

Greater-Springfield Deindustrialization: Staggering Job Loss, A Shrinking Revenue Base and Grinding Decline

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I. Introduction

During the 2004 presidential campaign a lot was made of ‘family values’. Perhaps a more useful question here is: What has happened to *family value* with the gutting of the nation’s industrial base? In 2005, are working families more economically secure than in 2000? Can a blue-collar family save for their son or daughter’s college education? Can a young, married couple with one or two children reasonably expect to accumulate the down payment and mortgage payments for a new home, or pay skyrocketing rents? And, if so, does it mean a collective weekly 80 – 90 hours of work and gut-wrenching anxiety that a lost job equals an economic meltdown?

The December 2004 fire at the closed American Bosch plant on the Chicopee-Springfield line and the announced closing in the same week of Danaher Tool are part of the passing of an honorable blue-collar way of life in the Connecticut River Valley. Analyzing the ramifications of this passing helps us to answer the above questions. When I visited the fire scene it felt like I was attending a good friend’s wake. Vivid memories of my several years working at Bosch flooded back. Workmates often showed up an hour early, started coffee pots and argued about sports and politics and bragged about their children. People sold donuts and newspapers to raise money for their children’s college tuition or a local charity. The union and company-sponsored Athletic Association supported athletic teams in the city’s thriving industrial leagues and organized trips to Red Sox, Bruins, Celtics, Yankees, Rangers and Knicks games. Every year the Athletic

Association rented Mountain Park—a local amusement park—for a family outing, and sponsored a children’s Christman Party. Danaher workers have similar memories.

A similar story is being played out further South along the Connecticut River. Riding down Main Street in East Hartford Connecticut toward the six smokestacks dominating the front of Pratt & Whitney’s mammoth aircraft engine factory one can not help noticing numerous artifacts associated with rapid industrial decline: empty and trash strewn lots, boarded-up storefronts, and vacated triple deckers, once homes for Pratt & Whitney workers. A short drive to the other side of the Connecticut River reveals the dichotomies between East Hartford and downtown Hartford with its glittering insurance companies, banks and the headquarters—known around Hartford as the ‘Gold Building’—of Pratt’s parent, the United Technologies Corporation (UTC).

Our mini-tour of Springfield’s North End and East Hartford make apparent the economic uncertainty and painful ‘pulling apart’ of the social fabric in the once-industrial Northeast United States’ older cities caused in large measure by the disappearance of well-paying manufacturing jobs. With over one million such jobs lost nationally during the most recent US recession, workers there rightly fear for their futures. The union hall for East Hartford’s IAM Local 1746 sits directly opposite the main gates of the plant. During an interview there local union president Mike Stone told me: “Well paying, secure jobs which both provided a career for thousands of hard working people and their families, and supported hundreds of retail and service establishments across the state—jobs workers in the past were able to pass along to their children—continue to disappear.”

In this paper I examine the Connecticut River Valley’s current economic plight in the context of sharp industrial decline since the late 1970s. In the next section I discuss Springfield’s 2004 financial meltdown and the establishment of a governor-appointed Finance Control Board to oversee the city’s spending. This section also considers the impact of the city’s financial plight on teachers, police, firefighters and other Springfield employees. The third section of the paper describes the collapse of the Connecticut River

Valley's industrial economy—Springfield south to East Hartford, Connecticut— and reviews the growth of service employment. The fourth section compares the wages of lost industrial jobs with the wages of service sector employment and analyzes how the wage gap contributes to a decline in workers' standards of living and in turn contributes to financial stress in older industrial communities. The final section offers some tentative thoughts on what this all means for the future of work in the Commonwealth.

II. Springfield on the Brink: The Finance Control Board in Charge

According to the US Census Bureau median household income fell in most of the Commonwealth's major cities during the 1990s expansion (Kirchhoff and Dedman, 2002). New Bedford, Worcester, Fall River, Springfield and several other mill cities did not profit from the high tech boom. After the most recent recession, these cities fell further behind their 'inside Route 495' counterparts. According to Robert Nakosteen, a professor of economics and statistics at the Isenberg School of Management at UMass Amherst "There's a structural problem in Springfield based on its inability to depend on its own tax base. All the wealth just moved out of the city" (quoted in Gorlick, 2004a). In 2004 nearly two-thirds of the city budget came from the state, though state aid has dwindled since about 2002. William Ward, of the Hampden County Regional Employment Board, notes that when well paying work disappeared, far too often the replacement wages for workers fortunate enough to find a new job lagged well behind the pay they lost (Interview, March 25, 2005).

There is little question that the loss of well paying work contributed to a structural problem which reaches back at least to the mid-1990s when the city received a \$21M state loan and sold the municipally owned hospital to a private company to cover budget shortfalls (Greenberger, 2004, B1). Even the city's often cheerleading newspaper *The Republican* referred to Springfield as "a financial basket case" (SR, 2004a, 18). In mid-

June 2004 *Republican* reporter Dan Ring described the situation: “Although Springfield is the third-largest city in the Commonwealth out of 351 municipalities it has the lowest bond rating, the fourth-lowest income per capita, the second-lowest property values and the highest nonresidential property tax rate in the state” (Ring, 2004b, 1). Essential services cut, a fire house closed, street lights turned off to save money, the Massachusetts State Police assisting the understaffed police department on the weekends, Springfield is, according to a recent *Hartford Courant* story, ‘a city under siege’ (Tantraphol, 2005).

