

SUMMER/FALL 1987

# Connection:

NEW ENGLAND'S JOURNAL OF HIGHER EDUCATION

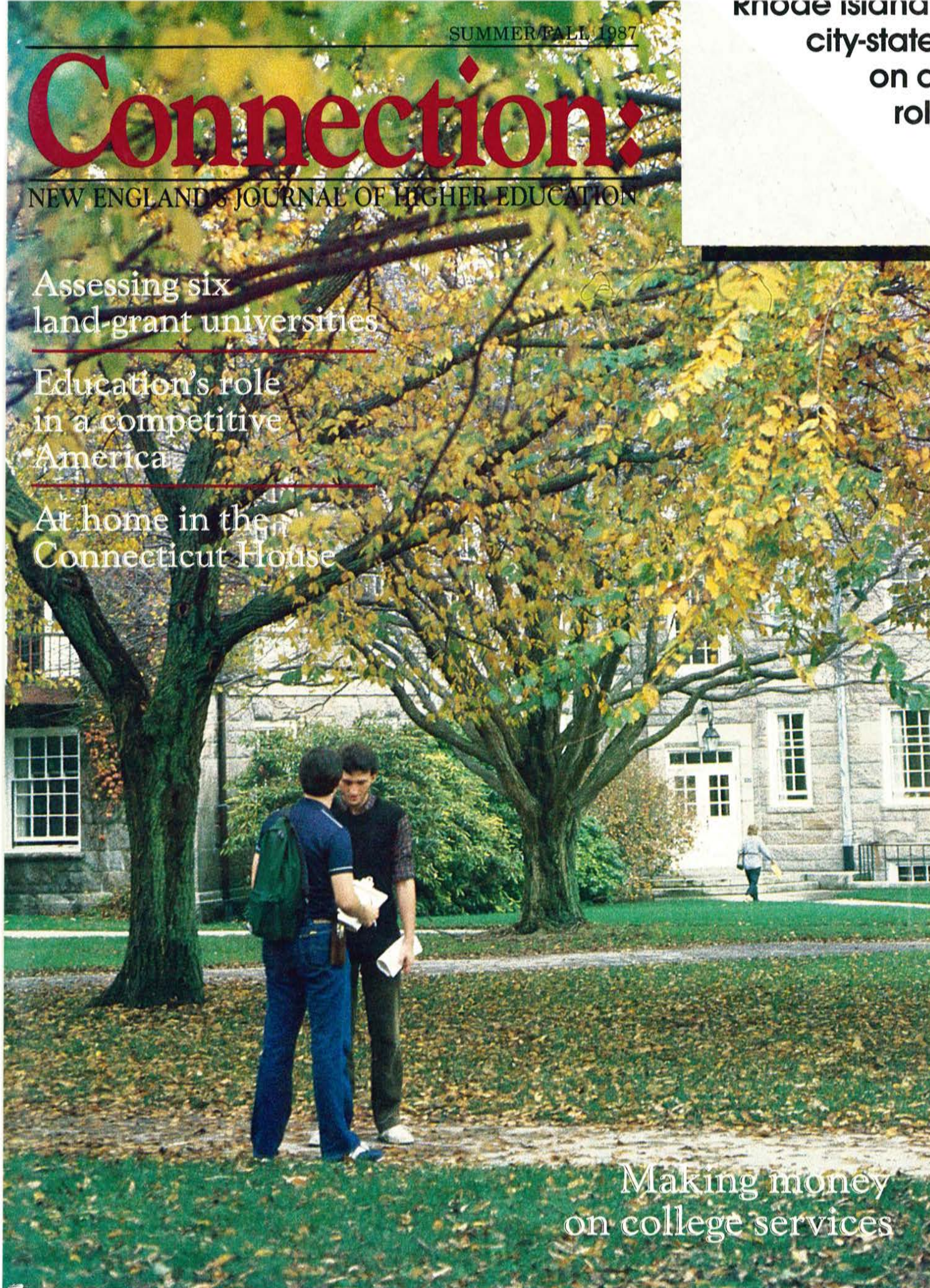
Assessing six  
land-grant universities

Education's role  
in a competitive  
America

At home in the  
Connecticut House

Making money  
on college services

KNOWLEDGE ISLAND:  
city-state  
on a  
roll



# Please Tell Parents:

## Guaranteed Student Loans Are Available For All

With SLS and PLUS loans, you can get financial aid above and beyond other student loan programs no matter what your income.

*For Parents. For Students.* Independent students apply for a Supplemental Loan for Students (SLS), while parents borrow under the PLUS Loan Program.

*High Loan Limits.* You can obtain an additional \$4000 per year (maximum of \$20,000) from your local bank, assuming you meet ordinary credit guidelines.

*No Surprises.* With SLS and PLUS Loans, there are no charges beyond our own 1% guarantee fee. No attorneys fees or closing costs. And no second mortgages on your home, either.

*Easy Repayment.* The interest rate is variable, and cannot exceed pre-set limits. And as a federally guaranteed student loan, certain deferments may apply. There are also refinancing and consolidation options.

We're Massachusetts Higher Education Assistance Corporation. Since 1956, a nonprofit agency providing financial access for over one million borrowers.

Call or write today to find out more about our financing opportunities for higher education.



Massachusetts Higher Education Assistance Corporation  
Loans for Students. Loans for Parents. Guaranteed.

330 Stuart Street Boston, Massachusetts 02116 (617) 426-9796.

# Connection:

NEW ENGLAND'S JOURNAL OF HIGHER EDUCATION

## Assessing New England's six state universities

**13** Land-grant institutions sometimes hindered by state policies

**15** Washington and Beyond: Legacy of a Vermont Congressman *Michael J. Bennett*

**17** Federal, state funds fuel research growth *Ellin Anderson*



## Regional Spotlight

**47** The nation's only city-state, Providence and Rhode Island on an economic roll

*John Chaffee*

## Features

**27** Education's role in a competitive America  
*Theodore F. Brophy*

**40** Making money on college services  
*B.J. Roche*

**57** Rhode Island's venture capital partnership  
*Linda A. Acciardo*

**72** Tuition hikes continue at New England colleges  
*Wendy Deans*



## Departments

**9** Short Courses: News and features briefly noted

**23** Outstanding New Englander: At home in the Connecticut House  
*Ellin Anderson*

**32** People: New England's higher education board  
*Laurie Ortyl*

**63** Campus: The region's graduate institutes  
*Amy Berman*

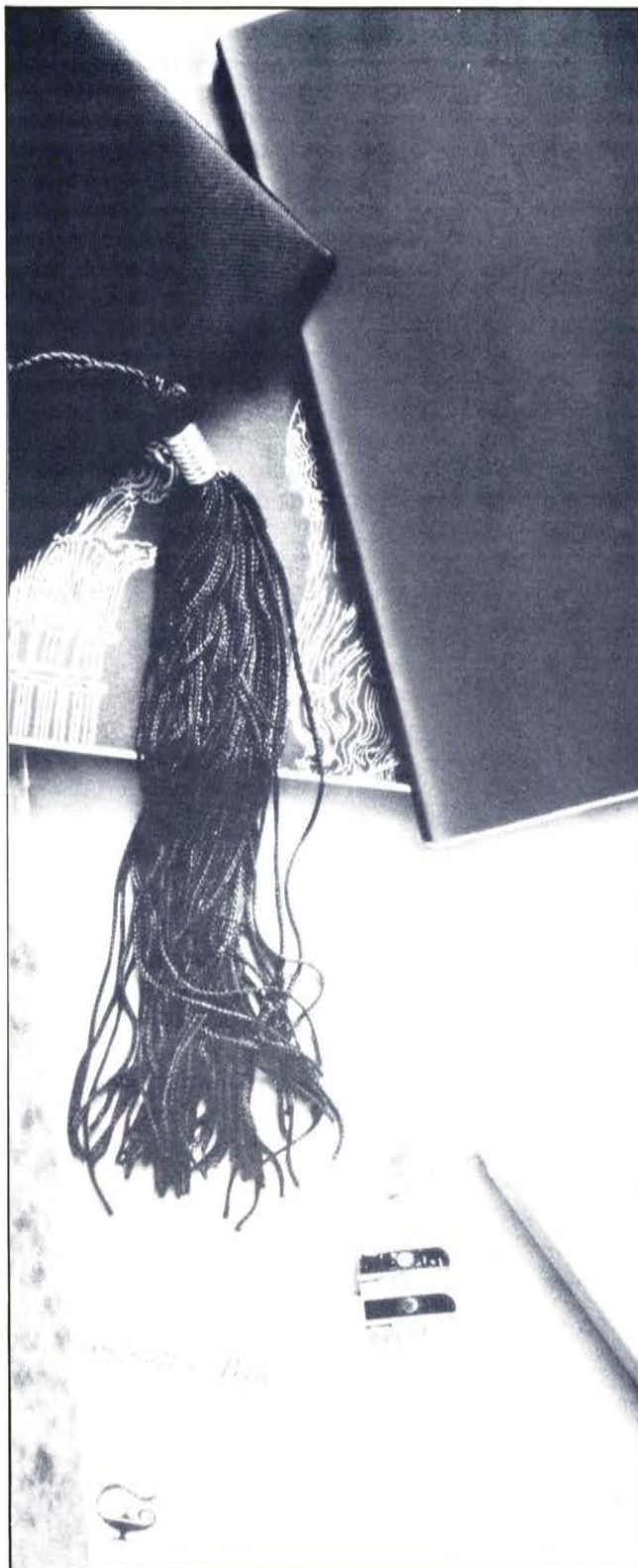
**68** RSP Update: UConn's graduate program for all New England  
*Charlotte A. Stratton*

## Directly Speaking

**6** Hard facts about New England's mainstream population

*John C. Hoy*

# TERI Means Access to Higher Education.



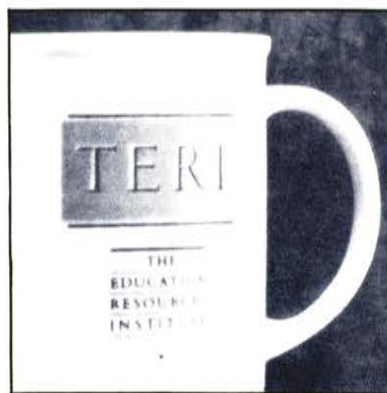
At The Education Resources Institute (TERI), our financing programs and information services help people of all ages and income levels gain access to higher education.

The TERI Supplemental Loan Program provides access through tuition financing. Now offered by over 900 colleges and universities, our loan program helps students and families pay higher education costs. While no one can make college less expensive, a TERI loan can make it affordable. We also sponsor the Alliance, SHARE, EXCEL and VALUE loan programs, available at particular institutions.

Another way we provide access is through our support of the Higher Education Information Center, located at the Boston Public Library. The Center encourages people—particularly those from families who have not traditionally pursued higher education—to attend college by offering free information and guidance. Center services help students make informed choices about the future.

At TERI, we look forward to continuing our work with the education and financial communities and to developing and managing programs to help students reach higher education goals.

For more details about our programs call us toll-free at **1-800-255-TERI**, or send for a free brochure.



**The Education Resources Institute**  
330 Stuart Street, Suite 300  
Boston, MA 02116

*TERI is a private, non-profit organization.*

# EDITOR'S MEMO

## NEW ENGLAND BOARD OF HIGHER EDUCATION

To Connection Readers:

In this issue we begin a two-part look at New England's six public land-grant universities. This assessment was inspired by former Yale University President A. Bartlett Giamatti, who in an address last fall and subsequent article in the Winter/Spring issue of Connection, charged that the New England states were neglecting their state universities and thus jeopardizing the region's economic development.

Part one includes some thoughts on state governance of the universities by the presidents of the six institutions, a national perspective of land-grant universities and an account of the dramatic growth in research activities at all six New England state universities.

In the next issue, part two will focus on the future of the region's six public land-grant institutions, a link to the theme of the issue: Higher Education and the Future of New England.


The theme for the next issue was inspired by a survey conducted earlier this year by the New England Board of Higher Education. More than 800 business, government and education leaders from all six states were asked their views on five issues of importance to the region's future: economic growth, internationalization of the economy, education and training, environmental concerns and public policy priorities.

Their responses to specific questions, plus the observations of a variety of persons who are concerned about the future of the region, promise to make for some lively reading.

Meanwhile, savor the contents of this issue, not only the land-grant assessment, but the profile of Connecticut House Speaker Irv Stolberg, the views of a leading New England businessman on what America must do to compete in a world economy and a look at how some colleges are dealing with the problems of managing bookstores and food services.

Also, enjoy a fresh look at the city of Providence and the state of Rhode Island with its 11 colleges and universities.

Our cover photo is related to both the land-grant articles and the Rhode Island stories. It is of the University of Rhode Island campus in the fall, photo by Daniel Dunn.

  
John Chaffee  
Editor

*Connection: New England's Journal of Higher Education* is published quarterly by the New England Board of Higher Education, 45 Temple Place, Boston, Mass. 02111. Phone: (617) 357-9620. Vol. II, No. 2 Summer/Fall 1987 Copyright © 1987 by the New England Board of Higher Education.

**Publisher:** John C. Hoy

**Editor:** John Chaffee

**Associate Editor:** Ellin Anderson

**Assistant Editor:** Wendy Deans

**Washington Editor:**  
Michael J. Bennett

**Staff Contributors:**

Laurie Ortyl  
Charlotte Stratton

**Art Director/Production Manager:**

Glynn Brannan

**Advertising and Circulation**

Marion Phaneuf  
Jan Queenan

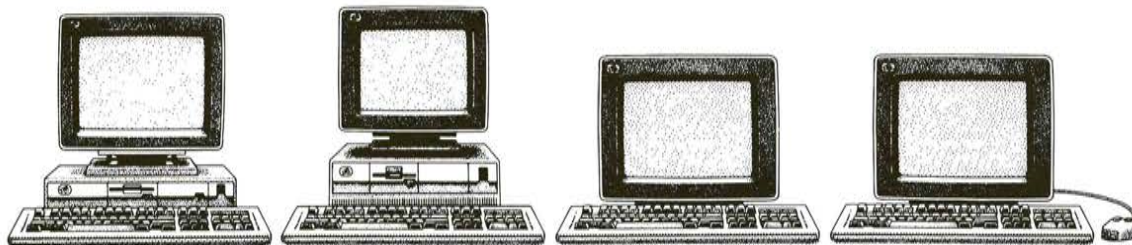
Subscription information: \$12 per year (4 issues); \$5.00 per issue. Printed by Lorell Press, Avon, Mass. Advertising rates available upon request.

**The New England Board of Higher Education** was established as a non-profit agency by the New England Higher Education Compact a 1955 agreement among the six states that was ratified by the U.S. Congress. It is the purpose of the Board to advance and develop programs that encourage higher educational opportunities and improve efficiency in the use of resources among New England's public and independent colleges and universities.

**Chairman:** Jean Mayer, president, Tufts University

**President:** John C. Hoy

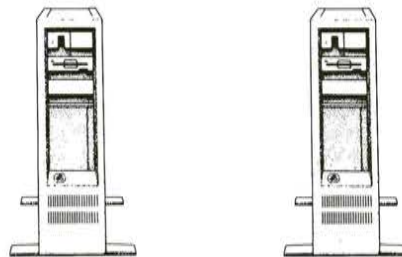
# The IBM Personal System/2. The next generation in computing is here.



With increased speed and storage, and a choice of four models (the model 30, 50, 60, and 80), the IBM® Personal System/2™ gives you the power to accomplish almost any size job.

Whether you need a stand-alone system or a network of computers, there's an IBM Personal System/2 that will handle the alumni/development, planned giving, administrative, and fund accounting needs of your college or university.

What's more, all of Blackbaud MicroSystems' fund-raising software runs on the Personal System/2. No matter what you want to do, Blackbaud MicroSystems, Inc. can provide you with the hardware and software to accomplish your goals.



 **Blackbaud**   
**MicroSystems**  
INCORPORATED

**CORPORATE HEADQUARTERS:**  
160 East Main Street, Huntington, NY 11743  
516-385-1420

**NORTHEAST REGIONAL OFFICE:**  
136 Boylston Street, Boston, MA 02116  
617-426-5747

**SOUTHEAST REGIONAL OFFICE:**  
6095 Lake Forrest Place, NW, Suite 150, Atlanta, GA 30328  
404-843-9099

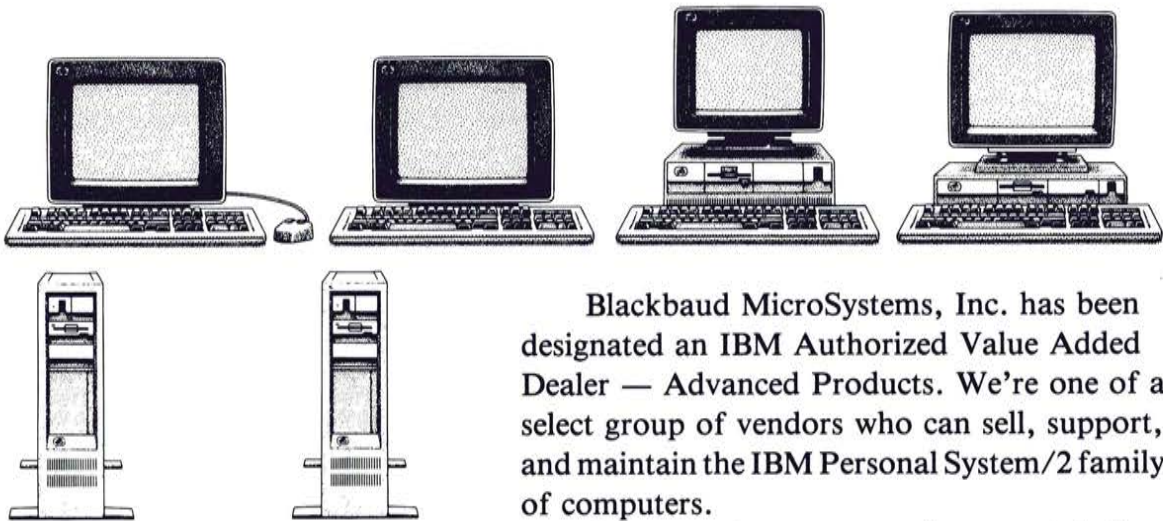
**WESTERN REGIONAL OFFICE:**  
Buena Park Commerce Plaza, Suite 312  
6280 Manchester Boulevard, Buena Park, CA 90621  
714-523-4930

**CANADIAN DISTRIBUTOR:**  
Collins Barrow, 1 First Canadian Place, P.O. Box 173  
Suite 4800, Toronto, Ontario, Canada M5X 1C7  
416-367-0809

Authorized  
Value Added  
Dealer

Advanced  
Products

# Blackbaud MicroSystems, Inc. has been selected to introduce it to you.



Blackbaud MicroSystems, Inc. has been designated an IBM Authorized Value Added Dealer — Advanced Products. We're one of a select group of vendors who can sell, support, and maintain the IBM Personal System/2 family of computers.

Our commitment to excellence and dedication to customer service is long-standing. In fact, over 400 nonprofit organizations nationwide are using our systems today.

We can match your special needs to exactly the right hardware and software for development, administration, and fund accounting. If you maintain lists of 1,000 or 100,000 names . . . handle \$100,000 or \$100 million in funds, we have a system that will work for you.

For more information about the IBM Personal System/2 and our college and university software, return the coupon below or call Blackbaud today.

For information  
call:  
**1-800-443-9441,**  
Extension 77.

In New York State  
call:  
516-385-1420

160 E. Main St., Huntington, NY 11743

**YES!** I'm looking for dependable  
computer solutions.

Please send me more information about:

- The IBM Personal System/2 computers
- The Development Office fund-raising software
- Planned Giving II software
- The following fund accounting business office software:
  - General Ledger
  - Accounts Payable
  - Payroll
  - Student Billing
  - Admissions Office
  - Registrar's Office

Name \_\_\_\_\_ Title \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_ Phone Number (\_\_\_\_) \_\_\_\_\_

 **Blackbaud**  
**MicroSystems**  
INCORPORATED

CONN 7/87

Authorized  
Value Added  
Dealer

Advanced  
Products



## DIRECTLY SPEAKING

# Hard Facts About New England's Mainstream

JOHN C. HOY

**I**f we are to believe the national and international media, a "New England Renaissance" is in full bloom. Other regions are, to put it mildly, envious, and industrial nations throughout the world are curious to learn how this nation's oldest industrial region rebounded after decades of economic decline.

In the past year, curiosity about New England's resurgence has led significant numbers of international visitors to pursue economic development missions to the "region of steady habits," and frequently to the offices of the New England Board of Higher Education.

From Australia, Canada, England, France, Ireland, Korea, Japan and West Germany, among others, these visitors ultimately ask: "How has New England done this; what are the enabling factors?"

In the course of the past decade, the New England Board of Higher Education has repeatedly documented, in an organized series of reports, the profound and intimate connection between higher education and regional economic development. Among the mounting litany of factual evidence:

New England today has the low-

est regional unemployment and the highest level of per capita personal income in the United States. The availability of venture capital and the rate of quality job creation lead the nation. New England's citizens also have one of the nation's highest levels of high school, college and graduate educational attainment.

Specifically, with 5 percent of the total U.S. population, New England produces: 7.5 percent of medical residents (specialists); 8 percent of computer scientists; 8.5 percent of law school graduates; 9.5 percent of MBAs; 9.5 percent of PhDs in engineering; 10 percent of PhDs in the humanities; 11 percent of PhDs in the physical sciences; and 12.5 percent of PhDs in mathematics.

In specific disciplines within the sciences, such as biotechnology, computer science, electrical engineering and astronomy, New England production of PhDs is twice the national rate. The advantage such output represents to the region is reflected in the location new PhD recipients choose for employment.

Of all recipients of doctorates awarded in the United States in 1984, the percentage of those in selected disciplines who were employed in New England include: political science/international affairs, 5 percent; business and management, 6.2 percent; engineering, 6.3

percent; physics/astronomy, 8.3 percent; economics, 7.8 percent; mathematics, 8.6 percent; computer science, 10.7 percent; and biochemistry, 11.9 percent.

With considerable justification, it can be stated that the degree of "overproduction" by New England institutions of scientific, technical and professional graduates during the past two decades has provided the most significant human resource "insurance policy" available in the technologically advanced regions of the nation and perhaps the world.

But academic entrepreneurial production, as impressive as it may be to us and to our envious or curious visitors, does not account for the level of human motivation necessary to bring about such accomplishment in the first place. In combing through regional data and a wealth of analyses on New England's resurgence, unresolved questions remain: "Whose vitality is responsible for the current level of success found here in such abundance? Why has the region achieved? Is there a special human factor that explains the intensity of New England's effort and energy?"

One significant and generally overlooked clue is the fact that during the postwar era, New England possessed the highest proportion of all regional populations in the United States who were emigres or first-generation Americans. For example, in 1950, almost 50 percent of all New England residents were white foreign-born or children of white foreign-born. As John Gunther noted in his seminal postwar study of the United States, *Inside U.S.A.*, which was published in 1947:

"All over New England the foreign-born have laid themselves on the land; this fact is paramount and basic. No visitor can avoid the generalization that the 'Yankee-land' is no more 'Yankee-land'; the old stock has been inundated with

John C. Hoy is president of NEBHE and publisher of *Connection*.



waves of Irish, French Canadians, Italians, Polish, Portuguese.”

By 1960, the proportion of emigrants and their children was still the highest in the nation, approximately 40 percent. The relocation, education, assimilation and employment of this extraordinary concentration of new citizens during three decades of economic turmoil (1945-1975) may reveal more about the human tenacity and motivation of the people of this region than any other single historic factor shaping New England's renaissance.

In a superbly accurate 18-page survey of New England published in the Aug. 8th issue of *The Economist*, entitled, “A Concentration of Talent,” one error in editorial judgement states:

“But it is wrong to think of Yankee ingenuity as the mainspring of New England's economic revival, for the simple reason that most of New England's successful entrepreneurs are not New Englanders. They arrived there as university students and stayed.”

True, the region leads the nation in the interstate migration of college students, and many do stay, but the usually perspicacious editors of *The Economist* missed a crucial point: The abounding source of regional leadership does not consist simply of those who came here to study and decided to stay.

Educationally and economically, the aspirations of ethnic, urban New Englanders staved off the total collapse of the low-wage mature industries of the region in the 1950s and 1960s. The decline of traditional industries was both deeply painful yet necessary. Recent and current state governors Brennan, DiPrete, Furcolo, Garrahy, Grasso, Kunin, Dukakis, Sununu and Volpe are among the extensive list of elected leaders whose political vision has been shaped by the process of immigration, as were U.S. Senators Muskie, Pastore and Tsongas, Congressmen Conte, Daddario, Gejdenson, Mavroules and former Speaker Tip O'Neil, among

Foreign-born ranking of New England states					
States with greatest relative concentration of white foreign-born and children of white foreign-born, 1950 and 1960					
1950			1960		
Rank	State	Percent	Rank	State	Percent
1	Rhode Island	49.9	1	New York	41.2
2	Connecticut	49.5	2	Massachusetts	40.5
3	Massachusetts	49.5	3	Connecticut	40.2
4	New York	49.2	4	Rhode Island	40.1
5	New Jersey	44.8	5	New Jersey	37.7
6	North Dakota	39.6	6	North Dakota	30.5
7	New Hampshire	36.1	7	New Hampshire	29.2
8	Minnesota	34.7	8	Illinois	26.9
9	Illinois	33.4	9	Michigan	26.6
10	Michigan	33.3	10	Minnesota	25.8
17	Maine	27.1	15	Maine	23.3
18	Vermont	25.6	18	Vermont	22.0
	United States	25.0		United States	20.8

(Alaska and Hawaii not included)

Source: Robert W. Eisenmenger, *The Dynamics of Growth in New England's Economy, 1870-1964*; Wesleyan University Press, 1967.

others. Their diverse recollections reveal the harsh economic realities that existed in the New England of their foreign-born parents and grandparents. Both political parties in New England have been profoundly shaped by this most powerful assimilation process.

The number of college and university presidents and New England scholars and scientists of immigrant parents is too extensive to list. “Yankee ingenuity” has been revived by fresh waves of corporate and political entrepreneurs of ethnic origin, including, for example, An Wang, Ira Stepanian, Ray Stata, Edson de Castro, Gabriel Schmergel, Jack Welch and the Dunfee and Kennedy clans. The paths they took to become part of the economic and political mainstream of a once-depressed and now vibrant regional economy remains substantially unrecorded.

The continuing flow of talent from elsewhere in the United States and abroad continues, and

will accelerate. Yet a nagging issue remains. If New England (the most predominantly white region in the U.S.) is the prototype of the melting pot, if it has provided the nation's foremost example of ethnic assimilation since World War II, why is it difficult for this region of opportunity to envision assuring access to higher education for our own black and Hispanic youth?

