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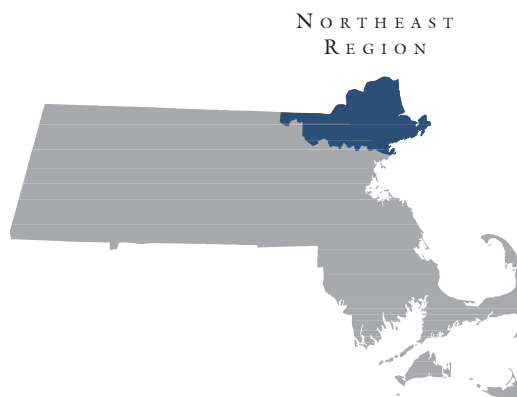


ILLUSTRATION: NAOMI SHEA

Surviving the Slide in the Northeast Region

ROBERT FORRANT

A year ago, this would have been an upbeat article, albeit tempered by increasing traffic congestion, staggering housing costs, and the difficulty of finding skilled employees. Today, a strong indicator of corporate confidence stagnates, as new orders for industrial machinery, computer chip making equipment, fiberoptic cable, and telecommunications equipment continue to decline. We are seeing a manufacturing slump. A manufacturing slump, historically, foreshadows a protracted slowdown.



The Decline of an Important Growth Engine

Business activity in the Northeast region was a powerful engine for the Commonwealth's spectacular economic growth in the 1990s. Recently, however, layoffs have escalated among the region's dominant employers. (See Endnotes, pages 24–25.) The slump may well put the brakes on statewide growth and shrink revenues in the state coffers. Now, as the engine sputters, we must take heed.

Much of the manufacturing-related business activity has been concentrated along the Route 495 corridor and at the intersections of Route 495 with the Massachusetts Turnpike, Route 93, and Route 95.¹

High-tech manufacturing is important for workers, considering that wages paid often exceed the state's average wage of \$44,289. Electronic equipment pays in excess of 151 percent of the Massachusetts average wage, industrial machinery 174 percent, fabricated metals 108 percent, and instruments 164 percent.

Comparing Essex and Middlesex counties and the rest of the state, we see a wide variation in average salaries paid in the four sectors, as well as the variation in average wages between the state and the two counties.

Where manufacturing remains important—most particularly in the categories analyzed here—output per worker has grown significantly, and much of what is produced is for export out of the state and out of the country.

For most of the 1990s, industrial machinery and electronic equipment ranked first and second in the state for total dollar value of exports. But as the Massachusetts Technology Collaborative (MTC) recently reported, while Massachusetts manufacturing exports increased close to 40 percent between 1991 and 2000, this integration into the global economy carries increased vulnerability to international market fluctuations.² Global stagnation can take its toll on the region.

The growth euphoria of the first Massachusetts Miracle made it difficult to conjure the distress felt by blue-collar families, as 25 percent of the state's durable goods manufacturing disappeared between 1985 and 1992. Over the period, the Digital Equipment Corporation workforce fell from 33,000 to 12,000, Raytheon's local employment dropped to 16,700 from 30,000, and Wang Laboratories skidded from 8,800 employees to 1,350. Symbolic of the decline was the 1992 sale of the Wang Towers in Lowell for \$500,000. It was a building complex that had cost \$23 million to construct during the golden days.³

Two years ago, MTC voiced concern over the rapid escalation of the new economy. Some of their concerns were borne out in the Commonwealth's shortfall of high-tech workers. Still, stories of layoffs and retrenchment abound, as the engines of Miracle II sputter and thousands of high-paying jobs are eliminated.

Northeast Region's Share of MA Employment in Key Manufacturing Sectors

Category	MA	Northeast Region	Northeast Share (percent)
Fabricated Metal	34,374	5,578	16.2
Industrial Machinery	62,675	24,164	38.5
Electronic Equipment	64,635	30,751	47.5
Instruments	49,908	16,785	33.6
Total	211,592	77,278	36.5

Source: Division of Employment and Training, Employment and Wages (ES-202), 3rd Quarter 2000

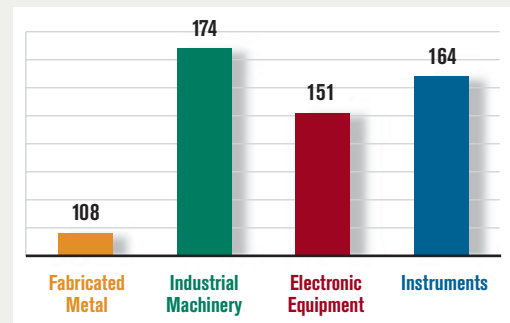
Regional Shares of MA Employment in Key Manufacturing Sectors

