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From Bureaucracy to Enterprise? The Changing Jobs and Careers of Managers in Telecommunications Service

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in Telecommunications Service**

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ABSTRACT

This paper analyzes how organizational restructuring is affecting managerial labor markets. Drawing on field research from several Bell operating companies plus a detailed survey of managers in one company, this paper considers how organizational restructuring affects the employment levels, the nature of work, and the career trajectories of lower and middle level line managers. Does restructuring lead to a loss of managerial power and a convergence in the working conditions of managerial and nonmanagerial workers? Or, conversely, do managers stand to gain from the flattening of hierarchies and devolution of decision-making to lower organizational levels?

The paper's central argument is that a new vision of organization has taken hold -- one that replaces "bureaucracy" with "enterprise." This vision, however, entails sharp contradictions because it relies on two competing approaches to organizational reform: one that relies on decentralizing management to lower levels to enhance customer responsiveness; the other that relies on reengineering and downsizing to realize scale economies. While the first approach views lower and middle managers as central to competitiveness, the second views them as indirect costs to be minimized. The central question is whether or how the two approaches can be reconciled. The evidence from this case study shows that restructuring has had the unintended consequence of creating new organizational cleavages: between lower and middle level managers on the one hand, and top managers on the other.

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Introduction

In response to technological change and product market deregulation, longstanding U.S. telecommunications firms are radically restructuring their business strategies and organizations to improve competitiveness. While the popular and business press as well as academic researchers have focused attention on the dramatic changes occurring in the collapse of industry boundaries, mega-mergers, and the rise of new strategic alliances, they have largely ignored how these structural changes are profoundly altering the employment and careers of employees. In the Bell operating companies, where bureaucracy is seen as the major obstacle to competitiveness, managerial workers are a significant target of reform because they are equated with bureaucracy and comprise approximately a quarter of the workforce.

This chapter analyzes how organizational restructuring is affecting managerial labor markets -- the jobs, careers, and employment levels of line managers in Bell operating companies. It addresses a series of questions. How, for example, does organizational restructuring affect both employment levels and the nature of managerial work -- the division of labor between the managerial and nonmanagerial workforce? How does it affect the career trajectories of lower and middle level managers? Are these changes leading to a loss or managerial power and a convergence in the working conditions of managerial and non-managerial workers? Or, conversely, do managers stand to gain from the flattening of hierarchies and devolution of decision-making to lower organizational levels? Who wins and who loses in the process? Do new organizational cleavages and conflicts arise as a result?

The paper's central argument is that a new vision of organization has taken hold -- one that replaces "bureaucracy" with "enterprise." This vision is found both in management and academic literature and in corporate offices. But the vision entails sharp contradictions that have unintended consequences: new cleavages between lower and middle level managers on the one hand, and top managers on the other. The new vision relies on two competing approaches to organizational reform. The first approach begins with human resources and relies heavily on decentralizing management to lower levels. It draws on ideas from organizational behavior, strategic human resource management and industrial relations, and total quality. It views competitive advantage as emanating from entrepreneurialism and innovation at the point of customer contact. According to this logic, lower and middle managers have new, dynamic roles to play; their jobs must be redesigned to give them more opportunities to be creative and more

autonomy to make decisions to meet customer needs. Supportive human resource practices include training in new skills (human resource management, business, marketing) as well as incentives (career opportunities, employment security, compensation) to inspire organizational commitment. The approach attempts to simulate small business enterprise in large firms.

The second approach begins with technology and engineering. It focuses on realizing scale economies through system-wide innovations. Organizational consolidations, new applications of technology, reengineering, and downsizing are all vehicles for enhancing efficiency and cutting costs. Rather than relying on decentralized discretion, this macro approach privileges the centralized decisions of top managers, consultants, and engineers -- decisions that ripple through organizations to lower levels. Changes in the design of jobs and human resource practices flow as a consequence of new technologies and organizational restructuring. Because companies cannot make prior commitments to job enhancement or employment security, the two approaches are often in conflict. The central question is whether or how the two approaches can be reconciled.

In the case of the former Bell system companies, since divestiture in 1984, the second logic has dominated the first for at least two reasons. First, top management views bureaucracy as the most serious obstacle to competitiveness (in contrast to manufacturing firms that view mass production modes as relics to be discarded). Second, advances in new digital and fiber optic technologies allow companies to reap even greater scale economies than they have in the past. The integrated nature or "systemness" of the telecommunications services industry makes centralization and consolidation an attractive approach to industrial organization. These centralized approaches have undermined the entrepreneurial and job enhancing approach to quality service that total quality theorists and others advocate. Top management has created contradictions for lower and middle managers along several dimensions. First, while new performance systems evaluate middle managers on the basis of broad customer service measures, top managers are judged by shareholders on the basis of narrower financial criteria. Second, while middle managers now have greater authority and responsibility for meeting performance goals, they lack the necessary control over budgets and operational decisions needed to get the job done -- control that "real entrepreneurs" or small businessmen have. Third, they have higher work loads with fewer financial or promotional rewards. Fourth, while their new role requires increased discretionary effort, creativity, and commitment to the firm, firms have simultaneously decreased their long-term employment commitments to managers. In the past, the AT&T system created a seamless web of loyalty that rose through seven layers of management, with all employees unified around the goal of public service. In the present, the

incentives and rewards for top management are at odds with those experienced by lower level managers, who feel resentment and a sense of betrayal.

