# NEW ENGLAND FUTURES



## NEW ENGLAND:

## NEW CENTURY, NEW GAME

By Neal Peirce and Curtis Johnson, The Citistates Group

IMAGINE a New England that leads America in energy saving and breakthrough technologies. Imagine a New England that expands its higher education trademark to college education for all of its people. Imagine New England creating a 21st Century transportation plan — intermodal, road, rail, air, water connections — that rivals global standards. Imagine New Englanders enjoying America's

healthiest lifestyles and lowest health care costs. Imagine young people flocking to the region to take advantage of exciting job opportunities and to raise the next generation of New Englanders.

**IMAGINE** six New England states working together to innovate on every front from science to personal opportunity serving as a model of cooperation.

This six-part series explores the challenges and opportunities facing New Englanders regarding energy, education, growth, transportation, broadband, and health.



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#### PARTNERSHIP FOR NEW ENGLAND

Better Health — from the Grassroots Un?

The New England Futures Project is led by the Partnership for New England, which is a collaboration of seven organizations with a commitment to regional solutions to New England's challenges. The partnership consists of the following organizations:

The Citistates Group (www.citistates.com)

Institute for Sustainable Communities (www.iscvt.org)

Mt. Auburn Associates (www.mtauburnassociates.com)

New England Association of Regional Councils (www.nearc.org)

New England Council (www.newenglandcouncil.com)

New England Initiative at UMass-Lowell (www.uml.edu/centers/CIC/project6.html)

Orton Family Foundation (www.orton.org)

For more information about the project, or to get involved, please go to www.newenglandfutures.org or contact us at info@newenglandfutures.org.



#### DEAR FELLOW NEW ENGLANDERS.

Tourists flock to New England during all seasons, drawn by the beauty of its classic American landscape, which figures prominently in our nation's culture and history. But New England is more than scenic pictures on postcards—it is a cohesive region united by a strong sense of community and potential.

Yet many New Englanders face hard realities when paying for college, buying a house, and budgeting for some of the highest electric and property tax bills in the country. As a result, many of the region's youth are moving to warmer and more affordable areas of the country, and employers are looking elsewhere to locate their businesses. Still, the six New England states rarely look beyond their borders for solutions.

We at the New England Futures project envision a new future—one in which we pull together to create a robust regional agenda on critical issues like energy, health care, transportation, education and workforce development. We are reaching out to citizens and government officials, leaders of businesses and nonprofits, people in academia and in the media.

Our goal is to tap the expertise and ideas that abound in our communities – to find solutions that are rooted

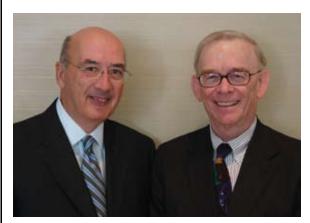
These articles are an excellent place to start. Veteran journalists Neal Peirce and Curtis Johnson explore not just New England's many challenges but its unique strengths. They offer a portrait of a region that is poised to become a competitive force and a global leader in the 21st century.

We invite you to read the articles – and to join us in creating this new future.



George Hamilton Institute for Sustainable Communities

New England Council



Journalists Curtis Johnson (left) and Neal Peirce (right) are coauthors of the "New England: New Century - New Game" series.

#### **ABOUT THE WRITERS**

Journalists Neal Peirce and Curtis Johnson of The Citistates Group (www.citistates.com) have reported for newspapers on the unique strategic issues facing two dozen metropolitan regions nationwide.

Neal Peirce authored the 1976 book, The New England States, with a broad look at New England as a whole followed by chapters examining "people, politics and power" in each of the six states. He also wrote Over New England, companion to the New England Public Television program. He lives part of each year in New Hampshire and writes the country's first nationally syndicated column focused on states and cities, distributed by the Washington Post Writers Group.

Curtis Johnson, with Peirce, co-authored the 1993 book: Citistates: How Urban America Can Prosper in a Competitive World. A former chief of staff to a Minnesota governor, Johnson served four years as board chair of the Twin Cities' Metropolitan Council.

The Citistates team is the only group in the United States with a track record of preparing journalistic, region-wide-based series looking at current and future strategic issues for metro regions - or "citistates," as they call them. Their reports have appeared in 23 major metropolitan dailies, among them the Arizona Republic, Seattle Times, Philadelphia Inquirer, Saint Louis Post-Dispatch, and Miami Herald. Most recently, a major series based on their recent "Boston Unbound" report was printed in the Boston Globe last autumn.

## LEADERS SEEK TO UNITE NEW ENGLAND **AROUND 21ST CENTURY AGENDA**

December 2005 - Seventeen leaders from across New England, including former governors, corporate CEOs, foundation and non profit presidents, and a bishop, have joined together in a Strategic Alliance to urge greater collaboration among the six states to tackle the key challenges facing the region. The Strategic Alliance of New England leaders will oversee and support the New England Futures project, which is seeking to create widespread awareness, debate and action on strategic issues critical to the future of New England.

"The caliber and diversity of leaders who have agreed to join the Strategic Alliance underscores the importance and urgency of the New England Futures initiative," stated George Hamilton, President of the Institute for Sustainable Communities, the managing partner of the New England Futures project. "This Strategic Alliance serves as a model of cooperation for the region and will inspire others to join the effort in uniting New Englanders around a 21st Century agenda."

The Strategic Alliance is joining the Partnership for New England and many other advisors and supporters of the New England Futures project. For more information about the New England Futures project, go to www.newenglandfutures.org.

#### MEMBERS OF THE STRATEGIC ALLIANCE

STEVE CASSANO

Former Mayor, Manchester, Connecticut

Former President and CEO, US Airways, Vermont

PAUL CHOQUETTE,

Chairman, Gilbane Inc., Co-Chair, RI Economic Policy Council

MICHAEL DUKAKIS,

Former Governor of Massachusetts

DR. WENDY EVERETT,

President, New England Healthcare Institute

LEW FELDSTEIN,

President, New Hampshire Charitable Foundation JERRY GREENFIELD.

Co-founder, Ben & Jerry's Homemade, Inc. CHERYL HARRINGTON.

Director and Co-Founder, Regulatory Assistance Project

HON. ANGUS KING,

Former Governor of Maine

Former Governor of Vermont

EARL MARTIN PHALEN,

Co-Founder and CEO, BELL, (Building Educated Leaders for Life)

Managing Partner of Women's Care Inc.

BISHOP PETER A. ROSAZZA, D.D.,

Auxiliary Bishop and Vicar General for the Hispanic Apostolate, Archdiocese of Connecticut

HON. JEANNE SHAHEEN.

Former Governor of New Hampshire

MARK SNELLING,

President, The Shelburne Corporation

JOSEPH C. THOMPSON.

Founding Director of the Massachusetts Museum of Contemporary Arts

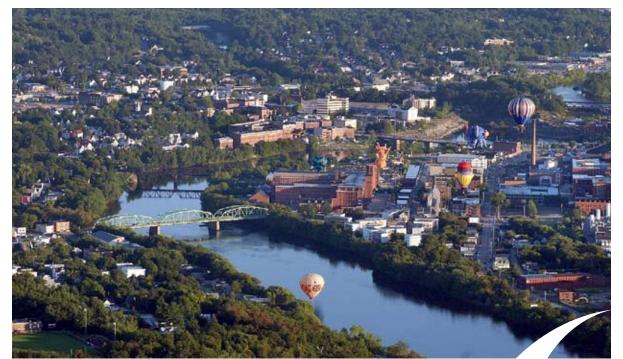
BLENDA WILSON,

BOB WOODBURY.

Chair, Maine Community Foundation



NEW ENGLAND'S IDENTITY IS NEW ENGLAND FATED TO BE AN OLD, COLD, BLUE CORNER OF A RED-HOT AMERICA, TOO DIVIDED TO COMPETE NATIONALLY AND GLOBALLY IN A PERILOUS 21ST CENTURY? OR CAN IT BRING ITS ENORMOUS HUMAN AND INTELLECTUAL TALENTS TO BEAR, SIX STATES WORKING COLLECTIVELY TO FORGE JOINT STRATEGIES AND A DISTINCTIVE NEW ENGLAND BRAND FOR THE TIMES?



The Androscoggin River which separates the Maine cities of Auburn (left) and Lewiston (right) is increasingly viewed as a common tie that bonds the two. Photo was taken during the annual Great Falls Balloon Festival. **SUN JOURNAL/LEWISTON, MAINE** 

## **NEW ENGLAND: SIX TEAMS — OR ONE?**

ARE NEW ENGLAND'S BEST DAYS BEHIND IT? IS IT FATED TO BE AN OLD, BLUE. COLD AND COMPLACENT CORNER OF A RED-HOT AMERICA?

Some indicators suggest so. The six states are barely holding their own in population; Massachusetts is actually slipping backward. Each year the merger mania of big companies seems to snap up a famed New England corporation -- a Hancock, Fleet or Gillette. Only scrappy fights stem closure of the region's principal military bases, an anchor of its long-standing defense economy. Despite the remarkable surge of biotech research and corporate spinoffs in the Boston region, the overall economic growth rate is anemic.

Check around New England, as we have in hundreds of interviews over the past three years, and you sense little of the dynamism of the American South and West. The region's congressional strength is dwindling, and it won no favors in Republican-led Washington with its six-state sweep for John Kerry in 2004. Right now, states like Massachusetts, Connecticut look strong in national rankings of education and income, but the trend lines are down as competitors nip at their heels.

#### But is decline inevitable?

We argue "no." This is a region with stupendous assets. It has smart and resourceful people, great places to live, world-famed universities, lively self-governance, and a leading edge in critical 21st century technology skill sets. It's attached at the hip to metropolitan New York, a linchpin of the national (and global) economy.

New England's environmental consciousness, its tradition of political independence and self-reliance, suggest character and strength, whether capitalizing on good times or coping with disasters. And in a nation being engulfed by faceless cookie-cutter development, the images of New England seascapes, farmlands and hills, the region's historic towns and cities, tug at heartstrings, generate envy across the continent

So what stands in New England's way?

The region's own mind set, we suggest. New Englanders themselves are first to tell one what a hopelessly disjointed, every-town and every-state-foritself region they live in. The attitude we heard everywhere: "Our towns go back to 1630 or before, our states almost as far; we've done fine each town or state going its own way, so why collaborate now?"

Each time we heard that, we wondered to ourselves: "What century do these folks believe we're in?" The islands of time and space that once separated this lovely corner of America from the maelstrom of global reality are gone. No more waiting decades if not centuries to recover from such crises as the rise and fall of clipper ships, or the flight of textiles to the American South, or the loss of high-tech eminence from Route 128 to Silicon Valley. The region must sink or swim in an era of instant global communications, finance and warfare. It faces profound peril from likely storms and floods intensified by global warming, from energy shortages and terrorism that respect no borders. It can expect little help from an increasingly debt-ridden and war-distracted national government.

Historically New Englanders have innovated, thought anew to reposition themselves for new eras'

challenges. But in these years when precedent-shattering collaborations for survival and progress are being forged around the world, is New England in the game?

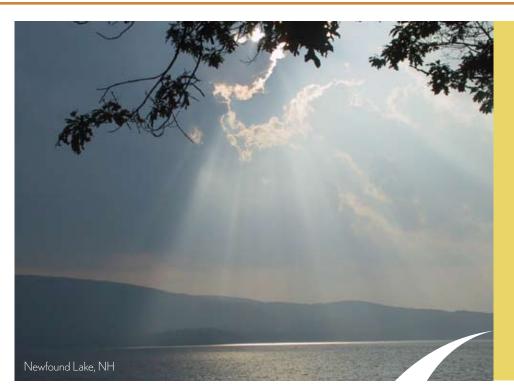
Is there matching New England effort, for example, to the inventiveness of the European Union? Nations torn for centuries by bitter and bloody warfare have made remarkable progress through a common passport and currency (the euro). Plus, they're working very closely together on such issues as energy, transportation, and special help for ailing countries and regions.

Couldn't the six states of New England, "divided only by a common language," be as inventive? With its wealth of talent, what better region in America to mount team approaches to energy, education, transportation, health care? We discovered some highly creative networking -- grassroots groups impatient to move ahead on "green" energy initiatives, to compare notes across state lines on "smart growth" strategies, to measure progress and set goals in every area from job growth to health to housing. They're impatient to see how their communities, and New England as a whole, are performing, and might excel.

If that kind of fresh thinking means reversing 400 years of New England "I'll take care of myself" stoniness, so be it! Conservative grassroots organizing altered American politics in recent years. The Howard Dean presidential campaign and a flurry of activist "dot.org" groups have disrupted old topdown ways of doing things. Citizen-backed non-profit groups, linked by the Internet, may be poised for major impact.

Amazingly often, we found, "official" New England lends a tin ear to fresh ideas and initiatives, even when they come from prominent regionwide organizations. The congressional delegation focuses sporadically, at best, on New England-specific issues. The New England Governors Conference meets infrequently, doesn't even emulate groups like the Western Governors Assn. with a shared research staff to analyze challenges and propose strategies. Massachusetts Gov. Mitt Romney actually withdrew Massachusetts from the conference, purportedly to save dues.

The result for New England: one missed opportunity after another. Consider tourism, a "clean," multi-billion dollar, job-generating industry that also draws potential future residents. It's true: many visitors do now flood into Vermont, Cape Cod and the Maine Coast. But overall, New England tourism is underdeveloped. Yankee Magazine underscores the region's potential draw: over half its subscribers live outside the region. A national survey by the business-led Team New England group found outsiders have a higher positive image of New England as a whole than any of its individual states. Yet the six states keep going their own way,



#### A KING'S WARNING

Wake-up words from former Maine Gov. Angus King:

"In today's global economy, the historic rivalries and differences between New England states are luxuries we can't afford. Virtually every job we do is subject to global competition: in 20 years the only jobs that can't be outsourced will be those that touch a person or something they own. The world wants our standard of living. It will take a massive effort at education and innovation to maintain it."

King's message to the region: "We're in peril. We New Englanders must strengthen ourselves, break historic precedent, find new and innovative ways to maximize our joint strengths, work together."

refusing to promote New England jointly -- except to foreign markets.

And if the states have a tough time making common cause, it seems even tougher for New England towns to drop their prickly go-it-alone mindsets and collaborate for mutual gain. Though when they do, the gains can be big.

Take Maine's twinned, historically cantankerous cities of Lewiston and Auburn facing each other across the Androscoggin River. They're collaborating creatively to rebuild economies devastated by the loss of textile and shoe factories. Old downtown mill buildings are being handsomely restored, arts, culture and health care are thriving, new industries have been recruited, and the cities have concluded 23 intercity service agreements. Leaders of these historic rivals hurry to tell visitors, with immense pride, of how much they've gained, how much more confidence they feel, as a result of working closely together.

And they're not alone. "New England's Knowledge Corridor," a first-ever Springfield- and Hartford-rooted development alliance of businesses and famed Connecticut River Valley universities, is striving to make inroads against the big psychological barrier of the Connecticut-Massachusetts border.

Rhode Island has largely abandoned its selfish "Mass Exodus" campaign to snitch jobs from the neighboring Bay State. Instead it now affirms, even advertises, its identity as the southern anchor of the Greater Boston citistate with its amazing pool of universities and entrepreneurial networks. There's really no longer any such thing as a separate Rhode Island economy, says Rhode Island economic development leader Kip Bergstrom: "We're a lot better off defining ourselves as part of an integrated metro area with 8 million people, instead of a separate place of 1 million."

But scattered islands of collaboration need to grow if New England is to deal with tough economic perils:

Population loss. In the '90s, Massachusetts, Con-

necticut, Rhode Island and Maine all saw more people move out than in. Today, even as national population levels surge forward, New Hampshire (fed by Massachusetts migrants) is the only New England state showing appreciable increase.

Does stagnant population matter? The answer's yes: Taxes are higher for the people left. Fewer people mean a smaller workforce, a red flag to any corporation deciding where to locate or expand. The resulting danger, says Doug Fisher of Northeast Utilities: "loss of vibrancy and hope."

Talent shortage. This emergency was cloaked in the '90s, when foreigners accounted for all of New England's labor force growth. Without the immigrants who came to get a New England university education, the region today would have a critical shortage of physicians and skilled laboratory researchers.

But post-9/11 security concerns have thrown a shadow over the immigrant welcome mat, for the skilled and unskilled alike.

Even with foreign enrollment, the count of students earning scientific, engineering and information technology degrees in New England universities -- the lifeblood of the region's vaunted high-tech economy -- actually declined in the '90s.

Flight of youth. Even while New England "grays" faster than any other U.S. region, its young people are fleeing to the Atlantas and Phoenixes of America. New England lost a stunning 20 percent -- twice the U.S. average -- of its 20-to-34 year-olds in the last decade.

Deep income divisions. There are millions of financially secure New Englanders -- but also disturbing numbers, native or immigrant, caught in distressed mill towns, remote rural areas or troubled inner cities, unprepared to prosper or contribute without dramatically broadened education and community-building initiatives.

New England is high-cost country -- to live, and to do business. Decent incomes are offset by high housing, transportation and energy costs. And busi-

nesses constantly cite thickets of rules and regulations imposed by the six states' 3,700 local governments -- raising the cost of everything they do.

In a recent report for the New England Council, the nationally-known consulting firm of A.T. Kearney reported that measured by cost of living, New England's current level of prosperity is only average in the U.S. "Boston and expensive are all too frequently uttered in the same breath," it observed, pinpointing high wages and housing costs, taxes and utility rates.

In Team New England's survey of business executives from outside the region, 27 percent volunteered they'd never do business in New England at all, preferring areas with lower taxes, energy and housing costs and a growing workforce. As one of the survey's sponsors lamented: "New England's image is of a costly, tightly regulated historic theme park, (and by the way bring a parka!)"

So what's to be done? In this series, we'll identify challenges that can best -- or only -- be solved only when New England starts acting like a team, faces the world as a coherent entity, like a single state.

Can New England conceivably pull together to face its 21st century priorities? No choice, as we see it. Or as our friend, the late great civic leader, John W. Gardner, put it: "What we have before us are some breathtaking opportunities disguised as insoluble problems."

## NORTH-SOUTH, EAST-WEST, HOW DO WE IDENTIFY?

"YOU HAVE TO UNDERSTAND. THERE ARE TWO SEPARATE NEW ENGLANDS."

Talk to New Englanders and this is what you hear. The south is rich, the north is poor. There's no common connection.

Sorry, we don't agree. To be sure, there's a connected, university-packed, high-technology southern New England. It's the place of economic buzz, bigger incomes, fed by the bustling Boston economy or spun off from the commercial colossus of New York. It even has high-tech fingers poking northward, in big numbers in southern New Hampshire, plus Maine's hot-growth belt -- Portland and its environs.

And it's true -- northern New England, hit by factory and lumber mill closings, is often seen as rural, remote, unwired, and often withering, even by some residents. As one Maine editor noted: "The northern two-thirds of this state have been in economic transition for 25 years, with no indication of where it will take us. We're the coastal anchor of a depression belt across the northern tier through New Hampshire, Vermont and across Upstate New York."

Even so, thousands of southern New Englanders prize the north, its mountains and lakes and villages, for vacations, and dream about retiring there. The secret of successful regions isn't differences, it's connections. Neither north-versus-south nor east-versus-west thinking helps plan a future. As attorney and civic activist Don Dubendorf of Williamstown, Mass., told us over lunch on a cold crisp day: "New England uses geography as an excuse for all kinds of decisions – or not making any."

But the excuse disappears if you see New England as a single region linked south to north rather than separated north versus south. It's two corridors where the vast majority of New Englanders have chosen to live and work.

Ironically, the southern anchor isn't even in New England -- It's New York City. The grand division into corridors occurs at New Haven. The coastal corridor, its marker federal Interstate 95 and the Northeast rail corridor, stretches past New London, up to Providence, through metropolitan Boston to coastal Maine, with a significant bump of development focused on I-93 into southern New Hampshire and another through Worcester, Fitchburg and Keene.

At its easternmost extremity the coastal corridor has fingers probing into Canada's eastern maritime provinces. With an economy reinvented around higher education and technology, biosciences, healthcare and financial services, plus the much-sought-after tourist and retirement communities that share lobstering activity along the south Maine coast, the coastal corridor is mostly prosperous, though dotted with pockets of serious poverty.

New England's other major development spine lies more inland, chiefly along I-91's ribbons of concrete and asphalt. This corridor moves up the Connecticut River valley to Hartford and then Springfield, through Massachusetts's Pioneer Valley including the remarkable constellation of colleges around Northampton, and then directly beside the river as it divides Vermont

and New Hampshire. Along the way it passes by the prosperous (and we found forward-looking) "Upper Valley" community focused on Hanover, N.H. and its notable Dartmouth-Hitchcock Medical Center. The corridor's I-89 spur encompasses the lively northern city of Burlington on Lake Champlain, with Montreal not far to the north.

The western corridor has an admittedly less glowing reputation -- in part because Springfield has had to struggle economically and Hartford, though a state capital, suffers acutely the New England's syndrome of centuries-old town borders sealing off poor center cities from their affluent suburbs. Still, if it's pushed strongly, the bi-state "Knowledge Corridor," with its focus on academic-scientific assets, has real potential to invigorate this area's economy.

A two-corridor New England concept doesn't mean eastern and western New England get disconnected. Instead, it suggests rich varieties of connection that give each corridor a stake in the other's success. A prime example: supplementing Northeast Corridor rail with high-speed service running west from Boston, through Worcester to Springfield, then down through Hartford to New York -- a potentially big shot in the arm for western corridor cities, as their accessibility to Boston and New York soars.