To cover its revenue shortfall, Springfield negotiated a relief package with state officials. Early in the process Governor Mitt Romney offered a \$20M grant and a \$30M interest-free loan to cover the shortfall in the \$437M FY 2004 budget, so long as the city agreed to let a state-appointed control board make future spending decisions. Attached to Romney’s proposal was the suspension of collective bargaining for the city’s unions (Tynan, 2004; DeMarco and Richardson, 2004). Romney’s initial proposal stalled in the legislature at least partially for its approach to the city’s unions. According to Ken Donnelly, secretary treasurer of the Professional Firefighters of Massachusetts “He’s trying to break the unions. I haven’t seen anything this bad in 32 years.” For Timothy Collins, president of the Springfield Education Association, the proposed control board plan represented “the lowest day of my life when you have a mayor and a governor stripping us of our collective bargaining rights. It’s almost un-American. Shame on the governor and shame on the mayor” (quotes in Gorlick, 2004b). Ken Pooler, representing Public Works employees noted that his union had 364 members in 1999 and in mid-2004 had 208 members. Union leaders argued that additional workforce cuts would negatively impact the provision of essential protective and educational services.

After weeks of wrangling between the legislature, the governor, and Springfield officials a plan allowed the city to borrow from a \$52M interest-free loan to be paid back by 2012; the city was owed \$52M in delinquent property taxes (Goonan, 2004b). To receive the loan city leaders agreed to the establishment of a state-appointed Finance

Control Board (FCB) to serve for three years (Ring, 2004a). In its first move the Board approved a budget for the rest of FY 2005 that continued a wage-freeze for city workers. The FCB's first report to the city noted:

No solution to the city's fiscal crisis can be achieved without a substantial reduction of personnel costs and expenses. It is clear that an integral part of the recovery plan for the city of Springfield must include work rule changes, benefits restructuring and take-home pay reductions for municipal employees (Goonan, 2004, 1).

As unionists feared, when their contracts expired the FCB turned to worker givebacks to bring the city's finances under control. Remarkably, delinquent property tax payers feared fewer reprisals than hard working teachers, policemen, firefighters and other municipal workers whose livelihoods were under attack.

When the Control Board was established, Eric Kriss, Governor Romney's top fiscal advisor, called the Board "a tool to help the city recover financially" (Ring, 2004, 1). In public remarks *Republican* Kriss contended a turnaround could occur only with the good will and effort of municipal employees, among others. "Ultimately the city needs to turn around itself" (Ring, 2004a, 1). However, with over 20 percent of the city's workforce cut since 2002, it was difficult to imagine why city workers would be in any mood to rubber stamp FCB decisions about their future (Dewberry, 2004, 1). In a biting editorial the *Republican* blasted the Finance Control Board: "While we agree that work rule and benefit changes need to be made regarding city employees, we vigorously oppose the reduction of their wages and think it would be unconscionable to do so." For good measure the newspaper added: "The Control Board should be working for a surgical plan to restore the city's finances, not a hatchet job that leaves the city as nothing more than a comatose patient on life support" (SR, 2004b, 16).

III. The Collapse of the River Valley Economy

How did the state's third largest city fall into such a deep hole? Beginning in the mid-1970s, Massachusetts—like many industrial states—was racked by a series of layoffs and plant closings that resulted in the permanent loss of thousands of blue-collar jobs.

Between 1969 and 1976 an average of twelve percent of the Massachusetts job base was lost annually due to plant closings, with an additional eight percent lost due to permanent layoffs. In 1974 -1975 Massachusetts suffered through its worst economic slump since the Depression, caused in part by the end of the Viet Nam War and the significant decline in defense contracts going to the state's manufacturers (Birch, 1981; Bluestone and Harrison, 1982; Dertouzous, Lester and Solow, 1989; Farrant, 1994; Lampe, 1988). Sharp manufacturing job loss occurred once again between 1988 and 1994 when total manufacturing employment fell almost 25 percent, to 447,300 from 584,600. In 2000 manufacturing employment was 430,800, compared to 446,290 in 1995 (-4 percent, 15,490 jobs).

The Connecticut River valley lost thousands of well paying manufacturing jobs. The city and the state's abject failure to work effectively at new job creation have contributed to the present situation. For years Springfield has rested its hopes for economic recovery on a scheduled \$110M riverfront development project, anchored by the Naismith Memorial Basketball Hall of Fame. But the large scale project is stalled, the Hall of Fame has not yet generated the visits consultants predicted, and there is little indication that large numbers of well paying jobs will ever find there way to the riverfront (Goldberg, 2005).

From the 1920s through the 1960s the city was known as 'the industrial beehive' in recognition of its diversified and thriving industrial economy. Things got out of hand quickly in the late 1960s and as jobs disappeared the lack of an urgent and cogent response exacerbated the city's employment crisis. Springfield, like many Connecticut

cities, anticipated that the 1990s high tech boom—electronics, finance, and biotechnology—would right the ship; it did not. The city’s debt was soon reduced to junk bond status and according to the *Boston Globe*’s Charles Stein “The new economy never made it this far outside the Massachusetts Turnpike” (2004b, C1). He summarized: “A lot of middle-class people left for better economic opportunities, while the number of poor people grew steadily over the past two decades. This shift helped make Springfield one of the poorest cities in Massachusetts” (Stein, 2004b, C1). Yet, there has been a remarkable lack of discussion about how the region might restore its job base and in particular how greater-Springfield can generate significant numbers of well paying jobs to begin to make up for the toll deindustrialization took on the economy. The region needs to replenish its stock of well paying jobs or the Finance Control Board will have longer than its intended three-year run.