This argument draws on evidence from extensive qualitative field research and quantitative data collection in several regional Bell operating companies. It uses the results of a comprehensive survey conducted in 1994 of 330 lower and middle level line managers in one operating company. The survey asked employees how work organization and human resource practices were changing and how these changes affected their jobs and careers.

It is organized as follows. The next section reviews the dominant literature that has shaped the corporate thinking on restructuring. Section three briefly describes the telecommunications industry context - the way the old system worked and how and why it is crumbling under the weight of technological change, national deregulation, and globalization of markets. Section four provides a detailed examination of how changes in business strategy and structure at the firm level are reshaping the employment levels, jobs, and careers of lower and middle level line managers. Conclusions follow.

Theoretical Perspectives

Two quite different views of the outcomes of corporate restructuring for managers have emerged in the last decade. On the one hand, the popular and business press provide numerous anecdotes of unemployed managers who are victims of corporate downsizing (Fisher 1991; Cowan and Barron 1992; Zachery 1993). Researchers note the "collapse of internal labor markets" for managers and the growing similarity of employment conditions for managers and workers – for example, in the decline in managerial employment security. Researchers have also identified the loss of power and authority of supervisors when firms introduce employee participation or self-managing teams into production-level jobs (Klein 1984; Schlesinger and Klein 1988).

On the other hand, the same press carries images of the new manager, the "product champion" and innovator: corporate restructuring gets rid of bureaucracy and frees up middle and lower level managers to be more entrepreneurial. Participatory management allows managers to gain from workers' creativity; self-managed teams free up managers from administrative chores. These conflicting views also arise in different strands of the business school and academic literature. The arguments grow out of a rejection of bureaucratic organization and mass production as incongruent with global markets that demand low cost, high quality, reduced cycle time, flexibility, and innovation.

The excellence literature, for example argued for making all managers into entrepreneurs (Peters and Waterman 1982; Peters and Austin 1985; Peters 1987). In stark

contrast to the dominant literature of earlier periods which focused on top managers as the sole source of creativity and innovation (Barnard 1946; Drucker 1967; Mintzberg 1973; Kotter 1982), writers in the 80s argued for loosely-couple organizations with "lean staff" that would create room for innovators across layers and departments of management. By recreating market-like conditions inside large organizations, or "small in large organizations" (Drucker 1988), managers would have greater incentives to initiate change and would take greater ownership over their productive units. The resource mobilization literature, spearheaded by Rosabeth Moss Kanter, went further in arguing that middle managers were the real source of innovation in large firms (1982a, 1982b, 1983). New managerial ladders could provide greater opportunities -- a shift from narrow, functionally-based careers to a variety of ways of making it to the top (Kanter 1984).

Another stream of literature, the strategic human resource management literature, called on management to link their business strategies and human resource strategies to improve performance (Tichy, Fombrun, and Devanna 1982; Beer et. al. 1985). Business School faculty and management consultants emphasized performance-enhancing human resource policies (training, participation, compensation) (e.g., Lawler 1986). While the "control to commitment" strategy (Walton 1985) originally focused more on the nonmanagerial workforce, the ideas apply equally to the treatment of managers as employees.

Economists and compensation specialists developed a complementary argument in the "new economics of personnel" literature which called for "market-like" pay systems in large firms to improve incentive structures. This involved reducing the percentage of fixed-base pay or salary while increasing at-risk pay and linking an individual's pay to his or her contribution (pay-for-performance) (Lazear 1992; Shuster and Zingheim 1992; Gerhart, Milkovich, and Murray 1992).

Industrial relations scholars additionally pointed to the need for middle managers to stop fighting over grievances and to learn to negotiate with union leaders in joint productivity-enhancing committees. Where unions existed, there was a greater likelihood of successful and broadbased adoption of performance-enhancing innovations by the workforce if union leaders embraced the experiments (Kochan, Katz, and McKersie 1986).

Reengineering and macro restructuring approaches, by contrast, call for system-wide analysis of work processes and the elimination of all redundant work, no matter what the consequences for jobs and human resource practices (Hammer and Champy 1992).

Some believe that these alternative visions provide a basis for a unified new vision of organization -- from a "bureaucratic culture" to an "enterprise culture" in the firm (Ray 1986). But

researchers have rarely examined the vision in light of empirical reality -- the competing claims that alternate approaches to reform make on managerial employees. As argued above, the reality of this change is often contradictory and may be summarized as follows. First, there should be fewer managerial jobs and opportunities for promotion. Second, the jobs that remain should be more interesting and challenging. Third, the ones that remain should be more contingent on productivity and accountability, offering less income and employment security. The scant empirical literature on the changing nature of managerial jobs and careers also suggests very mixed results for firms and managers (See Fulop 1991 for a review) as well as wide variation in the outcomes (Heckscher 1992). Managerial jobs may be more interesting, but there are fewer of them, and they no longer carry implicit long term contracts and employment or income security. For managers, some may benefit and rise quickly; others may lose their jobs; others may both benefit and lose along different dimensions of their jobs and careers -- having more powerful but more stressful jobs, more challenging but less stable careers. The challenge for empirical research is to untangle how these themes play out with differently situated managers -- in different industries, corporate settings, managerial levels, functional areas, and professional occupations -- distinctions that have rarely been made in the managerial literature.