Another potential: "on-shoring," encouraging Boston area pharmaceutical firms to choose close-by but lower-



Are there two New Englands? Yes, but not the two you think: the old notion of a northern tier so different from everything south is yielding to a new reality. Today's New England is two corridors, running north to south, side by side, rich in assets that could be combined more powerfully. CITISTATES GROUP

cost New England labor markets in the Connecticut River Valley for their production facilities, a concept advanced by A.T. Kearney in its regional economic analysis for the New England Council. Otherwise, the manufacturing continues to float off to places like North Carolina, or overseas.

In a globalized, broadband, instant-access century, New England's ingrained divisions look more myopic and petty than ever. Seen from afar, this is a tiny corner of the U.S. and the world. Florida alone has more people, California almost 2.5 times as many. Yet opening its eyes to new reality, New England could move confidently to create new connections, geographic corridors and communities of intriguing opportunity.

## A BRAND FOR TODAY'S NEW ENGLAND?

In an age of clever commercial and place branding, how about New England? Las Vegas is flash. New York is the Big Apple. So how does this historic, established corner of the nation remind the world that it exists, excels, offers uniquely wonderful qualities? How can it use that identity to draw and hold students, workers, retirees?

It's true, brands are always part myth. But if they have a core of reality, they build value, identity, pride. A better brand builds bonds.

Take Vermont. It's green, it's lovely hillside farms, it's picturesque towns. It's a quiet but firm sense of community. In the words of Jerry Greenfield of Ben & Jerry's -- Vermont is all about the "purity, untainted, wholesome quality" he claims for his own product. Vermont resists mass ways and the likes of Wal-Mart. Skeptics say Vermont just "sells nostalgia;" the fact is it declared itself beckoning country. And Americans come by the millions.

Maine has a real brand too. It's the rugged, outdoors image, land of dramatic seascapes and northern forests, territory of the backwoodsman and tough, taciturn lobsterman. It's individualism but a willing hand for a neighbor in trouble. L.L. Bean prizes the Maine image for itself-- integrity, durability, resilience, and a strong land conservation ethic, as one executive put it to us.

Each of the states has brand power: New Hampshire's granite peaks, glacial lakes and fierce "Live Free or Die" independence. Plucky little Rhode Island with its lovely bay, Newport mansions and comeback capital city. Massachusetts, home to New England's star city of Boston and a concentration of brainpower with few global equals. Connecticut, the state of personal wealth, industrial ingenuity and insurance.

But what of New England as a whole? Can its states drop their typically divisive ways and find a way to work together to draw students, attract entrepreneurs and investment?

We believe there's a fantastic asset to build on -- a brand-in-waiting that's been evolving, ripening for close to four centuries, a core value no modern advertising campaign could begin to emulate.

So what is the brand? Dozens of ideas came up in our interviews. Consider these:

- Birthplace of the nation's culture and the American Revolution
- A place of ingenuity, creativity, and adaptability, coping with northern winters and challenging seas -- thus the image of the "tough" (but ultimately successful) New Englander
- Constancy, reliability, persistence ... here, historian James Truslow Adams wrote, "the gristle of conscience, work, thrift, shrewdness, duty, became bone."
- Constant innovation -- a region forever reinventing itself, from farming to clipper ships, textiles to high

finance to biotechnology, and today's bid to make arts and design a new century economic key

- Reverence for learning, America's premier center of world-renowned universities and research laboratories, hundreds of colleges, the birthing spot of America's first public schools
- An ever-expanding vision of human rights, from overthrowing Britain's colonial rule to championing abolition of slavery to today's controversies of civil unions and gay marriages
- Deep suspicion of war, but New England states in the forefront of patriotism and volunteering (like today's Vermont, with largest per-capita numbers of Iraq war volunteers -- and fatalities)
- Authenticity of place, embodied in the intimate scale of the historic New England town, now also in gritty Industrial Revolution cities like Lowell
- High environmental values, the legacy of Henry David Thoreau, innumerable land trusts, preservation efforts from Cape Cod to the Maine Coast, Long Island Sound to the White Mountains -clear pointers to a 21st century New England that should lead in renewable energy, combating global warming, and building sustainable communities
- Town meeting America -- public-mindedness, taking responsibility for one's own community, not yielding to so-called "professionals" -- New Englanders may often seem stingy, but they do volunteer
- Character and courage in public life -- defying partisan stereotypes, the region that produced such independent figures as Eliot Richardson, John Chafee, Ralph Flanders, Warren Rudman, George Aiken, Lowell Weicker, Margaret Chase



Town officials are sworn in at town meeting in Sutton, N.H. DAN HABIB/THE CONCORD MONITOR

Smith, Edmund Muskie and many still active on New England's congressional delegation

The skeptic will ask: But what about today's jarring New England realities -- pockets of political corruption, cold-hearted NIMBYism in privileged towns, "McMansions" that stomp on their historic setting, the new-born addiction of casino gambling, and a barrage of fast-food fed obesity?

Our reply: No branding is ever complete; great places are always far from perfect, forever "works in progress."

The hugest New England peril we encountered was complacency -- a belief the region has always excelled

and triumphed, so why worry about the present?

But we also heard a chorus of impatience from thoughtful New Englanders who believe it's time for more working together and less stubborn Yankee go-it-alone-ism. Success in this century, we heard, will require New Englanders to cultivate -- in business, universities, government, and the region's growing array of non-profits -- a set of radically expanded networking and collaboration skills.

Innovation and creativity made New England great; today's challenge is to connect the dots of New England's store of curious minds, its pools of capital and strong institutions, to do it again -- and build the brand for the new century.

## CREATIVE ECONOMY: REGION'S NEW SUCCESS TICKET?

#### CAN NEW ENGLAND'S CREATIVE ARTS HELP TO SCULPT THE REGION'S ECONOMY FOR THE CENTURY?

Five years ago the business-led New England Council, executives from such fields as manufacturing and banking, took a bold step. In a special report, they celebrated the region's growing "creative economy." They saw that the region's fine arts, music and drama fields were not only growing but inspiring such other fields of imaginative design as architecture, photography, film and web design. The resulting 245,000-job sector, they reported, was growing twice as fast as New England's overall economy.

If there were skeptics back then, there are many fewer today. In our interviews from Providence to North Adams, the Berkshires to the Maine Coast, no one claimed a creative economy solves all problems. But we found growing numbers focusing on the arts as key to their lives and livelihoods in what's become a bleak season for traditional manufacturing, lumbering and fishing.

In Providence, Mayor David Cicilline told us arts and culture are at the heart of Providence's 21st

century strategies: "They contribute to our humanity and quality of life; they're a huge piece of our economic development." Roger Mandle, president of the fabled Rhode Island School of Design, backed him up, proclaiming all of Rhode Island "a very art-friendly place," a state where "artists aren't seen on the fringe," where government is willing to take such steps as tax-free zones for artists and designers.

Mandle's goal is to make Providence and Rhode Island a globally recognized center of design and "right-brain" thinking that sparks creative problem-solving. RISD's Center for Design and Business has helped hundreds of artist-entrepreneurs launch their own businesses. Probing new frontiers, it's now working with the MIT Media Lab on new ideas and product design to ease the problems of aging.

In the Berkshires, one's reminded of New England's preeminence in the fine arts -- the 300,000 yearly

visitors drawn to the Tanglewood Music festival, Jacob's Pillow (arguably the U.S.'s best festival for contemporary and modern dance), the Williamstown Theater Festival (in top ranks of summer stock theaters) and the prestigious Clark Art Institute at Williamstown.

But for development drama, nothing beats Mass MOCA - the Massachusetts Museum of Contemporary Art at North Adams. It's situated in what director Joe Thompson calls a "red elephant" space -- one of New England's historic brick mills, "buildings with great bones -- 10 or 12 foot high ceilings -- humane comfortable environments, with lots of windows, places with a warmth and patina of 120 years of human labor in them, making them beautiful places to reclaim."

Today Mass MOCA isn't just a world-class modern art museum that's given fresh life to the 13-acre, 27 building site Sprague Electric deserted in the '80s, leaving thousands jobless. MOCA has also -- in the

words of president Mary Grant of the Massachusetts College of Fine Arts -- brought North Adams "an infusion of artists, writers, film-makers and others who bring new ideas, new energy, a degree of wealth and willingness to take risk."

CONTINUED ON PAGE 4 > > > :

Plus, North Adams has become a poster child of New England towns revived by arts and artists. In 1993, 20 percent of its downtown storefronts were occupied; today it's around 80 percent. Several high-grade restaurants have moved in. Thompson says "the Maginot Line between prestigious Williamstown and North Adams the tough mill town" is disappearing; indeed, "Mass MOCA sprang like a rib from Williams College; we have lots of Williams alumni and trustees on our board."

Thompson's point underscores the case made by Evan Dobelle, president of the New England Board of Higher Education -- that the region's world-famed array of colleges and universities "drive the creative economy" as they forge new connections and prepare "tomorrow's architects, painters, sculptors, writers, dancers, designers, thinkers, entrepreneurs"

Indeed, claims Dobelle, the combination of higher education, design, graphics, and now digital media, "make a real industry for the future" that's tough to duplicate elsewhere. Why? Because "culture here is so significant-- everywhere an historical or art museum-- this is a very civil place."

In Brunswick, Maine, former Gov. Angus King picked up on the point. Not only does New England have "a tremendous stack of intellectual capital" that feeds innovation, he said, but if offers exceptional quality of place — a huge asset when, for the first time in human history "people can work where they live instead of live where they work." Provided New England can keep unsightly sprawling development under control, said King, its place advantage will only grow:

"A century ago Maine's asset was falling water. Then it was cheap labor. In the future the place itself will be the economic asset."

One morning, in western Massachusetts' heavily rural Pioneer Valley, we heard King's thesis underscored by civic leaders meeting at the Greenfield Community College. They regaled us with stories of multiple ways they've worked together to recover from loss of manufacturing and regional recessions, how they were encouraging small start-up firms, and seeking to keep downtown Greenfield vibrant despite a big nearby mall (even starting their own discount department store to give residents an option to the mass retailers.)

But the Pioneer Valley peoples' most amazing tale was of a "hidden tech" economy of hundreds of small (many just one-person) start-up enterprises. Some, they said, are formed by natives, more by young or mid-career professionals moving in from metro areas like New York or Boston, anxious to live in new "pristine" environments, yet more mobile than ever before because the Internet increasingly lets them work anywhere.

The "hidden tech" occupations? Many (though clearly not all) have an arts base. We heard about painters and musicians, a voiceover artist, graphic artists, web designers, software developers, novelists, management consultants, e-commerce retailers, and groups of performers. Similar stories abounded in our interviews across Vermont, Maine and New Hampshire. They seem to jibe with reports of northern New England leading a recent U.S. boom in second homes for vacations, investment -- and eventually, for many, a new place to live and do business.

Visiting with editors of Yankee Magazine, in Dublin, N.H., we were told of 100 start-up firms in that single town. National charts show New England a leader in small enterprises as the bulwarks of local economies. Julie Eades of the New Hampshire Community Loan Fund estimates there are 100,000 microenterprises in her state. Maine Public Broadcasting's "Made in Maine" series, now in its 17th year, had identified hundreds of firms, a diversity running from one-man shops up to the Bath Iron Works.



From old to new New England: A workman sandblasts the exterior of One Cottage Street, Easthampton, Mass., as it's converted from an historic mill to a new center for business and the arts.

KEVIN GUTTING/DAILY HAMPSHIRE GAZETTE

Does the "creative economy" definition fade so easily into other fields that the phrase is meaningless? Bill Schubart, an entertainment industry executive in Burlington, Vt., fears so. Even new agriculture enterprises can be called part of a creative economy, he said—and in fact we heard many stories of profitable niche industries in cheeses, syrups, dairy products and meats (even llamas!) sprouting across New England. Their inventiveness may well open new economic frontiers.

And as we traveled, the stories of new and creative enterprises seemed never to cease. Bellows Falls, Vt., on the Connecticut River, has used art to jump-start a now thriving downtown and tourist

economy, including a community theater company, restoring the long-silent Town Hall clock, and returning vibrant life to its main street. Forty miles upstream, at White River Junction, a Center for Cartoon Studies -- a rare curriculum of art, graphic design and literature to prepare students to create comics and graphic novels -- opened this fall, to the delight of town leaders. Visiting Monhegan Island, 10 miles off the Maine coast, we found a thriving, entirely indigenous artists' colony -- emblematic of a respect and love for arts that pervades the state.

Former Gov. King told us he'd recently met a man in the Portland airport, asked him what he did, and was told: "I'm a clown." He and 100 colleagues fly out of their Maine base to do festivals for car dealers all over the U.S.

Shift from clowns on the move to high culture in New Haven: we heard claims that through Yale, with its world-class collection of departments in art, music, architecture and drama, New Haven is now home to a significant chunk of the world's premier art talent. The Yale School of Architecture alone, for example, has spun off a bevy of architectural firms doing business around the world. The city's yearly International Festival of Arts & Ideas fuses brilliant music, dance and theater from around the globe with high-level intellectual thought.

Boston, meanwhile, has its sterling array of famed arts institutions, has just added its first two new theaters in 75 years, and is reaching out ethnically with a Center for Latino Arts in the South End and a new arts center in Roxbury's Dudley Square. Close to 80 percent of Bostonians attend live professional arts events in a year -- highest among U.S. metro areas.

Do all the arts and intellectual activities assure a successful creative economy? There is hope. Arts do open imaginations -- critical, as Mike McMahon of the Rhode Island Economic Development Corporation pointed out to us, "to make order out of chaos, have sensitivity, interact in groups, be creative and design" -- skills that the standard engineering education in such countries as India don't yet deliver. In New Haven, an operation called "Factory Direct" recently placed artists in 13 manufacturing facilities for a period of time, letting them suggest new and inventive forms of problem-solving.

There are tough realities to face. Economist Charles Colgan of the University of Southern Maine says he's skeptical of how much creative arts and small entrepreneurs can impact the economy; for appreciable impact, he'd wait until a start-up firm reaches 500 or so workers.

Others say it's not the number of jobs but what people are doing. In the words of Rhode Island economic development specialist Kip Bergstrom: "A creative economy puts its marbles on innovation -- and that's our future if there is to be one."



ENERGY NEW ENGLAND IS AN ENERGY ORPHAN, AT THE END OF THE ENRGY PIPELINE. A COORDINATED AND DIVERSIFIED NEW EGLAND-WIDE STRATEGY THAT CONCENTRATES ON CONSERVATION, BIO-FEULS, WIND FARMS, AND "GREEN" BUILDINGS WOULD REDUCE NEW ENGLAND'S DEPENDENCE ON IMPORTED ENERGY.





The Genzyme Center, located in Cambridge, Mass., received the highest rating issued by the U.S. Green Building Council. PETER VANDERWARKER

## **ENERGY: TIME TO TAKE THE OFFENSE**

New England has historically been America's energy orphan, literally at the end of the energy pipelines. Only Hawaii is more vulnerable to interruption of imports or distribution system breakdown. Electricity costs are 36 percent above the national average.

So now, in a century shadowed by threat of global energy emergencies – Middle East instability and violence, Asia's insatiable energy appetite, the prospect of more Katrinas and devastating flooding wrought by global warming—can New England survive and prosper?

Are the six states ready to unite in a search for radical diversification of energy sources? Can they conserve so smartly that they reduce their vulnerability?

The answers should be yes. The region has top corporations, nationally-famed research laboratories, scores of activist groups, all pushing new energy experiments. Self-reliance, resourcefulness, are New England hallmarks. Ingenuity and technological prowess are its trademarks. With a pioneering spirit, its six states working closely together, New England could lead America's indispensable energy revolution.

What's more, New England's at the receiving end of the midwestern air corridor with its many coal-burning plants. It's afflicted by disturbing rates of asthma, plagued by acid rain destroying lakes and forests.

As early as the 1970s, far-sighted regional leaders—the late Sen. Paul Tsongas of Massachusetts at the fore—began to focus on New England's energy vul-

nerabilities and suggest inventive regional strategies.

Massachusetts, in 1997, was the first state to set up a "renewable portfolio standard"—how much utilities are obliged to switch to wind, solar, biomass and other "clean" energy alternatives. Connecticut, working with its utilities, has spent more than \$1.5 billion in 20 years on conservation and load management. All New England states now have some kind of program to promote conservation and new energy sources. Most of the region's utilities – savvy in energy technology, wired in politically—seem ready to be partners providing they're allowed to charge customers enough to offset their extra costs.

The emerging mega-issue is how to stem the green-house gas emissions increasingly linked to global warming, rising sea levels, more dangerous storms and lung disease. And presently there's a friendly competition—New England and its New York-New Jersey neighbors versus the progressive West Coast trio of California, Washington and Oregon—in tough measures to achieve cleaner air and reduce greenhouse gas emissions.

Progress will be hard to register. New England is still a fossil fuel glutton, whether it's heating oil or natural gas or gasoline. Regional demand for cleaner-burning natural gas has jumped 70 percent in recent years. Many hope that new liquefied natural gas (LNG) terminals may smooth out the wide New England price swings; globally, however, there's rising concern about reliable future supplies.

The harsh fact is that New England's reliance on fossil fuels—whether from nearby Canada or such places as politically turbulent Venezuela and terrorist/supply threatened-Saudi-Arabia—costs billions of dollars that could be recirculating, creating new companies and new jobs to bolster the region's perilously slow-growth economy. The lost opportunity is immense.

Plus, as Erich Stephens of Peoples Power and Light in Providence notes, today's skyrocketing prices of natural gas mean New England has little choice: it must develop renewable sources if it's to hope for any energy price stabilization.

Criss-crossing New England in the past two years, we were startled by the chorus of rising impatience with the energy status quo. Students on campuses, firms pioneering new technologies, mayors and grassroots energy activist groups—all are demanding a new, smarter energy future.

Many echoed Vermont energy expert Rich Cowart: "We should adopt, regionally, a suite of policies that are cost-effective in reducing our energy vulnerability. We're talking smart energy, not cheap energy."

It's true, New England has made a start on a new generation of energy-efficient buildings, "green roofs" included. Top "headline" breakthroughs include the Genzyme biotechnology company's stunning "LEED" (energy efficiency rated) 12-story building in Cambridge, and the ingenious geothermal heating and cooling system for historic Trinity Church in Boston proper. Across the six states, there are broad efforts to retrofit and "energy-proof" existing homes and buildings, with active encouragement of local utilities. There are pioneering spots of local generation and cogeneration of power, turning waste products into energy, applications of solar power and a renewed push for wind and solar. Burlington, Vt., now fills a startling 42 percent of its energy needs from renewable sources.

A number of universities—the University of Connecticut, Mt. Holyoke, Middlebury, the Connecticut Conference of Independent Colleges among them—have begun to set ambitious "green" standards for new buildings, undertake recycling programs, and cut overall energy use. Harvard now ranks as the country's second-largest university buyer of renewable energy. Tufts University six years ago committed to meet or beat the emission reductions outlined in the Kyoto Protocol (the international accord the Bush administration disavowed).

And lots of energy organizing is underway, in New England—groups ranging from "Clean Air-Cool Planet" to the Conservation Law Foundation, "Smartpower" to PIRGs (public interest research groups). All are pushing universities, businesses, towns, state governments, to take strong action to cut back on fossil fuels and advance renewables. More compact city and town growth, they note, will mean less sprawl, gas and electricity consumption.

The activism seems directly linked to what some experts call "civic environmentalism"—an ideal rooted in the New England heritage of shared responsibility that began on the deck of the Maydower in

ed in the New England heritage of shared responsibility that began on the deck of the Mayflower in Provincetown Harbor on Nov. 11, 1620. The ideal was nurtured over centuries of town meetings and stewardship of local forests and farmlands. Starting in the 1960s, it expanded dramatically as towns across New England set up land trusts to protect treasured local lands, more recently to advance "smart growth" measures.

Even while hailing local activism, Charles H.F. Foster, Massachusetts' first (1971-75) secretary of environmental affairs, says state government has a significant partnership role to play. That's precisely what the Massachusetts Renewable Energy Trust, the Connecticut Clean Energy Fund and a smaller counterpart in Rhode Island are trying to do. Funded by a small surcharge on utility bills, they provide grants and loans to trigger progress from solar and wind to tidal energy experiments.

And the benefits get compounded, says Robert Pratt, head of the Bay State's Renewable Energy Trust. His group's strategic grants to promising "green" enterprises have spurred over 10,000 new jobs for high-paid scientists and engineers, but also the thousands of blue-collar workers likely to be busy for years if not decades retrofitting and building new facilities.

Boston Mayor Thomas Menino's "Green Building Task Force" is seeking to show how companies can reap such benefits as radically reduced energy costs, extended building life cycles, and greater worker productivity, outweighing higher construction costs often associated with green building.

And Menino's hardly alone. Forty-three New England cities have signed on as members of the International Council on Environmental Initiatives, pledging to fight global warming through "green" public buildings, expanded public transit and buying more renewable energy. SmartPower, a Hartford-based nonprofit, persuaded Connecticut to commit to 20 percent clean energy use in its operations by 2010, and 100 percent by 2050. It's pushing "20 by 2010" nationwide; recently Providence became the first Northeast capital city to sign on.

Many New England corporations are now reporting major bottom line savings from energy conservation. "Green" got a huge boost last May when General Electric's Jeff Immelt—CEO/chairman of the Connecticut-headquartered mega-corporation—said he'd cut back dramatically on GE's likely future greenhouse gas emissions. And, that he'd double GE's R & D budget for such clean technologies as hybrid locomotives, water desalination and recyclable plastics. "Increasingly for business," Immelt added, "green is green."