From the early 1800s through the 1980s Springfield was the hub of one of the world’s leading industrial districts stretched out along the Connecticut River. For much of the nineteenth and twentieth centuries the Connecticut River valley’s machine tool and metalworking firms and highly skilled workers constituted an innovative and powerful manufacturing region that stretched for one hundred and twenty miles from Bridgeport Connecticut to Windsor Vermont. The diverse manufacturing base was secured early in the nineteenth century when Springfield became the site for an important federal armory. The Armory functioned as the hub of a flourishing industrial district with a strong focus on machine tools, precision-made parts and inter-changeability (Farrant, 2002). Skilled machinists and engineers, well-practiced reciprocal relationships among tool builders and their customers, and the presence of hundreds of small tool-and-die shops enhanced the valley’s innovative capabilities and its competitiveness. This played no small part in the US and the region’s rise to economic dominance, which rested to a considerable degree on its pre-eminence in machine tool innovation and manufacturing (Farrant, 2002a). However, Westinghouse and American Bosch started relocating work out of the city in

the 1950s and the Armory closed in the early 1960s. The region hemorrhaged blue-collar jobs and manufacturing job loss accelerated again in the recent recession; Massachusetts lost 20 percent of its blue-collar jobs between 2001 and the end of 2004. Table 1 contains the major layoffs and closings in one period of significant employment loss.

Table 1. Layoffs and Closings of Springfield-Area Metalworking Companies 1982-1990.

Company	Status	No. of Job Eliminated	Closure Dates	Years in City	Peak Emp. since 1960
American Bosch	Closed	1,500	2/86	80	1800
Chapman Valve	Closed	250	6/86	100+	2700
Columbia Bicycle	Closed	250	6/88	80+	1000
Kidder Stacy	Closed	90	9/89	100+	325
Northeast Wire	Closed	35	1990	22	125
Oxford Precision	Closed	60	9/86	40	120
Package Machinery	Closed	400	9/88	100+	950
Plainville Casting	Closed	65	4/87	65	75
Portage Casting	Closed	60	8/86	36	100
Rafferty Steel	Closed	50	11/85	40	--
Rexnord Roller Chain	Closed	200	6/89	100+	675
Springfield Foundry	Closed	75	4/86	100+	285
Van Norman	Closed	275	10/83	90	1200
Van Valkenberg Plating	Closed	40	7/86	100+	135
Wico Prestolite	Closed	250	3/82	80	675
Atlas Copco	Layoffs	565	1980s	70+	1000
Easco Hand Tool	Layoffs	2,000	1980s	75+	2200
Storms Drop Forge	Layoffs	125	1980s	60+	250

Persistent job cuts continued in the first years of the new century, with recent cuts not confined to industrial jobs. For example, the giant insurance company MetLife recently purchased Hartford-based Travelers Life and Annuity and just announced it planned to cut 600 jobs in Hartford (Singer, 2005). At the same time Springfield is moving to privatize numerous city jobs while public transportation is being cut back (Ring, 2005; Plaisance, 2005; Cantrada, 2005).

Chart 1 reveals what happened to Massachusetts's manufacturing and services employment since 1997 and Chart 2 offers a similar look at what transpired in Connecticut. In the Commonwealth manufacturing jobs have in essence flat-lined while in Connecticut they have slipped slightly.

