LIMITS TO MARKET-MEDIATED EMPLOYMENT: FROM DECONSTRUCTION TO RECONSTRUCTION OF INTERNAL LABOR MARKETS

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From deconstruction to reconstruction of internal labor markets

Is the internal labor market dead? For much of this century, a substantial portion of workers in the United States benefited from internal labor markets (ILMs), featuring guarantees (usually implicit) of long-term employment, as well as access to tenure-linked pay increases and job ladders (Gordon, Edwards, and Reich 1982, Osterman 1988). However, the last two decades have seen considerable evidence of a widespread deconstruction of ILMs in larger firms in the United States (Cappelli 1995, Tilly 1997). Downsizing, outsourcing, job-hopping, and expanded use of contingent labor are the most visible evidence of the un-making of implicit long term employment guarantees and career paths within a single enterprise.

Many have argued that the deconstruction of ILMs has resulted in a drop in employment security for most workers (International Labour Organization 1997, p. 94). Instead of offering long-term attachment to a single employer, the "new social contract" is said to place responsibility for designing a career in the hands of the worker, with the employer responsible for alerting the worker to new skill needs--a transformation widely noted in the popular business literature (Mandel 1996, Pasternack and Viscio 1998).

The question of whether the deconstruction of ILMs is reversible, and the nature of the new job structures, have extremely important implications. In this paper we are particularly concerned about the decline in within-firm job security and mobility for low-skill workers who face difficulty securing employment in the first place (Holzer 1996, Moss and Tilly forthcoming). There is evidence that reduced job security and the shift of job mobility from within-company to between-companies tends to reduce wage growth for all but the most skilled workers (Rose 1995, Tilly 1997). Indeed, some analysts (Moss forthcoming, Howell 1997) have linked the collapse of wage levels for low-skill workers in part to the diminished role of ILMs; the growing wage gap between black and white workers with limited experience may also result

in part from these changes (Moss and Tilly 1991), in part because lower skilled workers have traditionally learned most skills on the job.

Moreover, to the extent that sustained competitive advantage flows in part from the organizational integration of employees, as some have argued (Lazonick and O'Sullivan 1996; Jones 1997), "de-integration" may undermine businesses' competitive advantages as well. After all, it has long been argued that ILMs were devised in the first place to solve a variety of performance difficulties, including the principal-agent problem for workers and firms' difficulty of reaping returns from investments in training (Doeringer and Piore 1987, new introduction, Williamson 1985).

Most empirical research on the subject is based on the assumption, explicitly or implicitly, that the decline in the use of long-term employment relations and internal job ladders is a permanent one (Cappelli et al. 1997 provide a recent, comprehensive review; see also Noyelle 1987 for an important early statement of the argument, Heckscher, this volume). We contest this assumption of permanence on both theoretical and empirical grounds. Theoretically, we hold, with Tilly and Tilly (1997), that workers' desire for job security and employers' need for a predictable source of adequately skilled workers create strong, continuing pressures to rebuild something akin to ILMs. Further, in our view restructuring is a protracted process of experimentation, blundering, and learning for most firms, so that attempts to declare the process complete may be premature (Ortmann and Salzman 1998, Tilly and Tilly 1997). Firms grope among alternative strategies, sometimes imitating leading firms (Scott 1987, DiMaggio and Powell 1991), sometimes adopting consultant-driven fads (Eccles, Nohria, and Berkley 1992), and sometimes shifting objectives.

As for empirical evidence, despite case studies suggesting the devolution of ILMs, some aggregate indicators of the vigor of ILMs have changed relatively little (Bernhardt and Marcotte, this volume). The differential in tenure between large and small firms, which one would expect to narrow over time if ILMs have significantly declined, shows no change between the 1980s and 1990s (Allen, Clark, and Schieber 1998). Estimates of the firm-specific components of

wages, one way of assessing the extent to which ILMs shelter wages, also show essentially no change over the last couple of decades (Groshen and Levine 1998). One interpretation of this apparent contradiction between case study and aggregate data is compositional: the case studies represent changes that characterize only a small and perhaps atypical subset of firms. But these disparate findings are also consistent with a world in which firms intermittently tear down and rebuild ILMs, averaging out to little change in the aggregate. Smith (forthcoming) reports case study results with a similar flavor: managers at a high technology manufacturer that uses a large number of temporary employees, have found ways to integrate these temporary workers as quasi-permanent workers. Indeed, even the business press has suggested that, in the words of a *Wall Street Journal* headline, "Hiring a Full Staff May Be the Next Fad for Management" (Lancaster 1998).

We examined several large corporations that have undergone restructuring and reduced long-term employment at various skill levels. The financial services and high technology electronics manufacturing companies under study downsized, outsourced, and increased the size of their contingent workforces. However, particularly when restructuring jobs at the higher end of the low-skill spectrum, they found that there were negative effects on quality and innovative capacity. In response, some of them have partially reconstructed ILMs in a variety of ad hoc ways, which typically do *not* include reestablishment of previously existing ILMs. These reactions are far from constituting a counter-trend, but certainly represent a deviation from the unidirectional dismantling of ILMs described in much of the literature.

Methods and data

We conducted case studies of large businesses in insurance and in high technology electronics manufacturing during 1996-98. Both industries historically offered jobs at a wide range of skill levels, and built ILMs offering job security as well as wage and/or functional mobility within the firm. Both industries have experienced product market turbulence, and businesses in each industry have undertaken a variety of forms of organizational restructuring.

We selected four leading firms in each sector for case studies, and use these cases to generate hypotheses, not to draw general conclusions. Since these are large, trend-setting businesses in their respective markets, their experiences are likely to be widely noted--and either emulated or avoided--by other companies. In this paper, we focus primarily on two firms in each industry, which we call Electronicus and Monarch, Steadfast and InsurAll respectively. We omit many identifying details in order to maintain confidentiality for these companies. The two electronics companies are multi-plant divisions of larger corporations, subject to guidelines from their corporate parents but enjoying substantial autonomy. In the case of the insurance companies, we studied each corporation as a whole.

