free Trade Agreement, put in place in January 1989, removes high tariffs that have dogged New England’s high-tech and other finished-products sectors. With some barriers dropped, the region’s industries are well-positioned to increase exports to their northern neighbors. In addition, New England has been dependent upon outside energy suppliers. The Free Trade Agreement stabilizes energy supplies from Canada. This should benefit New England industries by helping keep production costs in better control. The U.S.-Canada agreement could presage a North American “free trade zone” being negotiated with Mexico.

In Western Europe, the planned integration of the Common Market economies into a single economy, a program known as Europe 1992, could also provide major export opportunities for New England businesses. A single set of standards among all 12 member countries should make life easier for exporters. But analysts say U.S. companies should establish bases of trade in the European Economic Community (EEC) now. Businesses that wait until the agreement is in effect will face a market flooded with new products from within and outside the EEC.

Perhaps the most important development: the dramatic changes in Eastern Europe and the Soviet Union. New England is a center of high tech. It is precisely the lack of modern technology that has stagnated the centrally planned economies of Eastern Europe and served as one impetus for opening markets to Western trade.

Vast markets

Czechoslovakia, Poland, Hungary, East Germany and Yugoslavia could become ready markets for New England goods and services once trade restrictions are eased. Which goods and services? Microelectronics equipment, instrumentation to modernize scientific labs and telecommunications systems, as well as equipment and expertise to execute major construction projects. Add to the list, clean-coal technology, air-pollution control and water-treatment equipment for new and existing factories to begin reversing decades of environmental degradation. Consultation

Once trade restrictions are eased, Eastern European countries could become ready markets for New England goods and services, ranging from food and clothing to clean-coal technology and financial consulting.
to help establish modern banking systems and capital and security markets will be needed to support the newly free economies. Also in the area of food and clothing, Eastern European consumers will benefit from wide variety—choices they haven’t had for decades.

Trade between the Soviet Union and the United States could double or triple over the next three years as a result of a plan now in the works to normalize trade relations between the two countries. As one New England CEO noted, the Soviet Union provides a “vast market for just about everything except caviar and vodka.”

Trade between the Soviet Union and the United States could double or triple over the next three years ...

But U.S. businesses could be left out. Eastern European countries, led by Hungary, have begun encouraging joint ventures with foreign countries. U.S. businesses so far have been less involved than their Western European counterparts, who are physically and culturally closer to the new markets, and less constrained by security-related export controls. West German companies especially have been quick to forge preliminary business relationships in preparation for the day when export controls are lifted. If Western European businesses begin to dominate Eastern European markets, U.S. companies will have difficulty penetrating them later.

Opening Japan

More surprising in some ways than the emergence of these new export markets are new opportunities to sell New England products in Japan. After several years of U.S.-Japanese negotiations yielded little success, some Japanese trade barriers are beginning to erode, largely because Japan’s postwar policy of creating “worldbeaters” over a spectrum of economic sectors has now bred resentment at home.

This policy has required the Japanese people to pay dearly for consumer items, cramped homes and inadequate roads and other infrastructure. One third of Japanese manufactured exports are more expensive in Japan than in the United States. Food staples grown in Japan cost consumers 40 percent more than they would in the United States. The average Japanese citizen is tired of being unable to reap quality-of-life benefits from Japan’s economic expansion.

The yen’s fall of 21 percent against the U.S. dollar since the end of 1988, and this year’s tumble in the Tokyo stock market are signs that the Japanese economy is no longer developing, but developed.

These domestic concerns and economic problems have opened the way for progress through the Structural Impediments Initiative (SII). SII talks in Washington this spring resulted in negotiations that will eliminate several trade barriers. Japanese concessions include: opening home consumer markets long considered sacred; dismantling “big store” laws that prevent retail expansion; encouraging urban farmers to sell spare land to begin alleviating inflated land and housing prices; and eliminating informal industrial cartels and bidrigging. Japan also has made concessions on imports of U.S.-made satellites and supercomputers. After 40 years of export expansion, Japan will now focus on domestic economic expansion, bringing relief to both Japanese consumers and foreign business to whom markets have been closed.
New England's Export Markets

New England shipped more than half of the total value of its exports in 1988 to just five countries: Canada, Japan, Great Britain, West Germany and the Netherlands. Does the region's strength in high-tech products limit its customer base to more industrialized markets?

Percentage of total value of New England exports received
- 0%
- less than 1%
- 1% to 2%
- 2% to 3%
- 3% to 5.4%
- more than 5.4%

Destinations

The opportunities for New England companies are remarkable. But where do we stand right now?

MISER has been working with the Foreign Trade Division of the U.S. Bureau of the Census to analyze the most comprehensive, most up-to-date data available on the value and destination of U.S. exports. The data—gathered from export declarations—may in some cases reflect the port from which a commodity was shipped. But MISER analysts have clarified the data to better reflect where the exports were produced. What follows is a New England analysis of the MISER data.

Japan will now focus on domestic economic expansion, bringing relief to both Japanese consumers and foreign business...

The major destinations of New England exports in 1988 were Canada, Japan, Great Britain, West Germany and the Netherlands. Together, these five countries accounted for 56 percent of the total value of New England exports. The next five destinations accounted for an additional 16 percent. Three of the five—France, Ireland and Italy—are EEC members; the other two were seventh-ranked Australia and 10th-ranked Taiwan.

Canada is the No. 1 destination of New England exports, receiving 20 percent of the region's exports in 1988. The value of exports shipped to Canada grew by 15 percent from 1987 to 1988. Note, however, that the impact of the U.S.-Canada
NEBHE's Regional Project on the Global Economy and Higher Education in New England

The rhetoric surrounding "international economic competitiveness" is increasingly overworked. Nonetheless, New England jobs, income and standard of living depend increasingly on the region's ability to sell its products in world markets. Many international markets are just beginning to grow as U.S. markets mature.

The New England Board of Higher Education's ongoing Regional Project on the Global Economy and Higher Education in New England, initiated in 1987, explores how New England colleges and universities may prepare citizens to be knowledgeable consumers and vital contributors to the global economy over the long term.

A key consideration throughout this analysis has been how the region's colleges and universities may share resources among themselves—and with businesses, government and local school districts—to meet the new challenges posed by global economic change.

The Regional Project on the Global Economy and Higher Education in New England focuses on:

- Upgrading education and training;
- Heightening international awareness;
- Improving coordination of international initiatives by business, government and higher education;
- Encouraging more timely collection and analysis of state and regional trade data;
- Facilitating transfer of knowledge to the world marketplace; and
- Expanding international educational exchange.

As part of the Regional Project on the Global Economy and Higher Education in New England, NEBHE has completed:

- Personal interviews with hundreds of internationally oriented scholars and administrators at colleges and universities throughout New England to evaluate campus-based international initiatives;
- Personal interviews with corporate and state trade leaders to discern business perspectives on higher education's role in an international economy; and
- A pilot round of legislative briefings in each New England state, aimed at updating lawmakers on the new realities of the global economy and recommending ways for higher education to collaborate with business and government to meet new challenges.

To order Regional Project on the Global Economy and Higher Education in New England publications, see the order form in this issue. To find out more about the project, write to: New England Board of Higher Education, 45 Temple Place, Boston, MA 02111, or call (617) 357-9620.

Free Trade Agreement will not be seen until 1989 data are available.

The value of New England exports shipped to the 12 EEC countries combined is even higher than that sent to Canada. While New England's focus on EEC countries may show a lack of diversity in export destinations, it also may signify that the region's industries have a foothold in the soon-to-be unified European market. New England shipped 37 percent of the value of its exports to EEC countries in 1988; 24 percent of the value of all U.S. exports went to those countries. From 1987 to 1988, New England exports to EEC countries grew by only about 19 percent, compared with 25-percent growth in total U.S. exports to the EEC.

The 1988 data do not reflect the impact of recent political events in the Soviet Union and Eastern Europe. As might be expected then, the data show the Soviet Union and Eastern European countries to receive very small shares of New England's and the nation's exports. Less than 1 percent of the value of New England exports was shipped to any of these countries in 1988. Only 1 percent of the value of all U.S. exports was shipped to the Soviet Union; just one-tenth of 1 percent went to Eastern Europe.


New England exports to Japan grew by 36 percent in 1988, slightly better than total U.S. export growth to Japan. New Hampshire led the region, with its exports to Japan growing in value by 68 percent, followed by Massachusetts with 41-percent growth. In 1988, Japan bumped Canada from its position as the top destination for Bay State exports.

New England exports to Africa are small, but growing. The region's exports to Africa grew in value by 49 percent from 1987 to 1988, compared with 18-percent growth in the value of all U.S. exports to Africa.

Except for Canada, the countries of the Western Hemisphere receive a small share of New England exports. In Asia, only Japan is a major destination of the region's exports.

Why is our base so limited? It could be that New England's strength in high-tech products limits the region's customer base to more industrialized markets. If this is the case,
smaller, but growing, low-tech industries could bring new balance to New England’s export picture.

What are we shipping?
The region’s export economy is dominated by three high-tech industries, which accounted for 61 percent of all New England manufactured exports in 1988. Industrial machinery, including computer equipment, alone accounted for 35 percent of exports. Electronics (excluding computers) accounted for 13 percent; and scientific instruments for 13 percent.

These three New England industries also accounted for a substantial share of total U.S. exports in their respective industries. New England-made scientific instruments accounted for 13 percent of all U.S. exports of scientific instruments; New England computer equipment for 11 percent; and non-computer electronics for 7 percent.

Several smaller export industries show comparative strength by this measure. For example, though leather accounted for only 1 percent of the region’s total exports, New England leather accounted for almost 22 percent of all U.S. leather exports. Leather is Maine’s third-largest export industry. It is also a major export industry in New Hampshire. New England accounted for a substantial share of U.S. total exports in 10 other industries. These include: used or second-hand merchandise and scrap and waste products, each with 9 percent of the national share; paper and allied products and agricultural livestock, each with 7 percent; rubber and miscellaneous plastics, miscellaneous manufactured products, textile mill products and printing and publishing, each with 6 percent; and fabricated metal products, as well as stone, clay and glass products each with 5 percent.

Advantage of diversity
New England’s export future derives strength from the diversity of the six states—Massachusetts and Connecticut with their more developed export economies, and the remaining states with their small, but fast-growing export industries. The region’s larger export states have a foothold on several strategically important parts of the world. The smaller export states have broadened the base of regional export products and destinations. The diversity is important. With regional planning and sharing of resources, the whole can be greater than the sum of its parts.

Massachusetts, which ranked 10th nationally in the value of its exports, accounted for 57 percent of all New England exports. The Bay State shows great strength in its regional leadership in exports per capita to EEC countries and the Pacific Rim. Connecticut ranked 20th nationally in the value of its exports and accounted for 22 percent of the region’s exports, also with a notable concentration of exports to the EEC and the Pacific Rim.

However, while export growth in Massachusetts and Connecticut in 1988 was below regional and national averages, growth rates were high in the smaller export states of Vermont and Maine. Vermont, which is the most “export-intensive” state in New England based on its population, ranked first nationally in 1988 export growth, posting a 60 percent increase over 1987. Maine ranked 20th in terms of 1988 export growth. The other four New England states ranked among the bottom 15 nationally.

Regional cooperation is the key to expanding the export product base. New England’s high-tech industries, already challenged at home, now face a threat overseas. Analyses show that the national trade deficit in low-tech manufactured goods narrowed by $44 billion from 1986 to 1989, while the high-tech trade surplus rose by a sluggish $11.7 billion. This reflects a small increase in high-tech exports. Why? Foreign competition has grown dramatically, and subsidiaries of U.S. high-tech companies have expanded manufacturing operations overseas. In addition, improved international relations are likely to undermine demand for military equipment overseas, just as at home. And export of military goods has been a key contributor to America’s high-tech trade surplus. There is a potential danger in maintaining a heavy dependence upon high-tech exports in general and upon military goods in particular. (See “New England After Defense: Peace Dividend or Peace Liability?”)

continued on page 20.

International Tech Transfer
What do the director of the Zambian Patent and Trademark Office and the senior patent supervisor at Fuji Photo Film Co. have in common? They’re among 17 technical and legal experts from around the world who have spent the past year in Concord, N.H.

They’ve been at the Franklin Pierce Law Center to learn the nuts and bolts of intellectual property law. Since 1986, Franklin Pierce has been attracting professionals from developed and developing countries to a unique master of intellectual property degree program, designed to familiarize students with patents, trademarks, copyrights and licensing.

Now, with classwork finished, the students are in the midst of three required, one-month internships: at a U.S. patent and trademark office, an intellectual property law firm and a U.S. corporation’s patents office.
Hot Hubs

These spots may have what it takes to be centers of New England’s competitiveness in the ’90s

JOHN O. HARNEY

The image of countless Yankee craftsmen plying local trades in hamlets across New England is so romantic, it’s easy to forget that the region’s major economic success stories have unfolded on very distinct pieces of real estate—a few physical places with the right geography and the right brains for the time.


In the 1990s, new industries and trade routes are emerging, and so will new economic hubs—those real, physical places you can spot on a map, drive by in a car, go to for work.

This being New England, most of these hubs won’t offer old lures to business like inexpensive labor and abundant natural resources. But they will provide access to the region’s riches: educated workers and technology.

Since technological innovation and highly skilled workers tend to emanate from and cluster around higher-education institutions, New England’s hottest hubs in the ’90s will be marked by proximity to colleges and universities. A few will be based around science parks, those university-industry research complexes that have sprung up nationwide with mixed results since 1948, when Stanford University developed the Stanford Research Park in Menlo Park, Calif.—and, some say, gave life to Silicon Valley.

Some hubs will offer a variation on the “business incubator” theme. Incubator landlords, often universities, offer a combination of benefits like shared office equipment and lab space, low rent and management assistance to help young businesses reach adolescence. Incubators may be especially attractive to biotechnology companies run by technical experts who have little management experience.

With expanded export trade seen as a white knight for the region’s ailing economy, the next hubs will not turn their backs on the world. Some will include foreign-trade zones, the duty-free oases created by the federal government to spur international trade. Generally, duty and excise taxes on foreign or domestic merchandise that enters these zones can be deferred, avoided or reduced if the merchandise enters a zone for designated purposes such as re-export.

Infrastructure will be important. Most high-tech centers have been built in large urban regions with good air transportation, as well as strong universities and a steady flow of federal research funding. Finally, quality of life counts for something. It’s a key to recruiting and keeping workers.

So which hubs might historians someday associate with the highly technological, increasingly global, New England economy of the ’90s? Here are a few candidates.


A year ago, there were 4,500 military personnel and 700 civilians working at Pease. The annual payroll was $100 million. According to the Air Force, the base spread $300 million in economic benefits throughout New Hampshire and southern Maine each year. Optimistic community planners say that impact could nearly double when Pease flexes its economic muscle through civilian clothing.

In May, the state-appointed Pease Air Force Base Redevelopment Commission, a group of state and local leaders, approved a proposal by its consultant, Bechtel Corp., to turn the 4,257-acre site into an “international hub.” According to plans, the site will include: a small to medium-sized international hub airport, a light industrial park for manufacturing firms, an international trade center, a foreign-trade zone, a high-tech research park and assembly plants.

Bechtel says the plan will create 12,000 jobs on the base and 8,000 more in the New Hampshire Seacoast area over the next two decades.

What would move through Pease? “Cargo predominantly. But with what’s happening in Eastern Europe, there’s the potential for another international passenger airport along the East Coast,” says John Leigh, local coordinator for Bechtel,
the planning and engineering giant responsible for mega-
projects such as the Hoover Dam and Boston’s soon-to-be-
depressed Central Artery.

In many ways, Pease is an economic planner’s dream. Start
with the 11,300-foot runway built to handle the military’s
huge refueling planes and bombers. That’s about three foot-
ball fields longer than the longest strip at Logan International
Airport in Boston. One hanger at Pease is big enough to hold
and repair two Boeing 747s at once. Also on the site: a
wastewater-treatment facility, a water-purification facility,
two schools, a 70-bed hospital, a refuse-to-energy plant and
1,200 housing units. “It’s a city unto itself,” says Leigh.

Then there’s Pease’s proximity to the port of Portsmouth,
major interstate highways and the University of New
Hampshire with its flow of educated workers and leading
research.

Portsmouth, about 50 miles north of Boston, boasts the
northernmost container port on the East Coast. There are
three foreign-trade zones in the area. The port’s public
and private terminals account for more than 3.5 million tons of
cargo per year. Plans to expand the port are underway.