Managerial Jobs in Telecommunications Services: 1950-1980

The AT&T bureaucracy and the managerial jobs that occupied it grew dramatically between 1950 and 1980. Managerial jobs grew in absolute numbers by 50% between 1950 and 1960; by 60% between 1960 and 1970, and by 47% between 1970 and 1980. By contrast, despite the overall expansion of the AT&T market, nonmanagerial jobs rose by only 4.6% in the first decade, 23% in the second, and 2.7% in the third. Automation eliminated low-skilled work. The proportion of managers in the total AT&T workforce grew from 13.5% in 1950 to 29.4% in 1980. The ratio of all managers to all nonmanagers at AT&T was 1:6.3 in 1950 and 1:2.4 in 1980. Table I compares the relative growth of managerial and nonmanagerial jobs.

Insert Table I Here

There are two probable explanations for this transformation. The most important concerns AT&T's strategic response to increased regulatory oversight in the post World War II period, which put pressure on the company to cut costs and reduce rates while expanding universal service. Regulators required detailed performance measurements and accountability. AT&T attempted to meet cost-minimization requirements through the logic of mass production:

using electromechanical technology to reap scale economies, improve productivity, and lower costs in the provision of a high volume standardized product (voice transmission). But most jobs in telephone service were not susceptible to Taylorism or machine-pacing -- only operator jobs were. By contrast, network required (and continues to require) a highly skilled and autonomous field staff; and the business office provided customized service through "universal service representatives" until the early 1980s. Jobs that could not be machine-paced were heavily supervised, and this difference is evident in variation in spans of control across occupational groups. In one representative Bell operating company, for example, by 1980 the ratio of firstline supervisors to workers was 1:6 in network crafts, 1:8-10 in customer services, and 1:20 in operator services.

A second factor contributing to the increase in managers was the growth of independent unionism and the threat of strikes in the post World War II period, which led AT&T to seek ways of shifting work out of the bargaining unit to staff managers or "subject matter experts"; this strategy has accelerated in the post-divestiture period, according to trade unionists.

Despite the growth in bureaucracy, productivity in telecommunications services (measured as employees per 10,000 access lines) grew by 5.9% per year between 1967 and 1988 -- over five times the average rate of 1.1 percent for the nonfarm business sector -- and ten times the rate of 0.8% in services (U.S. DOL 1990:10-12; Waldstein 1988:Table 4).

Managerial Jobs

In contrast to the literature on managerial labor markets which views the flexible deployment of managers as a raison d'etre for their employment security (Osterman 1988), most management jobs in the Bell system were highly regimented and functionally specialized. They resembled much more the Taylorism of industrial labor markets than the breadth commonly associated with managerial or salaried labor markets. There were seven layers of management leading up to officers in the operating companies and at AT&T. The primary role of supervisors and managers was to monitor and enforce work discipline. Standard operating procedures set at the top created relatively non-thinking jobs that required implementing policies down the chain of command, enforcing discipline, and funneling numbers back up. The top-down, command and control management style at AT&T has led several observers to compare it to the military. For example:

AT&T is to the Bell System what a general staff is to an army, and AT&T seems somewhat proud of the parallel. A company writer calls the military-modeled general staff 'the greatest contribution to the art of management' of the first half of the twentieth century; pridefully he notes that AT&T adapted for its own use many of the staff concepts developed by Frederick the Great, Von Steuben, and Napoleon

A traffic manager in the smallest of Bell offices reports to the traffic manager directly above him in the next largest office area to district to regional to operating company and ultimately to 195 Broadway ['AT&T's Pentagon'] - just as an Army G-1 officer has counterpart from battalion level all the way up to the Defense Department (Goulden 1968:17)

AT&T transfers men as freely among the operating companies as the U.S. Army does among its divisions" (Goulden 1968:22).

The military culture may also have been enhanced by AT&T's frequent recruitment of veterans, a rich source of experienced people with radio, communications, and electronics skills. In addition, in the post World War II period, management by numbers became the norm, and to many, an obsession. The Bell system measured the performance of managers as the aggregate of the performance of workers under them. If top management demanded better numbers, middle and lower managers felt squeezed, and in turn, pressured workers.

Detailed measurement systems were at least in part a response to federal and state regulators who increasingly sought to gain control over rates and service quality. State PUCs, for example, set performance standards for network operations, from the length of time to repair a service outage to safety standards required during routine installation and repair. Each functional department in the telephone companies developed its own system of record-keeping and internal performance measures as demanded by the state PUCs, and these measures were unique to the functional specialization of the department. The company tended to emphasize quantitative measures or output per unit input -- tasks per day for network crews or seconds per call or call-waiting time for operators or customer service representatives. But PUCs also emphasized quality and service -- in network, for example, the repair of service within a twenty-four hour period. Moreover, in the telephone service industry, quantity and quality are of service are closely linked because good service is timely service. In customer services, for example, average waiting time is a key indicator of service quality because customers place heavy emphasis on quick response in judging service quality. As one long-time manager in the Bell system commented, "...the telephone company has always been obsessed with quality, probably too much so. For example, we used to require that a customer call be answered in two rings. That was our own internal measure, but maybe we didn't really need that -- and it was expensive" (Interview 57:8/11/93).