Category	MA	Northeast	Boston Metro	Central	Southeast	West*
Fabricated Metal	34,374	16	27	23	13	21
Industrial Machinery	62,675	39	12	33	7	11
Electronic Equipment	64,635	48	19	14	16	2
Instruments	49,908	34	39	11	13	3
Total	211,592	37	23	20	12	8

*Aggregation of Pioneer Valley and Berkshire Regions

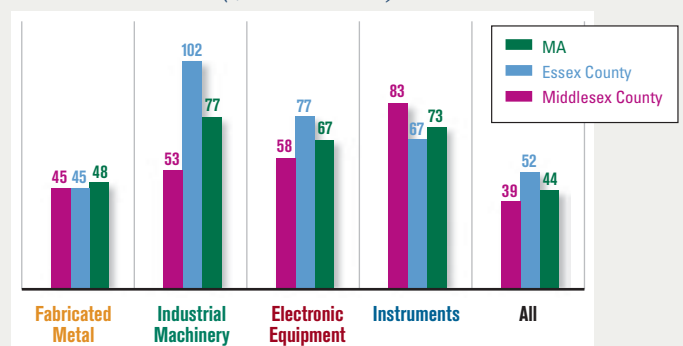
Source: Division of Employment and Training, Employment and Wages (ES-202), 3rd Quarter 2000

Average Wage by Sector as Percentage of Average Wages in All Sectors



Source: Division of Employment and Training, ES-202, 2000 Quarterly Data

Average Wage by Sector (\$ Thousands)



Source: Division of Employment and Training, ES-202, 2000 Quarterly Data

Why Worry? It's Only Manufacturing.

Five good reasons to be concerned about what happens to the Commonwealth's manufacturing sector:

1. *A drop in orders will lead to a drop in export dollars.* The high-tech manufacturing slowdown in the Northeast region, the state's most intense concentration of such activity, portends a decline in export dollars.*
2. *The overall job market will dwindle.* Hiring has already slowed for a host of high-paying jobs related to high-tech manufacturing, including software development, new product design, precision metalworking, and marketing.
3. *The loss of jobs will affect the white-hot housing market.* What will happen when thousands of workers with outsized mortgages find themselves out of jobs? The real estate market might begin to resemble the stock market.
4. *Investing won't be what it used to be.* A good deal of growth in the financial services sector was generated by increases in such things as mutual funds purchases. These have slowed, as many dot-coms have ceased operations and others have curtailed end-of-year bonuses, causing large amounts of discretionary income to disappear.
5. *Belt-tightening will filter down through all levels.* Hundreds of retail and service companies (day care, lawn care, restaurants, take-out food, upscale car dealerships, Web design firms, home remodeling, etc.) will feel the pain when their customers' disposable income dissolves.

In other words, the tsunami of manufacturing-related job loss will soon be felt across the Commonwealth.

* For a discussion of employment and wages in Massachusetts export industries, see Robert Farrant, Philip Moss, Chris Tilly, "Knowledge Sector Powerhouse: Reshaping Massachusetts Industry and Employment During the 1980s and 1990s," University of Massachusetts Donahue Institute, 2001.

the bottom 40 percent of families has not grown since 1993. At the same time, child poverty rates and the need for emergency housing and food services have increased.⁵

To learn more about how the region is coping, representatives of regional development organizations, UMass Lowell, and the AFL-CIO were asked to comment on the

In spring 2001, the New England Economic Project (NEEP) reported that New England's economy was experiencing a sharp deceleration. The six-state output was expected to grow 2.2 percent in 2001, down from 2000's growth of nearly 8 percent. Media headlines have crackled with bad karma: "Stocks Fall on Warnings by Key Technology Companies," "Earnings, Job Data Pull Down Markets," "Downsizing Cuts Deep into US Workforce," "Fearful Investors Punish Nasdaq," "Tech Manufacturing Squeeze Hits Home."⁴

There have been announced layoffs, curtailed construction projects, and missed earnings targets among the Commonwealth's showcase corporations, including 3Com, Cisco Systems, Compaq, Corning, EMC, Lucent, Polaroid, Teradyne, and Terra Lycos. Job cuts and plant closings will cause ripple-effect layoffs across these companies' supplier

Manufacturing Employment in Massachusetts



Source: Division of Employment and Training, Current Employment Statistics (CES 790)

base. Retail stores (Bradlees, Montgomery Ward, Ann & Hope, Sears, Roebuck and Co.) have announced closings, while in July there were reports that Cape Cod had higher-than-expected vacancy rates and falling retail and restaurant spending. The shrinking economy is even evident to those on the roads: navigation of the Massachusetts Turnpike/Route 495 interchange has become a lot less hectic in recent months.