“You don’t find many places where you have that kind
of airport facility, next to a major interstate, next to a port,
and in a relatively uncrowded environment,” says James
Morrison, former associate vice president for research at
UNH, who left his post in the spring to direct research ini-
tiatives at the University of Iowa.

“We’ve had a lot of contact with major corporations think-
ing about locating in this area. They can look into the Boston
markets, yet not be in the Boston traffic,” Morrison says.

Quality of life? “A coastal community has a great deal of
attraction. I think technical workers are paying a lot more
attention to that than they used to,” says Morrison. In addi-
tion, promoters will do some gushing about New Hampshire’s
tax climate. Though the state’s business profits tax clouds the
picture a bit, New Hampshire still has no income tax. “Per-
sonal wealth can be amassed and conserved in this state,
and that’s important to a lot of entrepreneurs who want to build
something up and cash out of it relatively quickly,” says
Morrison.

The international twist is a natural. Says Morrison, “With
the opening of [Eastern] Europe and the consolidation of the
European Economic Community in 1992, people are thinking
there’s a huge new market developing—and it’s a trad-
ing bloc that we are close to.”

Bechtel’s Leigh says higher education will be important to
the success of the redevelopment. But that’s about as specific
as he gets. Reason: UNH provides continuing-education
courses at the Pease site and earlier this year seemed poised
to play a leading role in Pease redevelopment. But between
Morrison’s departure and the budget problems plaguing New
England’s land-grant universities, the degree of UNH interest
in the base has dwindled. Bechtel now is seeking involve-
ment by New Hampshire technical colleges and institutions
such as Dartmouth College. “We have impressed upon [the
state] that they will have to do extensive marketing. Part of
that marketing I’m sure will be to go to higher education,”
says Leigh. “If you get an institution of higher education to
have a physical location on the base, it just makes it that much
more attractive for high-tech industries, knowing that brain
continued on page 48.
Value of Exports per capita, 1988

$ per capita

- 0 to $750
- $751 to $1,250
- $1,251 to $1,750
- $1,751 to $2,250

Massachusetts accounts for 57 percent of the value of all New England exports. Connecticut accounts for 22 percent. But in terms of population, Vermont is the most “export-intensive” of all the six states. The per-capita value of 1988 Vermont exports was $2,101.

Map courtesy of the Massachusetts Institute for Social and Economic Research.

Sorting out Free Trade

The Canadian-American Center of the University of Maine is publishing a series of scholarly papers on U.S.-Canada relations. Papers will explore cross-border pollution, defense issues, business and cultural relations and the effects of the U.S.-Canada Free Trade Agreement on industries such as forestry. The first paper in the series warned that the two North American neighbors could experience an “economically turbulent” 1990s.

EXPOUTS continued from page 17.

Efforts should now be made to expand export diversity. While New England’s export strength in Canada and the EEC is important, new markets should be explored and developed, particularly in Eastern Europe, the Soviet Union and within our own hemisphere. Though tight budgets limit government-funded trade-development efforts, tremendous resources are available to help businesses and state officials understand the export picture and expand the base.

New England’s university departments of business, economics, political science and international development are rich with expertise in international and business matters. On New England campuses, centers for policy research, international and area-studies and export-assistance provide market research, technical assistance, comprehensive trade guides and cultural understanding needed to spur exporting.

The partnerships of the 1990s among colleges and universities, government offices of economic development and businesses must become even more creative, responsive and regional in scope, as the problems of international economic competitiveness become more complex and pressing.

What follows is a look at the states.

CONNECTICUT

Top Export Industries: transportation equipment, computer equipment, scientific instruments, non-computer electronics, chemicals and allied products, fabricated metals, primary metals

Major Destinations: Canada, Great Britain, Japan, West Germany, France, Mexico, Australia, the Netherlands, Belgium and Luxembourg, Israel

Total Value of 1988 Exports: $3.8 billion
Average Annual Growth Rate in 1988: 15.4%
Share of New England Exports: 22.4%
Share of U.S. Exports: 1.2%

Transportation equipment accounted for 33 percent of the value of all Connecticut exports in 1988; computer equipment for 18 percent; scientific instruments for 12 percent; non-computer electronics for 10 percent; and chemicals and allied products for 9 percent.

Major export industries posting greater export growth than the average for all industries in 1988: Chemicals and allied product exports grew by 58 percent, while primary metals exports grew by 15 percent.

Connecticut’s fast-growing, small export industries include: forestry products; furniture and fixtures; apparel and other textiles; metal mining products; scrap and waste products; tobacco products; and bituminous coal and lignite mining products. The value of agricultural crop exports jumped 924 percent, from $3 million in 1987 to $31 million in 1988.

Connecticut agricultural livestock, second-hand merchandise and scientific instruments each accounted for about 3 percent of the total value of U.S. exports of these products.

Of the major destinations for exports, Canada accounted for 18 percent, Great Britain, 15 percent; and Japan, 11 percent. Fast-growing, major destinations include: Israel, Belgium and Luxembourg, Great Britain and Mexico. Connecticut can claim a substantial share of the total value of U.S. exports to: Algeria, Great Britain, Israel and Turkey.

MAINE

Top Export Industries: Paper, non-computer electronics, leather and leather products, lumber and wood products, food and kindred products, computer equipment

Major Destinations: Canada, Japan, Singapore, Great Britain, West Germany, Belgium and Luxembourg, South Korea

Total Value of 1988 Exports: $805.3 million
Average Annual Growth Rate in 1988: 22.7%
Share of New England Exports: 4.7%
Share of U.S. exports: 0.3%

Paper accounted for 30 percent of the value of all Maine exports in 1988; computer equipment for 18 percent; leather
products for 12 percent; and lumber and wood products for 11 percent.

Major export industries posting greater export growth than the average for all industries in 1988: Leather exports grew by 75 percent; computer equipment by 33 percent; and paper products by 29 percent.

Maine's fast-growing, small export industries include: stone, clay and glass products; petroleum and coal; forestry products; and fishing, hunting and trapping products. The value of printing and publishing exports grew 819 percent, from $1.6 million in 1987 to $15 million in 1988. However, exports of transportation equipment dropped 58 percent in value, from $34 million in 1987 to $14 million in 1988.

Maine leather exports accounted for 10 percent of the total value of U.S. leather exports. Maine fishing, hunting and trapping products as well as paper products accounted for 3 percent of the U.S. total for each industry.

Canada received 37 percent of the value of all Maine exports, followed by Japan and Singapore, which each received 9 percent. Fast-growing, major export destinations include: Singapore, Japan and South Korea.

MASSACHUSETTS

Top Export Industries: Computer equipment, scientific instruments, non-computer electronics, transportation equipment, chemicals and allied products

Major Destinations: Japan, Canada, Great Britain, West Germany, the Netherlands, France, Ireland, Australia, Italy, Taiwan

Total Value of 1988 Exports: $9.7 billion
Average Annual Growth Rate in 1988: 16.1%
Share of New England Exports: 56.7%
Share of U.S. Exports: 3.1%

Computer equipment accounted for 46 percent of the value of all Massachusetts exports in 1988, and scientific instruments for 17 percent.

Several small export industries posted greater export growth than the average for all industries in 1988. These include: the primary metals industry; scrap and waste products; paper; rubber and plastics; food products and forestry products. The value of Massachusetts agricultural livestock exports grew 222 percent, from $6 million in 1987 to $19 million in 1988.

Massachusetts scientific instrument exports accounted for 9 percent of the value of total U.S. exports of these products; Massachusetts leather and computer equipment each accounted for 8 percent of the U.S. total; Massachusetts rubber and plastics, textile-mill products and scrap and waste each for 4 percent of the U.S. total. Massachusetts accounted for 3 percent of total U.S. exports of: non-computer electronics, miscellaneous manufactured products, stone, clay and glass products, printing and publishing products and forestry products.

Massachusetts is the only New England state whose top export market is non-English-speaking. Japan received 14 percent of the value of all Massachusetts exports. Canada received 13 percent; Great Britain received 12 percent. The EEC countries, taken together, received 42 percent of Massachusetts exports.

Massachusetts in 1988 was responsible for 21 percent of U.S. exports to Ireland; 13 percent to Bermuda; 7 percent to Poland; 6 percent to Great Britain and the Netherlands; and 5 percent to West Germany, France, Australia, Sweden, New Zealand and Austria. Massachusetts accounted for 3 percent or more of total U.S. exports to eight other countries.

Trading Places

The following service-oriented, membership organizations work in partnership with state and federal trade officials, as well as campuses, to provide important and timely export trade information to New England businesses. Their services range from research and consulting to trade missions. The Connecticut, Massachusetts and Rhode Island associations provide their members with access to NETWORK, a computerized database that provides on-line, trade-lead information from more than 150 member associations throughout the world. Vermont does not have a world trade association, but the state's chamber of commerce operates an international trade group.

CONNECTICUT
World Trade Association
One Commercial Plaza, 22nd Floor
Hartford, CT 06103
Established: 1987

MAINE
World Trade Association
77 Sewall Street
Augusta, ME 04330
Established: 1981

MASSACHUSETTS
World Trade Center, Boston
Commonwealth Pier
Boston, MA 02210-2004
Established: 1986

NEW HAMPSHIRE
International Trade Association
UNH University Center, Room 311
400 Commercial Street
Manchester, NH 03101
Established: 1982

RHODE ISLAND
World Trade Center
Bryant College
450 Douglas Pike
Smithfield, RI 02917-1284
Established: 1989

VERMONT
Chamber of Commerce
Box 37
Montpelier, VT 05602

CONNECTION SPRING 1990 21
NEW HAMPSHIRE

Top Export Industries: Computer equipment, non-computer electronics, scientific instrument, chemicals and allied products, scrap and waste, paper, transportation equipment, leather and leather products, rubber and plastics

Major Destinations: Great Britain, Canada, Japan, Australia, South Korea, the Netherlands, West Germany, France, The Dominican Republic

Total Value of 1988 Exports: $1 billion
Average Annual Growth Rate in 1988: 15.8%
Share of New England Exports: 6%
Share of U.S. Exports: 0.3%

Computer equipment accounted for 41 percent of the value of New Hampshire exports in 1988; non-computer electronics accounted for 19 percent.

Major export industries posting greater export growth than the average for all industries in 1988: Rubber and plastics exports grew by 124 percent; computer equipment by 47 percent; and paper by 37 percent.

Among major export industries, transportation exports declined in value by 49 percent, while state leather exports declined by 27 percent from 1987 to 1988.

New Hampshire’s fast-growing, small export industries include: agricultural crops; nonmetallic minerals [excluding fuels]; metal mining products; miscellaneous manufacturing products; forestry products; second-hand merchandise; furniture and fixtures; and primary metals.

New Hampshire leather products accounted for 3 percent of the total value of all U.S. leather exports in 1988.

Great Britain received 18 percent of New Hampshire exports; Canada, 17 percent; and Japan, 9 percent. New Hampshire shipped a substantial share of U.S. total exports to one country, Zimbabwe, with 4 percent.

RHODE ISLAND

Top Export Industries: Scrap and waste, computer equipment, miscellaneous manufacturing products, primary metals, non-computer electronics, scientific instruments, textile-mill products, chemicals and allied products, rubber and plastics, fabricated metal products

Major Destinations: Canada, Great Britain, Belgium and Luxembourg; Japan, West Germany, Sweden, Mexico, the Netherlands, Hong Kong, Italy, Ireland

Total Value of 1988 Exports: $559.8 million
Average Annual Growth Rate in 1988: 9.9%
Share of New England Exports: 3.3%
Share of U.S. Exports: 0.2%

Scrap and waste products accounted for 19 percent of the value of all Rhode Island exports in 1988; computer equipment for 18 percent; and miscellaneous manufacturing products for 16 percent.

These three major industries, however, experienced either low growth or decline in 1988. Scrap and waste product exports grew by 10 percent, and miscellaneous manufacturing product exports grew by 11 percent. Computer equipment exports declined by 11 percent. Primary metals, which accounted for 8 percent of all Rhode Island exports in 1988, grew substantially—by 59 percent.

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Rhode Island's fast-growing, small export industries include: nonmetallic minerals; petroleum and coal products; transportation equipment; paper; lumber and wood products; metal mining; and agricultural livestock.

No Rhode Island export industry represented a substantial share (3 percent or more) of the U.S. industry total. Nor did Rhode Island ship a substantial share of U.S. total exports to any single country.

Canada received 23 percent of Rhode Island exports; Great Britain received 13 percent, Belgium and Luxembourg, 9 percent; and Japan, 8 percent. Fast-growing, major destinations include West Germany, Ireland and Hong Kong.

Vermont's top export industry, non-computer electronics, accounted for 46 percent of the value of all state exports in 1988; computer equipment accounted for 24 percent.

Interestingly, just two top Vermont industries experienced substantial export growth in 1988. That growth, however, was very high. Exports of second-hand merchandise grew 841 percent, from $10 million in 1987 to $95 million in 1988. Exports of nonmetallic minerals (excluding fuels) rose 172 percent.

Vermont's fast-growing, small export industries include: scrap and waste products; agricultural crops; agricultural livestock; stone, clay and glass products; chemicals and allied products; paper; and petroleum and coal products.

Vermont exports of second-hand merchandise accounted for 5.5 percent of total U.S. exports of second-hand merchandise, while Vermont exports of nonmetallic minerals (excluding fuel) accounted for 3.2 percent of the U.S. total.

Canada received 70 percent of all Vermont exports; Japan received 5 percent. Exports to Italy grew by 445 percent, from $7.7 million in 1987 to $42 million in 1988. Vermont provides a whopping 52 percent of all U.S. exports to Malta and Gozo.

Judith A. Beachler is NEBHE director of research services. Stephen P. Coelen is professor of business and finance at the University of Massachusetts at Amherst and director of the Massachusetts Institute for Social and Economic Research. Carla Miller and John Gavaglio of the MISER staff provided computer support for this project.

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How Parents Figure in the Trade Equation

I had just finished a talk on competitiveness in a room filled with New Hampshire legislators. Near the end of the question period, one state lawmaker standing near the back, called out: "What about the Japanese? Get them to open their markets, and we won't have to worry about the trade deficit much longer. Why bother about test scores and competitiveness when all we need is a level field to play on?"

His question made me pause for a moment. I had just finished reviewing the connections between education, productivity and the ability to compete. My assumption had been that the very notion of competitiveness had been beaten into our heads so often that it had gradually seeped into the national consciousness. Then it dawned on me that the very term "competitiveness" means different things to different people.

Many Americans like this New Hampshire legislator believe that Japan is the root cause of our trade problem. Just get Japan in line, and once again we'll be able to swamp the opposition. Lee Iacocca tells us that. Richard Gephardt says much the same thing, and now the state lawmaker was taking that tack because he heard it in a convincing speech from the head of PepsiCo.

It would be nice if our trade problems could be reduced to such a clear-cut solution, but they can't be.

Opening up Japanese markets to more American exports will help, but not much. Jane Sneddon Little, an international economist with the Federal Reserve Bank of Boston says, "Macroeconomic fundamentals determine the size of the deficit." The fact is that our $43 billion trade deficit with Japan owes far more to economic factors such as currency exchange rates, increases in national income and the level of inflation, than to import restrictions. No more than about 5 percent of the deficit would be affected by an across-the-board reduction of Japanese trade barriers. That accounts for only about $2.2 billion of the 1989 trade deficit with Japan.

We should look at a bigger part of the equation. Up until the 1960s, America's ability to educate its youth and train its workforce was among the finest in the world. Ironically, as it became clearer during the past 30 years that the acquisition of knowledge, education and training were the keys to a nation's productivity, we became bogged down in the same areas where we had earlier excelled.

If we ask millions of parents across the country, they'll tell us they're satisfied with the education their children are getting. They're not sure what goes on elsewhere, but they feel their own schools are doing a good job.

It's just that kind of thinking that got us into this educational mess in the first place. Parents who really don't want to be bothered and who are prisoners anyway of their own limited experiences, will tell you how well their Arthur and Audrey are doing at school. Teachers too resent the imposition of external standards and comparisons with other schools.

Nevertheless, international yardsticks are giving us a realistic sense of how effectively American kids are being educated for the responsibilities they'll undertake in the workplace and in a society that depends upon an educated citizenry. For the first time, we have an objective set of measures that give us an idea of how well American parents are motivating their kids to perform and how well they are being taught.

The picture that emerges is not pretty. American adults finish last among English-speaking countries in spelling ability. On average, they spelled fewer than five out of 10 words correctly. Their counterparts in Australia, Canada and the United Kingdom did better.