Why, if you are black or Hispanic and raised in New England, is your opportunity to complete high school and pursue some form of higher education worse than if you lived in any other region of the nation? This urgent question is finally receiving renewed regional attention after a decade of not-so-benign neglect. In this period of unprecedented New England prosperity, the action and results aimed at bringing minority youth into the mainstream are as “paramount and basic” as John Gunther suggested four decades ago.

□

# Futures are built on a strong Foundation.

The New Hampshire Higher Education Assistance Foundation, a 25-year-old private nonprofit organization, has helped over a hundred thousand college and university students attain their future goals. Since 1962, the Foundation has guaranteed millions of dollars in financial assistance loans for those pursuing the rewards of a post-secondary education.

The Foundation's Federal programs, GSL, and PLUS/SLS loans, are available to NH residents no matter where they attend school and to any non-resident who chooses to enroll in a NH college, university, or other approved program. The loans are made through participating banks, savings and loan associations, and credit unions throughout the State. For those borrowers who don't have a local bank, the Foundation will provide a GAP (Guaranteed Access Program) lender, a "lender of last resort".

In addition to Guaranteed Student Loans, the New Hampshire Higher Education Assistance Foundation created its own independent program called Alternative Loans for

Parents and Students (ALPS). The Foundation was one of the first organizations in the country to develop and fund a program of this nature through the issuance of tax-exempt Student Loan Revenue Bonds.

ALPS was designed for those who do not qualify for traditional forms of financial aid or for families who need to supplement their expected contribution. The program offers low-cost, unsecured, long term financing in amounts large enough, \$3,000 to \$15,000 annually, to meet the real costs of an education today. ALPS loans are an ideal alternative to other higher cost, shorter term financing options such as commercial tuition plans and unsecured personal bank loans.

ALPS financing, like the Federal program, is only available to New Hampshire residents or to non-residents attending school in the State. For more information on how the New Hampshire Higher Education Assistance Foundation can help make tomorrow's horizons become today's reality call TOLL FREE 1-800-235-2577 or (outside NH) 1-800-525-2577.



NH **A** HIGHER EDUCATION  
ASSISTANCE  
FOUNDATION  
PO Box 877 Concord, NH 03301

# SHORT COURSES

## 'True cost' law sparks uproar in Massachusetts

A brouhaha has erupted in Massachusetts over a new state law requiring foreign students to pay the 'true cost' of education if they attend any of the Bay State's 29 public colleges or universities. It is estimated that for foreign students to pay the true cost of their education rather than the out-of-state tuition rate they have been paying would increase tuition costs 300 percent. Efforts to modify or repeal the legislation began almost as soon as details were made public. Higher education officials nationwide were critical of the Massachusetts law, fearing it could have serious academic and political repercussions if other states were to follow suit.

## Colleges to host presidential debates in N.H.

New Hampshire colleges are preparing to host debates for candidates competing in the state's first-in-the-nation presidential primary next February. Dartmouth will sponsor a debate of Republican candidates Jan. 16 while the University of New Hampshire will host the Democrats in Durham on Jan. 24. St. Anselm College in Manchester will host candidates from both parties in two debates sponsored by the League of Women Voters the weekend preceding the primary.

## Military college in Vermont offers Peace Corps plan

Norwich University in Vermont, the nation's oldest independent military college, now offers students training for Peace Corps service instead of the previously required ROTC. "There are two ways to prevent war," said Maj. Gen. W. Russell Todd, the university's president. "One is to make friends and the other is to be so strong that nobody wants to attack you. I see the Peace Corps programs as being the first." Norwich, which includes a nonmilitary branch, Vermont College, is the first institution of higher learning to offer Peace Corps training as part of the regular curriculum.

## Yale to invest \$50 million in New Haven

Yale University has announced a new investment program that is expected to generate as much as \$50 million over the next five to 10 years for the commercial, industrial and residential development of New Haven. Yale officials said the plan marks the first time an American university had undertaken such an extensive investment in its local community. "New Haven is a vibrant, exciting city," said Yale President Benno C. Schmidt Jr. "Yale is vitally interested in the future of the city." Schmidt said Yale had invested \$13 million in New Haven over the past 10 years, but that under the new plan the Yale Corporation would for the first time focus "on New Haven development as a target in and of itself."

## Tufts to offer course with Moscow State

Tufts University will offer a course next spring on nuclear arms control in cooperation with Moscow State University. Four classes will meet jointly by satellite. "This is the first time a college-level curriculum of this sort will be shared by the U.S. and the USSR," said Tufts President Jean Mayer. The course is a byproduct of Mayer's efforts to develop an international peace studies curriculum to be taught around the world, as discussed in his article, "Planning Global Studies on Arms Control," which appeared in the Winter/Spring 1987 issue of Connection.

## Shays wins congressional seat in Conn.

Christopher H. Shays, a Stamford real-estate broker and seven-term state representative, won an August election to complete the House term of Stewart McKinney, who died May 7. Shays, like McKinney, is a Republican. A former Peace Corps volunteer, he defeated Christine Niedermeier, a Fairfield lawyer and former state representative. The Shays victory maintains the 15-9 Democratic edge in New England House seats. In the Senate, the six-state region splits evenly down the middle with six Republican and six Democratic senators.

## Four N.E. states graded 'A' in economic index

A new yardstick for measuring a state's economic health includes as a key indicator investments in education. A "Development Report Card for the States," compiled by the Corporation for Enterprise Development, gives four New England states a grade of A in human-resource capacity: Connecticut, Massachusetts, Rhode Island and Vermont. Maine received a grade of B while New Hampshire received a C. The corporation, a national economic development research and consulting organization, developed the new yardstick because traditional measures focus on a state's "business climate."

## Japanese college to open branch in Boston

Showa Women's University in Tokyo has purchased a scenic site in Boston that will become a branch campus for 300 students. The former estate, on a hill overlooking the city and harbor, has most recently been used as a child care center by the Archdiocese of Boston. Showa, founded in 1920, has about 2,000 students each in two- and four-year college programs. Those who will come to Boston beginning next spring will study American language and culture in a series of six-month courses similar to year-abroad programs sponsored by U.S. colleges. Prior to the sale of the site to Showa, both the New England College of Optometry and Emerson College had expressed interest in the property.

## Glasgow elected to head SHEEO

Norma Foreman Glasgow, Connecticut's commissioner of higher education, has been selected the 1988-89 president of SHEEO, national organization of state higher education executive officers. Also serving on the SHEEO executive committee is James A. Busselle, executive director of the New Hampshire Postsecondary Education Commission.

# WE JUST MADE THE NEW ENGLAND BANKER AS BIG AS NEW ENGLAND.

Get cash automatically at over 1200 locations throughout New England. Now, your New England Banker card puts banking at your fingertips all over New England. At Bank of New England locations in Massachusetts, The Connecticut Bank and Trust (CBT) locations in Connecticut, Maine National Bank locations in Maine and Bank of New England-Old Colony locations in Rhode Island.

But that's not all. Bank of New England Corporation has also combined its own automated teller machine network with Cash Network and the nationwide Plus System to offer its customers 1200 ATM locations in New

England and over 7000 across America and Canada.

**Check Cashing at 350 Banking Offices.** And, with proper identification, Bank of New England customers can now cash personal checks up to \$150 at any Bank of New England, CBT, Maine National Bank, or Bank of New England-Old Colony branch.

To find the locations nearest you or to apply for your New England Banker card, send in the coupon, visit any banking office, or call 1-800-451-5115.



## New England Banker Card Application Request

Name

Address

City  State  Zip

Mail to:

Bank of New England, P.O. Box 2350, Boston, MA 02107



**BANK OF  
NEW ENGLAND**

# At Massachusetts, great ideas are born. And put to work.

*"[Massachusetts should have a University] worthy of the dreams of her fathers, the history of the state, and the capacity of her people."*

When Massachusetts Governor John Andrew urged the state legislature 124 years ago to establish what is now the flagship campus of the state University system, he chose words which work equally well in this century.

As a Land Grant University, we are still striving to fulfill those dreams, to enhance our history, and to achieve to our capacity. And these efforts are bringing benefits well beyond

the borders of the Commonwealth.

The strength of public higher education is the strength of democracy itself, and the awareness that talent for leadership, invention, and service is broadly distributed across the population.

The best ideas become great only when they work. The University of Massachusetts at Amherst cultivates great ideas, providing a critical proving ground for testing their usefulness and durability in the wider world.

At Massachusetts, great ideas are born.  
And put to work.

## The University of Massachusetts at Amherst

Joseph Duffey, Chancellor

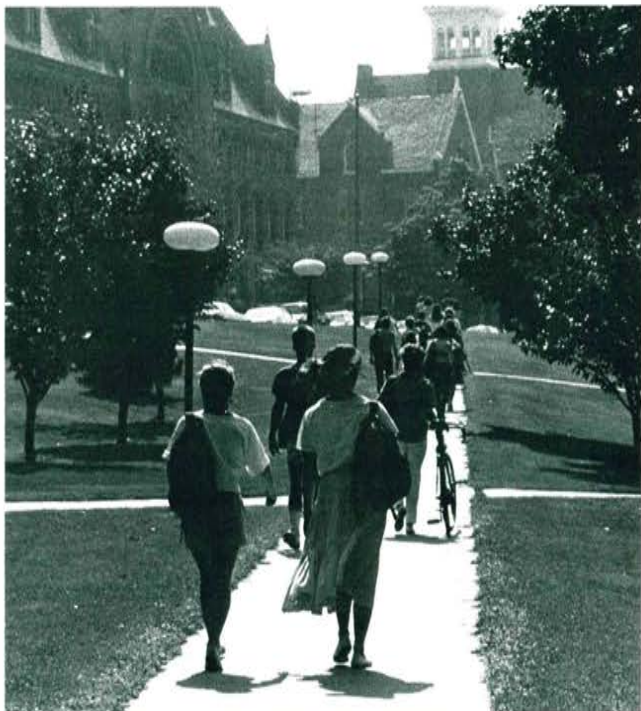
*"I am convinced that the Land Grant concept is as meaningful today as it was during the past century. Only the names have changed, from agriculture and technology*



*to natural resources and high tech. It still implies teaching, research, cooperation, and outreach, and remains vital to the future of the Commonwealth."*

# Assessing New England's six state universities

"We have neglected our own," charged former Yale University President A. Bartlett Giamatti, speaking of New England's six state universities. In an often-quoted and controversial address last fall at the annual conference of the New England Council, Giamatti said: "New England will not and cannot renew herself fully, fulfill herself economically, for her sons and daughters who are with us and for those yet to come, until America's educational seat pays attention through the six state legislatures to those six public universities in a fashion consistent with the rhetoric and true needs of the people." With this issue, *Connection* begins a two-part assessment of the current status and future prospects of New England's six public land-grant universities. Part two will be published in our next issue, the theme of which is "The Future of New England."



University of Vermont campus scene

John Smith photo

## Research institutions sometimes hindered by state policies

The presidents of New England's six public land-grant universities agree that their institutions "have been hindered by some statewide policies," particularly those that "fail to recognize the distinct nature of a research-based, PhD-granting university."

In a joint statement on effective university leadership, issued earlier this year, the presidents said:

"In today's economic climate, states cannot afford to have all their public colleges and universities pursuing similar purposes and offering similar programs. To do so would foster unnecessary duplication and would constitute an ineffective use of state resources."

Instead, the presidents recommended:

- Statewide coordination and governance of

public higher education, based on policies that distinguish among the missions and resource requirements of various kinds of colleges and universities.

- Recognition that different missions require different levels of support.

- Public policies that encourage experimentation, innovation and creativity at research universities.

- More fiscal autonomy to permit quick response to changing conditions.

The magnitude of presidential concern varies from state to state and from university to university.

Lattie F. Coor, for example, president of the University of Vermont, noted in response to a question from *Connection* that Vermont, unlike the other New England states, has no statewide higher education governing board. As a result, Coor noted, the autonomy of UVM trustees "assures sufficient fiscal authority to satisfy the wide range of responsibilities the university has to the state in particular and to society in general."

And John T. Casteen III, president of the University of Connecticut, said the Nutmeg State's "formula approach to budgeting for the public system of higher education... recognizes the in-



Jack Walas photo

Reading in University of Maine Library

herent differences among the four major constituent units by providing special funding for mission support."

Although UConn does not need more fiscal authority to carry out its missions, Casteen said, "it clearly could use more flexibility, particularly in the areas of capital projects, contracting and purchasing."

In their joint statement, the presidents agreed that all six public land-grant universities should "do more to cooperate with other public institutions within their respective states."

Copies of their "statement of principles for improving state governance of public research universities in New England" are available from: Council of Presidents, New England Land-Grant Universities, The New England Center, 15 Garrison Ave., Durham, N.H. 03824. Phone: (603) 862-2355. □

### Entering freshman SAT scores

Fall 1986

	Verbal	Math
University of Connecticut	497	548
University of Maine	469	514
UMass-Amherst	486	537
University of New Hampshire	509	566
University of Rhode Island	455	499
University of Vermont	526	587
National average*	431	475

Source: Institutions reported averages through telephone survey conducted by NEBHE.

\*National average was reported by College Board for high school seniors taking SAT in Spring 1986.



# V

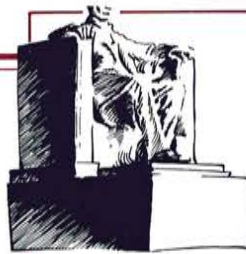
ermont Gov. Madeleine Kunin says that if she hadn't had a state university to attend she wouldn't have gone to college. *New York Times* columnist James Reston recalls that he "just got out on the highway, bummed to Champaign and signed on for \$25 a semester."

Gov. Kunin graduated from the University of Massachusetts. Reston, twice a Pulitzer Prize winner, is a graduate of the University of Illinois. UMass and Illinois are two of the nation's 72 land-grant universities, so-called because an 1862 law gave states grants of federal land that could be sold to pay for them. Collectively, land-grant universities enroll 1,500,000 students and confer about 60 percent of all doctorates awarded annually in the United States.

The Kunin and Reston stories are typical of the millions who have attended and ultimately graduated from land-grant universities. Yet, because of the region's traditional reliance on independent institutions, they're likely to be discounted in New England, despite the fact that graduates of the region's six public land-grant institutions, the Universities of Massachusetts, Connecticut, Rhode Island, Maine, New Hampshire and Vermont, have enriched both the region and the nation culturally as well as economically for well over a century.

However, as the land-grant universities celebrate the 125th anniversary of the law creating them and the 100th anniversary of their experimental research stations, which have made the United States the most scientifically productive nation in the world, some emerging facts are hard to ignore.

For example, 294 presidents and board chairmen of 251 of the Fortune 500 companies attended land-grant institutions. One of them is Walter Mattson, Reston's boss as president of the *New York Times*, Michael J. Bennett is the Washington editor of Connection.



## WASHINGTON & BEYOND

# Legacy of a Vermont Congressman

MICHAEL J. BENNETT

and a graduate of the University of Maine.

Mattson is far from being the only graduate of a New England state university to be represented among the CEOs of major American companies. Included are General Electric, Boeing, Eastman Kodak, Monsanto, Singer and Armstrong Rubber.

New England land-grant alumni are also heavily represented in the arts, sciences and politics. For example, William Manchester, the biographer-historian; Paul Theroux, the novelist-essayist and Gov. Kunin are all graduates of the University of Massachusetts.

The Washington-based National Association of State Universities and Land-Grant Colleges is taking advantage of these double anniversaries, the Morrill Act of 1862 and the Hatch Act of 1887 that created the experimental stations, to wage a highly sophisticated campaign to inform Congress and the public about the unique contributions these institutions and their alumni have made, and are continuing to make, to American society.

The land-grant college, generally considered to be America's most revolutionary contribution to higher education, evolved from a 19th century movement to provide a more popular and technical education than was then available at private colleges committed to classical

scholarship.

In Washington, the spokesman and champion of this movement was Vermont Congressman Justin Morrill who suggested that American colleges "lop off a portion of the studies established centuries ago as the mark of European scholarship and replace the vacancy . . . by those of a less antique and more practical value."

In 1857, when he first introduced his land-grant colleges bill, Morrill said his purpose was "to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

The measure passed both houses of Congress but was vetoed by President James Buchanan, who questioned the constitutionality of providing federal funds for education.

A new bill, introduced by Morrill in late 1861, received overwhelming congressional approval in the midst of a Civil War, and was signed into law by a new president, Abraham Lincoln.

According to Edward D. Eddy, president of the University of Rhode Island and author of the definitive history of land-grant colleges, "Lincoln believed the Constitution to be far more flexible than Buchanan's rigid interpretation."

In his *Colleges for Our Land and Time*, Eddy wrote:

"Before long the country had tak-

en for granted the assumption that each individual, regardless of his economic or social status, should be given the opportunity to develop his innate abilities to the ultimate benefit of not only himself, but of the nation . . .

"The result in the land-grant institutions has been the presence of a cross-section of American life. The institutions have become an academic melting pot of all classes and kinds. With higher education of qualified youth now deemed a national necessity, college education is no longer regarded as a privilege but as a right.

"As rights are guaranteed by the state, so college education should be a public expense if not otherwise available. To meet the demand, the colleges opened their doors to an increasing number of American youth to whom they would furnish subjects for study to suit the needs and tastes of each generation of a changing nation."

At no time, however, over the past 125 years have the land-grant institutions been without their detractors, particularly in the Northeast. Today, however, even as they are experiencing increasing support and acceptance in the Northeast, they're being buffeted by waves of criticism in the Midwest — and from among their own ranks.

"We have lost our way," contends

G. Edward Schuh, a former head of the department of agriculture at the University of Minnesota who is now with the World Bank.

Land-grant colleges are abandoning their mandate under the 1887 Hatch Act, applied research, to engage in more glamorous, if not relevant, basic research, Schuh argued in a paper delivered at Minnesota in 1984. He contended professors are far more intent at securing the esteem of their peers, than helping farmers in the field.

Further, he claimed, there is "an almost total failure" to educate students for the international economy.

On the other end of the spectrum, others fear the universities are becoming "captured institutions" — adjuncts to agribusiness corporations. "Land-grant universities don't sell their souls to private industry — they willingly give them away," claims Harold Breimyer, professor emeritus at the University of Missouri.

And, like many other higher education interests, some representatives of land-grant universities see the Reagan administration arrayed against them. "The early 1980s saw a full-scale corporate assault against the land-grant university," charges Frederick Buttel, a Cornell University sociologist.

He is referring to the so-called Winrick Report of 1982 issued by

the president's office of Science and Technology Policy. That report recommended universities leave applied research, and its profits, to private industry.

As the land-grants weather criticism from all sides, some wonder whether this unique outgrowth of 19th century idealism wedded to pragmatism could be replicated.

"Could we reinvent the land-grant university in today's political and economic climate?" asks Walter Woods, dean of Kansas State University's school of agriculture. "I doubt it."

Despite the prevailing doubts, the land-grant universities continue to not only educate millions of young men and women who might otherwise be unable to attend college, but also to be of useful service to society.

The University of Massachusetts, for example, helped the state's cranberry farmers greatly expand the uses of their crop. An environmental scare in the late 1950s, just before Thanksgiving, threatened to destroy the industry. Thanks to UMass research, Massachusetts growers are no longer dependent on the sole use of berries for jelly and have been earning more than \$80 million in recent years.

And the University of Rhode Island, one of the first sea-grant colleges created under legislation sponsored by Sen. Claiborne Pell, a maritime Morrill Act, helped create the technology that led to finding and exploring the Titanic.

The last word, as well as the first, belongs to Reston.

"For me it goes back to what the land-grant college is. It is an extraordinary achievement when you think of it — that government had an obligation to make higher education available to people whether they had any scratch or not. And this was during the Civil War. So, today, when the federal government says it has no business dealing with education, I have to say Mr. Lincoln thought it did, even when he was in the midst of a great national crisis . . ."

□



Clinical practice at the UMass Medical Center

# Federal, state funds fuel research growth

## All six land-grant universities benefit

ELLIN ANDERSON

Federal and state funding for research has grown significantly over the past decade at all six of New England's public land-grant universities.

Federal funding grew 132 percent, from \$70 million in 1976-77 to \$162.5 million in 1986-87, according to data compiled by the New England Board of Higher Education.

At the same time, state funding for research at the six universities increased 157 percent, from \$8.2 million in 1976-77 to more than \$21 million 10 years later.

Most federally funded research "tends to be in health and health-related fields, with the National Institutes of Health the largest single source of grants and contracts," said Lattie F. Coor, president of the University of Vermont.

According to UMaine President Dale W. Lick, state funds are important in helping a university attract federal research dollars. State funds, he said, are necessary to establish graduate research programs and to attract top-flight faculty who are motivated to aggressively seek federal research grants. Adequate state funds can help "move us to a new plateau," Lick said.

John T. Casteen III, president of the University of Connecticut, is not confident about future federal funding prospects. "Although traditionally, federal support to the university has been steady and substantial," he noted, "it seems the pattern is beginning to change." Anticipated cuts in federal research funds for universities, he said, foreshadow a period of uncertainty.

Following, state-by-state, are selected federal research highlights at the six state universities.

### CONNECTICUT

Federally funded research has grown significantly at the University of Connecticut over the past decade, jumping from \$21,363,500 in 1977 to \$55,272,100 in 1987. At the same time, state funding grew from \$983,200 to \$2,094,900.

The Carnegie Foundation for the Advancement of Teaching recently upped its rating of UConn from a Class II to a Class I, or top-level, research institution. This makes UConn the only public

university in New England of that class. Classification is based on independent reports from 15 separate federal agencies of support in science and engineering.

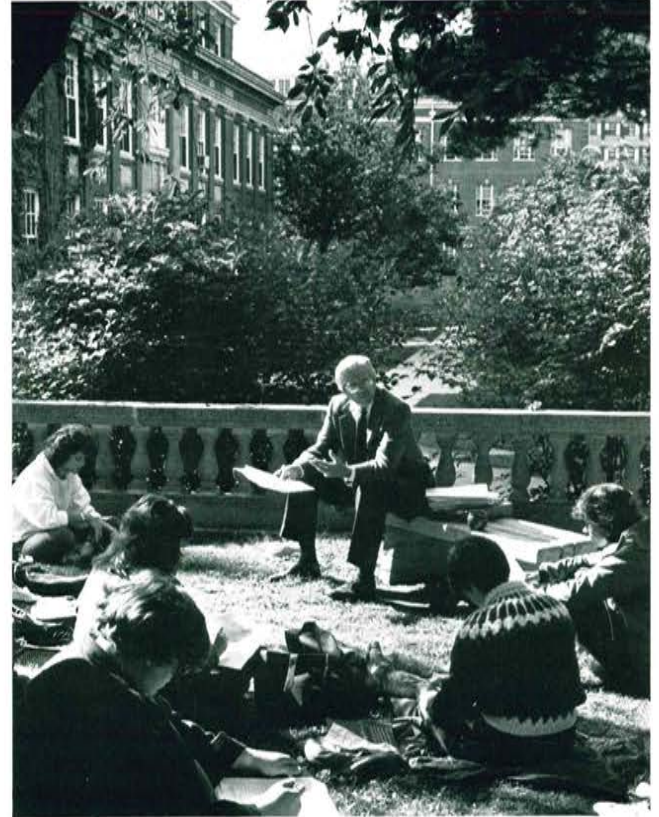
Specifically, federal funds are helping UConn scientists find answers to such questions as:

- Why are brown-algae tides overwhelming harbors, bays and Long Island Sound, suffocating or starving fish, lobsters and other marine life? What causes hypoxia, or low oxygen levels, in the Sound and what can be done to eradicate it?

- How does milk from diabetic mothers affect their babies? Do breast-fed infants of diabetic women grow at a slower rate than breast-fed infants of non-diabetic women?

### MAINE

At the University of Maine, federal research funding grew 46 percent, from \$5,481,000 in fis-



An outdoor class at UNH.

Ellin Anderson is associate editor of *Connection*.

## Research efforts range from studies of acid rain to industrial uses of robots

cal year 1977 to \$8,009,000 in 1987. Examples of programs or projects receiving federal assistance:

- UMaine's Canadian-American Center, established in 1968, coordinates all Canadian studies activities at the university and encourages graduate research in a variety of Canadian-American topics. (See: *Maine's Canadian Connection*, in

the Spring-Summer 1987 issue of *Connection*).

- Ice Age studies: By investigating the rapidly changing environments of the Ice Age, UMaine researchers gain greater understanding of the interactions of land, sea and ice, and their impact on marine and human ecology.

- UMaine land and water researchers, funded

### Enrollments grow at modest rate

Enrollment at New England's six public land-grant universities increased by more than 8,000 students over the 10 years from 1976-77 to 1986-87. At the same time, graduate student enrollment increased by 2,591 students.

In 1976-77, graduate students constituted 11.5 percent of those enrolled at the six state universities. Ten years later, graduate students made up 13.3 percent of all those enrolled.

Enrollments increased at all but one of the six institutions, with the three-campus Univer-

sity of Massachusetts growing from 29,083 in the fall of 1976 to 35,554 in the fall of 1986. While UConn's total enrollment declined from 17,193 in 1976-77 to 16,856 10 years later, graduate enrollment rose from 2,723 to 3,141.

Graduate enrollment declined only at the University of New Hampshire, falling from 1,048 to 1,007 over the decade. But the proportion of graduate students to total enrollment declined at both UNH and UMaine, from 10.1 to 9.6 percent at UNH and from 8.5 to 7.9 percent at UMaine.

#### Full-Time Enrollment (Number of individual students)

	Conn.	Maine	Mass.	N.H.	R.I.	Vt.	New England
Undergrad. 1976-77	14,470	6,543	26,249	9,300	8,382	7,854	72,798
Grad. 1976-77	2,723	609	2,834	1,048	1,044	1,219	9,477
TOTAL	17,193	7,152	29,083	10,348	9,426	9,073	82,275
Undergrad. 1986-87	13,715	7,737	30,782	9,496	8,603	8,151	78,484
Grad. 1986-87	3,141	665	4,772	1,007	1,074	1,409	12,068
TOTAL	16,856	8,402	35,554	10,503	9,677	9,560	90,552
% of student body that is graduate 1976-77	15.8%	8.5%	9.7%	10.1%	11.1%	13.4%	11.5%
% of student body that is graduate 1986-87	18.6%	7.9%	13.4%	9.6%	11.1%	14.7%	13.3%

Source: NE&HE compilation of data from New England's six public land-grant universities. Connecticut data includes both the Storrs campus and Farmington health center; Maine data refer to the Orono campus only; Massachusetts data include UMass-Amherst, UMass-Boston and the medical school at Worcester.