None of this means that 20th century-style, "top-down" energy distribution—the familiar pattern of importing gasoline and heating oil from afar, electricity from big central power plants—will disappear anytime soon. Utility executives reminded us that renewable energy sources have a long way to



The Greenfield Energy Park, Greenfield, MA, opened in 1999 to provide public education about clean energy use in a public park setting.

go to meet New England's existing (not to mention growing) energy demand. They favor at least one more LNG terminal, and would take a fresh look at nuclear power, which provided close to 50 percent of the region's electric power in the early '90s, still 25 percent today. (Even some environmentalists would now favor a fresh look at nuclear power, because it produces zero greenhouse gas emissions. But politically, the issue's so radioactive that periodic relicensing of the region's existing nuclear plants may be challenge enough.)

So renewable energy choices remain the bright frontier. Though on a 1 to 10 scale of where New England could be on energy conservation and new source development, it's probably at just 3 or 4 today. Most of the inventing, financing, putting-in-place of a truly less dependent regional system remains to be done.

Some movement is starting on the private capital side—for example the New Energy Capital Corp., a New England-based investment firm with a biomass power plant in Maine and a cogeneration plant in Massachusetts.

Yet ironically, part of New Energy Capital's funding comes from the California State Teachers' Retirement System. Right now, California has a massive lead on the renewable energy front. The headlines have gone to Gov. Arnold Schwarzenegger's "million roofs" solar proposal. But what's already in motion, demanding New England's attention, is State Treasurer Phil Angelides' "Green Wave" initiative. The goal: to mobilize the immense investment powers of the state-run, multi-billion dollar pension funds to develop clean technologies in California that can then be sold across the globe. If there's any parallel effort by New England state treasurers, it's a well kept secret.

And with money, there's also need for strong region-wide commitment. Each New England state is individually just too small, too interlinked with its neighbors, to innovate effectively alone. Biofuels present golden opportunities, for example, but they cry out for a rational New England-wide distribution system developed with the utilities savvy in building and managing energy grids.

Handling sudden emergencies underscores the need. After a frightening 1965 energy blackout, the region created "New England ISO"—an around-

the-clock watchdog/coordinator of power flowing over the region's 7,000 miles of electric transmission lines, ready to protect the region against sudden outages.

But a lot more may be critical now. More hurricanes like Katrina could cripple the nation's oil refining and distribution capacity. A sudden jolt in global markets could send oil prices soaring north of \$100 a barrel. New Englanders' capacity to heat homes, businesses, schools—or drive cars—could be stretched to a breaking point. Interstate plans for massive bus and other alternative transportation modes would be mandatory. Today, in large part, they don't exist.

It's not just political leaders who need to lead New England's energy revolution. New ideas, skills, advocacy, need to come too from corporate leaders, scientists, planners, and the region's rich array of non-profit groups. Where conversions to a new energy age hit barriers, for example, civic and political New England's leaders need to be on deck. Think of the impact of top public-private leadership standing up, collectively, to local opponents of energy breakthroughs—opponents of wind farms off of Cape Cod, and in the Vermont mountains, for example. The message wouldn't be hostile—simply that every reasonable new piece of energy supply is needed to enhance New England's energy future.

And it needn't all be an "eat your spinach" exercise. Why not hold a New England-wide natural resources summit, suggests Rick Handley of the Coalition of Northeast Governors. Patterned after a successful Maine conference convened by Gov. John Baldacci, its theme could be economic and environmental opportunity. Imaginative research and development agendas could explore new ways to tap energy potentials from the northern forests to the region's ocean frontiers, with narrowly-conceived single-state efforts replaced by smart interstate sharing of research capacity, capital and planning.

We did sense that the combination of new energy initiatives across New England—by governments, universities, corporations, utilities, non-profits—may be ready for spontaneous combustion. New Englanders are supposed to be a smart bunch. It's time to overcome old turf barriers and move the needle forward—fast.

## PRICE SPIKE CITY—AND HOW TO ESCAPE IT

New Englanders filling their gas tanks in September 2004 paid an average of \$1.87 a gallon; this summer the price was \$2.54, and for weeks in the wake of Hurricane Katrina, over \$3. In 2003, home heating oil cost \$1.23 a gallon, this September it spiked to \$2.61. Natural gas prices are projected to be close to 50 percent higher than last winter.

So what's New England to do?

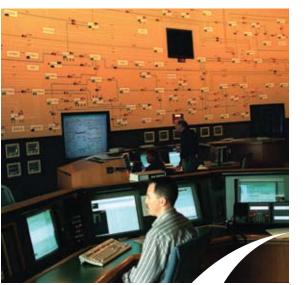
First, it can ramp up its push for solar, wind power and biofuels. All have historically required some form of subsidy, but today have begun to look quite competitive. Unless world energy prices start to tumble dramatically, the "renewables" will likely prove to be the inexpensive (and reliable!) sources of the future.

But for a far swifter impact on energy prices and fossil fuel consumption, New England (like the Bush administration, in the wake of the recent hurricanes) needs to turn fast and hard toward energy efficiency. Efficiency is the region's "nearest bigtime opportunity" for dramatic energy savings, says Robert Pratt, director of the Massachusetts Renewable Energy Trust.

So what's "efficiency"? Isn't that all the stuff we've heard for years about installing sensor-activated lights, buying low-energy bulbs? About limiting the power use of every product from television adapter boxes to commercial icemakers? Or rewriting building codes for higher energy efficiency? Or utility-administered programs that pay for home insulation?

The answer: yes, and consumers and businesses in New England and nationwide have already saved billions of dollars by such measures, even while freeing up energy supplies. But the job's just started. New, improved appliance standards are constantly being proposed: a broad set of rules was approved in Rhode Island in June, with measures pending in all the other New England states.

The allied, big idea is "green" building—every measure from improved materials and insulation to basic design and siting as ways to reduce energy demand in homes, office buildings, schools and stores. The opportunity is massive: buildings account for two-fifths of America's overall energy consumption and generate a third of its carbon dioxide emissions. Insisting buildings "go green" can yield huge gains. Even in such "slow growth" states as Massachusetts and Connecticut, there are projected to be spectacular numbers of new homes (25 percent-plus increase) and office space (over 50 percent) in 2030 compared to 2000.



The control room at ISO New England serves as an around-theclock watchdog/coordinator of power flowing over the region's 7,000 miles of electric transmission lines. ISO NEW ENGLAND

Lots of standard assumptions do need to be challenged to get there. Consider New England's electricity demand—it's rising, inexorably, 1.2 percent a year to 2013, according to ISO New England, the group that oversees electric generation and transmission in the six states.

But contrast that discouraging prospect with the "economically achievable energy efficiency poten-

tial" calculated by the non-profit, Northeast Energy Efficiency Partnerships (a coalition of consumer, environmental and energy efficiency groups). With smart steps now, the group projects, New England could actually do a turnaround and reach 1.38 percent less demand per year. Natural gas demand could be cut by as much as 25 percent by 2013. Investing in energy efficiency could provide net benefits of up to \$23 billion for the region's economy.

NEW ENGLAND FUTURES

One exciting potential: systems of "distributed generation"—local power plants producing modest amounts of electricity within or close to hospitals, apartment houses, factories or neighborhoods. Often operated with cogeneration techniques to produce both electricity and heat, the energy efficiency of such plants is often double or triple that of typical big regional power plants (which typically lose large chunks of their power traveling long distances on transmission lines).

Distributed generation, we heard, could help especially in areas where the New England power grid is perilously overloaded—a problem now severest in Connecticut from Middletown to the New York line, where local opposition has stymied building of sufficient power lines, but also in areas around Boston, southeast Massachusetts, and Burlington, Vt. Why couldn't local generation reduce or—maybe eliminate—need for some new transmission lines?

Another plus of local power plants is that while they often power up with natural gas, they're ideally suited for several emerging new energy technologies—fuel cells, wind turbines, rooftop solar electric devices, even bioconversion based on cow manure. They protect consumers from major power blackouts and reduce vulnerability to terrorist attacks. Both drawing power from and able to contribute power to large electric grids, they sound like quintessential New England: "distributed, decentralized and democratic."

## THERE'S FUEL IN THOSE FIELDS

Diesel fuel oil—spewing its burned black emissions from the tailpipes of countless trucks, buses, heavy construction equipment, not to mention home furnaces—has big downsides.

It throws off particulates considered a major culprit in high asthma rates. It exudes carbon into the atmosphere, increasing perils of global warming. Every gallon has to be imported into New England. Its price is sensitive to any interruption of U.S. or international petroleum supplies.

But what if New England could blend a homegrown substitute fuel to run all those hungry vehicles? Or, even better, pour a clean substitute (50 percent fewer particulates, 78 percent less carbon dioxide) into the furnaces of millions of homes and small businesses?

This miracle fuel already exists. Based on crops from New England and Midwestern farms, it can take a substantial bite out of the petro-dollars that we now ship overseas. It's called biodiesel. Almost any modern diesel engine, or diesel-powered furnace, can run on any proportion of biodiesel. Harmful emissions start to drop significantly, even at a blend of 10 percent biodiesel.

Up to now, biodiesel has mostly been made by crushing soybean seeds to separate the oil, after which there's a fancy process called transesterfication. But a next generation of crop source is coming on fast, based on the far higher production potential of rapeseed (canola) and mustard seeds.

Advocates such as director Fred Carstensen of the Connecticut Center for Economic Analysis claim these



Biodiesel can be made from any vegetable oil including oils pressed straight from the seed (virgin oils) such as soy, sunflower, canola, coconut and hemp, or from recycled cooking oils from fast food restaurants.

new sources can more than double biodiesel harvests and yield four times the energy it takes to produce it.



Mass BioFuel is one of the pioneering distributors of a blend for home heating that's 10 or 20 percent biodiesel. MASS BIOFUEL

That means biofuels are increasingly cost competitive as national and global fuel prices escalate.

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There are naysayers, of course. "Not enough land in New England for these seeds...the growing season's too short, the soil too rocky."

But one instantly wonders: can biofuels translate into an era of new, locally raised crops, provide willing, young New England farmers with reason to stay? Could fuel crops provide incentive to keep the open, tended fields so important to the region's mystique (and tourist economy)? On the edge of growing metropolitan zones, can biofuels help farmers decide against making a subdivision their final crop?

The potentials are wide. After oil is extracted from mustard seeds, for example, the remaining meal in some varieties makes an effective organic pesticide. According to Michael Briggs of the University of New Hampshire' physics department, "High oil algaes can be grown on organic wastestreams and processed into biodiesel and biofertilizer, animal feed, and potentially other products, yielding many times more oil per acre than conventional crops."

Biofuels may also be a key to tapping the energy harvests of New England's vast northern forests. Current experiments seek to take waste or low-grade timber, volatize it and cool the gases, some of which condense into a bio-oil that can be used as a fuel

New England biofuel pioneers, it turns out, are already at work—small refineries, start-up distribution terminals, venture capital financing for production facilities. In several locations, cooking oil from restaurants is being used as a biofuel. UConn and MIT, Dartmouth and others are testing new biofuel sources. Boston Mayor Tom Menino is vowing to convert 450 city vehicles to the fuel.

What about price? Historically, biofuels have cost marginally more than oil or gas. But this spring in

the Midwest, ethanol was selling 30-40 cents per gallon less than gasoline. Brazil gambled oil prices would soar and now a third of its vehicles operate on ethanol largely produced from their own sugar crops. Most of the energy experts we talked with said that unless hurricanes stop, peace suddenly engulfs the Middle East, and Asian nations halt their fast-rising energy demands, petroleum prices will ride a permanent high. The bottom line for biofuels: an excellent bet for New England.

But with one big proviso. This won't work in New England's familiar, splintered ways.

If biodiesel is to get to significant scale, really make a difference, it must have a big enough start-up market. That means "a lot of additional tank capacity, along with new quality measures," says Richard Handley of the Coalition of Northeast Governors. Governments will need to be catalysts since private sector fleets will join, but too slowly.

There's an obvious breakthrough strategy: start shifting all of New England's school districts, public vehicle fleets, transit systems to biodiesel. Then there'll be incentive for major investments in crushing and refining equipment, supply terminals, distribution centers.

In addition, there's major potential in the home heating market. Handley points to surveys showing consumers would even pay more for a biodiesel blend, though enough local supply, combined with federal tax credits, could make biodiesel cheaper

As a starter, a big New England skull session on biofuels could be called—possibly by the Clean Energy States Alliance, based in Montpelier. From crop selection long-term benefits, there are many unknowns. But who says science and techno-proficient New England can't figure the answers?

Attempted state by state, biofuels won't amount to much. Developed region-wide, they could be a big marker in a New England drive for ever-greater energy independence.

## SUSTAINABLE CITIES: WHAT IT TAKES

Can high energy efficiency and fighting global warming bubble from the bottom up?

Portland, Oregon claims so. In 1993 it became America's first city to adopt a strategy to reduce emission of carbon dioxide (CO2), the heat-trapping gas primarily responsible for global warming. The goal then: reduce CO2 emissions to 10 percent below 1990 levels by 2010.

More than a decade later, there's dramatic progress to report: per capita emissions for Portland and surrounding Multnomah County have dropped 13 percent. Overall emissions are already under 1990 levels.

How did Portland do it?

- By an across-the-board strategy of interlinked steps, developed systematically since the late 1970s. Examples:
- Aggressively seeking renewable electricity sources for city buildings—12 percent achieved so far, the agreed-on goal 100 percent. (A utility-scale wind power project is now being explored.)
- Saving watts by replacing incandescent traffic signals with LED bulbs, cutting the city's electricity bill by \$265,000 a year.
- Initiating a 20 percent biofuel mix for all diesel vehicles and equipment using the city's fueling stations.
- Cutting auto driving by a web-based ride-sharing service, new biking and walking paths, and adding two major light rail and a city streetcar line (with a 75 percent increase in public transit ridership).
- Achieving 53 percent recycling of trash—among the country's highest. (Buried and burned garbage means energy is being wasted. For example: compared to the energy expenditure of original manufacture, it takes 90 percent less energy to remanufacture aluminum or plastics, 50 percent less for steel or paper, 30 percent less for glass.)
- Constructing nearly 40 high-performance green buildings.
- Planting over 750,000 trees and shrubs (which absorb CO2 from the atmosphere).
- Aggressive steps to weatherize thousands of homes and multifamily units.
- Getting state help—namely energy-efficiency incentives for homes and businesses through the newly-created Energy Trust of Oregon.

So, one asks, could New England cities achieve as much? The answer: at least one—Burlington, Vt.—actually has. Burlington's been pursuing truly sustainable development "since before the term was invented," claims Mayor Peter Clavelle. Today the city as a whole is actually consuming 2 percent less energy than it did in 1989.

How? Aiming "to conserve rather than consume," says Clavelle. The city tries to promote compact urban development and less sprawl, partly through major downtown and waterfront development. It has an active trash recycling program.

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And Burlington Electric, the municipally-owned utility, has moved its percentage of energy from renewable sources to 42 percent. One major source: electricity from wood chips, a regionally available and renewable resource. The utility's next aim: wind power from proposed (and hotly debated) new Vermont wind farms.



Burlington, Vt., now fills a startling 42 percent of its energy needs from renewable sources.

## A PERILOUSLY WARM NEW ENGLAND?

Weather, New England and change aren't strangers; as Mark Twain astutely noted, "One of the brightest gems in the New England weather is the dazzling uncertainty of it."

But what of today's red flag issue: global warming?

First, is it real? Some skeptics and the oil industry dismiss it, but the vast majorities of scientists now believe that the past century's sharp increases in key greenhouse gases, especially carbon dioxide, triggered by the burning of fossil fuels (coal, oil and gas) are raising the earth's temperature.

A sea change in attitudes is likely to build in the wake of Hurricanes Katrina and Rita, counsels John Topping, president of the Climate Institute. "The United States is one of the most vulnerable nations in the world to climate change. The peril is extreme on the Gulf Coast. But the whole Atlantic Coast is very vulnerable. We're likely to see more super-hurricanes—Category 4's becoming Category 4.5 or 5's, for example, and a lot more rain even from moderate storms."

Even before global warming became an issue, New England faced periodic storms costing many lives,

inflicting vast damage—including the brutally damaging hurricane of 1938, which produced winds of up to 138 miles per hour and killed close to 700 people, and storms of immense severity in 1954, 1955, 1960, 1985 and 1991.

A rise in sea levels—perhaps 1 to 2 feet—is virtually certain, meaning storm surges also 1 to 2 feet higher, says Topping. "Boston and other areas along New England's coast could be under water."

But what's the bigger picture for New England? A careful—and sobering—assessment was published this year by the environmental group, "Clean Air-Cool Planet." Using data from the University of New Hampshire's Climate Change Research Center, it showed clear trends toward warmer temperatures, longer warm seasons and shorter winters, and increased overall precipitation despite decreased snowfall. Sea temperatures have risen; ice-out on lakes is occurring earlier. Sea level at Boston has risen 8 inches since 1856.

And average New Englanders are starting to note change, says Bill Burtis of Clean Air-Cool Planet.

birch to more oak and pine, making today's vivid fall colors, a New England trademark around the world, mere memory.

Boston-based writer Jane Holtz Kay recently wrote for the American Planning Association Magazine, we're now faced by "threatened shorelines, sinking islands, drought-hit farms, undermined species,

More ozone alert days. Troublesome asthma rates,

even in coastal Maine. Very heavy local rainfalls

with erosion and local flooding. The peak of fall

foliage, formerly around Columbus Day in most

of northern New England, has retreated a week or

so, nipping tourism. And there are fears the region's

forests will actually switch from fabled maple and

and melting glaciers."

Some say global warming is a worldwide problem, beyond local control. But the Conservation Law Foundation warns that New England's 14 million people produce, cumulatively, more greenhouse gas

emission than 92 developing nations with a half

billion-plus people.

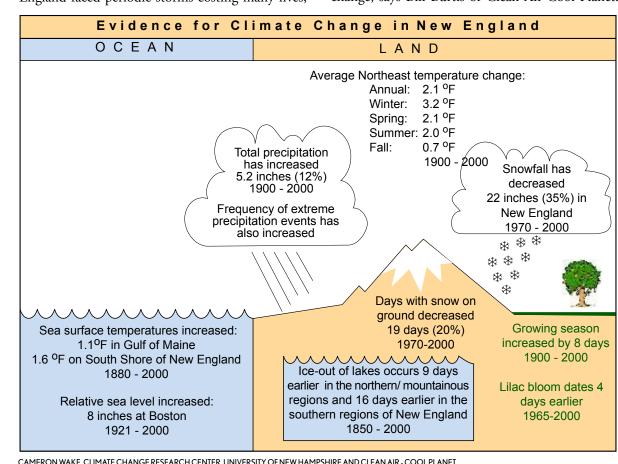
So what's to be done? The region's leaders, pushed along by activist groups, have begun to act. A Climate Change Action Plan—strong on goals, weak on implementation—was approved by the New England governors and the Eastern Canadian premiers in 2001. In 2003, New York's Gov. George Pataki invited all nine governors from Maine to Maryland to develop a regional program with clear state-by-state goals to cut carbon dioxide emissions. Individual states have been working on an implementation formula.

Some businesses and electric companies cry foul. The Edison Electric Institute foresees a "major impact" on electricity prices. Advocates reply that with the federal government asleep at the switch on global warming, states and regions need to take the initiative, that in the long run cutting carbon dioxide emissions will reduce energy needs and costs. According to the Environmental Protection Agency, for example, commercial and institutional buildings use \$80 billion worth of energy each year and contribute about 20 percent of U.S. greenhouse gas emissions—a problem state and local leadership and regulations could address directly.

In California, Gov. Arnold Schwarzenegger has set a goal of cutting California's greenhouse emissions in five years to less than the levels of 2000: "We know the science, we see the threat; the time for action is now," he declares.

And the Californians are clearly ahead of the pack with their recently enacted, toughest-in-the-nation emission standards for new cars, SUVs and light trucks. Oregon and Washington appear to have withstood the pressure of the auto lobbyists and decided to join California.

Will New England go along? Latest reports indicate Massachusetts, Connecticut, Vermont and Maine, plus New York and New Jersey, have determined to set vehicle emission standards identical to California's. Rhode Island is uncertain, and New Hampshire—at latest report—was resistant. New England may need some serious inter-family counseling to straighten out its act for fast-changing times.



CAMERON WAKE, CLIMATE CHANGE RESEARCH CENTER, UNIVERSITY OF NEW HAMPSHIRE AND CLEAN AIR - COOL PLANE

14 NEW ENGLAND: NEW CENTURY, NEW GAME

NEW ENGLAND FUTURES



EDUCATION NEW ENLGAND, AMERICA'S ATHENS, FACES FIERCE UNIVERSITY COMPETITION, FROM CHAPEL HILL TO BANGALORE. TUITIONS ARE SOARING, ATTENDANCE IS STATIC, PUBLIC UNIVERSITIES UNDERNOURISHED. WHY NOT IMAGINE ALL NEW ENGLAND AS ONE GREAT CAMPUS, WITH RADICAL NEW WAY FOR STUDENTS TO TAILOR THEIR OWN NEW ENGLAND EDUCATION, IN CLASSROOM OR ON-LINE





With its 270 colleges and universities, 860,000 students, 250,000+ employees, and \$20 billion in yearly operating costs, higher education is a bigger part of New England's economy than anywhere else in the U.S.

## PLAYING THE EDUCATION CARD

For centuries, New England's six states have been holding aces in higher education. The powerful cachet of "a New England education" has drawn generations of America's keenest young minds. The region's premier universities have more recently attracted tens of thousands of students from abroad, seeking degrees in science and engineering, medicine and computer technology.