In each firm, we spoke with human resource and operations managers, professionals, and frontline workers between 1996 and 1998. Where outsourcing was an issue, we also interviewed purchasing and sourcing managers and owners or managers of a small number of supplier firms. At the four companies on which we focus in this paper, we conducted a total of 126 interviews, many with multiple respondents, somewhat unevenly distributed across the companies. For three of the four companies (all except Electonicus), we carried out multiple interviews up to two years apart, allowing us to follow changes as they took place.

Our interviews examined the motivation for and nature of corporate restructuring. We asked about a wide range of changes—in organizational form, in job structure, in the "value chain" through practices such as outsourcing—to the extent that they involved changes in job quality, skill levels, or skill development mechanisms. We attempted to learn how actions, reactions, and adjustments of businesses evolved following the initial decision to restructure. The managers we spoke to were most concerned about how all of these changes affected firm performance and whether they constituted successful competitive strategies.

The processes involved in corporate organizational restructuring are legion. Seven major ones--which often coexist and to some extent overlap--directly affect ILMs for lower-skill jobs:

1) Outsourcing

2) Shifting of some functions to remote sites

3) Expansion of contingent work

4) Abrogation of implicit lifetime employment guarantees (e.g. via downsizing)

5) Broadening of jobs, so that more mobility takes place *within* jobs

6) Flattening of the organization (by removing or shrinking levels of supervisory staff)

7) "Rung removal"--filling higher level jobs by external hires rather than internal promotions.

In addition, restructuring possibilities include a variety of organizational changes that do not bear as directly on ILMs: the adoption of high performance work practices, mergers/acquisitions or shedding of divisions to focus on perceived "core competencies," the adoption of two-tier wage and benefit schemes, and so on. Finally, many restructuring actions do not involve revision of organizational form per se: for example, automation, deskilling and upskilling, speedup, changes in product mix, and outright relocation of an entire company.

We saw a wide variety of types of restructuring in our case studies, but in this paper we focus on types 1-5, because they are the changes in work organization about which we learned the most. We view these changes as "intermediate" processes (Figure 1). They are spurred by a variety of drivers, and in turn generate a variety of outcomes. We are particularly concerned about job quality outcomes: pay level, permanence, skill requirements, and opportunities to gain new skills and to advance. As we noted, firm managers, on the other hand, are particularly interested in performance outcomes including changes in productivity, quality, labor turnover, and innovative capacity (encompassing both process and product innovation).

[FIGURE 1 ABOUT HERE]

In principle, restructuring of ILMs could follow a variety of trajectories over time. To provide a clearer picture of the possible dynamic paths, we plot over time a variable such as, for instance, real wage or probability of promotion for a given job category (Figure 2). Among the possible patterns are:

• A flat line, indicating no change in pay or opportunities for advancement

- A capital gamma (), showing that job quality rises and stays high. The business press has typically described "employability" and the "new social contract" in this way, arguing that they widen opportunities for workers rather than constricting them.
- An L denoting that pay or advancement possibilities fall and remain low. The scholarly literature tends to emphasize this outcome.
- A reverse J, with job quality declining, then rising, but never reaching its former level.
- A U, in which job quality initially declines, then rebounds to its former level

Though far from exhausting all possibilities, this set of diagrams suggests some of the variation one might expect to encounter.

[FIGURE 2 ABOUT HERE]

Findings

In the companies studied, recent corporate restructuring involved three analytically distinct "waves" of changes in corporate organization and strategy. While these waves overlapped, with firms sometimes pursuing two different, and potentially conflicting, objectives at the same time, we find it useful to separate these waves analytically and to identify the process as dynamic and ongoing. This shows the need to be cautious about concluding that current restructuring will lead to a new stable state. (Carré [1993] has reported similar findings in her case study of contingent work in the French financial services industry.)

The first wave of corporate restructuring involves achieving "organizational focus," primarily through shedding less central business lines and in some cases purchasing more closely related ones. This ranges from the breakup of diversified conglomerates to narrowing the variety of products sold by a firm (e.g., reducing the number of lines in a multiline insurance company). The second wave involves improving operational efficiency through downsizing, delayering, outsourcing and changing jobs in ways such as "broadbanding" (increasing the range of tasks within a job) and increasing workloads but generally without significant changes in the nature of

the job activities. Second wave changes thus typically involve the deconstruction of ILMs--decreasing long term employment and within-firm mobility.

The third wave of restructuring, for innovation and growth, is only in its early stages in the companies we observed. The forms are still quite varied and a dominant form is apparently not yet established. We do, however, postulate that the dynamic in this wave is and will continue to be toward rebuilding ILMs. Given our interest in ILMs, we zero in on waves two and three in this paper.

Electronics case studies

Our two firms are electronic instruments manufacturers, whose products are low-volume, engineering-intensive, and involve rapid innovation. Despite this high-tech profile, many instrument production processes involve low-end jobs--stuffing circuit boards, assembling cabinets and boxes--in addition to high-end jobs requiring technical expertise. Through the post-war period, these instrument producers developed into highly vertically integrated firms. Nearly all parts production --even basic fabrication such as screw production-- was done in-house until the mid-to-late 1980s. Traditionally, outsourcing was done in the electronics instruments area only for a few specialty parts for in which an outside supplier offered unique expertise. Increasingly, however, these and other large producers are subcontracting or outsourcing the low-end, high volume work, leaving them to focus, instead, on new product development, and niche markets for state-of-the-art equipment.

Monarch Products. Monarch Products, a large, high technology manufacturer, dramatically expanded its use of outsourcing beginning in the late 1980s as one of a set of wave two changes. After deciding to restructure, Monarch outsourced 12,000 parts over 18 months. This was justified primarily in terms of cost reductions, though managers also spoke of reaping the advantages of specialization.