## Research funding increases dramatically

		FY 1977	FY 1987	% change
Conn.	Federal	\$21,363,500	\$55,272,100	159%
	State	\$983,200	\$2,094,900	113%
Maine	Federal	5,481,000	8,009,000	46%
	State	2,971,000	6,101,000	105%
Mass.	Federal	14,301,300	39,300,000	175%
	State	2,436,500	10,000,000	310%
N.H.	Federal	6,530,000	15,813,000	142%
	State	654,000	1,083,100	66%
R.I.	Federal	13,258,700	23,506,700	77%
	State	1,130,500	1,888,600	67%
Vt.	Federal	9,157,300	20,680,000	126%
	State	93,900	102,000	9%
New England totals	Federal	\$70,091,800	\$162,580,800	132%
	State	8,269,100	21,269,600	157%

Source: NEBHE compilation of data from New England's six public land-grant universities. Connecticut data include both the Storrs campus and Farmington health center; Maine data refer to the Orono campus only; Massachusetts data include UMass-Amherst, UMass-Boston and the medical school at Worcester. All figures are rounded off to the nearest 100.

by the U.S. Department of the Interior, were studying acid rain and radon long before those topics gained widespread media attention and became issues of public concern.

### MASSACHUSETTS

Over the past decade, the University of Massachusetts has become an internationally recognized research institution and an integral part of the state's knowledge-based economy, according to President David C. Knapp. More than half of the three-campus university's budget comes from non-state funding. In New England, UMass-Amherst alone ranks fourth in total expenditures among all public and private institutions, surpassed only by Harvard, MIT and Yale. The UMass Medical Center in Worcester, comprising a school and hospital, operates on a budget that includes only 14 percent state funding.

At UMass, state funding of research over fiscal years 1977 to 1987 grew from \$2,436,500 to \$10 million. Federal funding of research and development grew from \$14,301,300 to \$39.3 million. Highlights include:

- Artificial intelligence: Forty-nine federal, private, foundation and industrial grants and contracts providing approximately \$5.4 million in

annual funding have been received by the UMass-Amherst Department of Computer and Information Science, to investigate how machines can be made to mimic human behavior.

- Diabetes-Endocrinology Research Center: The university's medical school receives national recognition for its research on diabetes. DERC is one of only 12 combined research centers and teaching and service programs in the country. In 1983 the center was awarded a five-year, \$2 million grant from the National Institutes of Health.

- John W. McCormack Institute of Public Affairs: Established at the Boston campus in 1983, the McCormack Institute represents the university's commitment to public policy research of particular concern to the city of Boston and state of Massachusetts. In 1984, the institute received a \$3 million federal endowment to support its policy development activities.

### NEW HAMPSHIRE

Federal funding of research at the University of New Hampshire over the 10-year period increased from \$6,530,000 in fiscal year 1977 to \$15,813,000 in 1987, a 142-percent hike. Meanwhile, state support increased from \$654,000 to \$1,083,100, up 66 percent. Specific studies that

## *Researchers are investigating problems such as child abuse and Narragansett Bay pollution*

benefit from federal research funds include:

- A new Institute for the Study of Earth, Oceans and Space, unique in New England, brings together oceanographers, biologists, physicists, engineers, mathematicians and earth scientists, who attempt to view problems and solutions globally.

- A Family Research Laboratory has received nearly \$1 million in federal research grants and contracts to study the elderly, child abuse, the status of women and other family related sociological problems.

- The Human Nutrition Center conducts research on the relationship between nutrition, exercise and health. As part of this effort, aided by a major grant from the National Institutes of Health, an interdisciplinary team of UNH scientists is studying how a cancer cell develops.

### **RHODE ISLAND**

At URI, federal research and development funding increased from \$13,258,700 in 1977 to \$23,506,700 in 1987, up 77 percent. Meanwhile, state funding rose 67 percent, from \$1,130,500 in 1977 to \$1,888,600 in 1987.

Recipients of large grants included marine sciences (oceanography, atmospheric chemistry); engineering (robotics, design for assembly, ocean engineering); and resource development (coastal resource management, fisheries). Examples of specific projects:

- Robotics research began at URI in 1971 and was expanded four years later when the National Science Foundation provided \$1.1 million in long-term funding. In 1980 the program was expanded so that basic research results could be applied to problems associated with the introduction of advanced automation and robotics into industry.

- With funding from the Small Business Administration, URI operates a Small Business Institute Program, which provides business students, at both the graduate and undergraduate levels, opportunities to experience the problems and challenges of small business management by working as interns at firms throughout the

state.

- Undergraduate and graduate engineering students can work on major research projects funded by the U.S. Navy at the Naval Underwater Systems Center in Newport. The Navy has supported the program over the past three years with more than \$1 million.

URI also participates in the federal sea-grant program; it is one of the program's original institutions. University researchers are currently involved in developing new seafood products, analyzing pollution in Narragansett Bay and studying coastal ponds. (For more information about URI and New England sea-grant programs, see the Fall-Winter 1987 issue of *Connection*: "Sea Grant Contributes to Marine Economy.")

### **VERMONT**

At the University of Vermont, federal research and development funding increased 126 percent, from \$9,157,300 to \$20,680,000 over the past decade, while state funding grew a modest 9 percent, from \$93,900 to \$102,000.

A year ago, the National Science Foundation awarded a \$2.5 million matching grant to strengthen basic scientific research at UVM and Middlebury College. This resulted in the creation of EPSCoR — the Vermont Experimental Project to Stimulate Competitive Research, administered at UVM. The program is part of a plan to make the two institutions statewide "knowledge bases" that can provide research assistance and advice to industry throughout Vermont.

UVM and Cornell University recently received an award from the National Dairy Promotion and Research Board (a privately administered agency funded by the U.S. Department of Agriculture) to expand basic and applied research efforts, develop new and improved dairy products and serve dairy processors and cooperatives. UVM's resulting Dairy Products Center has the support of the local dairy industry, backed by financial commitments from Milk Promotion Services, Inc. and the Vermont Dairy Industry Council.

□

**Next Issue: The future of New England's public land-grant universities**

---

# NELLIE MAE'S PROGRAMS SUPPORT ACCESS TO HIGHER EDUCATION

---

New England's institutions of higher education are among the most respected in the world and are a leading force in the economic vitality of our region. Nellie Mae is committed to supporting access to higher education for New England students through our programs and activities.

Nellie Mae's partnership with the lending community has contributed nearly \$500 million in education credit for New England students. Our secondary market activities assure the availability of loan capital to help all students finance their education at the school of their choice.

Our SHARE and EXCEL supplemental loan programs made over \$11 million available to help families finance education costs at participating colleges and universities. Nellie Mae is developing even more programs and services to help students and families meet today's college costs.

For more information on our programs please call us at 1-800-EDU-LOAN.

---

## Nellie Mae



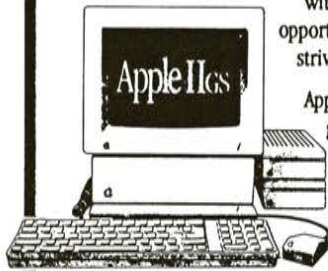
The New England Education Loan Marketing Corporation

50 Braintree Hill Park, Braintree, Massachusetts 02184

---

# PCR and Apple personal computers.

PCR and Apple computers can help persons with disabilities gain greater access to the world around them. For anyone who won't settle for being less than his or her best, Apple personal computers with special solutions from PCR can provide a new world of opportunity. For anyone with learning or physical disabilities who strives to excel, PCR and Apple Computers can be the catalyst.



Apple personal computers run thousands of educational programs used in school. They can help boost grades and enliven the learning process. Yet they're powerful enough to run the most sophisticated personal finance, business and home management programs.



Learn more about PCR's special solutions using Apple Computers for helping people with disabilities at any age gain more access to the world around them.

## To help persons with disabilities become more able.

Perhaps the most complete selection of Apple computers and compatible products in eastern Massachusetts.



*Apply for your  
PCR Express Credit.  
Instant credit up to \$2,500,  
no money down for  
qualified applicants.*

The power to be your best™.

PCR welcomes inquiries & suggestions from special education teachers and clinicians.



Authorized Dealer

Apple and the Apple logo are registered trademarks of Apple Computer, Inc. Macintosh is a trademark of Apple Computer, Inc.

# PCR Personal Computer Resources

45 Pond Street (Rt. 228 Off Rt. 3), Norwell, MA 02061, 617/871-5396

Hours: Monday, Wednesday, Thursday 'til 8:00, Friday 'til 6:00, and Saturday 'til 5:30. Closed Sundays.



# OUTSTANDING NEW ENGLANDER



## At Home in the Connecticut House

ELLIN ANDERSON

**W**ith Irving J. Stolberg, what you see and hear is what you get. Sitting in the plush lounge of a Boston hotel, with his immaculate suit and well-trimmed beard, he looks and acts both dignified and warm — part scholar, part diplomat. For the people of Connecticut, that has proved to be a winning combination.

At 51, Stolberg is speaker of the Connecticut House of Representatives and president of the National Conference of State Legislatures, offices that exact significant diplomatic skills. And as a former college professor, he is not a stranger to the world of scholarship.

After a year of representing NCSL in meetings with state legislators across the country, Stolberg is uniquely qualified to assess New England's political leadership.

"Overall, I would say New England fares quite well," Stolberg says. "Generally, the leadership is not very extremist, it tends to be moderate, open-minded. One of the traditions in New England is mutual respect. You might find, in some other parts of the country, where views are more rabidly held,

that the views of others are not regarded as highly. The very strong economies in the New England states are not totally separate from the imagination and leadership that have been combined in the legislative bodies of New England."

When first elected a representative from New Haven 16 years ago, Stolberg entered the Connecticut House determined to crusade for education. He was to be disappointed.

"As a college professor, I felt that

I would be able to legislatively come up with comprehensive higher education reform," Stolberg relates. "As soon as I got to the legislature and began working as a member of the education committee, I realized the legislature is not the forum for making decisions in public higher education. Obviously, the legislature has to set the budget for public higher education. But the appropriate matrix for much of the decision-making is the higher education community itself."

Since that time, however, Stolberg has successfully worked to improve education generally. He backed the Education Enhancement Act, originally legislated in 1986 when the Connecticut House was controlled by Republicans and Stolberg, between terms as speaker, was minority leader. The act is designed to ensure that qualified professionals teach in Connecticut classrooms. Recently amended, it includes a formula for increasing teacher salaries over several years, a minimum statewide salary and alternative avenues to teacher certification.

"It's a classic piece of legislation that is testimony to the bipartisan cooperation in Connecticut, which exists more than in many other states," Stolberg says. "There is a working-together in Connecticut that you probably wouldn't see as much in Massachusetts, where the Democrats are clearly predominant."

He also backed a recently enacted bill that will establish a high-technology doctoral fellowship program, addressing the drastic undersupply of high-technology professors in Connecticut. Under this new law, Connecticut will annually award two state fellowships to a public university for every new state fellowship awarded to an independent school. Fellowships

Ellin Anderson is associate editor of *Connection*.



Connecticut House Speaker Stolberg

*“An educated population is essential to the continued well-being of our economies in the New England States.”*

will be funded equally by the state and corporations or other private-sector organizations.

So far this year, Stolberg says, the Connecticut General Assembly has experienced exceptional legislative leadership, with positive relationships between the House and Senate, Democrats and Republicans and between the legislature and the governor — and a significant budget surplus. Having all those stars in line bodes well for Connecticut. “In education in particular, but also in housing, day care, workplace issues and corrections, we’ve made monumental strides,” he asserts.

Although Connecticut is providing educational initiatives to improve urban minority graduation rates and access to higher learning, the speaker isn’t satisfied.

“In my opinion we’re not doing as much as we should be doing. Affirmative action,” he emphasizes, “is something that requires exceptional effort and dedication. The dropout rates in our inner cities are still inordinately high, and in many of our inner-city high schools

less than half the students that start finish. That’s not acceptable.

“I don’t want to say that just by spending more money and having more classrooms, and having a better teacher-pupil ratio, you’re going to solve the problem. I think it has to do with jobs, housing and a number of other social features, in addition to education in and of itself.”

One of Stolberg’s major legislative and personal interests has been international relations. “I think that the shrinking world is a reality, and our interrelationships and mutual interdependence are more vivid in virtually every aspect of life we have today,” he says. “Unless we have a well-educated group of leaders, both in the public and private sectors, we’re going to be in great difficulty.”

He feels it is vital for American

## How will he find the time?

The former college professor will receive a PhD in geography and African studies from Boston University once he completes his dissertation. But how will he find the time?

As Connecticut House speaker and, for the past year, president of the National Conference of State Legislatures, this 16-year veteran of the Connecticut General Assembly is constantly on the go. His post as NCSL president takes him all over the country, and his commitment to international issues takes him further afield — in March, to a three-day seminar on education in Australia, for example. An energetic and accomplished man, Irving J. Stolberg is more than equal to his grueling schedule, and even finds time to accommodate an interest in mineralogy.

While he is committed to Democratic Party causes such as affordable housing, environmental issues and consumer protection, Stolberg has earned praise from Republican leaders for his fairness and willingness to compromise. His political skills are well-known, and sometimes controversial. Don Noel, political columnist of the *Hartford Courant*, has called Stolberg “a consummate politician whose complex strategies have been described by both admirers and critics as Byzantine.”

Born in Philadelphia and raised in Los Angeles,

Stolberg attended UCLA, majoring in international relations. As an undergraduate, he spent one summer with the American Friends Service Committee working in a small orphanage in France, later building houses in an Austrian refugee camp.

He has represented the 93rd District in New Haven since 1971, and in January was elected Speaker of the House for the second time, having held the position from 1983 to 1984.

Formerly a professor of geography at Southern Connecticut State University in New Haven and at Quinnipiac College, Stolberg has served as president of the American Association of University Professors. He also founded American Federation of Teachers chapters at both institutions. A member of the executive committee of the Council of State Governments, Stolberg is past chairman of the Caucus of New England State Legislatures.

As to his future plans, Stolberg says: “I have a number of avenues, and at this point I wouldn’t close off any of them. I’m enjoying what I’m doing now. . . . I consider it the highest of honors to have been selected by my peers in the Connecticut House to serve as their speaker.”

— Ellin Anderson

# A Liberal Education — What Should It Be?

BY JONATHAN LAWSON

Senior Vice President for Academic Affairs and Dean of Faculty, University of Hartford

In recent years we have been riding the crest of a wave of careerism. That wave of singleminded concern with employment may be about to break, dissipate and disappear under itself, perhaps to come back at some future time.

There are beginning to be signs that the liberal arts are re-emerging. Eight years ago it was easy to find CEOs and presidents of corporations who favored a liberal arts preparation for future employees over a narrow, vocational or technical education. The CEOs were reading of studies at AT&T, GM and other corporations which showed liberal arts graduates advancing through corporate hierarchies as rapidly or more rapidly than people with a technical background.

What the friends of liberal education in the corporate community were *not* doing in the early eighties was telling their personnel officers to recruit and hire liberal arts graduates. There are some welcome signs that the situation is beginning to change.

Not long ago in Boston, Richard J. Franke, CEO and president of John Nuveen & Co., investment bankers of Chicago, made an articulate appeal to his corporate officers for liberal education for his employees and their children. Citing some of the same studies, he asserted that "short-term gratification from a vocational course of study that quickly lands a first job, pales when compared with a humanistic course that prepares one for life."

His belief is such that he has led his company to provide scholarships for children of employees *specifically* so that they would take a longer-term view of higher education and become liberally educated in addition to any career preparation they might pursue.

Franke's advocacy of a liberally educated workforce is not an isolated phenomenon. Other CEOs are speaking out and reference to liberal education is popping up in corporate strategy documents as well as the occasional annual report.

On my own University of Hartford campus, a two-year-long process of creating and adopting a campus-wide liberal education requirement was supported and at times actually led by members of the University's Board of Regents who include CEOs of major Connecticut enterprises. When you encounter the CEO of the Stanley Works out in front of a university faculty in the impassioned espousal of liberal arts programming, you can conclude that change is indeed afoot.

If I am correct in my reading of the trend and we are experiencing a renewed concern with what our



students not only will do but will be, then we should begin asking what a liberal education in the late 1980s is or *ought* to be.

The modern liberal arts curriculum ought to be based on integrative learning. It should expose the philosophy major to how a scientist tests truth, and to the ethical

dilemmas faced by the businessperson, scientist and engineer.

We live in a cultural context largely informed by our immediate surroundings and our history — by Western Culture. We must understand that.

We live in a culture surrounded by and informed by other cultures — social and intellectual. We must understand them.

We live surrounded by the arts. If we are to be fully human, we must understand them.

We live in a social context which we ignore at our own peril.

And we live in a scientific and technologic age which will be informed by our values, aspirations and beliefs — if we can understand it.

Only by the integration of knowledge, by understanding our similarities and differences, can we hope to remain remotely in charge of our world. So, while it ranges broadly amongst the fields of study, a liberal education must seek to integrate them — to bring the concern with values of the philosopher to the scientist and economist, to bring understanding of society and business to the artist and the humanist.

*Excerpted from an address to the 16th Annual Conference of the New England Transfer Articulation Association in April, 1987.*

**UNIVERSITY  
OF HARTFORD**

West Hartford, Connecticut 06117-0395



## When Illness or Accident forces a Student to CUT SHORT a Term . . .

### Who picks up the Financial Pieces?

Unexpected medical withdrawals can place a serious financial hardship on students and parents. Now, colleges and universities can offer the TUITION REFUND PLAN, a proven means of protecting one's investment in education.

While most colleges provide partial refunds for withdrawals, the refund policy generally expires 5 or 6 weeks into the term. This Plan takes over when the college refund schedule ends. It provides a 100% refund of term fees for medical (physical) withdrawal or a 60% refund for mental/emotional withdrawal throughout the term.

Escalating tuitions plus increasing requests from parents and colleges have led us to believe the Plan has a definite place in college finance.

Shouldn't you investigate the benefits of the Tuition Refund Plan? Write or call collect now.

ORIGINATORS OF THE  
TUITION REFUND PLAN

# DEWAR

Since 1930

A. W. G. DEWAR, INC.

286 CONGRESS STREET, BOSTON, MASSACHUSETTS 02210

AREA CODE 617 542-8796 542-8176

higher education to focus more on the study of contemporary foreign languages. "Spanish, French, German, Russian, Chinese, Japanese, are essential subjects for functioning in today's world," he says. "Our college graduates should be coming out of the institutions with at least one of those languages."

Stolberg has attended dozens of international conferences, led groups for the Experiment in International Living in Austria, Turkey, Tanzania and Nigeria, and conducted research in India and in Ethiopia. "I think it's a small enough planet that there's a wonderful opportunity today to get to know a good part of the world," he says.

Stolberg strongly supports regional collaboration in higher education and economic development. "Connecticut is committed to cooperation with our neighbors, and very pleased to have NEBHE as a framework for doing that, whether it's in veterinary science or high technology," he says. "In a region like New England, NEBHE becomes a natural matrix for cooperation of this sort."

Not surprisingly, Stolberg feels that Connecticut's institutions of higher education have been "vital" to the state's thriving economy. Like the rest of New England, Connecticut lacks agricultural and natural resources, elevating the importance of human capital.

"An educated population is essential to the continued well-being of our economies in the New England states," Stolberg says. "The fact that we're able to innovate, develop important service industries, retain and regain some manufacturing, develop as an area in the forefront of high technology development and play a role in international trade — all of these things really depend upon a technically trained and liberally educated population. Fortunately, in New England we have institutions, both public and private, which have contributed significantly to that process." □

# Education's role in a competitive America

THEODORE F. BROPHY

There are now serious questions about the ability of our nation to compete in the world marketplace.

In 1986, we ran up the largest trade deficit in our history — about \$170 billion. For more than 70 years, from 1914 to 1985, the United States was a creditor nation. Today, we are not only a debtor nation, but the largest debtor nation in the world. Why has this happened?

The relative competitive strength of any country is determined by a variety of factors: the productivity and attitude of its workers, the spending and savings habits of its citizens and the fiscal policies of its government.

But of all the yardsticks used to measure national competitiveness, none is more important in the long run than education. This has always been true to some extent. But education has now assumed an even greater significance, since more and more people are working with their heads rather than their hands.

The impact of education on the quality of the workforce was brought home to me time and time again during a trip I made to the Pacific Rim a little more than a year ago. Taiwan and Korea have all but eradicated illiteracy with vigorous campaigns to improve education, while in the United States 700,000 young people drop out of our schools each year, and another 700,000 who graduate from our high schools are functionally illiterate.

When I visited a GTE plant in Taiwan that manufactures telephone switching equipment, I found that almost 50 percent of the employees in the plant had college degrees, and 7 percent had PhDs — a remarkably high level. It is interesting that many of those people I met on my trip who had graduate degrees received them from American universities. Indeed, it is common practice for our competitors in

the Far East to look to American colleges and universities to educate their best and their brightest.

The problem is that at the same time we are helping to provide the world's best graduate-level education for our foreign competitors, we are providing young Americans with inferior education in our primary and secondary schools. It is this inferior quality in basic education that is seriously affecting — and will continue to affect — our national competitiveness.

How bad is the situation? Four years ago, a presidential commission shocked the nation with its warning that our country and our education system were being engulfed in what it called "a rising tide of mediocrity" in the schools.

It cited serious shortcomings in the quality and quantity of preparation in science and mathematics, in writing and language skills and in the ability to reason and analyze. Moreover, results of Scholastic Aptitude Tests show that American students' mathematical and verbal skills are far below the level of 20 years ago.

U.S. industry spends between \$30 and \$40 billion per year on education and training. In my company alone, we spend \$112 million per year. Much of this, of course, is devoted to equipping

employees with skills specific to a company or an industry. However, industry spends a substantial amount — estimates run as high as \$2 billion — to correct deficiencies in the education that employees received in America's educational system.

It has been estimated that nine out of 10 colleges and universities now are compelled to offer remedial courses, called "compensatory education," to help new students deal effective-



Theodore F. Brophy

Theodore F. Brophy is chairman and chief executive officer of GTE Corp., the international telecommunications firm that is headquartered in Stamford, Conn. This article is adapted from his address earlier this year at a corporate-collegiate luncheon sponsored by the New England Colleges Fund.

## Nation faces shortage of human resources

GTE Laboratories of Waltham, Mass., was sufficiently concerned about the role of public education in shaping America's position in a world economy to commission a nationwide survey assessing corporate attitudes toward competitiveness. One hundred R&D directors, representing firms chosen from among the nation's 500 largest industrial corporations, were interviewed and questioned about the technical competence of the U.S. workforce.

Results of the survey, which was conducted by the Opinion Research Corp. of Princeton, N.J., were made public earlier this year at the Museum of Science in Boston as part of National Technology Day. Findings included:

- A majority of respondents rated the U.S. technical labor force lower than the best, although still above average.
- While 44 percent of the respondents believe the level of technical competence of the U.S. workforce will increase, 55 percent believe the current level will remain unchanged (32 percent) or decrease (23 percent) over the next 10 years.
- Respondents were highly critical of the U.S. education system. Almost nine out of 10 (88 percent) felt that the U.S. educational system has deficiencies in specific areas. Most frequently mentioned were math, science and English at the secondary and college levels, poor basic education at the primary level, lack of motivation, low personal standards among students and poor teachers.
- Six out of 10 respondents feel the technological capabilities of Japan and West Germany currently surpass those of the United States. Reasons cited for these two nations' growth and strength included federal backing of industrial development, higher quality of education, elements in the national character of Japan and West Germany and the ability to apply technology to manufacturing.
- A majority of respondents feel the most effective way to approach and deal with the competitiveness issue is through joint public-private efforts.

Respondents who feel the United States will not have sufficient technical human resources to be competitive in the next decade most often cited a lack of training or practical education. Technical disciplines that respondents believe will experience a shortage of human resources in the 1990s include chemical, electrical, mechanical and petroleum engineering and computer science.

— E.A.

ly with college-level courses. The U.S. Department of Education reports that three out of five high school graduates admitted to college require remedial instruction of some kind. These young men and women are not the failures of our basic education system; they represent its successes. Yet even here we find what industry would term a defect rate of 60 percent. No business could survive long with that kind of product quality.

The poor quality of basic education in the United States is particularly troubling at a time when we are moving into an information age — a high technology age — in which the ability to utilize new knowledge will be critical for success even in basic industries.

There will be less manual labor required, and a much greater demand for technicians who can operate, maintain and program complex equipment. To be a successful international competitor, the nation will need an educated workforce that has mastered reading as well as oral and written communications skills, has a good understanding of fundamental mathematics, can reason and understand and, most important, has the ability to learn new skills as job requirements change.

All this will require a major change in the quality of our basic educational system. Failure to realize that fact — and to take corrective action now — will cost us dearly in both social and economic terms in the future. In addition to assuring quality education for our young people, we must find ways to deal with the problem of functional illiteracy among the Americans 17 years of age or older who are already in our workforce.

College educators may wonder what this has to do with them. Let me try to answer that question by first saying a little bit about the issue of quality as it has been faced by U.S. industry.

It is generally acknowledged that a number of U.S. industries have fallen behind overseas competitors in terms of product quality. It is also recognized by those who have worked in the field of quality that the long-run cost of providing high quality is lower than the cost of providing shoddy quality.

Industry has learned that the only cost-effective way to achieve world-class quality is to focus on

quality in every element of the business. That means emphasizing quality in staff work, in research and design, in manufacturing and in purchased components.

Few if any products are manufactured on a fully integrated basis in which a single company is responsible for everything from the production of raw materials to the marketing of finished goods. For that reason, industry usually relies on a large number of outside suppliers for components and raw materials.

A failure by any one of those suppliers to provide a quality product, even a minor component, can affect the quality of a complex and costly end product. I believe that educators in our colleges and universities are faced with just such a problem. They have been addressing it by carefully screening the students who apply for admission. This is equivalent to retesting components delivered to one of our plants to make sure that they meet the specifications to which they were ordered.

Industry has learned that it has to assume the responsibility for seeing that suppliers meet its quality standards. This means qualifying suppliers by going into their plants, examining their processes and manufacturing procedures, checking their quality control systems and then actually helping them solve quality problems.

A study of our primary and secondary schools reveals a number of serious quality defects that have to be corrected. We need greater order and discipline in the classroom, a higher level of performance standards and expectations and more rigorous course content in all disciplines.

The needed improvements can be achieved successfully, but only if they are implemented in ways that accord with our national character and traditions, and that respect the pluralism and diversity that is peculiar to our system of education.