In this dawning century of the intellect, what's to worry about?

A lot, we found—an education machine wracked by inflating costs, slow to adjust to global online competition, and hampered by lack of New England students competent in the 21st century's high demand areas of math and science.

In this article we'll recommend a classic "disruptive technology"—a totally new, six-state-wide operation that enables students to focus on their needs and life prospects rather than simply responding to pre-set college curriculums. We'll call it Opportunity New England, nicknamed (of course) ONE.

ONE would be the truly ONE-stop shop often

talked about but never done. A place (on-line and in person) to find out about career choices and preparation needed, counsel on how to combine the best courses from multiple institutions, help getting enrolled, a hand finding financial aid. Then, at completion, ONE becomes a placement agency and sticks with a graduate's career development.

Nothing as ambitious exists in the U.S. today. It could be an historic New England "first."

But why such a radical new departure? What's come on the scene that justifies it?

Take your pick:

COMPETITION. Higher education is a bigger part of New England's economy than anywhere else in the U.S.: 270 colleges and universities, 860,000 students, 250,000+ employees, \$20 billion in yearly operating costs. But the region's edge is slipping as new first-tier universities pop up across the U.S. and the world. The region's share of national college enrollment is declining. In the '90s, bachelor degrees granted across the U.S. rose 18 percent, but in New England, just 2 percent.

COST AND CLASS. Combined tuition, room and board costs at many of New England's private colleges have soared to \$40,000, in some cases close to \$45,000. Academia seems unable to control its costs. Unless blessed with rich parents, even academically brilliant middle-class students can't afford private colleges. Public colleges are also becoming more expensive, as state governments cut support and campuses respond by raising fees. Stratospheric tuitions aren't likely to deter demand for the Harvards, Dartmouths, MITs and Yales. But the economics may turn perilous for the less famous of the region's 170 private, independent colleges and universities; though it's not happened yet, the demise of many, with big blows to their local economies, is a distinct possibility.

CRITICAL LABOR SHORTAGES. There's growing danger that New England won't have enough scientists, engineers, information technology and health care professionals to keep its entire economy stable, much less growing. The big enrollments of foreign students that swelled New England graduate student rolls in the '90s are falling fast—partly because

9/11 led to tightened visa policies, partly because universities in Europe, Australia, Singapore, China and India have become both bigger and better. With their home economies gathering steam, fewer of the foreign students who still come will be tempted to stay and enrich New England's economy.

LOOMING SKILLS DEFICIT. Not nearly enough New England youth are being motivated to take the challenging math and science courses they need to qualify for the economy's most promising jobs. The problem's serious at all income levels, exacerbated by the fact that the total number of students graduating from New England high schools is projected to decline by 11,000—some 7 percent between now and 2018.

But the math-science skill deficit is especially alarming among students of color, an ever-growing portion of New England's students. Only 4 percent of African-American and 7 percent of Hispanic math-1 SAT test takers in New England score in the top fifth of the math score distribution (a threshold for advanced study in science, engineering and computer technology).



In the 1950s, New England stepped crisply ahead of other American regions by agreeing to a visionary New England Higher Education Compact and creation of a New England Board of Higher Education.

DEGREE DEARTH. A high school diploma no longer assures a decent income; the new minimum, to qualify for more than routine labor jobs, is a two-year (associate) degree, normally from a community college. Notwithstanding a few bright spots, New England has a weak community college system. Nationwide, associate degrees grew 25 percent in the '90s; in New England they declined 7 percent.

Education experts say there's a huge disconnect between today's high schools and colleges. The sectors operate in separate orbits, don't talk, don't collaborate.

And the results show. Overwhelming percentages of high school students say they're aiming for college. But take 100 New England 9th graders and ask what actually happens to them. There's not a state in the region in which more than 77 graduate from high school four years later, 52 actually enter college, 40 are still enrolled for a second year, or 29 graduate with either an associate or bachelor's degree.

And some states' scores (Rhode Island and Vermont in particular) are much worse. The late Frank Newman, longtime head of the Education Commission of the States, lamented that New England has "a hole in the bucket... There's a ton (of students) coming in and a trickle making it through."

THE ONLINE REVOLUTION. Today's students, notes Blenda Wilson of the Nellie Mae Education Foundation, start out as "wired little people," with phones on their belts, earphones, bluetooths, iPods. But

schools are painstakingly slow to adopt computer training methods (notwithstanding breakthroughs like Maine's issuance of laptops to seventh graders, at the suggestion of then-Gov. Angus King).

"For the next generation, the web is oxygen, community is virtual, perspective is global, and the career expectations is to reinvent one's self several times over," University of Phoenix president Laura Palmer Noone told a rather astounded group of New England educators meeting in Woodstock, Vt., last year.

Indeed, with 228,000 students, facilities in 34 states, 17,000 faculty (full-time working people in their professions), and an overwhelmingly online operation, the University of Phoenix seems the antithesis of New England small, intimate, college green life.

Internationally, reports New England education expert Joe Cronin, the University of Phoenix is competing with such mega-providers as Britain's Open University and India's Punjab Technical University.

So what about New England? The region has more online than first looks show. MIT was a leader in online course material. UMass Online has 17,000 students. Connecticut has a model Distance Learning Consortium, serving students in 49 member institutions. But the initiatives are growing in vintage New England way—each effort in its own contented silo, wary of collaboration across lines.

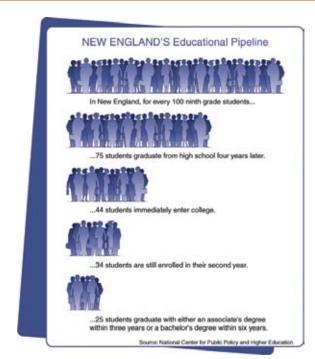
But can New England really exercise its powerful education brand shuffling disjointedly, state-by-state, into the online age?

The answer is no; instead, one observer told us, its institutions collectively, resemble "a centipede with MS." But is paralysis inevitable? No, says Evan Dobelle, president of the New England Board of Higher Education, asking: "Why not assemble our resources and have a unified New England Online?"

Indeed, why not? Once such things happened. In the 1950s, New England stepped crisply ahead of other American regions by agreeing to a visionary New England Higher Education Compact and creation of a New England Board of Higher Education (NEBHE). Far-sighted governors of the time—among them Maine's Edmund Muskie, Massachusetts' Christian Herter and Connecticut's Abraham Ribicoff—led the way.

And they didn't stop there. Next came a Regional Student Program, administered by NEBHE, giving New England residents a substantial tuition break when they choose a major offered in another New England state but not their own. The program lives on, close to a half-century old, a smashing success

The Five Colleges consortium in the Pioneer Valley—UMass Amherst and four private colleges—suggests New England colleges can, with compelling vision and steady leadership, actually work together. Stephen Reno, chancellor of the University of New Hampshire System, speaks eloquently of making a seamless web of the public colleges in his state; a web site and call center opened this fall to help students plan courses of study leading to an



The late Frank Newman, longtime head of the Education Commission of the States, lamented that New England has "a hole in the bucket...there's a ton [of students] coming in and a trickle making it through"

assured degree from one of the state colleges.

The ONE (Opportunity New England) program we're proposing—potentially the world's most student-oriented gateway to higher learning—builds off and expands on that idea. Chartered or run directly by NEBHE, it would have four arms:

FIRST, "THE GATEWAY." Today's high schoolers, even adults looking for advanced training, are often obliged to start blind, thrashing through stacks of course catalogues.

The Gateway would create a "high-tech, high-touch" solution to the maze. The tech side would present software chock-full of answers on courses, costs, and program conditions at colleges and universities across New England, matched to data on real-world emerging job needs. The high touch side would be staffed by advisers to discuss students' thoughts and ideas, interests and ambition, and suggest a workable course of study, mix or match between colleges, online and on-campus.

SECOND, THE NEGOTIATION CENTER, would take the student's preferences and negotiate a plan with one or more colleges and universities. ONE handles the registration, and helps the student apply for any grants or loans. It could assemble the costs and hand the student one simple invoice.

THIRD. THE COACHING CENTER. Once enrolled in college (or community college), students all too often face difficulties—academic, financial, social—that lead many to drop out. ONE would be available to counsel on how to stay enrolled, or make a smart transfer.

That advice could start cutting back on today's alarming rates of college dropouts.

FINALLY, A CAREER CENTER. Working closely with businesses on employment needs, ONE would be available to act as career counselor and placement agent. Armed with the graduate's credentials, the career center could be an ongoing job broker.

CONTINUED ON PAGE 4 > > > > > > > > > > >

CONTINUED ON PAGE 4 > > > > > > Building on knowledge of the best instructed

courses across the region, ONE would be the clear choice to create an Online New England service, guiding students across the region and across the globe to the region's superior academic offerings.

But its special magic—setting it apart from such existing leaders in computerized college information services as the College Foundation of North Carolina and the Southern Regional Education Board—would be its active, ongoing role as broker for the student.

We predict the consumer-oriented, on-line age will soon produce a service like ONE in some region of America. Shouldn't the region whose very name reflects education be the "one"?

What about turf issues? Would New England's colleges and universities want to ante up and be a play-

Most of the information to be gathered is already public. The web site alone would represent: consumer power. Sure, ONE would be making judgments. But if it succeeded in forging degree plans with high standards of academic integrity and career sensibility, in channeling qualified students to New England's colleges and universities, in embellishing the New England education brand and reality, it's a safe bet that turf jealousies and protections would fall away.

#### "BRAIN POWER IS THE ONLY RENEWABLE RESOURCE WE HAVE IN NEW ENGLAND."

-Kevin B. Sullivan, Lieutenant Governor of Connecticut

How would ONE be funded? A first likely source would be New England's largest employers—the likes of Bank of America, Northeast Utilities, Raytheon, Fidelity, Mass Mutual, The Hartford and United Technologies—figuring their seed money is a prudent investment in their future worker supply. Each state, in proportion to its population, could then be called on to match that capital. Later, modest credit card like fees could be implemented.

Would ONE, on its own, solve New England education problems? Of course not. But by quality guiding and brokering of students, sticking with them past hard spots, creating a flow of graduates for New England businesses, it would symbolize a new New England—online and campus-based, as modern as the latest software, fully career oriented. And more than competitive by global standards.

In a nation that's short on college and university space and New England with a surplus capacity in its colleges; ONE could attract thousands more students to the region and pep up the economy. As Robert Woodbury, former Maine chancellor, comments, ONE could offer "online advantages like the University of Phoenix with the campus ambience of historic New England colleges." More collegegoing, more sticking in college, a better educated workforce would result.

## IMMIGRANTS AND US: IS PUBLIC EDUCATION READY?

The flow of immigrants into New England—on a strong upswing since the 1980s—presents big opportunities and tough challenges.

An immediate positive: immigrants have helped to soften the blow of young people leaving the region; in the '90s Massachusetts and Rhode Island would actually have lost population without immigration. Many are skilled, university-trained, often coming into the U.S. on special H1-b visas, ready to fill critical spots in the region's sophisticated economy.

But there's a big challenge, too: the new immigration wave is spectacularly diverse. Ireland, Canada, and Eastern European dominated the early 20th century flood of migrants, notes Andrew Sum of Northeastern University. But today, it's generally small percentages, from diverse places such as Brazil, Ecuador, China, Haiti, India, Vietnam, Cambodia, Italy... a seemingly endless list. Immense numbers of Hispanics are now found in cities like Lawrence, Asians in nearby Lowell. Drive down the streets of Framingham and read the signs in Portuguese.

Many of the new immigrants are poor and uneducated. Surveys suggest as many as one in three does not speak English well. Adult literacy programs are under enormous pressure to meet this need, but long and growing waiting lists are reported. In Massachusetts, basic adult education courses are so stressed and underfunded they can accept less than half the applicants who come to them. For basic English language courses waiting times range from six months to two years. Similar situations are noted across the region.

And what of the immigrant children? The school dropout rate among them is so high in Rhode Island, one foundation official suggested, that it ought to invite legal action. Many kids are reportedly "pushed out of school," literally set up for later problems with the law. Their college-going rate is extraordinarily low.

Problems with immigrant integration aren't, of course, peculiar to New England. But the implications for New England's workforce are especially acute. The region has lots of college degree-holders—but they're clustered at the older end of the work force. High living costs force many people, especially young families, to leave the region. A serious, potentially out-of-control worker shortage is

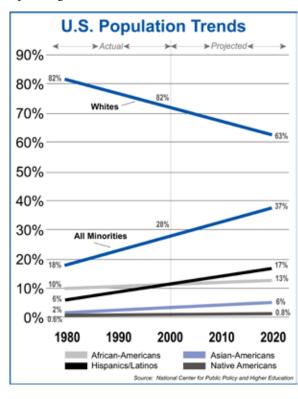
That's why Kip Bergstrom, executive director of the Rhode Island Economic Policy Council, insists there's no choice: "We must make knowledge workers of immigrants." And, he adds, give a hand to today's large numbers of native New Englanders with low literacy skills.

The remedial effort can't start too soon, he suggests, by giving guidance and hope to kids in school so they don't end up hating math and technology, get past 8th grade algebra (the bedrock of future math and science competence), and learn about the bright career chances that await them if they'll

make the effort in the school years.

But assume low-income kids do finish high school—what then? Across America, community colleges are the critical stepping stone for many young people whose families (immigrant or not) were not college-goers.

Some community colleges, in New England, are performing miracles. It's tough, for example, not to admire Springfield Technical Community College-expert, as one observer put it, in such transitions as "turning Puerto Rican kids into laser technicians." The institution just radiates a solid pragmatism with its gentle fortress structure and student-led, student-staffed incubator businesses operating streetside.



Dorsey Kendrick, the dynamic African-American who heads Gateway Community College in New Haven, is a another believer in using these institutions as a primary portal for young people otherwise not headed to college. Community colleges can be flexible about when and where and how people learn. "We should be able to make our institutions No-Excuses zones," she says.

The quandary is that New England's community colleges, a handful of truly bright exceptions notwithstanding, have rarely been planned out as a strategically placed system to support students and promote local economies. Nor have they gotten the state funding and resources received by their counterparts in other American regions.

There's a facile explanation—that New England, with its many private institutions, doesn't put a priority on public higher education at any level. Compared to other states, New England's per capita support for higher education scrapes the bottom of the barrel (even though on expenditures for students actually enrolled, its ranking is closer to average).

New England's support for public education dropped dramatically in the economic downturn of the early 2000's. UMass Amherst Chancellor John Lombardi quips—not altogether in jest—that public universities have gone from being "statesupported to state-assisted to state-affiliated, sliding toward state-located." If trends continue, he might add "state-impeded."

But there's no joking about the bottom line. If New Englanders fail to provide strong support for public higher education, from training programs in the community colleges to building bases of support for strong, cutting-edge sciences in the state universities, they'll play a price: a regional economy headed downhill.



### WHY COLLEGE?

People.

Anyone who doubts the payoff of college degrees should check out the economic evidence. Researchers Christopher Berry of Harvard University and Robert Weissbourd of RL Associates did a national study showing that of all measures, the percentage of bachelor's degree holders in a region was the only consistent predictor of prosperity. Ed Glaeser of Harvard's Rappaport Institute found just about the same thing—that from 1980 to 2000, the economies in regions with fewer than 10 percent collegedegree holders grew only 13 percent. But where over 25 percent had degrees, the growth rate was a startling 45 percent.

## COLLEGE FOR ME—AND ALL NEW ENGLAND?



The University of Maine at Framingham is part of the University of Maine System. UNIVERSITY OF MAINE - FRAMINGHAM

Why does Maine have an imaginative new Compact for Higher Education, also known as College for ME? Why has the New England Board of Higher Education recently launched a College Ready New England initiative? And why has the Boston region, since the 1970s, had a Higher Education Partnership, aimed at connecting colleges and universities with young people before they make that fateful decision about going to college—or not?

The answers, in each case, are pretty clear: to save people from lives of drift and frustration, and to strengthen their states, regions and cities.

There are other promising examples, too. A Higher Education Alliance sprung into being in Bridgeport, made of up eight colleges and universities, bent on penetrating the high schools. Business and civic leaders set up a Berkshire Compact for Higher Education, 40 members from healthcare to manufacturing to schools and colleges trying to remove the big barrier so many kids (and adults) see.

Maine's College for ME effort takes a different approach—direct aim at the inadequate preparation of people already at work in New England's lowestincome state. Henry Bourgeois, the highly respected public affairs executive who runs the program, points out that 80 percent of the people who'll be working in Maine a decade from now are already on the job. But only 37 percent of them have a college degree.

"I run into skeptics," says Bourgeois, "who say we should just focus on generating jobs. I tell them that without the trained workers you can forget about attracting the knowledge industries here." College for Me has a goal of getting Maine's college-educated adult population up to at least New England average (currently 45 percent) within the next 10-15 years. The program's start-up costs have been funded by a number of Maine's 1,000 companies with 10 or more employees, firms with a big stake in having a supply of better- and better-pre-

NEW ENGLAND FUTURES

Maine's effort extends also to improving college-going rates among high schoolers. There are fewer students, year after year, in Maine's high schools. John Fitzsimmons, president of the community college system, says money is the main reason why so many who graduate don't go on to college. So Maine's community colleges are reaching down into the schools, offering students a chance to try a couple of college courses, using the bait of a starter scholarship for any student that completes two courses. "Tasting how different college is beats wasting that last year in high school," says Fitzsimmons.

The big first goal is to make sure youth and midcareer workers aim for at least an Associate degree. And not just in cities. Today the word's going out that even in rural areas, 60 percent of jobs will require higher skills. And that at least a third of all the jobs in today's management, business, financial, science, engineering, computer and healthcare fields are open to people with the Associate degree.

Rhode Island, with the fresh enthusiasm of CEOturned-governor Donald Carcieri, points to its Career Academies, specializing in guiding immigrants through the process. Vermont's into its third decade of personally tracking intentions and followthrough of every high schooler.

What of the historic New England tug to complacency, citizens and legislators wondering if all the folderol surrounding these new efforts is worth the candle? Well, it's a different world. Take China. It has set a goal of literally doubling its rate of collegegoing every six years. And so far, it's meeting it.

## **ENGAGING KIDS: GOING BACK TO THE FUTURE?**

High schools with thousands of students. Yellow buses zipping kids away from town, out to new regional schools. "Professionalism" in teaching, delivered by schools of education in state colleges.

Today all these ideas, hailed as progress at their inception, are under attack. The mega high schools breed impersonalism, alienation in kids no longer known by name, just numbers in a big institution. Long rides to a sprawling campus replace what was once a school within a community. The state teacher colleges catch much of the criticism for a teacher corps not up to par.

Can there be a uniquely New England answer?

There ought to be. New England gave birth to America's first public schools. It's the place where generations of small rural schools, often with a single classroom for all grades, led by immensely dedicated teachers, laid the groundwork of America's best-educated region.

Today most education debates swirl around standards, including the sometimes hotly disputed federal Leave No Child Behind program. And who's to question the basic motive: getting students to CONTINUED ON PAGE 4 > > > >



Across New England, yellow buses zip kids away from town, out to new regional schools. Could New England excel by working to recapture its historic legacy of education centered in town life?

master English, math and other subjects so critical now to their success.

But New England could excel by working to recapture: its historic legacy of education centered in town life, the region's treasured smallness, intimacy. Can't the whole town become the school? — offering back-up for teachers, after-school activities, the engagement of many townspeople and organizations? Libraries, local businesses, nearby colleges all lending a hand? Perhaps tapping New England's expanding ranks of seniors for mentoring, coaching, new activities?

Such an agenda suggests moving back, when possible, to school locations in communities—not miles out-of-town. It means breaking down schools' isolation—closing at 3 p.m. when the staff heads home. Dividing monster schools into smaller units with online courses for those who need them. Welcoming charter and other experimental schools. Encouraging kids to walk or bike to school. Fostering daily physical activity and less obesity. And drawing teachers into the fullness of community life, with the engagement and accountability that suggests.

Typically, community schools are open afternoons and evenings and involve partnerships—with Boys and Girls Clubs, YMCAs, social service agencies, local police.

New England could lead the burgeoning national community school movement. Growing evidence

proves, says Marty Blank, director of the National Coalition of community schools, that "after-school programs help improve academic performance, provide kids with safe places, help parents find work, and help youth with whole sets of competencies."

And they work to heal social division. Providence's Mayor David Cicilline, an outspoken advocate, asserts that without the community partnerships such schools introduce, "it won't be possible to unite the two Providences—the one that celebrates diversity, a revitalized downtown and a remarkable concentration of higher education, the other with 40 percent of children living in poverty, an underserved and growing immigrant community, and unacceptably low student performance."

Indeed, schools today poorly serve about half the kids. Some are savvy, fast minds that find the rigid regimes too boring. Others just do not learn this way; they struggle, disappear and join the ranks of young people going nowhere.

Connecticut is using the courts to resist the rigidity of the federal standards law. Rhode Island changed its graduation law to make standardized tests only 10 percent of the requirement. New England states have always been different. They rate quite high in national comparisons valuing smaller classes, strong attendance and comparative graduation rates. So why not go a step farther by becoming the nation's laboratory for new and different schools—with enough variety to fit all kinds of students?

Last winter, Bill Gates bluntly told the nation's governors how lousy American high schools had become. Gates has called The Met—a Providence high school in a tough neighborhood which focuses intensive attention on individual kids and gets virtually all into college—the nation's most exciting high school.