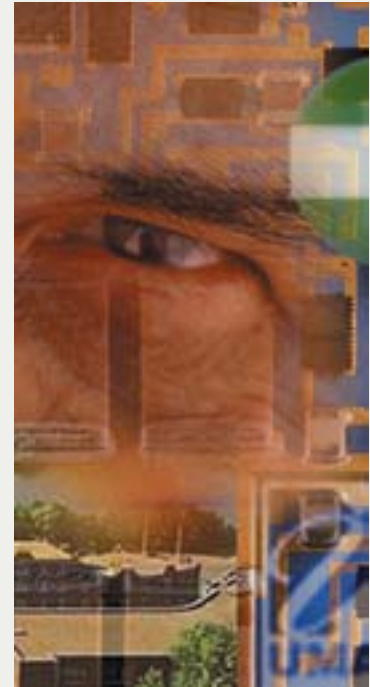
Manufacturing employment in Massachusetts fell by 2.6 percent from December 2000 (437,300) to June 2001 (426,000) as compared with the small fluctuations seen in the previous two years.

What Are the Signs of Resilience?

Are we better prepared now to resolve the problems associated with the volatile economy than we were at the demise of Miracle I? Despite the general euphoria, many families did not benefit from the 1990s boom. Average income for

In the Northeast region, cooperation across city and town lines is on the upswing.

- The Merrimack Valley Development Corporation, a nonprofit subsidiary of the Merrimack Valley Planning Commission, operates a revolving loan fund to provide financing to companies that have a hard time securing loans from conventional sources.
- The Merrimack Valley Planning Commission operated an aquaculture project to work with soft-shell clam fishermen and several seacoast towns, funded in part by the Essex County Community Foundation.
- The Merrimack Valley Economic Development Council, incorporated in 1999, focuses on regional issues, including expansion of regional workforce development, brownfields revitalization, and transportation.
- The Merrimack Valley Project (a coalition of faith-based groups, organized labor, and environmentalists) is doing advocacy work on housing, workforce, and education issues in the Lawrence-Haverhill area.



region's problems and what strengths we have with which to confront them.⁶ What strategies might combat the slowdown?

Merrimack Valley Economic Development Council's David Tibbets sees a problem in the region's historic over-reliance on a small number of major employers. Massachusetts AFL-CIO's Tony Dunn explains that the region's large employers have traditionally guided educational, economic, and civic resources. Now, he adds, as these types of companies parcel themselves into smaller outposts in our communities and take away the long-term, better-paying jobs that have sustained us, they leave a void. Thus, community-based organizations, start-up businesses, grassroots coalitions, broad-based development agencies, labor unions, and higher education will play an increasingly important role in long-term regional development.

Collaborations are on the rise. Nancy Dellamattera of the UMass Lowell Labor Extension Program indicated that one challenge in the region is for cities and towns to let go of their "feudom" mentality and communicate across city lines, especially to resolve transportation and education issues. She also noted that more labor groups and community organizations need to be included when regional issues are discussed.

Skill-base improvements are taking hold. Labor unions and faith-based organizations, such as the Essex County Community Organization and the Merrimack Valley Project, are involved in workforce education and training efforts to boost the skill base and keep the region attractive to employers. The skilled workforce is supported by a high concentration of excellent technical high schools and educational institutions—including Middlesex Community College, Northern Essex Community College, Merrimack College, and UMass Lowell. This provides a substantial boost to the region, as it helps retain jobs, attract new investments, and boost start-ups. It is tempered by concerns, however. What will happen to students who do not pass the MCAS tests? The dropout rate in many of the region's high schools remains extremely high. UMass Lowell's Linda Silka noted that welfare-to-work programs were implemented in a relatively good economy and asks, "What happens now that moms have used up their few years of welfare eligibility and a weakened economy offers fewer entry-level jobs?"