I realize that the causes of our educational defects are numerous. They derive in part from the breakdown of the American family, and a lack of the parental support that exists in other countries. We also must cope with the diversity of American society, and the need to absorb a wide variety of peoples with different languages, cul-

## Fund seeks increase in corporate support

"Corporate ties to education have become more complex over the past 10 years," says Harry Herrick, executive director of the New England Colleges Fund. "And corporate contributions programs have experienced dramatic changes in their general level of sophistication," he adds. "The New England Colleges Fund recognizes these changes and strives to work within them.

"NECF's objective is to raise corporate support for 29 independent liberal arts colleges in New England," Herrick notes. "But we know that such support is not forthcoming without communication, an appreciation each side develops for the needs of the other. That is the goal of our annual Corporate-Collegiate Luncheon — to bring New England's leading business executives together with the presidents and officers of our member colleges, and to foster interchange on a range of topics of mutual concern."

The New England Colleges Fund's 29 members are a diverse group. Colleges that have traditionally served primarily local students unite with colleges that attract students from across the nation. "Ours is a cooperative organization," says Herrick. "Member colleges, through NECF, focus on the betterment of independent higher education in the region as a whole, not on individual advantage."

Corporate grants to NECF are undesignated, and funds are allocated to the member colleges on a formula basis. Fifty percent of NECF's grant income is divided equally; the remaining 50 percent is divided in proportion to the number of liberal arts degrees each school awarded the previous year.

Since its founding in 1953, the New England Colleges Fund has raised more than \$26 million for its member colleges, including \$1.27 million from 455 donors in 1986. Contributions are for unrestricted operating support; however, colleges report that the vast majority of their NECF allocations go for student scholarships and financial aid.

Members of the New England Colleges Fund are: Amherst, Bates, Bowdoin, Brandeis, Clark, Colby, Connecticut College, Dartmouth, Fairfield University, Gordon, Hampshire, Holy Cross, Merrimack, Middlebury, Mount Holyoke, Providence, Radcliffe, Regis, Saint Anselm, Saint Michael's, Simmons, Smith, Stonehill, Trinity, Tufts University, Wellesley, Wesleyan, Wheaton and Williams.

— E.A.

*“Of all the yardsticks  
used to measure  
national competitiveness,  
none is more  
important in the  
long run than  
education.”*

tures and economic and social backgrounds. In addition, there are the problems of the increased use of drugs and changing ethical standards.

The deterioration of our basic education system has developed over a substantial period of time, and cannot be corrected overnight. However, it seems to me that both the business and college communities could be *more aggressively involved* in the effort to improve primary and secondary education in the United States.

Our colleges and universities occupy a recognized position of leadership in the American system of education. They are not only centers of learning; they train the teachers for our schools. The quality and adaptability of our basic education will be determined in large measure by the care with which prospective teachers are selected and prepared. Institutions of higher education can also play an influential role in developing standards for curricula and course content that will make learning in our primary and secondary schools a more stimulating and rewarding experience for our young people.

Business has taken some small steps in an effort to improve the quality of basic education. Various companies have tried adopting schools, sponsoring career-planning seminars, donating advanced equipment to schools and participating in work-study programs. Business has also become involved in helping teachers improve their skills. A typical example is a GTE program under which outstanding math and science teachers in junior and senior high schools receive grants to aid their professional advancement and upgrade math and science teaching in their schools.

But there is an urgent need for greater involvement by business and higher education. I don't possess either the knowledge or the experience

to outline a plan of action. But I do know that time is running out.

It is alarming that the pool of people from which business draws its managers and workers, and from which colleges and universities draw their students, is shrinking. In 1992, only 3,200,000 people will turn 18. That is 40 percent below the peak reached in 1979.

We must make sure that all the human resources available to the nation are given the opportunity to achieve their full potential. We cannot think in terms of educating only an elite few. Our competitive strength will depend on the degree to which we succeed in providing all our people with the learning tools they require to be contributing, productive members of society.

Business and higher education have combined their efforts in the past to provide Americans with the highest standard of living in the world. They have cooperated successfully to enhance the quality of life in the United States and throughout the world.

Now the nation faces a new and extremely formidable challenge. The word "survival" is not too strong to describe the situation that confronts us. We will not continue to enjoy either our present standard of living or our present quality of life unless we prepare ourselves to compete successfully on a global basis.

Quality education, keyed to the demands of constant change, should be an essential element in that preparation. Achieving our goal is not the sole responsibility of any one group or segment of society. It is a task that requires the energy, dedication and creative efforts of all Americans, working together. But those who represent the best in higher education have a special opportunity to lead the effort. □



# Family Ties



## Macintosh Plus

- standard keyboard
- 9" monochrome monitor
- standard mouse
- \*Hard Disks 20, 40, 80
- \*2MB Memory Expansion Kit

\*optional

## Macintosh SE

- standard or extended keyboard
- 9" monochrome monitor
- desktop bus mouse
- \*Hard Disks 20, 40, 80
- \*2MB Memory Expansion Kit
- Expansion Slot

## Macintosh II

- standard or extended keyboard
- 12" monochrome monitor
- \*13" color monitor
- desktop bus mouse
- \*Internal Hard Disks 20, 40, 80 plus external, plus internal 800K
- \*IMB & 2MB Memory Expansion Kit
- \*68851 PMMU upgrade



Apple® Computer introduces a family of automation solutions for colleges and universities: the Macintosh™ product line! From the Macintosh Plus, to the Macintosh SE, to the Macintosh II, Apple provides powerful and exciting solutions for student, faculty, and administrative applications. All of these computers run the existing Macintosh software including the university-developed Kinko's Academic Courseware. You can further support your existing computer base with Macintosh II and software to interconnect with MS-DOS, UNIX, DEC, and IBM mainframes so your entire environment can share information. So no matter what the needs of your college, from word processing to desktop publishing; from research and development to desktop communications, the Macintosh family can provide you with every element every step of the way. Apple continues its long-standing commitment to education and brings you affordable, flexible and high-performance solutions. Contact Apple today at 617-481-2840 for more information about how our family ties can benefit you.

The power to be your best.™



©1987 Apple Computer, Inc. Apple and the Apple logo are registered trademarks of Apple Computer, Inc. Macintosh is a trademark of Apple Computer, Inc. DEC is a registered trademark of Digital Equipment Corp. IBM is a registered trademark of International Business Machines Corp. MS-DOS is a registered trademark of Microsoft Corp. UNIX is a trademark of Bell Labs.



## PEOPLE

# New England's Higher Education Board

LAURIE ORTYL

**W**ith the selection of 16 delegates earlier this year, the roster of the 48-member New England Board of Higher Education now includes two former governors, 12 college presidents, five state legislative education committee chairmen — including one who produces Broadway plays on the side — the speakers of the New Hampshire and Rhode Island Houses and a former NEBHE chairman from Maine.

Eight board members represent each of the six New England states and are appointed in accordance with their respective state laws.

Annually, NEBHE elects from its membership an executive committee consisting of a chairman and treasurer and six vice chairs, one from each state. In addition, each state delegation elects its own chair.

New board members from **Connecticut** are:

● *John Casteen III*, president of the University of Connecticut. A Virginia native, Casteen served as Virginia's secretary of education from 1982 to 1985. He is former dean of admissions at the University of Virginia, where he earned his bachelor's, master's and PhD degrees. Casteen is chairman of the

College Board. He was appointed to NEBHE by Connecticut House Speaker Irving Stolberg.

● *Rep. William J. Cibes, Jr.*, deputy speaker of the Connecticut House and a professor at Connecticut College in New London. Cibes was appointed to the board by Speaker Stolberg.

● *Elizabeth Zorn Mettler*, of Hampden. Mettler is former legislative chair of the Connecticut Association of Boards of Education and chaired the Hampden Board of Education from 1979 to 1981. She was appointed to NEBHE by House Speaker Stolberg.

● *Frank J. Muska*, dean of personnel administration at Western



Mettler



Sullivan

Connecticut State University. Muska earned a PhD in labor law at Fordham University, and has chaired the law program at Western Connecticut's school of business. He was appointed to NEBHE by Connecticut Senate President John Larson.

● *Sen. Kevin B. Sullivan*, co-chair of Connecticut's joint education committee and a former legislative

liaison for the Connecticut State Department of Education. Sullivan served as mayor of West Hartford from 1981 to 1987. He was appointed by Senate President Larson.

● *Stephen Joel Trachtenberg*, president of the University of Hartford. Trachtenberg is chairman of the Connecticut Conference of Independent Colleges and a former vice president of Boston University. He was appointed to NEBHE by the senate president.

Other members of NEBHE from Connecticut are: Commissioner of Higher Education *Norma Foreman Glasgow* and *Robert E. Miller*, president of Quinebaug Valley Community College. Glasgow chairs Connecticut's NEBHE delegation.

New board members from **Maine** are:

● *Eve Bither*, Commissioner of Maine's Department of Education and Cultural Services. A native of Czechoslovakia, Bither is former superintendent of Freeport schools and was an assistant superintendent of Portland schools. She succeeds former Commissioner Richard Redmond as a member of NEBHE.

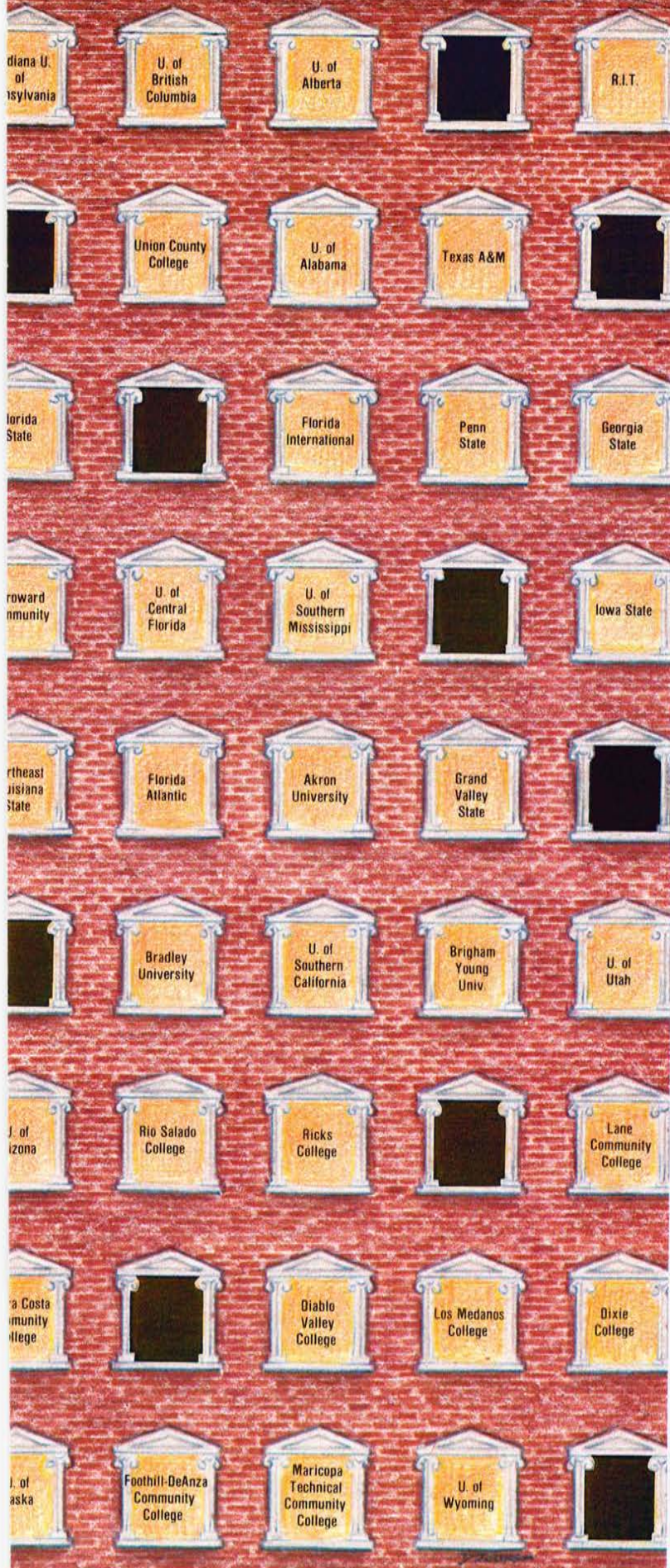
● *Sen. Stephen C. Estes*, co-chair of the Maine Legislature's joint committee on education. Estes, who is serving his first term in the Maine Senate, also serves on the state's joint standing committee on legal affairs. He was appointed to NEBHE by Maine Senate President Charles Pray.

● *Bennett Katz*, former three-term NEBHE chairman. Katz is president of Nicolson and Ryan Jewelry Store in Augusta. He is former majority leader of the Maine Senate, where he served as co-chair of the joint committee on education. Katz was appointed to the board by Maine Gov. John McKernan.

● *Sandra J. Kearns*, of Kennebunk. Kearns, who earned a doctorate in developmental psychology from UMass-Amherst, teaches at the

Laurie Ortyl is executive assistant to NEBHE President John C. Hoy and a staff writer for *Connection*.

# STUDENT REGISTRATION



# TeleStudent™ lights up your registration.

An exciting era in error-free registration is here. Perception Technology's TeleStudent is an automated telephone registration system that provides an efficient and economical method for your students to register from any touch-tone telephone, anytime, anywhere in as little as 3 minutes.

**As Simple As 1-2-3.** Powered by Perception Technology's interactive voice response technology, TeleStudent allows your students to enroll, add and drop classes, and obtain class listings simply by using the keys on any touch-tone telephone.

TeleStudent prompts each caller for touch-tone input, verifies every entry, and guides the user through the entire interaction in a friendly, natural voice—all without staff intervention.

**Control Your Costs.** Not only is it convenient, but it's economical, too. TeleStudent expands your institution's operational hours without incurring additional overhead costs. The only terminals required are already in place—your students' dorm, home or office touch-tone telephones.

**An Invitation.** Perception Technology, the leader in telephone registration systems, invites you to join our growing chronicle of institutions in the limelight. Call Bob Hailer at (617) 821-0320 for an appointment to discuss your automation needs.

In Canada call (416) 671-2298.

## PERCEPTION TECHNOLOGY

Shawmut Park  
Canton, MA 02021-1409  
(617) 821-0320 TLX 948146 PTC CTON

*The Leader in Information Response Technology*

University of Southern Maine. She was appointed to the board by Gov. McKernan.

Other NEBHE board members from Maine are: *Robert L. Woodbury*, chancellor of the University of Maine System; *Richard Barringer* of Augusta; *Rosalyn S. Bernstein*, director of the Maine Commission on the Bicentennial of the U.S. Constitution; and *Rep. Nathaniel J. Crowley, Sr.* of Stockton Springs, co-chair of the Maine Legislature's joint committee on



**Kearns**      **Estes**  
economic development. Crowley is NEBHE's vice chair from Maine, while Woodbury chairs the state's delegation.

New board members from **Massachusetts** are:

● *Sen. Richard A. Kraus* and *Rep. Nicholas A. Paleologos*, co-chairmen of the state's joint committee

on education. Kraus, of Arlington, is former administrative dean at Harvard University's Graduate School of Arts and Sciences. He also serves on the human services and elderly affairs, taxation and counties committees. Paleologos, a graduate of Tufts and Harvard's Kennedy School of Government, was elected to the Massachusetts House at age 23. In 1985 he was named legislator of the year by the Massachusetts Municipal Association. In his spare time, he collaborates on the production of Broadway plays, which have won 11 Tony Award nominations. Kraus and Paleologos were appointed to NEBHE by Massachusetts Gov. Michael S. Dukakis.

Joining them as members of the Board from Massachusetts are: *Jean Mayer*, president of Tufts Uni-



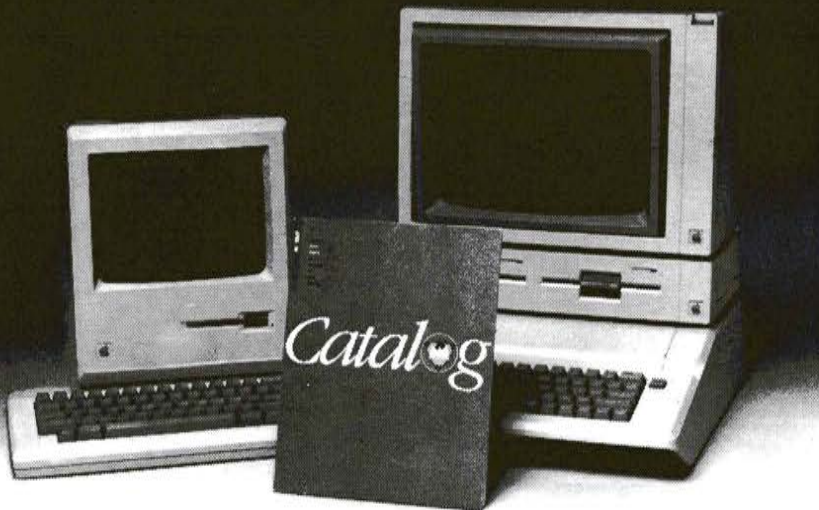
**Paleologos**      **Kraus**

versity, serving his third term as NEBHE chairman; *Janet G. Robinson*, vice chancellor of student affairs for the state board of regents; *Franklyn G. Jenifer*, chancellor of the Board of Regents of Higher Education; *George F. Morrissey*, a lawyer with the firm of Ravech, Aronson & Shuman in Boston; and *Betty Taymor*, director of the Program for Women in Politics and Government at Boston College. Robinson chairs the state delegation while Rep. Paleologos is a vice chair of the board.

New board members from **New Hampshire** are:

● *Rep. W. Douglas Scamman, Jr.*, speaker of the New Hampshire House of Representatives. A New Hampshire native, Scamman is the owner and operator of Bittersweet Dairy Farm in Stratham. A graduate of the University of New Hamp-

# Let your students ACE the course.



ACE means Academic Courseware Exchange. It also means a more rewarding learning experience for your students.

Kinko's, the educational service company, now lets you add innovative academic computer software to your regular course materials—arts, humanities and science programs developed at colleges and universities, nationwide.

There's courseware available for both Macintosh™ and Apple® II personal computers. And at \$8 to \$25 per package, courseware costs no more than regular college texts.

For your free catalog, call 800-235-6919 (In California, 800-292-6640). Or better yet, call or stop by our store. You and your students will be glad you did.

## kinko's

In Vermont:  
Burlington (802)658-4228

In New Hampshire:  
Durham (603)868-6322

In Massachusetts:  
Amherst (413)253-2543  
Boston 1 (617)491-2859  
Boston 2 (617)497-4111  
Boston 3 (617)497-0125

In Connecticut:  
Hartford (203)233-8245  
New Haven (203)782-6055

In Maine:  
Auburn (207)782-8911  
Portland (207)773-3177

## Each state has eight board members

The New England Board of Higher Education was established in 1955 by the New England Higher Education Compact, a formal agreement of the six state governments that was ratified by the U.S. Congress.

Each of the six states has eight representatives on the board. They become members by virtue of their positions or are appointed by various state officials, depending on the enabling legislation enacted by each state.

In **Connecticut**, the governor appoints two delegates, each for a six-year term. The senate president appoints three: one senator and two residents, each for a two-year term. The speaker of the house also appoints three delegates: one representative and two state residents, also for two-year terms.

In **Maine**, the governor appoints four delegates, each for a two-year term. The speaker of the house appoints one representative and the senate president appoints one senator, each for an unspecified term. The chancellor of the University of Maine and Maine's commissioner of education serve on the Board by virtue of their offices.

The governor of **Massachusetts** appoints to the board all eight state delegates, including one senator, one representative, one public college president, one independent college president and two state residents. The chancellor of Mas-

sachusetts higher education regents serves by virtue of the office.

In **New Hampshire**, four of the state's eight seats are always filled by state higher education administrators. The chancellor of the University of New Hampshire System and the presidents of the University of New Hampshire, Keene State College and Plymouth State College all automatically serve on the board. The governor of New Hampshire appoints one state resident and one representative from a New Hampshire independent college, each for a four-year term. The speaker of the house appoints one representative and the senate president appoints one senator, each for a four-year term.

The **Rhode Island** Higher Education Assistance Authority appoints four state residents to the board, each for a three-year term. Rhode Island's lieutenant governor appoints two senators and the speaker of the house appoints two representatives, each for an unspecified term.

In **Vermont**, the governor appoints three NEBHE delegates, the Vermont Council of Education appoints one delegate, the senate president appoints one senator and the speaker of the house appoints one representative, all for unspecified terms. The chancellor of Vermont State Colleges and the president of the University of Vermont also serve on the board by virtue of their offices.

— L.O.

shire, he appointed himself to NEBHE.

● **Judith A. Sturnick**, who assumed the presidency of Keene State College in August. Sturnick is former president of the University of Maine at Farmington.

Also on the Board from New Hampshire are: **Gordon A. Haaland**, president of the University of New Hampshire; **William Farrell**,

president of Plymouth State College; **Walter Peterson**, president of Franklin Pierce College and a former governor of New Hampshire; and **Claire Van Ummersen**, chancellor of the University of New Hampshire System. Haaland chairs the state delegation, while House Speaker Scamman is a NEBHE vice chair.

**Rhode Island's delegates to NEBHE**, who were all named to the board before 1987, are: **William T. O'Hara**, president of Bryant College, who has been NEBHE's treasurer since 1982; Deputy House Majority Leader **Paul V. Sherlock**; **Eleanor McMahon**, commissioner of higher education; **Bernard V. Buonanno, Sr.**, chairman of New England Container Co. in Smith-

## UMass raids Harvard, Federal Reserve

Two recent appointments have strengthened the business and economics programs at the University of Massachusetts-Amherst.

Harvard's chief financial officer has been named dean of the management school, and a former member of the Federal Reserve Board will become a part-time faculty member.

**Thomas O'Brien**, chief financial officer at Harvard University since 1977, assumed leadership of the UMass-Amherst School of Management in October. O'Brien is a 1960 graduate of Tufts University, and received master's and doctoral degrees from Cornell University. Before joining the Harvard staff in 1975, he was Massachusetts state director of planning and management.

The UMass Management School was established in 1947, and currently enrolls 2,000 undergraduates and more than 250 graduate students. It houses the Massachusetts Small Business

Development Center and a new Institute for North American Trade Relations, which will conduct research on U.S. trade with Canada.

Next year, internationally recognized economist **Andrew F. Brimmer** will join the faculty as a part-time professor of economics. In addition to teaching, Brimmer will counsel graduate students and host student interns at the Washington economic and financial consulting firm he founded in 1976, Brimmer & Company Inc.

Originally from Louisiana, Brimmer attended the Tensas Parish Training School for Blacks, earned bachelor's and master's degrees from the University of Washington in Seattle, and a PhD in economics from Harvard. He was appointed to the Federal Reserve Board by President Lyndon Johnson in 1966, and has served as an economist at the Federal Reserve Bank of New York.



**Do homework after school.**

Just you, the hillside, and your fantasy. Not a single distraction. One job to do—getting this beautiful old thing back in shape—and the time to do it right. The company that helped make your new home possible agrees with your attitude. Do one thing and do it right. For over 65 years TIAA-CREF has been providing retirement plans to people in education, and only people in education. And that's why now, you're doing just what you want. Exactly where you want. Precisely the way you want.



**Ensuring the future  
for those who shape it.<sup>sm</sup>**

*TIAA-CREF can help your dreams come to life.  
For information about our retirement plans  
and other products call 1 800 842-2733.*



field; *Sen. David R. Carlin, Jr.*, chair of the Senate Finance Committee; *Sen. Victoria Lederberg*; *John E. Madigan*, executive director of the Rhode Island Higher Education Assistance Authority; *Robert J. McKenna*, president of the Rhode Island Independent Higher Education Association and director of college relations at Salve Regina-The Newport College; and *Rep. Matthew J. Smith*, speaker of the Rhode Island House. *Rep. Sherlock* is a NEBHE vice chair, while *McMahon* chairs Rhode Island's NEBHE delegation.

New board members from Vermont are:



Hoff



Scamman

● *Rep. Paul W. Hannan*, a member of the House judiciary committee. Hannan is owner of Roundtop Surveying, Inc., a land surveying company in Derby Line. He earned a bachelor's degree at Williams College and also graduated from Syracuse University's College of Forestry. Hannan is director of the Northeast Vermont Development Association. He was appointed to NEBHE by Vermont House Speaker Ralph Wright.

● *Sen. Philip Hoff*, former governor

of Vermont, chairs the Vermont Senate education committee. He served as Vermont's governor from 1963 to 1969 and was appointed to NEBHE by Vermont Lt. Gov. Howard B. Dean.

Other members of the Board from Vermont are: *Hilton Wick*, a Burlington attorney; *Charles I. Bunting*, chancellor of the Vermont State Colleges; *Lattie Coor*, president of the University of Vermont; *David M. Otis* of Montpelier; *Sister Janice Ryan*, president of Trinity College in Burlington; and *Maj. Gen. W. Russell Todd*, president of Norwich University.

## New presidents at New England Colleges

Presidential appointments at New England colleges and universities during the summer of 1987 include:

Oregon physician **Leonard Laster**, a former assistant U.S. Surgeon General, was named chancellor of the UMass Medical Center in Worcester. He succeeds acting chancellor James Dalen. Laster earned bachelor's and medical degrees at Harvard University, spent 15 years in the U.S. Public Health Service in Washington and served as president of the Downstate Medical Center of the State University of New York before becoming president of the Oregon Health Sciences University in 1978.

**Patricia R. Plante**, former provost and vice president for academic affairs at Towson State University in Maryland, became president of the University of Southern Maine in July. She was born in Waterville, Maine, and graduated from St. Joseph's College in North Windham, earning a master's degree from St. Michael's college and a PhD in English from Boston University.

**George P. Connick**, interim president of the University of Maine at Augusta since 1985, was appointed permanent president by the Maine university system's board of trustees. Connick attended Stanford University as an undergraduate, received a master's degree from San Jose State University and a PhD from the University of Colorado, Boulder. He had held various posts at USM since 1966.

**Phillip R. Day, Jr.**, president of Dundalk Community College in Maryland, has been chosen president of Cape Cod Community College. He replaces James Hall, who resigned in April. Before his appointment at Dundalk in 1982, Day was vice president for educational affairs at Piedmont Technical College. He earned an associate degree from Jamestown, N.Y. Community College; a bachelor's degree from the University

of Maine; a master's degree from the State University of New York at Buffalo; and an EdD from UMass-Amherst.

**Judith A. Sturnick**, president of the University of Maine at Farmington, became president of New Hampshire's Keene State College in August. She had been president at Farmington for four years. Sturnick replaces Barbara J. Seelye. Prior to her presidency at UMaine-Farmington, Sturnick was vice president and chief academic officer at Southwest State University in Marshall, Minn. She holds a bachelor's degree in English from the University of North Dakota; a master's degree in English from Miami University, Ohio; and a PhD in English from the Ohio State University.