In the 1990s Monarch, however, began to encounter the limitations of outsourcing, as its strategy changed in two ways. Whereas earlier this firm had primarily purchased commodity components, it now began to purchase more complex subsystems involving assembly work. This was a response to the frustrations of working with the suppliers of 12,000 parts. Rather than providing suppliers with a full specification for such subsystems, Monarch increasingly furnished only functional "specs" that required the suppliers to solve problems and even to participate in the innovation process. Outsourcing thus changed to subsystem assembly, engineering and even innovation. Despite this expansion of supplier responsibilities, Monarch demanded that suppliers meet cost constraints. One result, we were told by Monarch managers, was a dramatic increase in problems including late delivery (or even failure to deliver), serious quality flaws, cost overruns, and loss of key engineering capabilities within Monarch.

Consider, for example, the case of Monarch supplier Angstrom Tools, a precision machine shop that for years simply supplied component parts. In the early 1990s Monarch approached Angstrom about producing a high value-added subsystem requiring assembly, integration of electronic and electrical components, and testing—in addition to Angstrom's accustomed machining work. Angstrom took the plunge. Monarch then accounted for about 30 percent of Angstrom's total revenue and Angstrom became the sole supplier to Monarch for a critical subsystem.

Angstrom, however, was not able to deliver the product at the time promised, at the price quoted, or at a sufficient level of quality. Unit costs for the product ran nearly 30 percent above the original estimate, in substantial part due to added engineering costs. Monarch agreed to pay some of the additional costs but the supplier still had to bear a significant portion, seriously straining its finances and raising the specter of bankruptcy.

With hindsight, Angstrom's failure was not surprising. As a machine shop focusing on components, the supplier had a moderately skilled labor force and little management infrastructure. Its low cost was largely the result of low wages and low overhead, which also meant it lacked the skilled workforce needed for a highly engineered product that had to be

manufactured to exacting specifications. Probably more importantly, Angstrom lacked systems to ensure quality, to manage complicated financial arrangements and contracts (e.g., with an expanded group of sub-suppliers), and to track its own costs in a more complicated subsystem assembly. As one of Monarch's managers exclaimed, "These systems require *real* engineering, *real* processes, *real* production capabilities–these job shops just don't have that capacity!" Another added, "There's a reason why these small shops have remained small for years – they just don't have the management, resources, and whatever to do a complicated product." Trying to develop these systems and capabilities naturally increased the suppliers' costs, making it impossible to deliver the expected cost reductions. In addition, Angstrom's problems producing and delivering the product increased Monarch's monitoring, engineering, and warranty repair costs of the final installed product.

Setbacks like those experienced with Angstrom were repeated with many other suppliers. Monarch responded to these problems in a variety of ways. In the short run, it adopted ad hoc solutions, such as sending a group of engineers to "camp out" at a supplier's plant and solve design problems or deploying added production staff to test or rework components. Over the long run, Monarch managers acknowledged that small, low-cost suppliers lacked the capacity for these more complex and innovative tasks, and therefore moved on to wave three actions. They once again insourced some components, helped small suppliers to vertically integrate and thus become larger, and increasingly shifted to larger suppliers--including some diversified companies comparable in size to Monarch itself. Commented one purchasing manager, "I went from looking for a $2 million [per year in sales] company to produce sub-assemblies, to $5 million, $10 million, $15 million--now I think it takes more like a $50 million company."

Corollary to these shifts in the locus of production were shifts in the degree to which fabrication and assembly work took place within ILMs. The initial outsourcing relocated work from Monarch's well-developed ILMs to predominantly small firms with few layers of management and sharply limited chances for advancement. Insourcing, vertical integration of

suppliers, and gravitation toward larger suppliers all represent a move back of these activities to more developed ILMs.

Another initiative at Monarch was downsizing. This occurred most sharply in the late 1980s, as part of the process of outsourcing and organizational change. Monarch and its corporate parent reduced layers of management, creating a flat management structure relative to many other firms of similar size. Workloads increased as the ranks thinned and total work volume grew. These changes were part of a culture change that called for every person to "push," to do more with less. The people we interviewed, those who survived and thrived, generally agreed that there was a genuine effort to be a responsive, non-bureaucratic organization that pushed people to take chances and "go beyond their comfort zone," and supported them when they did. But, downsizing and "pushing" did not receive a uniformly positive evaluation. A number of managers commented that these changes had led to a punishing pace, with people overloaded beyond their capacity. "We're always running in the red on the tach[ometer]" was one manager's summary of the situation. A new senior manager from another industry said he had never experienced anything like the pace at Monarch. It was true, he said, that Monarch moved quickly without a lot of constraining bureaucracy, but "when does anyone get a chance to think? When does anyone here have the time to figure out what to do before they act?" Similarly, another manager suggested that Monarch's standard operating procedure amounted to "Ready, fire, aim."

Unlike Monarch's course correction on outsourcing, there is little sign of a "third wave" adjustment to downsizing and speedup. At one point in the mid-1990s, top corporate-level executives did instruct managers to ease up somewhat and to let people catch their breath. But this directive had little effect amidst a blizzard of demands for higher productivity and lower costs.

Electronicus, Inc. Electronicus, rather than outsourcing *products*, outsourced *workers*, dramatically increasing its use of contingent labor. In the late 1980s, facing declining profits,

Electronicus' corporate parent launched a restructuring plan that eliminated several layers of management, imposed cost controls, and focused on improving its engineering process. Contrary to many companies, the corporation developed an "alternative downsizing" strategy involving voluntary relocation, a worker loan program (loan of displaced workers to other divisions on a temporary basis), and early retirement. Two years later in the face of continued profit problems, Electronicus' corporate parent engaged in a broader restructuring effort. It decided to reduce or close some of the plants doing fabrication, consolidate other plants (reducing manufacturing plants from 12 to just 5), and change organizational structure. It separated product groups and operational areas into autonomous profit and loss centers, and made these smaller units accountable for performance and costs.

