

Out of Order

With Lucent's North Andover plant on hold, the Merrimack Valley begins to adjust

By DAVID J. WALLACE

The tale has all the hallmarks of a modern-day mill closing. A large manufacturing company tries to cut costs by selling off one of its biggest plants. Longtime employees--some of them children or grandchildren of workers at the same factory--suffer the loss of high-wage jobs and wait, almost certainly in vain, to be asked back. And a community contemplates a future without its most prominent employer and taxpayer.

The story may sound timeworn, but when it comes to the mammoth Lucent Technologies manufacturing plant in North Andover, it's as contemporary as the Internet. The Merrimack Valley facility has produced some of the most advanced high-tech gear of its day, including optical switches that use arrays of tiny mirrors to replace the copper wiring that has transmitted voice and data for more than a century. An Internet router produced here--one of the plant's many success stories--is 16 times faster than electronic switches, using two sets of 256 microscopic mirrors to route billions of e-mail messages every second.

For decades, workers in North Andover assembled these products, tested them, moved them around the cavernous building, and shipped them to customers--first to other units within what was then the Bell Telephone System, now to a range of telecommunications companies worldwide. But just as direct-dial phones left switchboard operators behind, changes in technology have made it possible for fewer people to build ever more powerful equipment. The factory, built to accommodate more than 10,000 workers, now contains fewer than 3,000.

For those who remain, the future is more uncertain than ever. Since the middle of last year, Lucent has been trying to unload the North Andover facility, preferably to a "contract manufacturer"--a company that would make products for Lucent, but not exclusively. Though Lucent had given initial indications it was looking to strike a deal for the plant before the year was out, none had been announced by late December. The plant will continue to operate in its diminished state until a taker is found--or, perhaps, until the company gives up the North Andover ghost, moves its remaining operations elsewhere, and sells off the plant and buildings.

In the past, Lucent workers have accepted the cyclical binge and purge of workers as an occupational hazard. But this round is more permanent. Many employees with 20 or 30 years of seniority have taken the offers of early retirement or increased pension payments. Hundreds of others will use their severance package of a year's income to tide them over until they find work elsewhere. This is not the only advantage they have over factory castoffs in earlier generations, courtesy of their union, the Communications Workers of America. They will also have medical insurance for the rest of their lives.

Just as employees are preparing for a future without the corporate giant that supported them in the past, the communities of North Andover, Haverhill, and Lawrence are girding for life after Lucent. In 1995, the Merrimack Valley Works payroll was estimated at \$318 million. The plant also spent \$234 million on goods and services, \$50 million of which went to firms in Massachusetts. Although the Merrimack Valley Works sits in North Andover, most of its workers live outside the town, and the prospect of unemployment, lower tax revenues, and less business for firms that served Lucent and its workers—from parts suppliers to sub shops—spreads a shadow far and wide.

Once again, this is nothing new: In past generations, mill closings devastated many New England towns, including Lowell, Lawrence, and Haverhill. But Lucent is looking like Massachusetts's first industrial mothballing of the 21st century. For the workers displaced and communities abandoned by high-technology industry, is the New Economy the same old story? The Merrimack Valley is about to find out.

TELECOM LIFELINE

Spun off from the once-mighty AT&T telephone monopoly, Lucent Technologies, based in Murray Hill, NJ, began life as a separate enterprise in 1996, charged with developing and manufacturing leading-edge communications devices. Consumers saw Lucent telephones and answering machines with the circular red logo, but the company's main business is in transmission equipment and switches critical to phone and data transfer, sold to AT&T, Baby Bell regional telephone companies, and Internet service providers. Not only were its products used almost everywhere, Lucent was also most widely held stock in the United States, with its market price reaching an apogee of \$80 a share in late 1999.