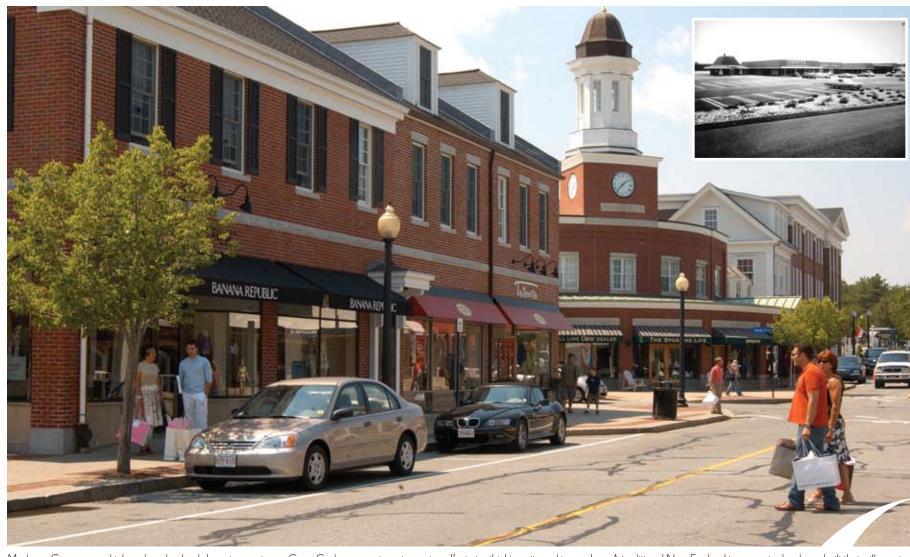
Another plus of community-focused schools are the opportunities they present for young people to become engaged in service learning—projects protecting streams and wetlands, lending a hand to social service agencies, or even learning to discuss thorny issues like: "Why does our neighborhood have so many liquor stores and abandoned lots and what can be done?"

Should formal requirements of youth service be considered? Terry Williams, publisher of the Nashua Telegraph, told us yes—that a stint of community service could be a graduation prerequisite. Kids would discover more of their community. Public projects would get a real assist. Students could see firsthand challenges in other towns or even across state borders. Colleges could place a priority on community service in considering applicants.

Williams' bet is that students with community service experience will be much likelier to forge loyalty and awareness, returning to make their careers in or close to their New England home towns "even if they first venture out to check some other part of the country."



GROWTH REGION-WIDE POLICIES ARE NEEDED THAT ARE MORE FAMILY-FRIENDLY, EMPHASIZE AFFORDABLE HOUSING, PROTECT NEW EGLAND'S WORLD-RENOWN COUNTRYSIDE, CHANNEL DEVELOPMENT TOWARD OLD WORKING CLASS CITIES, AND REDUCE LOCAL GOVERNMENT COSTS.



Mashpee Commons, which replaced a dead shopping center on Cape Cod, represents a pioneering effort at rethinking city and town plans. A traditional New England town center has been built that will eventually include mixed-use neighborhoods. **CORNISH ASSOCIATES** 

## **GROWTH GAMBLE**

It's the worst possible combination: New England's evil twins of aging, slow or no growth population and land-gobbling, spread-out development.

The six states are allowing their signature asset—their picturesque towns, rolling hills, small farms and verdant forests—o be carved into just another bunch of manufactured subdivisions and strip malls stuck here or there. They're fast losing their seed corn—their youth—to other sections of America. Town resistance and ferocious housing inflation are closing off housing options for residents and newcomers alike. The spirit, the very character of New England seems in peril.

Check around for solutions and you find that goit-aloneism—town by town, state by state—is so ingrained it's tough for New Englanders to think "outside the box" to find common cures. Sure, there are big mitigating factors: town officials have to operate with the hand they're dealt, from property tax reliance to residents' suspicion of new development. And a growing number of spirited "smart growth" and affordable housing efforts have sprung up across the states. Still, the region as a whole seems bereft of an urgent need to act, to shape a coherent strategy that preserves its rich heritage while securing its future.

Right now, the cards show a foreboding deck:

SPRAWL. Standard zoning and exurban development are eating away at the innards of New England's character and way of life. Townspeople often refuse stubbornly to allow much change, not even chances to fill in sites where more people could live and work. Subdivisions get randomly plopped down, while the rich carve out starter-castles on the sides of hills surrounded by their private forests. Key transportation arteries become so congested that the economy of whole subregions is in jeopardy. Water supplies are threatened. People walk less, imperiling health. The poor, minorities, senior citizens are increasingly isolated. Supplies of affordable housing dry up. Convenient downtown stores close their doors. Struggling family farms finally give way to developer dollars.

Not just an urban phenomenon, sprawling development is reaching into northern New England as dairy farming shrinks and seasonal home complexes burgeon. More than 1 million acres of open space and agricultural land has been lost to development in the last 20 years, more land than it had consumed in all its prior recorded history.

YOUTH DRAIN. New England's young families are heading off to the Atlantas, Denvers and Phoenix-

es of America in search of better jobs and affordable places to live. Birth rates in all its states are well below the U.S. average. Of the hundreds of thousands of New Englanders who moved away in the 90s, roughly three-quarters were between the ages of 18 and 34, many well educated. New England is already the nation's oldest region; by 2030 Maine, at 46.9 years median age, will be America's oldest state, and all six states older than the national average.

The economic repercussions can be grave. Maine's former Attorney General James Tierney warns: "Do we really think employers won't notice our aging workforce—and that there are no young people to fill the ranks?" All the "business climate" factors normally noted—the tax rate, workmen's comp and the like— "are nowhere near as significant as the aging of our population," Tierney asserts.

Some New Englanders shrug off population and youth flight, saying they don't want more people and congestion in their towns anyway. It's a dangerous attitude. Without the energy, the risktaking, the imagination of youth, what's any region's future?

HOUSING CRISIS. Soaring housing costs are fueling

New England's youth exodus and its ability to attract new workers—white or blue collar. The inflation is most severe in the Boston-Providence-Portland area, in Connecticut's Fairfield County and hot growth spots like the Maine coast and the Upper Valley region on the New Hampshire-Vermont border. Massachusetts, Connecticut, Rhode Island and New Hampshire rank among America's 10 least affordable states for renters. The median cost of owner-occupied homes, plus the percentage of million-dollar homes, are higher in Massachusetts, Connecticut and Rhode Island than 41 other states.

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It's a dangerous development. Consider the 2005 survey of Bay State residents commissioned by the mega-cranberry producer, A.D. Makepeace. Some 68 percent said it was either "very difficult" or "nearly impossible" for young families "to buy an affordable house and raise a family in Massachusetts." Latest reports underscore the peril of soaring housing costs. In 2004, Massachusetts was the only state in America to drop in total population; in 2005, it was still losing, now joined by Rhode Island.

ANTI-FAMILY CULTURE. Across New England, towns are resisting new housing for families with children. Why? Fears that affordable housing will "flood" the schools with children, forcing increased property taxes to pay the bills.

The practice is even starting to threaten New Hampshire, long successful, with its low-tax climate, in siphoning off jobs and investment from Massachusetts. Peter Francese of Exeter, the respected founder of American Demographics Magazine, wrote Gov. John Lynch early last February: "Our state is committing slow economic suicide." New Hampshire's rising prosperity of recent decades, warned Francese, "will soon turn into rapid decline" as young families despair of finding housing and leave.

We found fear of young families and increased school costs everywhere. Some even dub it "vasectomy zoning." The six states' construction rate of multi-family housing -- the kind more often affordable for young families—placed between 40th and 50th among U.S. states in the '90s.

Worse, towns increasingly restrict new housing developments (especially affordable ones) to age-55-and-up residents, and offer tax abatements to seniors. Older residents are thought to demand less from local treasuries. But the towns' short-term gain may be their states' long-term risk: more elderly translate into spiraling state expenditures for Medicaid, assisted living and prescription drug costs.

Intensifying problems, towns hungry for higher tax yields often clamor to land malls, then welcome shoppers from other towns, but refuse to make space for housing for the same mall's workers and local customers. There's some good news: recent campaigns to arouse awareness of the need for affordable housing, reported in all six states. Still, many local development decisions suggest a raw me-first-ism that would make New England's

ancestors, from the Puritan elders forward, flinch with shame

WHAT'S TO BE DONE? The time seems right to reshuffle the deck, protect New England's strong suits, play some new cards:

EVERY COMMUNITY FOR ALL CLASSES. The idea of democratically shared town and neighborhood life, rich and poor sharing the same communities, was literally born in New England. Recent decades have seen the affluent concentrate more in exclusive towns, the poor shunted into depressed city neighborhoods or lower-value suburban areas far away from vital job markets. The results include school segregation, deep social inequities, lack of civic discourse and economic opportunity. New England leaders—political, spiritual, civic—should champion a return to the historic democratic ideal, starting with a mix of housing types (single-family homes, apartments, expensive and affordable) in every city, town and neighborhood.

stand up for quintessential new england. From historic town green communities to mill towns, from small farms to seacoast villages, New England has a distinctive character, the region's special birthright. Proposed new developments should pass a litmus test: Do they respect the community's character and design? Do they preserve, enhance the community's sense of place? Do they increase chances for getting around—walkable growth, scaled for personal interaction? Do they create a vibrant mix of uses—homes, stores, offices? Do they increase housing options?

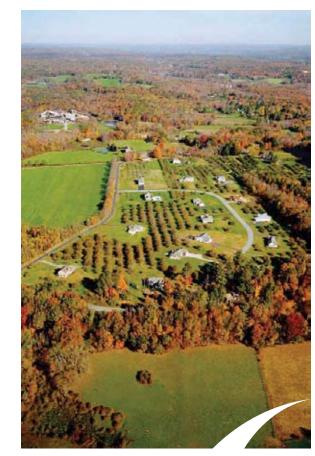
It's no secret—from big boxes and hotels in the middle of nowhere to tacky sign-laden arterials—lots of today's development fails those tests. To the degree New England takes on the sameness of spread-out, Generica U.S.A., it loses character, not just for tourists but the bright, footloose knowledge workers critical to its 21st century economic success.

#### DEMOCRATIZE DEVELOPMENT—BUT IN A REGIONAL CONTEXT.

Make planning—from rural roads to town centers to areawide retail facilities—less of a decision for single developers or owners, or even for a single town, but more of an issue for vigorous citizen debate on impacts and regional responsibilities. It's critical to note that roadways, transit, parks, watersheds, roadways, retailing—90 percent of the decisions that count—impact multiple towns. Town meetings are a splendid embodiment of direct democracy, but they're insufficient to handle the emerging new issues. Regional planning agencies—to provide information and expertise, to suggest choices—must be strengthened, working both with citizens and the local governments.

Veteran town watcher Edward McMahon of the Urban Land Institute offers two rules for successful development. First, limit commercial strips—after they spread out so far, just say "no" to more, because they obliterate town identities. And second, "build to the edge," right up to the street line, pushing seas of car-serving asphalt to the rear.

McMahon's other counsel: fight the national fran-



The Seeley-Brown Orchard in Pomfret, a small rural town located in picturesque northeastern Connecticut, is now a housing development. AERIAL FROM GLSWEETNAM.COM

chises' off-the-shelf, gaudy signs and building designs. "Don't be bluffed. If it's a profitable location, they'll do anything to get clearance." Indeed, check around the six states, and you find many town champions anxious to repel the national chains altogether. And why not? If any U.S. region has a stake in maintaining its towns' distinctiveness—for sentiment and to stay competitive—it's New England

THINK 21ST CENTURY. This era of mounting energy crises is the time to build, retrofit, think "green." As the baby boomers approach 65, many driving less or not at all, it's time to rethink city and town plans for walkability, parks and services and welcoming streetscapes. Many of today's workers telecommute or work at home; why not encourage "live-work" units and restore daytime activity to sleepy residential streets? As older strip malls succumb to competitors, plans for a radical mixed-use, townlike remake -- like the pioneering Mashpee Commons that replaced a dead shopping center on Cape Cod -- need to be advanced.

#### ENCOURAGE DEVELOPMENT IN THE SEASONED OLD CITIES.

Like today's restored Boston, plucky Providence and comeback Lowell, all of New England's older cities have immense assets -- recyclable old mill buildings, wonderful parks and neighborhoods. Affordable housing? Economical places to locate businesses? There are locations in waiting: just check from Bridgeport to Bangor, or directly on commuter rail lines spread from Worcester to Lawrence to New Bedford. Indeed, old cities are perfect fits for more density and transit-oriented development—the modern idea of building homes, offices, stores near transit stops—to reduce traffic and increase convenience.

There's also a major role for states, especially in providing financial incentives for better development. Some are testing the waters but much greater leaps are sorely needed.

Some extraordinarily breakthroughs have begun witness the now largely vacant South Weymouth Naval Air Station, just 10 miles from downtown Boston and directly connected by commuter rail. We were stunned both by its 1,432-acre size—ample space for thousands of homes. Originally it seemed impossible the three local towns could agree on using the site for anything more than a monster mall and housing for seniors only (again, no kids please!) But with counsel from outside environmental advocates and the appearance of a major national developer willing to negotiate extensively with the towns and their citizens, a vision of a rounded, full community emerged—a new village center, pedestrianfriendly streets and neighborhoods, close to 3,000 new housing units of varied prices, and generous new park and recreation areas. Confounding earlier fears, each of the local town meetings then agreed.



The heart of downtown Manchester Center, Vermont, formerly an industrial site and a car dealership, was 'undeveloped' into a Town Green, LEEKROHN

But one finds surprisingly little New England wide dialogue—among towns and cities, developers, major businesses, tourist interests, state government leaders, regional agencies—to determine how the six states could learn from each other, harmonize their tax and development practices, work toward a compelling regional growth agenda. The growing numbers of "smart growth" organizations and the New England Association of Regional Councils might be logical catalysts—more likely to start the ball rolling than politically hesitant governors, legislators and town officials. Once launched, the agenda shaping might take on a life of its own to assure a New England that's not only lovable for its past, but a vibrant, adaptive, exciting part of 21st century America.



New England's historic town meetings have immense appeal—but are they sufficient enough to handle the emerging new issues?

DAN HABIB/THE CONCORD MONITOR, OFFICIALS BEING SWORN IN AT A TOWN MEETING IN SUTTON, N.H.

## TOWNS AND TAXES: GROWING DILEMMA

What's the problem with New England towns? Why are they so tempted to spurn planning and approve strip malls, big boxes, oversized houses on big lots, even when their population is static? And why are they perennially so short on money?

Three reasons stick out. Most towns are small—scaled for the 18th, not the 21st century. Their governments are often part-time, with public spirited but untrained officials, ill-equipped to face raw market pressures. Without economies of scale, they're expensive. And they're dangerously reliant on property taxes.

New England towns range from 22 square miles average in Massachusetts to 35 to 40 miles in northern New England—dramatically smaller than typical town or county sizes across most of the U.S.

Until World War II, the diminutive size was OK for townspeople to work, shop and govern themselves. But no longer, notes Evan Richert of the University of Southern Maine's Muskie School of Public Service: the old town and school district boundaries are out of whack today; they fail "to match the flow of people, energy, water, cars, wildlife, dollars, or just about anything that moves."

Supposedly, most New England towns enjoy major "home rule" powers. But in fact, there's little they can do to control of waves of suburban expansion or the impacts of retailing and housing decisions in just-next-door towns. State legislatures burden them with rafts of meddlesome regulations. The forces rushing over towns are so strong, Richert suggests, that "home rule is increasingly an illusion."

New England's historic town meetings have immense appeal. In an age of slickly commercialized

and manipulated political messaging, they stand out as beacons of self-determination, civility, frugality, accessibility.

But if the towns are so small they must rely on volunteer, untrained officials to run operations, deal with developers, negotiate with complex state bureaucracies, how well served are they in fact? Sheer numbers of local governments suggest the complexity: Massachusetts 351, Connecticut 169, Vermont 284, Rhode Island 39, New Hampshire 234, and Maine as astounding 489.

Plus, the New England governance scheme—and mindset—creates a rough setting. Hartford economic development specialist Mark Waterhouse refers to the "swamp Yankee—the fellow who believes all decisions should be made locally, which means 'at my house.'" Yale University's preeminent expert in urban governance, Douglas Rae, describes it as "old politics, old infrastructure, fragmentation, resistance to change, and gnarly state politics in most cases."

If the issue is joint purchasing of supplies, there are more inter-town accords, advances across New England, than most people recognize, and they are models of win-win inter-town collaboration. One example: the Boston area's Metropolitan Area Planning Commission has engaged 36 municipalities in collective purchasing, bidding out more than \$20 million in contracts in the past two years, saving participants some \$2 million.

Still, splintered local government and its property tax reliance pose real problems. The idea that the 169 communities in a state like Connecticut are independent, self-sufficient entities is "pure myth,"

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notes business leader Richard Maine: "Based on the property tax, there's no way they can support separate school systems, fire departments or other services. Except maybe for Greenwich, they all have to run to the state to finance themselves."

And then there's the sheer cost of today's sprawling development. New residents in once quiet, outlying towns typically start demanding a town manager, more police and professionalized services. They want new facilities, from public safety buildings to expanded water and sewer systems to new roads to serve the spread-out development. So do people in the next town or city over. So what's the result? Immense duplication, dramatically rising maintenance costs, inflated cost of government, and little accountability for the full regional costs. Example: When Maine officials under former Gov. Angus King drew a 20-mile circle around Augusta, they found 91 fire trucks serving 95,000 people. Not one of the monster trucks—priced from \$100,000-\$500,000 and up—was jointly owned.

Hit by rising costs, the towns end up competing furiously for property taxes and commercial development. "We pay due respect to local control but it comes at a high cost," says King, citing not just costs of town governments, but schools as well: "We have 198,000 school kids in 265 school districts, each with its own superintendent, curriculum, purchasing office—about one superintendent for each 750 kids."

The competing values of fiercely guarded home rule and Yankee love of frugal government are rubbing together like tectonic plates—in "full collision," says John Baldacci, Maine's present governor.

Pressures are building in all New England states. But Maine, with the nation's highest state-lo-cal tax burden related to personal income, seems a step ahead. It's not only begun to put caps on local spending but inaugurated a "regionalization" program of cash incentives for localities that agree to curb local tax rates through systems of shared services between towns or school districts. "It's going to be collaborate or collapse," says University of Southern Maine economist Charles Colgan.

Can cost constraint, accountability, a generation of shared services, flourish across New England's cities and towns? Without state government leadership, the answer's almost surely "no." State governments need to pierce the veil of each town or school district's bookkeeping and then make a serious demand: "We need to know how you're spending money—precise details, service by service, year by year. Understandable and comparable numbers—real transparency—hat's our price for continued support."

With that data, citizens, the media, governors and legislators will be able to make accurate comparisons of performance for individual town and school districts. The costs of inefficiently scaled services, the potential benefits of service mergers, will become apparent—helped along by analyses by state agencies, the media, universities and public policy groups. It will become much easier to press for radically in-

creased collaboration and budget economies.

Fortuitously, data comparison has been made infinitely easier by recent years' rapid advances in digitized data processing and Internet dissemination. And New England has all the information technology expertise it needs to make it work.

Patrick McGuigan is one of the major advocates. He heads the Providence Plan, a joint city-state-academic effort that's built up a "data warehouse" on people, public education, health and property to help government and citizens discuss ideas and develop new strategies one every front from crime control to housing. His kind of tools, applied New England-wide, could open eyes to new ways to provide and combine services.

A particularly powerful tool, says McGuigan, is GIS (geographic information services). Through it, he says, one can show the impacts, town-by-town and regionally, of different development and land use decisions: "Seeing is believing. And we're completely in a visual age. GIS is all about telling stories through pictures, maps, data. It can show scenarios, choices."

Take for example the kind of small-town growth dilemma described to us by Pat Moulton Powden, chair of the Vermont Environmental Board. The issue: how to balance the preservation of forest canopy and open space against the pressure of newcomers who want to build big on multi-acre parcels. Is there an alternative in more community-centered development? GIS-based analysis—especially software like the CommunityViz program developed by the Orton Family Foundation—can compare impacts of the varying scenarios on the build-out of the town, open spaces, public utilities, roads and taxes. Disagreements may persevere, but decisions can be far better informed.

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Property tax as % of all state/local revenues from own sources	Local property tax as % of all locally raised revenues
20%	45%
26%	74%
42%	79%
32%	89%
30%	70%
30%	83%
31%	54%
	20% 26% 42% 32% 30%

Measure property tax per capita and a similar story emerges: In the U.S., Connecticut is #2, New Hampshire #3, Maine #3, Rhode Island #7. Massachusetts #8, Vermont #9.

If better fiscal and land use information systems can develop, what's still missing for New England? Two essential steps, we'd suggest: finding ways for towns to coalesce regionally, and clipping the wings of the property tax.

Coalescing regionally. New England town government is still relevant – "Anyone who plows your street, collects your trash, puts out your fires, teaches your children, patrols your neighborhood and taxes your home is relevant," notes Evan Richert.

But, he adds, "relevant" is not the same thing as "control"—bigger-than-the-town forces with dramatic impacts on taxes, the local economy, and critical regional land use decisions.

So how do the citizens of a region gain some control—control of the big land use issues, power to allocate taxes and services, ability to make government more efficient—while leaving New England's icon, their towns, intact?

Maine's Gov. Baldacci favors a "municipal service district" model developed by Richert at the University of Southern Maine's Environmental Science Center. Towns would be encouraged to gather, voluntarily, into groups of five or more that contain two or school districts, a population of at least 20,000, and an area of at least 250 square miles. They'd be offered a big carrot for making the leap: the state assuming their town and school district general obligation debt, and a 10 percent bonus in school aid. There'd be a corresponding stick for towns that say no: a parallel 10 reduction in their school aid, and no help on debt.

