For fast relief from the nagging ache of taxes, we recommend TIAA-CREF SRAs. SRAs are tax-deferred annuities designed to help build additional assets—money that can help make the difference between living and living well after your working years are over.

Contributions to your SRAs are deducted from your salary on a pre-tax basis. That lowers your current taxable income, so you start saving on federal, and in most cases, state taxes right away. What’s more, any earnings on your SRAs are also tax-deferred, so you don’t pay tax on your contributions or your earnings until you receive them as income. That can make a big difference in how painful your tax bill is every year.

As the nation’s largest retirement system, we offer a wide range of allocation choices—from TIAAs traditional annuity, with its guarantees of principal and interest, to the seven diversified investment accounts of CREF’s variable annuity. What’s more, our expenses are very low,* which means more of your money goes toward improving your future financial health.

To find out more, call our planning specialists at 1 800 842-2888. We’ll send you a complete SRA information kit, plus a free slide-calculator that shows you how much SRAs can lower your taxes.

Call today—it couldn’t hurt.

Ensuring the future for those who shape it."
The Connecticut Student Loan Foundation

Making the Dream a Reality.

The Connecticut Student Loan Foundation is proud to have served Connecticut's students for over 25 years.

Connecticut Student Loan Foundation
525 Brook Street, P.O. Box 1009
Rocky Hill, CT 06067
(203)257-4001
THE MASSPLAN

Easily the Best College Financing Program Available to Families Today!

U.L. PLAN

The Massachusetts College Saving Program

Lock in Tomorrow's Tuition at Today's Rates!

MEFA

MASSACHUSETTS EDUCATIONAL FINANCING AUTHORITY

Providing Educational Access to Students From Around the World!

A Not-For-Profit State Authority Promoting Economic Development of Higher Education in the Commonwealth of Massachusetts.

For more information, call us at:
1 (800) 842-1531
COVER STORIES

11 Higher Education and Human Capital
   John C. Hoy

12 Higher Education as Investment
   Cathy E. Minehan

16 Growing New England’s Economy
   Patricia M. Flynn

18 The New Stratification of Higher Education
   Michael S. McPherson

20 Public Higher Education’s Dilemmas
   Robert L. Woodbury

22 Reconnecting with Society’s Needs
   Charles I. Bunting

24 Higher Education’s Quiet Transformation
   Katharine H. Hanson

26 Restructuring a University
   Michael K. Hooker

30 Equity, Excellence and Affirmative Action
   Edgar F. Beckham

34 A Tool to Avoid Discrimination
   James S. Hoyte

ROUNDTABLE

Observations from Elizabeth Coleman, Booker T. DeVaughn, Michael S. Dukakis, William I. Farrell, Bennett D. Kate, Stanley Z. Koplik, Richard A. Licht, John R. McKernan and J. Alvin Wakefield on:

17 Preparing an Educated Citizenry

19 Public Expectations of Higher Education

21 Changing Academic Culture

23 Distance Learning

35 Restructuring Higher Education

COMMENTARY

36 Excerpts
   Rhoda H. Karpaskin on commercials in the classroom
   Robert C. Wood, Richard A. Hogarty and Aundrea E. Kelley on public higher education
   Franklin M. Loew on the demise of tenure
   Judith S. Eaton on corporate support

41 Education of a Governor
   Stephen E. Merrill

45 Institutional Autonomy and Public Accountability
   Eleanor M. McMahon

DEPARTMENTS

4 Editor’s Memo
   John O. Harney

5 Short Courses

9 Data Connection

48 Campus: News Briefly Noted
The demand side of New England’s human capital equation is reflected each week in the “Help Wanted” sections of the region’s major Sunday newspapers, the largest of which is the Boston Sunday Globe.

A manufacturer of loudspeakers seeks a design assurance technician with formal technical school training and technical experience — “and TQM experience would be a plus.” A maker of high-tech medical instruments needs an international administrative manager with “strong interpersonal skills and import/export experience.” A university institute is looking for an associate director for planning and development who has “demonstrated ability to work in a professionally and culturally diverse environment.” A major bank needs a senior telecommunications specialist, ideally someone with a bachelor’s degree, three to five years’ experience with “intelligent wiring hub and router related technology” and strong written and verbal communication skills.

Many of the job descriptions are incomprehensible to the average reader — a testament to both the clipped language of the “Help Wanted” pages and the “high-tech” nature of New England’s economy. Notably, however, these jobs are not confined to traditional high-tech firms. They are found throughout the economy — at banks, insurance companies, newspapers, hospitals, you name it.

“Strong communication skills” is an almost universal requirement, regardless of the specialty. A knack for “teamwork” is emerging as another. A college degree is the minimum qualification for most jobs. And the prevalence of terms such as “flexible” and “adaptable” underscores the fact that many employers consider a worker’s single most important qualification to be the ability to learn more.

Which brings us to the supply side of New England’s human capital equation — and the focus of this issue of CONNECTION.

If formal training — two-year or four-year, technical or liberal arts — powers today’s economy (to say nothing of its role in informing politics, furthering the arts and promoting scientific understanding) then New England should be doing just fine. After all, the region is an overachiever in “degree production.” Though the six states are home to only 5 percent of the U.S. population, the region’s roughly 260 colleges and universities confer 6 percent of the associate degrees awarded in the United States, 8 percent of bachelor’s degrees, 9 percent of master’s degrees, 8 percent of law degrees and 8 percent of doctorates.

But alas, higher education’s role as provider of human capital is in doubt. Recent proposals in Congress to do away with a host of education programs, pare down student financial aid and abandon Affirmative Action reveal that political rhetoric about the ever-increasing need for “knowledge workers” is not matched by a commitment to expand access to higher education. Some educators raise the prospect of a new stratification, in which affluent students attend selective institutions with rich educational offerings, while low-income students attend poorer institutions focused purely on vocationalism.

Employers, meanwhile, find the pace of change in higher education excruciatingly slow. Many of them — having found faster, cheaper ways to deliver their own products and services — figure colleges and universities should be able to more efficiently turn out educated people. Much of the public views higher education as arrogant, irrelevant and expensive. College administrators turn around and blame the faculty.

This dysfunctional relationship notwithstanding, New England educators and business leaders meeting in early spring at the New England Board of Higher Education’s 40th anniversary conference actually explored together a more promising future, in which higher education makes do with less, teaches out to nontraditional students and emphasizes teaching students to learn. Their insights inspired this issue of CONNECTION.

John O. Harney is the editor of CONNECTION.
Presidential Selections

Time to update the New England college presidents in your Rolodex, but you’d better use a pencil...

Robert L. Woodbury, chancellor of the University of Maine System from 1986 until an unsuccessful run for governor in 1993, returned to the post in April on an interim basis. Woodbury replaced J. Michael Orenduff, who resigned after controversy over distance learning plans led to votes of no confidence from faculty on the system’s seven campuses. Orenduff becomes president of New Mexico State University in July.

Michael K. Hooker, president of the University of Massachusetts since 1992 and former chief of the University of Maryland, Baltimore County, and Bennington College, resigned in May to become chancellor of the University of North Carolina at Chapel Hill, his alma mater. UMass-Boston Chancellor Sherry H. Penney was named interim president.

Douglas J. Bennet Jr., the former head of National Public Radio and assistant U.S. secretary of state for international organization affairs, becomes president of Wesleyan University, his alma mater, in July. Bennet succeeds William M. Chace, who became president of Emory University last August. Wesleyan’s interim president, former Provost Joanne V. Creighton, becomes president of Mount Holyoke College in January 1996.

Paula M. Rooney, former vice president for student affairs at Babson College, becomes president of Dean College in July. Rooney replaces John A. Dunn Jr., who resigned in February after less than three years at the helm, citing “political differences” with Dean trustees.

John W. Schumaker, former president of Central Connecticut State University, becomes president of the University of Louisville in July.

William Grenville Ellis, former president of Wayland Academy in Wisconsin, replaces William R. O’Connell as president of New England College in August. Sandra Featherman, former vice chancellor for academic administration at the University of Minnesota at Duluth, becomes president of the University of New England, replacing Thomas Hedley Reynolds, who led Bates College for two decades before joining UNE four years ago.

Former New Hampshire Gov. Walter Peterson will leave the presidency of Franklin Pierce College and John R. Dimity will leave the presidency of Northern Essex Community College, both after 20 years in their positions.

Peterson’s and Dimity’s longevity make them rarities. In 1990, more than half of college presidents had been on the job five years or less, according to the Association of Governing Boards of Universities and Colleges.

Why the turnover? Today’s campus chief executives face “a much tougher job with greater demands and more competition for resources,” says Robert N. Rue, the dean of the college at Urban College of Boston and former president of Mohoigan Community College. “Everything is harder to manage today than it was 20 or 30 years ago.”

Former Massachusetts Gov. Michael Dukakis concluded a discussion at the March conference marking the 40th anniversary of the New England Board of Higher Education with a bit of prescience. “It may take a different set of aptitudes and skills and abilities to be a university president these days than it used to,” said the former presidential candidate-turned-Northeastern University political science professor. “I'm not saying those who have had some experience in the political battle are necessarily better qualified than others, but the more I see on campus these days, the more I believe that university presidents who have formidable political skills tend to do this job better.”

Six weeks later, the Boston media was consumed by the possibility that Hooker’s old job at UMass could go to a New Englander whose name is synonymous with formidable political skills: the Bay State’s Senate president, William M. Bulger.

****

When Sr. Rita Larivee took a sabbatical from the presidency of Anna Maria College to complete her doctorate, the small Central Massachusetts college had few strong internal candidates to step into the job of interim president. So, Anna Maria contacted the two-year-old Registry for Interim College and University Presidents, which offered a heavy-hitting solution in former Babson College President William Dill.

Dill is among more than 40 former campus chief executives available for interim assignments up to two years long through the registry run by Thomas H. Langevin, a higher education consultant and former president of Capital University in Ohio, and Allen E. Koenig, former president of Chapman University in California and Emerson College. In most cases, colleges pay the registry the equivalent

---

**College Costs: On an Incline**

Most New England colleges and universities will raise charges by roughly 5 percent for the 1995-96 academic year — down significantly from the double-digit hikes of the 1980s, but still outpacing inflation. Several campuses cited increasing demands on institutional financial aid budgets as a reason for hiking costs; an estimated 20 percent of unrestricted funds at highly selective private institutions go to financial aid, up from about 13 percent a decade ago. A sampling of 1995-96 undergraduate charges at the region’s higher-priced institutions:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Tuition</th>
<th>% Increase</th>
<th>Total Charges</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brandeis University</td>
<td>$20,470</td>
<td>5.6</td>
<td>$27,715</td>
<td>4.9</td>
</tr>
<tr>
<td>Yale University</td>
<td>$21,000</td>
<td>5.8</td>
<td>$27,630</td>
<td>4.9</td>
</tr>
<tr>
<td>Harvard University</td>
<td>$18,838</td>
<td>5.5</td>
<td>$27,575</td>
<td>5.1</td>
</tr>
<tr>
<td>Tufts University</td>
<td>$20,557</td>
<td>4.3</td>
<td>$27,336</td>
<td>4.4</td>
</tr>
<tr>
<td>Dartmouth College</td>
<td>$20,805</td>
<td>6.5</td>
<td>$27,039</td>
<td>5.1</td>
</tr>
<tr>
<td>Middlebury College</td>
<td>*</td>
<td>*</td>
<td>$27,020</td>
<td>4.9</td>
</tr>
</tbody>
</table>

* Comprehensive fee covers tuition and room and board.
of the incumbent president’s salary and fringe benefits. The registry then pays the interim president the salary portion and takes the benefit component as a fee.

The service averts the “panic situation” that often accompanies naming an interim head, says Dill. Some of the interim presidents-for-hire focus on maintenance; others shake things up, knowing they won’t be around long.

Under registry policy, the interim president cannot have any previous connection with the institution and will not seek the permanent job. Dill says using the registry gives internal candidates for the permanent job a break by sparing them the sometimes-bruising transition period.

Among others available through the service: Ralph Gauvey, former president of Roger Williams University; Harold Shively, former president of Bunker Hill Community College; and Edgar Schick, former president of the now-defunct Nason College. The registry also provides consulting by former chief executives, including former Clark University President Mortimer Appley and former Bryant College President William T. O’Hara.

A Demographic Rebound

New England colleges and universities fielded more than 459,000 freshman applications for the fall 1995 term as of the traditional admissions deadline of May 1, according to the New England Board of Higher Education’s 36th annual “Student Vacancy Survey.”

That represents a 5 percent increase over last year, when freshman applications rose by 4 percent.

Only 26 percent of the 223 undergraduate institutions surveyed reported a drop in freshman applications, down from 40 percent in 1994.

Even with the strong application numbers, 170 campuses reported they were still considering additional qualified applicants as of the traditional deadline, though certain popular programs such as nursing and allied health tended to be filled.

NEBHE has conducted the survey since 1959 as a service to students who have yet to choose a college by May 1. The survey has also served as a gauge of New England demographic trends and student preferences. Indeed, some observers see the new figures as confirmation that the region is emerging from an enrollment trough caused by a 15-year dip in the number of traditional college-age New Englanders.

Admissions officers noted that students are aggressively shopping for the best financial aid packages, and some students are applying to as many as 15 colleges in search of the best deal.

What Makes Students Pick?

Academic quality and affordability are the most important factors students consider when choosing a college, according to a recent survey of 310 New England high school students by the Bureau of Business Research at American International College.

Students ranked the academic reputation of specific academic departments first and the overall academic reputation of the school second among 46 different factors in selecting a college. Also among the top five criteria: availability of scholarships and financial aid, affordable tuition and strong career placement services.

The value put on career services is a reflection of the times. “Students hear a lot about corporate downsizing and realize they’ll be competing with 50-year-olds for jobs,” says Ira Smolowitz, dean of the AIC Bureau of Business Research and co-author of the survey.

The Contract on Education

Republicans in Congress have proposed a range of education cuts, including ending the in-school interest exemption on federal loans, eliminating campus-based aid programs, scrapping the U.S. Department of Education and eliminating support for the national arts and humanities endowments and the Corporation for Public Broadcasting.

The proposed changes to federal loan programs have caused the most stir among higher education associations and student groups. The federal government currently pays the interest on a student loan while the borrower is in school. Ending the practice would save the government — and cost students — more than $12 billion over five years to be used to cut the deficit and pay for tax cuts as part of the Republican platform known as the Contract with America.

The American Council on Education, the chief lobbying group for colleges and universities, noted that the change would represent the “single largest student financial aid cut in history.” Under current law, a four-year college student who borrowed the maximum amount through the federal Family Education Loan Program would owe $17,125 upon graduation. If interest were charged while the student was in school, the student would owe an additional $3,407 or a total of $20,532.

The cuts appeared to have little public support. A Time/CNN poll conducted in May found 77 percent of Americans feel it is important to prevent student loan programs from being cut. Only Social Security and Medicare were viewed as precious by more Americans. In the same poll, 77 percent said they opposed eliminating the U.S. Department of Education.

Take This for Granted

New England colleges and universities garnered more than $1.2 billion in private gifts during academic year 1993-94, up by more than $200 million over the previous year, according to new data released by the New York City-based Council for Aid to Education.

To be sure, the largesse is lopsided. Just four institutions — Harvard, Yale, the Massachusetts Institute of Technology and Dartmouth — accounted for more than half of the support to all New England colleges and universities.

The biggest percentage gainer among all New England campuses was Norwich University, where voluntary support shot up by 325 percent from about $2 million in 1992-93 to $8.5 million last year.

Moreover, the region’s public institutions, which have been pressured to tap into the world of private fundraising, showed mixed results. The land-grant universities of New Hampshire and Maine and Fitchburg State College in Massachusetts posted major gains. For example, giving to UNH nearly tripled from $5.9 million in 1992-93 to $16.4 million
last year. But of 83 New England institutions reporting gifts for both years, 27 posted one-year declines, and nine of those were public institutions.

Nationally, colleges and universities received $12.4 billion in private gifts, posting an inflation-adjusted increase of 8 percent over 1992-93 for the sharpest one-year jump since academic year 1986-87, according to the council.

Meanwhile, educational expenditures, also adjusted for inflation, rose by just over 3 percent and enrollment grew by less than 1 percent.

Nationally, alumni support grew to $3.4 billion, up nearly 12 percent in inflation-adjusted dollars. Gifts from non-alumni individuals grew by 8 percent to $2.8 billion. Foundation support grew by 13 percent to more than $2.5 billion, due partly to two large gifts by the Annenberg Foundation to the universities of Pennsylvania and Southern California. Corporate support rose by a sluggish 2 percent to $2.5 billion. Support from religious and other organizations dropped 2 percent to $1.1 billion.

Academic Newsstand

The latest in New England academic journals:

Students at Boston University School of Law in April created the *Journal of Science and Technology Law*, the nation’s first law journal available exclusively online and on CD-ROM. Articles focus on biotechnology law, computer and communications law, technology transfer and licensing, intellectual property law and business law for technology-based companies.


Vice President Al Gore took the occasion of an Earth Day speech at Molten Metal Technologies in Fall River, Mass., to unveil the *Journal of Industrial Ecology*. The journal, linking ecological principles with industrial systems, will be published at Yale University, beginning in early 1996, with the AT&T Foundation providing initial funding.
The surprising facts about the cost of student loans.*

<table>
<thead>
<tr>
<th></th>
<th>GOOD</th>
<th>GOOD</th>
<th>BETTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you</td>
<td>Direct Lending</td>
<td>Bank Loans</td>
<td>Sallie Mae</td>
</tr>
<tr>
<td>borrow</td>
<td>FDSL P</td>
<td>Standard FFELP</td>
<td>FFELP Lenders</td>
</tr>
<tr>
<td>$5,000</td>
<td>$7,100</td>
<td>$7,100</td>
<td>$6,728</td>
</tr>
<tr>
<td>10,000</td>
<td>14,200</td>
<td>14,200</td>
<td>13,380</td>
</tr>
<tr>
<td>50,000</td>
<td>71,002</td>
<td>71,002</td>
<td>65,378</td>
</tr>
</tbody>
</table>

Sallie Mae lenders offer the lowest cost loans nationally available by as much as 8%.

There has been a good deal of confusion about the relative cost of student loans.

The fact is, while the FFELP and direct lending programs have basically the same terms, Sallie Mae's more than one thousand lenders offer the lowest cost student loans that are nationally available. Sallie Mae programs such as Direct Repay®, Great Returns® and Great Rewards® offer students significant savings over the direct lending program and standard FFELP loans.

Sallie Mae borrowers also get the best service in the business today. Borrowers can choose from a number of repayment options that are tailored to their circumstances. They can consolidate several loans into one new account with an extended repayment term and substantially lower initial monthly payments. Experienced customer service representatives are available 24 hours a day, seven days a week to help borrowers understand the options available.

Sallie Mae also offers significant advantages to financial aid administrators. Sallie Mae services such as ExportSS®, LineSS® and Electronic Funds Transfer help eliminate paperwork from FAAs' desks and simplify loan application processing.

Sallie Mae has been helping make education possible with cost-effective student loans for many years. Our commitment is to continue to provide students the lowest cost loans with the highest level of service and to make the job of FAAs as hassle-free as is humanly possible. To find out which lenders offer the lowest cost loans nationally available, call 1-800-891-406.