Long before Lucent went off on its own, the Merrimack Valley had been a telecommunications center. Dating back to the 1940s, Western Electric Co., as AT&T's wholly owned manufacturing subsidiary was then known, had telephone factories in Haverhill and Lawrence that were among the region's biggest employers. But after World War II, the company outgrew those facilities. Selecting a 157-acre site on Osgood Street in North Andover, Western Electric opened what it called the Merrimack Valley Works in 1953. By 1956, the plant had expanded to almost two

million square feet of manufacturing space. In the 1980s, employment at the facility peaked at 12,000. Innovations such as transistors, the AT&T Picture Phone, and Lightwave fiber-optic products came to market from the Merrimack Valley Works. Today, the site turns out large frames or cabinets packed with circuits, printed wiring boards, and other components for telecommunications and optical networking. In 1990, the plant received a national Malcolm Baldrige Quality Award for manufacturing. "Not too many product lines died here," says Joseph Kanan, president of CWA Local 1365, which represents roughly 1600 of the remaining Lucent employees in North Andover.

The number of workers in the Merrimack Valley Works did shrink over the years, as technology changed and productivity increased. "In the early 1980s, you needed 500 people to make copper coils for phones," Kanan recalls. "By the late 1980s, you only needed 50 people because of automation."

But as the deregulated Lucent took off, the North Andover plant seemed always to figure in the company's plans. As late as 2000, Lucent announced an investment of \$300 million in the Merrimack Valley campus, and the company added 700 jobs over the next year or so, bringing employment to 5,600. In a further vote of confidence, Lucent designated North Andover as a "center of excellence" for optical networking, along with company sites in Ohio and Oklahoma.

Elsewhere in the high-growth but highly competitive technology sector, manufacturers were cutting costs, closing plants, outsourcing work, and consolidating operations worldwide. In California and Texas, the semiconductor industry demonstrated the roller-coaster effects of high-tech manufacturing in the 1980s, says Iain Cockburn, an economics professor at the Boston University School of Management. But the telecom boom lasted long enough that it seemed it would go on indefinitely.

"As happened elsewhere, the industry in Massachusetts went into over-capacity," says Cockburn. "Now that growth is slowing and becoming more volatile, companies are adjusting their investment and human resources practices to deal with a cyclical environment."

All felt the sudden chill _of cancelled orders.

MLucent is hardly alone in making those adjustments. Large corporations such as Nortel, Alcatel, and Cisco Systems, plus newer Massachusetts optical-networking providers like Sycamore Networks, all felt the sudden chill of cancelled or deferred orders for equipment. "Everyone in the optical segment took a bath--it was a blindside event," says Paul Polischuk, president of Information Gatekeepers in Boston, which analyzes the optical-network and telecommunications equipment industry. "Revenues weren't keeping up with companies that bet on 100 percent growth rates because of the Internet."

Telephone carriers and Internet service providers will eventually have to upgrade their networks as high-speed optical networks gain new customers. But with a reported loss of \$909 million in the last quarter and a share price that has dropped from a peak of \$80 to under \$10, Lucent's problems are of a more immediate nature. "Lucent's priority is cutting costs and raising cash," says Jay Ritter, a stock analyst at Morningstar in Chicago. "Prospects for [Lucent's North Andover-based] product lines are longer-term. . .[They] may not rebound until 2003."

"Lucent is trying to solve two problems at once--restructuring at the same time the telecommunications supply industry went in the toilet," says Robert Halpin of the Merrimack Valley Economic Development Corp. "Either one would have been a

problem, but managing the company and the market represents a tremendous challenge."

Lucent is raising cash _and shedding inventory.

"We are making some very difficult decisions as we restructure the company to better address the tough realities of our markets," acknowledges Lucent spokesman Mary Lou Ambrus. "We must reduce the size, complexity, and costs of the business to become a somewhat smaller, more focused company."

Becoming smaller is certainly one thing happening at the Merrimack Valley Works. In the last year, Lucent gave an early retirement package to 500 of its Massachusetts employees. In addition, the company offered union workers a severance package averaging \$65,000 and pension benefits worth as much as one-third more than if they had been laid off. Though it was only looking for 950 volunteers, it agreed to buyouts for 1,200 union workers. By the end of last year, only about 2,700 workers remained on the Lucent payroll in North Andover.