New Hampshire College has a new president: **Richard A. Gustafson**, currently vice president for academic affairs at Keene State College. He has served in various faculty and administrative posts at Keene since 1973, and has previous experience at the University of Connecticut and Stanford University. Gustafson earned bachelor's and master's degrees from Boston University and a PhD from UConn. He is also a graduate of the Institute for Educational Management, Harvard University.

**Jonathan M. Daube**, president of Berkshire Community College in Pittsfield, Mass., since 1978, will become president of Manchester Community College in Connecticut in October. A native of Great Britain, Daube holds degrees from the University of Aberdeen, Scotland; the University of London; and Harvard University. Before coming to Berkshire, Daube was director of graduate programs in education at the Union Graduate School in Ohio. He is presently a member of the Massachusetts Corporation for Educational Telecommunications.



# *How to get out of building maintenance and back into building minds.*

If it seems you've started worrying more about how well the air conditioning runs than how well things in the classroom are running, then you need to put ServiceMaster to work.

We're education's largest supplier of management support services for maintenance, custodial, grounds care and food service.

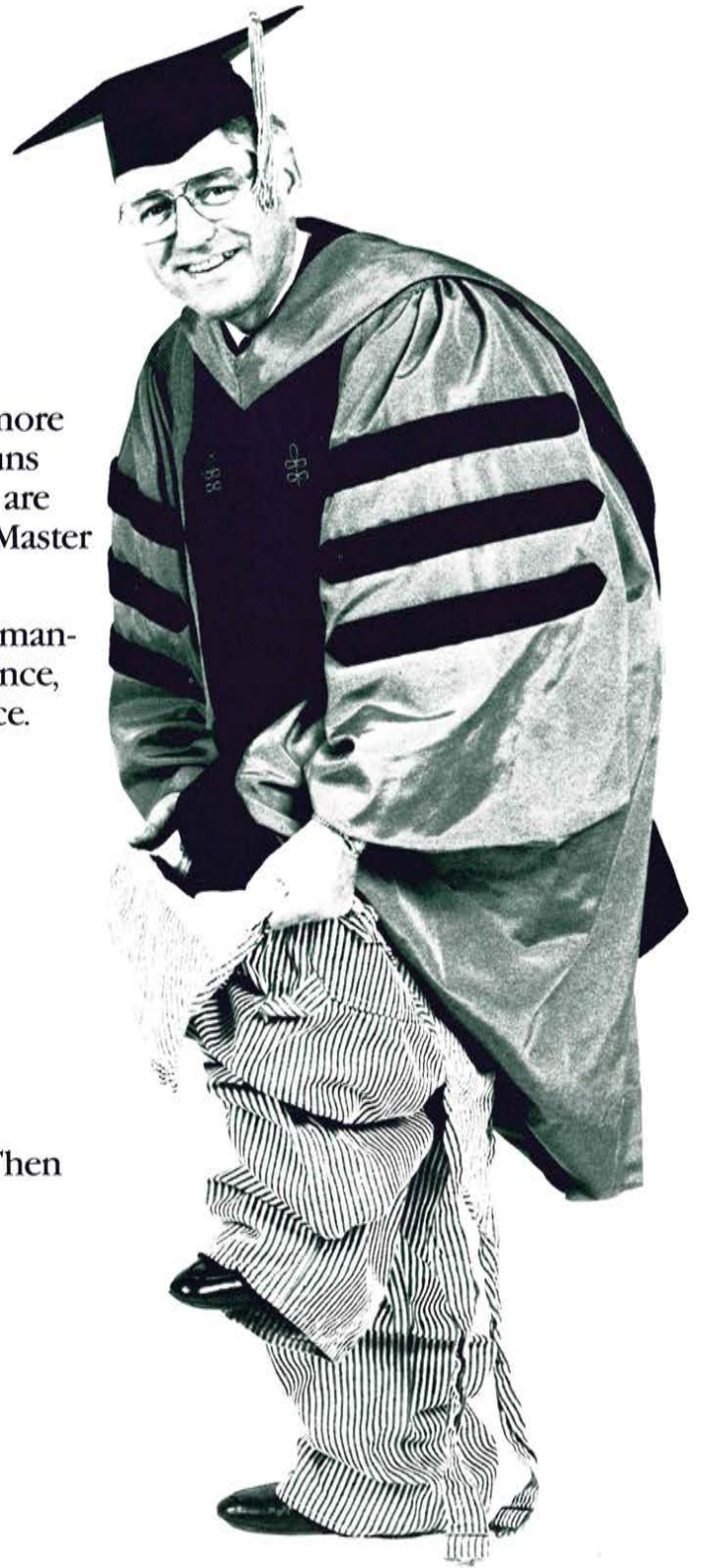
It's our job to see that your air conditioning works, that the grass is cut, that tasty meals are served, and that routine maintenance checks are made with precision.

We do this all while helping to contain your budget. And we do it with your current staff plus our professional management team.

Call us toll-free at 1-800-225-0477. Then you can get on with the bigger job of building minds.



East Management Services  
40 Accord Park Drive  
Norwall, MA 02061  
1-800-225-0477



# Making money on college services

B.J. ROCHE

At the University of Hartford, work is under way on a \$20-million addition to the college library, scheduled to open in September 1988. The building will house a museum of political memorabilia, a theater and a bookstore, which is being built by Follett/United, the New England subsidiary of the Follett Corp. — the nation's largest contract management bookstore company. As part of the agreement, Follett has a 20-year contract to operate the bookstore, which currently has annual sales of about \$2 million, according to Follett/United President Carl S. Rosendorf.

Last summer the Massachusetts Institute of Technology switched from self-managed food services to ARA Services, Inc., after several company representatives spent four months on campus, studying its facilities and analyzing the institution's needs. The investment of time and personnel resulted in a \$7 to \$10 million contract for the Philadelphia-based company.

Neither of these deals are everyday occurrences in higher education. Rosendorf admits that the University of Hartford arrangement is an unusual one for his company, and the prestige of the MIT contract warranted extra effort on the part of ARA Services. But both examples illustrate how far a firm is willing to go to stake its claim on campus. Welcome to the big-business world of contract managed services.



A student peruses possibilities in the Bryant College bookstore, which is managed by Follett.

England leads the country in the percentage of schools that use both contract managed bookstores and food services.

Clark estimates that about 75 percent of New England's colleges and universities use contract food services, in contrast to 50 percent nationwide. In bookstore management, some 85 colleges and universities, or 30 percent of the institutions in New England, use contract management to run their stores, according to Follett spokesman Richard Brill. That's almost double the national rate of 16.1 percent,

B. J. Roche is a free-lance writer who lives in Rowe, Mass.

Colleges have been using contract managers to run their food services and bookstores since the early 1960s. But industry observers say that in the next decade more and more institutions will be looking to the private sector for management help, not only in food services and bookstores, but in registration, security, and custodial services. Aggressive marketing by contract management companies, coupled with tight college budgets, make contract management look more attractive than ever to administrators.

Just how many colleges contract out for services depends on the service, according to Stan Clark, executive director of the National Association of College Auxiliary Services. But according to his and other estimates, New

## *Contract management can be a profitable way to run a bookstore.*

according to the National Association of College Stores.

Bookstore management is by far "the hottest part" of the contract management picture on college campuses today, Clark says. A recent study conducted by NACS found that the total number of contract-managed bookstores has more than doubled in the past five years, from 200 stores to 437.

New England, like the rest of the nation, is dominated by two large firms: the Chicago-based Follett Corp., whose subsidiary Follett/United serves more than 35 New England campuses, followed by Barnes and Noble of New York City, which declined to cite its New England figures. Brennan College Service, a smaller firm based in Springfield, Mass., serves 22 mostly smaller New England institutions.

Clark feels there are two reasons for the increase in bookstore contract management: Administrators see it as a sometimes profitable alternative to the "headaches" of running a bookstore and companies are honing their sales pitches.

"For a long time these companies were sleeping and they weren't paying attention to this kind of business," he says. "Now they're becoming more aggressive."

Contract management can be a tempting alternative for a school looking to get out of the bookstore business. The firms usually buy out the college's inventory, providing the institution with an often substantial infusion of cash. They may also refurbish the bookstore, at no cost to the institution. Management, employee relations and inventory all become the responsibility of the contract manager, not the college administration.

But there are trade-offs, says NACS director of professional development Cynthia D'Angelo. Along with the problems, stocking and pricing also become the domain of the contract manager.

"The loss of control is a controversial issue in the industry," she says. D'Angelo added that while there is no conclusive evidence, "informal studies have shown that prices on non-text items like clothing and school supplies are sometimes

higher in these stores."

Contract management is likely to spark a change in the role of college bookstores in the future. The goal for the contract managed bookstore is to make money, a goal that is hastening the evolution of the campus bookstore into what Follett's Rosendorf calls "student stores." Books are not high profit margin items, but there is money to be made in "soft goods:" sweatshirts and clothing, computer software and peripherals. Given that fact and the consumption consciousness of today's young people, bookstores are unlikely to ever again be thought of as merely textbook dispensaries.

"It's really a unique time, in that students are

### **New taxes threatened**

Colleges and universities may have new federal tax limits placed on commercial operations such as bookstores and food services.

In tempestuous congressional hearings last summer, higher education representatives were castigated for being unwilling to acknowledge that in selling such items as clothing, fast food and records they may be competing unfairly with small businesses.

Under current federal tax laws, non-profit entities such as colleges, hospitals and museums are allowed to operate tax-exempt businesses that are "substantially related" to the institution's primary mission.

Sales activities outside the scope of the institution's mission are subject to a special tax, commonly called UBIT — unrelated business income tax.

The federal Treasury Department has recommended to Congress several changes in the existing tax law. Hearings on the Treasury proposals, conducted by a House Ways and Means subcommittee in July, included what has been termed the strongest congressional criticism of higher education in years.

## *Fast food companies are the newest entries in the college management field.*

so demanding," says Terry Spencer, vice president for marketing of Brennan College Service. "They expect a store that looks like K-Mart."

Students may also expect dining services that look like Burger King or the eateries at the local mall. On some campuses, that's exactly what they're getting. Burger King has set up shop on the campus of Northeastern University in Boston, and a spokesman for McDonald's says that while there are as yet no golden arches on New England campuses, his company is "always willing to talk" with administrators. (McDonald's does have restaurants on half a dozen campuses nationwide.)

The fast food companies are the newer entrants in a field ruled largely by Saga Education Services, a Marriott company since its purchase by the Marriott Corp. in 1986, and ARA Services which serves some 40 New England campuses.

Although there is some disagreement as to whether it actually saves money, cost is the factor most often cited by colleges that have turned to

contract food services. Clark cites the number of smaller schools in the region as one reason why it is used so frequently in New England.

"The smaller schools are heavier into contract services because they often can't run a service economically themselves," Clark said.

Students appear to be the main beneficiaries of contract-managed food services, as companies custom design food services to fit the individual campus. Kosher and vegetarian food programs have become common on campuses, as are salad bars and so-called "special nights," when steak, prime rib or ethnic food is on the menu.

Companies are increasingly offering so-called "declining balance" food programs, in which students pre-pay a certain amount of money and receive credit cards that allow them to eat at any of the campus dining facilities, instead of only at their assigned dining halls.

A study conducted by officials at Boston University found that students were satisfied with the quality of the dining services but wanted more flexibility in the times and locations of eating places. The college now offers ARA's "Budget Plus" program, which allows students a certain number of prepaid meals in dining halls as well as "points" which they can spend like cash at other food outlets around campus.

Some colleges claim, however, that it costs more to have a food contractor on campus. Dartmouth College in Hanover, N.H., prefers to feed its 4,000 undergraduates on its own.

"It costs money to have contractors come in," says Ron Hiser, manager of financial systems at Dartmouth. "And whatever they make, it will cost the college more or the students more. If we ran an inefficient service, maybe we'd need it, but we're not inefficient."

Many contract management companies see higher education as a natural market for the kinds of services they provide to healthcare facilities. Once they have a higher education base developed, these companies are diversifying. ARA, which has been in the food services and vending business since 1959, is branching out into the custodial, maintenance and magazine distribution services. ServiceMaster Industries,

### **Contract management services studied by college stores group**

The National Association of College Stores neither opposes nor promotes the use of contract management, says NACS director of professional development Cynthia D'Angelo.

"Each situation is unique," D'Angelo said, "and our statement is that we support the structure of operation which is most appropriate for the long term, including institutional ownership, private management, contract management, and for-profit or non-profit subsidiaries. NACS is committed to helping people determine which is right for them."

In that effort, the NACS and National Association of College Auxiliary Services recently commissioned a study on the issue by Coopers and Lybrand. For a copy of the results of the study, "Corporate Structural Alternatives in Higher Education," write to NACS, 528 East Lorain Street, Oberlin, Ohio 44074.

## Campus dining includes lobster and bagels

At the University of Maine in Farmington, students in the dining hall are occasionally treated to a local delicacy: lobster. At Quinnipiac College in Hampden, Conn., students dine in a converted airplane hangar. Boston University offers the Turtle Express, where students may buy hamburgers, submarines and grilled sandwiches in a fast-food style outlet.

For food service companies, getting the contract is only half the battle. Once a company arrives on campus, it must satisfy the student's palate for something tasty and convenient. And it must compete for student dollars with the coffee shop just off campus or the all-night pizza joint that delivers.

As a result, food service companies have come up with an array of food products, services and promotional gimmicks. For example:

- Food carts. On the campus of Southern Connecticut State University, ARA Services' Bagel Wagon offers bagel sandwiches, pastries, snacks and beverages to an average of 500 customers a day. The bright white and blue wagon (painted to resemble a Philadelphia Cream Cheese box) is mobile and easy to spot. Service America, which serves seven New England campuses, including Quinnipiac, peddles hot dogs and beverages from its on-campus wagons.
- Do-it-yourself dining. Salad bars, make-your-own sandwich lines and microwave ovens are becoming more common in campus dining halls.
- Special Nights. Special foods, like steak, prime rib, or even lobster are offered occasionally, as are Mexican, Chinese and other ethnic foods, at one campus complete with musical accompaniment from the school band.
- Pizza parlors. ARA's Itza Pizza, an on-campus pizza parlor that delivers to dormitories, has outlets

on 100 campuses nationwide, with sales in 1986 topping \$7 million.

In addition to food products, contract managers are providing dining hall nutrition programs. ARA's "Treat Yourself Right" campaign offers foods choices that follow the American Heart Association's guidelines for healthy eating. The program includes promotional items like "Treat Yourself Right" buttons, posters and table tents.

If students enjoy the convenience of such services, local businesspeople are not always thrilled with the competition, particularly coming from a campus that does not pay property taxes. At Clarkson University in Potsdam, N.Y., local pizzerias claimed that their delivery business dropped 30 percent after Itza Pizza arrived on campus, and store owners demanded that the university close the business.

Food can be an important selling point for a college, says Brian Wiacek, director of food services at the University of Maine-Farmington. Wiacek works with the admissions office, sending out mailings to arriving freshmen each summer to introduce them to the food services system, and describing the advantages of living on campus.

Wiacek predicts a continuation of the "do-it-yourself" trend in campus dining services. And it looks like yuppies won't hold the monopoly on the "grazing" trend.

"Ten years from now I see a trend where students can make more of their own choices, like a "grazing" dinner, creating their own meals as they go along . . . Everyone's tastes are a little different, and they seem to have more fun with things they can choose themselves."

—B.J. Roche

## Ketchum, Inc.

*Founded in 1919, Ketchum, Inc. is the largest and most experienced firm in fund-raising, serving New England from our office in Boston. Ketchum services: direction of capital campaigns, planning studies, pre-campaign prospect cultivation programs, communications counsel, guidance in long-range development programs, internal audits of development programs, LIFEndowment, executive recruiting service, RSVP volunteer phonathons.*

Ralph W. Peterson, CFRE  
Senior Vice President  
Manager, New England Region

Robert D. Demont, Jr.  
Managing Director

Roger H. Wilson  
Executive Counsel

Ketchum, Inc.  
50 Milk Street  
Boston, MA 02109-5002  
617/482-6060

Ketchum Headquarters:  
Ketchum Center  
1030 Fifth Avenue  
Pittsburgh, PA 15219

Other Ketchum Offices:  
Charlotte, Chicago,  
Dallas, Los Angeles  
Ketchum Canada  
Toronto

*Ketchum, Inc.*

# Salve Regina

THE NEWPORT COLLEGE



## A TRADITION OF EXCELLENCE IN EDUCATION

*Salve Regina is a coeducational college of arts and sciences located along Newport, Rhode Island's historic seacoast.*

## UNDERGRADUATE ACADEMIC PROGRAMS

Accounting	Language
Administration of Justice	Management
American Studies	Mathematical Sciences
Anthropology	Medical Technology
Art	Music
Biology	Nursing
Chemistry	Philosophy
Computer Science	Physical Education
Economics	Politics
Education	Psychology
English	Religious Studies
French	Social Work
Geography	Sociology
History	Spanish
Information Systems	Special Education
Science	Theatre

## GRADUATE PROGRAMS

Administration of Justice  
Financial Management  
General Management  
Health Service Administration  
Human Development  
*Gerontology*  
*Holistic Counseling*  
*Human Development*  
*Management*  
International Relations  
Liberal Studies

Inquiries should be addressed to:  
Dean of Admissions  
Salve Regina - The Newport College  
Newport, RI 02840  
Tel. (401) 847-6650

Inc., the cleaning service company that currently holds contracts with some 150 U.S. colleges, offers four types of services to its higher education clients, including food service and grounds maintenance.

Security contract management is one area in which local and regional companies dominate, Clark says, although the larger firms of Brinks and Pinkerton are often used on urban campuses in "rougher" areas. Contract managed security is the smallest sector of the industry, with less than five percent of institutions nationwide using such services.

In the best of all possible worlds, there would be a service that would take care of course registration. Perception Technology of Canton, Mass. has come up with the next best thing: a voice-response computer system that allows students to register from anywhere in the country by a touch-tone telephone. The program is currently used on 30 campuses nationwide, according to Mary Farrell, marketing communications director, and several New England institutions have shown interest in the system.

Campus Graphics Company of Westborough, Mass., a joint venture of Follett and CopyQuik, provides contract management for college and university copy centers across the nation.

The new venture blends the service and reputation of two national leaders in facilities management. Follett is America's largest educational bookseller and college bookstore contract manager, with roots dating from 1873. CopyQuik is the nation's eighth-largest quick printing organization, founded in 1959.

Campus Graphics operates on-campus reprographic and photocopy centers with its own staff. The company provides all necessary equipment and supplies, eliminating the need for capital expenditures by the college and operating expenses. Campus Graphics pays all employee salaries and benefits, also providing all administrative supervision. It computer-monitors all jobs, from order entry to job completion and from invoice printing to costing by profit center or department. A trained repair staff and a 24-hour service network are also provided, along with modern replace-

## *Labor relations can be an issue when a college goes to contract services.*

ment equipment. At the end of each month, the college or university pays only one invoice based on a contract price per usable copy.

Of course, contract management is not for all schools in all areas. Larger schools may often find it more profitable to manage their own bookstores, and some contractors don't always fulfill their end of the agreement. Greenfield Community College in Greenfield, Mass., recently returned temporarily to in-house management of its security staff because of its dissatisfaction with the performance of the security contractor, according to superintendent of buildings and grounds, Edward Kelly.

"We were concerned that we weren't doing the job that was necessary to protect us from lawsuits," Kelly said. The college returned to a contract service this summer, Kelly said with a contract that provides better control over the hiring process.

Labor relations can become an issue when an institution goes to contract managed services. Employees usually find decreased wages and a

different working environment as a result of the change, says Clark of the NASAC.

"All of the employees who were college employees in most cases suffer some loss of pay, and in some cases, their jobs," he said. "You don't hear much about it, but let's face it, it's there."

In food services, Clark says, colleges that self-manage often pay higher wages and benefits than do contractors.

"When food companies come in, they knock those costs down to the standard food service pay-scale," he said. "That lowered labor cost is often a motivator for colleges to hire the food service group."

Still, as long as there are companies out there with services to sell, and colleges in search of ways to streamline costs and increase income, there will always be a place on campus for the contract manager.

Said one contract management executive: "The higher education market is today where health care was 20 years ago. I think we're just touching the tip of the iceberg."

FOR  
**INFORMATION**  
ABOUT  
Colleges, Careers and Financial Aid

CALL the Career And Learning Line  
1-800-442-1171



HIGHER  
**EDUCATION**  
INFORMATION CENTER

at the Boston Public Library, 666 Boylston Street, Boston, MA 02116

## Recognized For Excellence

**saint  
joseph  
college**

West Hartford, CT 06117

A SIX UNIT EDUCATION COMPLEX

Private Education  
in Service to Connecticut

# EDUCATION FOR A PROFESSION AND FOR LIFE



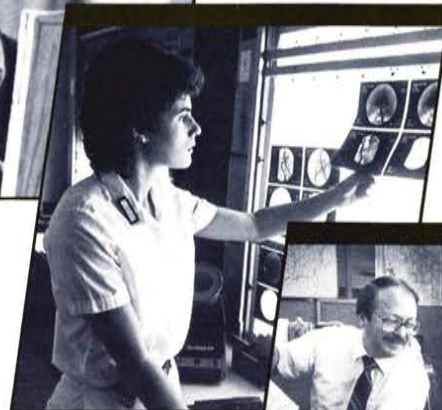
**Management**



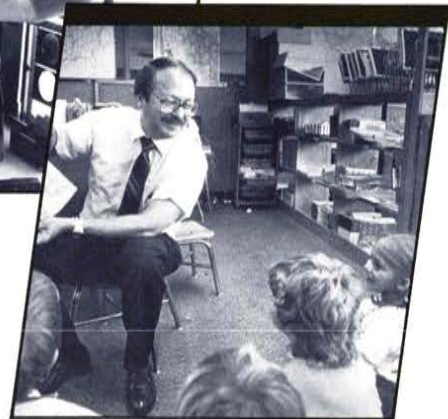
**Science and  
Technology**



**Liberal and  
Fine Arts**



**Nursing and  
Social Work**



**Education**

## At Rhode Island College...

More than 50 degree programs cover a wide range of academic and professional areas. Each program is built on a strong liberal arts foundation that will foster personal growth and development for life.

Rhode Island College has a dedicated and knowledgeable faculty whose first priority is teaching. The College offers a four-year honors program, work-study opportunities for credit, and a wealth of social and cultural activities.

The 125-acre campus is easily accessible to and from anywhere in the state and much of southeastern New England.

Tuition is competitive, and financial aid is available.

For further information call or write: Undergraduate Admissions Office, Rhode Island College, Providence, RI 02908, (401) 456-8234.



## RHODE ISLAND COLLEGE

Rhode Island College is committed to equal opportunity and affirmative action. No student, employee, or applicant shall be denied admission or employment because of discrimination based on race, color, sex, religion, national origin or ancestry, age, handicap, conviction record, or sexual preference.



# REGIONAL SPOTLIGHT



## City-state on an Economic Roll

JOHN CHAFFEE

**T**he "State of Rhode Island and Providence Plantations," official name of the nation's only city-state, looks and acts like Cinderella at a Renaissance Ball. But it wasn't always so.

In a few short years the state's economy has gone from bust to boom. Unemployment is at a 20-year low. There are so many development projects in downtown Providence that they threaten to overlap one another. Housing prices over the past year have climbed more rapidly than anywhere else in the nation.

"The building boom continues to exceed my expectations," says Gary Ciminero, chief economist for the state's largest bank, the Fleet Financial Group.

Rhode Island has benefited from a fortuitous convergence of forces, including:

- A Navy pullout 13 years ago that deprived the state of its single largest employer, forced much-

and universities that have become increasingly involved in economic development activities.

Both Ciminero and Paul Choquette, president of the Providence-based Gilbane Building Co., agree the Navy's 1974 withdrawal from the state forced changes that have led to today's prosperity.

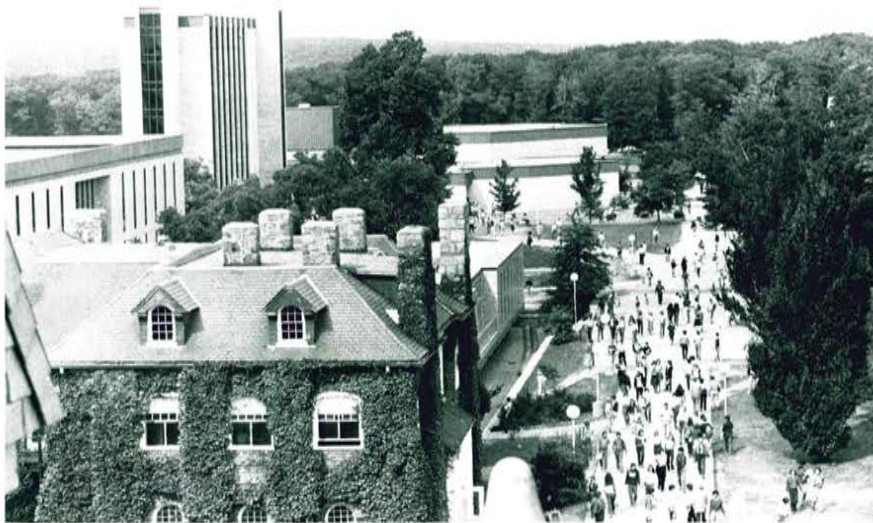
that had been the Quonset Point Naval Air Station on the west shore of Narragansett Bay 15 miles south of Providence. With an 8,000-foot airport runway, 28 miles of internal rail lines, a deep-water port and fully developed road system, the site was ripe for business and industrial development. Today, 70 firms employ 7,200 people at the former Naval base and there are still hundreds of acres available for development.

"We've benefited from a series of governors who've put economic development first," says Choquette. "After the Navy moved out, the state moved in and created a port authority to develop the land."

Ciminero and Choquette agree that in addition to developing new industries on its own, Rhode Island's economy has been aided by the impact of neighboring Massachusetts.

"Many people who work in the Boston area, particularly south of the city along Route 128, are now commuting from Rhode Island," Ciminero notes. And commuter rail service from Providence to Boston will be restored in the near future, he adds.

Choquette, a native of Providence and graduate of Brown University, where he was an all-Ivy League fullback in the late 1950s, believes that another factor in the state's recent economic resurgence is the role of higher education. "Our col-



Between classes at URI

needed economic diversification and made available some prime real estate for new business development.

- Some spillover from the adjacent pulsating economy of Massachusetts.

- An eclectic array of colleges

"It wasn't planned, but it's good it happened," says Ciminero.

"It was a disaster at the time, but it sparked a 'survival impetus' and freed up prime land that led to new businesses and new jobs," observes Choquette.