*All these figures represent total loan cost for loans disclosed at a 7.43% interest rate with a 10 year term and assume the Sallie Mae borrower participates in the Direct Repay, Great Returns and Great Rewards programs.
Non-Whites as a percentage of U.S. elementary and secondary school students: 30%
Non-Whites as a percentage of U.S. elementary and secondary school teachers: 13%
As a percentage of U.S. college faculty: 13%
Immigrants as a percentage of total U.S. population: 8%
As a percentage of Canada's total population: 16%
As a percentage of Japan's total population: 1%
Rank of Mark Twain among authors most often recommended for U.S. high school and first-year college students: 1
Number of women among the 20 authors most often recommended: 2
Bookstores per 10,000 households in the United States: 1.71
Bookstores per 10,000 households in Burlington, Vt.: 2.96
In Bangor, Maine: 2.94
Number of New England university professors among the 60 scientists elected to the National Academy of Sciences in 1995: 12
Approximate 1994 attendance at Boston's Museum of Science: 1,565,000
At Boston's Museum of Fine Arts: 800,000
Average number of family doctors per 100,000 people in U.S. metropolitan areas: 21
Number of family doctors per 100,000 people in Greater Boston: 11
Average number of specialists per family doctor in U.S. metropolitan areas: 10
Number of specialists per family doctor in Greater Boston: 31
Amount U.S. insurance companies pay out for every $1 they receive in health care premiums: $0.72
Number of Fortune 500 companies that are based in New England: 46
Number of those that are based in Stamford, Conn.: 8
Percentage of Connecticut residents who think the state's economy is fairly bad or very bad: 65%
Number of Fortune's 100 fastest-growing companies in terms of sales that are based in New England: 12
Number that are based in California: 27
New England private-sector jobs related to defense in 1989: 362,500
In 1994: 269,200
Estimated percentage of laid-off New England defense workers who find new employment that pays more than their old defense-related jobs: 16%
Percentage whose new jobs entail pay cuts of 40 percent or more: 23%
Projected percentage growth in jobs for U.S. workers with bachelor's degrees or higher, 1992-2005: 31%
Projected percentage growth in jobs for workers with some college education: 34%
Increase in number of U.S. 13-to-15-year-olds arrested for murder and manslaughter, 1982 to 1992: 90%
Percentage of fall 1994 college freshmen who say capital punishment should be abolished: 20%
Percentage of 1971 college freshmen who said so: 58%

Sources: 1,2,3 American Council on Education; 4,5,6 Organization for Economic Cooperation and Development; 7,8 The College Board; 9,10,11 American Booksellers Association; 12 NEBHE analysis of National Academy of Sciences data; 13,14 Boston Business Journal, 15,16,17,18 Northwestern National Life Insurance Co.; 19 Neighbor to Neighbor; 20,21 Fortune; 22 Quinnipiac College Polling Institute; 23,24 NEBHE analysis of Fortune data; 25,26,27,28 Federal Reserve Bank of Boston; 29,30 American Council on Education; 31 Brandeis University; 32,33 Higher Education Research Institute, University of California, Los Angeles
Some Things
Just Work Well
Together.

ASA and You.

Everyone knows that some things just work well together. That’s the way it is with ASA and you. For nearly 40 years we’ve formed a successful partnership. Together we’ve brought over 1,000,000 students and their families that much closer to realizing their dreams of higher education. With a record like that we’ve earned our place on the list of great combinations.

At American Student Assistance we are proud of our reputation as a high quality, full service guarantor. For more information call us at 1-800-999-9080.
Higher Education and Human Capital

Working in the most knowledge-dependent economy on Earth, New Englanders truly believe in the value of education: The region ranks first in the United States in educational attainment and boasts the world’s foremost concentration of colleges and universities.

That’s why — despite proposals to cut investment in higher education and impatience from those who find academia set in its ways — there is good reason for New England colleges and universities to sit out the downsizing dance that has swept the public and private sectors.

In fact, the unmerciful economic shifts that have cost jobs across the New England economy suggest more, not less, investment in higher education. For higher education creates the knowledge and skills — the human capital — that drive the new economy.

Moreover, education enables individuals to pursue meaningful jobs, if not “brilliant careers.” And educational attainment pays hard currency. People age 18 and over who don’t finish high school earn an average of about $13,000 annually. With each additional level of education, the figure rises. Average earnings for people with associate degrees exceed $25,000, topping $33,000 for bachelor’s degree holders and so on, up to $75,000 for people with professional degrees.

But is New England prepared to educate the skilled workforce needed to thrive in the 21st century? Will the high costs of higher education leave some New Englanders behind? Will public institutions become so reliant on private support that they cease to be accountable to our states? In short, will today’s decisions strengthen or weaken New England’s most precious, but most underappreciated, comparative advantage: its human capital?

These were among the questions pondered by New England leaders at Higher Education and the Economy of New England 1955-1995: Prologue to the 21st Century, a conference held on March 30 in Boston to mark the 40th anniversary of the New England Board of Higher Education. Our “Cover Stories” provide some answers to these questions and raise others.

The “Roundtable” sidebars throughout the “Cover Stories” are adapted from a conference roundtable discussion moderated by former Govs. Michael S. Dukakis of Massachusetts and John R. McKernan of Maine.

Roundtable participants included Elizabeth Coleman, president of Bennington College in Vermont; Booker T. DeVaughn, president of Three Rivers Community Technical College in Connecticut; William J. Farrell, chancellor of the University System of New Hampshire; Bennett D. Katz, chairman of the Maine Educational Loan Marketing Corp.; Stanley Z. Koplik, chancellor of higher education in Massachusetts; Richard A. Licht, chairman of the Rhode Island Board of Governors for Higher Education; and J. Alvin Wakefield, a principal in the Vermont-based executive search firm of Wakefield-Talabisco International.
Higher Education as Investment

Higher education faces tough times. Costs and tuitions have been rising even as families have been financially stretched and state and federal governments have cut subsidies. At the same time, New England has been wrestling with significant economic challenges, as diverse industries restructure their operations and try to become more competitive. These two challenges are intertwined.

The recession of 1990-91 hit New England especially hard, and the region's state governments went into fiscal shock. That provoked sharp cuts to higher education throughout New England. Public colleges, in particular, were forced to compete more directly with state hospitals, social services and prisons for scarce funds. Even the elite private colleges were disrupted, and many of them have been anxious about their future. Taxpayers began to face choices they were able to avoid during the boom years of the 1980s, such as how to get the most for their money and how to strike the right balance between fiscal stability and far-sighted investment.

By tradition, indeed by necessity, New England has always lived by its wits rather than by its location or natural resources. Perched on scoured rock at the edge of the North Atlantic, we have fish and water power, but we lack the abundant agricultural land and coal and oil that have played such important economic roles in other parts of the country. Instead, we native-born and transplanted New Englanders have always put great stock in education. The Puritans established Harvard College in 1636, and half the towns in Massachusetts had schools by 1776.

Our most important exports have traditionally been the products of the region's highly skilled workforce — from mercantile services in the 17th and 18th centuries, to innovative manufactured products in the 19th century, to today's computer hardware and software, instruments, aircraft engines, insurance and financial and education services. New England's prospects rely significantly, and increasingly, on the region's ability to develop an educated workforce.

The interdependence of New England's economic health and its education base is reinforced by the shape of the regional economic recovery. New England has been on a slow, but solid, growth path since payroll employment bottomed out in December 1991. In previous recoveries, we typically witnessed a cyclical upswing in manufacturing employment, accompanied by growth in other sectors. In the present case, however, job cuts at manufacturing companies have continued, and the burden of job creation has fallen primarily on service and trade industries. The service sector is a hodgepodge category — ranging from software to car repair, health care to restaurants. Many businesses straddle several activities and defy classification. No matter how finely one breaks down the categories, a clear source of growth has been hard to find.

But one thing is clear: The industries growing in New England reflect the region's longstanding strengths, including a skilled workforce. Thus, New England's prospects depend in many ways on our complex of roughly 260 colleges and universities. These institutions directly provided about 113,000 jobs at last count. Moreover, as cultural and intellectual institutions, they make the region an appealing place to live. Perhaps most important, they educate our young and, with their high-quality teaching and research, attract students and faculty from around the world. Students frequently stay on here to extend the region's extraordinary tradition of technological and financial innovation. Many of New England's cutting-edge firms grew from ideas developed at local universities.

In a more service-based economy, the payoff for brainpower can only be greater. We've seen this, during the past decade or so, in the growing premium associated with a college degree.
Economists have pieced together an explanation that goes this way, in broad brush: For the past 30 years, there’s been a steady shift in the demand for labor, away from manual, less-skilled workers and toward college-trained workers. Before 1980, the growth of industries using large numbers of college-educated workers — health care, education, legal services and the like — accounted for the bulk of this change in demand. But since 1980, a shift in the methods of production grew more important. Firms in all parts of the economy switched to technologies that require more educated workers, such as engineers, accountants and MBAs. The expanding demand for educated workers in the 1980s outstripped supply, pushing their wages higher.

The colleges have become, far more explicitly, a means for investing in our future. Undergraduates have shifted to job-oriented curricula, such as engineering, business and other professional programs. In addition, more students are investing in a postgraduate education — in medical, legal and doctoral degrees. The Baby Boom “uppies” — urban professionals who are no longer so young — were the first to do so in a big way. The Baby Bust generation has followed in their footsteps.

The upshot is that today’s college-educated worker earns much more than his or her high-school-educated neighbor. The college wage premium seems to apply no matter what type of firm you work for.

Clearly, more education, and a more vocational education, benefits the individual economically. There is also evidence that higher levels of education benefit the larger society. Studies show that an educated person tends to be more law-abiding and financially independent. And the knowledge that students acquire in college can be expected to diffuse through society. College-educated managers and professionals, aided by the explosion in information technologies and all it implies, augment the productivity of others, including less-educated workers. And the government recoups many of its subsidy dollars through the income tax, which recaptures a substantial slice of the additional income a college education creates.

Economists have estimated the effects of these so-called spillovers: For each additional year of schooling, they find a 3 percent increase in general productivity — that is, in economic gains captured by society as a whole, not by the educated workers themselves. These public benefits go a long way in justifying public expenditures on higher education. And these expenditures are large. To run public campuses and subsidize tuitions, the states will spend $40 billion this year — about $1.8 billion in New England alone.

As the economic importance of college has grown, so has its price. The cost of professors, administrators, books, periodicals and, increasingly, technology, has risen faster than median family incomes and significantly faster than the earnings of low-income households. Colleges have been trying to reach out to students of modest means and, until recently, subsidies from government grants and college financial aid programs helped families pay for college. But now, the governments — beset by shortages of cash and pressed by more urgent budgetary needs — have cut back. In terms of state-level support for higher education, nowhere has the cutback been greater than here in New England.

On the federal level, meanwhile, New England’s share of government expenditures for research and development has been shrinking, as other regions have expanded their academic R&D capabilities and made stronger commitments to match federal R&D dollars with state funds. Federally funded science and technology projects are now more likely to locate in a state that is willing to pony up substantial matching funds. While this trend mainly affects a handful of major research universities, these are the New England institutions that consistently spin off marketable ideas and technologies to generate well-paying jobs.

Colleges and universities have far less financial room to maneuver than they used to. They have responded by deferring maintenance, canceling purchases, cutting programs and freezing salaries. But cost-cutting and retrenchment may not be sufficient. Some institutions may have to close or merge. Sacred cows like tenure need to be re-examined. Innovative management techniques, including the use of technology, can be important to higher education in reducing overhead and improving service quality to students. For schools with business departments, this could be a case of “Physician, heal thyself.”

Some colleges have embarked on the kind of restructuring that has swept through corporate America. Forward-thinking administrators have been trying to carve out their own niches in the education market. The elite private schools developed “luxury” education, gambling that they could keep attracting students at higher prices as long as families believed they were buying a superior product. Many public campuses, on the other hand, opened their doors to
Among all the transfers of wealth parents make to their children, the one with the greatest economic importance takes place when they pay for kids to go to college.

Anyone with a high school diploma. That's why the biggest gain in enrollment during the 1980s came at public four-year colleges. A third tack, taken primarily by the less prestigious private colleges, was to further focus on practical, vocational programs. These schools emphasized applied research and try to respond quickly to the changing skill requirements of local employers.

All institutions are also trying to extract more cash from students and their families. Tuition and fees have grown as a percentage of revenue, while state financial aid programs have been squeezed. Because of the depth of the regional recession and the region's high costs, some New England public systems charge among the highest tuitions in the nation. Higher education may not be overpriced, but colleges are having a difficult time convincing people that it's affordable.

As the economic burden of higher education has shifted to families, the students themselves have turned to increased work and debt. This is reasonable given the investment value of a college education. New federal guidelines allow students to stretch their payments over a longer period, which would lower the monthly burden. And more generous and flexible terms could raise student loan limits. But students cannot be called upon to bear all of the increasing burden.

Parents, the first source of funds, will probably also be called upon to increase their contribution. Among all the transfers of wealth they make to their children, the one with the greatest economic importance now takes place when they pay for their kids to go to college. The more the parents give, the more "human capital" the kids can acquire and the further they go in life. This transfer of wealth, however, occurs at a difficult period. The parents tend to be middle-aged, so their financial position often is still in flux. Shocks to the household's income or investment position can throw their financial plans into turmoil. If one parent gets laid off or has to support an elderly or sick parent, the household's plans to send kids to college may suddenly go awry.

Such risks — along with the public benefits of education — provide justification for government subsidy to education. Financing college is very risky for the individual family. Pooling the risk, through financial aid and subsidized loans, makes all families better off. More are willing to enter the game because they are confident that it can be budgeted.

Given the tightening of government subsidies, how can we more effectively manage resources to both ensure broad access and impose cost discipline?

First, public subsidies need to be used more efficiently. All public expenditures should generate a public benefit. One of the best known government programs, the G.I. Bill, provided substantial financial support to all World War II veterans who enrolled in college. The G.I. Bill was successful not only because those veterans excelled academically, but also because many of them would not have gone to college without the subsidy. By contrast, evidence over the past 25 years has shown that many students at public institutions come from middle- and upper-income families and would probably go to college with little or no government subsidy. Expenditures on their behalf thus do nothing but limit the amounts available to the truly needy. Most education economists agree that subsidies should be directed to students who otherwise could not afford college. These experts advocate a means-tested subsidy and a high tuition/high financial aid model.

Second, colleges must assume responsibility for careful cost management. High-quality education remains an expensive proposition, but colleges and universities have a long way to go in controlling their costs. The institutions could heed lessons from the corporate world, which has undertaken painful restructuring not only to cut costs, but also to raise product quality and tap the innovative potential of its workforce. Information technology, while a substantial up-front expense, yields benefits over the long run. Such technology, however, is useless without an engaged, productive staff. If faculty tenure impedes innovation and effectiveness, higher education may have to reassess that concept. Moreover, colleges and even universities cannot be all things to all people. They may need to address where their comparative advantage lies and fund only those programs that contribute to that strength.

Third, we need to think hard about the extent of the government's role in the lending program. Where private markets cannot function well and society would reap major benefits, government intervention is appropriate. Private markets traditionally have not supplied the students themselves with the necessary capital to underwrite an education. An 18-year-old student, after all, is difficult to finance. There's no collateral, you can't repossess the asset and you're uncertain of its value. These are big impediments. Private
markets do a trivial share of lending to students without a government guarantee, and even that share is projected to decline.

It now seems that the private sector’s role may contract in the guaranteed-loan market as well. The Federal Direct Student Loan Program, which took effect last year, places control of student-loan administration in the U.S. Department of Education, instead of with banks and other third parties. The exact level of savings this shift will yield over time is debatable.

Proponents argue that the government, by making student loans on a wholesale basis at the schools, will eliminate the middlemen — the banks, the guaranty agencies and the secondary market — and the substantial fees each one charges. Direct lending will fund 5 percent of total federal student-loan volume this year and is scheduled to rise to 40 percent of volume next year. Whether it is capped at 40 percent or eventually expands to all federal lending has become a political issue in Congress.

Will the government allocate capital more effectively than the private sector? I’m not convinced that it will. Banks, mortgage companies and other private entities do a substantial amount of lending to parents through such vehicles as home-equity loans and second mortgages. Here, private lenders have a proven record of assessing risk and devising innovative ways to fill demand for capital. If private firms expanded their lending to students, without a government guarantee, they would have to charge a higher rate to offset their higher cost of capital. But the costs of a government program may escalate as well. Perhaps loans could flow mainly to the parents, who are creditworthy, rather than to the students. Would society then get enough investment in higher education? I don’t know. An important factor may be the borrowing capacity of parents — how many could afford to borrow an extra $20,000 or $50,000 or $100,000? Until these issues are fully explored, I’m not ready to rule out the benefits of market discipline.

Another area in need of attention is the way parents look at their financial contribution to the cost of college. Too often, parents and financial aid officers don’t recognize higher education as a capital expenditure — a good that yields benefits over time. This investment in human capital does generate a high rate of return. Many parents find themselves facing costs of up to $25,000 a year and ask, “How can I afford $25,000 out of an income of only $50,000?” The same family, without hesititation, can tell you how they can afford to buy a $100,000 home on the same $50,000 income: They pay for it out of past and future income. They save for a downpayment and borrow for 30 years, reducing the out-of-pocket cost to a monthly payment of about $600.

The determination of how much parents contribute should emphasize long-term financial strength and not, as it is often calculated, the parent’s current income. One year’s income for one year’s tuition bill is probably the most irrational of all possible ways of looking at financing. Many families do finance over longer periods, using home-equity loans or tapping savings accumulated over time. But the prevailing conceptual link between one year’s tuition and one year’s salary must be broken, if we are to keep parents fully in the game. That means convincing them that paying for college is a worthwhile capital investment that can and should be financed over a longer period of time.

Finally, families need better information and resources for financial planning. How much does someone really need to save for college 10 years down the road? Should they count on equity in a house, or a 401(k) savings plan at work? There are a lot of confused parents out there, probably making unwise choices on the basis of poor information. Some organizations have recognized this problem and are responding. Nelle Mae, for example, has started to emphasize early awareness by publishing financial aid and loan brochures for high-school students and their parents. Other lenders and the colleges themselves would do well to reach parents even earlier, when their children are in elementary school.

The important questions involve tradeoffs between private markets and government intervention. The government’s subsidies to higher education have yielded substantial benefits over the years. Now, schools, students and parents are being called on to step up and shoulder more of the responsibility. Private lenders should have the opportunity to finance these arrangements and parents increasingly will be called upon for financing. But if the parents fail, there ought to be a way to ensure that the truly needy student can obtain an education. The challenge is to make higher education more accessible without sacrificing quality. For New England can’t afford to waste the educational potential of any one of its citizens.

Cathy E. Minehan is president and chief executive officer of the Federal Reserve Bank of Boston. She is a trustee of the University of Rochester and Bentley College.
Growing New England’s Economy

States and regions generally follow some combination of three basic strategies to generate jobs and promote economic development. They may attempt to “grow their own” high-technology companies. They might recruit firms from other parts of the country and abroad. And they may try to revitalize companies that are already established employers in the area.