In another international survey of 18- to 24-year-olds, Americans finished last in their knowledge of geography and current events. On one multiple choice question, more than half of the Americans couldn't place the correct population of their own country within the range of 150 million to 300
million. Most of the young adults from Japan, Sweden and Canada answered the same question regarding U.S. population correctly. A recent U.S. Census survey corroborates that weakness, showing that 73 percent of Americans can’t give a ballpark estimate of the U.S. population.

Seventy-three percent of Americans can’t give a ballpark estimate of the U.S. population.

American youngsters finished last in a test of math and science skills of 13-year-olds. South Korean students finished first. In this study of nine nations, it was even more revealing that only 23 percent of Koreans thought they were good at math but scored the highest, while 68 percent of American kids thought they were good at math but scored the lowest. That way of thinking becomes easier to understand when we discover that the Korean children who were tested like school the most, while American children are tied with Spanish children for liking it the least.

Our vaunted system of higher education does not escape unscathed. The knowledge of foreign languages becomes ever more important to players in the global marketplace, but only 58 percent of U.S. colleges required foreign language study for a bachelor’s degree in 1987-1988, down significantly from 89 percent in 1965-1966. And in a Gallup Poll of U.S. college seniors, as many as 55 percent failed a National Endowment for the Humanities test of history and literature on such basic questions as when Columbus discovered America and who wrote The Tempest.

This picture of poor performance, weak standards and self-delusion becomes more understandable when we realize that good learning habits start at home. Parents who accept these results are asking for more of the same. Harold Stevenson, a University of Michigan psychology professor, studied 7,000 children in the United States, China, Taiwan and Japan, and found that Asian superiority in basic educational skills can be traced to good learning habits instilled in the children before they begin their first day of school. For instance, these children know how to organize their desks and use their study time efficiently because of their preparation at home.

The study directed by Stevenson also found that American parents largely get what they ask for. Nearly three-quarters of American mothers said they were satisfied or very satisfied with their children’s performance in mathematics. Asian mothers, on the other hand, were more worried about their children’s performance. Small wonder then that American children have been led to believe they are doing well when they’re not. Parents deceive themselves or don’t know better. □

Melvin H. Bernstein is a senior fellow at the New England Board of Higher Education and president of The Bernstein Group, a Boston-based consulting firm.

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INTERNATIONAL EDUCATION:
Anatomy of a Funding Battle

SENATOR LOIS G. PINES

Massachusetts is a mecca for scholars, scientists, artists and political leaders from around the world. They come to attend our colleges and universities and to enjoy our art, history and music. Yet only recently has the state begun programs to teach students about the world beyond our borders.

Our neglect of international education was evident in the dismal performance of 2,000 Massachusetts students surveyed in 1987. More than half could not name the seven continents, and 28 percent could not name three countries in Europe. Twenty-eight percent of Boston-area students did not know that the United States' neighbor to the south is Mexico.

This failure is of great concern, not only in academic circles, but also among business and government leaders. We are operating in an international economy. For Massachusetts and the entire country, jobs and prosperity will increasingly depend on how well we conduct business with the rest of the world.

As executive director of the state’s International Coordinating Council in the early 1980s, I saw the urgent need to teach our youngsters to take part in an economy becoming more international by the day. At the time, a number of other states had already started international-education programs. Joining forces with Rep. David Magnani of Framingham, we won funding for six campus-based Global Education Centers designed to help Massachusetts teachers bring an international perspective to their classrooms.

It took some fancy legislative footwork. We abandoned the first bill I had filed, when a key committee chairman opposed it. The chairman urged that we earmark money from a $5 million collaborative program administered by the state Board of Regents of Higher Education. With the help of Sen. Richard Kraus of Arlington, we were successful in establishing our Global Education Centers program with $330,000 from the collaborative’s fiscal 1988 budget.

The original plan called for the centers to receive state money for three years, during which time they would seek other permanent funding. We hoped that additional state dollars would be used to start new centers every year, until there were 18 centers across the state.

Training teachers through a college-based collaborative model turned out to be the most efficient and inexpensive way to reach the most students. In 1989, more than 1,000 Massachusetts teachers attended seminars to learn how to bring international perspectives to science and math, as well as social studies and geography. Those teachers passed their new knowledge on to thousands of students.

Unfortunately, 1989 also brought major cutbacks in funding of public higher education. Only five of the six centers were funded. Total funding for the centers was slashed to $230,000.

The program was nearly abolished in 1990, when the governor eliminated funding for the $5 million collaborative program in response to the state’s budget crisis. We turned to the Bay State Skills Corp., a quasi-public agency that promotes job-training programs, for $139,600 to keep the centers running.

As the centers complete their third year of existence, it looks as if the original plan to replace state money with private funds may not yet be possible. Grant money has dried up, and competition for funding is stiff. Only the Wellesley College Global Education Center has won outside funding—$33,000 from National Geographic. Plans to start six new centers are on hold indefinitely.

We hope the Bay State Skills Corp. will fund the center through fiscal 1991, but we are concerned about its ability to do so given the state’s continuing budget problems. The Bay State Skills Corp. staff is helping the centers to work more closely together and to seek funding as a single entity. Eventually, the agency would like to match state spending with private money.

Rep. Magnani and I will continue to fight in the Legislature to make sure the program receives funding. There is now a much broader understanding of the need to compete internationally than there was just a year or two ago. The barriers dividing nations are collapsing at a dizzying rate. It’s up to us to make sure that our children overcome the greatest barrier of all—ignorance.

Senator Lois G. Pines is senate chair of the Massachusetts Legislature’s Commerce and Labor Committee.

26 NEW ENGLAND BOARD OF HIGHER EDUCATION
The ground has begun to shake under a number of Connecticut communities... vibrations could spread throughout New England.

In most of the New England states, a few large companies account for about 85 percent of prime defense contracts. United Technologies, General Dynamics, Raytheon, Textron Lycoming, Kaman and General Electric are some of the larger and more impressive names. Most of these companies are national and multinational. Some have begun to diversify, moving away from defense toward commercial and international markets.

It is safe to say that the larger companies, because of their size, can survive defense reductions. But some of their divi-
sions may encounter trouble. If there are serious cutbacks in the Seawolf Class submarine or excessive competition from Newport News, General Dynamics has other products that will carry the company through a period of adjustment. But the company’s Electric Boat Division will feel the effects. Electric Boat employs about 16,000 workers at its plant in Groton, Conn.

More important is the fact that larger defense contractors support a vast number of suppliers: small and medium-sized subcontractors who are finding it difficult to convert or diversify for non-defense markets. Many of these subcontractors supply very specific, defense-related components to one or two large manufacturers. Their workers and machinery often are highly specialized and geared to those suppliers.

Larger companies, because of their size, can survive defense reductions... some of their divisions may encounter trouble.

To survive, some companies will have to convert or diversify. Put simply, conversion is the process by which business shifts labor and investments from military production to new civilian markets. With diversification, a business continues to produce for the defense industry, but also enters non-defense markets. Neither is easily accomplished.

Federal and state governments have taken action to help defense-dependent companies plan for civilian production. For example, the U.S. Congress is considering several bills on conversion. Both the proposed Defense Economic Adjustment Act and the Defense Production Act would establish a council, which would give local officials one-year notice of a base closing or contract cancellation that could affect jobs in their area.

Reps. Sam Gejdenson (D-Conn.) and Nicholas Mavroules (D-Mass.) have introduced the proposed Economic Diversification and Defense Adjustment Act. This bill would create a council, consisting of the secretaries of commerce, labor, defense and education, the chairman of the council of economic advisors, six business and six union representatives.

The council would establish a grant program for eligible communities to receive assistance with economic diversification, alternative-use planning and job retraining.

States are also taking a closer look at defense spending and its impact on their economic health. In Massachusetts, Democratic state Reps. David Magnani and David Cohen introduced legislation that would create an Economic Diversification Committee. The Minnesota Legislature established a task force in 1985 to study the effects of military spending on the state’s economy. Jobs with Peace, a conversion-assistance program, was set up with state agencies responsible for job training and economic development. A similar Ohio program is aimed at small and medium-sized defense subcontractors. A number of other states are beginning to take inventory of their dependence on defense spending.

Connecticut’s Legislative Task Force on Manufacturing has authorized a complete analysis of the state’s defense dependence. The analysis should be completed this summer.

Two bills before the Connecticut Legislature would provide financial assistance to small and medium-sized companies that wish to diversify or convert. In addition, the state would support employee buyout plans under some circumstances. Both bills come with recommendations from the task force. Connecticut Senate President John Larson also has arranged meetings with representatives of the other New England states, New York and New Jersey to examine the problem from a regional perspective.

Local and regional efforts are fine, but they are piecemeal by their nature. States do not have the resources to help all affected companies convert or diversify their operations to reach commercial markets. It is apparent that the federal government must provide the major impetus, share its own defense research and development efforts by supporting technology transfer from a defense orientation to commercial application where possible, and, above all, exercise defense cuts in a planned and orderly fashion. By doing so, states and regions will find it easier to adjust to defense cutbacks.

Senator Thomas J. Sullivan is senate chair of the Connecticut Legislature’s General Law Committee and chair of the Legislative Task Force on Manufacturing.
• Rank of education among "industries" that New England business executives say are likely to contribute most to the New England economy in the next five years: 1
• Average salary for teachers in the United States: $31,304
• For teachers in Connecticut: $40,496
• Average number of hours worked per week by public-school teachers: 50
• Average number of hours worked per week by full-time college faculty, including time spent on outside paid and nonpaid services: 53
• Percentage of faculty members (at four-year institutions) who agree with the statement, "My job is the source of considerable personal strain." : 46
• Estimated number of students enrolled at U.S. postsecondary institutions, fall 1989: 14,507,000
• Percentage increase in enrollment at four-year institutions, fall 1988 to fall 1989: 2
• At two-year institutions: 5
• Percentage of fall 1989 total U.S. postsecondary enrollment represented by women: 55
• Public higher-education enrollment as a percentage of total fall 1989 enrollment in the United States: 75
• In New England: 52
• In Maine: 74
• Percentage of 1990-91 Mellon Fellows in the Humanities who are from New England colleges and universities: 29
• Number of math doctorates awarded by U.S. institutions in the year ending July 1, 1989: 904
• Number of those awarded to U.S. citizens: 411
• Minorities as a percentage of tenured Harvard University faculty, 1989: 7
• Women as a percentage of tenured Harvard University faculty, 1989: 7
• Labor force participation rate of women in New England in 1989: 61
• Of Black women in New England: 67
• Percentage growth in total value of New England exports, 1987 to 1988: 18
• Percentage growth in total value of Vermont exports: 60
• Percentage of Rhode Island workers who think they will need new skills to retain their current job: 35
• Percentage of Rhode Island workers who do not expect to work for their current employers for more than five years: 65
• Net loss in Connecticut manufacturing jobs, 1980 to 1987: 65,000
• In Connecticut defense-dependent manufacturing jobs: 16,800
• Percentage decrease in U.S. Department of Defense research and development obligation to Massachusetts, 1987 to 1988: 41
• Massachusetts Institute of Technology's national rank among higher-education institutions in corporate support received: 1
• Researchers per 10,000 labor force participants in the United States, 1986: 67
• Researchers per 10,000 labor force participants in Japan: 81
• Percentage of U.S. budget appropriations for research and development that were defense-related, 1987: 69
• Percentage of Japanese budget appropriations for research and development that were defense-related, 1987: 4
• U.S. per-capita daily food consumption in calories: 3,567
• Japanese per-capita daily food consumption in calories: 2,617

Sources:
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Preparing Grads for Business: Two Perspectives

A Hot Specialty: The Ability to Think

KENNETH HOOKER

Curriculum is at the center of the eternal academic debate. The assumption is that the toughest chore of the frowsy academic is to decide just which portion of the wisdom is to be passed along. According to the musty tradition, academics of untold decrepitude annually would summon their ancient adrenalin to assure that their own specialty—the dead languages, for example—would not be cut from the syllabus. In early days, when the usage of the word “faculty” had not taken it to its current remove from “power,” it was the sole job of the university administrators to referee this eternally unresolved debate. Non-resolution, of course, meant no change.

That has all changed. In the current structure, a comp-lit specialist can be as insecure as an auto worker assembling gas guzzlers in a bad year. The administrators no longer are mere referees. The power that went with the faculty has been quietly assumed by professional administrators. But of all the glories these types have assumed, the particular piece of the debate they’d rather have left behind is that ancient question of curriculum. They are in the position of a seventh-grade English teacher suddenly transferred to science; it means a tough summer ahead and dubious likelihood of success.

One solution is for the administrators, who are so ill-equipped for the chore, to throw it off on business. After all, a part of their job is to assure that graduates are financially capable of returning envelopes to the alumni association. So why not follow the lead of Harvard’s B-School, which rigorously analyzes the job placement of its last class and then massages the curriculum to deliver more of the expensive same?

The short answer to this is that it works only at the very top. It is very well for MIT to ask Ken Olsen of Digital Equipment Corp. what particular discipline Digital’s top 10 scientists will need in the next three years. But it is quite another thing to point the thundering herd from a state university directly into the hands of anxious and grateful employers.

Business cannot give a general answer to the question of curriculum for three reasons. First, businesses do not know what they will need. Second, a number of them think they do. And third, as any generic business lobbyist will tell you, business is a most troublesome customer. While it is treated as an almost rock-solid, unified force at election times and such, in fact, it is a most disruptive and contentious client which rarely reaches a level of agreement within its caucuses. (Moreover, businesspeople in convention—at the National Association of Manufacturers, for example—do not agree to disagree; what happens is that one faction wins the day and the balance stomps off, mumbling about damn silly nonsense and vowing to withdraw financial support.)

Despite all this, the business and academic communities get together from time to time almost ritualistically to de-

Corporate Culture and the Liberal Arts

SANDRA E. ELMAN

Students trained in the liberal arts and sciences increasingly are being recruited for, and assuming, leadership positions in business. However, corporate America has indicated that these more broadly educated students are not adequately prepared to think and behave responsibly in the highly competitive environment that the corporate world confronts.

Traditionally, it has not been the specific purpose of liberal education programs to fully prepare and develop undergraduate minds for the corporate environment. This has been the domain of business and management programs. We know that certain structural, pedagogical and behavioral factors have a significantly positive impact on liberally educated individuals who become corporate leaders. Nonetheless, deficiencies persist in liberal education programs that supply potential corporate leadership.

To better prepare liberal arts and sciences undergraduates for the corporate world, colleges and universities should consider four chief strategies: 1) construct congruent images of the corporate world in the classroom; 2) acknowledge differences between academic and corporate cultures; 3) enhance the communication skills of undergraduates; and 4) increase the exchange of knowledge and understanding between the academic and corporate worlds.

Congruent images

The very notion of the corporate world too often evokes negative images in the academic community. Such images have been exacerbated by recent hostile takeovers, scandals involving high-level business executives, massive layoffs of workers, the savings and loan debacle and other lapses in the business world. However, it would be shortsighted to describe the essence of the corporate world on the basis of individual behavior, which is symptomatic of a society that produces bumper stickers boasting, “the person who dies with the most toys wins.” Business ethics, to an extent, reflect American ethics.

While it is difficult to assert exactly what faculty imply in the college classroom about the corporate world, certain orientations and predispositions are discernible. Despite gradually strengthen-

continued on page 56.
Do You Need It?

Chapter 1

With the cost of higher education on the rise, and the availability of federal aid increasingly restrictive, many middle and upper income parents are concerned about their ability to fund their child’s college education.

Over the last few years supplemental education loan programs have been introduced as an alternative for students and families whose income bracket or assets disqualify them from using federally supported loans. In the case of parents who have more than one child going to college, it is often difficult to pull together the necessary funds from savings or monthly income to cover education expenses. This is where supplemental loan programs can help greatly in financing college costs.

There are currently several supplemental education loan programs available throughout the country, sponsored by various groups including state agencies, nonprofit corporations, lending institutions, and colleges and universities.

What To Look For

Chapter 2

Supplemental loans vary in many ways, but generally they include the following elements:

1. **Eligibility** is based on creditworthiness, not financial need; in other words, there are no upper restrictions on income;
2. **Loan limits** are generally higher than federal student loan programs. Many supplemental loans allow applicants to borrow up to $15,000 or $20,000 a year;
3. **Repayment periods** are also generally longer than federal loan terms. Many supplemental loans offer repayment periods up to 15 or 20 years, depending on the amount borrowed;
4. **Interest rates**, although higher than federal student loans, are usually lower than many consumer loans;
5. Although some supplemental loan programs have limited availability in certain states, many of these loans are **available nationwide** and can be used at any accredited degree-granting college or university;
6. Some supplemental loans also give borrowers the option to **defer principal payments** while the student is enrolled in college, and pay interest only;
7. Like most consumer loans, borrowers can make **fixed monthly payments** on supplemental loans. This is a more manageable alternative for parents who have a difficult time paying two or three large tuition bills every year. Most supplemental loans use bond issues or other private funding sources to finance their programs rather than using any federal monies.