The system of functionally-specific measures reinforced separation and "turf" competition between managers in different departments. Maximizing efficiencies in one department, however, often undermined efficiencies in another. Maximizing tasks per day in network, for

example, creates incentives for network craft workers to find quick fixes to problems; but such quick fixes may result in repeat repair calls for repair attendants and construction work to repair the deteriorated network. Functionally-based measurement systems, therefore, created managers that were "efficiency-minded," but narrow in perspective, and this often resulted in overall inefficiencies. As companies began to mechanize record-keeping and measurement systems in the 1970s and 1980s, they simply computerized the inefficiencies in the old system.

Because the PUCs were so important in setting rate structures and performance requirements, the telephone companies geared their managerial structure towards meeting the demands of the PUC. The state telephone company president held the most important political position as an official reporting to the PUC. Regulatory was viewed internally as playing a public relations role, massaging the interface between the telephone company and the members of the PUC as well as state politicians who periodically voted on rate hikes.

AT&T's concern for public image translated into a corporate emphasis on employee involvement in community service, such as for example, "The Pioneers," which involved thousands of volunteers from Bell companies in community service activities. Employees were expected to play leadership roles in community organizations such as the Jaycees, and those who did so were looked on favorably for their leadership potential.

A detailed account of AT&T's attempts to manipulate public opinion in its favor traces the company policies to the 1910s and 1920s: "Every employee in the Bell System is considered a potential public relations representative. Telephone company employees, as a class, are gracious and accommodating. This is no accident. The uniformity of behavior is the result of design. Employees are selected and trained by the company as public relations agents, because it is believed that through constant cultivation of public sympathy, telephone companies will have less trouble in getting increased rates and in opposing adverse legislation" (Danielian 1939:281).¹

While this research captures the cynical side of AT&T's manipulation of public perceptions, many employees took seriously their public service mission and participation in community affairs. For example, the portrait of telephone company managers in a study by Howard and Bray is one of responsible public servants who took pride in their work. "Compared to managers in other organizations, they were more emotionally stable but less daring and more bound by rules. As managers of a government-controlled monopoly, they were less 'dollar' conscious in a proprietorship sense, but assumed social responsibility for the service the telephone business provided and had a real sense of obligation to the community" (Williams and Peterfreund, cited in Howard and Bray 1988:36). In a questionnaire administered by

Howard and Bray, these managers consistently scored high in terms of their pride in their jobs and their overall job satisfaction (Howard and Bray 1988:132).

Internal Labor Markets

Internal labor markets in the Bell system -- the formal and informal rules governing managers' jobs and careers -- reflected the company's bureaucratic and functionally-specialized organization. Career ladders were long and vertical. As early as 1910, AT&T began encouraging loyalty through "The American Plan," (company-paid pensions, sickness and disability benefits, employee stock options, and an organization of retired and long-service employees). The company had seniority-based benefits and career ladders filled almost exclusively from within by the 1920s (Schacht 1985:35-6). The Bell System recruited first level supervisors either from the rank and file or from the external labor market. Management positions above first level were filled exclusively from within. They received considerable management training, much of which was designed to socially and psychologically separate them from workers. Those promoted from within were particularly encouraged to break all social ties with former co-workers. A former AT&T employee noted that people came into the system at a young age, received "heavy socialization" into their managerial role, and lost a sense of themselves in a system that demanded "total selfless loyalty."²

Workers who were promoted from the ranks had at least a high school education and could expect to rise to lower or middle level management in their respective functional specialties: male network craft, female office workers in the business office or operator services. External recruits were usually college-educated, and tended to be placed in positions dispersed throughout the organization (Plant, Commercial, Engineering, Accounting, Traffic). They were expected to climb higher, and a select group was "fast-tracked" and chosen to be groomed for top management, which involved assignments across departments plus mid-career training or executive development courses. The Bell System provided generous educational allowances and tuition-aid for college courses and beyond, and many employees availed themselves of these opportunities' in order to gain promotions.

In a longitudinal study of managers at AT&T, Howard and Bray (1988) document the advancement of college and non-college educated males through management ranks from 1956 to 1976. The modal level of achievement for non-college educated managers was a level two management position, while that of college-educated managers was level three. In Howard and Bray's sample of 422 managers (274 college and 148 non-college educated), between 5% and 10% of non-college educated workers were promoted each year (depending upon the

year). By contrast, between 15% and 25% of college-educated managers received promotions in the same period (Howard and Bray 1988:128-9).

Most careers in the Bell system, however, did not resemble a professional development track. Workers were promoted from within because as supervisors, they had an intimate knowledge of the technology and job requirements -- of which standard operating procedures were important, for example, and which were obstacles to getting the job done. Most managers capitalized on job specific formal and informal knowledge, living out their careers in the same department or subdepartment. In this setting, informal sponsorship or paternalism was extremely important for ensuring movement up the ranks. If a subordinate was particularly skilled and reliable, this sponsorship not only facilitated upward movement, but discouraged lateral mobility. Some employees say that "good performers" were penalized and became "stuck" because superiors depended upon them.