New England has been unusually well-suited to pursue the high-tech strategy, and has done so successfully for decades. This strategy requires a critical mass of research and development, universities, venture capital, informal entrepreneurial and communications networks and a highly skilled and technical workforce.

Relatively few states have been able to generate a sufficient number of high-tech jobs upon which to build a viable economic development strategy. Even in New England and Silicon Valley, high-tech jobs have never accounted for more than 10 to 15 percent of regional employment. The bulk of jobs lie outside the high-tech sector in manufacturing and service industries. So, it’s very important that states and regions do not concentrate entirely on high-tech employment and neglect more traditional sources of jobs. This is where the other strategies come into play.

The recruitment strategy is a fairly minor factor in New England — and probably should remain so. Historically, companies that have moved from one state to another have usually sought lower costs, rather than higher skills or greater access to venture capital. Thus, New England, with its relatively high costs, has never fared very well in competitions to lure, say, automobile plants. Moreover, the facilities states tend to vie for are usually branch plants, providing mostly standardized, relatively low-skilled manufacturing jobs. These jobs might move again to chase even lower costs, so a plant could move from New England to the South one year and then offshore five years later.

Furthermore, recruitment strategies are becoming more expensive, as states couple cost-reducing incentives such as customized training programs with more traditional tax breaks and other financial advantages. Consider the case of South Carolina, which in 1992, “won” a highly sought-after BMW plant. South Carolina offered a package of incentives worth about $130 million. Employment at the plant was estimated at 2,000, primarily in assembly jobs. The state evicted 100 families from the area, so the plant could be built, then rented the land to BMW for $1 a year. The media paid considerable attention to the competition, but did not focus on how else the $130 million could have been spent or on the reactions of established employers in the area who were not eligible for such incentives.

Similarly, in 1993, Alabama beat out 20 other states for a Mercedes-Benz plant. Alabama’s recruitment package was valued at more than $300 million, including training costs and salaries for many of the 1,500 Mercedes workers in the first year. As in the previous case, Alabama rented the land to Mercedes for $1 a year.

It is also important to think about what kinds of jobs New England wants to attract. For example, The Wall Street Journal has highlighted the attraction of several German firms to the Carolinas, where they found the overabundance of workers more than compensated for their lack of skills. Also in the mid-1980s, General Motors chose Tennessee as the site for its much-publicized Saturn manufacturing center. But notably, the company moved its R&D functions and headquarters to Michigan, which offered a world-class manufacturing and engineering workforce.

If New England is going to take the recruitment route, we should not spend millions of dollars to attract standardized assembly work or other relatively low-skill jobs. Instead, we should try to recruit headquarters and R&D jobs — not just in computer and biotech fields, but also in more traditional manufacturing industries such as plastics, chemicals and textiles. Innovation and new product development are taking place in these industries somewhere in the world — why not in New England.
whose competitive strength resides in these “high-tech” activities?

The third economic development strategy is one in which all regions could stand improvement. It involves taking the established employment base and integrating new technologies, reorganizing and developing market niches, and competing on the basis of high quality and good service, rather than low cost.

History shows that the failure of firms to remain technologically competitive contributes more to worker displacement and job loss than does the adoption of new technologies. Yet, while the United States remains a strong competitor in R&D and innovation, the nation continues to fare poorly in the transmission of “best practice” technologies throughout the industrial structure. Established firms can also enhance their competitiveness through customization and market niches. Organizational and managerial changes are often necessary to fully exploit the potential productivity gains of new technologies and corporate restructuring.

Most regions will pursue a mix of strategies to ensure competitiveness and long-term economic growth. The best mix and specific programs and policies will reflect the characteristics and potential of a region’s resources and the strengths on which it can build a competitive advantage.

For New England, this suggests focusing on our people — building on our well-educated and relatively high-skilled workforce, our universities and R&D capacities, our entrepreneurial spirit and ability to attract venture capital. We should promote and cultivate high-tech activities across a wide range of industries and foster the revitalization and competitiveness of established firms. Any public funds spent on recruiting firms to New England should be targeted towards attracting “good” jobs that require relatively skilled workers and are likely to promote long-term economic development in the region.


---

**On Preparing an Educated Citizenry**

**John R. McKernan**

In the past, as long as we made sure that the top one-third of students got an education, we were able to prosper and increase our standard of living. Now, we need more access to higher education, so students can enjoy the kind of economic opportunities that can exist in this country, but won’t exist without increased educational levels. The public expects higher education to develop good citizens who can actually participate in a 21st century economy. Furthermore, it is this economic argument that gives us the greatest opportunity to enhance funding for education, but it will have to be demonstrated to the taxpayers that higher education is going to result in more economic opportunities for their children or themselves.

**Booker T. DeVauogh**

Colleges are already preparing people who can find employment in this society, because programs of study are largely student-driven, and students know which kinds of programs are going to help them find work. For example, I’ll have 500 qualified applicants for 50 slots in a nursing program. But we have a larger responsibility to incorporate into the curriculum those kinds of things that are going to make an impact on a student who will then influence society — the civic virtue issues. Life is more than just going to your job and coming home.

**Elizabeth Coleman**

We have a way of thinking that if something is virtuous or good or philosophical, it doesn’t make money — or that we’re being irresponsible about the economic agenda. This is a very dangerous separation. Being an effective member of society in the coming decades probably will require a quality of thinking that we are not accustomed to producing on any large scale. Thinking is also the revolutionary force that will effect change in our institutions. If we are a country in which talk show hosts have become philosopher kings, there is a dire and profound failure of education. We need to address that squarely.

**William J. Farrell**

Employers really want to hire people who are capable of acquiring knowledge. We have to get back to a basic mission that has been forgotten on campus which is the preparation of students who know how to learn.
The New Stratification of Higher Education

America's multi-purpose system of higher education is marked increasingly by stratification on a variety of dimensions. A recent study I conducted with Morty Schapiro, dean of the College of Letters, Arts and Sciences at the University of Southern California, for example, revealed signs of growing income stratification in U.S. higher education. In 1981, 43 percent of all low-income college students attended community colleges. By 1993, that figure had risen to 47 percent, while the fraction of all middle- and upper-income college students attending community colleges declined.

Two-year community colleges, of course, offer excellent opportunities to many students from various income levels. But the increasing concentration of low-income students at these institutions has a lot to do, we suspect, with low-income students' increasing inability to finance other kinds of higher education, including other public higher education. As tuitions at public colleges and universities grow and student aid funding lags behind, it has become unrealistic for students in many states to attend college away from home, even at their home state's flagship public university.

This access issue is closely related to the long-term funding drought that has parched public higher education, particularly in New England. For a while, it was possible for colleges to assure themselves that this disinvestment might be a temporary phenomenon stemming from the recession of the late 1980s and early 1990s. But in many states, there will be no return to the days of double-digit percentage increases in state appropriations for public higher education.

Competing demands for the public dollar, the reluctance of Americans to pay higher taxes and the eagerness of Congress to turn government responsibilities back to the states are all going to make public funds for higher education scarcer. One result is that prices at public colleges and universities are going up at the same time that state-provided financial aid is being cut back.

This funding trend also encourages individual institutions in the public sector to contemplate pulling away from state control to seek their own fate. Their hope is that by becoming state-assisted, rather than state-operated, they can hang on to some state funding while gaining valuable room to maneuver. This trend toward entrepreneurship can have many good consequences, unleashing forces of imagination that can be stifled in a more controlled environment. But some observers wonder whether such semi-privatized public institutions will have the appropriate orientation toward serving broad public purposes, for example, setting their fees and developing their programs.

Another dimension of stratification is occurring among institutions. Within the private sector especially, there is a widening gulf between a relatively small number of affluent and highly selective institutions, and a much larger number of institutions that are fiscally hard-pressed and struggling to attract enough applicants to fill their freshman classes. To what extent this growing division will damage the health and public perception of the whole private higher education sector remains to be seen.

The potential liabilities of this growing stratification become particularly clear when viewed against the backdrop of the demands society will place on higher education in the coming decades.

One demand is to provide education and training for students who are not likely to pursue bachelor's degrees. Such career-oriented training is provided largely by community colleges and proprietary vocational schools — often the most financially stressed of institutions. Moreover, there is strong evidence of high economic returns associated with investment in higher education of all kinds. Ironical-
ly, this is due not so much to the strong prospects for those with postsecondary training as it is to the poor and worsening prospects for those who enter the workforce with only a high school diploma. Whether our society will display the will and provide the resources to create better opportunities for the many young people who are not headed for a traditional college education is a major question for the future.

A second demand on higher education is to respond to the globalization of the economy. One aspect of this is the growing number of students from abroad seeking a college education in the United States. Perhaps more importantly and more pervasively, there is a growing need for American young people to gain some capacity to comprehend, deal with and even function in other societies. This is partly a matter of foreign language skills, but much more a matter of cultural flexibility.

Finally, rapid technological change in the economy, and potentially in higher education, challenges us to think about new ways of doing our business, as well as new ways to prepare people for a world experiencing this kind of rapid change.

Although some may think that technical change calls for technical education, I believe that rapid technical change as well as globalization point to an increasing need for liberal education. The capacity to understand other cultures and other ways of thinking and the ability to respond flexibly to changing job requirements resulting from technical change are cultivated by liberal education. Training people for today’s technologies doesn’t make much sense — as legions of COBOL programmers have learned.

All these factors produce a requirement for colleges and universities to innovate. The paradox is that colleges and universities increasingly are divided into two sets: one that has the resources required to innovate — because exploring other ways of doing things isn’t cheap — and another that has the incentive to innovate because their current ways of operating aren’t paying the bills. Institutions with the resources to innovate are tempted by complacency, precisely because of the advantage conferred by their resources, while institutions that need to innovate have trouble following through because of a lack of resources. Getting past this paradox will require imaginative leadership.

Michael S. McPherson is dean of the faculty at Williams College.

Richard A. Licht

There’s a changed reality, and I’m not sure people on campus have recognized that. It’s not only the reality of a different financial situation, but also a different set of public expectations of higher education. It once was enough that higher education furthered civilization. You can’t talk that way anymore. Now, higher education is viewed in economic development terms. You have to be able to show the “value added.” Accountability is when a small manufacturer tells you one of your graduates just isn’t measuring up to the job. I don’t think the campuses know that what is expected of them has totally changed. If we don’t recognize that we have to deal with changing expectations from the public, we’re not going to get the resources. But if we meet the public’s expectations, the resources can be there.

J. Alvin Wakefield

In many instances, you’ve got businesspeople making decisions about higher education. But businesspeople don’t necessarily understand higher education. Businesspeople think they do a fantastic job of downsizing and rightsizing and upsizing and restructuring and reengineering. They know — or think — they’ve cut tremendous cost out of the business; they’ve streamlined and flattened it out. But they don’t see that happening in academic institutions. They say, “What are they doing? Their tuition is rising by about 7 percent every year. They need more money for this, more money for that.” There’s a general lack of understanding about how academic institutions work.

Booker T. DeVaugn

We have to change in order to survive. But each of us is going to come up with different answers as to how we achieve change. There are those who will say we shouldn’t be spending on day care. Yet, it is filling a very important need. Then, there are faculty who will say, “We don’t need that business services outreach person,” yet working with the private sector provides us with the kind of support we wouldn’t ordinarily have because by entering into contracts with businesses, we can make money to support, say, courses in Western civilization.
Public Higher Education’s Dilemmas

New England’s public colleges and universities face a complex weave of myths and realities that deserves re-examination by the region’s policymakers, business leaders and others.

1. Public higher education’s funding dilemma is not simply a matter of priorities. The problem is not whether legislators and governors view public higher education as worthy of funding. The problem is that because of mandates, entitlements, court orders and a variety of other items, legislators are stuck in a box. Chancellor Barry Muniz of the California State University System recently noted that when the Legislature in his state arrives for the first day of the legislative session, 86 percent of the budget has already been set in stone. There’s only 14 percent left to talk about. The simple fact is that when states go to balance their budgets, the only major contingency fund they have is public higher education.

In Maine, once the Legislature deals with K-12, mental health, health, corrections and interest on debt, maybe 25 to 30 percent of the budget is left. A third of that is generally available for public higher education, but when demands on Medicaid rise or a revenue crunch appears, public higher education becomes the rainy day fund. In short, the real financing problem for public higher education is the very structure of federal and state budgets.

2. Whatever happened to the notion of public higher education as a public good? We hear repeatedly that higher education is the key to New England’s economy. Yet in Massachusetts, just 3 percent of the state budget is now allocated to public higher education! New England, despite its rhetoric to the contrary, is on the verge of abandoning the notion that public higher education bears a relationship to a larger public good. We are not alone. In California, a prison guard with a high school diploma in his sixth year on the job earns $45,000 a year on average. A newly tenured associate professor in the state college system of California — with 10 years of education past high school — earns $41,000 on average.

3. High tuition/high aid is a delusion and a snare. It won’t happen. You won’t get public policy targeting significant new financial aid resources from states for the purposes of access for low-income, increasingly minority, student populations. In fact, in state after state, high tuition has been coupled with cuts in financial aid, so you get high tuition/low aid. Also, if you go in that direction, you lose the notion of public accountability. After all, if colleges and universities are merely state-assisted, rather than state-operated, the states have diminished claims on institutional agendas.

4. Conventional wisdom says colleges and universities aren’t very good businesses; they don’t run very well. This simply isn’t true. It should be noted that there are very few other U.S. industries, other than soft drinks and entertainment, that are running a $5 billion to $6 billion favorable balance of trade. About 480,000 foreign students come to study in the United States, and 75 percent of them bring their own money. There’s a market reason for that. The proposition that banks know how to operate and universities don’t is false. Moreover, we should not be patronizing about college faculty. For the price we pay — which is fairly small — we get extraordinary returns in creativity from faculty.

5. Public higher education must connect with the larger community. In a recent report published by the John W. McCormack Institute of Public Affairs of the University of Massachusetts at Boston, former UMass President and U.S. Secretary of Housing and Urban Development Robert C. Wood, Institute Director Richard A. Hogarty and doctoral candidate Aundrea E. Kelley urge public higher education in Massachusetts to re-emphasize its service to the broader community. It’s a prescription that has been offered eloquently by commentators ranging from former University of California President Clark Kerr to former Harvard University President Derek Bok, but not always followed. Public higher education particularly will have to become much more responsive to the problems of public schools and much more involved
On Changing Academic Culture

Michael S. Dukakis
Those who have served in high levels of government know that consensus-building is an important part of getting things done. But one thing that drives me nuts about the academy is that it takes forever to make decisions. We’d be out of office before we appointed a single cabinet secretary! Is that a necessary part of what colleges and universities do?

Richard A. Licht
The president of the University of Rhode Island in 1991 offered an elaborate vision of the university, which the state Board of Governors for Higher Education bought into within three or four months. The faculty senate at URI is still studying it.

Bennett D. Katz
You can have a clear vision as to where you should take a great university system that will prepare people for the next century, but I don’t know how to get there from here when faculty are involved.

Elizabeth Coleman
I have never yet worked with a group of people who eagerly addressed the question of, “Is what we’re doing the best way to do it?” when, if the answer is no, they might suffer the consequences. Moreover, at most major institutions, faculty fundamentally believe that the sacrifices should not and will not be made with them. If you make cuts in administration, it’s called administrative fat. If you make cuts in faculty, it’s the end of Western civilization. (Also revealing is the language of teaching load and research opportunities.) The press buys into this distinction every bit as much as the American Association of University Professors. But why? There are families that have served Bennington College since it began in 1932. They make $12,000 to $25,000 a year. They are people of enormous decency and virtue. How are they fat?

Stanley Z. Koplik
It’s important that Elizabeth Coleman’s efforts to restructure Bennington be successful because it might encourage more presidents to take some risk and move away from the style of leadership that lets studies go on for years rather than saying, “I want a report back in 30 days.” Maybe we’ll reach a point where we won’t view controversy as something that someone has accumulated as baggage. Instead of haunting people who aspire to be presidents, controversial actions could be among the qualities people in higher education look for in leaders.

in applied research and the economic development of the community outside. Colleges and universities are no longer ivory towers.

6. The issue of growth and decline in higher education is not primarily one of numbers. Growth will be determined by how well our institutions become internationalized, how they use telecommunications technologies, how innovative and creative they are. New England higher education institutions will thrive by forging imaginative new kinds of partnerships, including interstate initiatives, to reduce duplication of academic programs. Remember the old adage that if the United States were settled from west to east, California would be six states and New England would be one. Yet regional action is rare in New England. It’s appalling the way our six states compete with one another when we ought to be positioning ourselves as a unified economic force in Asia, Latin America and other parts of the world.

New England higher education has changed a lot, but there’s still a long way to go. Some of what we now do we’re going to have to pare back or not do anymore. But the challenge to do better, to be responsive and to adapt our historical mission to new realities should also be exciting.

Robert L. Woodbury is the chancellor of the University of Maine System and former chair of the New England Board of Higher Education.
Reconnecting with Society’s Needs

There appears to be an unavoidable process of privatization taking place in public higher education — occurring, if for no other reason, because state support is declining so considerably in so many places. Indeed, there are some things to be said for this process. Shortly after I was appointed chancellor of the Vermont State Colleges, I met with two of the top policymakers in the governor’s office. They asked me for my first impressions, and I candidly responded that the state provided very little support to higher education. Without the slightest pause, the budget chief responded, “Yes, but you’re autonomous.”

This seasoned official was teaching the greenhorn an essential Vermont formula. It is true that Vermont institutions have a great deal of independence and responsibility for understanding, interpreting and defining the public mission for higher education in Vermont, but it is at a great price, pardon the pun, as well. Affordability is an immense concern; Vermont’s public colleges and university receive among the lowest levels of state support in the nation and thus have the highest tuitions, with continually less financial aid to offset those high prices. Approximately two-thirds of the Vermont State Colleges general fund budget revenues come from students — about twice the national average.

To observe and describe the trend toward privatization (or even to advocate for it), however, is to miss a very large irony. For the fact is that now more than ever, the quality, affordability, accessibility and accountability of education beyond high school is a matter of strong public policy concern, and will be more so in the future. This is illustrated by: the widening gap in earnings between those with more and less education; the widening gap in employability (and unemployment statistics) between those with more and less education; employers’ searches for workers and managers with adaptive skills; the direct correlation between more education and greater civic participation; the inverse correlation between more education on one hand and poverty, children born in poverty and incarceration on the other; and the immense growth in the number of adult students.

Ironically, the pressing public policy questions surrounding higher education emerge just when government has less appetite and less inclination to finance this “public good.”

Therefore, the question is not whether government has an interest in higher education, but what it does with that interest.

The same question can be asked of those of us in public higher education as we move out of these recessionary years. Furthermore, can those of us who have endured and survived these tough years truly rise above our financial chores?

True confessions: Far too often, leadership for me has meant coping with the 1 percent increase in per-student expenditures that the Vermont State Colleges have experienced over the span of five years. But we have also demonstrated that there is no necessary conflict between the extent of privatization that we have experienced for decades and serving the public interest. Two examples stand out.