With those big financial inducements, municipalities would be able—but not forced—to come together, preparing a charter for adoption in a referendum. Their new district would exercise, through an elected council, three basic powers: setting a budget, setting the tax rate, and development planning. There'd also be a popularly elected school board. The towns would continue as legal entities, submit yearly budget requests to the service district, be free to keep their town meetings, and run such local services as traffic control and animal control. But the major fiscal and land use decisions would get the more regional approach they demand.

In Vermont, former State Sen. John McLaughry of the Ethan Allen Institute advanced a parallel idea: merging the state's 244 towns into 40 "shire republics" of roughly 15,000 people each. Why? To return more decision-making from the state to local hands. But the idea, says McLaughry, has proven "too big a leap" for his fellow conservatives, because they're still wed to the idea of the town, however small.

Perhaps some variant of the Maine idea, precisely because it maintains the town identity and allows regional governance by democratic choice from the bottom up, will catch on. Business groups tend to like it; the lobbying organizations for towns object strenuously. But if any idea's time has come, this is it

Clip the property tax. High property taxes—the burdens and perverse incentives they create, the rage they generate, the town-to-town school funding inequities they proliferate, the barrier to affordable housing they pose—represent an endless New England nightmare, even if somewhat relieved by state action (especially in Massachusetts and Vermont) to take over more school funding responsibility.

Anxious to up their property tax receipts, towns typically zone for an acre or more per house, expecting higher valued homes with less children, rather than encouraging higher density projects. Middle income workers -- teachers, fire-fighters, police officers and others—are increasingly locked out of

the housing market. The crux of the problem, says demographer Peter Francese: "All the costs of building affordable housing fall on small municipalities while all the benefits accrue to the entire region."

Or in the words of New Hampshire broadcaster Arne Arneson: "All six states rank in the top 10 nationally in per capita property taxes. That's your source of dollars. Why share those dollars? Why give them up? The dependence on local taxes has made us unwilling to embrace a state approach, let alone a regional approach."

No one claims there's a quick solution, and all revenue alternatives have their own warts. But just check the U.S. Census figures: on average nationally, property taxes represent just 20 percent of total state and local government revenues. So by what reasoning do they and their pain need to constitute 26 percent of state-local revenues in Massachusetts,

30 percent in Vermont and Rhode Island, 31 percent in Maine, 32 percent in Connecticut, 42 percent in New Hampshire?

NEW ENGLAND FUTURES

To outsiders looking in, the smart New England move would be to move all states' average to the 20 percent national figure. Increased income taxes and sales taxes (especially on the fast-growing, lightly taxed service sector) could fill the gap. New Englanders may need to be reminded: change is legal.

## SIX STATES' GROWTH, HOPE AND DESPAIR

Our meadows, fields and forests are in peril. Houses are going up all over the place. Rich river bottom land is getting used up. We're sacrificing two centuries of rural tradition for suburban speculation. Affluent people from "down country" come in and buy land and everyone's assessment goes up. Even in poor towns, big houses are all that's coming in. Property taxes are driving people to sell farms, cut more timber when they don't want to. A chain convenience store opens on an open field beside the general store in town, which then goes out of business. The less traveled road is getting harder and harder to come by.

We gleaned those words from interviews with Vermonters and the sound track of films produced by the Orton Family Foundation. But parallel sentiments of near-despair are heard all across New England.

The more positive news: spirited efforts are underway to preserve New England townscapes, protect open countryside against sprawl, create more affordable housing.

There's the Vermont Forum on Sprawl, a lead partner in Vermont's Smart Growth Collaborative, an alliance of advocacy groups for better growth practices, historic preservation, affordable housing and downtown development. It keeps score on state government outlays (sewer, water, school and roads, for example), to see whether state actions help towns grow compactly and provide housing, or actually aid and abet sprawl. Meanwhile, Vermont's Housing and Conservation Board works on affordable housing, land conservation and historic preservation in building sustainable communities.

Grow Smart Rhode Island, founded by the CEO of a local utility, is fighting hard to stop the onslaught of strip malls and big boxes in a state consuming land nine times as fast as its population grows. The group trains members of local councils, planning and zoning boards to manage growth more effectively. One major accomplishment: adoption of an historic preservation tax credit, which has stimulated development of old structures, many of them former mills, in such cities as Woonsocket, Central Falls and Providence.

In Massachusetts, Republican Gov. Mitt Romney appointed Doug Foy, a Democrat and articulate advocate of smart growth, to head a super-cabinet encompassing the departments of transportation, energy, the environment and housing. The idea: to



Spirited efforts are underway by smart growth and land trust organizations to preserve New England townscapes, protect open countryside against sprawl, and create more affordable housing.

get these agencies and state investments working in tandem for better growth—an echo of a development cabinet Gov. Michael Dukakis set up to support cities like Lowell in the '70s.

With its hyper-housing inflation, eastern Massachusetts faces some of America's toughest obstacles to affordability and smart growth. Inventive legislation, giving towns extra school aid if they agree to create "overlay districts" for dense development and new housing in their downtowns, commercial and transit hub areas, is helping in a few—but not enough—communities. An active Bay State smart growth alliance, akin to Vermont's, has been a strong advocate.

New Hampshire's "Live Free or Die" and low-tax political culture opened the doors to decades of undistinguished suburban expansion, covering the state's southern section, now impacting Concord and starting to push northward into the state's lakes district. But vast tracts of land, especially in the north, have been protected through groups such as the Society for New Hampshire Forests.

Now New Hampshire Audubon is trying to get ahead of the familiar growth paradigm by helping towns in its path decide in advance how to shape and guide the growth to maintain their character and quality. An ally, the Concord-based Jordan Institute, has a planning tool kit for communities "to make sure there's some functional ecosystem, recharged aquifers and green infrastructure, after the bulldozers are finished."

Maine is witnessing dual phenomena—depopulation of its rural stretches, even while "the market

is burning" along the state's picturesque coastal corridor, where, in the words of Mark Lapping of University of Southern Maine, "People 'from away' come, buy, tear down, and put up huge mansions." Native Mainers, in the process, must then commute from miles away to jobs along the coast.

Significant lands have been saved by the Nature Conservancy and Maine Coast Heritage Trust. The newest hope is intensive, town-by-town grassroots listening and engagement, to build support for land-conserving town plans with real teeth, inaugurated this year by GrowSmart Maine. Critical counsel is coming from the Brookings Institution's Metropolitan Policy Programs.

Connecticut has severe growth problems; as Hartford architect and planner Patrick Pinnell put it: "Local fragmentation and development causes constant disputes, and outrage at the sheer damned ugliness of the sprawl. I think the Connecticut Department of Transportation would gladly slice 64 feet off every town green in the state to improve the traffic 'throughput.'" As for affordable housing, a foundation executive told us: "Racism underlies much of the opposition."

The better news: Connecticut's faith community is becoming engaged in the growth and equity issues; the Catholic Archdiocese of Hartford commissioned Minnesota demographer Myron Orfield's 2003 study, "CT Metropatterns." And a new 1,000 Friends of Connecticut organization, focused on growth issues with a special eye on the ties to transportation, has just been formed.

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NEW ENGLAND FUTURES

## **GROWING APART?**

Poverty in paradise? Visiting the "Upper Valley" of communities centered around Dartmouth College and the famed Dartmouth-Hitchcock Medical Center on the New Hampshire-Vermont border, and you don't expect to hear this view from a knowledgeable observer:

"We're witnessing a widening gap between the haves and have-nots. Some people come here and buy \$700,000 hillside estates, cash. But across the town line people struggle to find any place to live. Towns like Hanover and Norwich are like gated communities, while next-door Hartford and White River Junction struggle to keep anything in the storefronts."

Tom Kittridge, who runs The Haven homeless shelter in White River Junction, strikes a similar chord: "It's amazing to me that in this very rich region, lots of good jobs here, there's so much poverty. Drive around and see the beautiful mountains but so many people living on the margin, coming into our food shelves—more than 1,200 families a year. Many of these people have physical health problems, some mental health problems, but overall just really poor educational levels."

Across New England, we heard similar stories. In New Bedford, Mass., workers from Third World countries struggle to get minimum wage jobs. In Providence, R.I., Mayor David Cicilline notes that 80 percent of public school children are living in poverty. In Holyoke, Mass., Mayor Michael Sullivan comments unhappily that his city's principal business is "the industry of the poor"—social services for residents. In Brunswick, Maine, we are told of "a big squeeze on the working poor."



Sponsored by Citizens' Housing and Planning Association (CHAPA), the 495/MetroWest Corridor Partnership Inc. and the Home Builders Association of Massachusetts, the home@last initiative is meant to increase the production of high-quality, affordable housing.

From Boston, MassINC reports that New England has one of America's greatest levels of income inequality. People with bachelor's or higher degrees have seen their incomes rise dramatically—especially in two-income families—while loss of manufacturing jobs has left fewer well-paid job options for less educated people.

Nationwide Census data showed that in 2004, for the fifth year in a row, inflation-adjusted median income decreased. That means even families in the middle are seeing their actual incomes and standard of living go down.

States and cities have a tough time correcting such trends on their own. But it's fair to ask: do New England's time-encrusted city and town boundaries magnify inequity?

Consider Connecticut, tops in America in personal

income. Bridgeport, Hartford and New Haven are among the country's very poorest central cities; some of their suburbs are among the nation's wealthiest. The Census reports 10.5 percent of Connecticut children are living in poverty, their families—even with a full-time bread-earner—unable to afford decent housing, adequate child care or health care.

Huge city-suburban racial disparities are often diagnosed as an overriding issue separating poor and affluent communities, and no one doubts they play a major role. But Michael Bangser, former president of the Hartford Foundation for Public Giving, notes that "as crucial as race is, class is becoming the larger issue. Lots of inner-ring suburbs are becoming dramatically more diverse, attracting city residents with motivation and some education. But that doesn't change the concentration of poverty in the city."

In the words of a Hartford city department head: "Our city is very good at importing poor people and exporting the middle class."

At the same time, notes Jan Eastman, director of Vermont's Snelling Center, rural New England is starting to emulate the gross income disparities of the major cities. In earlier decades, poverty tended to be spread across many rural towns; "today our demographics have shifted totally." Over 70 percent of its school students in a regional center such as St. Johnsbury qualify for free or reduced luncheons, while the figures drop in surrounding towns. "We're pushing our poverty to the center."

The story in Maine is similar. The state, explains Laurie LaChance of the Maine Development Foundation, has 64 service center communities, all providing banking, medical, and library services to their regions. "But people are moving out to surrounding communities, further and further away—sometimes for more land, sometimes for lower tax rates." The poor are left in the town centers, in older schools, even while the state from 1970 to 1995 was obliged to invest \$750 million on new school construction, mostly in the suburban towns.

Can New England, where America's first civil society and democratic values blossomed in towns of mixed incomes and mutual concern, take steps to assure a future of shared futures? Richard Godfrey, Executive Director of the Rhode Island Housing and Mortgage Finance Corporation, says yes: "Municipal planning must accommodate housing for all incomes and family styles. Reliance on local property taxes and localized zoning decisions often favors commerce over community, and large houses over smaller ones." A statewide or regional approach, he suggested, could "bring low- and moderate-wage earners, essential for economic growth and community vitality, back from the margins."

But how to get there? Such solutions as regional taxbase sharing might relieve some of the inequities in schooling and services—but politicians clearly lack the will to address them, notes Jeff Blodgett of the Connecticut Economic Resource Center. Plus, with lower tax rates in suburban towns, businesses need only to move out of the center city to cut their taxes dramatically.

One hears, across the region, growing calls to expand supplies of workforce housing, not just in cities but suburban towns, partly through reform of local zoning laws or land use regulations to encourage mixed-use development. The housing non-profits in all six states are pushing to boost production, even though state appropriations to back up



Rhode Island Housing helps low- and moderate-income Rhode Islanders find housing, such these Newport Heights homes, a mixed income Hope VI project. COURTESY OF RHODE ISLAND HOUSING

their efforts clearly lag far behind need.

Perhaps more targeted advocacy is needed. Julie Eades, president of New Hampshire's Community Loan Fund, tells how her group has saved trailer parks, a prime source of lower income housing, from being sold for development with their occupants evicted. The formula: organize the tenants into a cooperative to collect rents and maintain the property, then require (as the state agreed to do) that they have first right of refusal on buying the property. The approach has proven remarkably successful: there are now 69 such coops in New Hampshire. The Loan Fund champions their cause, helps with the financing and legal steps, and advertises the energy saving qualities of the new generation of manufactured homes.

The stakes aren't small: a balanced economy, reducing isolation, restoring New England's historic social fabric



CONNECTIONS TO COMPETE, NEW ENGLAND NEEDS BORDER-TO-BORDER BROADBAND AND MUSADDRESS GLARING DEFICIENCIES IN THE REGIONAL TRANSPORTATION SYSTEM. CAN SIX GOVERNOR GALVANIZE A COALITION TO SAVE AND REBUILD THE RAIL CONNECTIONS FOR THE NORTHEAST CORRIDO AND ALL OF NEW ENGLAND.











No region of the world can expect to compete and flourish in the demanding 21st century without state-of-the-art connections.

## ROAD. RAIL. AIR. WATER: SEPARATE WORLDS OR ONE SYSTEM?

No region of the world can expect to compete and flourish in the demanding 21st century without state-of-the-art connections—road and rail, air and water, plus fast and efficient electronic information highways.

On the transportation front, New England seems frozen in time and space, unaware of how seriously isolated and inefficient it's becoming with its overburdened interstates, poorly maintained bridges and local roads, shrunken and imperiled rail service, and lack of a modern deepwater cargo port.

The pain's felt region-wide. Saddled with decaying road systems, Massachusetts motorists are spending \$2.3 billion a year on extra vehicle repairs and operating costs. Without efficient coastline rail, Maine sees its Route 1 turn into a traffic horror each summer. Urban interstates across the region—I-93 from Massachusetts into New Hampshire, for example—suffer mega-jams. The region has some quality—but many insufficient or nonexistent—bus lines.

The world-renowned traffic congestion in and around Boston proper has been relieved some by the fabulously expensive (\$14.6 billion) "Big Dig." But

now there's a new congestion poster child: Interstate 95 along the Connecticut coast—described by its commuters as "a rush-hour standstill," "a parking lot" from Stamford to Bridgeport in particular. Proposed cures range from double-decking (dismissed for its astronomic cost) to adding lanes (infeasible because the corridor is so densely crowded).

"If I-95 is a chokepoint, in one sense you're choking all six New England states," notes Steve Sasala, CEO of the Waterbury Chamber of Commerce. Connecticut and all of New England are in peril of becoming a continental "cul-de-sac," transportation expert Michael Gallis warned in 2000, adding that although the region sits literally next door to the global economy dynamo of New York, "it's the area it's least well connected to."

And the region's most serious shortfall, says former Maine Transportation Commissioner John Melrose, is lack of rail alternatives to support compact, non-sprawling development, and undergird the region's existing cities.

Connecticut resident Robert Yaro, president of the New York Regional Plan Association, bemoans a twin peril -- a huge backlog of needed repairs in Amtrak's rail lines, and decrepit condition of the Metro-North train commuter service that connects New Haven and New York's Grand Central Station. "New England," notes Yaro, "is presently experiencing all the disadvantages of the most congested, expensive population corridor in the western hemisphere with few of the advantages that should flow with easy access to New York as well as Boston."

After 9/11, when many corporations were decentralizing operations out of New York City, Northern New Jersey, with superb commuter rail connections, received an influx of investment. Not so Fairfield County and cities up the Connecticut coast. Why? Clogged I-95 and Metro-North's railcars, typically cold in winter, hot in summer, some 40 years old, routinely cannibalized for parts. Plus the ultra-high cost of Fairfield County housing, and lack of quality train service to open up economically lagging areas like the nearby Naugatuck Valley, ideal for new transit-oriented development.

After decades of neglect, Connecticut Gov. Jodi Rell pushed through bond funding for updating

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300 Metro-North rail cars. But mostly, New England has been asleep at the switch, failing to make critical transportation investments it needs to remain competitive.

Indeed, even as some 14 nations around the world invest robustly in new or expanded high-speed rail, taking advantage of dramatic technology breakthroughs in safety, handling, and speeds of up to 210 miles per hour, Northeast U.S. leaders sit on their hands, paralyzed by prospective price tags. Experts estimate up to \$12 billion, for example, to bring the Boston-Washington Northeast Corridor—tracks, bridges, signals, tower systems, rolling stock—to a state of good repair.

The rest of the world is not so shy. Returning from a recent Far East trip, Lyle Wray, executive director of Connecticut's Capital Region Council of Governments, noted:

"In 10 years Bangkok has built an elevated heavy rail system, a subway, a new airport, a 150-mile per hour rail link to the airport, and approved constructing 120 miles of bus rapid transit on dedicated roadways. And we don't even have a high-speed rail line into New York! If we did, Hartford executives could fulfill their wish of fast connection to New York and we'd become an economically viable back office alternative. Draw a 100-mile circle around almost any major world city—Rome, Paris, Tokyo—and there's an extensive commuter rail network linking vibrant communities. We have antiquated commuter rail networks around Boston and New York. We've starved the infrastructure."

There are some New Englanders who discount rail and believe the region's heavy 21st century focus on roads, born of the era of cheap petroleum, should carry on. But a "roads only" scenario runs headlong into harsh reality: immense overdemand. New England's road traffic has increased two to three times faster than population since 1990.

And watch out! – crowding over from the right lane come the big freight-carrying rigs, claiming more and more road space. Truck traffic is projected to increase 60 to 100 percent by 2020, making driving increasingly fearful and dangerous for motorists. "The interstate system melts down without some kind of intervention," notes Tim Brennan, veteran executive director of the Pioneer Valley Planning Commission and regional expert.

Critics like Brennan say that even if highway monies were limitless, roads present a crisis New England, with its tightly packed communities, can't build its way out of. And likely shouldn't even try. Why? Gas supplies may drop suddenly. Massive price spikes are likely. Air quality, advances on global warming, require less vehicle miles traveled. And new roads easily feed sprawl that consumes New England's precious countryside and isolates lower-income groups in bypassed cities.

Clearly, it's time for ingenious solutions. Take freight. We were amazed to discover a 2002 study showing railroads handle only 5 percent of freight shipment in Maine, 2 percent in Connecticut, and



New England is home to the National Corridors Initiative, headed by James RePass (shown above), which encourages regions across the continent to develop robust regional passenger and freight rail service. **LEOKING** 

a minuscule 1 percent or less in Massachusetts, New Hampshire, Rhode Island and Vermont. One reason: Thirty years ago a rail bridge across the Hudson at Poughkeepsie burned down. It's never been replaced. So a rail shipment from New York to Stamford has to go north to Albany, then east and back south, at substantial extra expense. Result: all the freight goes to trucks instead.

Yet New England, a century ago, had a robust rail network, covering a huge percentage of its territory. Many of the rail lines—or at least their rights-of-way—still exist. But New England's state transportation departments have made no push to coalesce, project needed passenger services, consult with the sometimes obdurate freight railroads, rebuild the missing Hudson River bridge, and employ carrots and sticks to get longer-distance freight onto trains.

New England is home to the National Corridors Initiative, headed by James RePass, encouraging regions across the continent to develop robust regional passenger and freight rail service. The Initiative pushed successfully in the '90s for release of \$2.7 billion in blocked federal funding for the high-speed New York-Boston rail line, cutting travel time from 5\_ hours to 3\_ and tripling ridership in the corridor.

RePass favors a formalized New England regional infrastructure authority—ideally with a Canadian counterpart—that could start making priority investments. RePass and former Massachusetts Gov. Michael Dukakis, a former vice chair of Amtrak's board, are proponents of a North/South Rail Link in Boston, a one-mile tunnel to connect the North and South Stations that were left without connecting tracks by competing 19th century rail companies. With the tunnel link, they contend, high-speed New York-Boston-Portland service becomes a possibility and more importantly there'd be "radial availability -- tens of thousands of commuters from north and south of Boston able to travel directly to

destinations around the region, providing massive net economic benefit.

The six states, Brennan believes, aren't quite ready for a formal infrastructure authority. He'd first create a "New England NATO" —a six-state alliance of governors, transportation directors, business, foundation and environmental leaders and others to look at the top strategic issues and create a compelling vision. What transportation steps are priority items if New England's to be a 21st century competitor? How can highways, rail, air, ports, passenger and freight service be interlinked? How does the region best negotiate with its East Coast neighbors, Amtrak and Congress to bring Northeast Corridor rail service up to world standards? How can transportation moves dovetail with disaster evacuation planning (thinking terrorism or hurricanes) and more far-sighted tourist promotion? Or create corridors, as Hartford architect Tyler Smith suggests, that serve not just roads, but rapid rail, telecommunications lines, open space and greenways?

David Soule of the New England Initiative at UMass Lowell, endorsing the "NATO" idea, suggests a major focus on finance of big infrastructure items. Nineteenth century New England and America, he notes, used private dollars to build such infrastructure as border-to-border rail. A raft of creative revenue-based and market-based financing tools are now being introduced around the world—tax increment financing, tolls supporting lease-back deals financed by private investment groups. Can some of the finance wizards in New England investment houses get focused on these possibilities? Is there a role for popular referenda to approve local or regional levies as a part of financing packages? Could the business-led New England Council work with the congressional delegation to create federal incentives for transportation breakthroughs?