What is significant about this portrait is that once divestiture and downsizing began, managers with long histories in the Bell system and deep functionally-specific knowledge had few occupational alternatives outside of the system. The skills and knowledge accrued in a Bell system "career" were not portable. Those who left the system often retired and/or retrained for entirely new occupations.

In summary, managerial lives in the Bell system were a mixed blessing. Jobs were highly regimented and uncreative, but had an important public service mission. The system clearly created middle class jobs and management opportunities that otherwise would not have been available for a population dispersed in small towns, cities, and rural areas across the country. The system provided lifetime employment security unlike that provided by other large corporations because AT&T had a guaranteed rate of return and was not seriously affected by business cycle fluctuations.

Technology Change, Deregulation, and Restructuring: 1980-1994

At divestiture in 1984, the Modified Final Judgement allowed AT&T to participate in deregulated equipment and long distance markets, but divested AT&T of its 22 local telephone companies which were consolidated into the current seven regional Bell operating companies (RBOCs) and which retained their monopoly position in local services. AT&T downsized rapidly, eliminating over a third of its domestic workforce in the first six years following divestiture but expanding the relative proportion of managers to 46% (Keefe 1994:29). It restructured into business units based on market segments, invested heavily in new digital technologies, and began implementing total quality management. Employee morale plummeted (Keefe 1994:26).

The regional Bell companies moved more slowly, reducing the workforce by attrition, and investing in those unregulated markets which the MFJ allowed --such as information services, cellular, and international services. Cost pressures on phone companies increased in the late 1980s, however, as local access carriers (LACs) such as Metrofiber and Teleport constructed local fiber loops in metropolitan areas and creamskimed the more lucrative business customers. Large institutions -- schools, hospitals, universities, utilities -- developed their own private networks and reduced reliance on phone companies. And cable companies, now wired to roughly 60 percent of households nationally, are poised to enter the local residential market as soon as legislation permits. Pending legislation anticipates the substantial deregulation of local services. Cost pressures also come from changes in rate structures: long distance and other carriers that pay access fees to the regional Bell companies (fees that historically subsidized universal local service) have pushed for "cost-based" rates that would unpackage services and reduce fees.

Changes in business strategy and structure are summarized below and presented in Table II. First, companies have shifted from a public service mission shaped by engineers and regulators to a sales-maximizing mentality shaped by finance and marketing departments, and oriented towards Wall Street. Second they have shifted from a standardized high volume product market (voice) to a differentiated product market (voice, enhanced services such as voice massaging, data, video, image). To support this shift they have invested heavily in fiber cable and broadband integrated services digital networks (ISDN) to allow them to carry high speed data, voice, video, and imaging and remain technologically competitive.

To respond to new competitive conditions, Bell operating companies developed organizational strategies that, as argued in Section I, have the unintended consequence of sending contradictory messages to employees. On the one hand, "micro-level" experiments are designed to increase employee participation and decentralize decision-making so that employees can improve customer service. On the other hand, "macro" strategies that centralize decision-making, streamline the organization, and reduce costs dominate and often undermine local initiatives. While companies reengineer and downsize to eliminate bureaucracy, they request increased employee commitment and discretionary effort to enhance service quality. Managers on the regulated side complain that they are asked to do more with less, while they observe companies shifting resources to expand lucrative non-regulated markets such as information services, cellular, and international services.

Insert Table II Here

Similarly, companies are centralizing some functions while decentralizing others. On the side of centralization, companies are taking advantage of scale economies to consolidate and standardize operations at the regional level (from what was the state or local telephone level). Additionally, they have created regional business units defined by market segment (residential, small business, large business). The difficulty with the business unit structure in telecommunications is that the network infrastructure serves all segments; critical decisions regarding choice of technology and operational standards that would be controlled by the business unit in most other industries are under a separate regional entity because of the "systemness" or integrated nature of the network.

At the same time that companies have created regional corporate entities and regional business units defined by market segment, they are attempting to decentralize decisions regarding customer service, quality, and work organization to the local or "district" level (analogous to a plant in manufacturing). This idea comes from quality and excellence theorists that "empowering" managers to "get close to the customer" is the key to continuous improvement is service quality.

In summary, the direction of change is to hollow out the old state telephone companies, with key operational decisions shifting either up to the regional corporate or business unit entity or down to the "district" or local managerial level. This has created tensions between local and regional, lower and top level managers over operational decisions.

Implications for Managerial Jobs

The implications of these changes in business strategy and structure for lower and middle level managers can best be understood through a detailed study of one representative Bell operating company which draws on qualitative and survey data. Since the early 1980s, this company like other Bell companies began experimenting with ways of improving management practices, beginning with the union-management Quality of Worklife (QWL) program in 1980 that sought to do away with AT&T's traditional military command and control approach. The changes for managers stressed new behaviors rather than new skills in the narrower sense of the term. Management training emphasized a "softer" approach, listening rather than dictating skills. Managers had to learn to discuss and negotiate with employees and union leaders over problems as they arose, rather than only in the context of grievances. In the course of the 1980s, the QWL program grew and gave way to more extensive employee involvement, and

later a total quality program in which lower level managers tapped the ideas of workers to improve customer service. In the mid 1980s, the company began experimenting with the use of self-managed teams (SMTs) as a next step in managers "letting-go;" where teams were introduced, they particularly changed the jobs of firstline supervisors, who became "coaches." Coaches are supposed to "lead rather than command, inspire rather than demand obedience."