Brownfields are revitalized, and old mills get reused. Andover, Beverly, Haverhill, Lawrence, Lowell, Newburyport, and other cities in the region have turned aban-

doned mill sites and defunct malls into high-tech manufacturing start-ups, software companies, design studios, university laboratory and office space, restaurants, and retail space. Silka observed that much of the recent growth in the region has happened on so-called greenfield sites, and that for many communities such buildable space is nearly gone. Thus, a regional strategy to reclaim old mill space will be essential, especially if many older cities in the region are to succeed.

There are numerous efforts under way across the region to make this happen. The Merrimack Valley Economic Development Council's (MVEDC) 2000 annual report describes three such projects. One is in a former flax mill in Andover, another in the Kunhardt Mill in Lawrence, and the third in a contaminated factory site in North Andover.

Today, the Kunhardt Mill is home to a successful women's clothing manufacturer, and office space is used by MVEDC. The City of Lawrence and site developers extended their Economic Target Area designation to the North Andover mill site so that the Sweetheart Cup Company could receive the investment tax credits necessary to clean up the mill for manufacturing. Lawrence received a commitment that 35 percent of new jobs will be filled by city residents in a long-term plan that envisions the company employing 500 people. If not for the innovative partnership, Sweetheart would most likely have ceased operations in Massachusetts.

Immigrants "anchor" communities. For the AFL-CIO's Tony Dunn, the influx of immigrants and the mixture of different cultures in union halls, educational halls, and workplaces adds value to the sum of the skills and opinions in the region. In Lowell alone, there are more than 300 businesses owned by people from at least 22 different countries, serving the consumer needs of their communities and filling needs in the broader local service sector. According to Silka, immigrants are adding important entrepreneurial skills; the hundreds of businesses they have initiated revitalize neighborhoods and act as an anchor for ethnic neighborhoods. In addition, immi-

grant workers are concentrated in skilled and semiskilled production in the state's manufacturing industries that provide a major share of the state's exports.⁷

Housing: An Obstacle to Growth and Rising Living Standards

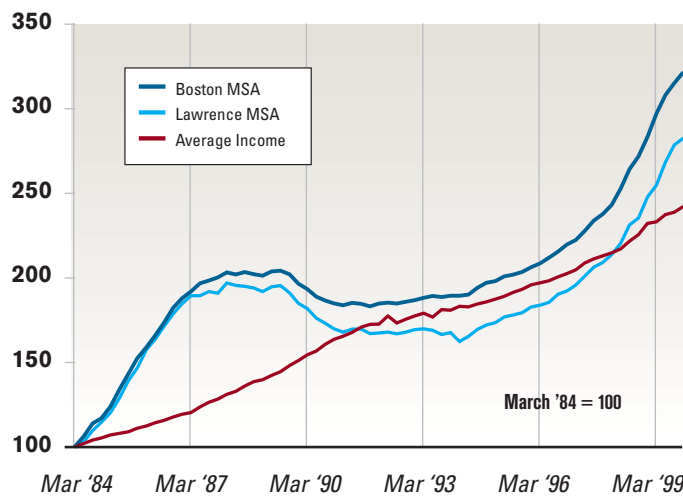
According to Dunn, there is a growing gap between high-paying and low-paying jobs within any workplace. For many workers employed in the service sector or in part-time jobs, wages simply have not kept pace with the purchase prices of homes or rents on three- and four-bedroom apartments. The housing crisis is increasing and spreading faster than is the political will to publicly address it, says Dunn. UMass Lowell College of Management Dean Kathryn Verreault reports difficulty hiring faculty from outside the region, due to high housing prices.

Silka added that her center has been doing a detailed study of the housing issue in the Merrimack Valley. The consensus is that the area has too few units, the units that do exist are too expensive, and the problem will only worsen over time because new units are not being created quickly enough. In June 2001 there was a 1 percent vacancy rate in Lowell apartments. Housing prices have gone up faster than incomes, and there is a shortage of rental units, placing a roadblock in front of

long-term community development. It is estimated that the demand for rental housing in greater Lowell will exceed the supply by more than 2,000 units in 2004, and affordable units are disappearing at an alarming rate.