Chart 1. Massachusetts Manufacturing and Services Employment 1997-2004

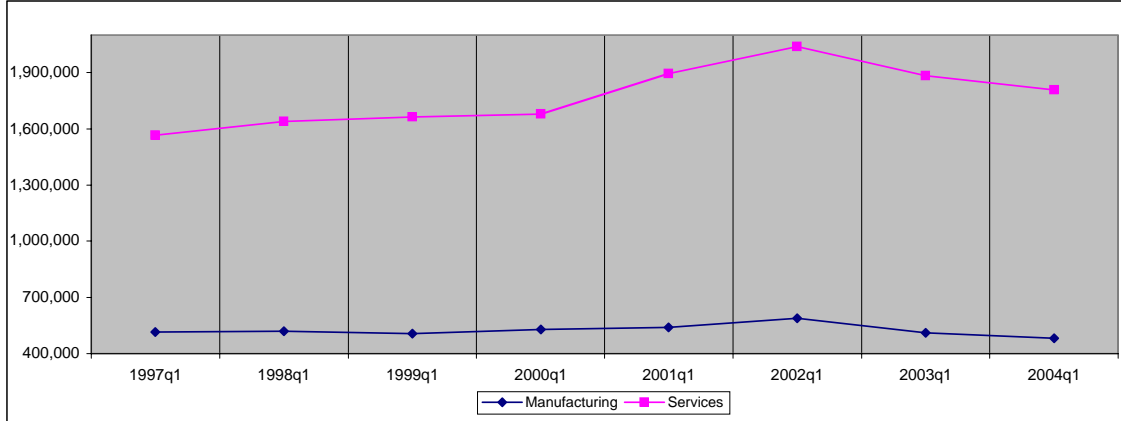
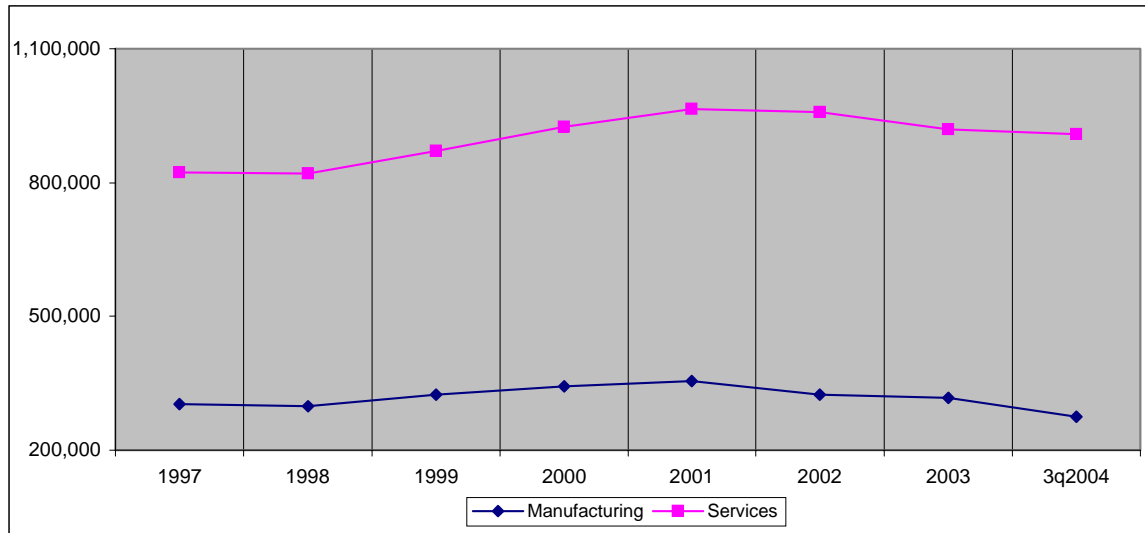
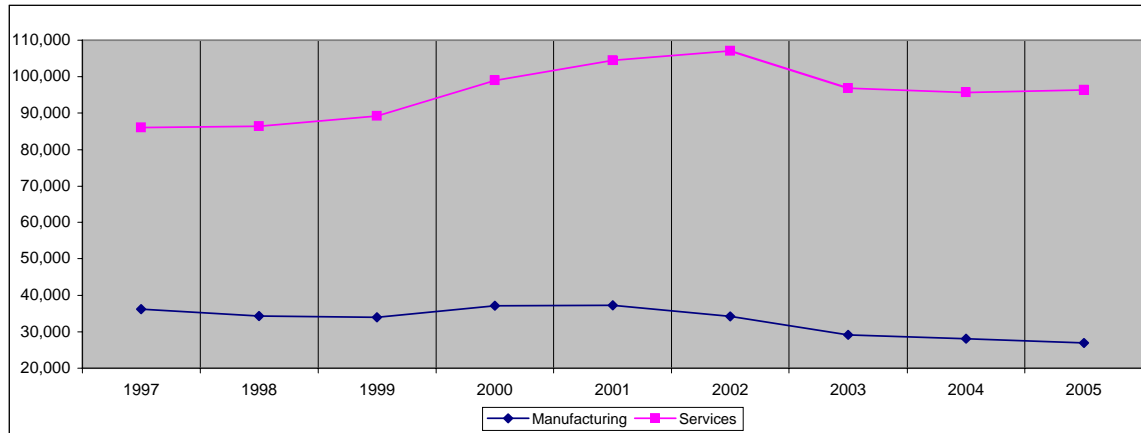


Chart 2. Connecticut Manufacturing and Services Employment 1997-2004



Hampden County's employment trends are similar to Connecticut's as Chart 3 shows.

Chart 3. Hampden County Manufacturing and Services Employment



Connecticut’s overall job creation is slow at best. “Employers in Connecticut and elsewhere have been reluctant to bring on new hires. Helped by new technologies, many businesses have focused on—and succeeded at—boosting productivity” (Remez, 2004a, 1). Two sectors that added jobs thus far in 2004—Education & Health Services and Leisure & Hospitality—typically pay wages well below the wages of the manufacturing sector. For example, in 2002 the average weekly wage in Transportation Equipment Manufacturing was \$1,219, while in Health Care it was \$727 and in Accommodations and Food Services, \$305. Across Connecticut the average annual manufacturing wage of slightly over \$58,000 is almost \$10,000 higher than the state’s average annual wage. Manufacturing wages are more than double the wages in Retail Trade (\$27,841), over three times greater than in Hotels and Restaurants (\$16,021) and significantly higher than Health Care (\$38,937) [CTDOL, December 2003]. For all employment, the average weekly wage in 2003 was \$928.67; in Manufacturing, \$1,116 and for Services, \$876.