First, about eight years ago, we created — and still manage for the state — an interactive television system that now links 12 sites with two-way audio and video. This venture was launched, and is now governed, through a partnership of three sectors: higher education, state government and the business community. This partnership was absolutely necessary to get the project off the ground. But Vermont Interactive Television, nonetheless, remains true to its mission — an access mission to reach individuals and small businesses in underserved areas with needed education, training and conferencing opportunities.
On Distance Learning

Bennett D. Katz

Perhaps the most significant change I’ve seen in higher education was after World War II. Prior to that time, going to college essentially meant packing a bag and going off someplace. And then we started getting a bunch of commuters on campus. Commuters weren’t buying the same thing that resident students were buying. But they were so darn lucky to go to college, and I was one of them. I didn’t have any feeling of regret at all. It was an enormous change. Now, along comes another change.

For some time, Maine has had fiber-optics running the spine of the state, connecting more than 100 different locations. We’re educating about 3,000 students with it and we’ve just scratched the surface. We think it’s an alternative to get more bang for our buck. Yes, you miss the face-to-face relationship with a faculty member. But maybe this is the next step in the phase that started with commuter education. You miss the richness of the interchange of the campus but, by gosh, you’re getting an education.

Richard A. Licht

Colleges and universities need to embrace technology because eventually there will be a Microsoft University or a Motorola University. Some entrepreneur is going to figure out a way to deliver the product more cheaply, maybe not as well, but somehow meeting the public’s expectation. If people on campus don’t start recognizing that, they could become dinosaurs. I know universities have survived in Europe for 700 years, but since the invention of the Gutenberg press, there’s been no change in the delivery of information — that is, until the advent of the personal computer within the past 10 or 15 years. Higher education once had a monopoly on being the purveyor of knowledge. Not anymore.

Michael S. Dukakis

Nothing against learning at the end of the fiber-optic cable, but as I recall my own education at a small, co-educational school, the thing that made the difference for me was the time I spent with my fellow students and some terrific professors who put in an awful lot of time at very close quarters. I know there are universities both here and across the country where you go into a lecture with 300 or 400 kids and somebody comes out and talks for an hour and you take notes and go away. I don’t know what the educational purpose is of that. Although I remember on those rare occasions at my alma mater when somebody would do that, I used to say, “Well, why don’t you just give us a script and we can read it in five minutes and have a copy and not waste your time and our time.” It seems to me it’s the interaction between professor and student that makes a difference.

Second, a consortium of Vermont’s six public institutions in the summer of 1994 entered into an unprecedented, multimillion-dollar agreement with IBM to provide all education and training services to the Essex Junction plant’s employees over the next three years. Of course, the returns on that investment are significant for a small, underfunded public college system. But at the same time, this arrangement takes advantage of higher education’s alleged expertise in providing education and training services. Moreover, helping the state’s largest employer maintain and improve the skills of its workforce is absolutely in the public interest and is certainly a part of our public mission.

All the management tools to downsize and survive are useful and important. But whether we flourish in the years ahead will be determined by how well we can connect and reconnect our institutions with the intellectual, economic and social needs and goals of our time and our people.

Charles I. Bunting is the chancellor of the Vermont State Colleges.

CONNECTION SPRING 1995 23
Higher Education's Quiet Transformation

Is New England higher education headed for a period of growth or decline? One thing we can be sure of is that the future will not be static. To paraphrase a great basketball coach, if we are not getting better every day, then we will be getting worse. Certainly, higher education does have a perception problem. The public is grumpy about how colleges and universities set prices. Why? Partly because higher education used to be a luxury good. Now, the public sees a college education as a prerequisite for a secure future. So, while higher education is no longer a luxury item, it is priced like one. But is there such a thing as a right price?

Whether New England higher education is overpriced depends on whom you ask. Economists observe that people are saving less, living longer and not passing on their wealth as rapidly to the next generation. These trends all contribute to great difficulty in paying for college. Yet, most institutions, while increasingly nervous about applicant pools, still find students to attend. And we certainly know that when institutions set tuition, they never charge the cost of providing the service.

The more complicated institutions — the ones with the most sources of income, the most research and the largest endowments — are the ones trying to make flexible financing options available. Some colleges have introduced the MasterCard approach to paying for college. Others are providing more access to private loan options, and still others are giving more advice about how a motivated student can complete degree requirements in less than four years. If New England institutions are judged to be overpriced, students will vote with their feet and choose competitors outside New England. But I doubt other regions are doing better in terms of price. The real issue here is how we control costs and growth in our net price.

Among other issues we must address as we look at the transformation of higher education is the role of changing demographics. There is no doubt that the culture and climate on our campuses will be very different as our basic clientele changes. If demography is destiny, what do we know about children under age 17? We know they are poorer in general, less well-educated in the K-12 years, increasingly non-White and less likely to have parental support. These are our future "traditional" clients.

But what about workers who need retraining or continuing education? What about the enormous increases in the ranks of the elderly, especially in New England? We have to figure out how to deliver education to these people, too. It may not be on campus. Distance learning and computerized courses have begun to shape whole new segments of the higher education market.

Will foreign students continue to beat a path to New England's colleges and universities? Only if we make it a favorable place to come for college. Unfortunately, federal policy does not favor foreign students. There are new tax and financial aid disincentives, as well as proposals in Congress to limit the international exchange of research and researchers.

Legislatures, higher education officials and the public in general have historically defined growth in higher education as expansion. But we must redefine growth to mean institutional vitality and leadership in relation to peers.

Most of us believe that change will be the method by which we grow. But it will be growth by substitution and innovation, not by addition. Most of all, growth is going to be measured by...
our capacity to meet people's needs — by whom we serve and how we serve them.

Indeed, higher education has done a lot more downsizing, rightsizing and other quality management initiatives than either the general public or businesspeople understand. For example, among the 30-plus colleges and universities in the Consortium on Financing Higher Education, 28 have engaged in significant initiatives since 1991 to evaluate and, in many cases, redesign the way that administrative units function. They can see results: The rate of tuition increases has dropped each year in the 1990s. There is also a quality movement afoot in higher education, and the first Baldrige Award competition for colleges and universities is now underway. Public and private colleges are sharing "best practices" and some of the early national leaders are New England institutions.

The transformation of institutions is far more rapid than we are being given credit for. Why the lack of public acknowledgement? Partly because we have tended to focus only on the administrative side, not on faculty, so there's only so much that can be done (and as a result, faculty don't really understand the transformation either). Secondly, we have done a very poor job in explaining to our students, parents and alumni what it is we're doing and why we're doing it. We need help getting the word out about how higher education is changing.

The future of higher education in New England will be shaped by how leaders of education use the data we have available, ask themselves the hard questions about how well they are delivering the services they offer and take responsibility for redefining the contract of trust between higher education and the public.

Katharine H. Hanson is the director of the Consortium on Financing Higher Education.

Get by with a little help from a friend.

New federal rules have enabled Fleet to now offer: • Increased Loan Limits • Lower Interest Rates • Wider Eligibility Criteria • Flexible Loan Repayment Options

Getting by has just been made easier!

Call Toll-Free

1-800-2-Fleet-5

and get a little help from a friend.

Fleet Bank®
A Member of Fleet Financial Group
Restructuring a University

The worldwide shift from an energy-based economy to a knowledge-based economy is reshuffling every deck in our society and rewriting all the rules. Look at the process by which a new piece of software is developed and contrast it with the process by which steel is manufactured. How do we get a new piece of software? The process begins when an 18-year-old student at an institution such as the University of Massachusetts at Amherst sits down at her computer, hammers away at the keyboard for a couple of hours and — if she’s clever and lucky — develops a new piece of software of enormous economic value. Raw material — a polymer with a little paper attached — goes into the floppy disk. But the floppy disk is not the product, it’s the package. While floppy disks cost only a few cents to produce, software packages sell for around $100. The value of the raw material is minimal relative to the total value of the product.

The product itself — the software — is something abstract. It is organized knowledge. The energy involved is supplied by whatever the programmer ate for breakfast that fueled her brain cells and the energy that powered the computer, but these are also minimal. So, the creation of software presents enormous economic value potential with the use of no raw materials and little energy.

A world economy built on that model — where economic value is created from virtually nothing — is obviously going to be very different from a world economy based on energy. Historically, what has given competitive advantage to national economies is the availability of plentiful raw materials and inexpensive indigenous sources of energy. That’s what built this country. But in the future, the only thing that will count is brainpower.

As a knowledge industry, higher education ought to be at the center of this transformation to a knowledge-based economy. Instead, colleges and universities are being buffeted by a variety of forces unleashed by this shift. Indeed, the shift from energy to intellect underlies the cost crisis in higher education. During the past 25 years, the shift has enabled productivity gains in virtually every industry except higher education. The reason is that productivity gains in other industries have come through new technologies, yet the fundamental unit of technology in higher education hasn’t changed since the 13th century; it remains the talking head with a piece of chalk. Because higher education hasn’t enjoyed the productivity gains that other industries have, our costs — primarily labor costs — are growing disproportionately to the cost of living. Meanwhile, to raise salaries commensurate with the cost of living, colleges and universities have had to raise prices for the consumer. That’s why we face the crisis in which college costs are growing out of proportion to the cost of living in other sectors. We therefore must find ways to improve productivity through the use of technology.

Another force buffeting higher education is the decline in government support, partly a result of the tax revolt and partly a result of increased demand on government services and the unavailability of offsetting revenues. Revenues in New England are not growing as rapidly as they were forecast to grow during the economic recovery. Again, one reason is the shift in the driving force of economic activity from energy to knowledge.

As New England’s economy moves away from manufacturing and toward services, two points are becoming clear. One is that the manufactur-
ing which does remain in New England is not labor-intensive, but machine-intensive. The other is that high-tech industries in New England are not manufacturing as much here as they are elsewhere; the initial value is created in New England but the ultimate value is realized elsewhere. Moreover, consumers are spending a greater part of their incomes purchasing services rather than manufactured goods. Yet, we typically tax consumer consumption of tangible manufactured goods, but not services. Consequently, we are not deriving the fullest tax revenue from economic growth.

But we’re not likely to change our tax structure because of the taxpayer revolt, so revenues will not match our needs or aspirations, and we will have to accommodate. The tax revolt at the federal level, meanwhile, will result in a loss of federal financial aid flowing to New England institutions and state governments, exacerbating our problems quite substantially.

Another result of the shift to the knowledge-based economy is the potential impact of technology on higher education. U.S. Navy training that used to be done either in the field or by an instructor in a classroom is now being done much more effectively through computers. Higher education is slowly embracing new technologies, as well. But the technological revolution is probably going to open the door to alternative providers who will exploit new technology before more traditional colleges and universities will. One of the reasons we won’t exploit technology as quickly is that the startup costs are enormous, and productivity increases don’t occur early. Consequently, the first wave of providers using technology will be the proprietary institutions — institutions like Phoenix University, the for-profit, Arizona entity that, though it owns no real estate, claims to be the largest accredited private university in the world.

Phoenix University rents all its facilities and delivers most of its instruction via telecommunication and computer technologies. Phoenix University also guarantees its product. The university will tell a prospective employer exactly what skills and abilities a graduate has and if the employer is unsatisfied with the “product” — the student — the employer can send the product back for retooling at no added cost to the employer or student. This concept is going to appeal very much to employers. A lot of providers coming on the scene are working out agreements with employers that they will certify the skills and abilities of the students that they are turning out; they will, in effect, guarantee their product.

Another hint of things to come can be seen in a meeting held last year among high-tech executives. The conversation drifted into the subject of higher education, and there was a lot of dissatisfaction expressed with its inefficiency. Microsoft CEO Bill Gates allegedly said he would put up a billion dollars of his own money and a billion dollars of his company’s money to explore better ways of delivering higher education. We in higher education don’t have the capital to commit to the exploration of better ways of delivering higher education. We have a certain institutional lethargy — or inertia of rest — that is associated with our liking the way it’s always been done, so we’re not as likely to develop new models as other people are. Competition from alternative providers is going to change us substantially and may also put our very survival at risk. We may become dinosaurs, maladaptive and incapable of surviving in the 21st century environment.

But because higher education is a knowledge industry, political leaders and others expect UMass, for example, to provide the fuel rods that will drive economic activity and economic change in an information-based economy. The assumption is that we will produce visible results in improving the economy, but we will do it without the infusion of new resources. That is, we will do it by reallocating our existing resource base. But how?

Recently, the UMass Board of Trustees endorsed an action plan that has seven elements.

The first is reduce the cost of doing business. During the 1988-92 budget crisis, UMass lost about 30 percent of its state support. We did a lot of downsizing, but we didn’t really do rightsizing. We sought pockets of opportunity to reduce the budget, but didn’t try to improve services. Now, we’re engaging in a reengineering effort, aided by a consultant, that will help us not only to reduce the cost basis of the administration, but also to improve the quality of services delivered by the administration.

As a second element of the action plan, each of the five UMass campuses will annually reallocate 3 percent of their resources for the next five years by closing, consolidating or reducing the size of academic programs. We’ve asked the campuses to prioritize every activity or academic major they offer with respect to four criteria: the centrality to the mission of the campus of that activity or major; the quality of the program; the cost of that activity or major; and the demand for that activity or major in terms of whether students want it or the state needs it.
We typically tax consumer consumption of tangible manufactured goods, but not services. Consequently, we are not deriving the fullest tax revenue from growth in services.

The campuses will then redirect resources from those things of least priority to those of greatest priority and most urgent need.

We are also taking steps to dramatically improve private fundraising. New England public universities have never engaged substantially in private fundraising like the region’s private institutions have, or, for that matter, to the extent that public universities in other regions have. My alma mater, the University of North Carolina at Chapel Hill, just completed a $400 million capital campaign, six months ahead of schedule and $60 million over target. UMass-Amherst couldn’t even begin to think of doing anything like that. Insofar as I can tell, the only difference between the two institutions is that Chapel Hill has a tradition of alumni giving and seeking gifts, and UMass-Amherst doesn’t. But we’re going to start a tradition.

We are also setting and meeting quality improvement targets throughout the university. UMass has begun issuing an annual report card to the state Legislature, aimed at evaluating our performance compared with that of our peers. We issued the first report card in November 1994 and will provide annual updates while improving and refining the report card. We think it is our obligation to hold ourselves accountable for how well we’re doing and how wisely we’re spending the taxpayers’ money.

Another goal of the UMass action plan is to substantially upgrade our technological capacity. As one example, UMass is attempting to interconnect its five libraries to create a virtual library. This would enable a student at one campus to sit down at her terminal and access the library holdings of all the other campuses, then get delivery on demand of the materials she needs. In the long run, this will substantially reduce the cost of acquisitions. But in the short run, it requires a substantial investment in technology. We will also expand our use of distance learning and information technologies in the classroom.

The sixth area of our plan focuses on capital facilities needs. During the 1988-92 period, when UMass lost so much of its state support, one of the ways we responded was to defer maintenance. That has proven penny-wise and pound-foolish, and we must now pay the pound. UMass campuses are faced with the prospect of closing buildings if they don’t rapidly undertake facilities renewal. We are redirecting a portion of our annual operating budget toward securing the facilities, improving their quality and bringing deferred mainte-

nance to an acceptable level. It’s very difficult to explain to students and faculty why we have to cut the budget in order to fix the roofs, but we have to. While we continue to pursue state bond funds to upgrade buildings, we can no longer wait for the state to come forward with what one could argue is its obligation to protect its investment in state facilities.

Lastly, our action plan advocates for a new compact with Massachusetts wherein the state will provide UMass with guaranteed annual budget increases over a five-year period. This will enable us to plan adequately and make investments in the future that we couldn’t make if we were at risk of being placed on a budgetary rollercoaster, marked by increases one year and decreases the next. A university simply can’t operate that way.

This observation was made very eloquently by California Gov. Pete Wilson recently in his budget presentation to the state Legislature. Wilson noted that the economic recovery in California, like in Massachusetts, was not occurring as quickly as needed. To achieve economic competitiveness in the 21st century, California would have to reinvest in public higher education. Wilson proposed a budget increase of 2 percent this year and affirmed his resolve to provide annual 4 percent increases in each of the succeeding four years by asking the Legislature to do the same. While one legislature cannot obligate a succeeding one, it can certainly affirm a goodwill intent as Massachusetts has done in the case of K-12 funding.

If we take these steps successfully over the next five years, we will emerge as a reorganized, reengineered UMass that will be more efficient, perform better for the state, return greater value to the taxpayers and do a better job of educating undergraduate students. And we will have done it largely through the reallocation of the existing budget, rather than through infusion of new state resources. We have a moral obligation as a public institution to assure the commonwealth that we are doing the very best job we possibly can with whatever resources the taxpayers provide us. It doesn’t do any good to argue that the taxpayers don’t give us enough, therefore we shouldn’t be held accountable to high standards. We should be held accountable to the highest standards, whatever the level of support we receive.

Michael K. Hooker is the chancellor of the University of North Carolina at Chapel Hill and former president of the University of Massachusetts.
NEW! SAVE 1% on Federal Student Loans

Government Rate SuperLoan
7.43% 6.43%

All Federal Student Loans Are NOT the Same!

Our interest rates on Federal Stafford and PLUS loans are lower! A full 1% lower! These are the same exact loans ... but you save hundreds, even thousands of dollars in interest payments!

Last year Maine Education Services (MES) loaned more than $30 million to Maine students - more than any other lender in the state. And with MESuperLoan®, every one of those students is paying one percent less! MESuperLoan® savings are only available from Maine Education Services and our forty participating lenders. So give us a call today - and put the savings back into your pocket.

MESuperLoan®... the cheaper way to pay for college.

Just for Maine students and their parents ... Only from MES. A special low interest rate of 7.46%*, an extended repayment period of up to 20 years, plus you can borrow up to the full cost of education.

Why Go Anywhere Else?

Call 800.922.6352
(toll-free in Maine, out-of-state call 207-623-2600)

* MELA variable interest rate as of 5/1/95. Set rate 8.9% as of 1/1/95.
Equity, Excellence and Affirmative Action

Diversity is essential to systemic excellence in education, as contrasted with individualistic excellence. We Americans, being part of a successful entrepreneurial culture, place heavy emphasis on individualistic excellence, and it has served us well. We pursue individualistic excellence by motivating and rewarding achievers and by measuring the system’s success in terms of what the achievers accomplish. In pursuit of individualistic excellence, we ask, for example, “How much math is being learned by those who have the opportunity to learn math?” But an important systemic question must be raised, as well.

The affirmative actions that occurred at Wesleyan were pursued without any government mandates—affirmative action with a small “a” can exist without Affirmative Action with a big “A.”

The systemic question might be, “How is the opportunity distributed among subsets of our diverse population, and to what extent does its distribution contribute to the health of society?” Those who view the question systemically will look at race, gender, class and geography, and ask how much math girls learn or perhaps, how many Hispanics in Hartford take algebra.