There are many different sources that a parent or student can use to find out about supplemental loan programs. One of the best resources is the college or university at which the student has been accepted or may be enrolled at some future date. Most colleges and universities have publications available on the types of student financial aid programs that they offer, including federal, state, private supplemental, and institutional aid (aid that the college or university offers apart from other programs).

Another source of information on supplemental loans may be your **public library**. Many libraries have established extensive resources on the different types of financial aid available, including supplemental loans. Libraries will also have financial aid resource books that list sources of aid by geographic area, institution type and other factors.

Your state **Board of Higher Education or Department of Education** are other resources to contact for supplemental loan information. They will be able to tell you if there are any state or privately sponsored loan programs that offer non-need based aid for higher education in your area.

Finally, your **high school guidance counselors** may be another resource to contact for supplemental loan and other financial aid information. More and more high schools are beginning to sponsor financial aid awareness nights for parents. If your child's high school offers such an awareness presentation in the future, it's a good idea to attend for more information concerning state or region specific supplemental loan programs that will fulfill your college financing requirements.

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How To Compare Chapter 4

After you have gathered information on various supplemental loan programs, how do you decide which one is both the best and the least expensive option for you? Here are some of the factors which you can compare when looking at supplemental education loans:

1. **Interest rates** should be compared. Find out what the interest rates are based on. Most programs base their rates on the prime lending rate, Treasury Bill rate, or commercial paper or bond issue rates. Also be sure to look at what kind of interest rate the supplemental loans offer, which will be either a variable rate or a fixed rate (some programs offer both variable and fixed rate options).

2. Look at the **repayment terms** on the loan and choose a program that will fit in best with your monthly budget. Check if the supplemental loan programs offer any principal deferment options which may help ease cash flow during the student’s in-school period.

3. Most supplemental loans have **upfront fees** such as an application fee, guarantee fee, insurance fee or origination fee. When making your comparisons, look at the fees that each charge and add these into your loan cost calculation. An application fee is usually paid at the time the application is sent in and isn’t refunded if the loan is denied. Application fees usually run between $30 and $50. Guarantee, insurance and origination fees are charged on a percentage basis on the total amount borrowed, and are usually from 1 to 8 percent. These fees are paid only on approved loans and can sometimes be borrowed in addition to the approved annual loan amount.

4. Another factor you can use to compare supplemental loans is the set of **credit guidelines** that each program has established. Eligibility for supplemental loans is usually based on the creditworthiness of the potential borrower, which is judged on the applicant’s debt to income ratio. It’s always a good idea to contact the loan program’s customer service representatives if you’re not sure what types of monthly expenses the program considers when calculating the debt to income ratio.

5. Lastly, look at any **special options** that supplemental loan programs might offer. For example, some programs have options like a line of credit, the ability to secure the loan with a home mortgage and benefit from tax savings; or use of a tuition prepayment plan, whereby a parent can pay a college or university upfront for several years’ costs and avoid year to year tuition increases. If any of the special options fit your needs better than a regular annual loan, you may want to consider this when making your decision on the best supplemental loan program for you.

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School-Improvement Partnerships

Despite turf issues and hidden agendas, they’re working

BYRD L. JONES,
ROBERT W. MALOY
and FRANK FLETCHER

Nationally, more than 140,000 collaborations link millions of teachers and students with individuals from private enterprise and higher-education in an effort to improve schools. Nearly 60 percent of these partnerships involve business and business associations—typically supporting guest speakers, special demonstrations, awards, scholarships or incentives for students. Two in five schools now engage in formal arrangements with outside groups. Most urban, secondary schools work with multiple partners.

Locally negotiated school-improvement partnerships between schools, businesses and higher education are at work throughout New England. “Compact” projects link city schools with business and higher education in Boston and Providence, R.I. Schools work with private-sector partners through public-private education funds in Worcester, Cambridge, Lowell and Lynn, Mass., and in Bridgeport and New Haven, Conn. Many New England schools also are supported by sponsors such as the General Electric Foundation in Bridgeport, Pittsfield, Mass., and Warwick, R.I.; Travelers Cos. Foundation in Hartford, Conn., and Unum Corp. in Portland, Maine.

Broad involvement in school-improvement partnerships and several success stories provide reason for optimism. Because teachers perform complex work in isolation, they face extraordinary difficulties in explaining their roles to others and may simply repeat what has worked previously. When partnerships among schools and outside organizations, such as businesses or colleges, succeed, they stimulate crucial dialogues about curriculum, climate and educational purposes.

But this optimism is tempered by a regional business slowdown and fiscal crisis that has strained higher education. Businesses and public agencies are questioning all “extra” commitments to long-term community development. Some higher-education institutions, which have cut faculty and support staff as well as enrollment, also are scaling back collaborative projects with schools.

This past fall, the New England office of the National Alliance of Business (NAB) and the Division of Continuing Education of the University of Massachusetts at Amherst sought a New England perspective on how school personnel and representatives from industry and higher education are working together to improve public schools. NAB and UMass surveyed 350 selected business, public school and higher-education leaders; 75 responded. NAB and UMass also conducted indepth interviews with selected partners throughout the region.

Public and private-sector leaders overwhelmingly reaffirmed the “great potential of the partnership concept.” Nine of 10 reported that their organizations were involved in some type of education-business activity—in most cases, serving on education committees or task forces, providing work-study or summer jobs for students or sponsoring awards and scholarships (See Chart 1).

Respondents voiced widespread concern about adolescents leaving school prior to graduation or not going on to college. One company director, noting that not a single job in his company can be done by an illiterate worker, said he saw working with schools as a way to ensure a supply of job-ready employees

Source: National Alliance of Business, New England Regional Services Office and the University of Massachusetts at Amherst Division of Continuing Education, January 1990.
who could "think independently and make good judgments."

Priorities differ

Nevertheless, survey respondents expressed differing priorities. Business executives emphasized that partnerships should help schools prepare job-ready workers, support vocational-skills programs and enhance awareness of careers among teachers and students. Educators sought instructional improvements, better relationships between businesses and schools and improved communication among partners (See Chart 2).

Asked how businesses and other outside partners could improve elementary and secondary education, private-sector leaders stressed directly supporting education through grants, volunteers or donations; providing information to help schools prepare students for work; and advocating for schools in policy arenas. Education leaders said the optimal role for outside partners would be helping schools respond to labor-market needs; securing political allies for education and encouraging or providing more funds (See Chart 3).

Comments by respondents from both sectors also revealed a sense of heightened tensions around partnerships. Asked about major barriers to collaboration, almost half identified "turf" issues, ranging from partners' reluctance to adopt suggestions to one leader's comment that "some educators don't like capitalists." Others cited a muddled focus, apathy and lack of leadership and communication as key barriers. Some respondents said they felt overextended in their quest for improved schools. One business executive remarked that schools "are getting a lot of tax money now and can do a much better job ... We can't keep pulling more and more businesspeople and money from their primary responsibility to work in some other sector of society" (See Chart 4).

For some, the most frustrating issue was how to assess partnerships. Respondents generally agreed on the need for specific examples of planning, goal setting, measurement and other means to make partnerships more rigorous, accountable and successful.

Multiple partners

School-improvement partners—businesses, parent and community groups, human-service agencies and higher-education institutions—have overlapping concerns about schools and education, but quite different personal and organizational agendas.

One business executive remarked that schools "are getting a lot of tax money now and can do a much better job..."

Businesses offer schools equipment and staff services at convenient times. But they are unlikely to allow those exchanges to reduce their profits. Parent and community groups may be energized briefly by specific issues, but seldom sustain active involvement. Human-service agencies that work with "school-leavers" or suspended students often blame poor schooling for alienating youth. Universities offer to share their expertise, but are insensitive to the daily routines faced by classroom teachers.

In a climate of pessimism and budget crisis, turf issues and conflicting organizational cultures raise mistrust about free riders, hidden agendas and other barriers to partnership. Initial negotiations often raise particularly troublesome issues of trust—how much to reveal of one's needs, how much to count on another partner's commitment. Even after partners have defined areas of agreement, organizational perspectives differ.

But the presence of multiple partners also offers advantages. Multiple perspectives help identify common ground for cooperation. Teachers at a vocational high school in Springfield, Mass., and a higher-education official recently met with representatives from two local hospitals and a major downtown hotel to discuss how the school's curriculum could better meet the needs of local businesses and agencies. At first, divisive issues abounded. Private-sector leaders questioned the work ethic and skills of students passing through the schools. School representatives questioned the value of work experience provided to students. After these issues were exposed, the university observer noted that the employers and the school had common interests, most notably, an interest in keeping students in school to learn necessary job skills. Once focused in a positive direction, the group ar-

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**CHART 2**

**KEY ISSUES FOR PARTNERSHIPS**

Educators seek support for partnerships and improved instruction.

**ISSUES**

- Educators
- Business

Source: National Alliance of Business, New England Regional Services Office and the University of Massachusetts at Amherst Division of Continuing Education, January 1990
ranged field trips for the high school’s culinary-arts students to the food-service departments of the hotel and hospitals, identified a contact person at the school for employers to call with job openings and expanded work opportunities to include the high school’s freshmen and sophomores.

Besides offering new perspectives, multiple partners minimize feelings of overcommitment (“we have to do it all”) on the part of outsiders. The diversity may help new purposes evolve in response to new conditions. The Math English Science Technology Education Project (MESTEP) is a master’s-level, teacher certification program that links UMass-Amherst, Digital Equipment Corp. and other businesses and schools in the Boston metropolitan area. With support from every partner, and from the federal government’s Fund for the Improvement of Postsecondary Education, MESTEP’s shared decision-making body has concentrated at different junctures on preparing new math, English and science teachers; recruiting talented minority arts and science majors to teaching; and creating paid internships. MESTEP’s extended network enables the project to fulfill multiple objectives in response to evolving priorities without overburdening any partner.

**Voluntarism works.**

*When partners feel obligated to work together because of court orders, funding conditions or leaders’ policies, the result is often pro forma meetings and activities.*

Leadership from a large player can encourage broader participation. When MESTEP began, Digital and the Acton-Boxborough public schools agreed to arrange an internship program. Their early support proved to be crucial in bringing other high-technology firms and school systems into the project. New England Telephone Co.’s leadership in a school-partnership program in the Brockton-Taunton, Mass. area generated a similar bandwagon effect.

**Dynamics of voluntarism**

Voluntarism works. When partners feel obligated to work together because

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of court orders, funding conditions or leaders' policies, the result is often pro forma meetings and activities. These collaborations lose momentum and often are not renewed. On the other hand, programs where college students or business personnel tutor in schools have provided immediate benefits for volunteers and facilitated interorganizational understandings.

At UMass-Amherst, more than 250 undergraduates participating in the Tutoring Enrichment Assistance Models for Schools (TEAMS) project have provided over 12,000 hours of academic tutoring to Southeast Asian, Hispanic, African-American and other secondary-school students in local public schools. Undergraduates from the TEAMS project described tutoring as a rewarding experience—"the best thing I've done at this university," said one marketing major.

Collaborations that rely on volunteers and start small can minimize formal procedures and commitments. College students, business personnel and community members contribute to social betterment while learning about adolescents, schools, other cultures and organizational constraints. Teachers become supporters as they recognize that tutors will assist difficult-to-reach students and support curriculum goals.

Assessing the benefits
Collaborative processes face a major threat from both business and education leaders who want quick payoffs. Education is a lifelong endeavor, and many results of schooling—positive and negative—do not show up for decades. They almost never appear in the direct and measured goals of a collaborative program.

Assessments of short-term results discourage projects with long-term payoffs.

Business partners have typically sought evaluations that will demonstrate that everyone "got their money's worth." Hard data provides an equivalent to a firm's bottom line, so that more effective and efficient programs will displace others. However, assessments of short-term results discourage projects with long-term payoffs. In addition, pressure for accountability may contradict the strength of school partnerships—namely, exploratory interactions among individuals from different organizations. An emphasis on clear results as measured by standardized tests may discourage significant innovations and other, perhaps more appropriate, goals such as improved communication or a positive school climate.

Assessing partnerships means paying attention to the strategies, activities, processes, structures and achievements of all participants, including teachers and students, as well as businesses, higher education and other outside partners. Just as the costs of alienated students spill over to next year's teachers and learners and eventually to local communities, the benefits of collaboration will spill over from targeted areas to others. The major beneficiaries: Today's students who, through educational improvements, become better prepared for tomorrow's jobs. Also, today's workers who, through voluntarism, enjoy improved lines of communication and discover the needs and goals of schools and society.

Byrd L. Jones is a professor of education at the University of Massachusetts at Amherst. Robert W. Maloy is manager of continuing-education programs and adjunct assistant professor at the University of Massachusetts at Amherst. Frank Fletcher is director of corporations and foundations in the development office of the University of Massachusetts at Boston.

Source: National Alliance of Business, New England Regional Services Office and the University of Massachusetts at Amherst Division of Continuing Education, January 1990.
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A Bold Recommendation to Keep Lawyers Competent: Will it Pass the Bar?

ANSEL B. CHAPLIN

The New England Board of Higher Education's Commission on the Legal Profession and the Economy of New England last fall recommended that lawyers be required to participate in transitional skills training upon entry into practice and to engage annually thereafter in a minimum amount of continuing legal education (CLE). The Supreme Judicial Court of Massachusetts has responded politically to these recommendations. Chief Justice Paul J. Liacos wrote to me in February that "the justices... absent support from the organized bar, are not presently inclined to impose mandatory continuing legal education requirements on individual members of the Massachusetts bar."

The court implicitly recognizes that it has the ultimate responsibility to proceed in this area, but clearly wants "the organized bar" to take the initiative in recommending compulsory post-admission education for lawyers. By "the organized bar," the chief justice presumably means the leading bar associations in the commonwealth such as the Massachusetts Bar Association and the bar associations of Boston, Worcester County and Hampden County.

The opposition of this "organized bar" to the imposition of mandatory CLE requirements is well-known to the court. Continued the chief justice, "should further consideration of the issues raised and the recommendations presented in [the commission's] report cause or contribute to a substantial alteration of the views of the organized bar, the justices would then be willing to once again address this subject." Thus, the commission has been invited to contact the court again if we can manage to turn the bar associations around on this issue.

It is understandable, but nevertheless disappointing, that the court is unwilling to deal judicially with the issues we raised. It has the power to require "the organized bar" to respond formally to the commission's positions and to counter our arguments with their arguments, so that the court can then decide, as in any other contested matter, which arguments are the most compelling.

It is instructive to reflect upon why the court has reacted politically rather than judicially. If the court felt that our recommendations were basically unsound, it presumably would not have hesitated to say so. Instead, the chief justice seemingly has told the commission that the court has concluded that the climate is not right for implementing the recommendations at this time.

Theoretically, the court has absolute power in this area because it alone licenses lawyers. Yet the court seems to sense that if it unilaterally imposes any form of mandatory CLE, the resulting protest from "the organized bar" could jeopardize the success of a compulsory program. We have before us an interesting example of an inherent political limitation upon what only appears to be absolute power. The court has decided it needs "the consent of the governed" before subjecting them to ongoing requirements for continued licensure.

I discard emphatically the possibility that the court has simply defaulted on its responsibility to the public for the quality of the lawyers it has licensed. It is certainly true, however, that the fitness of the bar is not the responsibility of the voluntary leadership of some collection of bar associations which one might dub "the organized bar." That
is particularly so in Massachusetts where bar associations have no special standing, as they do in those states that require lawyers to join a statewide bar association. For example, the Massachusetts Bar Association, the state’s largest, can claim to represent only 22,000 of the roughly 42,000 licensed lawyers in the jurisdiction. In short, it could be said that “the organized bar” is not in a position to speak for Massachusetts lawyers on any subject; so its views in this controversy do not deserve any conclusive weight as to what the public interest demands.

It is difficult at this time to foresee the outcome for the commission’s recommendations in Massachusetts.