During this restructuring, Electronicus' parent started developing a "buffer" temporary workforce that could be easily adjusted to protect the employment security of the core workforce. The stated goals included both short-term cost control and avoidance of the massive layoffs that occurred during the recession of the early 1980s. Initially, the company declared that its aim was to maintain a contingent workforce of about 10 percent of the total. While the rationale for most companies was to cut costs by not paying benefits, Electronicus and its parent were among the few to pay contingent workers a premium in lieu of benefits. After six experimental programs they implemented the "buffer-force" policy corporation-wide in the early 1990s. Employment of temporary workers, at its height, grew to about 13 percent of the parent corporation's workforce.

In line with this policy, Electronicus began to hire 25 percent of production workers (10 percent of its total workforce) through temporary agencies. The main agency maintained a hiring office on site. Like the surge of outsourcing at Monarch, the sizable expansion of the contingent workforce at Electronicus precipitated a number of problems. Historically, this firm has relied on long-term employment guarantees and opportunities for promotion to motivate workers. However, official company policy is to lay off temporary workers after two years and to treat them as outsiders in bidding for promotions. Additionally, benefits available to permanent

employees, most notably profit sharing, are not available to temporary workers. During a plant visit, a quarterly profit announcement over the public address system was met by spontaneous cheers and then sudden and awkward silence as workers realized that a quarter of their "associates" and "teammates" had much less to cheer about. This, one manager observed, was symbolic of problems in using a large temporary workforce.

Some managers think that Electronicus' dual labor force creates tensions among workers, impedes the integration of temporary workers into the work process, and reduces the level of commitment of a large part of the workforce. "It may not be such a good idea to have contract [temporary] employees," commented one HR manager. "You want to have people you can count on." She contrasted the use of temps in the company's main productive activities with more "contained" contracting out of photocopying, the mailroom, and janitorial work, which she said "works quite well."

In practice, many Electronicus managers have acted to subvert the official policy with respect to temporary workers. They lay temporaries off for the required three months after two years, but then rehire them, essentially turning them into long-term employees with periodic unpaid leaves. ("This is not what we planned when we set up our contract workforce!" an HR manager exclaimed.) They do their best to fill a permanent opening by hiring a temp who has been doing a job for two years, rather than hiring the permanent employee who is nominally entitled to the job. Given the perceived problems and frontline managers' reactions, a top Electronicus HR official told us, "We need to take another look at using so many temporary workers. Twenty-five percent is too much." Whereas Electronicus' push toward a temporary workforce shifted substantial amounts of work out of the ILM, both the unplanned long-term integration of temporary workers and the company's determination to reexamine the policy of widespread use of temps mark a return toward ILMs.

Insurance case studies

Like electronics manufacturing, financial services, and insurance companies in particular, offer rich opportunities for studying the evolution of ILMs. First, insurance companies historically had highly developed ILMs. Until recently middle management (and even CEOs in some cases) moved up from entry-level clerical and service areas. Second, the industry has undergone tremendous restructuring over the last 20 years, spurred by financial deregulation, technological change, and financial and marketing innovation (Salzman and Buchau 1997). The planned merger of Citicorp with Travelers Group marks only one recent example.

Third, one important dimension of this change has been reshaping of the job structure, typically in ways that reduce the scope and role of ILMs (Tilly 1996). Many financial service companies have been spinning off back office and customer service functions into remote sites—for example, call centers used for billing, sales, or service. As in the case of call centers in telecommunications services (Batt and Keefe 1998), such dispersion isolates functions that were once part of broad jobs geographically and organizationally connected to large bureaucracies (Herzenberg, Alic, and Wial 1998). Reflecting the growth of call center and back office jobs, over the 1980s and 1990s financial institutions saw the number of bill and account collectors, new accounts clerks, credit authorizers, and clerical supervisors grow at a pace that far outstripped overall employment expansion in the industry (by a factor of 11 in the case of collectors) (U.S. Bureau of Labor Statistics 1998). These growing positions require social skills, unlike occupations such as record processing, which are diminishing in relative importance. Customer service skills, even among low-level financial services employees, appear to be a critical building block of competitive advantage in financial services (Frei, Harker, and Hunter 1995), so that to the extent mobility opportunities are needed to attract, retain, and provide incentives for such front-line workers, dismantling ILMs may have negative effects on firm performance. Job structure modifications have also had consequences for the workforce at the industry level, including a dramatic widening of wage disparities (Brown and Campbell 1998).

Steadfast Insurance. When we visited Steadfast insurance, the company was just initiating wave three restructuring, while nearing completion of its first and second restructuring

efforts. Wave one, the process of identifying and concentrating on core businesses, had occurred over five years. The multiline business was disaggregated into separate small or strategic business units (SBUs) in order to “expose” each SBU’s profits and losses. Analysis of each of these business and its market then led to selling some of them. The intent was to make each SBU a “business within a business.”

The “wave two” push toward greater cost effectiveness and operational efficiency had also been proceeding for several years before our first visits and was projected to continue for several more. This effort involved cost cutting, some outsourcing, downsizing, delayering, and broadbanding of jobs for the remaining employees. The attempt at cost reduction and greater efficiency was spurred in part by a consultant’s study that found Steadfast’s cost structure to be much higher than the industry. Closing this “cost gap” became the central theme shaping restructuring efforts, primarily by job cutting and workload increases, though some technology initiatives were also pursued.

Employee morale, not surprisingly, tumbled during this period. By the time of our interviews, it was clear that the gap had not been eliminated and that the two waves of downsizing that had already occurred would be followed by at least one more, adding to the climate of uncertainty. Additionally, the workforce reduction ran the risk of losing key people with skills and organizational knowledge crucial to the success of the campaign. The climate of downsizing encouraged people with the most marketable skills to leave. Because Steadfast’s organizational structure had been built around individual products, certain employees had very deep knowledge about particular products, and this knowledge had never been codified. Therefore, there was great concern about losing such people.

It is not surprising that key organizational knowledge of individual employees had never been documented. Steadfast had been noteworthy for lifetime employment—often referred to as the “Mother Steadfast” culture. While the firm was criticized as sedate, this culture clearly provided benefits in maintaining important organizational knowledge—but also made it difficult

for the organization to downsize while focusing the remaining employees on a new culture of cost consciousness and innovative selling.