At the same time that participatory experiments were occurring, the company was centralizing, consolidating, and downsizing. Between 1984 and 1990 the company consolidated the old telephone companies into one regional entity, merging executive positions, human resources, regulatory, labor relations, and finance into one corporate organization and standardizing the network technology across the region. Overall workforce reductions of 25 percent occurred through attrition and an early retirement buyout for managers. Serious efforts to cut the managerial force began in the 1990s, leading to a reduction of 23.5 percent of managers by 1993. Approximately half left through early retirement buyouts, another 40% through transfers to other subsidiaries, and another ten percent by other programs to provide early exit or extended leaves. These voluntary reductions rippled through the organization, leaving random holes in staffing levels.

While the company surpassed its goal for reducing management ranks, at least some managerial positions were subsequently backfilled by promoting nonmanagerial workers into lower level management positions. By 1993, when top management decided that downsizing was not occurring at a quick enough pace (line and staff managers still comprised 24.5% of the workforce, and the ratio of first line supervisors to workers was 1:5.9) the company announced an across-the-board 10% downsizing, to take place through forced reductions among managers and attrition among nonmanagers. At least one out of seven management levels was to be eliminated. The forced reductions broke with the company's tradition of employment security and sent shock waves through the organization.

Across the Bell companies, current interest in self-managed teams has focused on their importance as a vehicle for downsizing. With roughly 50 percent of management staff at the firstline supervisor level, companies view self-managed teams as vehicle for dramatically cutting indirect labor costs. Managers in different companies have expressed similar experiences: "We lost so many management jobs that they backed into it [SMTs];" or "This experiment [SMTs] was viewed as 'my toy'. Now that we're downsizing, it's being taken seriously." In another company, a network supervisor said the objective was "...increased span of control. Traditionally in my area it was 1:5. The company wants to go to 1:30. There's no way to supervise this many, so the duties of the supervisor have to change." The change to self-managed teams is also

facilitated through new technologies that electronically monitor the flow of work. This is true not only in services where information systems track the call handling of operators and customer service representatives, but in network where handheld computers now allow field technicians to record work as they complete it.

Supervisors who have learned to become coaches appear to like the job better because they are freed up to get out in the field more and do less paperwork. Because their work involves more coordination, less direct disciplining and supervision, their jobs look more like those of middle managers, and in this sense they are enhanced. By contrast, firstline supervisors who continue with traditional responsibilities express frustration over their jobs because administrative tasks are heavy and downsizing has led workloads to increase. A company-sponsored survey of network supervisors found that only one-third of respondents were satisfied with their jobs; another one-third said they would return to craft jobs if given the opportunity. But even among supervisors who have at least some self-managed teams under their jurisdiction, the workloads appear daunting. According to one such supervisor, "My span of control has tripled ...I work 14 hours a day, five days a week.... I'm fully accountable if anything goes wrong. Supervisors now spend 60 percent of their time doing paperwork. High stress. Performance is slipping some. We used to make two or three visits a day to each worker. You'd go out and find out how he's doing. Now I see each worker once a week."

The company in this case study has used the experience from self-managed teams to redesign supervisors' jobs and reduce their administrative work from roughly sixty percent of their time to ten percent. Under the piloted job redesign, coaches would spend fifty percent of their time in the field training and developing workers. The job redesign has not been implemented, however, because of more macro-level organizational restructuring.

In the survey conducted for this study, despite the fact that SMTs are clearly equated with fewer supervisor jobs, there was surprisingly broadbased support for the idea. Sixty-eight percent of all network managers and 85 percent of customer services managers supported their use. Moreover, the support was higher among first line supervisors (71 percent) who according to conventional literature should have the most to lose, than middle managers (57 percent)ⁱ. Regardless of whether managers had direct experience with these teams or not, approximately three-quarters saw the benefit to teams in the increased cooperation and sense of ownership over work that members have.

For middle level managers responsible for local or district level operations, the company has used total quality concepts to create small, cross-functional business units known as "district operations councils", in contrast to the past when middle managers had little discretion

and reported through department hierarchies to state level officials. The district councils, local geographic units established at divestiture and made up of local managers from different departments, had functioned in the 1980s primarily as vehicles for public relations, employee involvement in community affairs, and the telephone company's interface with the regulatory environment. Local managers maintained departmental turf and interacted little beyond monthly council meetings. Under the total quality program, the new role for the district operations councils is to improve service quality, maximize revenues, and control costs. Legislative and regulatory became secondary; coordination of community activities was discontinued. Councils took responsibility for initiating quality action teams to solve particular problems or initiate workplace innovations such as self-managed teams. Newly revised customer service reports provided data at the local level, rather than at the state level as had previously occurred. While the district operations councils still do not constitute profit centers, they come much closer to the concept of cost centers than historically.