MADE TO ORDER?

What will happen to them is even less clear. Lucent approached several contract manufacturing companies about a sale or lease of the North Andover facility. Tours of the site were conducted through the fall, followed by bids by companies but no announcement from Lucent. Meanwhile, a majority share of Lucent's other Massachusetts facility, in Sturbridge, was sold to Japan's Furukawa Electric Co.

The sale of manufacturing capacity marks a brave new world for Lucent, and its employees. In the days of the AT&T monopoly, technology firms wanted to control every aspect of manufacturing to ensure quality. But today, high-tech companies such as Hopkinton-based EMC Corp. are increasingly turning to manufacturers-for-hire who sell them not just components and other supplies but finished products built to company specifications. This arrangement lets companies like Lucent buy only what they need, when they need it. Selling off manufacturing facilities allows Lucent to raise cash while shedding the risks of inventory, financing, delivery, and quality control.

Contract manufacturing is on the rise in Massachusetts, notes Adrienne Ortyl, a regional economist at the economic forecasting firm DRI-WEFA. National contract manufacturers such as Solectron, Pemstar, and ACT Manufacturing have developed operations here in recent years, capitalizing on a high-skilled labor force and the presence of computer and telecommunications manufacturers eager to share the burden of production overhead with subcontractors. "Massachusetts does have higher business costs than other parts of the country, but this is a high-tech center where you need trained high-tech workers," says Ortyl. "Companies are always coming up with new products where they have to retrain their people and retool their factories."

Contract manufacturers make products for many companies and industries, shifting production to strong markets when others are weak. This gives them a more stable customer base and makes for layoff cycles that aren't as severe as for original-equipment manufacturers, according to Ortyl.

In theory, this strategy could put Lucent workers back to work inside their old plant as employees of a new company, one that would still make equipment for Lucent but be free to sell technology products to other companies as well.

Unfortunately, Lucent has been trying to sell its North Andover plant at a time when the demand for manufacturing capacity is soft, and both original-equipment manufacturers and outsource suppliers are cutting back. The state has put together a package of tax incentives worth \$20 million over a 20-year period to try to keep the manufacturing jobs in the area, but as of late December no deal had been announced. The Canadian manufacturer Celestica has already bought Lucent's Ohio and Oklahoma plants and is rumored to have put in a bid on the Merrimack Valley Works, but nothing has come of it yet.

And even if Lucent does find a buyer, workers at the North Andover plant may find themselves out of luck. Another leading candidate to take over the Lucent business here is Solectron Corp. of Milpitas, Calif., which already operates an assembly facility in Westborough. Speculation has it that if Solectron picks up the North Andover operations some 300 workers would be shifted to the largely nonunion Westborough site, but the union predicts that at least 800 Merrimack Valley workers could lose their jobs.

LEAVING LUCENT BEHIND

For Dave Tenney, the choice to leave Lucent was difficult. At 49, he was not ready to retire, but the uncertain future of the North Andover plant made it prudent to accept the company's severance offer after 27 years at Lucent. He plans to sell his home in Sandown, NH, and move to Stow, Maine, in search of work on home construction projects.

"I've framed houses in this area for a number of years, and I'll go back to that," says Tenney. "But I'm between a rock and a hard place. It's not a great time to sell my house, but the interest rates are low. I was building a house for my retirement, but I'm not really retired. I never thought this would happen."

The bearded, ponytailed machine mechanic says that for many of those leaving Lucent there are other jobs in the region, but mostly with lower wages and longer commutes. Lucent is covering their medical insurance, but Tenney says any new job will be difficult after leaving a company that gave longtime workers five weeks' vacation a year.

No one has called the CWA headquarters seeking aid in finding work or making ends meet, says local president Joseph Kanan, indicating that Lucent workers are

not yet panicked about their next career moves. Some have a year's pay or more to provide a cushion, and former Lucent trades people--carpenters, electricians, and draftsmen--are in demand elsewhere.