A crisis of sorts was reached around the time we began our study of this firm. Steadfast had made some progress in reducing its workforce and its costs, and had begun to assess how they were going to develop a strategy for increasing their share of the financial services market. Then, because of external pressures, management sent down an edict to cut costs another 10 percent. A line manager commented, “But we realized we couldn’t cut staffing any more. We had to reorganize work to work smarter instead.” Although the 10 percent cut was implemented, it represented a turning point. Many in the company realized that achieving the transformation into a broader financial services company required changes in job structure at all levels as well as organizational changes. As a result, Steadfast is integrating products into a more unified offering, and integrating strategic business units that have been separate.

To strengthen the new organizational structure the company made significant changes in its job structure. Over the past two years, Steadfast has created jobs that encompass several previously separate functional areas. This eliminated the former finely graded hierarchy based on narrow job descriptions. Instead there are broader categories such as “customer associate,” encompassing the responsibilities of six former discrete jobs. The company went from 7,000 separate job descriptions and classifications to only 2,000. Advancement now involves increased mastery of “competencies” rather than specific task skills. This has resulted in greater skill demands at the entry level and larger skill “distance” between jobs, but also greater skill development and responsibilities as well as wage progression within each broad functional job category.

Combining cutbacks (wave one restructuring) with reorganization (wave two) has at times created problems. Our interviewees mentioned the difficulty in getting personnel to think positively about the job redesign effort while there was so much flux and uncertainty about the security of their jobs. As a consequence of layoffs, the remaining workforce was being asked to assume many of the responsibilities of the personnel that had been eliminated. This both reduced

morale, and impeded the implementation of training and support programs that would facilitate the development of the new job redesign efforts.

In a separate initiative, Steadfast created a call center geographically removed from the home office. Steadfast established its new call center in an area we call MetroWest in 1997. There were several reasons for this, beyond the simple need for more call center capacity. One was to provide backup to the MetroEast home office call center in the event of a sustained power outage, such as had occurred during a recent winter ice storm. A second was to allow for easier coverage of longer hours of operation by taking advantage of the difference in time zones. MetroWest also offered the opportunity to break out of what was seen as the tradition-bound culture at the home office and try some new techniques of organization and management, as well as to serve customers who needed a broader range of information and more technical assistance.

Given the distance between MetroWest and the home office, Steadfast did not plan to offer substantial promotion opportunities to the MetroWest workforce. Unexpectedly, however, the combination of worker involvement and the relative abundance of college educated talent in MetroWest resulted in many highly qualified employees. Also, the growth that came with staffing a new and developing organization provided opportunity for fairly rapid advancement for some early hires. These circumstances led to a relatively strong talent pool of entry level workers that the managers were interested in retaining beyond the expected tenure for a customer service representative (CSR). One human resource manager at the home office opined that the call centers should be particularly good places from which to draw candidates for management because success in the call center required good customer and teamwork skills and developed good knowledge of the company and its products. The geographic isolation of MetroWest, where the most talented customer service representatives were being employed, prevented upward movement into lower management jobs in the company. In response, the MetroWest management team began to create “team champion” and “team leader” positions, providing some upward mobility to the more capable among the customer service representatives in the hope of

keeping them. They were rebuilding the ILM that geographical deintegration had dismantled, albeit in a very limited way.

Thus, Steadfast shifted from dismantling to reconfiguring and even reconstructing ILMs. After repeated rounds of downsizing, managers decided to “reorganize work to work smarter,” fashioning a new ILM structure. Establishing a distant call center initially created jobs isolated from job ladders, but managers found ways to re-invent upward mobility for CSRs at the remote site.

InsurAll. Another insurance company, InsurAll, also initially undertook wave one (focusing on core businesses) and wave two (operational efficiency), restructuring in ways similar to Steadfast. InsurAll historically had a less integrated structure. Each insurance unit had a president, with profit/loss responsibilities. When the industry became more competitive in the late 1980s, InsurAll evaluated the financial strengths of each line and sold units that did not meet profit goals and/or fit with its core business strategy. This process led to internal restructuring, downsizing and layoffs. InsurAll also introduced some new technology and decentralized to each business unit various functions such as information services and the human resources function.

In the early 1990s, InsurAll decided to move one of the business lines out of the home office building in a major metropolitan downtown area. InsurAll solicited bids from cities for tax breaks and training incentives in addition to evaluating workforce and business climate. A southern city submitted the winning bid.

The move was considered a success, and a year later some administration and back office functions moved. The company’s goal was to obtain lower labor costs, but also to eliminate an existing workforce they didn’t want to retrain--with selective offers of relocation to incumbents viewed as trainable. Using a discriminating hiring process based on careful documentation of job requirements, along with intensive training, InsurAll was successful in building a more productive back office workforce.

At the time of our first interview, about a year after this second step, there was a high level of excitement about the success of the first two moves and discussion of moving many--

perhaps even all--functions out of their current home office location, starting by moving several hundred jobs to two midwestern and southern states. The jobs in question were high-level clerical, technical/clerical, and mid to low level professional jobs.

But when we returned to the company 18 months and then 24 months later, InsurAll managers told a different story. The company had not moved any more jobs out; in fact, they had moved some *back* from remote sites in order to regain advantages of proximity and organizational integration. In contrast with earlier enthusiasm, managers saw the relocation efforts as only moderately successful, or perhaps more accurately, as successful for some functions but not a strategy that could be expanded.

Managers' strategies for altering job structures also evolved during this time. As in most insurance companies, advancement in InsurAll was traditionally through internal career ladders, starting at or near the bottom and "growing up in the company." Additional training and education were not required. But in the 1990s, one HR manager explained, "the term 'ladder' is archaic in financial services," since one doesn't advance "in lockstep" to a specified position. Under the new regimen, people have to expand their job skills and responsibility, and "are more *personally* valuable to the extent that they [see] things in a way that others don't."