Conceptually this reform represents a change not only from centralized to decentralized, and functional to more collaborative ways of operating, but from a focus on public service to individual customer service, from actions such as community service that present the collective face of the company, to actions designed to respond to individual customer service requirements or complaints. For middle managers, this requires not only a shift in skills away from the regulatory environment and towards business, marketing, and human resource management. More importantly, some managers believe the new mission runs counter to the moral and ethical principles upon which their public service careers were built. This reaction was evident in qualitative interviews with managers as well as in their survey responses; for example, while 86 percent of all managers said their work gave them a sense of accomplishment, only 40 percent agreed with top management's strategic direction for the company; and only 29 percent said that their values were similar to those of the company.

Another dimension of change was the inclusion of local union presidents in the district operations councils. In order to gain union support for the quality program, top management negotiated a multi-tiered partnership structure with the regional union leadership, and then mandated that all middle managers should work with their local union counterparts. This design was to overcome the historic problem that one top manager described, "We always seem to jump over the middle manager." While some local presidents had begun participating in that portion of the council meetings pertaining to the joint Quality of Worklife program (QWL), the new mandate was for them to participate in the regular monthly business meetings of the district council.

The responses of middle and lower level managers to survey questions concerning the changing nature of their jobs and skills is consistent with much of the above description of organizational change⁴ (See Table IIIa). The overall picture that emerges from survey data is of managers in the midst of a transition to a more decentralized and participatory culture along some dimensions of work, but constrained and frustrated by top management decisions with respect to cost-cutting and downsizing.

Insert Table IIIa Here

Ninety-three percent of all managers said the skill needed for their jobs were changing, but the kinds of new skills varied significantly by managerial level. Over 60 percent of lower level managers in customer services cited technical (computer) skills as the most important new ones, whereas 75 percent of middle managers cited "soft" skills in leadership, general management, quality, and labor relations. The pattern was similar, but less pronounced in network, where 53 percent of lower managers ranked new technical skills in first place and sixty percent of middle managers ranked soft skills as the critical new ones.⁵

With respect to the decentralization of decision-making, the evidence supports the notion that lower level managers are experiencing more discretion, but diffusion is uneven. On the one hand, over 55% of all managers said that their discretion to make decisions to meet customer needs had increased in the last two years; and consistent with this pattern, a substantial minority (47% of network and 42% of customer services) said that the amount of supervision they receive had decreased in the same period. On the other hand, a majority (53%) also said they that bureaucratic rules and procedures continued frequently to obstruct their ability to meet customer needs. Moreover, with respect to changes in control over tasks and work pace, responses were relatively evenly divided between those who experienced greater control, less control, and no change.

Surprisingly, however, and contrary to the image that exists of managers in a large bureaucracy with little discretion over their jobs, 59% of all managers said they had complete or "a lot" of control over the tasks, procedures, and pace of their work, and these responses did not vary significantly by department. This is surprising because historically customer service jobs are viewed as more constrained and easily regulated than network jobs that are more widely decentralized and require flexibility to respond to the local outside network environment. While this difference may exist among frontline workers, it does not seem to cant' over into lower and middle level managerial jobs.

The evolution of a more participatory culture is also evident: three-quarters of the managers surveyed had participated in at least one form of collaborative or problem-solving team: quality action, QWL, cross-functional, or problem-solving team; 10 percent had participated in all four. Participation, however, increased by management level, even after controlling for tenure. In other words, although there is a growing collaborative or participative culture, it is more available to those higher up in management. These patterns did not vary significantly by department. The differences in participation rates across levels of management are reflected in different levels of satisfaction expressed by managers concerning their involvement in decision-making: whereas 72% of middle managers in network were satisfied with their participation, only 55 percent of lower managers were satisfied. The pattern is similar in customer services, although the overall rates of satisfaction are higher. In sum, managers show great interest in increased decision-making responsibility.

They are also highly supportive of the new partnership with the union, contrary to the conventional wisdom concerning middle management resistance to labor-management participation. Ninety-two percent of all managers said they supported union participation in total quality; 86 percent said it was critical to the success of total quality and 75 percent it was necessary for the success of self-managed teams. Over 90 percent of district managers said that local union presidents participated in monthly district council meetings; and fifty-three percent also invited them to regular staff meetings.

Among middle level managers at the district level, evidence of increased discretion is mixed. On the one hand, they indicate they have considerable (complete or a lot of) control over decisions regarding quality (82%), human resource practices such as training beyond what is required by the company (64%), and industrial relations (76%). A majority (60%) says that their control over quality has increased over the last two years, and a substantial minority (47%) also note an increase in their authority over labor relations matters. On the other hand, in network where district level managers are responsible for managing their capital budget, the majority (57%) say they have only some or little control over these budgets and 57% say that this control has declined in the last two years. Many of these managers experienced a cuts in their capital and training budgets in 1993 and 1994. Some are resentful and view their budget cuts as financing investments on the non-regulated side of the business.

For the majority of managers at all levels, downsizing has had a significant effect on workloads and staffing levels. Ninety-three percent of all managers said their workload had increased over the last two years, and this response did not vary significantly by department or managerial level. Sixty-three percent of all managers (68% of network and 52% of customer

services) said they worked ten hours or more each day, and over 60% said they had more overtime or take-home work than they wanted. Sixty percent (64% in network and 51% in customer services) said they were always or quite frequently understaffed. These higher workloads are reflected in increased spans of control. Seventy-two percent of all managers say that their span of control has increased, with a significantly greater percentage (82 percent) in customer services than in network (67 percent). Almost 40 percent of those with enlarged spans of control now supervise 3 to 5 additional workers; another 37 percent manage between six and fifteen additional workers. Traditionally, the standard size of work groups in network was 6 workers, and in customer services, 10 (See Table IIIb).