The only hard data on this subject comes from the 1987 CLE survey of Massachusetts lawyers by the Supreme Judicial Court’s own Committee on Legal Education. Of those who had taken Massachusetts Continuing Legal Education’s entry-level practical skills course, 44 percent described themselves as likely to recommend that it be made mandatory, and 27 percent said they were “somewhat likely” to do so. The survey was professionally designed, distributed through the Massachusetts Board of Bar Overseers, and the results tabulated by NEBHE’s staff to within a factor of ± 5-percent accuracy. Thus, one could conclude from that objective sample that the concept of compulsory education, if well done, is acceptable at least to the “unorganized bar.”

It does seem unlikely that organized Massachusetts lawyers will ever voluntarily ask the Supreme Judicial Court to impose upon individual lawyers a burden of meeting annual requirements, particularly since the 1987 CLE survey also showed that fewer than two in five Massachusetts lawyers meet the normative standard of 15 hours a year in compulsory CLE jurisdictions. In that context, it is instructive to see how “the organized bar” had begun responding to our report even before the chief justice’s letter.

The Boston Bar Association’s Committee on the Delivery of Legal Services last December considered sponsoring a debate on mandatory CLE, but opted against the idea. According to the minutes, the committee members reached the rather surprising conclusion that talking about the matter publicly would lessen the prospects for achieving some compulsory program. Perhaps the committee feels that we will someday get compulsory post-admission training through some kind of osmosis from those who believe in it?

The Massachusetts Bar Association, by contrast, sponsored a panel program on minimum continuing legal education at its mid-winter meeting at the end of January. The program was very poorly attended by the membership. Nevertheless, its very existence reflected a laudatory commitment by the bar association’s leadership to make sure that the issue is thoroughly debated, if possible.

It is difficult at this time to foresee the outcome for the commission’s recommendations in Massachusetts. The commission looks forward to making a presentation of its recommendations to the New England Bar Association—a loose affiliation of the presidents of all major bar associations in the region. We will strive to win their support. Whether we do or not, the commission is determined to keep these matters in the public forum if it can. If our position is sound, it should prevail in the end ... with or without the support of “the organized bar.”

Ansel B. Chaplin served as vice chair of the NEBHE Commission on the Legal Profession and the Economy of New England. He practices law with the Boston firm of Chaplin & Mistein and is chair of the Massachusetts Supreme Judicial Court’s Committee on Legal Education.

WASHINGTON AND BEYOND

We’ve Been Writing Our Reps

...and our senators, too. In fact, we’ve written every New England member of the U.S. Congress. We’ve asked them to complete a survey on important issues facing the nation and New England in the 1990s. And we’ve invited them to contribute commentaries on education and economic development topics of their choice. The Summer 1990 issue of Connection will feature an analysis of the survey results, as well as the exclusive commentaries by members of New England’s delegation to the U.S. Congress. “Washington and Beyond” does not appear in this issue of Connection. But the word from the nation’s capital will be loud and clear in the summer Connection. We think it will be worth the wait.

40 NEW ENGLAND BOARD OF HIGHER EDUCATION
New England’s Economic Future

The following is excerpted from “One View of What the Future Holds for New England,” a speech delivered to business leaders this spring by Richard F. Syron, president of the Federal Reserve Bank of Boston. The text of Syron’s speech will appear in the bank’s annual report.

Forces that provided a powerful impetus to growth through much of the 1980s have weakened, and in some cases, now exert a drag on the [New England] economy. In addition, New England is paying a price for its prosperity. When a region deviates so markedly from the rest of the country, a self-correcting process is set in motion. Sometimes there is an over-correction.

New England benefited in the first half of the 1980s from a growing demand for computers and related products, coinciding with rising defense expenditures. The region is, of course, a center for both commercial and defense-oriented high-technology industries. The region also shared in the rapid expansion of the national financial-services industry in the mid-1980s. While some of the growth of financial services in New England was driven by the region’s real-estate boom, much was attributable to mutual funds, insurance companies and other institutions that serve national markets.

These sectors are no longer functioning as economic drivers for the region. The computer industry began to encounter difficulty towards the end of 1984, as both domestic and overseas competitors proliferated. Defense spending peaked in real terms in 1987. The boom in the national financial-services industry also ended in 1987; the stock market crash in October of that year ended the era of go-go expansion.

New England is also a victim of its earlier success. The region became a costly place in which to do business. Rapid growth caused wages, rents and other costs to rise much more in New England than in the country as a whole during the 1980s. The increase in relative wages was especially dramatic. In 1979, the annual wage in the private sector was 94 percent of the national level; by 1988, the wage in New England was 108 percent of the U.S. average. Manufacturers are particularly sensitive to such cost pressures. When deciding where to build a new plant or where to consolidate operations in a cost-saving move, time and again, firms are choosing locations outside of New England.

New England is also confronted with the aftermath of a construction and real-estate boom. The strong performance of computers, the defense industries and financial services in the early and mid-1980s required more research and development, light-manufacturing and office space. The income and jobs created by these

continued on page 43.

Bok Answers Higher Education’s Critics

Harvard University President Derek Bok took the occasion of his annual report to Harvard’s board of overseers to address a range of recent criticisms regarding the role of higher education in the United States. The following passages are excerpted from Bok’s discussion of curriculum, teaching vs. research and rising college tuitions. [Bok announced in May that he would step down as Harvard president next June. He has held the post since 1971.]

Curriculum: It is the curriculum, especially the undergraduate curriculum, that has provoked the bitterest complaints about the quality of education. The most frequent, most vehement attacks have come from conservative sources, such as Allan Bloom, William Bennett, Lynne Cheney and others who deplore the failure of our colleges to direct more attention to the history and cultural traditions of Western civilization.

Critics of this kind suffer from two underlying difficulties. To begin with, although Bennett, Bloom, Cheney et al. have attracted a great deal of public attention, theirs is by no means the only complaint about the undergraduate curriculum. Many writers have been pleading eloquently for colleges to do more to emphasize foreign languages and international studies in order to prepare students for an interdependent world. Others press for increased attention to quantitative literacy and science in order to prepare undergraduates for a highly technological, science-driven world. Still, others have stressed the need to learn more about other cultures in order to prepare for an ethnically diverse world. ... Added to these proposals are further demands for compulsory courses on worthy subjects such as expository writing, ethics, environmental problems and racial awareness.

By confining their argument to one or another of these suggestions, critics conceal the true dilemma that confronts the curriculum committee. In fact, there is a long and growing list of subjects that one can plausibly propose as indispensable. For those who must actually make curricular decisions, it is impossible to consider any one of these claims without deciding what to do about the others. ...

Teaching vs. research: Interestingly, no one has yet proved that professors who publish a lot are less successful teachers than their colleagues who devote little time to scholarly pursuits. Nevertheless, it is widely believed that institutions slant their students when they emphasize research in making appointments and refuse to promote unproductive profes-
sors even though they are highly successful classroom teachers.

As is so often the case, this concern has emerged against the backdrop of two contradictory messages that society has sent to its universities. One signal comes from all the critics who deplore the neglect of teaching and the stress that universities place on published work. The other makes the opposite point through a system of powerful incentives and rewards that offers fame, fortune and ample funding to successful scientists and scholars.

In the face of these conflicting demands, it would be useful to consider what universities might do to create rewards for teaching strong enough to achieve a proper balance between instruction and research. Oddly enough, however, discussions of this kind are rare outside of specialized education journals. Those who speak for research seldom consider such matters to be their proper concern and hence are silent on the subject. For their part, those who speak up for teaching tend to dismiss research with hardly a word about the reasons that have led society to devote so many billions of dollars to its pursuit. Little is said about its importance to society or its potential benefits for teaching. Instead, critics condemn the bulk of scholarly writing either as a sterile product of requirements imposed by philistine administrators or as a form of private pleasure that selfish professors enjoy at the expense of their students. In this way, supporters of teaching and research talk past one another without trying to reconcile their views.

A serious attempt to balance the legitimate claims of teaching and research must begin by understanding something of the incentives that inspire each type of activity. Both pursuits hold great intrinsic interest, just as both can entail much drudgery and frustration. In contrast, the extrinsic incentives and rewards are almost always more powerful for research than they are for teaching. Part of the explanation lies in the potent effect produced by the financial support, the prizes and the wide recognition that society bestows on successful scientists and scholars. Equally important is the fact that research can be studied carefully and communicated to a very wide audience. Because of this visibility, faculty members who are outstanding scientists and scholars are much better known outside the university and thus attract more invitations to speak, more opportunities to consult and more job offers (which in turn drive up their salaries). In much the same way, a university's reputation will depend much less on the quality of its teaching than on the strength of its research, since the latter is so much better known to the outside world....

The critical question is whether the administration is doing what it can to develop incentives and rewards for good teaching that will help to restore a healthier balance. Contrary to much outside opinion, the proper remedy is not to promote popular teachers who are distinguished scholars. A vital part of a professor's job in a research university is to expand knowledge and train graduate students. Neither task is likely to be done well by individuals who have failed to show real talent for research by the time they reach the point of tenure. Besides, professors who publish little are unlikely to thrive in the atmosphere of a research university and often have less to communicate and less enthusiasm for doing so as time goes on.

Fortunately, there are other things that an institution can do to encourage good instruction. Certainly, the administration should consider the quality of teaching as well as the publication record in making appointments. In addition, the university should take pains to devise appropriate criteria for evaluating research. At present, more than 40 percent of the faculty in research universities believe that reviewing authorities consider only the quantity of publications, rather than the quality, in judging faculty promotions. Perhaps these professors are misinformed. If they are correct, however, the universities involved are clearly guilty of encouraging trivial scholarship at the expense of teaching.

While promotion criteria are important, they merely fix the quality of teaching at the time the appointment is made. A conscientious administration must do more to create an environment that will continuously support good instruction. Various possibilities spring to mind. The university can offer seed money to assist professors who wish to improve their courses or experiment with new methods of instruction. It can provide for student evaluation to make sure that faculty members receive feedback about their teaching. It can use voice mail to help students communicate with their instructors about questions and confusions arising from course lectures. It can offer opportunities, such as videotaping of classes, to help professors improve their pedagogy. Even more important, it can ask all graduate students to undergo serious training to develop pedagogic skills and include tapes and other evidence of their teaching in the dossiers they send in applying for academic posts at other universities....

Tuition: It is likely that much of the public's concern [about higher-education costs] stems from the fact that tuitions during the 1980s rose faster than the cost of living. But there is no obvious reason why the cost of living should provide a standard for setting tuitions any more than it does for other goods and services. In fact, independent colleges have raised their prices approximately two points faster than inflation since statistics were first compiled many decades ago. Although tuitions grew more rapidly than that during the first half of the 1980s, they also failed to keep up with inflation in the '70s. Hence, increases over the entire two decades averaged only 1 percent above the cost of living, a bit below the historical average. It is also worth noting that federal scholarship grants fell steadily in the 1980s, so that private colleges needed to find extra revenue or risk closing their doors to poor but deserving applicants. Buildings were deteriorating from deferred maintenance, and faculty salaries had lost almost 20 percent of their purchasing power due to the rapid inflation of the 1970s. With all these problems, it is far from clear that colleges breached any obvious norm by temporarily raising their tuitions much faster than the rate of inflation....
lead sectors, coupled with pent-up demand from relatively low levels of housing construction in the late 1970s and early 1980s, spurred the construction of housing and retail space.

In the mid-1980s, however, construction became an economic driver in its own right. Construction employment continued to grow rapidly despite cutbacks in high tech and the loss of other manufacturing jobs. This increase in construction played an important role in sustaining overall employment growth. With hindsight, however, this strong growth in construction without the underpinning of a strong performance by manufacturing should have been a warning sign of problems to come.

Eventually, the expansion in the housing stock and the additions to nonresidential space outstripped the absorptive capacity of the New England economy. The impact was first felt in the housing market; sales have fallen substantially, properties move more slowly and new housing permits are close to recession levels. In the nonresidential market, effective rates have fallen sharply....

The short-term

The short-term outlook will be dominated by developments in construction and manufacturing. These are the industries that suffered the greatest job losses in 1989 and they are inherently more volatile and, in current circumstances, more prone to employment cutbacks than most other industries...

The volume of construction activity in New England during the mid-1980s was very high—both by historical standards and in relation to population and household growth. Such high levels of activity were not sustainable. The industry is not in a temporary slump; rather, it is shifting to a level of activity more consistent with the long-term economic and demographic characteristics of the region.

It has become commonplace to attribute the industry's problems to speculation and overbuilding. One should recognize, however, that housing construction in New England was depressed during the late 1970s and early 1980s, while the growth of the adult population was quite high. This created a pent-up demand for housing. When the industry finally responded to this pent-up demand, the response was extraordinarily rapid. The very high levels of housing construction in the mid-1980s meant the housing deficit was filled in a very short period. Such high rates of activity are no longer justified. The appropriate rate of construction is one consistent with the growth in the number of households. And here is an additional consideration: Not only must the industry shrink because the capacity created in response to pent-up demand is no longer needed, but a slowing in the growth of the adult population means that the ongoing need for new housing construction has decreased....

The prospects for manufacturing are more encouraging. And because manufacturing is much larger than construction, accounting for about 20 percent of employment compared to construction's 5 percent, developments in the manufacturing sector are even more critical to the regional outlook.

Manufacturing is one sector for which the downturn in the New England economy represents, on balance, good news. Most manufacturers in New England sell in national and international markets. The downturn in the region does not affect their sales prospects to any appreciable degree. Printing and publishing is an important exception. But for most manufacturers, it is the national economy that matters. And since the national expansion is expected to continue, albeit at a modest pace, a pronounced weakening of the manufacturing sector's performance seems unlikely.

Moreover, while the downturn in the region does not hurt the revenues of New England manufacturers, it should help their costs. Labor availability is no longer a widespread problem. Space costs are down. Indeed, the silver lining to the downturn in New England is that cost pressures will ease. And just as manufacturing profits were squeezed when costs went up, manufacturing will benefit more than other industries when these cost pressures abate. However, these positive effects will probably not be felt for a year or two. So just as one should not expect a marked deterioration in the manufacturing sector's performance, one should not look for a marked improvement—at least not in 1990.

While portions of the service-producing industries also serve national markets, much of the service-producing sector is locally or regionally oriented and is adversely affected by a regional downturn. Sales and earnings growth slows in the trade and services industries. Weak tax collections create pressure to curtail state and local government activities. The finance, insurance and real-estate industry certainly suffers, although the impact varies greatly from one segment of the industry to another. However, while the service-producing industries are affected by the job and income losses in manufacturing and construction, they are inherently stable. This stability is an important virtue in current circumstances, since it means that employment generally holds up in economic downturns....

Per-capita income in the region will remain well above the national average.

A distinct possibility is that 1990 will be a repeat of 1989, with total nonagricultural employment falling about 1 percent from fourth quarter to fourth quarter. The unemployment rate would rise up to and probably exceed a national average of roughly 5.5 percent. Underlying the overall decline in employment of 1 percent would be a sharp decline in construction employment (about 10 percent) and a more moderate (about 5 percent) decline in manufacturing. Services would grow modestly, less than 2 percent, under this scenario; employment in the remaining industries would be flat to down slightly....

A decline in employment of 1 percent, following the decrease experienced over the course of 1989, would
be about the same as the decrease in employment the region experienced in the 1981-82 recession. That was a relatively mild recession for New England, but a recession nonetheless. Fortunately, the region entered the present downturn with such a tight labor market that even with the projected drop in employment, the unemployment rate should remain close to the national average. Per-capita income in the region will remain well above the national average. ...

The longer term

For New England to preserve the economic gains made in the 1980s requires that some industry or group of industries function as an engine of growth for the region as computers, the defense industries and nationally oriented financial services did, in spectacular fashion, not so long ago. ...

No industry is currently an obvious candidate to succeed computers and serve as the engine of growth of the 1990s, but the following examples illustrate that the potential exists for such a lead industry to emerge and to have a significant impact within a relatively short time.

In the services sector, the computer software and data-processing industry now employs roughly the same number of people in New England as the manufacture of computers. While the performance of some of the larger firms in the region has been mixed recently, the consensus is that the industry will grow at a healthy rate in the 1990s. Engineering services is also a relatively large industry in New England. Infrastructure requirements, energy needs and global environmental concerns would seem to favor growth in this industry over the long term.

In manufacturing, the instruments industry may offer promise. New England is very prominent in the manufacture of medical instruments, measuring and controlling instruments, and search, navigation, guidance and aeronautical instruments. Advances in medical care should foster the growth of medical instruments, while concerns with the environment could bolster the demand for instruments that measure air and water quality and monitor the weather. The demand for search, navigation and aeronautical instruments is vulnerable to cutbacks in defense spending; but one can also imagine a flowering of commercial opportunities—for example, collision-avoidance systems for commercial aircraft and improvements to instrument-landing systems.