The largest single site made available in the wake of the Navy's withdrawal was the 3,000 acres

John Chaffee is editor of *Connection*.



#### Rhode Island College students confer

lege presidents are now right in the middle of things," he says. "They no longer sit in their ivy towers. They have their sleeves rolled up and are full participants in the action. Every school is deeply involved; nobody is on the sidelines — everybody is on the field."

Rhode Island is both the youngest and the oldest of the nation's original 13 states. The oldest be-

cause it declared its independence from Britain two months before the joint declaration of July 1776; the youngest because it was the last of the original 13 to ratify the Constitution that was drafted 200 years ago in Philadelphia.

Other distinguishing features include:

- Founded 351 years ago by dissident Massachusetts Protestants, it

is, and has been for some time, the most heavily Roman Catholic of all the states.

- No place in Rhode Island is more than 45 minutes driving time from Providence. With only 1,200 square miles of territory, it is, of course, the smallest state — measuring about 50 miles from north to south and 40 miles from east to west. If superimposed on eastern Massachusetts, Rhode Island would easily fit inside the Interstate Route 495 semicircle around Boston.

- Providence has a population of less than 160,000, the state less than one million. Economically, as Brown University economist George Borts has pointed out, the city-state is part of the economy of southeastern New England. "What we have in Providence is part of a regional economy," says Borts.

- Birthplace of the U.S. textile industry, Rhode Island was for many years the nation's most industrialized state. It still houses the largest U.S. jewelry manufacturing community.

Politically, the state has moved from Yankee Republican domination prior to the Depression through an era of Irish Democratic rule to a healthy Republican-Democratic mix in recent years. The congressional delegation is split evenly, while a Republican governor is off-

## Johnson & Wales

### "America's Hospitality College"



Last year, over 5,000 students from 46 states and 53 countries enrolled at Johnson & Wales College to pursue career education in business, food service, hospitality and teacher education.

J&W's Culinary Arts Division is the largest school of its kind in the world, and our hospitality programs enroll more students than any other school in the U.S. And, we've been educating men and women for

rewarding business careers since 1914.

Practical career education is what J&W is all about. That's why we operate our own hotel, restaurants, retail store and travel agency. That's why our students enjoy career co-ops with prestigious employers throughout the U.S.

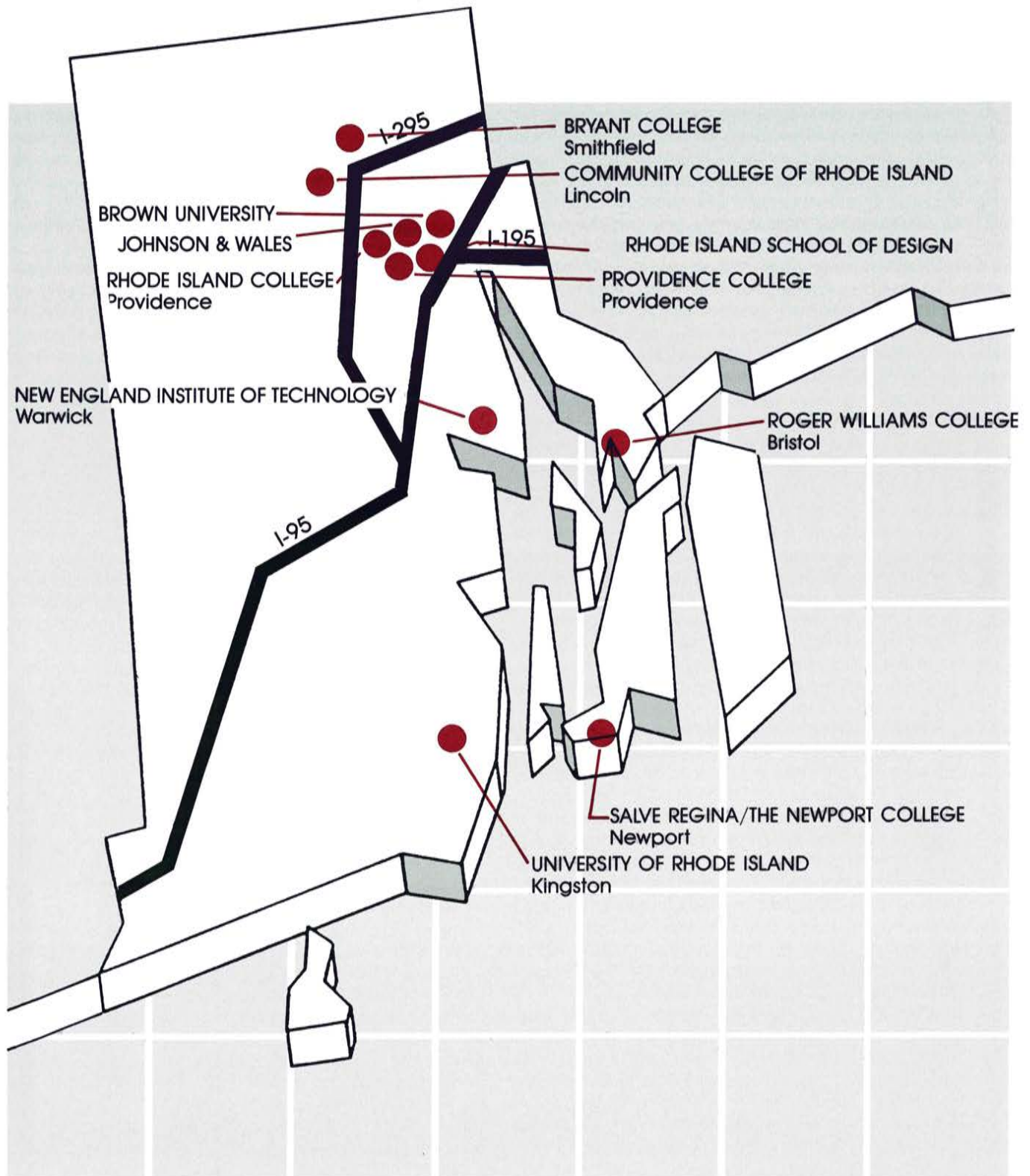
Call or write J&W today to find out more about our unique associate, baccalaureate and master's degree programs.

Call Toll Free 1-800-343-2565

Or write: Admissions

Johnson & Wales College  
Abbott Park Place  
Providence, RI 02903

# Colleges and universities in Rhode Island



# Eleven diverse institutions

Rhode Island's 11 colleges and universities span the full range of the higher education spectrum. From scholarship to career training, at a school elite or common, public or independent, religiously affiliated or nonsectarian, at campuses small or large, in urban, suburban or rural settings, Rhode Island institutions reflect the rich diversity of American higher education.

According to a year-old state study, postsecondary education is one of Rhode Island's biggest businesses, employing more than 10,500 people and directly contributing more than \$600 million annually to the state's economy.

Collectively, the 11 colleges and universities enroll about 70,000 students, full- and part-time, 42,500 of whom are Rhode Island residents.

Any discussion of Rhode Island's higher education institutions must begin, historically as well as alphabetically, with *Brown University*. Founded in 1764, it is the nation's seventh oldest college, an Ivy League school that reeks of tradition and scholarship. One of the nation's most selective colleges, Brown attracts quality students from all 50 states and more than 70 foreign countries. For its 7,000 undergraduate and graduate students, Brown has more than 100 buildings on a 133-acre downtown Providence campus, including 600 research and instruction laboratories and a library system with more than 4,500,000 items.

Twelve miles northwest of Providence in rural Smithfield is the 295-acre campus of *Bryant College*, an institution specializing in "education for business leadership" that will mark its 125th anniversary next year. Bryant offers one undergraduate degree: bachelor of science in business administration. Graduate students have two choices: master of business administration or master of science in taxation. Bryant currently enrolls about 3,000 full-time undergraduate students, another 2,000 part-time undergraduates and approximately 1,500 part-time graduate students.

The youngest in the state is the largest in the region. The *Community College of Rhode Island* was founded in 1964. With more than 7,000 students at campuses in Warwick and Lincoln and six satellite facilities, it ranks as the largest community college in New England.

Students include recent high school graduates, adults returning to school after years away from the classroom and immigrants with a limited knowledge of English. CCRI offers a variety of programs, day and night, leading to associate degrees in academic or vocational-technical fields.

Although widely known for its culinary arts program, *Johnson & Wales* is perhaps the career education college par excellence. J&W's 6,300 students can choose from more than 40 career-oriented programs ranging from accounting to entrepreneurship to word processing. There are one-year diploma programs, two-year associate degree and four-year bachelor degree programs. J&W also offers graduate work in computer education and hospitality administration. There are campus facilities and dormitories in and near Providence. Classes usually meet only four days a week, Monday through Thursday, to allow students ample opportunities for part-time work related to their studies.

The *New England Institute of Technology* is a small, independent institution with campuses in Providence and Warwick. With only 1,500 students, all of them undergraduates pursuing associate or bachelor degree programs in a variety of business, high-tech and applied-trade fields, the emphasis is on individualized instruction.

*Providence College*, on the other hand, is a Dominican liberal arts institution with 3,600 undergraduate and 500 graduate students. Special offerings include cooperative engineering programs with Columbia and Notre Dame Universities, a joint nursing program with Columbia and a joint dentistry program with Georgetown University.

The oldest public institution of higher education in the state is *Rhode Island College*, originally a teacher-training school that now offers a comprehensive liberal arts program. Located on a 125-acre campus five miles from downtown Providence, RIC is primarily a college for commuting students; campus housing is provided for about 600 of RIC's 6,000 students.

Aspiring artists and designers find the *Rhode Island School of Design* one of the largest and

best-equipped physical plants for the study of art and architecture in the country. Located near Brown University on Providence's historic east side, RISD includes as a teaching resource a fine arts museum that is considered the finest of its kind. Although it enrolls only about 1,700 undergraduates and 90 full-time graduate students, RISD's part-time non-degree enrollment is nearly 4,000.

Two small undergraduate institutions of quite different origin and purpose share one distinction: Both *Roger Williams College* and *Salve Regina — The Newport College* boast of waterfront campuses.

Halfway between Providence and Newport at the north end of the Mt. Hope Bridge is the modernistic campus of Roger Williams College, a career-oriented coeducational institution of about 2,500 students. Most programs combine classroom learning with practical work opportunities. Roger Williams, named for the founder of Rhode Island, has a London campus for theater students and maintains a special affiliation

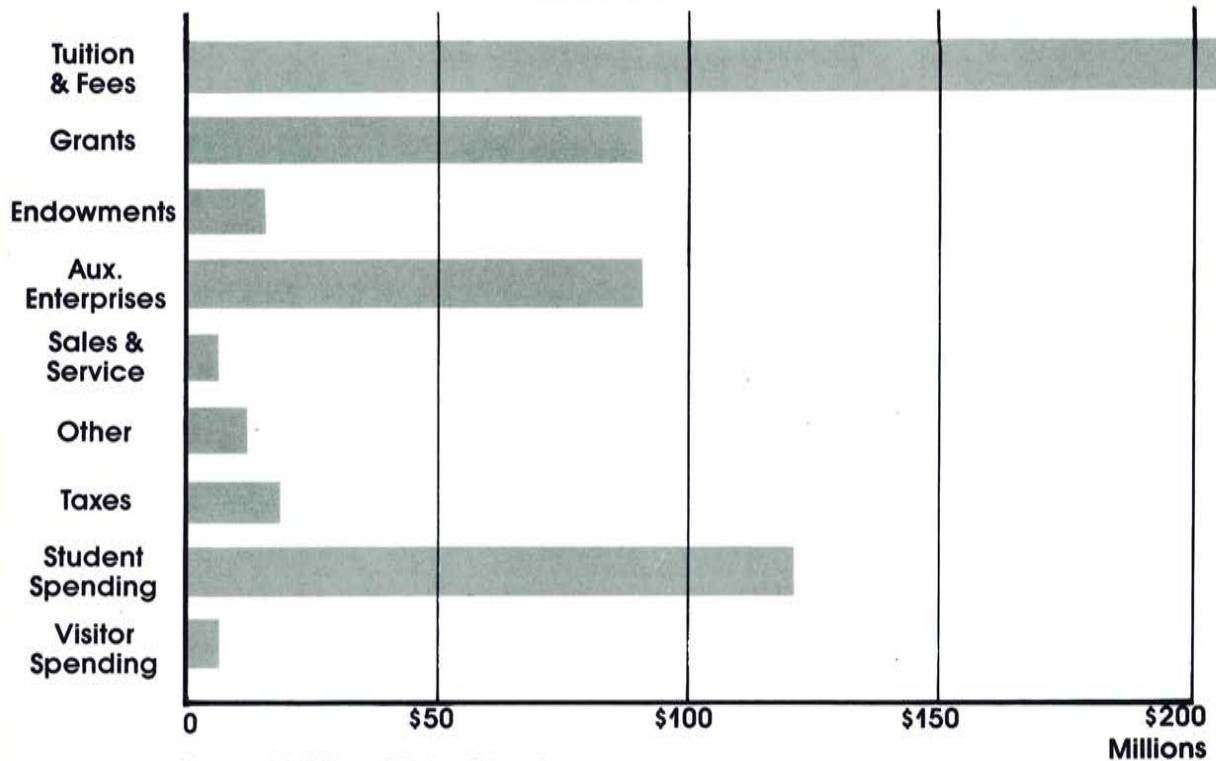
with the College of Environmental Science and Forestry at Syracuse University.

Salve Regina, located in once-famous 19th century estates on Newport's Cliff Walk, is a co-educational Catholic liberal arts college that prides itself on being a Christian community. Associate, bachelor and master's degree programs are available for the college's approximately 2,000 students.

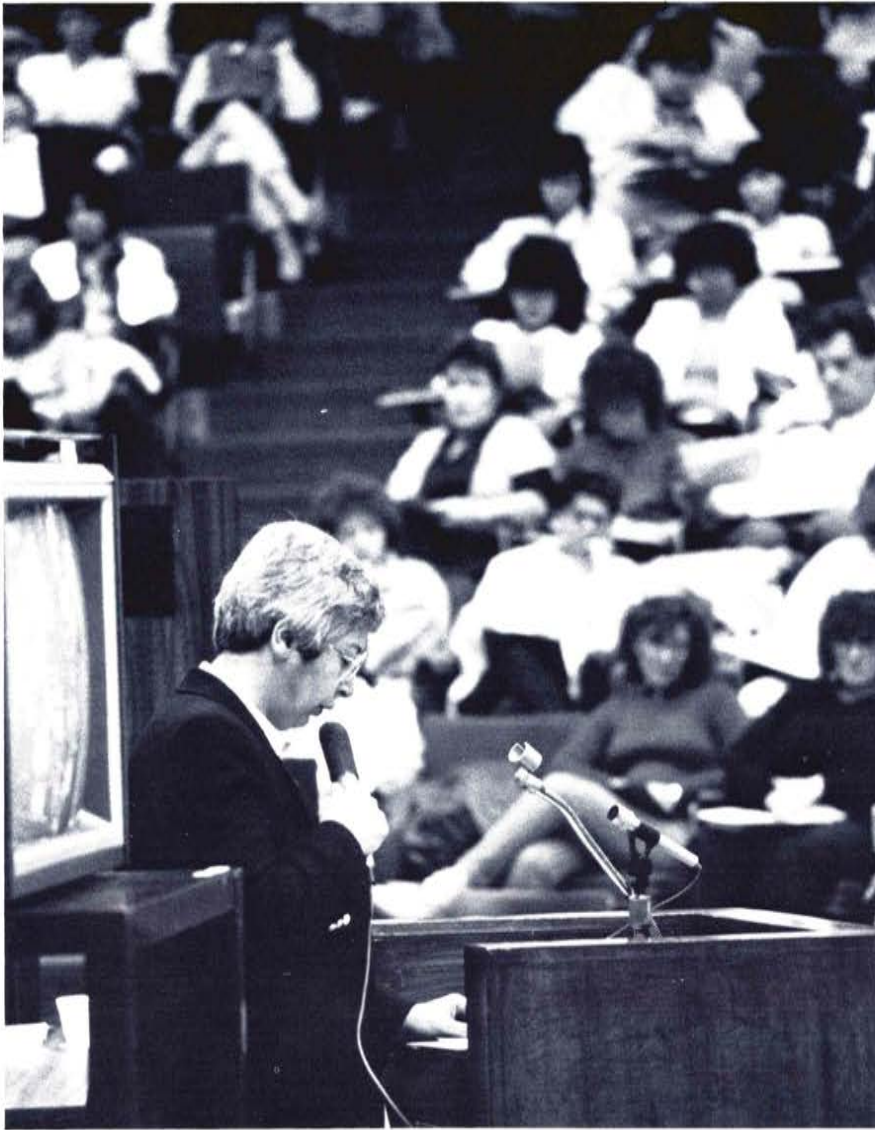
Finally, the state university, Rhode Island's land-grant and sea-grant institution, the *University of Rhode Island*. A comprehensive institution with a multiplicity of programs, both undergraduate and graduate, URI is located on a 1,200-acre campus in rural Kingston. Although 40 percent of URI's 11,500 students are from outside the state, President Edward D. Eddy believes "the University of Rhode Island is Rhode Island: more forceful, perhaps more self-conscious, more complicated in its rich ethnic background, excessive at times — but also more exciting."

— John Chaffee

### Contributions to the Rhode Island economy by colleges and universities 1985-86



Source: R.I. Office of Higher Education



A lecture at Community College of Rhode Island

set by a Democratic state legislature.

One of the hallmarks of Rhode Island's recent economic resurgence, according to Choquette, is not only relative labor-management peace, but labor-management cooperation. "Labor, management and the public sector are all now marching to the same drummer," he claims.

Ciminero says there are two barriers to continued economic health in Rhode Island: a shortage of human resources and the cost of housing. The state, and all of New England, he says, has got to do a better job of educating and training its available workforce, including retraining displaced workers, eliminating adult illiteracy and providing minorities with maximum educational opportunities.

Choquette, who is completing a two-year term as chairman of the New England Council, agrees that training and retraining the workforce is crucial to economic success in the 21st century.

"In the early days of our nation, the key to economic growth was the build-up of our physical infrastructure — roads, ports, railways," he said at a meeting of Northeastern governors earlier this year. "Now our challenge is to build up our *knowledge* infrastructure," to harness "the power of human capital



### UEC means educational opportunity in Providence

The Community College of Rhode Island Urban Educational Center was founded in the wake of the death of Dr. Martin Luther King, Jr. to bring the benefits of education and learning to people who may have been bypassed by the traditional educational system.

Today UEC offers inner-city residents college courses, high school equivalency preparation and testing, English as a Second Language classes, counseling services and skills appraisal.

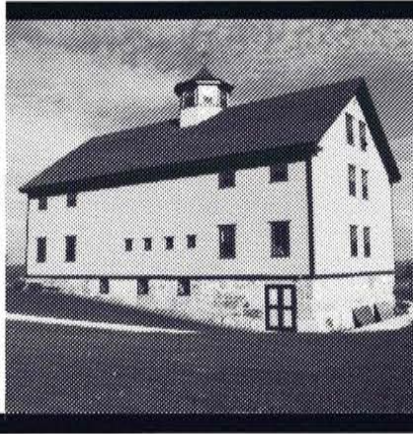
For many Rhode Island residents, UEC is the first step toward a productive future.

For further information call 401-333-7200, Urban Educational Center, 126 Somerset Street, Providence, Rhode Island 02907.

Community College of Rhode Island

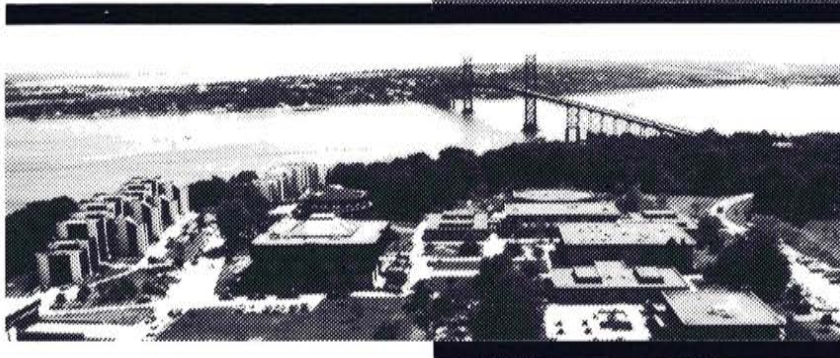


ROGER WILLIAMS COLLEGE is one of the fastest growing colleges in New England today. Located on the waterfront in historic Bristol, Rhode Island, ROGER WILLIAMS COLLEGE is "a good college getting better in a hurry." Its newly designed, rigorous General Education Program provides a strong liberal arts curriculum – complemented by career-oriented programs in architecture, engineering and technology, business, and sciences.



The Performing Arts Center – a Victorian barn restored in part by historic preservation majors – houses theatre and dance classes. Productions by students and visiting performers attract wide audiences year-round.

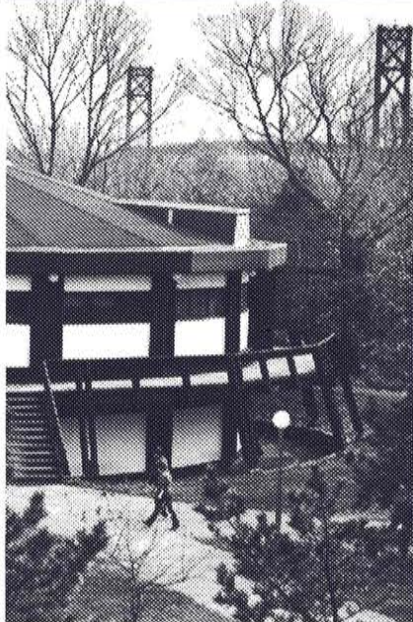
Approximately 250 students are enrolled in the professional, five-year Bachelor of Architecture degree program, accredited by the National Architecture Accrediting Board. The new 5.3 million dollar Architecture Building was designed through a national competition, sponsored by the National Endowment for the Arts.



As a small, independent institution, ROGER WILLIAMS COLLEGE has the freedom to innovate. The Open Division, a nontraditional program for working adults, offers flexible scheduling, off-campus studies, and credit for work/life experiences. Career Directions for Women, a new program for women between the ages of 35 and 50 who have been at home, explores career options.

Moreover, as the largest employer in the East Bay area of Rhode Island, ROGER WILLIAMS COLLEGE contributes significantly to the state's economy and quality of life. To learn more, call 401 253-1967.

ROGER WILLIAMS COLLEGE – the growing, innovative college on the waterfront.



# ROGER WILLIAMS COLLEGE

# PROVIDENCE COLLEGE



Since 1919...  
Committed to  
academic excellence



- BA and BS degrees in over 25 majors
- Co-educational college of the liberal arts and sciences
- Conducted under the auspices of the Dominican Friars

*An equal opportunity, affirmative action institution (M/F)*

*Accredited by the New England Association of Schools and Colleges, Inc.*

*For more information  
call or write, today!*

**Providence College**  
Providence, RI 02918  
(401) 865-1000

to drive economic growth.”

Economic growth is the most visible feature of Providence today. Only a few years ago the downtown area was virtually deserted. Unemployment exceeded 10 percent of the workforce and the city was on the brink of bankruptcy. In addition, Providence was known as the home of the Mafia in New England.

“The city’s image needed as much renewal as its economy,” admits Mayor Joseph Paolino Jr. Both have been well burnished by a half dozen major development projects that have been completed recently, are underway or are in advanced stages of planning. These include:

- A new railroad station has been built and the old Union Station is slated to be renovated.

- Capital Center, the cornerstone of downtown projects, is a 60-acre site between the railroad station and the state’s imposing state capitol. The major development on the site will be called Providence Place and will include commercial office space, one or more hotels, parking for 3,500 cars and at least 200 resi-

dential units.

- The Foundry, former home of machine-tool manufacturer Brown & Sharpe, is being converted into a complex of shops, office buildings, restaurants, hotel and garage.

- A \$40 million plan is being drafted to create a scenic waterfront by diverting two rivers that flow through the city.

- Also being planned is a \$75 million convention center.

So much development is underway in his hometown that Paul Choquette, chief executive officer of one of the nation’s largest construction firms, is concerned that Providence may lose some of its historic ambiance. “I hope we don’t become so growth-driven that we lose our quality of life,” he says.

Rarely have a state and its capital city been so successful in living up to their economic development slogans.

Rhode Island now bills itself as the “Better Business State.”

And Providence claims, “It’s great to work in a city that works.” □



Student and sculpture at Rhode Island School of Design



The problem  
isn't how little  
we care.  
The problem  
is how little  
we do about it.

We think of ourselves as a nation of caring people. And, in principle, it's absolutely true.

Most of us contribute money to at least one cause. Nearly half of us contribute time. Confronted with a direct appeal, we respond instinctively with help.

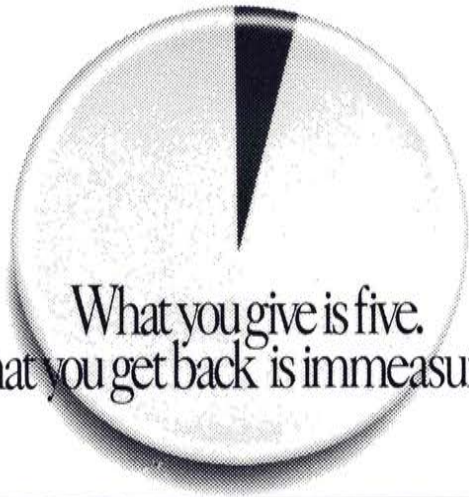
The trouble is that, too often, it's not much more than token help. A dollar here, an hour there, and then it's back to the concerns of our own lives.

But think about it, for a minute. If we all gave just five hours a week to the causes we care about, it would be like mobilizing a force of more than 20 million full-time volunteers. If we all gave just 5% of what we earn, it would come to \$175 billion a year.

It has to start with somebody, though. And not somebody else. Us.

So take a look around your own community and find something that needs doing. Or make that next donation a little bigger than usual. But, whatever you do, do something.

After all, one person may not be able to make that much difference. But 200 million people can make all the difference in the world.



**Let Us Show You**

## **The University of Rhode Island**

*The Ocean State University*

The University is proud of its degree-granting colleges: Arts and Sciences, Business Administration, Engineering, Human Science and Services, Nursing, Pharmacy, Resource Development, and the Graduate School of Oceanography.

The students represent all 50 states and 71 foreign countries, forming a broad ethnic, economic, and creative spectrum.

### **Visit URI this fall.**

Open house will be held by each college and will provide information about undergraduate admissions, financial aid, academic advising, and the University curriculums. Tours of the college and campus are scheduled.