Systemic excellence in education is vital to social and economic well-being, and it cannot be achieved without affirmative action with a small “a.” This generic affirmative action—which may include the set of obligations mandated by legislative or judicial action known as Affirmative Action with a capital “A”—refers to any deliberate action we take to get what we have determined we want. Some examples include immunization, the Federal Reserve’s manipulation of interest rates, the construction of dams or the installation of traffic lights. When we think about affirmative action, we need to think beyond the specific mechanisms that have been mandated by government—which can be modified or abandoned as quickly as they were created—and ask about the enduring social goals that inform the actions. In other words, what kind of a society do we really want, and what affirmative interventions are we prepared to make in order to achieve what we want?

My first acquaintance with generic affirmative action occurred in the early 1960s at Wesleyan University. I had graduated from Wesleyan a few years earlier and returned as a young instructor teaching German. Wesleyan’s new dean of admissions had just been given an affirmative mandate, not by government, but by someone to whom we at Wesleyan paid a lot more attention—University President Victor L. Butterfield. The dean was told to bring more Black students to Wesleyan.

The dean’s first affirmative action was the creation of a Black applicant pool. Of course, Wesleyan had attracted some Black applicants for more than 100 years, but it never had a Black applicant pool. In order to create one, the dean asked some systemic questions. Who are Black students? Where are they? What do we know about them? How can we market Wesleyan to them? An elaborate set of mechanisms was created to present Wesleyan to this targeted market and to recruit the pool, screen it and select the students.

Wesleyan also established criteria to determine whether a good marketing job had been done. After the first year of implementing the new marketing strategies, a dozen Black students enrolled at Wesleyan. During the second year, a lot more was known about recruiting and screening Black applicant pools than in the first year. If 12 Black students had enrolled in the second year, that would not have been considered a good job because clearly the greater insight that had been gained in the first year had not been exploited in the second. In any case, the numbers are far less important than the historical context.

Wesleyan’s decision to recruit Black students came in response to a social justice imperative, based on the judgment that the university had been complicit in the systematic denial of educational opportunity to African-Americans. At the same time, the university concluded that the social justice
imperative needed to be joined to the institution's educational mission and translated into educational terms, so that it would be heard and understood by Wesleyan's primary constituencies, including alumni and parents. One of the translations was phrased: "We need Black students to help us teach White students."

Personally, I liked the phrase. Of course, I'm a member of that generation of Black people who were raised by the Black community to believe that one of our most noble missions in life is to help the race by educating White people. Suggesting that we needed Black students to provide enlightenment worked for me. But the phrase also indicated that the presence of Black students at Wesleyan was an educational asset, an educational resource that would bring and transmit new knowledge. It took us a long time to figure out that this would be new knowledge about Blacks, about Whites and about their differences and commonalities. We did know that it was crucial to get that message across to Wesleyan audiences; to faculty, students, alumni and parents — people who, whether they entertained any malice toward people of color or not, believed Wesleyan's central mission was educational and had every right to expect that the university could justify its affirmative actions in terms of its mission.

But the statement "We need Black students to help us teach White students" introduced an interesting complexity. The Black students at Wesleyan didn't like the phrase. In fact, they denounced it, they resented it. These students were so deeply angered by it that their voices trembled when they talked about it. Why? Because the statement objectified them and ignored all of their subjective reasons for being at Wesleyan and wanting to be at Wesleyan. They felt it turned them into something that was useful to Wesleyan because it was useful to White students, and there wasn't a word in the statement about the usefulness to them. I continued to defend the statement, though it had to be done in a slightly negative way. I would tell Black students, "Yes, the phrase does objectify you, but it doesn't objectify you any more than we objectify all students when we say that part of their usefulness is to pay our Social Security!"

If we are going to inform the public about the value of higher education, then some objectification must occur — some objectification of education as process, education as product and, yes, students as products. We do need Black students to educate White students and White students to educate Black students, and we need Asian, Hispanic and Native American students to educate each other. We need all students to pay our Social Security. That's why it is so important for us to pursue systemic excellence in education and that's why diversity is such an important component of systemic excellence.

It is important to note that, through all of this, the affirmative actions that occurred at Wesleyan were pursued without any government mandates — affirmative action can exist without Affirmative Action. It is also important to note that the arrival of mandated Affirmative Action greatly accelerated the movement toward the social goal that underpins all this activity. It was Affirmative Action that turned this movement into a national imperative and helped to change both the demographic and intellectual landscapes of American higher education.

Our experiences at Wesleyan reveal several key elements of affirmative action. The first is information. Wesleyan and many other institutions of higher education identified a minority recruitment pool and provided information to its members. If we were to pursue this first and basic element of affirmative action effectively, we would consider the systemic excellence question of how well we market education to these disaggregated populations. How well do we market education to Black and Hispanic students in the inner city? If we were to market it effectively, the change in higher education would be profound. But this is no simple task, because it is not just a matter of providing guidance counseling in high schools. It is also a matter of who takes algebra in middle school and who learns to read in elementary school.

A second crucial element of affirmative action is goal-setting. Our focus in setting goals should not be on numbers, but rather on the quality of our efforts to reach our recruitment pools, particularly those disaggregated groups whom we can identify by their serious and chronic under-representation on our campuses and in certain programs. They include women in math and Black and Hispanic students in algebra. What are we doing to get to know these pools, to improve our access to them and to encourage them to use the educational system more effectively? And how are we documenting the history of our efforts and our results?

The third important element of affirmative action is measurement. This is when people begin to introduce such ideas as quotas and reverse discrimination. Those who are concerned about such matters should remind themselves that systemic excellence demands that the system serve all its constituents and that we will only know whether it is doing so by counting. The attempt to equate counting with quotas is at best simplistic, at worst, an

Top managers around the world remind us regularly that successful employees of the future will know about diversity, appreciate it and be able to use it as a basis for effective teamwork.
effort to slow our progress toward equity.

If, for instance, we were to count the minority students who graduate from high school and enroll in community colleges, and then count them again as they transfer to four-year colleges, we would discover that the community college system is a primary source of opportunity for minority students. We would also discover that relatively few transfer to four-year institutions. This might, in turn, prompt us to devise affirmative actions that would increase the likelihood that minority students in community colleges would continue their education after receiving associate degrees.

The fourth element of affirmative action involves communicating with interested publics about what we are doing and why we are doing it. This entails translating the work we do into messages that these publics are prepared to hear and understand.

In some recent focus groups sponsored by the Ford Foundation to develop positive messages linking diversity and higher education, we discovered that our target audience was prepared to hear only one message—one that connects diversity in higher education to the economic well-being of their children, and by extension, to the economic health of the nation. To some, that reflects neglect of education's important role in preparing good citizens and transmitting knowledge. But even though the economic message tells only part of the story, it at least provides a communication bridge across which the higher education community can connect its academic mission to its public responsibility. And indeed, it is important for the public to understand that higher education's support for diversity and its pursuit of multicultural education produces educational benefits that translate into economic benefits. Top managers around the world remind us regularly that successful employees of the future will know about diversity, appreciate it, and be able to use it as a basis for effective teamwork. Such employees will also be sensitive to diverse markets and equipped to devise strategies for entering them. They will be better prepared to function in the global marketplace.

In the final analysis, if we want to pursue systemic excellence in education and the economic well-being of society, we will need to develop and identify the actions—affirmative actions—we are prepared to take to achieve that goal. And we must do that despite the political mood of the day.

Edgar F. Beckham is chairman of the Connecticut State Board of Education and program officer at the Ford Foundation. He is the former dean of the college at Wesleyan University.

---

Portfolio Director

Proven performance records.
Proven fund managers. Proven service.

Introducing Portfolio Director from VALIC.

Talk to your local VALIC representative about Portfolio Director, VALIC's new combination fixed and variable annuity. It offers proven investment performance, leading fund managers and advisers, and the service you can only get from VALIC.

Portfolio Director features:

- A broad array of 18 investment options:
  - Proven fund performance
  - Widely recognized fund managers and advisers, including: Bankers Trust, Dreyfus, T. Rowe Price, Templeton, Value Line, and VALIC.
  - Highly competitive, guaranteed fixed rates on two fixed accounts
- Tax-deferred investing
- Easy access to funds
- Convenient transfers
- Personal, local service
- Computer-based retirement planning
- The financial strength and stability of VALIC

If you would like more information about VALIC or Portfolio Director, including charges and expenses, please call 1-800-44-VALIC (1-800-448-2542) for a prospectus. Please read it carefully before investing or sending money.

Past performance does not guarantee future performance.
Portfolio Director is distributed by The Variable Annuity Marketing Company (VAMCO).
©1994 The Variable Annuity Life Insurance Company, Houston, Texas.

32 NEW ENGLAND BOARD OF HIGHER EDUCATION
Serving Students Today by Providing Educational Programs and Services that Prepare People for Tomorrow . . .

High-quality programs and services provided by the faculty and staff of our institutions are serving more New Hampshire people than ever before.

But we know we can't meet every individual's need. We strive to broaden educational opportunities for our citizens through cooperation and collaboration with others.


We're equally proud to be partners with the New England Board of Higher Education, New England Association of Schools and Colleges, New England Land-Grant Universities, New England Elderhostel, New England Healthcare Assembly, New England Hospital and Health Foundation, and other regional organizations helping to expand educational horizons for New Hampshire people.

As Robert Frost said: "An idea is a feat of association."
A Tool to Avoid Discrimination

Most New England colleges and universities were committed to diversity on campus long before federally mandated Affirmative Action came into play. For example, by the late 1950s, the admissions process at Harvard College and several other institutions took into account the desirability of having a diverse student enrollment in terms of geographic and socioeconomic background.

In general, New England colleges and universities recognized that diversity would enhance excellence on our campuses — and they were right. Diversity, through targeted initiatives, has resulted in excellence on our campuses. By acting affirmatively to recruit students from high schools that were previously ignored by admissions staffs, New England colleges and universities like Harvard reached extremely talented applicants who never would have considered applying had they not been sought out. Many institutions also began integrating into their curricula areas of intellectual inquiry that had been neglected. And undoubtedly, many highly talented faculty members were discovered only after faculty departments, at the urging of students and administrators committed to diversity, broadened their networks of academic contacts to include women and people of color.

In every sense, these affirmative actions have served as tools to help us avoid discrimination. Still, a recurring problem in the affirmative action debate — stemming from the political reaction to government-mandated Affirmative Action programs — is the tendency to be rather loose in our terminology. Terms such as affirmative action, preference programs, diversity and multiculturalism are all used interchangeably when, obviously, any disciplined discussion should clearly distinguish between them. Each one of these concepts has a very definite place in furthering excellence in our institutions of higher education.

Another unfortunate and ongoing problem in the debate is the tendency to introduce the concept of "reverse discrimination" and conclude that affirmative action eventually leads to reverse discrimination — whatever we mean by that term. Obviously, affirmative action, when applied inappropriately can result in unfairness to some individuals, and one wanting to use the term reverse discrimination might be justified. But when applied appropriately, affirmative action need not result in reverse discrimination and unfairness, and we ought to consistently remind ourselves of that. It would make the debate both on campuses and outside much clearer and more appropriate.

If we are to achieve diversity on our campuses, we must follow multi-pronged strategies. We must acknowledge the need to enhance the educational experience by recruiting and hiring faculty from diverse backgrounds and cultures. We also need to be aware that students have a right to expect that research and teaching at our institutions reflect the contributions of a broad range of cultures and groups. We must also bear in mind that diversity supportive of excellence requires bringing a broad range of perspectives to the management and governance of our educational institutions. This should include viewpoints from groups that traditionally have not been part of management structures. Our diversity strategies ought to be directed in part at reaching these goals.

An underlying objective in these goals is our effort to produce graduates who are equipped to play meaningful and productive roles — perhaps leadership roles — in our increasingly diverse, contemporary society. Clearly, our institutions must be laboratories for diversity, as well as vehicles for providing greater insight to those who will soon participate in that society.

I hope we will not retreat from the traditional commitment to diversity that existed long before governmental Affirmative Action programs were in place and that we will recognize the broad-based activities necessary to accomplish our objectives. I also hope we will be pre-
On Restructuring Higher Education

J. Alvin Wakefield

The restructuring that's going on in industry right now is vital and very necessary, but there are serious problems with some of the things that are being done. With the flattening out of organizations, people are stressed at the bottom and people are stressed at the top. There are decisions that are not being made any more quickly and any more efficiently than they were under the larger, more bureaucratic organizations. Within these flattened organizations, people are left out of the communications chain and many people don't feel any greater sense of commitment.

John R. McKernan

My feeling is that private industry had no interest in restructuring. They did it because it was either that or go out of existence. Can we continue to operate higher education the way it has operated for as long as most of us have known? Do institutions of higher education, especially those that are publicly financed, understand that there are no significant increases in revenues coming and, therefore, the only choice is to either continue to tread water or to determine how to restructure in order to do a better job at perhaps fewer or different things?

Stanley Z. Koplik

The tinkering at the margins that has taken place in higher education for many years is unsatisfactory in this new environment. Management expert Peter Drucker has suggested looking at everything you do and asking: "If you were not now doing it, would you start it today? If our institutions would apply that question to all academic departments, all administrative activities and so on, that would be a start. It would result in significant change at some institutions and less at others, but at least it would convey a perception that you're willing to aggressively confront change. Also, states and institutions should build on their strengths. Don't seek out new territories where you really have to struggle and come from behind.

Elizabeth Coleman

If the absence of sufficient resources was enough to generate innovative ideas about change, we'd have millions of them. The single most important resource we need is compelling ideas. We have a place to go for that in the fact that our work is education. But the academy has a special problem in that we have been persuaded that the only sources of legitimate and compelling ideas about quality are the structures we're now using. Questions about the relationship between structures and purposes are critical for this country right now, not just for academic institutions. But they are hard questions to ask when you may have to pay a price for the answer.

William J. Farrell

Many of us are living with level funding. We know that isn't going to change in the foreseeable future — and that's having an impact. For the first time, we hear presidents and administrators talking about new ways of doing things. Do we really have to educate everyone on a residential campus? Must we always have recreational facilities at the center of it? Do we have to do it the same way that we've been doing it? We should ask whether there are other ways to produce the same results less expensively or more conveniently. One reason there is a resistance to change is that we have a static notion of quality. But we also have to consider that there are, even in our structures today, some successful models. The College for Lifelong Learning in the University System of New Hampshire, for example, engages professionals from outside academia as faculty and offers degree programs across the entire state to primarily nontraditional students. Because it is a campus without a campus, it is cost-effective in a way that residential campuses cannot be. These are the models we have to invest in. But they tend to get the scraps, while the major universities get the big investment.

in essence, lumping together a variety of people who believe their interests are inconsistent with those individual terms.

We need to keep our eye on the ball and be clear about our traditional commitment to diversity and affirmative action (in the broadest sense), for when we pursue these goals in a nondiscriminatory fashion, we support our overall educational goals.

James S. Hoyle is assistant to the president and associate vice president at Harvard University.
Today's Lesson is Brought to You By…

The following is adapted from an address delivered in March by Consumers Union President Rhoda H. Karpatkin, before "youth marketers" gathered in Atlanta for a conference sponsored by The Marketing to KIDS Report. Consumers Union, the nonprofit publisher of Consumer Reports magazine, runs a special initiative to provide consumer information and protection to children.

I now come to another specific kind of marketing that concerns us — misusing the authority of the classroom to push products on young children. We believe — like many educators — that this poses a threat to the integrity of education in the United States.

When we published the report Selling America's Kids in 1990, we noted with great concern that the American school system was being invaded by commercial messages hidden in corporate-sponsored educational materials. The situation has actually gotten worse.

We see several disturbing trends in the classrooms:

First, we see biased self-serving information posing as education. In one category of the materials we studied for our 1995 report, 62 percent contained biased or incomplete information. More than half of the materials were found to be somewhat or highly commercial in nature.

Second, we detect pressure on school administrators, teachers and students to use products or conduct educational activities that they otherwise would not — usually in exchange for some needed resource.

Third, we observe the introduction to the classroom, cafeteria, hallway or restroom of branded products, licensed brand goods, coupons, sweepstakes and contests or outright advertisements.

Like our children, our schools are vulnerable. Teachers want to do their best, but especially in the poorer districts, more resources are needed. In this context, the corporate hunger to capture and devour the child and youth market grows apace.

What's wrong with all that? It poses several threats to the quality of our education. In-school commercialism is a perversion of the education process when it presents half-truths or outright misstatements of fact to trusting or vulnerable students. Many commercial efforts that masquerade as educational materials or activities are merely attempts to persuade young minds to think in a way that favors the sponsor of the materials or their specific products. In the minds of children, a teacher's use of a sponsor's materials or products easily becomes an authoritative endorsement.

Such materials put teachers in an awkward position, too. Unless a teacher is sufficiently versed in the topic, it may be difficult to correctly judge the objectivity, accuracy or commercialism of the materials. Or, if the teacher prefers to present a contrary viewpoint, he or she is put in the position of biting the hand that's feeding the school those materials.

It's generally believed that, in a democratic society, schools should help kids develop questioning and inquiring minds in order to become good citizens. Teachers, under such circumstances, are hard-put to teach children to scrutinize marketing messages objectively and critically or to look behind the claims or propaganda.

So, what should kids be questioning, inquiring and critical about?

Let's start with the most egregious example. Channel One, now in 12,000 schools, is a news program given free to schools on free equipment in return for which the schools agree to require kids to watch several minutes of commercials with each program. Under the heading of required education, kids must stay put to hear sales pitches for candy bars, say, or expensive sneakers. This is a perversion of the education process.

The Weekly Reader has always been seen as venerable as it helps educate yet another generation of kids. But as the Columbia Journalism Review noted, the Weekly Reader taught kids in October that anti-smoking laws were unfair, with "educational" photos of out-of-work tobacco farmers demonstrating in Washington for "Freedom of Choice" and a cool-looking kid being forced to smoke outdoors in front of the Joe Camel billboard that the RJR Nabisco Company says is not targeted to kids. The Weekly Reader is owned by K-III Communications, which also owns Channel One, and is a unit of the same company that is a controlling shareholder in RJR Nabisco.

But surely we can't object if teachers get corporate help with teaching materials to educate underfunded kids? Not all such material is highly objectionable, but some is.

Campbell's Soup wanted to help kids in science. So, it provided a truly scientific experiment: the Prego thickness experiment, complete with posters and pamphlets. It had the kids prove that Prego is thicker than the competition's product, Ragú.

The American Egg Board had a project for grades 4 through 6, with posters, game boards, puzzles and a teacher's guide. It had a strong bias toward eggs and put a positive spin on the cholesterol content of eggs.

The American Coal Foundation booklets for grades 7 through 9 promoted — guess what — coal, as an abundant and inexpensive energy source and suggested possible benefits from increased carbon monoxide.

Just as cities, states and the federal government have adopted marketing rules of fair play in the consumer interest — banning misleading and deceptive claims, for example — our society needs such rules very badly for children. The regulation of selling practices is usually tailored to specific circumstances. For example, there are special rules for door-to-door and mail-order selling. We need special rules too for selling to children.

The Society of Consumer Affairs Professionals in Business (SOCAP), a corporate business group, adopted voluntary guidelines several years ago for business materials in the schools. These guidelines for acceptable advertising to children represent the best corporate thinking on the subject. They said materials should be: accurate, objective, complete, in understandable language, nondiscriminatory and noncommercial. (That is, the name or logo of the business sponsor is used to identify the source of the materials and, if applicable, to provide contacts for further information. But text and illustrations do not contain any of the...
Turnabout is Fair Play?