Much like Steadfast, InsurAll collapsed jobs into several broad categories. They identified a set of "competencies" needed in multiple jobs. For instance, the same principles underlie communication skills for dealing with external customers and internal communications, though the specifics differ. Compensation has changed as well; it now includes base pay, performance bonuses awarded each year, and pay raises driven by increases in skill level. In contrast with old rules that specified automatic pay increases and added performance increments to pay for a given job at a given skill level, base pay now increases only if an employee demonstrates mastery of new skills, which, eventually, will lead to a new job.

Under the new system, supervisors are evaluated in part on the extent to which their employees attain new skills. Although this approach is too new for us to be able to assess its impact, its logic and incentives place increased pressure on both workers and supervisors to

engage in constant skill development and to seek mobility. Indeed, one goal is to impel people to continually move to new jobs, even if they only make moves that would have formerly been considered lateral.

In short, InsurAll also has progressed from weakening ILMs to rebuilding them. Seized initially by enthusiasm for relocating functions to far-flung sites, managers soon recognized that they had underestimated the advantages of co-location. They halted the creation of remote facilities, and even pulled some activities back into the home office. The company ended the traditional system of internal advancement, but replaced it with a new system likewise focused on internal mobility.

Another look at the consequences of restructuring

Each type of corporate restructuring we examined had consequences both for ILMs and for firm performance. In this section we offer a summary balance sheet, drawing on case materials beyond those we have already highlighted. *Downsizing*, first of all, undermined job security. At both Monarch and Steadfast, workers and managers also reported that downsizing has significant and long lasting impact on worker morale. Many managers said they now viewed downsizing, at least as carried out, as mistaken because of the costs to morale, workforce commitment, and productivity. In fact, human resource managers said their major problem in the mid-1990s was rebuilding the trust and commitment that downsizing had weakened.

These morale problems outlasted the downsizing itself. In one firm, for example, ongoing "involuntary turnover," namely those employees who left under pressure, was only 3 to 4 percent per year in the late 1990s. However, about 60 percent of the workforce indicated in response to a survey that they strongly believed they were not secure in their job. Thus, ongoing fear of job loss was far greater than warranted by the actual threat. None of the firms saw repeated downsizing as a viable ongoing strategy for improving performance, nor did the managers think that there was a need for ongoing workforce turnover.

Outsourcing took place at three levels. The first involved infrastructure services, such as security and custodial services. This entailed little change in skill requirements or opportunities for mobility, since these were generally low skill jobs with limited job ladders. However, reductions in pay, benefits, and job security were common.

At the second level, companies subcontracted operational areas such as part fabrication and data processing, targeting lower costs. Outsourcing for the most basic commodity parts and services was widespread across all firms, with some firms (including Monarch) going as far as to eliminate entire production areas. Such outsourcing usually, though not always, results in lower paying jobs with fewer benefits, less job security, and less unionization. This is particularly true when cost savings come from subcontracting to firms such as Angstrom that pay lower wages and have less management infrastructure. At the same time, in some cases the shift did increase access to jobs by lower skilled workers, as well as opportunities for informal skill development. Also, the picture with respect to stability of employment was mixed. Without unions, suppliers offer less employment protection, but those suppliers with more diversified product markets than their customers may be less susceptible to market-specific cycles.

Some cost-driven outsourcing reaped savings by shifting activities to specialized firms able to reap economies of scale and better machine utilization. For example, the electronics companies outsourced printed circuit boards to large, specialized suppliers with highly developed infrastructures and ILMs. In these cases, the suppliers offered lower pay than the purchasing companies, but there was no appreciable change in other aspects of job quality, and perhaps greater stability because the board supplier had a more diversified market.

Finally, we observed a third level of outsourcing for product innovation, primarily tapping engineering talent outside the core firm. There were no appreciable negative effects on job quality. In many instances, in fact, job quality appeared to improve, with the outside firm paying engineers more and, probably due to their smaller size, offering a more flexible environment. There was less opportunity for those with high-level managerial aspirations.

Various companies used *contingent workers* differently, for varying strategic goals. We have highlighted the case of Electronicus, where temporary workers were an important part of a strategy to *preserve* job quality for the permanent workforce. This firm tried to treat its temporary workers relatively well in terms of pay and some (albeit not officially sanctioned) opportunity for longer term employment. On the other hand, several electronics supplier companies explicitly used the temporary workforce as a way to reduce costs and as a screening device. One core company subsidiary maintained a temporary workforce in part because the non-employee status of these workers artificially reduced the denominator of the company's sales/employee ratio, thus improving its image in the eye of its investors. Although temporary workers were paid less at this company, managers did not believe that this reduced costs much, if at all, because of the increased administrative and turnover costs, as well as reduced productivity. At Steadfast, one unit supervisor used temporary status as an implied (or sometimes explicit) threat to motivate performance; but this tactic was deemed ineffective or even harmful by a subsequent supervisor who, with one stroke, made all the workers permanent.

Managers generally voiced negative opinions about the results of using temporary workers, including lower productivity, higher turnover and lower morale. Temporary positions were not always worse in terms of pay, but uniformly lacked job security, opportunities for skill development and mobility. Most managers agreed that these workers were useful for conducting narrowly defined tasks but not for contributing to the broader organizational performance that firms in the third wave were trying to improve. These employees were used as a "disposable workforce," and reciprocated in attitude and behavior. One insurance manager commented that temporary workers would go across the street for 10 cents an hour more whereas their permanent workers would stay because of the long-term opportunities at the firm. At an electronics production facility, contingent workers had (unplanned) annual turnover approaching 50 percent compared to under 10 percent for the rest of their workforce. Further, even in basic production areas, sense of purpose and *esprit de corps* was hampered when there were workforce divisions.

Moreover, since temporary workers were cut off from ongoing training and education within the firm, their presence shrank the pool of internal candidates for advancement.

Given all of these negatives, many of the managers we spoke to were seeking ways to contain the use of a temporary workforce—by limiting its size and/or specifying a limited period of time after which such workers become eligible for permanent employment. Thus, to the extent that these firms are representative, the evidence suggests that use of temporaries has limits, that some retrenchment is likely, and that their use is not likely to expand in its present forms.