Table 2. Critical Manufacturing Sectors in Connecticut 2004

	Firms	Workers	Avg. Annual Wage
Fabricated Metals	1,431	34,983	\$44,721
Machinery Manu.	671	20,290	\$59,127
Computer Manu.	416	18,008	\$54,564
Electrical Equip.	187	11,549	\$60,658
Transportation Equip.	248	45,311	\$63,372

Why should we want to hold on to well paying work? Good manufacturing wages generate tax revenues and at the same time translate into the purchase of goods and services from other businesses. Well-paid workers take their families out to eat. Well-paid and secure workers buy a new car, truck, or snowmobile every few years. Well-paid workers support their local schools, churches, and athletic and social clubs. Well paid working families are not forced to have combines hours of work stretching near 100 hours a week to make ends meet and can spend more time with their children. In addition, a good deal of what Connecticut and Western Massachusetts manufacturers still make is for export; thus bringing new revenues into the state. Even a cursory look at the economic activity around Bradley International Airport makes this point clear. Policymakers and economic development professionals should not turn their backs on efforts to hold onto the industrial jobs that remain and do everything possible to generate new ones.

IV. So What: A Job's a Job, Right?

You might ask: "Why does it matter that well-paying manufacturing jobs are disappearing so long as there is significant employment growth in the service sector? After all, a job is a job right?" There are at least six good reasons why we should care about the shifting fortunes of the region's job base.

- First, historically, blue-collar know-how was a critical source of the state's competitive advantage and the basis for many of the innovations that occurred at in the economy. A source of export strength, innovation generates tax revenues. This is in jeopardy.
- Second, well-paid industrial workers pay their taxes and thus help fund schools and other public services, and fuel the growth of numerous retail and wholesale establishments, restaurants, home builders and car dealerships.
- Third, workers, with their steady wages sent their daughters and sons to the University of Connecticut and the University of Massachusetts, helping to make

them top flight, nationally recognized public universities. But, as the regional economy slumps there is growing evidence that graduates of both institutions are leaving New England.

- Fourth, there is a state-wide infrastructure of hundreds of small and medium-sized metalworking and precision manufacturing firms that receive lucrative contracts from companies like Pratt & Whitney and Hamilton Sundstrand and boost the general quality of life across the region.
- Fifth, since 1997 average wages across the Commonwealth have only modestly increased, with wages in Services lagging behind Manufacturing pay.
- Sixth, median household income in older industrial cities in Western Massachusetts is well below the state average of \$50,502. The numbers are: Greenfield, \$33,110; Holyoke, \$30,441; North Adams, \$27,601; Pittsfield, \$35,655; Springfield, \$30,417. This helps us to understand Springfield's financial condition.

In 2001 I discussed job loss in Connecticut with IAM District 91 directing business representative James Parent. At the time he put things this way: "They (companies) don't realize that when they talk about a worker, it's not just one worker. They are talking about a whole family whose future is up in the air." Connecticut Governor Jodi Rell had it right in July when she remarked, "The bottom line is it's all about jobs. It's jobs. It's jobs. It's jobs" (Pazniokas, 2004). In September 2004 I met with three Pratt & Whitney workers who had been laid off at one time or another since 2001. Two were recalled to work in Middletown and one hoped for 'good news' soon. Each had a personal story of the hardships caused by being laid off. But, they all wanted to be recalled because they could not find jobs that paid anywhere near the wages they earned at Pratt. One worker drove a soda delivery truck in greater New Haven 55 - 60 hours a week after he looked for work for several weeks. The second, with several years of experience as an aircraft engine mechanic, found part-time work at Home Depot and Wal Mart. He 'got lucky' and found full-time work at a newly opened Bed, Bath and Beyond store. But, once the store settled into a routine, his hours were cut back. He estimates that he earned about 30 percent of his former wage and worked more hours. The third person I talked to took a job selling clothing in a department store at 50 percent

of his former hourly wage and averaged 25 hours a week. These men, in their late 30s and early 40s, have always worked, and diligently sought alternative employment after being laid off. All three men suffered from the physical stress and anxiety associated with steep employment and income loss and the pressures associated with losing their medical insurance. They stopped going out to eat, curtailed going to the movies and made the television and car last a little longer.

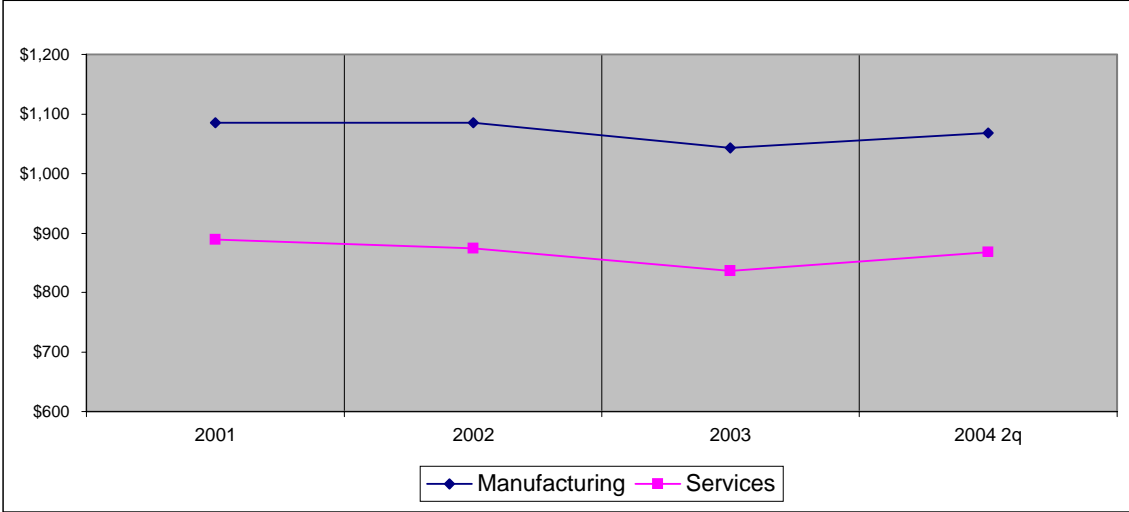
When Bosch closed in 1986 a prescient editorial in the since closed *Holyoke Transcript-Telegram* pointed out that the service economy everyone put so much faith in too often produced jobs that required little skill, offered low pay and provided no benefits; this is still true as the data below demonstrates.