And there are today new ways to avoid pork-barrel waste: cutting-edge cost-benefit analysis tools that

make it possible to evaluate costs and benefits from road to rail, buses to air service to ferries, red-flagging projects which don't incorporate state-of-theart technology or smart intermodal connections.

Politicos and public bodies, in short, could actually be positioned to make informed decisions on projects and financing, based on publicized, transparent data.

No one doubts highways will remain the region's transportation mainstay, but rail service—less polluting, less energy dependent, more land-conserving—clearly has to play a major role. And there's a huge backlog, beyond the coastal Northeast Corridor. Expanded service on the inland route—westward to Worcester and Springfield, then south through Hartford and New Haven to New York—could, for example, be a big shot in the arm for Connecticut River Valley cities.

Serious investment in eastern Massachusetts commuter rail service would serve New Bedford, Fall River and other South Shore towns that not only need economic stimulus but can offer far more affordable housing than Boston or its close-in suburbs. Trains to Cape Cod, say advocates, are critical to avoid some of New England's most ferocious traffic jams. Mainers would like to see the successful Boston-Portland Downeaster service speeded up and extended to Brunswick and Rockland (with possible ferry service to Bar Harbor). Vermonters are anxious to extend Amtrak service, now serving Rutland, north to Burlington and south to Bennington. Nashua wants rail connection to Lowell, a first step toward full Boston-to-Montreal service that would pass through Lowell, Nashua, Concord, Montpelier and Burlington.

Other ideas crop up periodically but never get careful study. A prime example: thinking New Englandwide about rail service connecting not just Logan and T.F. Green but all of New England's leading airports—Bradley, Manchester, Portland, Burlington, and their host cities. The rail would provide travelers with multiple off-road options and connections simply not available today.

Each idea calls out for hard analysis. But it may never happen unless the six New England governors step up to the plate, agree their states' transportation futures are intimately intertwined, and create a shared, professionally staffed organization to start the job.

In a model of cross-border collaboration, Midwestern governors recently reached dramatic agreement to invest \$20 billion to clean up Great Lakes toxic pollution and other threats, and to work with Canadian premiers to control export of water from the region. Even mayors exalted: "For the first time," said Chicago's Richard Daley, "We're all on the same page with a common vision. We have a guide for future investment. We have priorities."

If the Great Lakes states can pull together so dramatically, why not New England?

## WATERY SOLUTIONS

Before roads, before railroads, New England traveled by sea and up its rivers. And waterborne trade has been a regional strength ever since Yankee clipper ships raced around the world and opened the first China trade.

Can water transport solve some of the region's modern-day transportation challenges?

The answer should be yes. Take the issue of paralyzing congestion exacerbated by thousands of trucks along I-95 in southwestern Connecticut. Connecticut has been working for years on the idea of feeder barge service from Newark to New Haven or Bridgeport, allowing freight to bypass the most crowded Connecticut-New York freeway stretch. After prolonged political wrangling, Bridgeport was finally selected, but advocates are asking impatiently when the Connecticut Department of Transportation will finally get the service launched.

Also still to be resolved: What's New England's ocean freight plan for the century? Indeed, what of passenger service by water? Historically, water-borne personal transportation played a big role from New York all the way up to Maine. A dozen or so ferry services do still operate—Boston-Gloucester and Boston-Provincetown, Providence-Newport, New London and Bridgeport across Long Island Sound, for example. The MBTA offers Boston Harbor service including connection to Logan Airport. Ferries run across Lake Champlain, connecting Vermont and New York State. New high-speed catamaran

service connects Bar Harbor with Yarmouth in Nova Scotia in just three hours.



The CAT is a high speed service between Bar Harbor, Maine and Yarmouth, Nova Scotia. With a crossing time of just under three hours, it saves passengers one day of driving time.

But the potential is far greater—serious high speed ferry service from Fairfield County to Manhattan, for example. Former Maine Transportation Secretary John Melrose says he's enthusiastic about water transport because "it fosters development in core communities, has a low cost (which is zero) for maintenance of way, and has an extensive track record elsewhere in the world."

For all the wonders of modern technology, the basic old-fashioned idea of personal travel by sea and river connection seems like a natural fit for New England's character, tourism, and economic future.

## **BRADLEY: BARRIER OR BREAKTHROUGH?**



Can Bradley International Airport turn into a major symbol of Connecticut River Valley growth?

Can all of New England thrive in the new global economy, or does prosperity have to be limited to the region's eastern, coastal corridor?

One finds a slowed economic pulse along the Connecticut River Valley and all of western New England. Even economic leaders in the region acknowledge it. And they regularly sum it up in one word: "Bradley."

Is that fair? Even if the only thing "international" about the Bradley International Airport is Canadian-provided propeller service to Montreal, isn't it true that the airport has close to 7 million passengers a year, has added 21 non-stop flights

since 2004, now offers low-cost Southwest flights, is expanding its facilities, and claims almost \$4 billion in regional economic impact?

The answer's "yes." But the airport, say its many critics, has been run in a narrow, bureaucratic way, symbolized by the historic mindset of its owner/manager, the Connecticut Department of Transportation. ConnDOT is said to have made so many long-term concessions to owners of the airport's parking garages (and now depends so heavily the revenue) that competitive new ideas get quashed.

In the '90s, when proposals surfaced for a light rail line from Hartford, passing Bloomfield, serving students at the University of Hartford and reaching the Griffin Station with potential extension to Bradley, the DOT opposed it vigorously.

Currently ConnDOT has mollified its critics a tad by approving low-cost preliminary design work on rail service from New Haven to Springfield. With a Bradley extension, such service could be a major catalyst. Across the world, quality rail connections are today defining the catchment area and growth potential of airports. Why else, for example, does the Metropolitan Washington Airports Authority appear so anxious to take over and speed up rail ser-

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vice from Washington and its suburbs to Dulles Airport? It's pure economics: building a larger passenger base. Or as the airports director noted: "For an airport to be successful in the long run, it needs to have multi modal access;" it's no longer reasonable to expect "the only access is by private automobile."

What of positioning Bradley for other new market opportunities—developing major freight facilities or nearby land for industrial parks, warehousing and specialized services, and seeking to stimulate the facility's broader territory in the way that airports like Dallas-Fort Worth have invigorated entire regional economies? It's been slow going, though some incremental progress, reports Doug Fisher of Northeast Utilities. The airport board finally agreed, for example, to post "Welcome to New England" rather than "Welcome to Hartford" signs in a new terminal.

Other consequences of a lethargic Bradley: firms like United Technologies lack convenient, non-stop international service is and corporations quickly reject the idea of moving facilities to the region. The airport's former marketing director -- the person in charge of getting international connections for Bradley—couldn't even board an airplane for marketing purposes, because of a state travel freeze on its workers.

So how does Bradley turn into a major international airline, a symbol of Connecticut River Valley growth? The idea we heard most frequently: Create a bi-state, Connecticut-Massachusetts airport and development authority, signaling a new day, more aggressive management, freeing the region's prime growth asset from its parking lot mentality. With a region-wide, expansion mindset, say the impatient local observers, Bradley would be set for the 21st century growth neither ocean- and land-locked Logan, nor the New York City-area airports, can easily handle. Most of Bradley's facilities (and long runway) are more than adequate for continued domestic passenger growth; the location offers better landing weather than Boston or New York; all that's really lacking would be a new international terminal and customs facilities.

Who could make this happen? Best answer: The governors of Connecticut and Massachusetts, acting together. Cynics react instantly—this could never happen—Connecticut wouldn't share a property it now "owns" exclusively, and Massachusetts would be paralyzed by Massport/Logan jealousy.

But imagine the opposite: two chief executives, each providing some political cover for the other, recognizing their states' economic interdependence, championing collaboration, fostering a vision of a

more vibrant Connecticut River Valley and a second major international airport from which both states could benefit immensely. Economic recruitment, new rail links, especially a vision of a new New England that rises above normal parochial, zip-code politics—the package would represent a dramatic signal, to citizens and business markets alike.

At a minimum, the Bradley issue should engender some vigorous debate. An alternative (or even extension) of bistate authority might be leasing the airport to an aggressive private operator, using part of the proceeds to finance new rail and road connections. (The model: Chicago's \$1.83 billion deal to lease its 1950s-era toll-road Skyway to a Spanish-Australian consortium.) A bi-state Bradley deal, including financing for modern, connecting Connecticut River Valley train service, might even lead to smart service splits—longer distance flights from Bradley, shorter ones from its new rival, the more regional Tweed Airport at New Haven.

New England has long seemed immune to the collaboration virus driving economic and growth deals across the world. But once it broke loose, it might really take off.

## RADICAL DEPARTURE:

A NEW - NEW ENGLAND MODEL?

America's state highway departments have historically been overbearing Goliaths. They're usually run by technocrats, talk in hard-to-decipher jargon, and almost always prefer asphalt-first solutions.

Carol Murray, New Hampshire's reform minded Transportation Commissioner, notes the way they've often communicated with towns:

"Your Main Street is a state-numbered route, and we have to get traffic through more quickly. So you'll have to eliminate your on-street parking and narrow your sidewalks. We're going to make the road wide and straight, with 10-foot shoulders. And you're going to like it."

The ice, though, may be starting to thaw. Under Gov. Mitt Romney and Commonwealth Development Chief Doug Foy, for example, Massachusetts has developed a "fix it first" and "context sensitive design" approach to highways. The state highway department's written a new design guidebook pledging to listen to communities and make roadways compatible with such community surroundings as classic New England downtowns, stone walls and historic districts. Vermont has had similar standards in effect since 1997.

The most remarkable change may be in New Hampshire, previously a roads-roads-roads constituency. Recalling her growing up years in the charming upcountry town of Littleton, Murray recites how she could walk to school or to Main Street. She worries New Hampshire has been losing its quality of

life through thoughtless transportation decisions. "Each community," she asserts, "should be able to shape its own future."

The town of Meredith on Lake Winnipesaukee was a case in point. Faced by congestion of two major roads converging and immense summertime traffic, the highway engineers were adamant for wider roadways and fast 24-hour "throughput." Townspeople saw their quaint town and its peaceful lake views imperiled.

To break the impasse, Murray promised a fresh start. She reached out to independent consultants including Fred Kent of the Project for Public Spaces, to talk with townspeople about alternatives. For the town's major intersection with its traffic lights, the idea of a space-saving roundabout emerged. The new concept: it's impossible to design for fast Fourth of July-volume traffic, so at least offer motorists a pleasant view, not just more asphalt.

Similar discussions produced "softer" highway plans for Keene and Littleton. But they were rejected by citizens of Berlin, a hard-hit old lumber town that values its main highway strip boxes as a sign of economic strength; the townspeople nixed a remake into a tree-lined boulevard.

No matter what outcomes, Murray and her allies want to move from pro-forms highway briefings to earnest discussions, highlighting alternatives and engaging local citizens.



Carol Murray, New Hampshire's reform minded Transportation Commissioner, engages local citizens in transportation decisions.

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

And now they're trying even more. Murray took writing of the state transportation plan for the next 25 years—combined road, rail, bus, freight, aviation and more—out of the hands of transportation officials who'd normally handle it. Instead, she entrusted the task to a Citizens Advisory Committee, co-chaired by Lew Feldstein, president of the New Hampshire Charitable Foundation, and Executive Councilor Raymond Burton. The committee was a kaleidoscope of New Hampshire opinion, from the truckers to the Society for the Protection of New Hampshire Forests, municipal officials to

business leaders, legislators to children's and housing advocates.

Last month (January), the group produced its draft report—an eye-opening document claimed to be "the first and only effort nationwide to 'put the customer in the driver's seat' of transportation planning." The central message: barring some fiscal miracle, New Hampshire will fall hundreds of millions of dollars short yearly in the money it prospectively needs—from gas taxes or federal funds—to maintain its existing roads, and rehab its alreadyaging interstates, and add all the new highways its current sprawling form of development demands. "Just building more roads isn't the answer," the committee concluded.

So what to do? The group's objective: join transpor-

tation with land use planning in an effort to reduce travel distances, tamp down new highway demand, and start considering needs of the state's non-drivers—increasing numbers of elderly, children, the handicapped, bikers and pedestrians.

A raft of ways to get there, focused on more compact development, are suggested. Among them: stop segregating land uses (residences here, shopping there, offices somewhere else); instead promote mixed use including zoning overlays to promote traditional town centers. Site schools in towns, so more children can walk or bike there (combating, simultaneously, rising rates of obesity.) Develop corridor plans, multiple towns participating, with an enhanced role for regional planning commissions that also engage citizens. Gear in programs

for energy efficiency and economic development. And demystify transportation language and information so ordinary citizens can grasp it.

The report's less innovative on finances. Though it does suggest developers pay more of access road costs. And to get rail rolling in a state that's resisted financing it, the committee endorses tax-increment financing, a device Nashua is now considering to pay for proposed train service to Lowell and Boston.

Is it certain such new, unconventional approaches will work? They do go against the grain of decades of practice. But the idea of citizen-oriented transportation planning is a fresh and reassuring breeze—and all the more fitting in the region of America that invented the town meeting.

## BROADBAND INTERNET: NEW ENGLAND'S FUTURE UP IN THE AIR

With the dawn of the 21st century, high-speed broadband Internet service is becoming just as vital—for learning and productivity, for efficient business and responsive government—as telephones proved themselves in the 20th.

But it can't happen without affordable, instant connection—wired or wireless. And New England's doing only a middling job of preparation.

There are some bright spots. The New England region actually edged out the Far West and Mid-Atlantic, and ran well ahead of most U.S. regions, in a 2004 nationwide study of how many homes already have broadband. Still, at 28 percent, the region has a long ways to go to universal coverage.

In 2005, a pioneering Rhode Island Wireless Innovation Network was launched by the non-profit Business Innovation Factory—a group of public and private sector partners bent on exploring better ways to deliver value in health care, public safety and education. The goal: to position Rhode Island as a nation-leading test bed for innovations. Rhode Island-WINS will, in fact, be America's first statewide, "border-to-border" high-speed wireless network. IBM has been contracted to be project manager.

Rhode Island-WINs isn't targeting the retail consumer market for broadband; instead it's targeting an "enterprise market" —allowing corporations' workers in the field, government inspectors, or public safety personnel, to communicate with their "headquarters" while on the go. But once the network's up and running, with the signal from WiFi (wireless fidelity) and WiMax (longer-range transmitters) blanketing Rhode Island's 2,000 square miles, it should be an easy step to contract with retail providers to add connectivity for homes and small businesses.

New Englanders need a lot more such experiments, soon. It's true the region's business sector has been aggressive in new technologies. But on the public side—governors, state legislatures, towns and cities

pushing the new frontiers of broadband access—it's lagging, reports John Palfrey, director of the Berkman Center for Internet and Society at the Harvard Law School

Why? One reason is lack of gumption among mayors and other leaders. It's now been two years since Philadelphia led the nation by moving to make all its 134 square miles the world's largest wireless hotspot, with WiFi available to all its citizens and businesses who have the ubiquitous and inexpensive WiFi receiver chip in their computers. There's now active debate about a similar effort across all of New York City's five boroughs, potentially the world's biggest deployment of municipal WiFi—reaching, as new technology permits, not just computers but new model PDAs, smartphones and cell phones.

But even as such cities as San Francisco, Chicago, Los Angeles, Nashville and Corpus Christi move ahead on imaginative broadband for the masses, New England coverage so far is spotty (wireless in Nantucket and Malden, for example, and a Burlington fiber optic project offering broadband for as little as \$10 a month.) Not a single New England city makes the list of top cities in utilizing information technology to deliver service to citizens, rated by the nationwide Center for Digital Government. Plus, if New England is to maintain its technological superiority and justify its high-cost economy, even an "OK" performance by U.S. standards won't do because the competition is global and the U.S. has sunk to 16th among world nations in broadband access per capita.

A second reason for New England's slow progress, say others: the strong regional influence of telecommunications firms like Verizon and cable firms, the "duopoly" that's fearful of free or low-cost Internet access undercutting their fees. The telco and cable operators' concerns are understandable—their broadband fees are in the \$40-60-a-month range, compared to \$20 or less monthly for most municipally-chartered broadband access. Looking down the road, it's likely that Internet, television signal

and phone service will all, in time, be available by a single broadband connection.

There can be little doubt: New England needs a spirited debate about universal, border-to-border broadband access—not whether, but how.

Why is it so vital—beyond keeping up with other cities and world regions?

First, there's knowledge and access. Internet access—especially broadband—transforms the speed and efficiency of accessing the fount of the world's news and knowledge, both for work and entertainment. From banking to buying, messaging to accessing government services to art and film and music, it's a massive step forward and now a critical tool for people and businesses that want to become and stay competitive. By contrast, old-style telephone-line access is clunky, for some functions totally obsolete.

Second, broadband is a potential lifeline for rural communities. It may, in the words of president Donald Wharton of New Hampshire's Plymouth State University, "really save northern New England from a poor future." By dissolving space, it permits New England's growing band of small enterprises to flourish—the "hidden tech" economy of writers, web-designers, e-commerce retailers, marketing specialists and others identified by western Massachusetts writer Amy Zuckerman. Broadband enables high-end cheese producers in Vermont to sell their product to European customers at \$17 a pound. With it, a translator who lives in the Berkshires can do real-time translation for distant clients. A Maine candle maker can market across the world. Or an enterprise like Al's Snowmobile, begun in an old barn and now expanded to 30 workers in a new building in isolated Derby Line, Vt., sell snowmobile parts to customers hundreds and thousands of

Broadband also permits, notes Wharton, regional state-of-the-art medicine—like a North Country

physician transmitting an x-ray instantly to the Dartmouth-Hitchcock Clinic. And it makes region-wide higher education work—for example Plymouth State's real-time classroom connections, permitting introduction of high-quality distance learning into previously isolated branches in Littleton, Berlin and Laconia.

Big city uses of broadband are just as compelling. In Philadelphia Mayor John Street saw WiFi-delivered broadband as a way to overcome low incomes and opportunities in troubled neighborhoods by helping parents be more involved in their children's schooling, and by making economical service available to struggling smaller businesses. Precisely the same reasoning could apply in New England's troubled inner cities.



Philadelphia Mayor John Street at June 2004 ceremony launching the city's first wireless neighborhood, Love Park at JFK Plaza.

COURTESY WIRELESS PHILADELPHIA

A third broad justification for broadband, says Harvard's Palfrey: to attract and retain today's "digital natives" —young people who grew up in a wired environment and now "fully expect to get all the material they're seeking, serious or amusing, through these pipes."

But there's a fourth and often overlooked plus to high-speed Internet, notes Craig Settles, author of a new book that tells the Philadelphia story: "Fighting the Good Fight for Municipal Wireless." It's the immense value that broadband can deliver to government—state or local. The significant up-front costs to building a city-wide network—in Philadelphia's case some \$10 million to \$20 million—can quite quickly be amortized by increased efficiency of the city workforce.

Philadelphia has over 2,000 employees working the streets—parking meter readers, building inspectors, social workers, fire and police officers. Using WiFi devices, paperwork time drops quickly, productivity rises sharply. Houston, Settles reports, is instituting a WiFi connected parking system and expects its smart meters to cover the entire citywide system build out in eight months.

The business model for government operations is compelling, says Settles: If government saves enough money on its day-to-day operations, it can justify deploying a WiFi network, at minimal ex-

tra cost, for its citizens. Philadelphia has planned enough transmitters to allow people outdoors to surf the Net almost anywhere in the city free; indoors they'll pay \$10 per month for low-income households, up to \$20 for others. As a big surprise last fall, the city was able to secure a solid corporate partner, Earthlink, to build and operate its net. It even persuaded Earthlink to finance the initial construction in return for anticipated revenues.

For cash-starved New England town and city governments, could one imagine a more desirable model? And, one wonders, shouldn't the state governments be doing all they can to spread the idea? In the words of Jim Putnam, CEO of Markem Industries in Keene, N.H.: "Universal broadband would be a brilliant thing for New England to embrace. Our region's national and global reputation could take a leap forward, with positive on-the-ground impacts for business and citizens alike."

But how to get there, when users have contrasting needs? Take the example of major businesses, governments, hospitals and universities, which demand high-level, very rapid, highly reliable fiber or equivalent connections for their operations. Western Massachusetts leaders, confounded by Verizon's high fees for fast rural service, came up with their own solution called "Berkshire Connect." Attorney Don Dubendorf of Williamstown made it succeed by agglomeration—persuading Williams College, Crane Paper, virtually every major user to agree to join together as a buying group. With that marketplace power, the firm Global Crossing was attracted and built an entire new fiber network for western Massachusetts, effectively end-running Verizon and saving users immediate, substantial cash. Similar networks are now being discussed in several other New England subregions.

Most of society, though, doesn't need and can't afford the gilt-edged, absolutely foolproof service big institutions demand. The technical puzzle is "the last mile" challenge—getting the broadband signals, now running along fiber and other high-speed lines, built out to individual homes and small businesses at affordable cost. A variety of technologies can be employed—DSL, electrical line Internet transmission, or satellite service. But WiFi and WiMax are more economical, offer more universal outreach.

And now there's a new telecommunications technology called "mesh networking"—a system that doesn't, like WiFi or WiMax, require central broadcast spots or relay hubs. Why? Each unit, be it in a home or office, train or motor vehicle, is both a receiver and a transmitter. The mesh formula and basic software to operate it were developed by the U.S. military so that its communications networks could survive and adapt even if some units were lost in combat. Skeptics question mesh's speed. But because so many units are operating, says Robin Chase, CEO of Meadow Networks, there's a reliability even superior to direct fiber communications—"especially important for disaster preparedness." Each end user's device can be quite inexpensive, she adds, "so there's no large infrastructure investment and no 'central' authority requiring monthly user fees."