The following is adapted from "Turnabout Time," a report on the future of public higher education in Massachusetts, published in March by the John W. McCormack Institute of Public Affairs at the University of Massachusetts at Boston. The report was co-written by the institute’s director, Richard A. Horgan, doctoral candidate Andrea M. Kelley and Robert C. Wood, former UMass president, U.S. secretary of housing and urban development and superintendent of Boston Public Schools. Reaction to the report was swift — and mixed.

“Steady as she goes” is the wrong prescription for charting the future of public higher education in the Commonwealth of Massachusetts. A major course correction is in order if the coalition vital to the system’s well-being is to hang together and be strengthened. With sharply divergent views held by the public at large, political and business leaders, faculty and students — all groups essential to continuing educational progress — mutual accommodations and adjustments are the order of the day. Major changes in finance, institutional missions, curricula and academic standards for faculty and students alike are imperatives.

The classic academic model that has shaped the structure, content and direction of American higher education for a century and a half — the research university — is no longer sufficient to meet today’s economic and social needs in Massachusetts. In some respects, it may no longer be necessary. Discovering, defining and putting in place a new model that commands the support of the key coalition and fits the character of the times should be our overriding aim. Aspiring to a dated model — to be a world-class university — may lift spirits, but the ambition lacks content.

Specifically, the new priorities for most of the public colleges and universities are to put teaching first, to take service to community and economic development seriously, to focus research investments programmatically and to be prepared to move increasingly to a technology-intensive rather than a labor-intensive enterprise.

Making this course correction — this turnabout — will require changes in the way the state finances education, in the organization and structure of the programs and the curricula offered, in the technology developed, in the criteria applied to evaluate and reward faculty, in the standards used to judge student progress and in the patterns of collaboration among the public campuses and between the public campuses and their private counterparts. In this context, several recommendations follow:

1. Change the mission, especially of the university campuses, away from the sole emphasis on the research university model. Prepare for new challenges emerging from changing student demographics. If we are to accommodate new economic and demographic forces, the academic establishment has to be responsive to an agenda of new expectations. Specifically, this includes a readiness to ensure access to people of color, immigrants and native-born, adult learners, part-timers and place-bound students who seek education beyond high school, even if not all are prepared in the traditional sense as measured by SATs and secondary school records.

   The path to community colleges — and from these colleges to state colleges and universities — should be structured on a regional basis, and curricula and support systems designed accordingly. Further, the curriculum provided should focus on the job needs of the economy and the job opportunities it offers. Good prospects for employment, promotion and achievement should become the priorities in designing academic programs. The trustees of the state Higher Education Coordinating Council (HECC) and the University of Massachusetts need to take the lead in developing, encouraging and ultimately mandating these guidelines.

2. Streamline and restructure the public higher education system by avoiding duplication, employing the lead campus concept and revising professional practices. If institutions adjust program offerings accordingly, then the 29-campus system must move decisively to eliminate program duplication, most prominently in nursing education and engineering. Core undergraduate curricula also need to emphasize the learning and skills especially required today: economics, organizational behavior, language, science and applied technology. With these major adjustments in program and curricula underway throughout the system, each campus should deter-
mine a focus or focuses. In each area of study or research, there should be a lead campus.

Inevitably, the changes in clientele, curricula and campus specialization will require substantial modification in professional personnel practices, especially as they affect the faculty. Criteria for appointment, promotion and tenure should be redirected, so that teaching and service are weighted most heavily in at least 26 of the 29 public institutions. The revised criteria should be applied statewide by the trustees of HECC and the university. Appropriate adjustments in doctoral program training should be put in place to prepare new faculty for expanded teaching and service responsibilities. Clear measures for evaluation of teaching and service should be established for all faculty regardless of tenure status.

Enactment of a comprehensive retirement plan, offering discretion to campus administrators in providing such options, is needed to rejuvenate the faculty. This step is crucial to bringing vigorous and well-trained young people into the profession. Recent executive vetoes of such legislation are a mistake and should be reconsidered.

The present collective bargaining processes in public higher education need reform. At present, UMass and HECC are “employers of record,” but the economic parameters of the bargaining process are controlled by the governor and the actual allocation of dollars is controlled by the Legislature, while the colleges and universities themselves negotiate the contracts. This fragmentation of responsibility has led to less than satisfactory results.

The current bargaining process is directed toward compensation, terms of employment and work practices, including the process established on each campus for academic decision-making. When processes for academic decision-making (e.g., development and validation of new courses and curricula) are fixed through collective bargaining processes, flexibility to align academic programs with current needs can be compromised.

3. Pursue avenues of public and private collaboration. Collaboration among the 29 public institutions of higher education should be required and the capacity and mission of each systematically defined. The emerging partnerships in “articulating” transfer policies from community colleges to state colleges and the universities should now be formalized in the regional tier system proposed in 1991 by then-Chancellor Randolph Bromery.

A necessary next step — brought about by the rapid changes in demography, program specialization and new communication technologies that can compensate for geographical isolation — is the creation of a Commission on Campus Closings. This could be patterned after successful prototypes adopted in defense, schools and hospitals. The structure of the commission should be designed to provide objective professional recommendations that can only be voted “up or down” in their entirety.

Private institutions of higher education have long received public benefits in terms of tax exemptions and scholarships. The authority to review these programs and establish boundary conditions with public counterparts has been on the books, but is rarely exercised. We believe that as HECC proceeds in its coordination and collaborative function, even-handed attention should be paid to duplication and redundancy in the private sector.

A New England regional component should be expanded with the New England Board of Higher Education building collaborative efforts now exemplified by the board’s Regional Student Program.

4. Gain fairer and more stable state support. The commitment to a publicly supported, rather than a publicly assisted, public higher education system must be renewed. This does not mean that the system simply asks for “more” and continues on the well-trodden paths of the research university model. Nor should an active search for outside funds be in any way discouraged as a way to enhance educational quality; nor should students be excused from paying their fair share. But the focus should be on fairness and the objective should be stability, so that rational, consistent, prudent planning and management can take place.

In short, the course corrections recommended here focus on building an alternative model to the research university of old, retaining some components, but moving in genuinely new directions. In exchange for financial stability underwritten by the state, the other key members of the coalition undertake major commitments as well. Curricular and program changes more directly associated with community and economic development are put in motion as major new professional priorities in teaching, service and research are established, and new patterns of collaboration and consolidation come into play.

Predictions

The following is excerpted from remarks by Franklin M. Loew, the dean of Tufts University’s School of Veterinary Medicine, delivered in April at a meeting marking the 30th anniversary of the Worcester Business Development Corp., a for-profit arm of the Greater Worcester Chamber of Commerce designed to develop industrial parks. In May, Loew announced that leaves Tufts to become dean of the New York State College of Veterinary Medicine at Cornell University.

Universities and colleges, still in many ways the medieval, self-governing sanctuaries they began as, need to adjust to the realities of the last half-decade of our century. The original tenure system in American colleges and universities was a 20th century response to justifiable concerns about academic freedom and unjust dismissal related to political, religious or scientific iconoclasm or even heresy. All too often, however, tenure has come to mean lifetime employment, even if changing student preferences or research agendas mean some subjects are no longer in demand. At the Tufts University School of Veterinary Medicine, we do not have a tenure system; the faculty, myself included, are on contracts of varying lengths. Apart from having a salutary effect on productivity, this arrangement allows us to respond to changes in the internal and external environments. We were able to do this because we were a new school in an otherwise well-established univer-
sity. But mark my words, change is coming for everybody.

Making predictions is risky business (remember, Lincoln guessed that the "world will little note nor long remember" what he said at Gettysburg) but here's one: The voters in some state with a tradition of direct voter referenda or propositions, California perhaps, will find a proposition on the ballot some year soon to eliminate tenure as we know it at its public universities. It will pass with a large majority. And once that happens somewhere, this change will roll across the country like prairie fire, especially as federal tax-lowering and deficit-reduction take their toll on state budgets.

Not only that, reduced federal outlays for research and development will force — indeed, already are nudging — those universities hitherto "allergic" to corporate research arrangements to seek that very brand of industry support. For their part, corporations will have to step up their investments in R&D, because the public sector is not going to be able to sustain its traditional level of expenditures. And companies won't have the same level of basic research findings to commercialize. We have a chance in Central Massachusetts to invent a new type of university/business partnership, where each brings its point of view and expertise to a more seamless type of R&D. To be sure, we will need to vigilantly guard against conflicts of interest, research misconduct and the like. And there is a danger in forsaking basic research for technology development. But the general opportunity for symbiosis is too good to pass up.

Retargeting Corporate Support ... Perhaps

The following is excerpted from "Investing in American Higher Education: An Argument for Restructuring," a monograph published early this year by Judith S. Eaton, the president of the Council for Aid to Education.

You hear it everywhere, from two-year, four-year, public and private institutions: They will "fundraise" their way to solvency and prosperity. This hope, however, flies in the face of an important reality. Realistically, private support — at least in its current and foreseeable dimensions — can offer only limited relief to struggling institutions; it is too small, too selective and too unpredictable to replace public subsidy.

Voluntary support to education ($11.2 billion in 1993) is minuscule compared with total higher education expenditures ($800 billion in 1993). Corporate support ($1.8 billion) represents an even smaller percentage of expenditures. Voluntary giving, especially corporate giving, tends to be overvalued as a source of fiscal relief because of its symbolic value. It is a powerful signal about the perceived worth of the institution, but its symbolic power considerably exceeds its buying power.

Voluntary support is also highly selective in the sense that funders provide support for projects and activities of significance to them. Increasingly, companies are setting their own grantmaking agendas rather than responding to needs identified by colleges and universities. And increasingly, corporate support is targeted rather than general.

The competition for corporate support is also more strenuous than ever before, giving an edge to institutions that have already established relationships and track records with companies. Even the most prestigious institutions, though, will find that company priorities are now dictating philanthropy priorities. Companies weigh carefully the "value added" provided by working with a given college or university.

In days of more plentiful public funding, private support was viewed as the "margin of excellence" — the dollar difference between routine college operation and special initiatives. Corporate and other voluntary support funded activities that were desirable but not essential to an institution.

Declining operating support for higher education has erased the margin of excellence that corporate support was intended to provide. Colleges and universities now must struggle to find funds for ongoing operations that could once be taken for granted. Today, private support is important in the routine activities of these institutions. When viewed in this light, the purposes and uses of corporate support may need to change.

For example, three-quarters of current corporate support to higher education (approximately $1.35 billion of the $1.8 billion total reported by companies) goes to research institutions, most of which are in relatively good fiscal condition. Their endowments are large, funding per full-time equivalent student is comparatively high and reserves are strong. Yet, there are hundreds of private institutions with modest endowments that are struggling to stay alive, and hundreds of public institutions that have too few dollars behind each student and have experienced drastic budget reductions or been forced to turn students away. Perhaps some corporate dollars would be better invested in such institutions than in research institutions.

Indeed, corporate support and attention continue to focus on research. Yet some corporate leaders are outspoken in their dissatisfaction with the quality of many of today's associate and bachelor's degree recipients. Perhaps some of the corporate dollars invested in research would be better spent funding undergraduate teaching and learning.

Corporate leaders also express strong concern that more minorities should be part of the skilled workforce and upwardly mobile. Yet the corporate investment in minority education heavily favors science, math and technology, while most minority students obtain degrees in social sciences and business. Community colleges enroll almost half of all minorities in higher education, yet few corporate dollars make their way to these institutions. Perhaps more dollars could be invested in programs and institutions in which large numbers of minorities are enrolled.

Corporate leaders have been most vocal in their concerns about the poor quality of elementary and secondary education. Yet few corporate dollars go into teacher education programs and those that do tend to be spent on ambitious, but amorphous programs with few clearly focused goals. Perhaps investment in teacher education could be more of a corporate priority, with demanding expectations for high-quality results as part of the grant package.
Explore your future with Forsyth

Forsyth School for Dental Hygienists offers programs at the Associate, Baccalaureate and Degree Completion Level.

The Forsyth School for Dental Hygienists, in affiliation with Northeastern University, is committed to the advancement of Dental Hygiene as a profession and Dental Hygienists as professionals.

Call or send for a catalog:
Forsyth School for Dental Hygienists
140 The Fenway
Boston, MA 02115
(617) 262-5200 x 212, 213

The New England Board of Higher Education extends special thanks to the following organizations for their generous support of the board's 40th anniversary year programs:

AT&T
Bank of Boston
BayBank
Freeman Foundation
John F. Kennedy Library
KPMG Peat Marwick
Nellie Mae
New England Governors' Conference
NYNEX

WHAT'S THE BIG IDEA AT CASTLE COLLEGE?

OPPORTUNITY

Specifically, opportunity to...

✓ Select from leading career programs of the 90's such as paralegal assistant, medical secretary, recreation therapist, human service and child care workers, accounting, and business professionals
✓ Gain work experience while attending classes
✓ Learn from professionals working in their fields
✓ Receive personal attention in small classes
✓ Good location... easy access to 93, 111, & 28
✓ Associate degrees and certificate programs

603/893-6111

Castle College
Associate with the best!

21 Searles Road, Windham, NH 03087-1297
Education of a Governor

STEPHEN E. MERRILL

The Merrill family first arrived on these shores in West Newbury, Mass., where some of them, like colonist Stephen Merrill, a minuteman at Concord and Lexington, remained. Others, like Nathaniel Merrill, traveled north to Thornton Gore, N.H., where the Merrill family has stayed for 200 years. I am proud of my New Hampshire heritage and proud to be the first governor in the history of New Hampshire to graduate from the University of New Hampshire. Neither of my parents were able to go to college. I worked two jobs just to get through UNH, and although I did not like it at the time, it taught me the valuable lesson that there is no free lunch. I learned it was important that I discipline myself to accomplish what needed to be done.

As a teenager, I did not want to go to the University of New Hampshire for a reason that seemed quite profound to me at the age of 19: It was too close to my home. I was also afraid that I was not academically proficient. My high school grades were average, and I was having too much fun doing things like starting political parties. But something profound was about to happen to me. When I sat in my first political science class at UNH and heard a professor named Erwin Jaffe talk about politics, and when I sat in a sociology class and heard a professor named Melvin Bobick talk about sociology, I knew immediately that I would not be able to bluff these two very intelligent professors. It was at that point that my life changed.

This perfectly average high school student graduated from the University of New Hampshire Phi Beta Kappa, magna cum laude and Ford Foundation Scholar, then went on to Georgetown Law School and became editor of the Georgetown Law Review. All this happened because of the impact that undergraduate education had on my life — and it was not all academic. I also learned to appreciate theater and the opera, and I continued expanding my horizons after I had graduated from college.

I have a book on my coffee table in the governor’s office that is a synopsis of the theory of relativity written by Albert Einstein. I don’t understand the theory of relativity, so I’m going to keep reading the book until I understand it. I am going to be the governor of New Hampshire for a very short time, but I am going to continue growing, learning, changing and becoming more self-actualized for the rest of my life.

There are a lot of Steve Merrills out there waiting to learn. Without higher education, I would be in Hampton, N.H., working at my dad’s lumber company. Instead, I got the chance to stand before a jury of 12 men and women and say “I am Steve Merrill, attorney general.” Later, I stood before the House and Senate in joint convention, giving my first inaugural address. Those are experiences I never would have had if it weren’t for the opportunities provided to me through higher education.

Yet, higher education is experiencing extraordinary times. Who ever dreamed that level funding would look good to college and university administrators? Who ever dreamed that dollars that once came from the federal government to the states and then on to higher education would not come from the federal government, and that the states themselves would be pressed to meet commitments they had made in the past? There are two things that can be done: Either complain

Like governors, leaders of higher education have the advantage of the bully pulpit.
about it and yearn to turn the clock back, or become determined to live with it and do even more with less.

Constitutionally, the state of New Hampshire is supposed to possess the weakest governorship in the country. When former New Hampshire Gov. Walter Peterson arrived on the scene or John Sununu or yours truly, it never occurred to us that we would be weak governors because we had the bully pulpit. We had the opportunity to go out into the public and convince people of the rightness of our position.

For example, the federal government has been pushing hard to require New Hampshire’s higher education institutions to administer student loan programs directly. As usual, Washington bureaucrats are trying to tell the people of New Hampshire how to do something that we already do more efficiently — and much more cost-effectively — than they could. Meanwhile, 78 percent of college and university representatives and 76 percent of lenders think it is a bad idea to require New Hampshire’s educational institutions to administer student loan programs directly. I agree.

Leaders of higher education also have the advantage of the bully pulpit. Higher education needs to take concrete action to ensure that, despite fewer resources, we will continue to provide first-class higher education in New Hampshire. By developing private resources through such vehicles as corporate partnerships, higher education can benefit both financially and through opportunities to showcase campuses to the business world.

In order to keep pace in the global economy, New England will have to be rich in research and innovation and intellectually capable of keeping talented men and women in the region. If we intend to be the “Athens of America,” as Boston has so often been called, we’re going to have to earn that designation with intellect and innovation.

We will also need to push new boundaries. Twenty years from now, when we look back at the North American Free Trade Agreement or GATT, the most significant impact will stem from the educational experiences that nations have had with one another. This will be even more important than trade and economic growth implications, because students from one nation will be able to go to other nations much more readily and then return and exert a more profound influence at home.

I recently led New Hampshire’s first trade delegation to the province of Quebec and, on the occasion, signed a letter of educational cooperation. I did not want to go up there for business alone. I wanted to make a connection so that New Hampshire’s public colleges and universities would have a relationship with their counterparts in Quebec, then private colleges and universities, and then the high schools, so that someday, New Hampshire high school students could go to Quebec and then to other provinces to educate and be educated.

A profound change is taking place in this country. With great respect, I urge those involved in higher education to consider the innovation that has occurred in K-12 and to emulate it, even if it may appear that higher education has a deeper mission and is more sacrosanct in its duties. Something is happening out there and we had better move forward together because students and their futures are at stake.

Stephen E. Merrill is the governor of New Hampshire and chairman of the New England Governors’ Conference.
One of America’s Best Colleges

Known and recognized nationally as one of America’s best regional liberal arts colleges, Saint Joseph College provides a personalized education with the individual attention each student needs to succeed.

Come for a campus visit!
Call Admissions at (203) 232-4571, ext. 216 or 1-800-285-6665

Founded and sponsored by the Sisters of Mercy

Challenge the Meaning of Learning

Adults take risks when returning to graduate school. We at Antioch New England know that. We’ve been developing programs for motivated adult learners for over 30 years. We’ve created a supportive environment where scholarship is open, collaborative, and experiential. Our faculty, experienced academicians and practitioners in their fields, help students integrate their life experiences and achieve career transition and advancement. We honor a rich variety of learning styles and promote personal and professional growth. The result is a scholarly, practitioner-oriented, values-based education that makes a difference. Join us. Make a difference. We make the risk worth taking.

Call 603-357-6265 for more information.

North Adams State College

Founded in 1894, North Adams State College is a public liberal arts college, located in the northwest corner of Massachusetts. North Adams strongly believes in the value of a liberal arts education that emphasizes intellectual breadth and versatility.