### **Open House Schedule**

October 10, 1987  
*Major undecided*

October 17, 1987  
*Business Administration*

October 24, 1987  
*Engineering*

November 14, 1987  
*Human Science and Services  
Nursing  
Pharmacy*

November 21, 1987  
*Arts and Sciences  
Resource Development*



### **For more information, contact:**

Admissions Office  
Green Hall  
The University of Rhode Island  
Kingston, RI 02881-0807

(401) 792-2164

*Bryant College  
celebrates its*

**125<sup>th</sup>**

**ANNIVERSARY**

For 125 years, the gateway  
to business leadership.

Always a business resource, Bryant College offers one of the finest facilities in the nation for results-oriented professionals.

**The Undergraduate Program** offers four-year degrees in accounting, computer information systems, applied actuarial mathematics, finance, institutional management, management, marketing, economics, and business communications.

**The Evening Division** provides a way for students who work or manage households to receive the bachelor of science in business administration degree.

**The Graduate School** prepares working professionals for career advancement with masters programs in taxation, accounting, finance, management, computer information systems, entrepreneurship, and health care management.

**The Center for Management Development** stimulates growth and improved performance in business through its seminars, non-credit courses, and on-site training.

**The RI Small Business Development Center** nurtures small businesses by providing owners with personal consulting and workshops.

These programs are offered on Bryant's Smithfield, R.I. campus — home to some of the most striking architecture in New England.

For more information on Bryant College, call  
401 232-6000.



# Rhode Island partnership

**Linking higher education research to the state's resources may pay off in new industries and more jobs.**

LINDA A. ACCIARDO

The Rhode Island Partnership for Science and Technology links higher education and non-profit research facilities to the state's business community and private sector.

Through the partnership, a non-profit corporation, the state funds applied research projects that use Rhode Island resources and have successful marketing potential.

Established in April 1985 by executive order of Gov. Edward D. DiPrete, the partnership is a venture capital mechanism designed to expand and broaden technology research, help existing Rhode Island industries adapt, compete and survive in the marketplace, attract industries to the state and spur the growth of new industries and the creation of new jobs.

The concept of a state-funded venture capital effort is not unique; such programs have been in place for some time in 40 other states. Since 1979, the Massachusetts Technology Development Corp., for example, has helped launch 27 companies with an initial state investment of \$6 million and the subsequent receipt of \$50 million from private sources. And the Connecticut state-funded venture capital fund, in operation for 12 years, has helped companies there develop nearly 95 products.

What is unusual about the Rhode Island program, however, is that it directly links the research capacities of the state's colleges and universities to the development of marketable products.

"In Rhode Island we're starting off small and building a strong foundation," says Bruce R. Lang, executive director of the partnership. "We're planting seeds and every now and then a seed takes."

With an initial investment of \$2 million, provided by the Rhode Island Port Authority Economic Development Corp., the partnership has awarded more than \$1 million for six projects, ranging from developing *surimi*, an ancient Japanese food preservation technique, to creating an advanced method of sealing metals and other materials.

Of the six companies that initially received

state funding, Tanury Industries of Lincoln, working on a new metal-coating process with Brown University, has made substantial progress, moving more quickly than originally expected. The most recent award, announced in May of this year, was to Scott Laboratories of West Warwick and the University of Rhode Island to finance a biotechnology research project.

Another award was made to Bio-Telesis Inc. of Warwick, which is collaborating with Rhode Island College to develop a family of serum-free media used in living cell experiments. A grant to Federal Products Corp. of Providence, allied with URI researchers to develop a new gauge for measuring the dimensions of machine metal parts, has been put on hold until the company



Bruce Lang



Gov. DiPrete

can complete a new market survey.

Two companies that originally formed alliances for projects with the University of Rhode Island, American Surimi Corp. and Impco Inc., have withdrawn from the partnership.

American Surimi, composed of three companies linked with URI to develop and improve a high protein, low-cost fish paste that can be processed to look and taste like crabmeat, lobster and other more costly foods, cannot devote an adequate amount of time to the venture, according to Lang. The research, however, is still viable and the partnership is actively seeking another business part-

Linda Acciardo is assistant director of university relations at the University of Rhode Island.

*While the risk was high,  
the local and national impact  
was going to be tremendous.*

ner for the endeavor. Impco has decided to scale down its research efforts since the state award was made, says Lang, but it is continuing to collaborate with URI's chemical engineering department in developing a new process for sealing metals and materials subjected to high pressure and temperatures.

It appears that one of the higher risk ventures funded by the partnership will be the most successful. The partnership awarded \$169,000 to Tanury, a small company that is developing an alternative coating process to the electroplating used in jewelry manufacturing and the metal industries. The work is being conducted in collaboration with Christopher Case, assistant professor of engineering at Brown.

Although Tanury is a small firm with about 170 employees, it is a leader in the field, serving

large equipment manufacturers in the decorative and electronics industries. Its clients include companies such as A.T. Cross, Augat and Raytheon.

"While the risk was high, if successful, the local and national impact was going to be tremendous," says Stephen Mecca, chairman of the partnership's technical advisory committee. Tanury's alternative coating procedure, called "sputtering," involves an inexpensive dry-process that coats metals in a vacuum, avoiding the chemical waste byproducts that occur in electroplating.

"Potentially, the technique of 'sputtering' thin films could revolutionize the technology," according to Mike Lauro, director of research and development at Tanury. The projected market for the process over the next five years, he claims, could be between \$50 and \$70 million annually in New England alone.

# Our record speaks for itself.



**Snelling, Kolb & Kuhnle, Inc.**

**Fundraising and Executive Search Counsel**

Offices

20 Kimball Avenue, South Burlington, VT 05401

802 • 864 • 7800

Suite 600, 2100 M Street, NW, Washington, DC 20037

202 • 463 • 2111

## Current and recent educational institution clients include:

Beauvoir School of the Washington National Cathedral	Gould Academy Hammond Academy Harpeth Academy	Saint Gregory's School St. John's College — Annapolis
Brandon Hall School Bryn Mawr College Cedar Crest College College of Saint Rose Cushing Academy	Hollins College Hun School of Princeton Husson College Madeira School Maret School	Saint Mary's College — Notre Dame, Indiana Shady Side Academy Sidwell Friends School Simmons College
Dana Hall School Davis and Elkins College Dwight-Englewood School Elmwood Franklin School Embry-Riddle Aeronautical University	Miss Porter's School Morristown-Beard School Nichols College Northern Virginia Community College Putney School	Sweet Briar College Texas Woman's University University of Guelph University of Massachusetts — Amherst
Friends' Central School Friends Select School Gallaudet University Gill/St. Bernard's School	Ransom-Everglades School Rosemont College Rutgers Preparatory School	Washington International School Wesleyan University

## UNH's venture capital network

Venture capital networks linking entrepreneurs and investors typically have been fragmented and dispersed — especially in New England.

"You hear about these people around San Francisco Bay and in New York City," says William Wetzel, founder of Venture Capital Network, a database network based at the University of New Hampshire. "Informal venture networking takes place over lunch or on the golf course. VCN is an informal venture network for the hinterlands — in places where you wouldn't ordinarily hear about informal investing."

Wetzel, the non-profit network's uncompensated chairman, is a professor at the university's Whittemore School of Business and Economics. Since its inception in 1984, VCN has introduced hundreds of entrepreneurs to several investors each. To date, 10 of those introductions have resulted in successful partnerships. Wetzel estimates that there are some 15,000 potential investors in New England, most of whom tend to invest in companies within the region.

Wetzel's research includes examining the size of the capital pool wealthy investors control, the investment decision models they employ, the size and structure of their investment transactions and the performance of their portfolios.

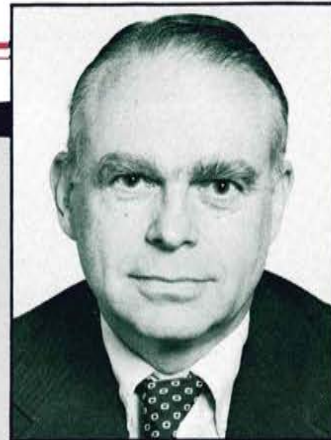
According to Project Director Helen Goodman, more than 70 percent of investors have PhDs or master's degrees, and "about 99 percent" have bachelor's degrees. To protect investors and entrepreneurs, names are in most cases kept confidential.

Wetzel is also helping other organizations around the nation establish their own not-for-profit VCNs. They include the Indiana Institute

Tanury, already strongly committed to research and development, found that working with the partnership and taking advantage of its resources created new opportunities. In addition to an expanded customer base, the company is now in the process of developing an institute for the development of thin films and interface technology that will involve both Brown and URI.

"We would have been able to assume a leadership role in the industry had we not ventured into the partnership," Lauro asserts, "but with the award our growth has been phenomenal. When you have state support and exposure you can expand the industry base into several markets, and

Venture  
capital guru  
William Wetzel



for New Business Ventures, Inc., the State University of New York at Plattsburgh, the Atlanta Economic Development Corp., Northern Michigan University and the Chamber of Commerce for Ontario.

"My own personal payoff certainly isn't financial," says Wetzel. "The excitement for me is the research value — the new knowledge that is gained from the ventures." VCN is currently supported by a grant from the U.S. Economic Development Administration and by application fees.

Wetzel, who is in his late 50s, was formerly an officer of a Philadelphia bank. Determined to change careers, he left his post in 1965 to attend the University of Chicago, and has taught at UNH since 1967.

In 1981, with a grant from the Small Business Administration, Wetzel conducted a study on "Informal Risk Capital in New England," which defined the need for organizations such as VCN.

Wetzel this year received UNH's Outstanding Innovator Award, which recognizes creativity and entrepreneurship. According to James Morrison, associate vice president for research at the university: "The recipient is someone who has come up with a creative idea, followed through with it and brought credit to themselves and their research." Wetzel received a \$5,000 unrestricted award for research, which he is putting into VCN.

certainly what we develop nationally can be directly applied from an export point of view to overseas markets."

Despite the Surimi and Impco setbacks, Lang is sanguine about partnership prospects. "For the amount of funds available in Rhode Island and the staffing we have, it's going extremely well," he asserts.

"People are just beginning to understand the potential of the state being willing to support these ventures, and you have to give the program a chance to mature," says Americo Petrocelli, URI's vice president for business and finance and co-chairman of the partnership's resource net-

## Conn. firms get student aid for Japan trade

Quinnipiac College of Hamden, Conn., has been awarded a \$62,000 grant by the U.S. Department of Education for a joint venture between the college and the state's economic development department to have students assist selected Connecticut firms in marketing their products to Japan.

The project envisages student internships with Connecticut businesses, technical workshops to be held at the college and trade missions to Japan. Also planned are a redesigned certificate program in export marketing at Quinnipiac, faculty development seminars, a one-day conference, a student exchange program and the installation of international communications equipment.

For the students, one of the most exciting aspects of this program will be the planned trade missions to Japan, which they will undertake accompanied by personnel from participating firms.

The grant is being administered by the International Business Center at Quinnipiac, which is under the direction of Vasant Nadkarni, pro-

fessor of marketing and international business. Nadkarni is excited about the project: "This is definitely a growth area for student career prospects," he says. "We must now think in global terms rather than nationally, and firms in Connecticut can lead the way."

A 1983 grant to Quinnipiac's International Business Center from the U.S. Department of Commerce supported a program of student internships with Connecticut businesses and a research project on strategies by U.S. companies to meet international competition.

Twenty-one students were involved in internships in the 1983 grant-funded program. Several Connecticut businesses that previously had not considered exporting were successful in their first attempts with the assistance of these student interns. It is anticipated that up to 40 internships over a two-year period will be initiated in the latest project.

Quinnipiac has been offering courses on Japan since 1973, in marketing, history and, more recently, language.

— Ellin Anderson

work, which represents the research facilities and institutions involved.

"Some people may expect results too soon," says Lang. "The returns will be measured in the long run and I'm convinced that at this rate the partnership will be a success. We are seeking a few quality projects and are not interested in quantity." Lang hopes that six to 12 projects will be funded each year, "with at least two to three that, like Tanury, would be extremely successful and of high quality," he says.

A major part of Lang's responsibility is to create appropriate education and industry links and to guide the people who submit proposals. "Sometimes I can steer them into other areas that will have an increased potential for success," he notes. "Small- and medium-sized companies now have the opportunity to make great leaps forward in product development because of the access to valuable expertise and hundreds of hours with the best minds in this state."

The funding process involves a series of evaluations in which proposals are carefully scrutinized by the partnership's technical advisory and investments analysis committees. Proposals are then forwarded with recommendations to a project selection committee, with final recommendations to the partnership's 11-member board of directors, which includes top business and aca-

democratic representatives. The board includes URI President Edward D. Eddy, Brown President Howard R. Swearer and business leaders such as Alden Anderson, president of Rhode Island Hospital Trust National Bank; Albert Ondis, president and chairman of Astro-Med; and Willard E. Marcley, vice president and general manager of Raytheon in Rhode Island.

"The combined experience of these businesspeople and their judgment is absolutely essential in making determination for funding," says Henry Kates of Tillinghast, Collins & Graham, the law firm that negotiates final contracts between the companies and the partnership. "They can see the situation from both perspectives because they understand the needs of the company and the requirements of the state. Their participation indicates the strength of the business community and the state working together," Kates observes.

Earlier this year, the partnership's board revised its application guidelines. The minimum cost of proposed projects was lowered from \$300,000 to \$200,000, and the maximum portion of a project's cost that can be funded by the partnership was increased from one-third to 60 percent. Also, the board now requires that successful businesses pay back only the amount of the money they receive from the partnership, instead of repaying twice the amount awarded to back

*Government must act now,  
although dividends may not  
be paid for five, 10 or 20 years.*

additional ventures.

"If the research is not successful there is no pay-back," says Lang. "This is not a loan. The cost to the company is a variable cost, and if sales stop, the company is not required to continue to pay."

According to Mecca, the chairman of the partnership's technical analysis committee and a professor of physics at Providence College: "From the state's point of view, it's a shared risk that we're taking with the goal to elevate sights and visions and come up with creative ways to address the whole picture of the future of economic development in the state."

That echoes the sentiments of Gov. DiPrete, who said in creating the partnership that "government must play a dynamic role" and "take actions now that may not pay dividends for five, 10, or perhaps 20 years.

"If our state is to emerge in the next century with a vital and flourishing economy," the governor added, "our existing industries must modernize and adapt to the new competitive realities and we must diversify our economic base through the development of the new high-growth industries of the future." □

**HIGHER EDUCATION  
WEEK**  
OCTOBER 24 TO 31, 1987

**Bay Path**  
Junior College  
Longmeadow, Massachusetts 01106

**Combining Traditional Values  
With Contemporary Education**

Bay Path's two-year associate degree programs prepare you for living, for a rewarding career, and for the opportunity to continue your education at leading colleges and universities. Our Career Exploration Semester is available for students who have not yet crystallized their career plans.

**Programs of Study**

- Arts and Sciences - Liberal Arts
- Accounting
- Business Administration-Management
- Certified Professional Secretary
- Executive Assistant
- Executive Secretary
- Fashion Merchandising and Retailing
- Hotel and Hospitality Administration
- Interior Design
- Legal Assistant
- Legal Secretary
- Medical Assistant
- Medical Office Administration
- Pharmacy Technician
- Travel Administration

Call (413/567-1681) or write for a copy of the college catalog.

**FREE.**

Mail this coupon. You'll receive one issue of THE HARVARD EDUCATION LETTER absolutely free.

Published bimonthly by Harvard's Graduate School of Education, THE LETTER summarizes and interprets the latest research on schooling. In plain English you discover what we really know about homework, the effects of preschools, television watching, and scores of other current topics. THE LETTER tells you which of today's policy debates could change the way children are taught tomorrow. And it opens the door on thought-provoking classroom issues that affect every parent and concerned citizen.

Your no risk subscription begins with this free issue. If after examining your free issue you decide THE LETTER isn't for you, just cancel within 30 days and owe nothing. But if having a say in a child's future is important to you, you'll want to pay the invoice for just \$15 and keep THE HARVARD EDUCATION LETTER coming.

**THE HARVARD  
EDUCATION LETTER**

79 Garden Street, Cambridge, MA 02138

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Send details about low group rates

CN87



## BRIDGING THE GAP

Between the abstract and the practical. . . between the practitioners and the policy analysts. . . journalists and the academic communities.

The **New England Journal of Public Policy** creates an exchange of ideas by providing a medium of communication

- between those who make policy and those who implement it
- between practitioners in general and the academic and research disciplines that complement them

Join us as we explore the relationships between values and culture and as we examine the symbiosis of the two reflected in public policy. We feel that you will be sharing in the uniqueness of the New England economic and political experience!

A Journal of the John W. McCormack Institute of Public Affairs  
University of Massachusetts at Boston

Name \_\_\_\_\_

Title \_\_\_\_\_

Address \_\_\_\_\_

- \$9.00 Individual Subscription  
 \$20.00 Institution Subscription

*The New England Journal of Public Policy is published twice yearly.  
 For further information call 1 • 617 • 929 • 7275*

Faculty, students, administrators, business and governmental leaders are cordially invited to become members of the  
**CENTER FOR THE STUDY OF THE PRESIDENCY**,  
 a non-profit educational corporation chartered by the Board of Regents of the State of New York.

# JOIN CENTER FOR THE STUDY OF THE PRESIDENCY

The first national public policy research center with its primary focus on the American Presidency. With historical and analytical perspective, the Center examines both domestic and foreign policy, decision-making, relationships with the Congress, and organization.

**Membership includes:** Invitations to Annual Leadership Conference, National Student Symposium, and Lincoln Center Lecture Series, Regional Conferences, and the following publications:

### Presidential Studies Quarterly.

Distinguished board of editors including Harry A. Bailey, Jr., Thomas E. Cronin, Kenneth E. Davison, Hedley W. Donovan, Fred I. Greenstein, Erwin C. Hargrove, Dorothy B. James, Richard S. Kirkendall, Louis W. Koenig, Seymour Martin Lipset, Harvey C. Mansfield, Ruth P. Morgan, Richard E. Neustadt, C. Dwight Waldo, and Aaron Wildavsky.

### Center House Bulletin Proceedings Volumes.

-----  
 Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ Zip \_\_\_\_\_

This is an application for membership. Upon receipt of this form, the center will mail you a membership card and begin a year's membership. Membership is tax deductible in whatever category you elect. Add \$5 for foreign postage.

- Student \$20     Faculty \$25     Contributing \$30  
 Supporting \$50     Friend \$100

Please send with remittance to:  
 Membership Secretary

## CENTER FOR THE STUDY OF THE PRESIDENCY

208 East 75th Street, New York, N.Y. 10021



## CAMPUS



**N**ew England's graduate institutes, which provide expertise in such diverse areas as optometry, engineering management, arctic studies and physical therapy, draw students from across the nation and around the globe. Together, their offerings help make the six-state region an unusual and comprehensive classroom.

These small professional schools often lie in the shadow of larger, more established institutions. But even when catalogs are mailed from rural pockets of northern Maine, Vermont or New Hampshire, somehow the right students find their way into the varied programs these schools offer.

Some of New England's graduate institutes are attached to corporations, such as the *Arthur D. Little Management Institute*, or affiliated with a major hospital, such as the *Massachusetts General Hospital's Institute of Health Professions*. The

## From Eyes to Ice: New England's Graduate Institutes

AMY BERMAR

Several of the graduate programs rank among the best in their fields. The *School of the Museum of Fine Arts* in Boston is known for the artistic ability of its faculty and students. The *Woods Hole Oceanographic Institution*, which admits only a handful of degree candidates

ment to providing "real life" experience as a counterpoint to classroom study.

The intimate environments offered by these schools serve a special purpose. Since many of them pursue specific concentrations instead of offering a breadth of disparate programs, the course of study can provide a level of personal attention frequently unheard of at large institutions. When a handful of instructors and their dozen students share a common avocation, competing academic influences are muted. Student and mentor can come together, to probe relevant issues and concepts in dialogue extending far beyond the school day.

Here is a closer look at some of New England's lesser-known graduate programs. In an era when graduate education seems to be dominated by an excess of university business schools, these unique programs survive, filling a continuing need for academic diversity and professional quality.



A New England College of Optometry student checks a patient's eyesight at a Boston clinic.

arctic world is examined at the *Center for Northern Studies* in Wolcott, Vt. *Antioch/New England Graduate School* emphasizes experience-based training, and offers degrees in education, management, environmental studies and professional psychology.

Amy Berman is a free-lance writer who lives in Cambridge, Mass.

at a time, is internationally recognized for its research and scientific expertise.

Because a large number of the advanced degree candidates enroll after having been employed for several years, the programs frequently address practical concerns. Internships and supervised clinical practice further strengthen a commit-

At the *School of the Museum of Fine Arts* in Boston, degrees are granted but not emphasized. Out of approximately 1,000 students, more than half seek no degree. The result is a studio-centered program with a wide-ranging curriculum, including animation, stained glass, painting, ceramics, drawing and

goldsmithing.

The majority of the students are undergraduates, with a significant minority attending academic classes in conjunction with Tufts University, resulting in bachelor's and master's degrees. Fewer than 20 artists are admitted to the master of fine arts program, a two-year course that culminates in an exhibition.

"Our problem," says Dean Bruce MacDonald, a photographer, "is getting them out of the studio on weekends."

At Massachusetts General, one of the nation's most prestigious hospitals, an affiliated graduate school trains the health practitioners who will carry out many of the daily responsibilities of the medical team: nurses, dieticians, physical therapists and social workers.

The *MGH Institute of Health Professions* is officially independent, though it retains close clinical ties with the hospital. Application of theory and practice are required.



Sculptor student at Museum of Fine Arts school.

Studies are clustered according to medical specialties, such as geriatrics or oncology.

As the catalog states: "Graduates of the program will be nurse clinicians with a high degree of knowledge, skill and competence in a specialized area of nursing." The campus shares the hospital's quarters on several acres alongside the

Charles River in Boston.

*The New England College of Optometry*, located in Boston's Back Bay, also stresses clinical practice. Its graduates work closely with patients, supervising their eye care.

The college's two clinics provide specialized and general care, as well as the opportunity for second- and third-year students to work under close supervision. The fourth and final year consists of three separate clinical internships outside the school.

One of only 15 optometry colleges nationwide, NECO graduates about 90 optometrists each year. Graduates typically remain in New England, according to Academic Dean Larry Clausen. "They work in group clinics, HMOs, for other optometrists, or in hospitals or optical chains," he says. "The scope of an optometrist's services varies with location."

A perceived lack of engineers with managerial skills resulted in the founding of the *Gordon Institute* in Wakefield, Mass. It was founded in 1984 by Bernard M. Gordon, CEO of Analogic, Inc. The curriculum at this small school (enrollment limited to 40) sharpens the ability of employed engineers to direct large projects as well as their departments. Technical and professional programs lead to a master's degree in engineering management.

In Connecticut, the school now known as the *Hartford Graduate Center* evolved out of a similar need for industrial talent in a promising, technology-oriented society.

The center was established in 1955 by faculty affiliated with Rensselaer Polytechnic Institute, the nation's first engineering school. The two remain connected, and confer joint master's degrees in computing, engineering and management. The Hartford Graduate Center last year enrolled 2,500 students, many of whom continued to work while they studied. As a group, they represented some 500

## Quality...

A 150-year tradition of excellence. Over 50 majors in business, education, engineering, humanities, math & science, nursing and social science. Two campuses with a choice of lifestyles.

## Tradition...

At the Military College of Vermont in Northfield, Vermont cadets participate in ROTC, gain self-discipline, and learn leadership skills through a military lifestyle.

## Diversity...

At Vermont College of Norwich University in Montpelier, Vermont students enjoy a traditional small-college atmosphere, quality academics, and a non-military lifestyle.

# Norwich University

Contact the Admissions Office  
Northfield, VT 05663      Montpelier, VT 05602

employers.

Arthur D. Little, Inc., one of the region's best-known consulting firms, was completing a project in Nigeria when its consultants discovered that no one was teaching foreign ministry employees how to do their jobs. In response, the Cambridge company decided to establish a school. The *Arthur D. Little Management Institute* was chartered in 1971 and became accredited five years later.

Now, students from 25 countries come to the company's headquarters each year for an 11-month business program. Courses are taught by staff consultants and local faculty. Practical solutions to international business problems are the intended outcome for these students, who often return home to direct government agencies.

ADL administrators want to draw more American students to the program. "We're not nearly as well-known in the United States as we are worldwide," says Admissions Coordinator Judy Francis.

As a small school that is part of a larger institution, Ohio's Antioch University, *Antioch/New England Graduate School* offers an unexpectedly large array of master's degree programs, ranging from environmental studies to professional psy-

chology. Additional concentrations swell the offerings to more than 16 specializations, including a doctorate in clinical psychology.

Because the Keene, N.H., campus serves working professionals, most courses are scheduled for just one day weekly, with occasional evening and weekend workshops. Students may commute to the two-year degree program from as far away as Boston, Schenectady and New Haven.

True to Antioch's non-traditional approach, students may earn initial academic credit for "life experience." The program, which strives to integrate professional and personal knowledge, occasionally accepts graduate students with little or no college education.

Reaching the underserved student is the mission of *Cambridge College*, a small independent school once affiliated with Antioch/New England. Cambridge College offers a master's degree in education to some 350 students, many of whom are minorities.

Founded in 1970, Cambridge College initially attracted teachers and those involved in the social services. Now, more of the students work in the private sector, frequently pursuing management careers.

Working while they learn, students attend classes in the eve-



Professor Ed Tomey in a seminar at Antioch/New England's Keene, N.H., campus.



## Gibbs & Wall

College and  
Independent School  
Counselors

Educational Consultants

George Gibbs  
and  
Ed Wall  
combine a  
half-century of experience  
as deans in  
college admission  
and counseling  
and secondary school  
admission at

Muhlenberg College

Amherst College

Cornell University

University of  
Southern California

Lawrence University  
(WI)

Cushing Academy

Phillips Exeter Academy

Each partner limits his  
individual counseling  
practice to 50 clients  
annually

For information, call:

(MA Office)

617/465-0686

(September - May)

(Middle States Office)

215/395-8195

(Northern N.E. Office)

207/725-6273

(June, July & August only)



## Falmouth Academy

a core independent co-ed  
day school  
grades 7-12

located in Bourne, Massachusetts  
For information call (617) 563-9386

### National Collegiate Software Clearinghouse

Educational Software for the Social Sciences

#### Graduate Student Database (IBM)

Provides on-going monitoring of graduate students from application through graduation; including application, committee, course and examination status. \$23.00

#### Course Manager (IBM)

Allows you to keep track of grades for a number of courses in three scales; (A,B,C,D), 100 scale, and 4.0 scale. You can edit course information, compute statistics for each test, and alphabetize or sort by class rank. \$23.00

#### Teaching is Easy Courseware System (IBM)

An easy authoring system for creating your own computerized lessons on any topic, without knowledge of programming. Specify color or monochrome version. \$23.00

#### A-STAT (Apple, IBM)

A complete database and statistical package, including univariate variable descriptions, continuous and discrete frequency with histograms, crosstabulations, 14 measures of association, correlational analysis, multiple regression analysis, factor analysis with varimax rotations, ANOV, t-tests, much more. Data compatibility with Visicalc, Lotus 1-2-3, DB Master, DIF. Available to the academic community at \$33.00

#### Social Science Microcomputer Review

A quarterly publication from Duke University Press, provides coverage on statistics, simulations, database management, mapping, online data sources, text analysis and other applications of microcomputers. Extensive software review section. \$24 individual, \$40 institutional subscription.