The companies also used g*eographic de-integration* in a variety of ways. Manufacturers often de-integrate in search of lower costs, to enter new markets abroad, or to create a hedge against economic changes in particular countries (e.g., currency fluctuations). Monarch developed geographic dispersion to a far greater extent than the other instrument companies. In fact, all the others were very concerned about the problems such a policy might created and some (for instance Electronicus) consolidated most facilities in one geographical area. InsurAll de-integrated to cut costs, whereas Steadfast did so in pursuit of more varied objectives.

Geographic de-integration affects job quality primarily by reducing the vertical and horizontal moves available to workers, especially in small or homogeneous remote units. Removing the lower occupational rungs from the core offices of a firm also limits entry opportunities for people with few skills. This marks a significant shift for the insurance industry, which traditionally provided mobility for the less-skilled—at least in certain jobs such as sales and customer service—both because advancement was possible on the basis of job performance and on-the-job learning, and because the firms often provided assistance in obtaining further education. On the other hand, dispersion generally improves employment opportunities in the communities where the new “spin-offs” are located.

Analogous to the problems created by the use of contingent workers, geographic de-integration had drawbacks when it affected *core* workers. The issues of co-location of productive activities, extensively studied in various manufacturing activities, pertain to service work as well. Units that can benefit from interaction with other units are likely to suffer from geographic

isolation. However, managers view many jobs, such as outbound calling (e.g., for solicitations), as providing little organizational learning benefit, and thus not subject to this constraint.

Some of the other firms also engaged in *job broadening*. In addition to Steadfast and InsurAll, two of the electronics companies introduced new production methods that entailed expansion of skills and broader job responsibilities. The resulting redesign of jobs into broad functional categories and elimination of a finely graded hierarchy presents new opportunities as well as new barriers: both the skill barriers to entry and the gaps between job functions are greater (and may require outside education or training to traverse), but skill development and responsibilities as well as wage progression are also much greater within each broad functional area. In large firms, low-level jobs may hold out the possibility of relatively higher levels of skill and wage development than in the past but fewer opportunities for internal progression to middle level jobs without external education and training.

Wave three efforts to broaden jobs would tend to generate new demands for training, but businesses had typically greatly reduced their training capacity during wave two by shrinking and decentralizing human resource functions. Most managers we spoke to seemed determined to limit added training to managerial levels during wave three. Despite headlines about labor shortages, they planned to hire more educated workers, or to make employees responsible for their own education and training, rather than to provide additional training to front line workers. (Moss, Salzman, and Tilly 1998). It remains to be seen whether this approach will succeed in meeting the skill needs of these businesses.

In Figure 3, we summarize the predominant outcomes of each type of restructuring of jobs. Actual outcomes varied depending on the type of jobs affected and the specific restructuring strategy.

[FIGURE 3 ABOUT HERE]

Alternatives to Wave 1 and Wave 2 restructuring

We can also learn something by comparing firms that adopted a particular restructuring strategy with those that did not—and here we briefly refer to our other cases, as well as the ones discussed already. For example, Monarch aggressively pursued outsourcing, but Electronicus and two European companies, Precision and MeasureAll, did so far less. Precision and MeasureAll, as well as their suppliers, were constrained by European labor laws, so outsourcing often did not alter pay or benefits, and in at least one case workers were directly transferred to the supplier. These two and Electronicus emphasized innovation, control over the production process, and informally acquired design and production knowledge as competitive advantages, whereas Monarch placed greater emphasis on systems integration and strong distribution and service networks, although relying on innovation as well. Particularly striking was the contrast with MeasureAll. Monarch outsourced circuit board production relatively early in its move to externalize production. Its managers argued that driving down board costs depends on constantly investing in new equipment--which Monarch's volume of board use could not justify. MeasureAll reported similar issues of economies of scale in board production, but rather than outsourcing boards, began marketing them to other firms, scaling up their board shop into a profit center. They did this with other components as well, so that of their 25 "suppliers" of subsystems, 20 were manufacturing centers *within* MeasureAll or its parent company.

In the insurance sector, the most striking contrast was between mutual companies (owned by their policyholders) and companies owned by stockholders. Steadfast and InsurAll, stock companies directly exposed to investor pressure, avidly engaged in wave two style restructuring, and then showed signs of swinging toward wave three. The two mutual companies, in contrast, were buffered from the stock market and approached restructuring in a much more deliberate manner. Though managers in these companies also described strategies of change, we did not see much of the turbulence of wave two downsizing and de-integration, nor the improvisation of wave three reconstruction of ILMs. Of course, these companies are also cut off from a key source of capital. As a result, quite a few mutuals, including the two in our study, have recently

converted or announced plans to convert to stock ownership or some sort of mutual/equity combination.

One final contrast represents a small but noteworthy divergence in strategies. Recall that Electronicus managers, while bemoaning the effects of an expanded temporary workforce, thought that contracting out of peripheral functions such as security and photocopying worked well. Interestingly, Steadfast considered contracting out their home office cafeteria in similar fashion, but then decided instead to try to build it into a profit center—and succeeded in doing so, while also increasing quality. It is now considering providing cafeteria services to other companies in the region. Apparently, even activities quite remote from a company's central business can become "core competencies."

In summary, each company that restructured did so in response to a set of perceived imperatives. But other businesses, even within the same industry, reacted to the same imperatives in very different ways, and remained strong competitors. Clearly, businesses have some degree of latitude as to whether to engage in a particular type of restructuring.

Conclusion

The four companies we profiled in detail in this paper followed somewhat similar restructuring trajectories. All four, in hot pursuit of wave two goals of cost reduction and operational efficiency, radically restructured in ways that weakened or dismantled ILMs. However, they discovered significant disadvantages to their strategies, especially as they expanded to encompass more complex and innovative activities, as well as more technical functions. All four, therefore, advanced in various ways to wave three, reconfiguring and rebuilding ILMs rather than continuing to tear them down. This looks to us more like the groping of firms dealing with bounded rationality, than the smooth adjustments expected of rational optimizers.