North Adams offers the following Academic Programs:
- Allied Health/Medical Technology
- Cyto-technology
- Medical Technology
- Sports Medicine
- Biology
- Business Administration
- Accounting
- Finance/Economics
- Management
- Marketing
- Chemistry
- Computer Science
- Information Systems
- Education Certification
- Early Childhood Education
- Elementary Education
- Middle School Education
- Secondary Education
- English/Communications
- Broadcast Media
- Journalism
- Literature
- Public Relations
- Writing
- Fine and Performing Arts
- Art
- Arts Management
- Music Studies
- Theater Studies
- History
- Political Science
- Interdisciplinary Studies
- Pre-law
- Mathematics
- Philosophy
- Physics
- Psychology
- Sociology
- Anthropology
- Crime and Delinquency
- General Sociology
- Social Work

To receive more information or to set up a campus visit, contact the Admissions Office, North Adams State College, North Adams, MA 01247. Phone: (413) 662-5410 or 1 (800) 292-6632, ext. 5410.
NOT ALL KIDS HAVE THE CHANCE TO GO TO COLLEGE.

WE SAY THEY SHOULD.

As the largest non-profit provider of student and parent education loans in the country, Nellie Mae believes in giving everyone a chance at obtaining a college education.

That's why the Nellie Mae Fund for Education has given over $3 million dollars to programs that encourage kids to stay in school and get the best education they can.

For more information on the Nellie Mae Fund for Education, please contact Sylvia Salas, Director, at 617-849-1325, x2429.

NELLIE MAE
A national leader in higher education financing and services

50 Braintree Hill Park, Braintree, Massachusetts 02184 • 617-849-1325
In 1940, only one state in the nation operated a centralized higher education agency. By 1990, every state had either a governing or coordinating board and a related office or department of higher education.

For a glimpse into the future of higher education governance in New England, consider looking to New Jersey. In March 1994, New Jersey Gov. Christine Todd Whitman used the occasion of her first budget message to call for the abolition of the state’s Board of Higher Education, a cabinet-level coordinating body, and the related Department of Higher Education. She then appointed a special advisory panel of educators and lay persons to formulate recommendations about how New Jersey colleges and universities should be governed and coordinated. The basic thrust of the recommendations was to reconstitute the state higher education board, with reduced size, scope and regulatory authority, while expanding institutional autonomy and institutional and system accountability.

Whitman’s initiative was signed into law in June 1994 and subsequently reflected in the platforms of at least seven gubernatorial candidates across the country, four of whom are now in office. It may signal a national move to creatively balance the historical commitment of U.S. higher education to institutional autonomy with the emerging call for public accountability.

American higher education has long been recognized as the best in the world, largely because of its tradition of a strong independent higher education sector and a public sector, which incorporated the central features of that independent sector, namely, academic freedom, institutional authority and limited centralization.

In 1940, about 1,000 colleges and universities served one-third of a million students. Following World War II, U.S. higher education exploded. Today, more than 3,000 higher education institutions serve about 13 million students.

The major triggers to higher education’s postwar expansion were the G.I. Bill and the creation in 1946 of the President’s Commission on Higher Education, later known as the Truman Commission. The specific charge to that body was to “find ways and means to expand educational opportunities for all able young people.” The Truman Commission called for the development of community colleges across the country. At the time, 651 public and independent junior colleges in the United States enrolled about 110,000 students. By the mid-1980s, more than 1,200 two-year institutions enrolled close to 5 million students. And by 1994, half of the nation’s college students had begun their postsecondary experience at a community college.

As higher education grew, it began to lose one of its most distinguishing characteristics: its decentralization. Public higher education became increasingly centralized with the development of state-level coordinating and governing boards. In 1940, only one state in the nation operated a centralized higher education agency. By 1990, every state had either a governing or coordinating board and a related office or department of higher education. This pattern is reflected in New England, which currently has five state-level governing boards and two state-level coordinating boards.

Until very recently, higher education enjoyed a protected status. Its excellence was internationally recognized, as evidenced by a constant flow of foreign students. In the early 1980s, concerns about educational quality focused on the K-12 level. But in the mid-1980s, several national reports called for major improvements in undergraduate college education. By the end of the decade, the public began fretting about college costs and raising questions about whether students were learning what they
should. In response, the nation’s governors began calling for fundamental reforms. These calls were intensified by the economic downturn of the early 1990s and reinforced more recently, when Colorado Gov. Roy Romer announced that the Education Commission of the States would focus its attention on the question of what quality in higher education means and which state policies can achieve it.

Concern about access and affordability underlies many of the criticisms of higher education. After all, an estimated 70 percent of new jobs will require at least a community college education, and the median income of college graduates is about 50 percent higher than that of high school graduates.

Many of the reforms being proposed require additional funds. But with no significant increase in enrollment projected — and continuing public concern about college costs — institutions cannot expect tuition to be a major source of new revenue. And the recent recession has had a negative impact on public and private financing of higher education. Review of the costs and benefits of systemwide offices is surely among the sensible responses to higher education’s fiscal straits.

Possibly the ultimate challenge to higher education in this time of limited resources is to maintain a balance between the legitimate concerns of governors, state legislators and the general public about access, affordability and quality on one hand, and institutional autonomy on the other. It is precisely this challenge that the New Jersey reorganization seeks to meet.

Like other states, New Jersey has experienced several years of fiscal difficulty and reduced public funding of higher education. Higher education’s share of the total state budget declined from about 12 percent in 1975 to less than 7 percent in 1994. Meanwhile, demands on the system — three public research universities, eight state colleges, one state teaching university, 19 county colleges and 26 independent institutions — have grown. Enrollment at New Jersey institutions has increased by 9 percent since 1989, and the number of high school graduates is expected to increase by 22 percent by 2008. With growth in enrollment has come demand for more programs, classes, faculty and support services. New Jersey was generally able to maintain moderate tuition increases through the early 1990s until academic year 1994-95 when concerns about quality forced significant increases at Rutgers University and at the eight state colleges.

New Jersey employers are expecting more from higher education, and rapidly changing technology and workforce needs have further strained resources. In addition, higher education is being called upon to help with other endeavors such as reform of K-12 education.

New Jersey’s restructured higher education system seeks to create a balance between the flexibility that institutions need to carry out their individual missions and the statewide planning, coordination and accountability required to meet the needs of the state. The new structure is designed to reduce the costs of the state-level body by decreasing its size. And legislatively mandated action plans are designed to limit regulation, increase accountability, create quality incentives, stress new technologies and productivity and emphasize responsiveness to the state’s residents.

Perhaps most importantly, the restructuring provides the opportunity to carry out the traditional board responsibilities of planning, coordination and accountability differently, while striving to achieve the fundamental goals of access, affordability, diversity and excellence. For example:

- Through a new Commission on Higher Education, independent lay leaders are charged with developing a vision for the future of New Jersey postsecondary education and related measurable objectives to meet the statutory goals of accessibility, affordability and quality. The commission begins its work by studying and making recommendations in four crucial areas: state funding, tuition, student financial aid programs and collaboration with K-12. Because of the shift of many responsibilities from the state to the institutional level, the commission staff and budget have been significantly reduced.

- Boards of trustees for each college and university have been given expanded responsibilities, including authority to set tuition and introduce new programs while they are required to be clearly accountable to the general public and to students. By way of illustration, before a board can raise tuition, it must hold a public hearing and all external audits must be made public.

- A Presidents’ Council will engage the presidents of the state’s 46 colleges and universities — 31 public institutions and 15 independent campuses that receive state aid — in making the system more than the sum of its parts as it seeks creative ways to share resources, use technology, reach out to underserved populations and regions, and encourage cooperation to avoid unnecessary duplication.

As part of the effort to balance increased institutional autonomy with public accountability, the Presidents’ Council will review and make recommendations to the Commission on Higher Education on proposals for new programs that exceed or change the programmatic mission of an institution, as well as reviewing and making comments on any new programs that demand significant new resources or raise significant issues of duplication.

The New Degree Program Review process developed by the council clearly embraces the collegial spirit of the New Jersey higher education legislation in greatly expanding the authority of institutional governing boards to initiate new programs while putting in place a collaborative interinstitutional review process to ensure that any program proposal is supported by adequate resources, is consistent with an institution’s mission and does not unduly duplicate an existing program.

While its specific features are derived from its own unique history and current profile, the restructured system in New Jersey could serve as a national model of accountability, effective decentralization and expanded site-based management in higher education. The coordinating framework of the Commission on Higher Education, working with the Presidents’ Council, also holds the promise of capitalizing in a unique way on the energies and talents of educational leaders in the service of students, businesses and the public.

Ultimately, the underlying lessons of the New Jersey experience are not the particulars of its restructured system nor even the fact of reorganization, but rather, the importance of the questions those involved had the courage to ask and address, namely, mindful of both the American tradition of institutional independence and the current call for public accountability: Are there functions currently undertaken at the state level which could more effectively and efficiently be carried out at the institutional level, and if so, what if any new mechanisms of accountability or changes in organization are needed?

Eleanor M. McMahon is a distinguished visiting professor at Brown University and chair-elect of the New England Board of Higher Education. The former commissioner of higher education in Rhode Island, McMahon served as the senior consultant to the newly formed New Jersey Commission on Higher Education.
Learn By Experience, As Well As By The Books.

Sure, you'll graduate from Anna Maria College with a quality, career-focused, liberal arts education. But what you experience outside the classroom will be as much a part of your education as our 30+ degree programs. Whether you're into athletics, student politics, the latest computer technologies or catching big-name concerts at the nearby Worcester Centrum, just minutes away from our scenic 180-acre campus - it's all here at our private, co-ed, 4-year college. A student body of 400 means that faces are familiar, friendships are easy to make, and professors are accessible. As a member of The Colleges of Worcester Consortium - you'll be able to cross-register at 10 local colleges and universities. And when it comes to the real world, we offer career counseling services, plus internships at top companies throughout the region. So if you're interested in an education that gives you total exposure to learning, call our Office of Undergraduate Admission.

(508) 849-3360
PAXTON, MA 01612-1198

The Norwich Experience

Education and Leadership at the Nation’s Oldest Private Military College

Challenge. Seven academic divisions and twenty-nine challenging educational programs. Leadership Training. For those students who enroll in the Corps of Cadets. Dedication. Small classes and professors who are dedicated to teaching and student success. Choice. The traditional college lifestyle or membership in the Corps of Cadets. Camaraderie. Varsity, intramural or club sports and over eighty activities and clubs. Adventure. Ski, hike, swim or climb—exploring and enjoying the beauty of Vermont.

Norwich University
Northfield, Vermont 05663
1-800-468-6679
MEDFORD, MASS. — Tufts, Brandeis and Northeastern universities launched a joint MD/MA in health management program to prepare new doctors who will understand the business aspects of medicine. Under the program, Tufts medical students will take a full complement of business courses at Northeastern, Brandeis and Tufts, and earn their MBAs during the same four years they earn MDs.

HENNIKER, N.H. — Students from New England College began offering creative writing workshops for residents of two retirement homes in nearby Concord. The project aims to teach creative learning skills to the elderly residents, while helping those with physical limitations get their stories on paper.

WALTHAM, MASS. — Brandeis University announced plans to create a $1.1 million National Policy and Resource Center on Women and Aging. The center, supported under a three-year cooperative agreement with the U.S. Department of Health and Human Services, is designed to foster a nationwide dialogue about how to improve the status of women, who make up the majority of the aging population.

NEW HAVEN, CONN. — Yale University’s School of Management launched a program in which graduate students earn academic credit for providing management consulting to businesses and other organizations in the city of New Haven.

DURHAM, N.H. — The University of New Hampshire was selected by the National Aeronautics and Space Administration as one of 13 teacher training sites for the Global Learning and Observations to Benefit the Environment (GLOBE) program. The program will link students and teachers at 1,500 U.S. schools with scientists around the world to help develop better understanding of Earth. Students make daily scientific measurements and observations at their schools, send their data via Internet to a GLOBE processing facility and receive state-of-the-art images for classroom study.

CAMBRIDGE, MASS. — Harvard University announced it would receive a deferred gift worth $70.5 million from overseer John L. Loeb and his wife, Frances. The gift — among the 10 largest ever given to higher education — will support professorships and a variety of other university programs.

BURLINGTON, VT. — Trinity College of Vermont was awarded $56,000 by the New York-based Teagle Foundation to help develop three new academic programs: a craft/art entrepreneur program; a fifth-year program for students to prepare for medical school; and an allied health program. The grant also funds a new review policy, in which teams of faculty, supported by outside experts, will review all academic programs within an eight-year cycle.

BOSTON, MASS. — Boston University’s College of Communication unveiled a new master’s degree program in business and economics journalism, beginning in fall 1995. Under the program directed by former Wall Street Journal reporter Steven Levengst, students will take journalism courses at the College of Communication, business courses at the School of Management and economics courses at the College of Liberal Arts.

NASHUA, N.H. — Daniel Webster College was awarded a three-year, $100,000 grant from the National Aeronautics and Space Administration under the NASA/University Joint Venture Program, which uses space research to invigorate math, science and engineering educational programs across the United States. Daniel Webster will use the grant to investigate solar dynamic systems for power generation and propulsion in space applications.

NORTH GRAFTON, MASS. — Tufts University’s School of Veterinary Medicine announced it would offer a new multidisciplinary master’s degree program in animals and public policy, beginning in fall 1995. The program will enable students to investigate ethical, legal, scientific and social issues related to the status of animals in society.

BOSTON, MASS. — A Boston University research team received a $4 million grant from the National Cancer Institute to investigate causes of diseases in African-American women. Fifty-thousand women from throughout the United States are expected to participate in the study over the next five years.

STORRS, CONN. — The University of Connecticut launched the Connecticut Environmental Entrepreneurial Center to provide market information and a range of other services for environmental technology companies in the state. Supported by two state agencies and the nonprofit organization, Technology for Connecticut, the center is located at the UConn School of Law in Hartford.

PROVIDENCE, R.I. — Brown University received $10 million from trustee emeritus W. Duncan MacMillan, a director of Cargill Inc., the Minnesota-based agribusiness giant. The grant will be used to begin building a new undergraduate sciences center, slated for completion at the start of the 1998-99 academic year.

BOSTON, MASS. — The Center for Space Physics at Boston University was awarded $4.15 million in National Aeronautics and Space Administration funds to launch its first satellite. Funded through the University’s Space Research Association’s Student Explorer Demonstration Initiative, BU will receive support for a two-year satellite development and testing period, followed by a year of operating and monitoring. The satellite will conduct upper-atmospheric measurements, including readings of ultraviolet light emissions in the ionosphere.

WEST HARTFORD, CONN. — The Counseling Center at the University of Hartford’s Hartford College for Women was awarded a two-year, $270,000 grant from the Connecticut Department of Economic Development to expand its Entrepreneur Development Program to Bridgeport. The program provides low-income people and those on public assistance with the skills and support to start their own businesses. The center also received a gift of $70,000 from the estate of Lillian M. Mansfield to support a career counseling program.

AMHERST, MASS. — The University of Massachusetts at Amherst received $250,000 from the Monsanto Co. to establish a five-year fellowship program for graduate students in polymer science and engineering, beginning in fall 1995. The grant will support 10 students with $25,000 fellowships.

KINGSTON, R.I. — The University of Rhode Island’s Center for Vector-Borne Disease received grants totaling more than $1.2 million to investigate diseases carried by living organisms such as ticks. The grants range from a three-year, $355,000 award from the National Institutes of Health to investigate how ticks pass Lyme disease to humans to a $24,000 grant from the state Department of Health to survey the prevalence of rodent-borne hantavirus in Rhode Island.
LOWELL, MASS. — The University of Massachusetts at Lowell's Civil Engineering Department received a $483,000 grant from the Massachusetts Highway Department to develop ways to evaluate the capacity and integrity of bridge piling. The research may be applied to the massive Central Artery/Third Harbor Tunnel project underway in Boston.

MANCHESTER, N.H. — New Hampshire College was awarded $30,000 from the Starr Foundation of New York to support the college's Partnership for the 21st Century program with the Manchester public school district. The grant will be used to provide scholarships to Manchester-area students who complete the partnership program and continue their studies at New Hampshire College.

NORTH ANDOVER, MASS. — A Merrimack College professor was awarded $31,000 from the Lilly Endowment to research the relationship between Christian religious education and anti-Semitism.

DURHAM, N.H. — The University of New Hampshire and Biorelease Corp. reached an agreement in which the Salem, N.H., biotech company will contribute $34,000 worth of cell-culture equipment to the state for biotech research at UNH. Meanwhile, UNH researchers will provide the firm with technical assistance in developing biotech products that could improve drug manufacturing.

LOWELL, MASS. — The University of Massachusetts at Lowell was awarded $85,000 from the Nynex Foundation to oversee a team of high school students from New York City and Brookline, Mass., on a project to help visually impaired people use subway systems. The students — who will work on the project as summer interns at Umass-Lowell — were recognized by Nynex for their proposal to provide directional information via infrared emitters and CD-ROM-based audible instructions.

SMITHFIELD, R.I. — The Rhode Island Export Assistance Center at Bryant College was awarded $25,000 from the United States-Asia Environmental Partnership to support a technical trade mission to Indonesia, Thailand and Malaysia by selected Rhode Island environmental firms in September 1995. The partnership aims to foster sustainable development and help solve environmental problems in Asia with the help of U.S. environmental and technological expertise.

MILTON, MASS. — Aquinas College at Milton expanded its Tech-Prep program, enabling high school students from nearby Quincy and Weymouth to earn up to nine college credits and providing eligible students with guaranteed admission to an Aquinas technology program. The college offers a similar program with schools in Stoughton.

DURHAM, N.H. — The University of New Hampshire's Complex Systems Research Center and the Office of State Planning began developing the New Hampshire ResourceNet, an on-line system allowing users to access and electronically retrieve planning and resource management information. One component, called PlanNet, will feature planning, zoning and conservation documents and allow users to post questions to state planning officials. Another component, GRANITNet, gives users access to digital maps, incorporating data in areas such as clear-cutting to land use.

STANDISH, MAINE — Saint Joseph's College received $35,000 from the William Randolph Hearst Foundation of New York City to establish an endowed scholarship fund for adult women who pursue degrees in nursing while working to finance their educations.

CAMBRIDGE, MASS. — Harvard Law School's Center for Islamic Legal Studies received $100,000 from the government of Pakistan and Prime Minister Benazir Bhutto, a Radcliffe College alumna. The gift creates a permanent endowment to support research activities relating to Pakistan, including fellowships for top Pakistani students.

STORRS, CONN. — The University of Connecticut reached a five-year, $1.5 million agreement with the Continuous Electron Beam Accelerator Facility, in which the national research lab in Newport, Va., will help subsidize the salaries of three new UConn physics faculty members who will teach quantum chromodynamics and nuclear physics at the university and conduct research at the laboratory.

SPRINGFIELD, MASS. — Springfield College received $90,000 from the George I. Alden Trust to support a college initiative providing educational programs to YMCA of America staff at sites across the country.

KEENE, N.H. — Antioch New England Graduate School won approval to offer a doctoral program in environmental studies, beginning in summer 1996. Designed for advanced environmental practitioners and scholars, the program will use on-line resources and require limited time on campus.