Table 3. Massachusetts Inflation Adjusted Wages 1997-2003

	1997	1999	2001	2003
Statewide	\$857	\$906	\$939	\$929
Manufacturing	\$1120	\$1199	\$1201	\$1116
Services	\$747	\$781	\$810	\$876

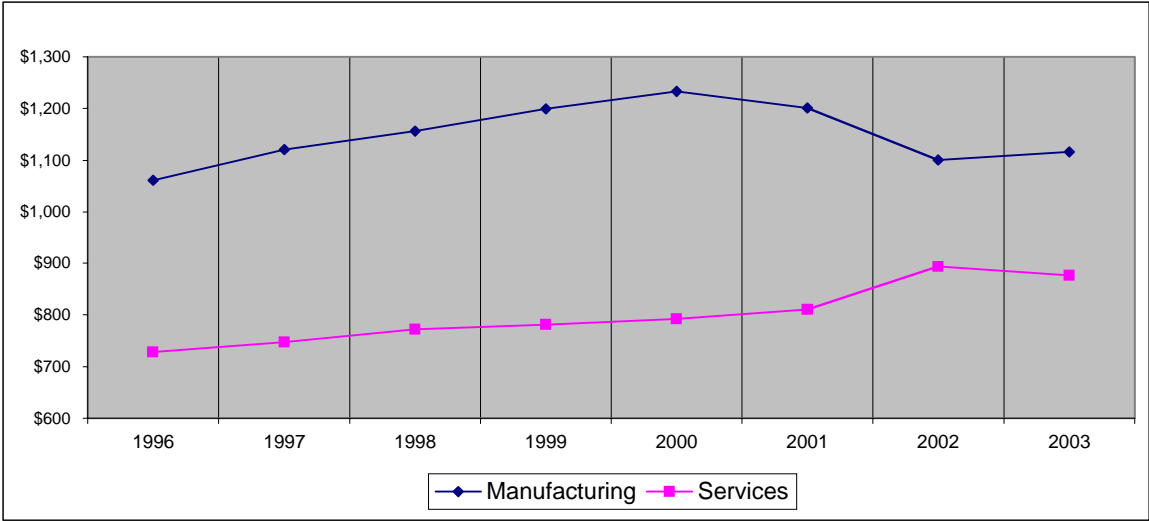
As the following chart demonstrates, the gap between manufacturing and services wages did not close between 2001 and 2004.

Chart 4. Massachusetts Manufacturing and Services Average Wages 2001-2004



This is important because based on information supplied by the U.S. Department of Labor “Industries ranked in the bottom fifth for wages and salaries have added 477,000 jobs since January 2004, while industries in the top fifth for wages had no increases at all...” (Andrews, 2004, C1). In analyzing the nation’s anemic recovery economist Mark Zandi notes, “Up to this point, most of the benefits of this expansion have accrued to higher-net-worth households” (Stein, 2004, 1). Connecticut wages follow a similar trajectory to those in Massachusetts. It should be noted that the gap between the two closed between 2000 and 2002 as much because manufacturing wages fell, most likely do to large layoffs of well paid workers at places like Pratt & Whitney and Electric Boat.