To Order Write  
National Collegiate Software Clearinghouse,  
School of Humanities and Social Sciences  
NCSU Box 8101, Raleigh, NC 27695  
or call (919) 737-3067

Ask for a FREE CATALOG

Visa, MC Accepted



Center for Northern Studies students deal with everything from wildlife to public policy.

nings and occasionally on Saturdays. Approximately one-third have not finished college, and, like Antioch students, may earn credit for their life experience. The college does provide a six-month intensive academic program to prepare students lacking a bachelor's degree.

The *Massachusetts School of Professional Psychology* in Dedham emphasizes supervised clinical practice for its doctoral candidates.

"We start our students, from day one, in the field," says Dean Bruce Weiss. "We're geared to bringing together what students learn in and outside the classroom." The school admitted its first students in 1977. Degree-granting authority was established by Massachusetts higher education regents in 1980.

Programs concentrating on snow and the sea might seem distinctly different, but both stress the importance of research — in the long run, possibly more significant than the individual degrees they award. Both the *Center for Northern Studies* and *Woods Hole Oceanographic Institution* offer joint degrees with companion academic institutions.

Woods Hole, which awards doctoral and post-doctoral degrees, accepts 120 graduate students each year to work alongside its 100 scientists. Founded in 1929, the institute is located in Woods Hole, Mass., on the southwest corner of Cape Cod.

"Our primary passion in life is research," says A. Lawrence Pierson, assistant dean. "We treat the students as junior researchers. They're involved in the labs almost from the day they arrive. When they leave, they will have written two or three funding proposals,

published one or two papers and presented their research results at meetings."

Students may specialize in several areas: engineering, marine policy, marine geology and geophysics, chemical oceanography and biological oceanography. A program in oceanography/oceanographic engineering is offered in tandem with the *Massachusetts Institute of Technology*, resulting in a joint degree.

At the Center for Northern Studies in Vermont, scholars interested in the vast region spanning eight nations study science, economics and public policies affecting the polar rim. Laboratory work in the natural sciences is combined with studies of anthropology, law and conflict resolution, as well as summer field studies, this year in Alaska and northern Maine.

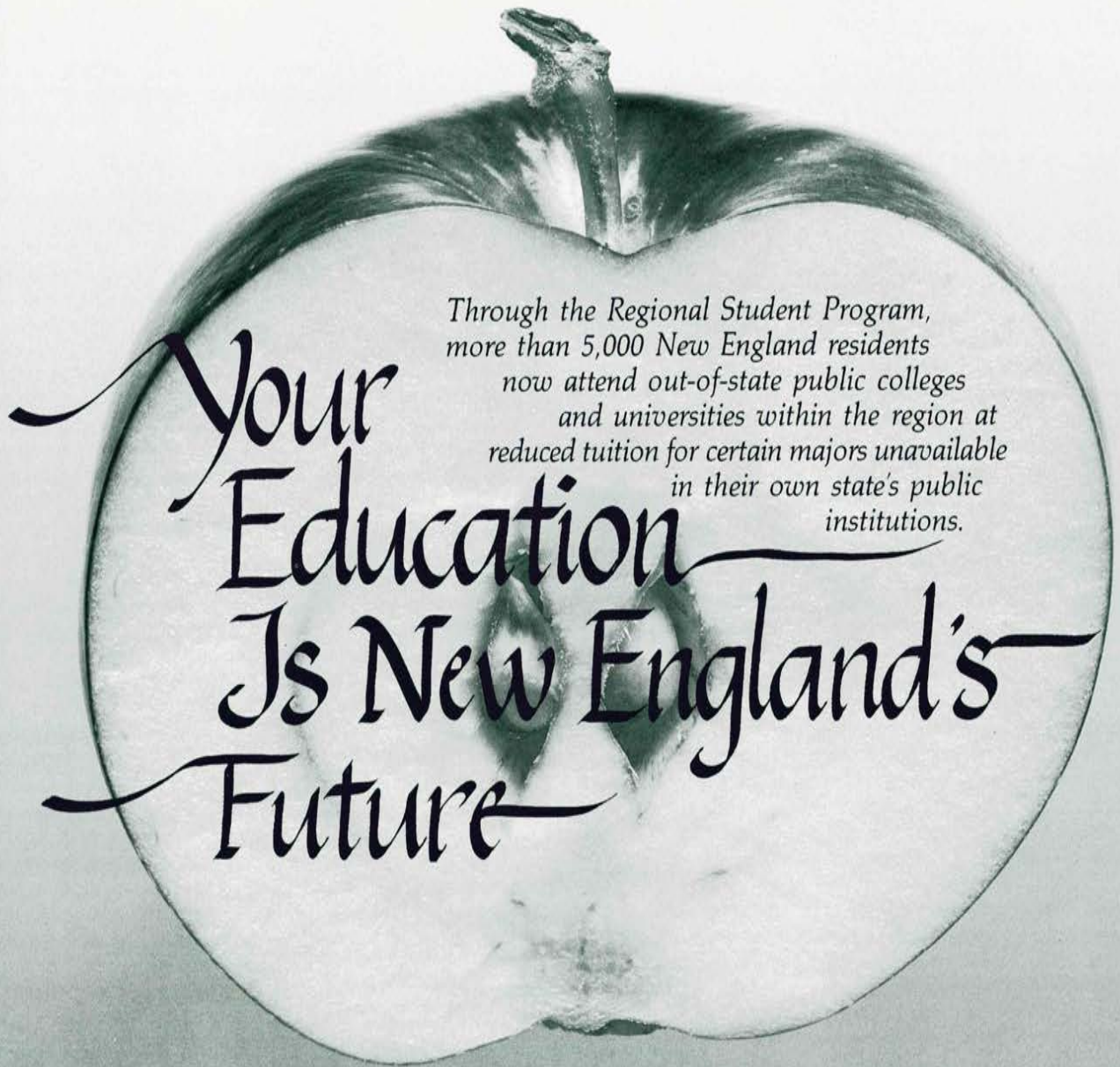
The informal, personalized program attracts about a dozen students each year, two of whom may be candidates for a master's degree. Most graduate and undergraduate students expect to establish policy-based careers examining issues concerning the arctic. The graduate students follow a highly individualized two-year program, comprised of nine courses and a thesis. A joint degree is offered in conjunction with the Vermont College campus of *Norwich University*, just south of Montpelier.

Because this field is relatively small, the center's students work with many of the professionals they will encounter after graduation. Director Steve Young comments, "It's almost as if we're a fragment of a big university."

That claim could be made by any of New England's specialized graduate schools. The "big university," of course, is New England itself. □

ATTEND AN OUT-OF-STATE PUBLIC COLLEGE  
OR UNIVERSITY AT REDUCED TUITION

## Regional Student Program



*Through the Regional Student Program,  
more than 5,000 New England residents  
now attend out-of-state public colleges  
and universities within the region at  
reduced tuition for certain majors unavailable  
in their own state's public  
institutions.*

*Your  
Education  
Is New England's  
Future*

NEW ENGLAND BOARD OF HIGHER EDUCATION

For more information and a new "Apple Book" catalog, see your guidance counselor or write:  
Office of the Regional Student Program, NEBHE, 45 Temple Place, Boston, Mass. 02111.

CONNECTICUT • MAINE • MASSACHUSETTS • NEW HAMPSHIRE • RHODE ISLAND • VERMONT



## RSP UPDATE

# UConn's Program for all New England

CHARLOTTE STRATTON

**“I**’ve always been committed to social change and to helping individuals cope with their lives in our complex and changing society,” says Marion Aubuchon of Northampton, Mass.

“That’s why pursuing the master of social work program at UConn’s School of Social Work was definitely the right thing to do,” she adds. “There are other graduate social work programs in New England, but the cost of tuition is prohibitive. The Regional Student Program made the University of Connecticut accessible to me. I think it’s important that everyone has the opportunity for affordable study in their field through programs like the RSP.”

Marion Aubuchon is one of nearly 80 students enrolled at UConn’s School of Social Work at reduced out-of-state tuition through the New England Board of Higher Education’s Regional Student Program. One of the original RSP graduate programs, the UConn School of Social Work has admitted RSP students since 1958. Each RSP student in the program saved more than \$2,500 in tuition in 1986-87.

The RSP enables residents of New England to attend an out-of-state public college or university

within the region at reduced out-of-state tuition for certain degree programs that are unavailable in their own state’s public institutions. RSP includes more than 1,000 eligible undergraduate and graduate degree programs at 84 participating colleges and universities. Preliminary figures for 1986-87 indicate that more than 5,100 students are enrolled in RSP programs throughout the six-state region.

Currently, residents of Maine, Massachusetts and New Hampshire are eligible to attend the UConn School of Social Work under RSP. Established in 1946, the school offers a two-year program leading to the master of social work degree as well as special programs for non-enrolled students. The school is accredited by the Council on Social Work Education. Five areas of concentration are available: casework, groupwork, community organization, administration and policy and planning. Dual degree programs are available in conjunction with the UConn schools of law, business administration, public health and the Yale Divinity School.

“We see ourselves as serving the entire region. Our mission is to prepare social work practitioners at all levels of service throughout New England,” says Catherine Havens, associate dean.

“We draw from a national pool of

applicants, but 25 to 30 percent of our students are admitted through the Regional Student Program,” Havens notes. She believes that the diversity of the educational experience at the school reflects a regional attitude. “We seek to respond to changes in social conditions, with special emphasis on courses given to the problems of urban life, disadvantaged populations, ethnic groups, women, the aged and children, and also offer opportunity for courses and field work concentrating on the delivery of services to rural areas,” Havens says.

Casework is the most popular of the five areas of specialization within the UConn program. According to Havens: “The majority of our students select casework, and go into independent casework or else work for public and private agencies serving individuals.”

Marion Aubuchon currently pursues the casework emphasis, and spent her fieldwork assignment at Project Safe, a family planning agency in Springfield, Mass. “Since my primary focus in casework is women and women’s issues, working with pregnant teens and their special needs at Project Safe was a great experience for me,” Aubuchon says.

Havens emphasizes the diverse career options for UConn School of Social Work graduates. “When the federal government pulled funding for social services, there was some concern that job opportunities would diminish, but the job market remains steady,” she comments. Graduates of the program not only go into independent casework but also take administrative and middle management positions in the public and private sectors. “Social workers work in a variety of fields in private industry, including human resources, employee assistance, affirmative action, policy studies, research and corporate social responsibility,” Havens says.

Aubuchon’s career goals are twofold. She will begin her second year

Charlotte A. Stratton is NEBHE’s director of regional student services.

## Regional programs aid 5,000 students

A total of 5,102 New England students participated in NEBHE's Regional Student Program in 1986-87, a decrease of 53 students from 1985-86 and the first break in a 20-year trend of increasing annual enrollments.

The 1986-87 RSP enrollment, however, was a dramatic 10-fold increase over the 1966-67 enrollment when 408 New England residents took advantage of the program to study at the region's six public land-grant universities.

The 1986-87 RSP enrollment, however, represents a dramatic 10-fold increase over the 1966-67 enrollment when 408 New England residents took advantage of the program to study at the region's six public land-grant universities.

Regional Students were enrolled in 829 of the 1,192 available degree programs offered by 84 of New England's public community and technical colleges, state colleges and universities. As a result the RSP overall program utilization rate rose from 67.6 percent in 1985-86 to 69.5 percent in 1986-87.

New England state governors enthusiastically endorse the program, noting that it saves states from duplicating costly facilities and program expenses. Gov. John H. Sununu of New Hampshire, for example, points out that "no single university can afford to offer every academic program envisioned, so it makes sense for the New England Board of Higher Education to promote cooperative efforts to provide students with a complete education in a variety of fields."

And Gov. Michael S. Dukakis of Massachusetts says the regional student program "is one way the New England states are working together to make high-quality education in specialized fields available to young people throughout New England."

Distribution of RSP students by type of institution shifted somewhat in 1986-87 with proportionately more students attending two-year colleges and institutes and state colleges. Forty percent of the RSP students were enrolled at two-year colleges and institutes; 17 percent attended state colleges; and 42.9 percent were enrolled in state universities.

Graduate students accounted for 14.6 percent of the total RSP enrollment in 1986-87, down 1 percent from 1985-86. RSP graduate students at state universities represented 30.3 percent of the total RSP university enrollment.

Each of the 5,102 RSP students saved an estimated \$1,943 in tuition costs during the 1986-87 academic year. Total RSP tuition savings for students and their families rose to nearly \$10 million. It is estimated that since RSP's inception in 1958 more than 68,000 New Englanders have saved \$100 million in tuition costs.

A detailed 1986-87 RSP enrollment report and new "Apple Book" catalogs of 1988-89 program offerings are available from the Office of the Regional Student Program, New England Board of Higher Education, 45 Temple Place, Boston, Mass. 02111. Phone: (617) 357-9620.

of the program this fall and hopes to work part-time on her own and for an agency upon graduation. Of her first year of study, Aubuchon says, "I now understand the importance not only of casework, but also of groupwork and community organizing. All of these areas are interrelated and I am sure I'll work in each of them in time."

Both the UConn School of Social Work and the New England Regional Student Program provide exposure to different areas of study and career options, as well as accessibility and affordability.

Copies of the Regional Student Program's Apple Book catalogs, brochures and posters are available without charge. For copies call or write: Regional Student Program, New England Board of Higher Education, 45 Temple Place, Boston, Mass. 02111. Phone: (617)357-9620. □



*Move ahead  
on your career track now!*

**Undergraduate School for Women  
and the coeducational  
School of Continuing Education  
School of Graduate Studies  
School of Nursing**

associate's, bachelor's degrees  
in over 50 areas

- master's degrees in 6 areas •
- certificate programs •
- non-credit courses •
- career development & placement
- available financial aid •
- deferred payment plans

**CALL TODAY  
FOR MORE INFORMATION**

RIVIER COLLEGE, Nashua, NH  
(603) 888-1311

## New England's most expensive colleges

Institution	1985-86	1986-87	1987-88	% Increases	
	Tuition/Fees	Tuition/Fees	Tuition/Fees	1985-1987	1986-1987
Bennington College, Vt.	12,830	13,970	14,850	15.7	6.3
Hampshire College, Mass.	10,175	11,850	12,953	27.3	9.3
Harvard College, Mass.	11,340	12,225	12,890	13.7	5.4
Brown University, R.I.	11,155	12,035	12,876	15.4	7.0
Bates College, Maine	10,490	11,450	12,820	22.2	12.0
MIT, Mass.	11,000	11,800	12,500	13.6	5.9
Dartmouth College, N.H.	10,764	11,679	12,474	15.9	6.8
Yale University, Conn.	10,520	11,340	12,360	17.5	9.0
Wesleyan University, Conn.	10,513	11,370	12,350	17.5	8.6
Amherst College, Mass.	10,321	11,140	12,160	17.8	9.2
Brandeis University, Mass.	10,435	11,275	12,130	16.2	7.6
Mount Holyoke College, Mass.	10,430	11,355	12,100	16.0	6.6
Tufts University, Mass.	10,393	11,210	12,088	16.3	7.8
Boston University, Mass.	10,220	11,100	11,950	16.9	7.7
Connecticut College, Conn.	10,300	11,170	11,950	16.0	7.0

Tuition Hikes (continued from page 72)

fees for Maine residents have risen 21 percent, from \$1,525 in 1985 to \$1,846 in 1987. However, UMaine continues to offer the lowest tuition rates among the region's public land-grant universities. The University of New Hampshire reveals the greatest increase in tuition and fees for out-of-state students, a two-year jump of 22.8 percent. Tuition and fees for 1987-88 at the University of Vermont, \$3,420 for Vermont residents and \$9,290 for out-of-state students, are the highest among New England state universities.

A longer-term analysis of tuition at the six New England land-grant universities reveals that tuition and fees rose some 85 percent for in-state stu-

dents and 113 percent for out-of-state students over the seven-year period, 1978-1985, during which time inflation rose 68.9 percent. Tuition and fees at the region's 20 most expensive colleges increased a median of 116.7 percent during this same period.

Like their land-grant counterparts, public community colleges, technical institutes and state colleges, in all the New England states except for Massachusetts, have also instituted tuition or fee increases in 1987, both for in-state and out-of-state students, but levels of tuition and fees and rates of increase are generally well below those of the "flagship" state university campuses. □

## Percentage increases in New England tuitions

Independent	One-Year Increase 1986-87 to 1987-88		Two-Year Increase 1985-86 to 1987-88	
	25 most expensive	7.6		16.3
Less expensive four-year	10.5		21.9	
Two-year	9.4		19.0	
Public	In-State	In-State	Out-of-State	
Community colleges	6.4	11.3	13.8	
Technical institutes	6.7	12.7	11.3	
State colleges	4.4	8.7	11.9	
State universities	8.1	15.4	14.8	

**Note:** Consumer Price Index increased 7.1% from March 1985 to March 1987, and 3.7% from March 1986 to March 1987 (latest figures available at time of analysis).

**Sources:** Annual College Board *College Cost Book* for 1985-86 and 1986-87, NEBHE survey for 1987-88 data; NEBHE Analysis, June 1987.



## Comparing tuitions at public colleges

State	1985-86 Tuition/Fees		1986-87 Tuition/Fees		1987-88 Tuition/Fees		% Increase 1986-87 In-State	2 Yr. % Increase		
	In-State/Out-State	In-State/Out-State	In-State/Out-State	In-State/Out-State	In-State/Out-State	In-State/Out-State		In-State/Out-State		
<b>Community Colleges</b>										
Conn.	604	1,706	632	1,796	708	2,034	12.0	17.2	19.2	
Maine	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Mass.	848	2,540	848	2,540	848	2,540	0.0	0.0	0.0	
N.H.	NA	NA	NA	NA	NA	NA	NA	NA	NA	
R.I.	830	830	844	844	900	900	6.6	8.4	8.4	
Vt.	1,102	1,630	1,187	2,339	1,259	2,483	6.1	14.2	52.3	
						Median	6.4	11.3	13.8	
<b>Technical Institutes</b>										
Conn.	747	2,232	837	2,547	948	2,913	13.3	26.9	30.5	
Maine	825	1,625	840	1,640	910	1,710	8.3	10.3	5.2	
Mass.	869	2,561	869	2,561	869	2,561	0.0	0.0	0.0	
N.H.	1,385	3,685	1,485	3,885	1,585	4,100	6.7	14.4	11.3	
R.I.	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Vt.	2,534	4,692	2,680	4,966	2,856	5,280	6.6	12.7	12.5	
						Median	6.7	12.7	11.3	
<b>State Colleges</b>										
Conn.	1,174	2,644	1,277	2,887	1,373	3,513	7.5	17.0	32.9	
Maine	1,463	3,680	1,463	3,680	1,530	3,750	4.6	4.6	1.9	
Mass.	1,271	3,467	1,336	3,532	1,336	3,532	0.0	5.1	1.9	
N.H.	1,811	4,311	1,894	4,644	1,939	4,939	2.4	7.1	14.6	
R.I.	1,234	3,566	1,298	3,588	1,507	4,007	16.1	22.1	12.4	
Vt.	2,152	4,464	2,278	4,728	2,374	4,972	4.2	10.3	11.4	
						Median	4.4	8.7	11.9	
<b>State Universities</b>										
Conn.	1,801	4,971	1,937	4,827	2,133	6,033	10.1	18.4	21.4	
Maine	1,525	4,596	1,565	4,616	1,846	4,906	18.0	21.0	6.7	
Mass.	2,046	5,070	2,046	5,070	2,170	5,194	6.1	6.1	2.4	
N.H.	2,400	5,970	2,629	6,799	2,754	7,334	4.8	14.8	22.8	
R.I.	1,972	5,544	2,125	5,811	2,231	6,038	5.0	13.1	8.9	
Vt.	2,948	7,707	2,948	7,706	3,420	9,290	16.0	16.0	20.6	
						Median	8.2	15.4	14.8	

Sources: Annual College Board *College Cost Book* for 1985-86 and 1986-87, NEBHE survey for 1987-88 data; NEBHE Analysis, June 1987.

NA: not applicable

# Tuition hikes continue

The cost of attending college in New England is increasing at more than twice the national inflation rate.

WENDY DEANS

New England college and university tuitions continue to rise more than twice the inflation rate, according to a recent NEBHE survey.

While the national inflation rate averaged 3.7 percent from March 1986 to March 1987, 1987-88 higher education tuition rates have jumped more than twice that amount. NEBHE found that recent tuition increases at New England colleges range as high as 16 percent.

The NEBHE study indicates that tuitions and fees at New England colleges and universities have increased at a rate slightly higher than the national average as reported by the College Board.

NEBHE collected tuition and fee data from all types of institutions: public and independent, two- and four-year colleges and universities, community colleges and vocational-technical institutes. The NEBHE figures represent tuition and mandatory fees only, and do not include room, board and other expenses.

A two-year analysis of tuition increases at public and independent colleges and universities for the period 1985-86 to 1987-88, also reveals a rapid rise in college costs. In-state tuitions and fees at public institutions have increased an average of 12 percent over the two-year period, while the most expensive independent institutions have in-

creased some 16 percent during the same period with increases ranging from nothing to as much as 30 percent. By contrast, inflation rose less than 8 percent from March, 1985, to March, 1987.

According to the survey, 13 independent four-year colleges and universities in New England now charge tuitions and fees of \$12,000 and more, ranging from \$14,850 at Bennington College in Vermont to \$12,088 at Tufts University in Massachusetts. The most competitive institutions, however, have the greatest endowments and can offer significant financial aid to incoming students.

Smaller four-year independent colleges in New England reported tuition increases ranging from 3 to almost 19 percent for 1987-88 with a median increase of about 10 percent.

Among independent colleges in New England, two-year colleges offer the lowest tuitions and fees, but their tuition increases have also been high and variable, ranging from 7 to more than 20 percent.

Tuitions also continue to rise at New England's public colleges and universities, both for in-state and out-of-state students. The greatest *two-year* increase for *in-state* students at a state university is at the University of Maine, where tuition and

(continued to page 70)

Wendy Deans is assistant editor of *Connection*.

## An explanation — and warning

According to NEBHE President John C. Hoy, "During the double-digit inflationary period of the 1970s, New England colleges and universities were extremely conscientious in controlling institutional costs. Expenses for faculty and staff salaries, plant improvement and the acquisition of technological equipment were kept at a minimum, with the result that employees in higher education lost dollar power, campus buildings fell into disrepair and state-of-the-art laboratory and technical equipment was simply not available to students.

"Since 1980," Hoy continued, "colleges have endeavored to catch up with the rest of the economy — particularly in the important areas of faculty compensation and modernization of equipment and facilities to meet the educational demands of our growing knowledge-intensive economy.

"However," Hoy warned, "if campuses are to provide the access to quality education we have come to expect of New England's institutions of higher education, college costs cannot continue to rise at a rate higher than inflation over the next decade."

# What to do if your kid doesn't earn \$15,000 this summer.

---

## Introducing the Alliance Education Loan

---

At Bank of Boston, we know how hard it is to put a son or daughter through college. The cost can be staggering. And it's not coming down.

That's why we developed the Alliance Education Loan. It's an innovative new program that can provide from \$3,000 to \$15,000 a year for college. And, while the student is in school, you pay only the interest on the loan. So your monthly payments will be at their lowest while your college expenses are at their highest.

The Alliance Education Loan. Only from Bank of Boston. Now you can put your kid through college without putting yourself through an ordeal.

© 1985 The First National Bank of Boston. Equal opportunity lender.

Please send me information on  
the Alliance Education Loan Program.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip

\_\_\_\_\_  
Telephone

Put our strength to work for you.

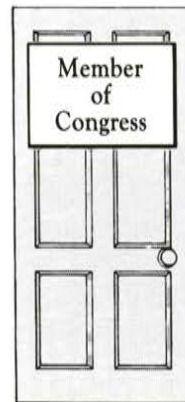
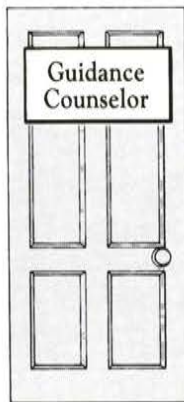
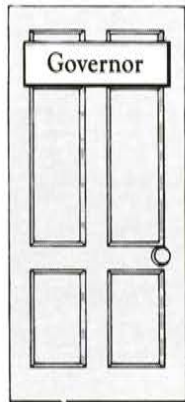
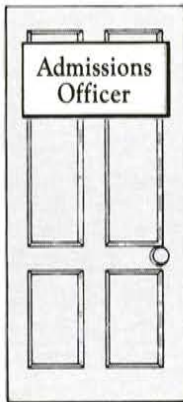
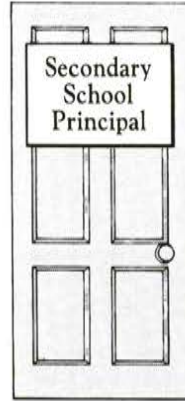
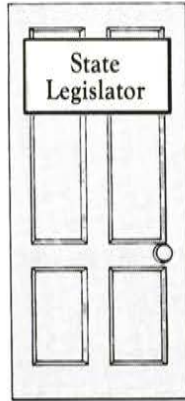
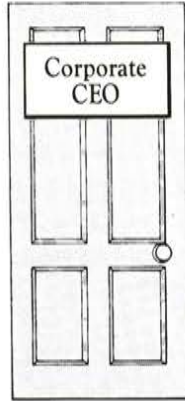
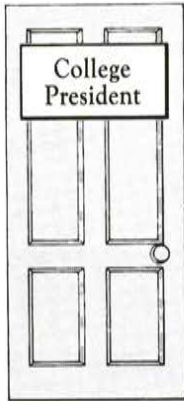


**BANK OF BOSTON**

P.O. Box 1296, Boston, MA 02105

Conn. 9/87

# You can find us behind all these doors...



**We reach the people  
who make New England's  
future happen.**



New England Board of Higher Education  
45 Temple Place, Boston, MA 02111

Non-Profit  
Organization  
U.S. Postage  
PAID  
Boston, MA  
Permit No. 161