The moves to rebuild ILMs are, so far, limited in scope and scale. For the most part, the managers we spoke to are content that restructuring succeeded when applied to the most routine

functions--outsourcing commodity parts, hiring contract labor for such tasks as security or mailroom work, establishing remote sites for low-level call center and back office tasks. They are attempting to strengthen ILMs in areas of work where commitment, communication, and the ability to innovate are most critical. Moreover, these companies are not restoring ILMs to their former state. With the limited exception of cases bringing back activities that had been outsourced or turned over to remote facilities, they are constructing or supporting new and different mechanisms for internal mobility and job security--including, in the case of Monarch, some that are actually located in supplier firms. In the early phases of wave three, corporations were reducing or modifying their reliance on outsourcing, contingent work, and geographic de-integration, all of which had predominately negative impacts on ILMs and job quality. They were also carrying out more job broadening (which has a much more positive mix of impacts). In terms of the possible trajectories sketched in Figure 2, these cases come closest to the "reverse J": extensive deconstruction of ILMs, followed by their partial reconstruction.

While we can not conclude that the future for low-skill workers is any more promising than the present, there is ample evidence that the story is not over, and that reports of the death of ILMs are greatly exaggerated. Will the third wave prove a will-o'-the-wisp, a temporary adjustment to cyclical labor shortages? Or will it, instead, herald a growing realization that attachment based on long-term employment and internal employment opportunities is critical for the performance of low-skill as well as high-skill jobs? The complex corporate trajectories of the recent past suggest that the future path of ILMs warrants careful scrutiny.

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Figure 1: Drivers of corporate restructuring, restructuring processes, and outcomes

Drivers of restructuring →
- Competitive pressure
- Stockholder pressure
- Emulation of others
- Consultant advice

Restructuring processes →
- *Organizational--affecting ILMs*
    - *Outsourcing*
    - *Geographic de-integration*

    etc.
- Other organizational
    - High performance practices

    etc.
- Other

Outcomes
- *Job quality*
    - *Pay level*
    - *Job security*
    - *Skills required*
    - *Opportunities for skill acquisition*
    - *Opportunities for promotion*
- Firm peformance
    - Unit labor costs/productivity
    - Quality
    - Turnover
    - Innovative capacity

Note: Items highlighted in *italics* denote a particular focus of the proposed study.

Figure 2: Some possible dynamic paths for job quality following de-integration

X-axis: Time
Y-axis: Some measure of job quality or the strength of internal labor markets

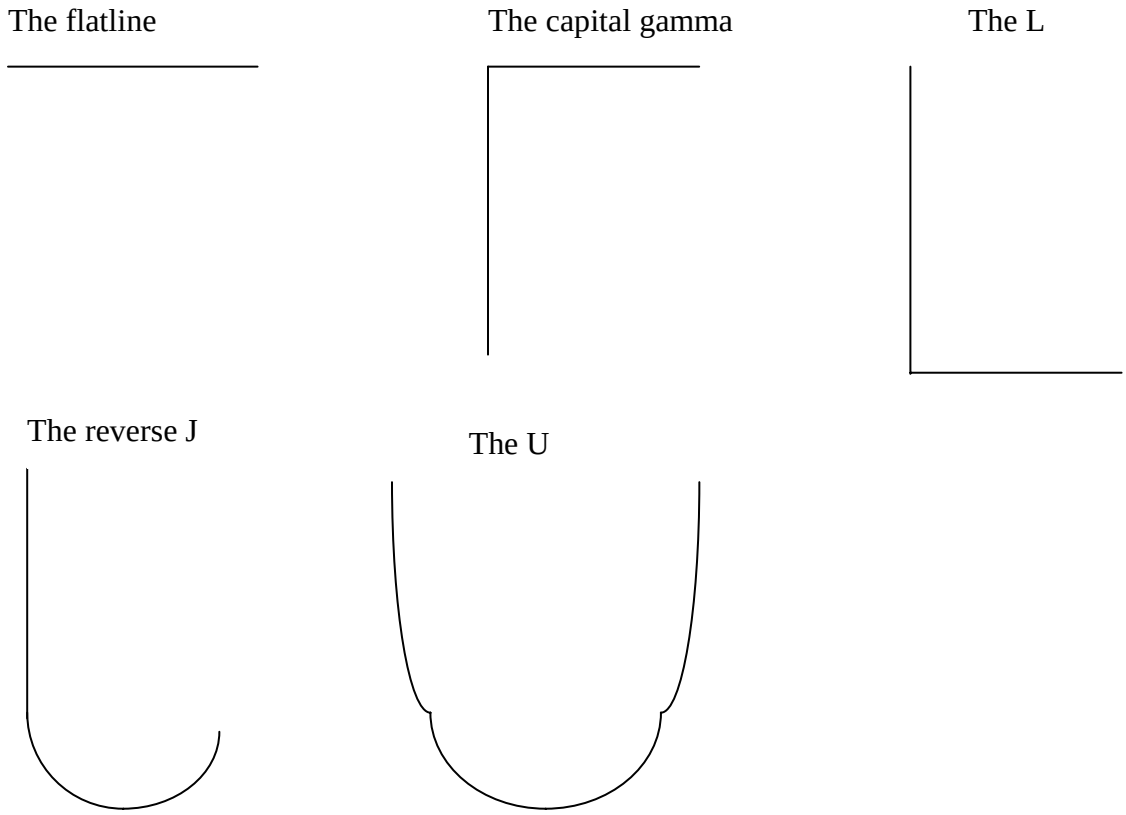

Figure 3: Summary of the impact of restructuring on jobs

	Access/Entry (e.g., education/ skill requirements)	Skill requirements (to perform the job/of the job tasks)	Pay	Mobility/Skill Development	Security/ Tenure
Outsourcing	Decrease	No change or decrease	Decrease	Increase	Decrease
Contingent Work	Decrease	Decrease or no change	Decrease	Decrease	Decrease
Geographical de-integration	No change	No change	Decrease or no change	Decrease	No change
Job broadening	Increase	Increase	No change or increase	Increase	No change or increase