Believing in a new engine of growth also means having faith in New England’s strengths as a center for innovative, knowledge-intensive industries. Historically, one of New England’s great advantages has been a diverse, highly skilled labor pool and industrial base. The advantage lies not so much in diversity per se, but rather in an unusual clustering of diverse, but related, skills and technologies. In combination with an entrepreneurial culture, this has created an environment favorable to innovation and the development of new products, firms and industries. For example, the region’s medical-instruments industry has roots in the area’s early prominence as both a medical center and a center for metalworking. Today, strengths in the computer and software industries are also seen as assets in the development of medically related products and firms. The opportunities for cross-fertilization that proved so productive in the past still exist.

New England’s institutions of higher education continue to be sources of highly educated manpower and new technologies. Students come from all over the country and increasingly all over the world to attend the region’s prestigious universities. Many stay, representing a “brain gain” for the region.

The research conducted at New England’s universities has also been a source of new technologies and new ventures. Massachusetts’ leadership in both the computer hardware and the software industries arises directly from research at the Massachusetts Institute of Technology, Harvard and other local universities. The recent defense buildup brought hundreds of millions of dollars in research monies into the state; if the past is any guide, this research will have spinoffs in the form of new commercial products and new companies. The region’s medical institutions also show promise of playing more of a role as generators of new business opportunities. Some have been very successful in recent years in attracting funds for research in the health sciences. Scientists from around the world are coming to study in New England labs.

In the past, the development of innovative firms and industries was aided by a diverse and highly sophisticated financial-services industry. Particularly important advantages for the region were its concentration of venture-capital firms and the expertise of New England’s banks in lending to high-technology companies. At the moment, the difficulties of the region’s banks have forced them to become more conservative. (A nationwide increase in risk premia may be reinforcing such tendencies.) The region’s venture-capital firms have been accused by some observers of abandoning startups and early-stage companies in favor of leveraged buy-outs. However, the expertise is there. The difficulties of New England’s banks will be resolved. And perhaps without the lure of seemingly easy money in real estate, New England’s banks will focus their energies on their traditional strengths, including experience in lending to high-growth, knowledge-intensive firms and industries. Similarly, the problems in the junk bond market may steer venture capital firms away from the world of LBOs and back to financing new ventures.

More generally, it can be argued that current problems are creating a climate conducive to innovation and the development of the next round of new or invigorated companies and industries. When all is going well, the tendency is to continue along the established path. The best minds are attracted to established companies, which tend to stick to established ways of doing business. But the world changes and what was successful in the past may not be successful tomorrow. A region such as New England that lacks natural resources or a central location or low-cost labor can only thrive by doing things better than other places. Hard times tend to renew the creative juices. ...
These three charts show what The Common Fund has earned for the endowment funds and operating cash of its member schools.

The Equity Fund  
-versus S&P and Dow Jones  
Annualized rate of return for 10 years ended 12/31/89  
Equity Fund 18.4%  
Dow Jones 17.9%  
S&P 500 17.5%

The Bond Fund  
-versus Shearson Lehman  
Annualized rates of return for 10 years ended 12/31/89  
Bond Fund 12.8%  
Shearson Lehman  
Hutton Gov't Corp. 12.2%

The Short Term Fund  
-versus 90-Day T Bills and Money Markets  
Average annual rates of return for 1986-1989  

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<td>MONEY MARKET MUTUAL FUNDS*</td>
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</table>

Donoghue's Money Fund Averages

This brochure shows how we do it.  
Write or call for your copy today.

The Common Fund  
363 Reef Road  
P.O. Box 940  
Fairfield, Connecticut 06430  
(203) 254-1211
Enrollment Data Show Mixed Progress for Blacks and Hispanics

In the fall of 1986, Connection published an analysis of 1984 Black and Hispanic enrollment at selected New England colleges and universities. Now a NEBHE analysis of 1988 enrollment data released recently by the U.S. Department of Education reveals increases in Black and Hispanic enrollment at several institutions in the region.

By some measures, the region’s institutions are doing very well. While New England is home to only 2 percent of the national Black population, the region’s colleges and universities in 1988 enrolled 2.7 percent of the nation’s Black students. New England has 2 percent of the national Hispanic population. The region’s higher-education institutions in 1988 enrolled 2.8 percent of the nation’s Hispanic students.

The percentage of Black and Hispanic students at New England campuses in 1988 closely matched the regional population share for both groups. Blacks represented 4 percent of the New England population in 1988, and 3.7 percent of the region’s college students. Hispanics represented 2.4 percent of the New England population, and 2.3 percent of the region’s college students.

Nationally, Blacks and Hispanics remain underrepresented. In 1988, 11 percent of the U.S. population was Black, but only 8.6 percent of college students were Black. Hispanics comprised 6.9 percent of the U.S. population, but only 5.2 percent of college students.

The hitch is that New England colleges and universities experience significant in-migration of Blacks and Hispanics from outside the region. The question remains: How well are New England’s Black and Hispanic residents represented on New England’s campuses? Many in the region suspect the answer is: Not so well.

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<th>50 New England Colleges With the Highest Percentage of Black Enrollment 1988 vs. 1984</th>
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* = not available, I = independent, P = public
TABLE 2

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* = not available, I = independent, P = public


In Northern New England, a Call for Cultural Diversity

More than 140 leaders of business, government and education met recently in Burlington, Vt. to plan strategies for ensuring greater pluralism on predominantly White campuses in Maine, New Hampshire and Vermont. University of Maine System Chancellor Robert L. Woodbury (standing at left), told the audience that college curriculum is now "Eurocentric" and must be modified to reflect multicultural diversity. "This is not just a nice thing to do. It is essential to quality education for our time and our society," said Woodbury, who is chairman of the New England Board of Higher Education. Vermont Gov. Madeleine Kunin opened the meeting. NEBHE and the New England Association of Educational Opportunity Program Personnel cosponsored the conference, aimed at increasing diversity and promoting access to college for nontraditional students, including rural, poor Whites, Native Americans, Blacks, Hispanics and Asians—groups that are now underrepresented on northern New England campuses.

TABLE 3

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HOT HUBS
continued from page 19.

...trust can be available, and they can probably have some interplay.

The Pease Development Authority, a new entity with state-
backed revenue bonding capacity, now must negotiate with the
Air Force for transfer of the property. In the 18 months
that will take, the authority will negotiate with tenants for interim
use.

There is a potential drawback. Like many military bases,
the Pease site is polluted with jet fuels, cleaning solvents and
other hazardous substances. The Air Force has agreed to clean
it up, but it will take time.

BOSTON—Technopolis: Motivated by a downturn in the
regional economy and optimism about the job-
generating capacity of biotechnology, Boston planners
have proposed a virtual "biotech necklace" to match Freder-
wick Law Olmsted's revered greenbelts in the region's largest
city.

The Boston Redevelopment Authority (BRA) recently gave
preliminary approval for a key piece in the chain: a Tufts
University-led development group's plan to develop the air
rights over the city's revamped South Station.

Tufts and its development partners propose a 2.4 million
square-foot "Technopolis" aimed at blending university
research and entrepreneurship, mostly in biotech, and attrac-
ting major pharmaceutical companies. The $700 million de-
velopment, including an office tower, hotel and conference
center and research facility, will be completed in the late
1990s.

The project will include up to 600,000 square feet of
research space, some taken by Tufts, some leased to major
biomedical companies and star-up firms. The goal is inter-
action. Says BRA economist John Avault, "If famous Tufts
doctors are going to be working there, other researchers will
want to be eating in the same cafeteria with them."

The railroad station site is a short walk from Boston's finan-
cial district and Tufts medical school. Major public works plans already on the
site would make the site about three hours by rail to New York City and a
quick drive to Logan Airport via a new harbor tunnel. The airport itself will have
new terminals, U.S. Customs facilities and air-cargo buildings under a plan un-
veiled by Gov. Michael S. Dukakis earli-
er this year.

Already at the old Charlestown Navy Yard in Boston, research by Mas-
sachusetts General Hospital has attracted


Inc. Blots

ew England's economic troubles are clear in Inc.
magazine's fourth annual ranking of U.S.
metropolitan areas. Inc. ranked metro areas
based on job growth, business start-ups and fast-growth
companies during the period from January 1987 to July
1989. The magazine used to measure such activity over
four-and-a-half years, but this year switched to a two-and-
a-half year window to more accurately reflect current
conditions.

Last year, the Manchester-Nashua, N.H. area was
No. 1 in the nation. This year, it was 87th. Portsmouth,
N.H. ranked 9th last year, and fell to 41st in 1990. Port-
land, Maine, was 39th last year, and 69th this year.
Burlington-Montpelier, Vt., dropped from 28th in 1989 to

Other New England free-falls: Bridgeport-Stamford,
Conn., dropped from 66th to 118th. Providence, R.I., slid
from 118th to 123rd. Worcester, Mass., tumbled from 64th
to 128th. New Haven, Conn., dropped from 82nd to 137th.
Hartford went from 85th to 157th. New Bedford-Fall River,
Mass., dropped from 150th to 165th. New London, Conn.,
went from 133rd to 166th. Springfield, Mass. dropped from
144th to 176th.

By Inc.'s measure, Pittsfield, Mass., is the only New
England metro area on the rise. Pittsfield went from 145th
in 1989 to 105th in 1990.
up all the projects on the drawing board that involve biotech, it would appear that there are years worth of absorption in an unproven market.”

WORCESTER, MA.—Biotechnology Research Park: It used to be that Worcester meant envelopes and metalworking. Now the “heart of the commonwealth” is a center of biotech, microelectronics and fiber-optics research. “The foundation for that change: the area’s 10 colleges and universities, including the University of Massachusetts Medical Center and Tufts Veterinary School.

In 1981, Worcester business leaders took inventory of the area’s higher-education resources, saw a fit for the emerging biotech industry and put out the welcome mat. With help from the state and area colleges, they developed the Massachusetts Biotechnology Research Park on 125 acres, adjacent to the UMass Medical Center.

The park, two miles from Interstate 290 and five miles from Worcester Airport, is now home to more than a dozen biotech companies. It will be 80-percent developed when BASF Bioresearch Corp., a German company, finishes developing a planned half-million square feet of research and development space on the site. BASF plans to employ up to 1,000 workers at the facility by the turn of the century.

Two organizations are keys to the success of the biotech park. The nonprofit Massachusetts Biotechnology Research Institute (MBRI), a consortium of seven Worcester-area universities and research institutions, will take control of the park when it is fully developed. The MBRI provides park tenants with capital assistance, incubator space and other services. It also arranges biotech courses for teachers and students in the area.

Many of the participating colleges have invested in the for-profit Commonwealth Bioventures, which has raised $15 million in venture capital to support new biotech firms.

“What was the magnet in this area? Education and medicine,” says William Short, president of the Worcester Area Chamber of Commerce. “And scientific people like to live here. Housing is less expensive than in the Boston area, but they feel they’re still in close proximity [40 miles] to Boston and there’s a good highway network.”

In fact, the proximity to Boston and Cambridge works in Worcester’s favor in another way; it makes Worcester a logical second choice to the Boston area. While BASF was attracted by Worcester’s biotech park, the company first considered Cambridge. “But we wanted 30 acres, and you can’t find 30 acres in Cambridge that you can buy,” says Joseph Michaels, vice president of administration at BASF Bioresearch.

The biotech park is not the only major research consortium in the area. In Westborough, the Massachusetts Microelectronics Center, a partnership between the state, higher education and industry, supports microelectronics education programs at 10 Massachusetts universities.

HITTENDEN COUNTY, VT.—New England’s West Coast: Lake Champlain once made Burlington, Vermont, the third largest lumber port in the country. Now the lake’s great economic contribution is its beauty. Entrepreneurs have packed up advanced telecommunications equipment and moved to Burlington, so they can gaze on the lake or the Green Mountains while they do business over telephone wires.

“The telephone company tells us there are more computer modems per capita in this county than there are in any other
Rhode Island’s Quonset Point:
It entices tenants with about 1,200 acres of developable land, a runway that can handle large cargo jets, 28 miles of railroad and three deep-water piers.

county in the country," says Harry Behney, executive director of the Greater Burlington Industrial Corp. "More and more people are becoming aware that they can run their business from a location like this and enjoy the things they’ve only been able to enjoy on weekends."

"If you drink a bottle of beer in Denver, chances are it went through a computer inventory system in Colchester, Vermont. If you enter a hospital in Chicago, chances are the appointment was made on a computer in South Burlington," says Behney.

Burlington offers more than scenery. Burlington International Airport includes a U.S. Customs Service facility, a foreign-trade zone and an 8,000-foot runway. Three-fourths of Vermont’s labor force lives within commuting range. Montreal is 90 miles north; Boston is 225 miles southeast; New York City is 300 miles south.

The Burlington area is home to five higher-education institutions: the University of Vermont, with its medical and agricultural schools, and Burlington, Champlain, Saint Michael’s and Trinity colleges. Together, these institutions enroll nearly 15,000 students.

Says Behney, "The colleges and universities work with businesses to upgrade their workers. In the future global marketplace, it’s going to be very important to have these institutions nearby to train people for changing technologies."

Some area companies such as Bio-Tek Instruments trace their roots directly to UVM research. Others spun off from Essex Junction, a small town six miles outside Burlington, where IBM Corp. operates the world’s largest semiconductor chip plant.

NARRAGANSETT BAY, R.I.: Industry is learning what the U.S. Navy knew for a long time. Rhode Island’s Narragansett Bay offers strategic advantages to match its recreational assets. The western shore of the bay from greater Providence to the Kingston area has become a coast of innovation.

In the north, Providence is home to Brown University, Johnson & Wales, Providence and Rhode Island colleges and the Rhode Island School of Design. The New England Institute of Technology and a Community College of Rhode Island campus are located in Warwick. The University of Rhode Island’s main campus is located at the southern end of the corridor in Kingston.

In Providence itself, the Capital Center Project, a major public-works undertaking, has lured the likes of American Express with millions of square feet of new office space.

State economic-development programs have attracted smaller companies like Cellular Transplants Inc. The company, initiated by a San Francisco venture-capital fund, is developing treatments for Parkinson’s disease and diabetes. Cellular Transplants explored San Francisco and other research centers around the country, but wound up in the Providence high-tech enclave of Richmond Square. The chief reasons: Company leaders wanted to be near Brown and they wanted to be near the Rhode Island Partnership for Science and Technology.

The partnership, administered by the state Department of Economic Development, promotes business growth and research through special loans and collaborative programs with Rhode Island colleges and hospitals. In Cellular Transplants’ case, the partnership provided loans, as well as advice on finding good accountants, lawyers and other professionals, according to Al Vasconcellos, the company’s director of technology development.

With help from the partnership, Brown and Tamy Industries, a Lincoln, R.I., electroplating company, have created the nation’s only Thin Film Research Center. Based in East Providence, the center has won interest from more than a dozen companies which pay to have access to thin-film research conducted by scientists at Brown and URI.

From the Providence area, three state-owned industrial parks mark the southerly course. In Cranston, the 70-acre Howard Industrial Park is adjacent to Interstate 95, two-and-a-half miles from T.F. Green Airport in Warwick and five miles from the port of Providence.

In North Kingstown, the Quonset Point/Davisville Industrial Complex is at the 3,000-acre site of a former naval base abandoned by the government in 1974. About 70 companies, including General Dynamics’ Electric Boat Division, employ more than 7,000 people at the park. "It’s probably the best site on the East Coast for a company to locate," says Bill Parsons, deputy director of the state Department of Economic Development. If that sounds like a typical pitch from a state booster, consider the facts. Quonset Point includes 1,200 acres of developable land, an 8,000-foot airport runway that can handle large cargo jets, 28 miles of railroad, three deep-water piers and a developed road system. It’s 10 minutes from Interstate 95.

In Narragansett, the South Ferry Industrial Park includes 70 acres on the bay, adjacent to URI’s marine research campus.

Rhode Island has trailed the other New England states in export growth, but there’s a move afoot to change that. Rhode Island operates foreign offices in Taiwan, Hong Kong and Belgium. In the northern part of the state, Bryant College operates an export development center. Now, the state has set up a special group of business, labor, finance and higher-education leaders to explore issues regarding the European Economic Community’s plans for a unified market in 1992.

TORRS, CT.—Connecticut Technology Park: and more, the workforce is moving away from Hartford, so the jobs are not where the workers are," says
Michael Helfgott, executive director of University of Connecticut Educational Properties Inc. (UCEP), "A lot of corporate expansion has gone out to the suburbs, and next beyond the suburbs will be some of the rural areas, which is where we are."