Kanan, who is 54 years old with two children and lives in Haverhill, took the buyout himself, with its promise of lifelong health care coverage and two years of tuition benefits. A former electronics technician inside the Merrimack Valley Works, he's ready to try something else, such as Web design.

For others, adjusting to life after Lucent will be more difficult. Kanan mentions the Carrier family of Pelham, NH, in which there are two Lucent retirees, three relatives who were laid off, and two who are still working at the plant.

"I'm just going to stick it out and see what happens," says Jeff Trick of Amesbury, a 21-year Lucent employee who now works in shipping. He's studying graphic design and commercial art in the hopes of a future job in advertising.

"Manufacturing is dead in this country," he says.

Even software engineers, whose skills were in great demand throughout the high-tech boom of the '90s, find themselves victims of Lucent's--and the telecom industry's--fall to earth. Guy Klose, 41, worked a total of 11 years--both as an employee and as a contract professional--at the Merrimack Valley Works before joining a start-up, Tiburon Networks, in the summer of 2000. When that company got slammed in the high-tech crash, the staff was slashed from 120 to 80. Klose, who lives in North Andover, was laid off in July. With the job market flooded with engineers, he's found little opportunity to move from optical or telecom specialties to others--the path suggested by some area labor experts. He's even made inquiries about going back to Lucent, to no avail.

"Two years ago employers were checking for nothing more than a pulse before they hired you," says Klose. "Now, things are much tighter at the smaller optical start-ups."

NO COMPANY TOWN

Unemployed engineer Klose sees the loss of Lucent jobs as double trouble--for the region's economy and for the town of North Andover, where he lives. After all, the regional labor market has been absorbing Lucent alumni for quite awhile already.

"There have been several waves of layoffs and because the nature of severance packages offered, each wave had a different demographic," says Shaw Rosen of the region's Workforce Investment Board. "The first round tended to be less skilled workers, [in] assembly and production. [In the] later two rounds, workers were 40 to 50 years old, been with company approximately 20 years and making \$20 an hour."

Even if some North Andover jobs are saved, the shrinking employment base is already having an impact. United Way of Merrimack Valley reported a shortfall of \$500,000 in contributions last year, and there are visibly fewer customers at lunch on the restaurants along Osgood Street. The CWA still sponsors a Little League team and other community projects, but the local's budget--and five-person full-time staff--is expected to decline along with membership rolls.

The effect on community life may be harder to project. North Andover has never been exactly a company town. A mostly rural area not too long ago, the community of 27,000 people has become a commuters' haven. Luxury apartments have sprouted up in outlying parts of its 26 square miles, but North Andover has retained a small-town feel, from the Main Street firehouse to the Colonial-era town green. Yet Lucent's presence has been pervasive.

North Andover town manager Mark Rees says the company--Lucent, and AT&T's Western Electric before it--was always a generous corporate citizen, sponsoring events and letting the town make full use of the plant's vast lawns and four softball fields. But he says the town has prepared itself for the end of this corporate largesse.

Even though the plant has long been North Andover's largest employer, paying \$800,000 in annual property taxes, Rees says that Lucent's impact on the town's \$59 million annual operating budget has declined along with its staffing levels. The Merrimack Valley Works once accounted for 10 percent of the town's commercial tax base, but now only 2 percent, Rees says. Other commercial projects, such as the renovation of once-vacant mills into office space for C-Port Corp. and Converse, have taken up some of the slack, but the lion's share of the town budget comes from residential taxes.

North Andover has been trying to boost its business sector through joint development ventures with neighboring communities. Sweetheart Plastics, which had considered closing two New England operations and shifting production to a Maryland site, took over an abandoned building in North Andover, using tax-increment funding as an incentive. That was possible by extending Lawrence's economic development zone across the town line to incorporate the North Andover site. That deal, shepherded through by state and municipal officials in North Andover and Lawrence, resulted in about 100 jobs.