Chart 5. Connecticut Manufacturing and Services Wages 1996-2003

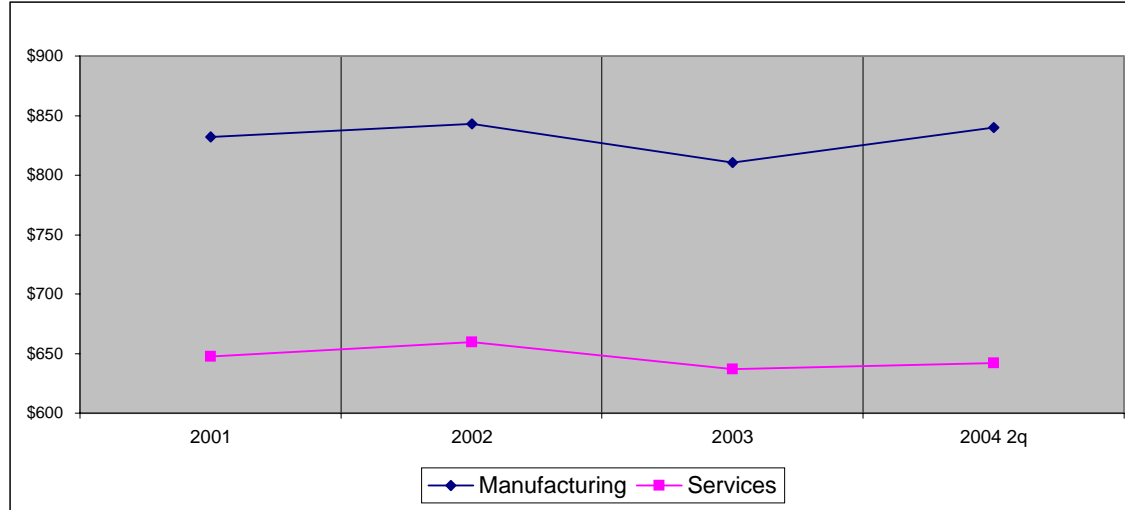


What about Hampden County? The table and graph below show what happened to employment and wages since 1998. The gap between manufacturing and services wages

Table 4. Hampden County Manufacturing and Services Employment 1998-2004

	1998	2000	2002	2004
Manufacturing	34,301	37,157	34,223	28,081
Services	86,455	98,979	107,035	95,734

Chart 6. Hampden County Manufacturing and Services Wages 2001-2004



increased between 2001 and 2004. In other words, on average lost manufacturing jobs paid higher wages than the jobs being created in services. This helps to explain an important fact: “For the first time in 14 years, the American workforce has, in effect, gotten an across-the-board pay cut” (Riccardi, 2005, D1). For 2004 the consumer price index rose 2.7 percent while average hourly wages rose 2.5 percent.

Commenting on August 2004 national employment data *New York Times* business reporter Louis Uchitelle noted that layoffs are “more frequent now in good times and bad, then they were in similar cycles a decade ago” (2004, C2). Across the country, the almost 60 percent of laid off workers who found a new job earned less money, compared with about 50 percent of workers who went through the same experience in the early 1990s. The stock of good jobs continues to moderate.

How can we assert this? The two sectors that added net new jobs in Connecticut in 2004—Education & Health Services and Leisure & Hospitality—pay significantly lower wages than in manufacturing. In 2002 the average weekly wage in Transportation Equipment Manufacturing was \$1,219, while in all of Health Care it was \$727 and in Accommodations and Food Services it was \$305. Thus, when job growth occurs, unless it does so in some sectors that offer comparable wages to the jobs lost, over time the

wealth base of the state is eroded. Absent sharp tax increases to make up the shortfall, essential services like education, youth programs, and police and fire protection eventually suffer, especially in the regions of the state most seriously impacted by employment losses.

Table 5. Inflation Adjusted Average Weekly Wages in Connecticut 1998 - 2003

	1998	2000	2002	2003
Statewide	889.50	932.82	921.53	928.67
Manufacturing	1,156.49	1,233.08	1,100.52	1,116.19
Services	772.36	791.78	893.92	876.00

Discussing the recently released *The State of Working America* (2005) Michael Yates confirms the trends I am outlining. He notes “For a nation as rich as the United States, there are a very large number of low-paying jobs. One of the most interesting data sets in the *SWA* is that for the fraction of jobs which pay an hourly wage rate insufficient to support a family of four at the poverty level of income with full-time, year-round work” (Yates, 2005, 16). One-quarter of all jobs pay at or below poverty wages; for Blacks the figure is 30.4 percent and for Hispanic workers 39.8 percent. For Black women the figure is 33.9 percent and for Hispanic women, 45.8 percent (Yates, 17).

**V. What Does This Mean for the Future of Work in the Connecticut River Valley:
Or, Will Springfield Ever Get Out of Debt?**

Historically, New England’s education and training system has satisfied the skills demands of employers. In 1980 economist John Hekman noted that the most important locational factor for high technology firms is the need for “high skills and scientific workers.” For Hekman, New England’s economic strength derived from its ability to

provide various “highly specialized resources” required by firms engaged in “the design or production of their product” while “still in the innovation stage.” When the mass production stage of a good is reached, “production has tended to migrate out of New England.” Hekman and co-author John Strong described why, over time, certain kinds of firms settled in New England, and by extension the Connecticut River valley:

...areas like New England have a large number of firms which change their products and production processes frequently. Change means restructuring, learning new methods, testing, and experimenting. While a company which produces a large volume of output using a well-defined and unchanging production processes looks to site its plants in low cost areas with little regard for distance from headquarters, companies which are changing and developing usually must keep a close watch on production. The combination of first, the need for specialized skills and, second, the changing nature of a firm’s need for resources helps keep industrial agglomerations together (Hekman, 1980, 6-7).

New England’s declining post-Second World War economic performance ought to have been discussed with some degree of urgency. The President’ Council of Economic Advisers called attention to the situation in the early 1950s. It concluded that the region’s firms were turning from their historical strengths: skill development, technological innovation, and the diffusion of new production methods. The purchase of valley firms by conglomerates exacerbated the erosion of shop-floor skills, as one after another, new owners disbanded apprenticeship programs, concentrating instead on training foremen to ‘get the work out’. Finally, the search for the next cheap place to get things made supplanted the valley’s ‘age of skill’. Even the Armory, Springfield, Massachusetts’, third largest employer, succumbed in 1968 and the city’s Chamber of Commerce renamed the ‘Industrial Beehive’ the ‘City of Homes’ (Best and Farrant, 1996).