To be precise, "where we are" is Storrs, home of the University of Connecticut and future site, Helfgott hopes, of the Connecticut Technology Park. UCEP, a nonprofit group set up by UConn, has been working with private development partners for years to bring a major industrial research center, business incubator and hotel and conference center to a 400-acre site adjacent to the main UConn campus and a half-hour's drive from Hartford.

Part of the site is already devoted to housing for UConn graduate students and junior faculty. But most of the project has been stalled while partners and the state sort out funding for a road bisecting the park. Still, Helfgott and others in the area remain convinced that the park will attract businesses seeking to capitalize on UConn research. "If we're clear on what our strengths are, we can conceivably do some national marketing based on those strengths," says Helfgott.

UConn research should bring interest from small high-tech, biotech, electronics and chemical companies that want proximity to UConn, as well as proximity to each other, according to Hugh Clark, a former UConn professor and administrator who works as a consultant to the park's developers. "The principal attraction is the proximity to the university. Through the graduate student body, there is a sort of built-in availability of highly skilled technical assistance," says Clark.

"You also have the strengths of individual faculty members who have national or international reputations," says Helfgott. "The faculty members who are the most entrepreneurial are already out there...they're going to encourage business and investment to come into the area. One of the reasons to have a park is to allow more of that to happen."

But Storrs? "It's rural. Rural for some people is a negative. Most people out here think it's positive," says Helfgott. "If Connecticut were a country on its own, it would be the richest country in the world on a per-capita basis. Because it's a small state, we tie into all the benefits of that, and yet we have a more pastoral setting...and regionally, the lowest cost of living in the state," he says.

The technology park site is eight miles from Interstate 84 and 45 minutes from Bradley International Airport. Storrs is an hour-and-a-half drive from Boston, and two-and-a-half hours from New York City.

Connecticut is already home to one hot hub. Science Park in New Haven is considered one of the more successful science parks in the country (Connection, Spring 1986).

ANGOR-ORONO, ME—Maine Technology Park:
"Most of [Maine's] high-tech industry lies in the Portland area. Most of Maine's academic intellect is in the northern section of the state," says Terry Shehata, associate director for research and education at the Maine Science and Technology Commission, a partnership of state business, education, labor and government leaders.

To address that paradox, the state has been promoting the Maine Technology Park in Orono, a 70-acre research park developed along Interstate 95 about two miles from the main campus of the University of Maine. So far, the park has been a tough sell. But the area itself is ripe for success, and the park may become a focal point.

The park now hosts UMaine offices relating to business and industrial development, including the university's Center for Innovation and Entrepreneurship, the Maine Council on Economic Education and the Bureau of Labor Education, as well as a hotel and conference center. According to plans, future tenants will include cutting-edge companies that want to take advantage of UMaine leadership in fields like forestry, chemical and civil engineering, geological sciences, marine studies and zoology. UMaine plans to offer tenants opportunities for joint research ventures with university departments and to provide companies with technical assistance from faculty and graduate students.

The Bangor-Orono area in general has drawn interest from companies, big and small, that want access to UMaine

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College Towns

If availability of college-educated workers is a key to future economic prosperity, several New England communities from Boston to tiny Orono, Maine, are poised for success. The following New England cities and towns attract at least 7,500 college students to institutions within their borders.

<table>
<thead>
<tr>
<th>City</th>
<th>College Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston, Mass.</td>
<td>125,900</td>
</tr>
<tr>
<td>Cambridge, Mass.</td>
<td>34,900</td>
</tr>
<tr>
<td>Providence, R.I.</td>
<td>30,900</td>
</tr>
<tr>
<td>Amherst, Mass.</td>
<td>30,700</td>
</tr>
<tr>
<td>New Haven, Conn.</td>
<td>28,300</td>
</tr>
<tr>
<td>Storrs, Conn.</td>
<td>25,400</td>
</tr>
<tr>
<td>Worcester, Mass.</td>
<td>22,200</td>
</tr>
<tr>
<td>Warwick, R.I.</td>
<td>16,500</td>
</tr>
<tr>
<td>Kingston, R.I.</td>
<td>15,800</td>
</tr>
<tr>
<td>Lowell, Mass.</td>
<td>14,500</td>
</tr>
<tr>
<td>New Britain, Conn.</td>
<td>14,200</td>
</tr>
<tr>
<td>Burlington, VT.</td>
<td>12,700</td>
</tr>
<tr>
<td>Portland, Maine</td>
<td>12,600</td>
</tr>
<tr>
<td>Orono, Maine</td>
<td>12,300</td>
</tr>
<tr>
<td>Springfield, Mass.</td>
<td>12,300</td>
</tr>
<tr>
<td>Durham, N.H.</td>
<td>12,000</td>
</tr>
<tr>
<td>Manchester, N.H.</td>
<td>11,800</td>
</tr>
<tr>
<td>Waltham, Mass.</td>
<td>10,993</td>
</tr>
<tr>
<td>Fairfield, Conn.</td>
<td>9,700</td>
</tr>
<tr>
<td>Salem, Mass.</td>
<td>9,600</td>
</tr>
<tr>
<td>Wellesley, Mass.</td>
<td>9,300</td>
</tr>
<tr>
<td>West Hartford, Conn.</td>
<td>9,300</td>
</tr>
<tr>
<td>Bridgewater, Mass.</td>
<td>8,900</td>
</tr>
<tr>
<td>Hartford, Conn.</td>
<td>8,800</td>
</tr>
<tr>
<td>Medford, Mass.</td>
<td>8,000</td>
</tr>
<tr>
<td>Bridgeport, Conn.</td>
<td>7,900</td>
</tr>
</tbody>
</table>

Source: FACTS 1990: The Directory of New England Colleges, Universities and Institutes; total undergraduate and graduate, full-time and part-time enrollment for degree credit, Fall 1998

* Rounded to nearest 100
research in areas such as geographic information analysis and surface science and technology. "As we grow and attract national research centers, we also tend to attract the industry that relates to these areas," says Gregory Brown, UMaine's vice president for research and public service. "We haven't seen it manifested in the form of location of a particular industry here. I would hope that's not too far down the road."

The park and university are a few minute's drive to the growing Bangor International Airport, the closest major U.S. commercial airport to Europe. The airport is used as a customs-clearing spot for European flights. The airport complex, including a community college and industrial tenants, sits on the 2,000-acre tract that was Dow Air Force Base until the military went packing in the early 1960s.

Maine's historical lack of federal research funding could be a barrier to technological development. But that's changing. The state is a beneficiary of the National Science Foundation's Experimental Program to Stimulate Competitive Research (EPSCOR), aimed at injecting research funds into less competitive research states.

In addition, Maine's Centers for Innovation program is closely linked to the Bangor-Orono area. The "centers" program actually is a public-private system of funding and incentives, to promote three industries: biomedical technology; aquaculture; and metals and electronics. UMaine-Orono hosts the center dealing with aquaculture. The UMaine Chancellor's Office hosts the center on metals and electronics. Eastern Maine Charities hosts the center on biomedical technology.

Maine, and the Bangor-Orono area in particular, also offers advantages to companies interested in exporting to the region's No. 1 trading partner. Maine shares a long border with Canada, and UMaine's Canadian-American Center in Orono is nationally recognized. UMaine is being considered for the site of the first federally-funded "international development center" on the East Coast. The designation would enhance UMaine's technical-assistance programs for small businesses interested in exporting.

"Geographically, we are the closest point to the European continent," says Brown. "In terms of products that have high shipping costs because of weight, we've been told by our own federal government as well as by the European Economic Community that they have a great interest in Maine's opportunities."

John O. Harney is editor of Connection.

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THE LONG VIEW:
Strategic Planning on New England Campuses

JUDY REED SMITH, GEORGE B. THOMAS AND JOHN F. COBURN

The 1980s saw fundamental change sweep across New England’s and the nation’s higher-education landscape. A changing enrollment mix, a narrowing gap between revenues and expenses, reduced federal funding, greater competition for a declining applicant pool, the tug between more relevant curricula on the one hand and a return to academic fundamentals on the other, decaying facilities, and the shortened tenure of many college presidents... These are just a few of the forces bearing heavily on New England colleges over the past decade.

For some colleges, these kinds of pressures—and new ones that the 1990s are likely to bring—threaten institutional health and even survival. For others, they mean the difference between thriving and merely getting by. For the leadership of all colleges and universities, "strategic" or "long-range" planning—developing ways of identifying and coping with these forces—is likely to become as regular a function as budgeting, curriculum development or facilities planning.

In contrast to an "operating plan" or a "financial plan," which usually are annual documents, a strategic plan has a long horizon, often spanning three to five years or more. Whereas annual plans tend to be budget-driven, strategic plans are usually issue-driven. Annual plans usually are developed at the department or unit level. Strategic plans encompass the entire institution. Annual plans look primarily inside the institution. Strategic plans look outside, at the competitive, legislative and market forces that shape the operating environment.

How many New England colleges actually use some kind of formal strategic-planning process? The authors, all strategic-planning advisors to companies and nonprofit organizations, decided to answer this question by going directly to the source.

A survey was sent to all 117 independent, accredited four-year colleges and universities in the six New England states. The survey was limited to independent institutions on the premise [perhaps mistaken] that private colleges, as masters of their own destiny, are more likely to use strategic planning than public institutions, whose destinies are more dependent on outside influences beyond their control. Only a similar survey of public institutions would reveal whether this assumption is valid.

The survey response rate was surprisingly high: 63 institutions—54 percent of those surveyed—completed the eight-page questionnaire. Respondents included Ivy League schools, "Seven Sisters" colleges, religiously-affiliated institutions, professional schools and numerous specialized or liberal arts institutions. The position of the individual who completed the questionnaire for each institution varied, but was typically either the president, provost, academic dean or development officer.

The questionnaire covered a wide range of topics which can be grouped into three general categories: key issues, implementation considerations and obstacles.

The key issues
"Mission" topped the list as the most important issue dealt with in the planning process. Mission was mentioned by three-quarters of the respondents (See Chart 1).

For some institutions, the planning process involved a fundamental change of mission.

For some colleges, strategic planning was merely a matter of reinforcing and communicating the historical mission of the college and developing more effective ways to fulfill that mission. According to the respondent from Berklee College of Music, "Planning... forced us to challenge not the mission itself, but rather certain aspects of the way we meet this
mission." For other colleges, planning meant clarifying or updating the mission. Gordon College's strategic plan "reaffirms the college's ties to its theologic traditions, but goes on to clarify the relationship." Bradford College's plan "defined what we meant by liberal arts." The respondent from Notre Dame College sounded a similar theme. "Our historical mission applies now as it did in 1950. Our challenge in planning is to ... interpret our mission for students in the 1990s."

For some institutions, however, the planning process involved a fundamental change of mission—resulting in a shift in overall direction. Post College reported that its strategic plan was instrumental in broadening its mission to emphasize four-year programs over two-year programs. The strategic-planning process was an important element in one college's conversion from a religious to a secular institution. Several institutions indicated that strategic planning led to their decision to become coeducational.

What internal issues merited the most attention by New England independent colleges in their planning efforts? Somewhat surprisingly, "facilities" led the list, reflecting the enormous financial burden placed on independent institutions by new construction and upkeep.

Harvard University's response reflected the views of many urban institutions. "Our strategic plan includes a comprehensive physical facilities plan which deals both with the age and condition of buildings and with the allocation of space in an environment where facilities needs are enormous and where additional land is extremely difficult to obtain."

"Enrollment trends" ranked first on the list of internal issues of greatest concern to New England independent colleges for the future. The reality of declining and shifting enrollments clearly has encouraged colleges to try to find ways of differentiating their institutions in the public's mind. This probably helps explain why a number of colleges mentioned "gaining proper recognition" and "positioning ourselves to develop greater name awareness" as central thrusts of their strategic-planning efforts.

Other important obstacles cited include the limited time available for planning and the lack of planning skills. Also mentioned was "plan overload"—the fact that plans tend to be overly ambitious and insufficiently prioritized. This is a very common problem in strategic planning and one of the principal reasons so many strategic plans never get implemented.

A number of colleges emphasized the importance of involving the right people in the planning process. Observed the respondent from Gordon College, "Presidential support is essential. It determines the seriousness with which the planning process is viewed." It is noteworthy that only half the
colleges responding said that the president of the institution is officially in charge of the strategic-planning function (See Chart 4).

CHART 4
WHO IS OFFICIALLY IN CHARGE
OF THE LONG-RANGE PLANNING FUNCTION
AT YOUR INSTITUTION?

One respondent cautioned against the preparation of strategic plans by administrators, who are "suspect by faculty." In the opinion of another respondent, "If plans are made by a small group of trustees or administrators, the strategies will be more honest and realistic, but will not command political—i.e. faculty—support."

How useful did the respondents find strategic planning? While a few expressed skepticism, most felt the planning had a beneficial effect on their institutions.

The respondent from Worcester Polytechnic Institute cited Dwight Eisenhower's adage, "Plans are nothing, planning is everything," to emphasize the point that the process is as important as the plan it produces. For Wheelock College, "planning was essential for survival and prosperity. As a result of it ... we have been able to double our enrollment in four years." The respondent from Boston College echoed this sentiment. "Long-range planning is vital to the successful management of higher education. The number and complexity of changes continues to grow. Colleges must be positioned to respond to and consider alternative strategies."

Suffolk University observed: "Planning is far preferable to institutional drift and greatly increases the probability of achieving institutional goals." According to Bryant College, "Planning is absolutely vital for long-range survival. A small college must clearly define its niche and develop a clear plan for gaining that niche." Finally, Providence College observed: "Without long-range planning, one can lose sight of goals and be forced into reacting to situations rather than creating favorable ones."

Judy Reed Smith is managing partner of Atlantic Consulting in Boston. George B. Thomas is a Boston-based educational and nonprofit management consultant. John F. O'Brien is vice president of Gray-Judson-Howard, a Cambridge, Mass.-based strategic-planning firm, which provided administrative support for this project.

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HOOVER
continued from page 31.

cide how to educate a productive workforce for the future. Invariably, the business community speaks, and the academic community—by which we mean the self-styled "educators" rather than the teachers—listens reverently. Then, with reasonable dispatch—say three or four years, since this is after all the academic community—a new curriculum is built around the stated needs of business.

The result is that eventually a hapless class of freshmen arrive, to be told by advisors that a certain kind of computer programming, a certain breed of physics, a certain way of looking at business problems, is "hot" and guarantees top-ticket employment.

The "educators" are so busy attending to this that they don't notice that the incoming class can't spell, doesn't know punctuation from sour apples and can't figure without their wristwatch calculators. The last thing they read at home was a pictorial in Nintendo Power.

Moreover, they have at no time been conditioned to the concept of education as discipline. Nonetheless, led by the sudden collaboration of education and business, they are hell-bent for the high-paying jobs, which the advisors assure them are available with nothing more than the right degree.

In short, the attitude on both sides of the desk is that the students don't have to think and don't have to work very hard. Success is simply a question of the right formula.

This kind of approach might work if marketable job skills were a standing target. But that is not the case. By the time a curriculum is designed and class educated according to the prevailing lights, the bulb has usually gone out. Their expertise is likely to be as useful in the market as a full conceptual and practical knowledge of CPM, the computer operating system of the future back in 1980. Compared with CPM, the Latin language is now in vigorous midlife.

This is not limited to the specific sciences. In my own field, colleges and universities are grinding out "communications" specialists by the bushel. In journalism, like everywhere else, there is little general agreement about anything. But the closest a roomful of editors might come to unanimity is upon the proposition that a J-school degree isn't worth an arseful of ashes. Liberal editors say they won't hold it against a candidate, but in no way is the degree any indication that its holder has a leg up in figuring out what really is going on at the Zoning Board of Appeals.

What an editor would like to find in a would-be reporter is a character who knows how to read, write, and figure. If the same applicant knows something of how the world works, so much the better.

Other fields require the same abilities. In short, the proper curriculum is the old classical education, the liberal education, or the non-job-specific education. Colleges and universities can't be vocational schools, but they can teach people how to learn. It is that ability that is missing in the current graduates. Businesspeople don't grouse much about their inability to find nuclear engineers; they complain about college graduates who can't spell or think.

Kenneth Hooker was editor of New England Business for nine years and currently is, as the saying goes, a consultant.

ELMAN
continued from page 31.

ing university-industry linkages, the corporate world has yet to gain a credible foothold within the liberal arts. That many liberal arts and sciences faculty view the business world as tainted, even corrupt, does little to increase the legitimacy of, or respect for, pursuing a career in the corporate world. Conversely, the corporate perception that academia is a sanctuary for immersing oneself in ethereal notions with little, if any, connection to reality is a distortion.