The North Andover board of selectmen approved a similar plan allowing Haverhill to extend its target area for tax relief to include the Lucent property. The move qualifies any buyer of the site to receive a 5 percent state tax credit grant and a temporary decrease in municipal taxes. Still, even \$19 million in tax relief can't make up for a soft market in manufacturing capacity, says Morningstar stock analyst Jay Ritter.

And in affluent towns like North Andover, the migration of new residents into town is straining budgets for schools and services. A financial task force has been meeting for months, looking for ways to increase the town's \$50 million annual budget by as much as \$10 million. Voters approved a Proposition 2 1/2 debt exclusion to build two new elementary schools by 2007, says town manager Rees, not long after another tax hike was approved for sewer improvements.

UP IN THE VALLEY?

The fate of the Merrimack Valley Works is not just about North Andover. The entire region is undergoing a major change, and communities throughout the Merrimack Valley are feeling the pinch. Much of the plant's work force came from nearby Haverhill and Lawrence. In October, the unemployment rate in Lawrence was 11 percent, the highest in the state. Regionally, the jobless rate was 5.9 percent, well above the statewide level of 4.2 percent.

And things could get worse. The recently announced bankruptcy reorganization of Lawrence-based Malden Mills caught the region by surprise, and memories of massive layoffs at the now-defunct Wang Laboratories in Lowell in the '80s and the former Digital Equipment Corp. (now Compaq) in Maynard are still fresh.

Some observers see the Merrimack Valley already in the process of reinventing itself for a different kind of future.

The entire region _is feeling the pinch.

"What's not recognized is the cumulative effect of other start-ups or smaller companies," says Gaylord Burke, executive director of the Merrimack Valley Planning Commission, "The psychological and economic impact [of the potential Lucent closing] is significant, but the economy is not dependent on manufacturing. Transportation and our infrastructure have contributed to a more robust economy."

Burke points out that the Merrimack Valley has survived the downsizing of Lexington-based Raytheon, the region's second-largest employer after Lucent, where military contracts declined by as much as 60 percent between 1996 and 2000--a cut representing 10 percent of the region's gross economic output. He says that highway improvements have yielded jobs in trucking and logistics, and that there have also been gains in light manufacturing, biotechnology, and retail.

In a May 2001 report, the planning commission estimated that 13,000 new jobs had been created in the region since 1995--exceeding the statewide job creation rate by 20 percent (after trailing it during the first half of the decade). Losses in computer manufacturing jobs were balanced by gains in the construction, warehousing, and food-processing industries. Business services have also grown

faster than the statewide average, reflecting the influx of office and laboratory jobs into renovated mills, new office parks, and even home-based businesses. Only 20 percent of the region's jobs are now in the manufacturing sector, according to the report.

Former Lucent employees could be headed toward the medical-device industry, says Robert Halpin, of the Merrimack Valley Economic Development Council. Less-skilled staff may be hired for call center and other back-office operations, such as those opened in Andover by Putnam Investments.

But in the New New Economy--whether in the Merrimack Valley, the Commonwealth, or the world--there will be fewer Ma Bell-style corporate behemoths providing jobs in the thousands in Merrimack Valley Works-style workplaces.

"It's clear the size of employers in general--not just telecom--is shrinking," says Tom Juravich, director of the Labor Center at the University of Massachusetts-Amherst. "The people who work for large American companies and the structure of industry have fundamentally changed."

Changing, too, are the related businesses that are already outgrowing their company-store character. Take the Merrimack Valley Federal Credit Union, a savings institution just down the road from the North Andover plant. It grew thanks to Western Electric, then Lucent, workers. Over the years, however, it offered services to employees of 70 other regional employers.

And if the mill-closing analogy holds up, it must extend to the rebound that has always come, eventually, in a region whose hard-working character has always been matched by its technical ingenuity, says Chris Tilly, professor of regional economics at University of Massachusetts-Lowell.

"The I-95/Route 128 corridor has been a high-tech region since the first mills were built in the early 1800s," says Tilly. "People with know-how at various levels--machinists, craft skills, and other talents--enabled new industries to get a foothold. They had a solution for technical problems." Those who believe in the economic future of the Merrimack Valley say they still do.

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