This premier position was eroded during the 1970s and the 1980s as Japan, continental Europe, and developing Asian nations emerged to challenge US pre-eminence in autos, steel, major household appliances, and consumer electronics. Job loss intensified during the 1973-1975 recession and spiked between 1979 and 1983 when over two million jobs (almost 16 percent of the national total) in several highly unionized durable goods sectors were lost as corporations shifted large segments of their manufacturing activities overseas. Among the Fortune 500's largest manufacturers employment fell to 12.4 million from 15.9 million between 1980 and 1990. General Motors, Ford, Boeing, GE, and UTC collectively eliminated 230,000 jobs from 1990 to 1995. Globalization increased the international labor pool and made capital and work more mobile. Firms globalized corporate assets and expanded their direct foreign investment in factories, office buildings, office equipment, and machine tools. (Forrant, 2000).

Unionized workers felt the full negative force of this corporate and labor market restructuring. Overall, one in three private sector workers belonged to a union in the mid 1950s compared to roughly one in nine in 2004. As organized labor's ranks thinned and manufacturing declined, many communities scrambled to save what jobs they could by offering corporations financial inducement to stay or move into their town. While seeking such 'tribute', companies routinely threatened work removal to quash organizing campaigns. And during most rounds of collective bargaining in the 1980s and 1990s corporations demanded and often received wage and benefits concessions from workers (Belsey, 2000; Lazonick and O'Sullivan, 2002).

A consequence of the disappearance of well-paying manufacturing jobs has been wage depression, declining household wealth, increasing income inequality and a degraded quality of life in older industrial regions of the country like Greater Springfield. In aggregate terms labor's share of the national income dropped from 66.2 percent in 1970 to 59 percent in 1995 and it continues to fall. As far back as 1998 the International

Labour Organization summarized these trends: “Recently, while many trade unions have been pressing for reduced work time, guarantees of employment security and measures to combat unemployment, some employers have been seeking to modify many of the hard-won social protection measures in an effort to make labour markets less rigid” (ILO, 1998). At the same time, since 1990, productivity has risen and corporate profit rates have grown.

In December 1998 IAM District 91 reached agreement on a three-year contract with Pratt & Whitney. At the time the company indicated that about 1,000 additional jobs might be eliminated due to what it termed ‘production scheduling problems’. But unionists were assured that no rerun of the drastic cuts that took place five years earlier was anticipated. Company officials emphasized that Pratt & Whitney was committed to Connecticut. Increased orders for very lucrative engine repairs and services were expected to boost jobs. Eight months later Krapek announced that Pratt would relocate engine repair and service work to Oklahoma and Texas and shutter a factory in Connecticut. As news of the cuts spread Gary Daly, age 48 with twenty years of service at Pratt, typified worker reactions. The company is “making record profits, and all they want is cheap labor, to bust the union” he noted. “We’ve got mortgages and families and are trying to send our kids to school. What are we going to do, flip burgers?” Back then, turret lathe operator and IAM Executive Board members Ted Durkin noted that there were some jobs available paying decent wages that required considerable training. “I’m 45 and lots of other workers are older. Not too many folks will want to start all over again and go back to school.” In 2004 there are far fewer of these jobs, while retailers and casinos are the job creators (Farrant, 2002).

Over the years the state government and municipal governments have done little to protect the remainder of the state's manufacturing jobs. In the late 1980s and early 1990s as manufacturers exited Connecticut and Massachusetts, the mayors of Hartford and Springfield engaged in a newspaper advertisement war, each one trying to entice

manufacturers from the others city to their state. While the Connecticut legislature has funded programs to encourage business research in such areas as biotechnology and medical devices these programs are not linked to a well-conceived plan for the transition of aerospace and other manufacturing workers losing jobs their into new opportunities. It is unlikely that many twenty-year Pratt machinists are going to be employed in financial services selling stocks and mutual funds, nor will they be able to make ends meet employed in the low-wage services and retail sectors.

It is no geographical accident that highly skilled jet engine and aerospace production took place in Connecticut for well over fifty years. Pratt & Whitney has a long history in the state, developing into leaders in their industry because the fertile skill base along the Connecticut River Valley provided engineering, innovation, and precision production skills. But with ultramodern plants built elsewhere and fewer investments being made in Connecticut, management has ‘manufactured’ the self-fulfilling prophecy that its Connecticut’s factories are not productive enough. And as precision metalworking jobs disappear, the skill base cultivated up and down the Connecticut River Valley for over a century is disappearing. While a work-removal strategy may generate handsome near-term returns for shareholders, should this be the dominant strategy employed by corporations, the failure to invest in efficient technologies and skills will result in a sharp decline in the nation’s productive capabilities and further economic and social misery for working families.

Communities—like East Hartford and Springfield—that were once home to these industries will suffer years of falling living standards and sharp population losses, a trend clearly visible in Connecticut and Western Massachusetts. At Pratt & Whitney workers were educated in problem-solving techniques and encouraged to use these skills to continuously improve plant efficiencies, knowing full well that steadily deteriorating job security was likely to follow. The best hope for workers, their unions and their

communities is to forge close bonds and contest for the creation of well paying work in city halls, the state legislature and with representatives in Congress.

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