Despite gradually strengthening university-industry linkages, the corporate world has yet to gain a credible foothold within the liberal arts.

The academy and the corporation are increasingly interdependent; each en-

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hances the other’s productivity. Energies in both sectors need to be rechanneled to generate more constructive perceptions of one another. Initially, this requires the academic world to shed the longstanding anti-business sentiment that continues to be nurtured throughout its corridors.

Constructive perceptions can be generated only if we re-examine the fundamental assumptions that underscore the knowledge and theories transmitted to students through liberal learning, particularly in sociology, economics, political science and anthropology courses.

That faculty tend not to challenge their own assumptions is not altogether surprising. Faculty identify with certain schools of thought that promulgate certain inherently biased theories. The concept of the bureaucratic organization, for example, is grounded in Weber’s notion of bureaucracy as the “iron cage,” a basic construct in sociological and political analyses. Clearly such a theoretical formulation of the work organization implies a rigidity that is antithetical to the democratic principles of freedom, flexibility and self-determination.

Such negative association on the part of the faculty member, and potentially the students, is problematic. For one thing, such thinking is anachronistic. Many organizations are striving to incorporate democratic values and conditions into their culture. Liberal arts courses have not kept pace with such developments.

Faculty biases toward business affect not only the thrust of any analysis of the corporate world, but also the decision to make the corporate culture a nonissue. Reluctance on the part of faculty to address issues of the corporate world costs students a more humanistic viewpoint. Corporate culture and behavior should be examined from a holistic perspective, so that students understand the role of the corporate world vis a vis other sectors of society.

On the whole, the social sciences are not adequately dealing with the complexities, dynamism and dimensions of the “real world.” Most liberal arts disciplines such as sociology, political science, economics and anthropology do not focus on the application of theories; they are not action-oriented. Yet the corporate world is dynamic, not static, and behavior patterns are the consequence of a web of changing circumstances and conditions.

**Acknowledging differences**

Today’s students are taught primarily about how the world of work should be, not about how it is. In the classroom, we deal primarily with hypothetical situations. Upon entering the corporate world, one finds out quickly that theories espoused and solutions offered have little if any applicability.

The internal environment of a business organization is highly competitive, reflecting the nature of the free market. Yet in liberal arts programs, the vagaries and complexities of the corporate world are rarely explored through dialogue or first-hand experience. Consequently, when students enter the corporate world, they cannot judge the corporate culture against any other paradigm.

**When liberal arts students enter the corporate world, they cannot judge the corporate culture against any other paradigm.**

A liberal education examines the various groups students will participate in or deal with as lay persons or professionals. Careful analyses attempt to enhance a student’s understanding of the roles of the church, government, the family, and more recently, philanthropy in our society. Yet the curricula still lack any cohesive context for sufficiently understanding and critically assessing the position of the business sector in this sociological constellation. Politicians are guided by the principles of the **Social Contract**. They know the limitations of government (though they may deviate from the established norms). New hires in the corporate world have no such yardstick or set of standards against which to measure behavior.

In addition, the signals new hires receive in corporate training programs may reinforce or negate those they were exposed to as undergraduates. Conflicting signals may make it difficult for the individual to respond to situations with alacrity and sound judgment.

Issues such as power conflicts between workers and management are emerging as topics of discussion in courses on the sociology of work. But
the examination of power, authority and self-interest in a corporate context remains the exception, not the rule, in liberal arts curricula. Beyond course content, campus culture has a significant effect on shaping student attitudes toward business. The campus culture embodies a particular institution’s values, norms, attitudes and beliefs. These components of the culture impart messages to students about the world beyond the campus. An implicit message conveyed by many institutions tends to divert the student, consciously or otherwise, from business. This orientation is in part manifested through expressions that separate the ideologically “pure” world of the campus from the pragmatic, materialistic world of the corporation. Public pronouncements by college leaders and choices regarding guest lecturers, commencement speakers or honorary degree recipients send clear signals about what institutions value.

**Enhancing communication skills**
Organizational productivity, efficiency and competitive advantage depend upon a corporate leader’s ability to interact with a range of actors within and outside the corporate world. As such, strong communication skills become a sine qua non for corporate leaders. Business continually seeks graduates who have outstanding written, oral and cognitive communication skills.

Developing strong communication skills should be an interdepartmental activity so that students are exposed to various approaches and techniques to enhance their effectiveness in expressing precisely what they intend.

Additionally, mastering communication skills is part of a larger cognitive activity that involves learning how to learn. The corporate world increasingly seeks individuals who know how to acquire and synthesize knowledge. Learning should not be designed simply for the sake of accumulating information. Rather, learning should address the cognitive models of the world that responsible individuals hold concerning the dynamics of environments in which they work.

Arts and sciences faculty will continue to instruct students about their
own areas of specialized knowledge, but they must lead them as well in learning to cross-fertilize ideas. Given the ever-changing needs and dimensions of the corporate environment, students must acquire the flexibility to respond to change, to be leaders of change and to communicate the compelling necessity for change. Our future requires the promotion and implementation of proactive communication skills in the classroom, with encouragement of greater risk-taking, debate, critical and creative reasoning and independence of action, as well as respect for the time-honored traditions of normative group behavior.

Increasing interaction

The more faculty obtain first-hand knowledge of the corporate culture, the more objective, less cynical and less hostile they may be in their treatment of the business world. Toward this end, we need to forge stronger, more creative linkages between academia and the corporate community.

How could these linkages be fostered? First, faculties in the humanities and social sciences should not look askance at the possibility of engaging in technical assistance or consultation for business. Such professional work need not be solely the domain of business and management faculty. Business already draws upon the expertise of economists and faculty in operations research and systems theory. Sociologists, anthropologists, political scientists and humanists could offer their expertise as well.

Second, courses dealing with the corporate world should be offered in all undergraduate arts and sciences departments, not just in the professional schools. Such courses require that faculty become engaged as participating observers, scholar-researchers or consultants in the nuances of corporate culture, and that they seek the input of business leaders in designing the curricula and developing courses.

Sandra E. Elman is assistant director of the Commission on Institutions of Higher Education at the New England Association of Schools and Colleges. This article was prepared with support from the Corporate Council on the Liberal Arts, New York, N.Y.

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Letter from South Africa

For most Black students, inadequate financial support is the biggest barrier to college. Financial aid, such as the type the New England/South African Student Scholarship Program provides, is the indispensable component of academic success.

The New England Board of Higher Education continues its drive to enlist broader support for Black South African students through the New England/South African Student Scholarship Program. The five-year-old program enables New England colleges and universities to support Black South African students at one of the five “open universities” in South Africa. The open universities are: Rhodes University, the universities of Cape Town, the Western Cape, the Witwatersrand and Natal. In 1990, 20 New England institutions are supporting 36 scholarships representing nearly $197,000 in funding commitments. An additional 31 scholarships are provided by 15 institutions outside New England. Annual scholarships are currently funded at $4,200 per year for a three-year period. Funds contributed to the NEBHE program are forwarded to the Open Society Scholars Fund (OSSF), administered by the University of Cape Town Fund Inc. (UCTF) in New York.

In the following article, Margaret Touborg, president of the UCTF and senior project director for the OSSF, reports on her recent visit to South Africa, offering a first-hand account of South African student reaction to recent events there. Touborg is the former director of corporate and foundation relations at Radcliffe and was a member of the New England/South African Student Scholarship Program delegation that visited South Africa in 1986.

The South African open university campuses have been fundamentally altered, since I visited four years ago as a member of the original NEBHE delegation. These universities are also different from those I visited in 1987, and even further changed since my visit in September 1989. Altered physically with new buildings, including integrated dormitories, and increasing numbers of Black students, they are also changed in mood, and more importantly perhaps, in morale and tempo.

In 1986, the open universities were fighting the courts to preserve academic freedom, and vice chancellors and students were facing military police who were equipped with tear gas, clubs and dogs. Detentions were mounting. Understandably, Black university students were then less apt to share their political views with outsiders. It was a 1986 South African version of Matthew Arnold’s “iron time,” characterized by stoicism, despair and isolation.

During its 1986 briefing sessions, the NEBHE delegation was told that South Africa was experiencing one of the most repressive periods in history, and that education was at the absolute center of the widening pool of chaos and complexity. The government was completely intransigent and had massive repressive machinery at its disposal. The struggle would be protracted. Perhaps it would take two decades before international thought and opinion would make a difference. Nelson Mandela would most likely die in prison; it was felt that the government could not possibly risk his release.

Returning to South Africa in 1990, two weeks after the astonishing release of Mandela, and the removal of the ban on the African National Congress (ANC), I wondered about liberal university reaction to the country’s recent dramatic events. Would there be jubilation or cynicism or both; would the excitement on American television be mirrored in South Africa? Was South Africa really getting better? After all, books were still banned, fighting in Natal province was escalating and student as well as teacher boycotts were still taking place. While the restrictions on the press had been relaxed, the liberal Weekly Mail was still publishing its “Apartheid Barometer” section, cataloging detentions and arrests. Police instruments of torture were being catalogued by university criminology divisions; tear gas and bullets were still being used in the townships.

The students, faculty, activists and businesspeople I met—individually in Johannesburg, and collectively at the University of Cape Town, University of the Western Cape and the Pietermaritzburg campus of the University of Natal—reflected the pride, relief, energy, concern, hope, and most importantly, the steady, unrelenting resolve of the larger liberation movement. Their resolve is to make the rapid political change permanent and to push the emerging social transformation forward as fast and hard as possible.

Liberal universities are highly politicized places in South Africa and have been for years. South African students, Black and White, are activists. Politically sophisticated, they are accomplished demonstrators, boycott organizers and petition writers. They are involved in liberation activity in their home and university communities. Students in South Africa are veterans, professionals and resistance fighters much like U.S. students in past decades returning from World War II.
Korea or Vietnam. They have been in battle before. For most, time at a university is therefore not at all "time out," but "time in"—a continuation of intense political involvement.

Predictably then, student reaction to the lifting of the ban of the ANC and to Mandela’s release was thoughtful. Students—like virtually everyone—felt surprise and registered delight that these events took place at all. "We are only at the beginning," said a social work student, "but what is important and what feels good is that we had a part in making [Mandela’s release] happen. We are the future now." Students felt their protests, petitions, demonstrations and collective power had given a special momentum to the liberation movement, and that the heroic struggle of the open universities to preserve autonomy and academic freedom was recognized and certified by Nelson Mandela. This recognition was illustrated by Mandela’s acceptance, during his imprisonment, of an honorary degree from the University of Cape Town, South Africa’s oldest university.

Pushing and resistance will continue on all fronts. Education is still at the absolute center of transformation. "Do Americans know what it is like here; and how hard it is to go to secondary school; to have 100 students in one classroom, fighting inside the classroom and violence in the yard?" one student asked. It will be a long, long time before primary and secondary education equips students with the skills needed for university entrance. The "chalk outs" [teacher boycotts] may continue until demands are met, and in the meantime, thousands of Black students are receiving no formal education at all. "Sometimes I feel guilty being here at all," said one student. "My parents need the money. I may not pass because the work is so hard. I have loans which I may not be able to pay." Financial aid is insufficient. Several students said an additional 450 extra rand (about $200) a year—which could allow for a trip home or provide a grant to purchase books—might make the difference between passing or failing.

For most Black students, inadequate financial support is the biggest barrier they face. Financial aid, such as the type the New England/South African Student Scholarship Program provides, is the indispensable component of academic success. Inflation has, of course, created special hardships; tuition costs are rising at 20 percent per year. There simply is not enough help to meet the demand, and there are few signs inflation will be brought under immediate control. Bank loans carry interest rates of 19 percent and require personal guarantors. Earning extra income is next to impossible. Ad hoc job arrangements with faculty members help, but Black students have special difficulties in finding vacation-time employment.

Most Black students see in their futures active community involvement and jobs as teachers, health workers, social workers... Rooted in their political and physical landscape, and strengthened by it, they are committed and connected to their country and its future in clear and definite ways. They express confidence that exiles will come home to help advance justice, and they believe firmly that a university education is a necessary element "in getting ahead, finding a job and building a new country." They are interested less in escape and committed more to advancement for Africans in Africa.

Race relations on campus? The dormitories break down barriers, but police come to Black parties more often than White parties. "We’re careful around each other," said one woman. Black faculty and administrators make a great difference. So do the universities’ firmly stated and implemented policies on racial and gender discrimination. "If Mr. Mandela can do business with F.W. [de Klerk]," said one student, "I guess I can make things work differently and better, too." De Klerk is referred to in the press and by the people as "FW." Nelson Mandela is called Mr. Mandela.

The word "ubuntu," if translated literally into English, means humanity. A student uses the word to describe the empathy Blacks show towards their fellow men and women despite daily humiliations. The New England/South African Student Scholarship Program and OSSP have the quality of "ubuntu." The programs build bridges and connect U.S. institutions to South African universities and their students, while extending support for the university experience that Black South Africans truly need to build the new South Africa. □

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Programs in textiles qualify under the New England Regional Student Program.
RSP Reports Record Enrollment for 1989-90 ... and Record Ink

CHARLOTTE STRATTON

The New England Board of Higher Education Regional Student Program (RSP) posted a record 13.5-percent enrollment increase in the 1989-90 academic year. A total of 5,723 New England students participated in the tuition-savings program in 1989-90, compared with 5,042 during the previous academic year. The RSP, the nation's foremost interstate student exchange, enables New England residents to pay significantly reduced tuition at out-of-state public colleges and universities within the six-state region, if they are pursuing certain degree programs that aren't offered by public institutions in their home state.

Much of the one-year enrollment jump is attributed to sizable increases in RSP enrollment at the University of Rhode Island and the University of Maine, as well as at two-year colleges in Rhode Island and Massachusetts. Each RSP participant saved an average of $2,450 in 1989-90 tuition costs, according to NEBHE estimates. Students at the four-year and graduate levels saved the most, averaging $3,100 each. Students at the two-year level saved an average of $1,325. Total tuition savings for RSP students and their families reached an estimated $13.8 million.


"The nation's most visible example of interstate cooperation."

Editorials and letters to editors ran heavily in support of NEBHE and the RSP. In August, at the height of the crisis, an editorial in The Boston Herald asked: 'How do you suppose the state rewards a government-dependent organization charged with the responsibility of expanding educational opportunities, which has performed efficiently for 35 years, keeping its costs low, while offering educational choices to the masses?' The answer, the reader is told: "The state stops funding the organization, which costs Massachusetts residents a nickel a year, in the name of fiscal restraint."

The Patriot Ledger called the RSP, "a sensible way to share educational resources in the region, with obvious benefits for New England's young people."

The Worcester Telegram/Gazette carried a letter from the distraught parent of an RSP student, who noted: "I cannot ask quietly when our son's plans for his future, which he has worked hard to achieve, are dashed by a breach of good faith by Massachusetts leadership."

One well-known Boston columnist, vaguely recommended firing state workers to recoup the funds that the governor vetoed "to belong to some consortium."

The RSP continues to garner coverage throughout the region. Earlier this spring, New Hampshire state Sen. George Dinsdale wrote in the Claremont, N.H. Eagle-Times that the RSP is "the nation's most visible example of interstate cooperation" and "an excellent value for New Hampshire." In April, the Boston Sunday Globe hailed the benefits of the RSP in an expanded "Learning Section." The Globe reported on two RSP participants who said they would have been unable to pursue the degrees and careers of their choice without the RSP.

The media coverage prompted a record number of inquiries to NEBHE's RSP office. Many of the callers were high-school juniors and seniors hearing of the RSP for the first time or concerned about widely reported threats to the program.

Under the fall agreement between NEBHE and Massachusetts officials, the New England states were given the option to raise the RSP tuition rate to 150 percent of in-state tuition, up from the previous level of 125 percent. Massachusetts adopted the increased rate for the spring 1990 semester. Other public universities in New England will raise the RSP rate to 150 percent of in-state tuition in the fall of 1990. The Vermont State Colleges will raise the rate to 135 percent of in-state tuition in the fall.

New degrees for 1990-91:

RSP students enrolling next fall will have more than 20 new programs to choose from. Among them: computer technology, robotics and ophthalmic technology at the two-year level; construction management technology, anthropology and integrated pest management at the four-year level; and gerontological nursing, Chinese and Japanese at the graduate level. Proposed for 1991-92: bio-resource engineering technology at the four-year level and materials engineering and pathobiology at the graduate level.

Charlotte Stratton is NEBHE assistant vice president for public information and managing editor of Connection.

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