In its May 2001 strategy report, the Merrimack Valley Planning Commission linked two important issues—brownfield development and housing—by suggesting: "Consideration should be given to potential residential reuses of some mill buildings in order to provide housing for employees and to enliven the districts at night." Those concerned with housing agree that the shortage cannot be resolved by an individual city or town. Therefore, the level of collaboration to develop jobs must be vigorously applied to defuse the ticking time bomb that could blow up the re-

Trend in House Prices and Average Income



Sources: Fannie Mae and Freddie Mac, U.S. Bureau of Economic Analysis, Massachusetts Division of Employment and Training, and author's calculations

gional economy. Community-based organizations, labor unions, local and regional community development corporations, immigrant organizations, and faith-based organizations must come to the table together if the housing crisis is to be resolved.

Reason for Hope

Today in the Northeast there is a concentration of innovative high-tech firms supported by a diverse group of locally owned companies and a host of agencies and organizations. All of these are concerned with job training, immigrant business assistance, and affordable housing, supported by a range of higher-education institutions committed to the region. A shared perspective on what it takes to create an equitable and sustainable economy is beginning to take shape; many organizations have realized it makes no sense to roll their own heavy rock uphill.

This integration represents the best hope for the regional economy, since it can help to move the Northeast away from a reliance on a handful of dominant employers, focus attention on important environmental concerns, establish broad-based coalitions to resolve the housing crisis, and create a widespread awareness of the important role that immigrant populations play in the social and economic life of the region. These positive efforts—a virtuous cycle of improvement—are critical to the establishment of a high quality of life throughout the region. ▮

1 See John Mello, “Tech jobs abound, but hiring is slowing,” *Boston Globe*, July 15, 2001, H1; Sarah Kuhn, “Interstate 495 West: The Challenges of Change in an Information Technology Corridor,” *Massachusetts Benchmarks*, fall 2000, pp. 18–22; Massachusetts Division of Employment and Training, “High Technology in Massachusetts: The Industries, The Workforce,” Boston, MA, 2001.

2 See Robert Forrant, Philip Moss, Chris Tilly, “Knowledge Sector Powerhouse: Reshaping Massachusetts Industry and Employment During the 1980s and 1990s,” University of Massachusetts Donahue Institute, 2001; Massachusetts Technology Collaborative, *Index of the Massachusetts Innovation Economy*, Westborough, MA, 2000.

3 See Robert Forrant and Michael Best, “Innovation, the University of Massachusetts Lowell, and the Sustainable Regional Development Process,” in R. Forrant, J. Pyle, W. Lazonick, and C. Levenstein, eds., *Approaches to Sustainable Development: The Public University in the Regional Economy*, University of Massachusetts Press, 2001.

4 See Michael Brick, “Stocks Fall on Warnings by Key Technology Companies,” *New York Times*, July 7, 2001, B1; Isaac Baker, “Earnings, job data pull down markets,” *Boston Globe*, July 7, 2001, C1; Diane E. Lewis, “Downsizing cuts deep into US workforce,” *Boston Globe*, July 6, 2001, E2; Jeffrey Krasner, “Fearful investors punish Nasdaq,” *Boston Globe*, June 19, 2001, D1; Kimberly Blanton, “Tech manufacturing squeeze hits home,” *Boston Globe*, May 8, 2001, E1.

5 See Randy Albelda, Donna Haig Friedman, Elaine Werby, “Still struggling to survive,” *Boston Globe*, July 6, 2001, A23; Kimberly Blanton, “In N.E., boom and less thunder,” *Boston Globe*, June 19, 2001, D1.

6 This was not a scientific sampling of activities in the region. Instead, it was an effort to explore the thinking and the range of activities of several

agencies and organizations close to the ground of the local economy and the region’s residents. Such a series of discussions is an important supplement to the numbers reported on in *Benchmarks*, which may lag many months behind events and may not put a “face” on the trends being discussed.

7 See Andrew Sum and Neil Fogg, *The Changing Workforce: Immigrants and the New Economy in Massachusetts*, Boston, The Massachusetts Institute for a New Commonwealth, 1999. Lawrence has the highest percentage (60 percent) of Hispanic residents in Massachusetts, and Lowell the highest percentage (17 percent) of Asian residents (Merrimack Valley Economic Development Council, “U.S. Census Reveals Growth, Change as Valley Heads into New Century,” May–June, 2001). For an analysis of immigrant-owned enterprises in Lowell, see Linda Silka and Robert Forrant, “Moving Toward Equity and Economic Empowerment: Some Observations on Immigrant and Ethnic Enterprises in Lowell, Massachusetts,” University of Massachusetts Lowell Department of Regional Economic and Social Development, unpublished paper, March 1999.

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