STORRS, CONN. — The University of Connecticut's School of Business Administration received a commitment of $1 million from the General Electric Fund and GE Capital, contingent on the state providing $1 million through the UConn 2000 initiative. The gift would support business school programs in Storrs and Storfruit, including scholarships, faculty development and a center for long-distance learning.

DURHAM, N.H. — The University of New Hampshire's School of Health and Human Services announced it would offer a master's degree program in occupational therapy, beginning in fall 1995. The program is designed for registered occupational therapists who want to advance their skills in an area of clinical specialization or administration and clinical education. The program will be open to students in other New England states through the New England Board of Higher Education's Regional Student Program. Classes will be offered on weekends, and students may earn degrees in two or three years.

MANCHESTER, N.H. — The College of Saint Anselm was awarded $275,000 from the Davis Educational Foundation of Massachusetts. The grant will be used to support the automation of the holdings of the college's Geisel Library via an integrated, on-line computer system.

LOWELL, MASS. — The University of Massachusetts at Lowell was awarded $100,000 from the U.S. Department of Labor to provide college-level computer training and job search and placement assistance to unemployed people age 55 and older in Greater Lowell.

KINGSTON, R.I. — The University of Rhode Island's capital campaign received $75,000 from the family of the late Helene C. Lewis, a local educator, to establish a master's degree program in cytopathology and build a clinical lab training facility as part of a planned addition to the URI Health Sciences Building.

CAMBRIDGE, MASS. — Harvard Medical School and Beth Israel Hospital received $2.2 million from the Fisher Landau Foundation to study and teach about dyslexia. The gift will fund the Emily Fisher Landau Professorship of Neurology named for the philanthropist who
has supported learning disability programs since she discovered in her mid-50s that she had dyslexia, a reading disability.

HAVERHILL, MASS. —
Northern Essex Community College and the Lawrence Public Schools launched an after-school program designed to help inner-city youth plan for careers in medical fields, public safety, business and teacher training. Forty high school juniors are attending seminars and participating in work site visits through the "Bridges to Careers" program.

WEST HARTFORD, CONN. —
Saint Joseph College announced it would offer a new bachelor's degree program in environmental science, beginning in fall 1995. The program aims to encourage the leadership of women in the physical sciences and prepare graduates for environmental jobs in industry and government.

BURLEINGTON, VT. —
Trinity College of Vermont announced it would introduce a master’s degree program in administration of justice, beginning in fall 1995. Trinity officials say the program will add professionalism to increasingly complex law enforcement and corrections work. Classes will be available on weekends, enabling students to earn degrees in two years while working full time.

NORTH ADAMS, MASS. —
North Adams State College received approval from the Massachusetts Higher Education Coordinating Council to offer a bachelor’s degree program in fine and performing arts. College officials expect about 50 students to enroll in the program for the fall 1995 semester, with enrollment rising to 130 when the program reaches full operation in four years.

STORRS, CONN. —
The University of Connecticut received the first installment of a two-year, $77,975 grant from the General Electric Fund to support seven minority students enrolled in a new doctoral program in educational administration at UConn's Stamford campus. The fellowships were established to encourage minorities to pursue leadership positions in education. Additional fellowships will be offered in the fall to two minority students enrolled in a Stamford-based program to prepare school principals.

DURHAM, N.H. — The University of New Hampshire's Whittemore School of Business and Economics announced it would offer a new part-time master of business administration program, beginning in fall 1995. Students participating in the program will earn degrees in three-and-a-half years.

NORTH ANDOVER, MASS. — Merrimack College engineering faculty and students restored a dilapidated historic bridge that collapsed into a canal in nearby Lawrence in 1990. The bridge, a Morse truss, is being relocated over a pond in the middle of the campus.

LOWELL, MASS. — The University of Massachusetts at Lowell announced it will offer two new sound recording technology programs, beginning in fall 1995. A master's degree program will prepare students for management positions in the manufacturing and product-supply sectors of the recording industry. A certificate program is designed for recording industry professionals and others seeking advanced studies in the field.

AMHERST, MASS. — The University of Massachusetts at Amherst signed an agreement with the University of Havana, permitting faculty and graduate students at the two institutions to conduct research at each other's campuses, beginning in 1996. UMass-Amherst becomes the fourth U.S. campus — and the first in New England — to operate an exchange with the Cuban university.
The Wisest Man in America  W. D. WETHERELL
Loss, redemption, and the New Hampshire primary tie two men as they search for what's lasting in a world of change. “Wetherell hits his stride as he comes home to his native New Hampshire to investigate elusive truth and wisdom”—Kirkus Reviews. “An understated, resonantly thoughtful novel”—Publishers Weekly. $22.95 cloth

Water Witches  CHRIS BOHJALLIAN
“In a moving, life-affirming novel suffused with ecological wisdom, a Vermont ski resort’s plans for expansion collide with environmentalists seeking to preserve a mountainous wildlife habitat and riverine system”—Publishers Weekly. $24.95 cloth

The Dogs of March  ERNEST HEBERT
“The book rises or falls on the strength of Howard Elman, and this man could hold up a house. By turns torrented, funny, poignant and scathing, he lodges in the memory—and successfully launches the career of Ernest Hebert”—New York Times Book Review. $12.95 paper

Live Free or Die  ERNEST HEBERT
“The fifth and final novel in Hebert’s masterful [Darby] series . . . sure to send many readers all the way back to the first novel”—Entertainment Weekly. $14.95 paper

The Hair of Harold Roux  THOMAS WILLIAMS
“Terrific: Williams’ novel is sweet, funny and sexy. The jokes, parodies and shifting mirror images come into perfect alignment. Williams is an accomplished magician”—Newsweek.

Wharton’s New England  EDITH WHARTON
Seven Stories and Ethan Frome  BARBARA A. WHITE
Tales of betrayal, folly, and moral fervor acted out against a stark New England backdrop, written during a decade Wharton spent living and writing there. $13.95 paper

On the Teaching and Writing of History  BERNARD BAILYN
“Musings on the historical method by renowned historian and Pulitzer Prize-winning author Bailyn . . . Invaluable lessons and guidelines for students, teachers, and scholars”—Booklist.

“Should be required reading for all beginning history majors and teachers”—Library Journal.

“Bailyn thoughtfully remarks upon the validity of historical data that are now made available by computer technology, the creative differences among writing fiction, biography and history, and the importance of placing people and events within the contexts of their times. Bailyn also discusses the impacts of women’s studies and current political ideologies on his field. His comments are informed by his passion for teaching history and by his belief that knowledge of the past is crucial to understanding the present”—Publishers Weekly.

New England  MONTGOMERY ENDOWMENT, DARTMOUTH COLLEGE  $15.95 cloth

New England
University Press of New England • Hanover, NH 03755-2048 • 800-421-1561

At your bookstore
KINGSTON, R.I. — University of Rhode Island faculty approved a four-year-old proposal to create multidisciplinary research partnerships among faculty, students, staff and practitioners, aimed at exploring complex issues relevant to the state or beyond. The faculty senate also recommended that $500,000 be earmarked to start new partnerships, which eventually would be self-supporting.

BOSTON, MASS. — Boston University researchers won an $8 million grant from the Advanced Research Projects Agency and the Office of Naval Research to develop seeing and thinking machines. The funds will be used to develop automated sensing systems and support research on neural networks and artificial intelligence.

DURHAM, N.H. — The University of New Hampshire was awarded $1 million by the National Science Foundation to educate teachers about the university's environmental education program, called "Forest Watch." The funds will be used to develop curricular materials on the program, in which elementary and secondary school students and teachers do hands-on research with UNH faculty in an effort to gauge levels of ozone damage in the region's forests.

CHESTNUT HILL, MASS. — A Pine Manor College alumna contributed $2 million toward a three-year plan to network campus academic, residential, library and administrative computing and link the women's liberal arts college with external information sources.

STORRS, CONN. — The University of Connecticut was awarded a three-year grant of more than $400,000 by the U.S. Department of Education to create a Center for International Business Education and Research. The center will educate faculty, students and business executives from throughout New England on ways to enhance the region's global competitiveness in high-tech fields such as photonics, precision manufacturing and telecommunications.

BOSTON, MASS. — Suffolk University announced it would open a branch campus in Madrid, Spain, beginning in September 1995. Students enrolled at the Madrid campus will be able to study liberal arts and business for two years in the Spanish capital and then transfer to Boston for their final two undergraduate years.

BRIDGEPORT, CONN. — The University of Bridgeport installed a campuswide high-tech security system in which students, faculty and staff can contact campus security at the touch of a pocket-size, high-tech device. When a "personal alarm device" is activated, computer screens in the campus security office show the location of the person who tripped the device and a picture of the person with vital statistics and medical history.

MEDFORD, MASS. — Tufts University launched the Center for Field Analytical Studies and Technology to encourage development and commercialization of instruments and methods that can be used to detect hazardous waste on site, thus avoiding the expensive and time-consuming process of sending soil samples to laboratories for testing. The center aims to create a technology...
transfer alliance among private and public sector technology developers, users and regulators, leading to the adoption of innovative field technologies.

NEW HAVEN, CONN. — Yale University announced that its Yale Homebuyer Program helped about 120 university employees and their families buy homes within New Haven city limits during the program’s first year. Launched in April 1994, the program provides full-time Yale employees with $2,000 per year for 10 years if they buy and live in a house in the city before the end of 1995.

CAMBRIDGE, MASS. — The Harvard-Smithsonian Center for Astrophysics was awarded a three-year, $1.5 million grant from the National Science Foundation to develop engineering competitions for students in grades 6 through 9. Researchers at the center will work with local teachers to develop hands-on projects aimed at keeping young students interested in science and technology.

BURLINGTON, VT. — Champlain College announced it will offer an associate degree program aimed at preparing students to be occupational therapy assistants, beginning in fall 1996. Academic requirements will include courses in occupational therapy, anatomy and physiology, human diseases, psychology, child development and developmental disabilities.

PORTLAND, MAINE — The University of Southern Maine was awarded $250,000 by the National Endowment for the Humanities for a program bringing together elementary and secondary school teachers from Maine and Mississippi to explore stereotypes of the South and New England and help the teachers add a regional perspective to their work. The grant provides stipends for 15 teachers from each state to attend summer institutes at the University of Southern Maine in 1995 and the University of Mississippi at Oxford in 1996.

Career-Oriented Degrees Designed for Working Adults

Master of Education
- Education
- Counseling Psychology
- Integrated Studies

Master of Management

Master’s Degree Completion Program
Bachelor of Arts in Psychology
Graduate Studies Preparation Program

Evening Classes Start
June, September, February

Information Sessions every Thursday evening at 6:00pm and Saturday morning at 10:00am

CAMBRIDGE
1000 Massachusetts Avenue
Cambridge, MA 02138
(800) 877-GRAD

Graduate & Undergraduate Degrees for Working Adults
TQM and Benchmarking mean little if the desired results aren’t achieved.

SERVICEMASTER HELPS COLLEGES AND UNIVERSITIES MANAGE TO RESULTS.

We help our clients reengineer their facilities departments to create an in-house approach that is quality driven and customer oriented.

Call Curtis Bragg, National Vice President
1-800-SCHOOLS
To order, please indicate quantity in blank at left of each title and complete information on the next page. Or call (617) 357-9620.

**CONNECTION Subscription**

Please send me one year of CONNECTION: NEW ENGLAND’S JOURNAL OF HIGHER EDUCATION AND ECONOMIC DEVELOPMENT, including the special annual FACTS directory of New England colleges, universities and institutes, for just $16.

**CONNECTION Back Issues**

Back issues of regular editions of CONNECTION are available for $2.50 each. Back issues of FACTS are available for $12 each.

<table>
<thead>
<tr>
<th>Date</th>
<th>Cover Stories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 1986, Vol. I, No. 1</td>
<td>Our Evolving Technocracy</td>
</tr>
<tr>
<td>Summer 1986, Vol. I, No. 2</td>
<td>Is There a Student Loan Crisis?</td>
</tr>
<tr>
<td>Fall 1986, Vol. I, No. 3</td>
<td>FACTS 1987</td>
</tr>
<tr>
<td>Summer/Fall 1987, Vol. II, No. 2</td>
<td>New England’s Land Grant Universities</td>
</tr>
<tr>
<td>Fall/Winter 1987, Vol. II, No. 3</td>
<td>The Future of New England</td>
</tr>
<tr>
<td>Winter 1988, Vol. II, No. 4</td>
<td>Confronting Illiteracy</td>
</tr>
<tr>
<td>Spring 1988, Vol. III, No. 1</td>
<td>Biomedical R&amp;D</td>
</tr>
<tr>
<td>Summer 1988, Vol. III, No. 2</td>
<td>Minority Access and Retention</td>
</tr>
<tr>
<td>Fall 1988, Vol. III, No. 3</td>
<td>FACTS 1989</td>
</tr>
<tr>
<td>Winter 1989, Vol. III, No. 4</td>
<td>Thinking About the Law</td>
</tr>
<tr>
<td>Spring 1989, Vol. IV, No. 1</td>
<td>New England’s Workforce</td>
</tr>
<tr>
<td>Summer 1989, Vol. IV, No. 2</td>
<td>Campus 1990</td>
</tr>
<tr>
<td>Fall 1989, Vol. IV, No. 3</td>
<td>FACTS 1990</td>
</tr>
<tr>
<td>Winter 1990, Vol. IV, No. 4</td>
<td>Budget Squeeze</td>
</tr>
<tr>
<td>Spring 1991, Vol. VI, No. 1</td>
<td>Thinking Environment</td>
</tr>
<tr>
<td>Summer 1991, Vol. VI, No. 2</td>
<td>Higher Education’s Shrinking Share</td>
</tr>
<tr>
<td>Fall 1991, Vol. VI, No. 3</td>
<td>FACTS 1992</td>
</tr>
<tr>
<td>Winter 1992, Vol. VI, No. 4</td>
<td>Working Smart</td>
</tr>
<tr>
<td>Winter 1993, Vol. VII, No. 3</td>
<td>R&amp;D</td>
</tr>
<tr>
<td>Spring/Summer 1993, Vol. VIII, No. 1</td>
<td>Work and the Workforce</td>
</tr>
<tr>
<td>Fall 1993, Vol. VIII, No. 2</td>
<td>FACTS 1994</td>
</tr>
<tr>
<td>Summer 1994, Vol. IX, No. 2</td>
<td>Telecommunications and Distance Learning</td>
</tr>
<tr>
<td>Fall 1994, Vol. IX, No. 3</td>
<td>FACTS 1995</td>
</tr>
</tbody>
</table>

Continued on next page...
Order These Publications
Available From The New England Board of Higher Education

CONNECTION: NEW ENGLAND'S JOURNAL OF HIGHER EDUCATION AND ECONOMIC DEVELOPMENT
Each quarter, CONNECTION offers an intriguing look at the links between New England's economy and its colleges and universities; commentaries by distinguished New Englanders; crucial data; and hard-hitting analysis of regional issues. One-year subscription includes special annual FACTS directory of New England colleges, universities and institutes. ...................$16

FACTS: THE DIRECTORY OF NEW ENGLAND COLLEGES, UNIVERSITIES AND INSTITUTES A must for parents, students, businesses, researchers and educators, FACTS features key information on the region's approximately 260 colleges and universities; comprehensive data and analysis of higher education trends; names and addresses of higher education agencies; and information on financial aid and other important topics. ..........................$12

The Apple Book Listings of more than 800 certificate and degree programs available at reduced tuition for New Englanders through NEBHE's Regional Student Program. ..................................................$2

NEBHE's detailed analysis of 15-year endowment trends at 128 New England colleges and universities with endowments of $1 million or more. (1994) .................$10

New Choices Facing College and University Pension Funds A collection of essays by investment experts and higher education leaders on retirement plan alternatives available to college and university employees. (1991) .........................$12


The Regional Project on the Global Economy and Higher Education in New England 1989 Publication Series State-specific briefing papers provide comprehensive international trade data; information on state, regional and federal trade resources; education and R&D data; and a review of initiatives to improve education, heighten international awareness and promote technology transfer.

Policy Briefing for Conn. .................$10
Policy Briefing for Maine .................$10
Policy Briefing for Mass. ..................$10
Policy Briefing for N.H. ...................$10
Policy Briefing for R.I. ....................$10
Policy Briefing for Vt. .....................$10
All six: $45

Education and Ethnicity in Southeastern Massachusetts An examination of the distinct cultural, economic and educational patterns of southeastern Massachusetts. (1989) .........................$2

Law and the Information Society: Observations, Thoughts and Conclusions about Legal Education, Law Practice and the New England Economy A NEBHE panel of distinguished lawyers, judges, law school deans and business leaders finds that while lawyers have contributed to the region's economy, growth in the legal profession has not worked to curb legal costs, reach more middle class and poor people or ensure professional competence. (1989) .........................$5

Biomedical Research and Technology: A Prognosis for International Economic Leadership NEBHE's Commission on Academic Medical Centers and the Economy of New England explores the promise of New England's biotechnology industries and issues major recommendations. (1988) .........................................................$5

The "Future of New England" Leadership Survey Report NEBHE asks leaders of business, government and education to identify issues that will be critical to the region's prosperity. Full 90-page report features comparisons of responses by each leadership group. (1987) .................................$20


Economic Competitiveness and International Knowledge NEBHE explores missing links between U.S. competitiveness and international aspects of higher education. (1987) .........................$10

The Impact of Globalization on Higher Education An analysis of conversations with 200 academic experts at more than 40 New Eng campuses uncovers ways colleges and universities are adapting curricula and other programs to meet the challenge of global economic competitiveness. (1987) .........................$10

BOOKS


Financing Higher Education: The Public Investment ..............$20


To order, indicate quantity at left of each title, complete below and mail this entire page (or a photocopy) with a check made payable to the New England Board of Higher Education, 45 Temple Place, Boston, MA 02111.

Total Amount Enclosed: $ 

Name 

Organization 

Street 

City State Zip 

Title
WE CAN HELP YOU HELP MORE STUDENTS GET INTO COLLEGE.

Today, it's not only students who need help, it's financial aid officers. The growing complexity of federal loan programs, new repayment options, and entrance and exit interview requirements, all put a burden on financial aid professionals.

At Bank of Boston, we've helped thousands of students, parents, and financial aid officers with every aspect of the college loan process – from loan origination assistance and electronic delivery of funds to loan servicing by Sallie Mae. And today, more and more financial aid officers are referring their students to us for assistance in the loan process.

Let us set up a program to help you help your students get through college. Call Dave Kelly, Student Loan Officer at (401) 278-7952.
We've been majoring in Boston for more than 67 years.

At The Boston Park Plaza, we put the grace and charm that is Boston within your reach. Like a gracious Back Bay home, we are a harmonious blend of the grand and the intimate. Professors, administration, alumni and collegiate families alike have long appreciated our proximity to campus. And to everything that makes Boston Boston. For reservations or information on our special packages, call 800-225-2008.

BOSTON PARK PLAZA HOTEL
Not Just A Hotel In Boston.
Boston's Hotel™
64 Arlington Street, Boston, MA 02116
OPERATED BY SAUNDERS HOTEL GROUP