The Cloud Alliance base station, located on a farm field in Plainfield, Vermont, began providing wireless high-speed access to the rural areas of surrounding communities in January 2006.

But how do communities make sense of competing technologies and approaches? Or decide up front what their real needs are, and whether they want broadband service run by local government or contracted out to an independent operator (like Philadelphia's choice of Earthlink)?

The ideal first step: a mayor or other top elected officials declaring broadband is a priority and mobilizing public support. Short of that, independent citizen advocacy committees for broadband sometimes form, define the needs, start gathering public support.

Smart communities will put together a business development plan based on hopes and aspirations of all interests—businesses, government departments, hospitals, universities, neighborhoods and more. The masterstroke of Wireless Philadelphia, Settles reports, was 20 focus groups of key sectors, and then two town meetings to involve still more citizens and gather feedback.

Are New England communities well suited to make universal broadband a reality? The answer should be yes. Here's a region with a high number of colleges, scattered broadly, each obliged to invest fairly heavily in Internet connections—for its internal operations, to gain status, and of course to attract today's "digital natives" to enroll in the first place. Couldn't these institutions, often the biggest local employers, reach out, building on their own broadband connections, to their communities and regions? It should be a natural connection, says telecommunications expert Thomas Bonnett—a way for colleges and communities "to extend the investment, coverage, capacity, for mutual gain."

Many towns, though, aren't in any academic orbit. And many are so small they'll have no realistic chance to reap broadband's benefits without negotiating joint agreements for broadband operations with neighboring towns. Businesses, colleges, citizens agitating for connections, should all nudge them in that direction. The cyber-age promises dramatic gains—but only with new collaborations, a truly networked New England.



HEALTH NEW ENGLAND PRIZES THE ECONOMIC JEWEL OF ITS GREATTEACHING HOSPITALS AND LABORATORIES BUT HIGH TECH MEDICINE ALONE ISN'T DELIVERING HEALTHY LIVES. RX: CONSUMERS ARMED WITH INFORMATION TO SHARE HEALTH DECISIONS WITH THEIR DOCTORS; COMPUTER-BASED SCORECARDS SHOWING WHICH HEALTH PROVIDERS PROVIDE BEST RESULTS; HEIGHTENED FOCUS ON PUBLIC HEALTH AND HEALTHY LIFESTYLES.



According to the New England Healthcare Institute (NEHI), 70 percent of health outcomes are directly connected to lifestyle and environmental decisions—yet the United States continues to invest far more than any other country on doctors, labs, tests, and dispensed medicine.

## THE CONSUMER AS CAPTAIN:

**NEW ENGLAND'S PROSPECTS FOR HEALTH** 

BY SHEER NUMBERS and fame, New England can be called America's Healthcare Capital. Its world-renowned teaching hospitals—among them Yale, Dartmouth-Hitchcock, and an astounding 16 located in and around Boston alone—are just part of a super-cluster of leading physicians and health scientists. Massachusetts is center of the today's future-oriented bioscience universe and produces a third of all FDA-approved new drugs. New England has more of its workforce engaged in health care—roughly 11 percent—than any other region of America.

But what about the results? Are New Englanders much healthier than other Americans? Do they—or their employers—find their health care more affordable? And are New England states free of spiraling Medicaid costs imperiling state budgets nationwide?

The answers: no, no and no.

Where is the disconnect? All the debate seems focused on connecting people to the medical services systems. Then it shifts to finding ways to control that system's relentless rises in cost. What's rarely debated is how to assure New Englanders better health, for more of their lives.

More spending and more treatment is not making Americans healthier. The U.S. spends more than twice as much per capita on health care as the average of 22 wealthy nations. We invest far more than any other country on doctors, labs, tests, and dispensed medicine. Yet we manage to trail similar countries in health-adjusted life expectancy. Some 100,000 of us die every year from hospital errors.

Surveys show New Englanders eat a little less and exercise a little more than average Americans—explaining their slightly better health indicators. And if they should require hospital treatment, some of America's best are located there.

Still, the region is plagued with soaring costs and mediocre results. Don Berwick, a professor at both the Harvard Medical and Public Health schools, says consistently there's so much confusion, danger, waste, and arrogance in America's healthcare system that the only way to save it is to blow it up first.

That may be an extreme view, but Dr. Berwick is not alone. The system, say such critics as Dr. John Abramson of Harvard Medical School, is failing patients—its consumers. The driving force has become financial return for medical professionals and companies that make their living off drugs and treatment. "Doing a lot of cardiac procedures brings both prestige and income," says Dr. Abramson, "while those funds are denied to more upstream solutions like good pre-natal care, or interventions to eliminate tobacco use, or increase exercise and improve diets."

There's clear evidence that the major chronic diseases of our time—heart disease, stroke, diabetes and many cancers — are largely preventable by smart diet, regular exercise, moderation in alcohol consumption and not smoking. Indeed, 70 percent of health outcomes are directly connected to lifestyle and environmental decisions, says the highly respected New England Healthcare Institute (NEHI). Add in the right use of primary care, early intervention and aggressive public health programs, and we'd no longer end up—as Dr. Jim Squires of the New Hampshire-based Endowment for Health notes—"with about a third of the population suffering from a chronic illness that's not fixable."

Today, NEHI's CEO Wendy Everett candidly told us, upwards of 90 percent of all the healthcare dollars go to expensive hospital diagnosis, treatment, and surgical procedures—not prevention and public health.

What's the effect of all that spending? Better health outcomes? Not according to data painstakingly compiled by Dartmouth Medical School professors Jack Wennberg and Elliott Fisher. Their long study of the medical treatment of senior citizens all over the U.S. shows that the more expensive and extensive care often turns out to be worse care.

Why is that?

The system is built on perverse economics. Explains Everett, "We rarely pay people to pay attention to managing our illness; so who's supposed to check to see that you're using that home monitor to regulate your insulin levels?" But Everett notes somebody will get paid if a toe or leg has to be amputated. "The trouble is that the economic benefits of real health-improving innovations don't get distributed in a way that creates incentives for change." No one's paid to talk you out of smoking; but money is reserved for heroic efforts to stem the eventual lung cancer with chemotherapy and radiation.

Doctors doing basic care are also paid substantially less than specialists who provide the most expensive procedures. One result: a chronic shortage of primary care physicians, the "family docs" who may tap specialists from time to time but maintain a long-term understanding of their patients, providing the indispensable "human touch." Today, the American College of Physicians warns, the number of primary care physicians is plummeting under pressures of schedules, insurers and less income than the specialists can command. And there's a parallel, serious shortage of practitioner nurses — medical care professionals able to handle many cases, at substantially lower cost than physicians.

So powerful is the money in today's system that a large number of community hospitals that produce quality service at lower costs are dissolving into large hospital firms or disappearing altogether. In many cases, a patient needing medical attention

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would get safer and more effective treatment at one of these smaller facilities, but how would any patient know?

Comparisons between hospitals and their quality of care are starting to show up on the Internet (example: www.healthgrades.com), but most of the data is still largely protected from public view or just plain too bewildering to understand. And when sick or injured, who's in the mood for slow contemplation of hospital outcomes data?

Meanwhile, the entire system soaks in commercial incentives and misleading commercials for drugs, claims Abramson. "We talk about giving patients good information. I question whether most doctors have good information." Author of Overdo\$ed America, Abramson's convinced that financial incentives have seriously compromised medical education and practice guidelines—even the independence of the Food and Drug Administration. Notice, he says, that MRI tests are now advertised during telecast football games.

If there's any consensus on changes to be made to the system, it's that good, solid, reliable information is the foundation to build on. Pressure is on to computerize all individual medical records and while keeping them private, make them portable. And to use information technology to catalog tests and treatments that actually perform best—something called "evidence-based medicine," a particularly powerful tool if both medical professionals and patients are kept in the information loop.

To get everyone in the loop, the Rhode Island Quality Institute is linking all the healthcare providers, insurers and governments together around providing and coordinating the spread and use of better information. What might this effort mean? We could avoid "the needless repetition of tests...and get to a system all the doctors and clinics and hospitals can access," says Dr. Pablo Rodriguez, associate chief of obstetrics and gynecology at Women and Infants Hospital in Providence. This winter, Rhode Island's Gov. Don Carcieri weighed in with his support by investing \$20 million to accelerate the information system, believing it will, among other things, reduce costs.

Using information to improve quality is also on the agenda of every major New England health plan. Charles Baker, CEO of Harvard Pilgrim Health Care, told us: "The demand for better performance will have enormous impact on a medical guild that hasn't focused in a systemic way on differences in health outcomes. The genie is out of the bottle now. It just needs to be better fed."

How could New England feed this genie?

First, a fierce focus on changing the system's backwards incentives. There must be ruthless calculation of which procedures actually pay off in better health. One or more health plans could lead—reengineering their award systems to compensate only medically proven best practice choices, ones with a track record of actually improving patients' health.

TOF		Health Care Work of Total Workforce
Rank	State	Percenta

Rank	State	Percentage of Workforce
1	Rhode Island	12.55%
2	Maine	12.25%
3	Pennsylvania	12.04%
4	North Dakota	11.80%
5	West Virginia	11.72%
6	Massachusetts	11.64%
7	South Dakota	11.31%
8	Connectictut	11.15%
9	Vermont	10.88%
10	New York	10.64%
23	New Hampshire	9.08%

ers as a

Would that kind of reform be difficult? Yes! In a medical system encrusted with familiar approaches, encumbered with lofty egos, it would be much more difficult than rocket science. But if innovation, leading, are what New England's all about, there's never been a greater need.

To improve access to healthcare, Providence's Rodriguez suggests New England states could work together to clear paperwork and create cross-state licensure for medical professionals. Why not also add in inducements to encourage more physicians and nurses into the dwindling primary care practice?

If federal Medicare and Medicaid waivers are warranted, it's time to use the collective clout of the region's 12 U.S. Senators and House delegation. New Hampshire's Sen. Judd Gregg chairs the Senate Budget Committee. Rep. Nancy Johnson of Connecticut is the lead Republican chair on health care policy for the Ways and Means committee.

Governors should turn crisis into opportunity and seek federal government waivers to mix Medicaid funds with their own programs in order to cover people caught in the gap between employer-based insurance and Medicaid. New England would have the money to work on raising quality care while slowing down cost increases, expanding coverage and investing in community-based health programs that pay off in a healthier population. A new emphasis on primary care could be part of the mix. Let New England prove Americans can be both patients and consumers if treated with dignity and shown honest information about the likely consequences of various treatments. And that the region has the courage to lead the nation in critical reform.

Taking these steps require states to collaborate to get to scale that matters, and to line up political support. And it will require the kind of passion that former Maine legislator Sharon Treat has shown in taking her campaign for affordable prescription drugs national.

The alternative: watching the slow-motion reel of an inevitable train wreck. Health care imperils everyone's budget. Employers that can are ducking out from providing medical coverage. And, as Theresa Alberghini DiPalma of Vermont's Fletcher Allen Health Care Center puts it, "Medicaid is on a course to swallow the rest of state government." The

system is simply not sustainable.

Medical system changes, however, won't achieve much unless accompanied by a major shift in personal lifestyles. Arkansas' Gov. Mike Huckabee found that out when he shed 110 pounds after being told he had type II diabetes and would probably be dead in a decade. Huckabee launched a campaign for a healthier Arkansas, including school tests so all parents know about their children's body mass, curbing sugar-laden drinks in schools, and food stamps accorded more value when they're used to buy fruits and vegetables.

While each of the New England states may have some elements of an Arkansas-like plan in place, couldn't the states together do it even better? Imagine a coalition of its distinguished public health departments, hospitals, universities, businesses, sports leaders and the region's media—united in defining agendas for better health, demanding more rigorous exercise and nutrition standards in schools, pushing for walkable environments, crusading against smoking and substance abuse, and helping low-income immigrant workers in hospitals and other service industries make a successful transition away from fast-food, fat-heavy, high-temptation America.

And why stop there? Earlier articles in this New England Futures series might have also been labeled as "health" stories. When we extolled the New England town with its walkable centers and neighborhood sidewalks, we were showcasing the region's legacy assets for a healthier way of living. When we argued for a diverse energy strategy, and a transportation network that could result in a lower dose of petro-particulates in the air New Englanders breathe. And we've suggested that locally grown, natural foods—in strong demand by students at Yale and other universities across the region—are a path to a healthier diet and economy.

It's time to connect those dots. And maybe it's time to resurrect the ethos of the sturdy New Englanders of past times, who weathered raging blizzards, storms at sea, thin soils and the challenge of farming on rocky hillsides. People trim, creative, resilient, triumphant. Captains of their own health. Why not again?



Griffin Hospital, in Derby, CT, has received national recognition and acclaim for creating a facility and approach to patient care that is responsive to the needs of patients. GRIFFIN HOSPITAL

### THE PATIENT AS PARTNER

No one welcomes serious illness or injury, but when it happens, you'd be fortunate to be close to Griffin Hospital, set in a middle-class neighborhood of Derby, Conn., just 12 miles west of New Haven. Walk in the door and you meet culture shock—not the familiar white plaster and steel sheathing of Medical America, but warm wood colors and carpeted floors. Quickly it's clear the difference isn't just cosmetic. This 160-bed community hospital focuses on a healing strategy made possible by medical professionals sharing responsibility with patients.

Most hospitals are designed around the presumed professional preferences of the doctors and nurses who do the work. Not Griffin. It's a welcoming place, tastefully lit, with an open library full of medical information, and rooms that feel more like bedrooms than hospital wards. Scary medical equipment is confined to back corridors. Those large nursing station fortresses are dissolved into desks distributed so every patient sees a nurse through the door.

Visiting hours are 24/7. Even the family dog's welcome, if that lifts the spirits of the sick. There are overnight rooms for family and close friends that the Ritz-Carlton would be proud of; sleeper sofas added to lounges, and small kitchens where a family can cook a dinner.

All that is different enough. But here's the transformative turn that Griffin made in the road. Bill Powanda, vice president of the hospital and a former state senator, defines it as trust and responsibility. He enthusiastically describes how patients

respond when their medical charts are written in plain English and kept within eyesight.

This kind of institutional behavior turns conventional medical practice on its head. Haven't we heard for generations—doctors know best?

Well, sometimes, but not always and not alone. In many cases, doctors make decisions about procedures or medications knowing less about the odds of success than major college football coaches know about the likely outcome of any play they run. The Griffin practice, by contrast, is to check first for proven best practices, applied for suitability with any given patient. There are small conference settings spread around the halls, where it's typical to see several doctors and nurses conferring on a case -- and as often as possible with the patient. The hospital provides patients and families with choices of different diagnostic tests, complete with the odds of getting a correct diagnosis and of experiencing bad side-effects.

This open, shared system works, says hospital CEO Patrick Charmel, adding: "We get very high ratings from patients. Our costs are lower because we don't do unnecessary tests and treatments, we don't make as many errors, so our malpractice insurance doesn't cost as much."

The Griffin formula of collaborating rather than dictating, and putting the patient's experience first, is not every physician's preference. "Some docs left us," admits Powanda. But the staff is enthusiastically signed on; in fact, Fortune magazine has listed Griffin as one of the "100 Best Compa-

nies to Work for in America" for six years running, with a ranking of fourth in 2006. HealthGrades, the leading independent healthcare rating company, this year named Griffin in the top 5 percent of hospitals nationally for clinical excellence.

The Griffin way is spreading through a national Planetree Alliance of like-minded patient-centered hospitals that Griffin leads. Others in New England include Berkshire Medical Center (Pittsfield), Martha's Vineyard (Oak Bluff, Mass.), Stamford (Connecticut) Hospital, Copley (Morrisville, Vt.), and the Bishop Wicke Health Center (Shelton, Connecticut).

Interestingly, none of New England's famed big medical hospitals, known for their highly specialized faculties, have yet joined the alliance (though New York's prestigious Presbyterian Hospital has). The omission is worrisome, since the Griffin/Planetree model could be part of the path to a better health care system. Like famed institutions, Planetree hospitals seek to respond and operate on proven best medical practices, and they're on board with recent years' push to avoid errors by creating, storing and then being able to access accurate, extensive electronic records on each patient. But they go the critical step further to involve patients early and consistently in decisions about their treatment options.

That's not to say top-drawer institutions aren't making some parallel moves. Take Dartmouth-Hitchcock. There, a patient with a back problem watches a 45-minute video in the Center for

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Shared Decision-Making. Often for the first time, he or she sees the significant odds that surgery is not likely to be more effective than a combination of physical therapy and medications. Decisions

CONTINUED ON PAGE 4 > > > > > > > >

against surgery are then 30 percent higher than in traditional consultations with a physician. With spinal surgery costs ranging upwards of \$70,000, the potential savings are immense.

Choosing surgery might be profitable for the medical center, but Dartmouth-Hitchcock sees value in changing the relationship between doctors and patients. One has to wonder: Couldn't this become the New England norm, not the exception?



The Healthy City Fall River initiative engages local citizens in healthy activity designed to improve the quality of life in the city. DAVID WEED, FALL RIVER HEALTHY CITY COORDINATOR

## BETTER HEALTH - FROM THE GRASSROOTS UP?

Can better health for New Englanders bubble up from the grassroots, community levels-- rather than from organized medicine?

Check with David Weed, the psychologist who helped to spark creation of Partners for a Healthy Community in Fall River, Mass., and that's precisely the conclusion you reach.

Fall River's need is crystal clear. Once a prospering "needle trade" city, it suffered a body blow from flight of textiles to the South. Present-day Fall River is still plagued by high unemployment, high poverty, a negative self-image, and Massachusetts's third highest heart attack rate, third highest asthma rate and high and rising levels of obesity and diabetes.

But Weed and his allies perceived other potentials—volunteer interest, a great place to raise a family, and a passion for kids doing sports—not just watching. From the mid-'90s on they asked city government to start a "healthy city" organization, akin to movements sprouting in cities across the U.S. In 2003, on the occasion of Fall River's 200th anniversary, Mayor Edward Lambert agreed and Fall River's Partners for a Healthy City Fall River was launched.

Today, Fall River is the poster child of healthy community efforts supported by Massachusetts' Department of Public Health. To start, over 1,000 residents participated in visioning sessions to select Fall Rivers' top goals—safety and reducing

substance abuse, the environment, recreation and health education topping the list. So far some 98 supporting activities have been identified, many helped by \$500 "micro-grants" to get neighborhood initiatives rolling.

The main focus, says Weed, isn't on such targeted health activities as blood pressure screening or smoking cessation. Instead, it's to connect to and expand Fall River's often unheralded asset base. Under the media radar, the Police Athletic League was running a floor hockey league with several hundred children, boys and girls, ages 6 to 16, involved four nights a week and Saturdays in vigorous physical activity. Healthy Communities celebrated that effort. When the local diabetes association wanted

to get adults into more physical activity, Healthy Communities supported a popular ballroom dancing teaching effort.

Coalitions and partnerships are the name of the game, says Weed: "Other than drug dealers and fast food restaurants, there's practically no organization we aren't open to working with."

One major target: getting local high schools to think beyond team sports to focus on life-long health practices for all students, including a cardiovascular assessment of all sophomores with recommendations on how to improve their numbers. Team sports obsession is dangerous, says Weed: "You can easily end up with a few dozen players working out hard while 90 percent of kids pork up on soda while watching the games."

A quick glance across New England reveals a variety of standout healthy community programs. Vermont's five-year-old Champlain Initiative is pledged to "bend" back such unhealthy trends as disturbing local levels of obesity, poor nutrition and eating habits and sedentary lifestyles—critical factors in high local levels of diabetes and heart disease. The Franklin Community Health Network, in one of Maine's most depressed rural counties, has focused hard on anti-smoking efforts (especially among young mothers and families) and now can claim Maine's lowest smoking rate.

Connecticut reports strong initiatives in such communities as New London, Meriden, Bridgeport, New Haven and Danbury. "Healthy Valley 2000," a program coordinated by Griffin Hospital to enhance health across the six-town Naugatuck Valley, led to the valley winning one of the ten highly-coveted All-America City awards from the National Civic League in 2000.

New Hampshire's Foundation for Healthy Communities has initiated a "Walk NH" program to encourage kids 6 to 12 to walk the equivalent of the state's length (190 miles) or width (70 miles) as a way to get in shape for life, an antidote to the sedentary pastimes of TV, video games or Internet surfing. Rhode Island has an Initiative for Healthy Eating and Active Living designed to cut back sharply on the 56 percent of Rhode Islanders reported overweight or obese.

Across the region, interest in farmers' markets and locally grown fresh foods is mounting. Former Massachusetts Agriculture Secretary Gus Schumacher spots a promising trend in new prepaid contracts between local farmers and schools, universities, hospitals, government cafeterias and restaurants - a way to deliver economic security to imperiled small producers.

Healthy communities initiatives across the country embrace all these trends—exercise, healthier foods, civic activity, and replanning towns and regions for



Fall River Kids at the Whitefield School walked one mile as part of New Hampshire's Foundation for Healthy Communities "Walk NH" initiative, COURTESY FOUNDATION FOR HEALTHY COMMUNITIES

enhanced walking opportunities. Rare is the New England community in which at least one effort isn't underway.

But is it all enough? David Weed worries not: "Too many of us still don't have a good conception of what good prevention is all about. We look toward the experts to 'fix' things. We're good at 'fixes.' But so good the health system is costing 14 percent of our gross national product. The trends are killing us—financially, and literally."

The answer? Partly, Weed agrees, it's better personal health decisions. But without civic involvement, building on community assets, he suggests, we'll never succeed.



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