Insert Table IIIb Here

Changing Internal Labor Markets

Downsizing has also, at least during this period of transition, reduced overall mobility throughout management. Although job ladders on paper have not changed, movement has halted. In 1990, for example, approximately 5 percent of managers were promoted to higher pay grades, a fraction of what existed in the 1950s through 1970s when Howard and Bray did their study. Moreover, approximately the same number of managers were promoted in 1990 as in 1991-1993 combined; and the very small number of new managers hired from the outside in 1990 was still over twice the combined total of new hires for 1991-1993. Gender-based occupational segregation has historically reduced lateral mobility and continues to do so: while 31 percent of the managers in the sample were female, they were concentrated in customer services (71 percent female) and underrepresented in network (14 percent).

Interviews with managers indicate that downsizing also reduces requests for lateral transfers: managers don't want to risk losing their "sponsorship" and joining a new department where they will be the new person, a relative unknown to a new supervisor who will evaluate them. Interviewees also related stories of managers reluctant to take advantage of opportunities for mid-career educational programs or international experience for fear that ("out of sight, out of mind") their departments would have learned that they were dispensable, their jobs would have been eliminated, and they would face less attractive job prospects or the necessity to relocate in order to have a job at all. In response to survey questions, 92% of managers said job security had decreased, 89% said that opportunities for promotion had declined, 80% said that opportunities for mobility had decreased. A large minority (38%) said they had had to relocate in the past 3 years as a result of organizational restructuring.

Finally, the company has introduced a new managerial performance evaluation and compensation system that ties jobs more closely to external market conditions and links pay to performance. It reduces managerial job classifications from 3,600 to 2,000, largely by eliminating departmental distinctions and creating short descriptions of broad responsibilities rather than detailed lists of specific tasks. The new compensation plan shifts from a salary-based plan built around internal equity to a variable-based system linked more closely to the external market. Rather than moving to broadbanding with a number of gradations in each band, the company expanded the number of pay grades from eight to fifteen, a change that allows the company to more accurately link internal rates with external variation. To promote pay-for-performance, the company moved from more or less across the board increases to a forced distribution system. In the past, virtually all managers received a top rating in a three point scale and therefore gained the maximum amount in annual pay raises available. Under the new system, managers receive between 80% and 120% of their grade, but a forced distribution means that supervisors will be forced to differentiate more between high and low performers among their subordinates. In addition, 10 percent of salary continues to be at risk (a innovation since divestiture), with group payouts dependent upon financial and service performance.

In summary, managers show mixed reaction to the dramatic changes in their jobs and careers. While they like their jobs and the opportunity for greater participation in decision-making, they are highly dissatisfied with opportunities for advancement and corporate leadership more generally. Whereas less than twenty percent are satisfied with their employment security or opportunities for advancement, seventy-eight percent are satisfied with their jobs and 68 percent with their participation in decisions. They appear to be a hard-working and reliable workforce. Eighty-four percent reported having zero absences in 1993. Most score high on commitment variables: 61 percent say they are willing to work harder for the company, 60 percent say they are proud to work for the company, and 56 percent say they are loyal. By contrast, they see a gap between themselves and top management. Only 31 percent agree with top management's resource allocation decisions, only 29 percent believe top management is committed to quality, and only 19 percent think that top management is considers employee interests in making organizational decisions. In other words, while they feel committed to the organization, they are critical of top management's commitment to them (See Table IIIc).

Insert Table IIIc Here

Conclusions: Implications for Internal Labor Market Theory

Managers in the old Bell system grew up in internal labor markets that closely resembled the classic industrial ladders described by Doeringer and Piore (1971). Companies are in the midst of redefining those markets to simulate external market-like conditions in an enterprise culture. A useful framework for comparing the past and future models is along four critical dimensions: job definition, deployment, employment security, and wage rules (Osterman 1987, 1988). This comparison is outlined in Table IV. In the past jobs were defined narrowly and functionally; managers had a small span of control and limited discretion. Technical skills were emphasized, and lower and middle level managerial jobs focused heavily on monitoring workers and reporting up the chain of command. A commitment to internal recruitment shaped deployment strategies, and vertical mobility was high: nonmanagerial workers could aspire to lower and middle level positions; college-educated recruits to first level supervisory positions could count on long careers in middle and top management. Company-provided training was of high quality, and company-paid tuition supported college education for managerial advancement. Wages and benefits were generous.

Insert Table IV Here

Under the new system, lower and middle level managerial jobs are broader, focused on providing quality service, and intended to involve more cross-functional collaboration. Spans of control are double or triple what they were in the past, allowing managers less time for traditional supervisory tasks. While self-managed teams absorb some supervisory functions, electronic tracking replaces manual reporting. The evolution to a new coordinating or coaching role has been identified as a significant change by researchers studying first line supervisors in other contexts (Klein 1988; Manz and Sims 1987; Schlesinger and Klein 1987). In this sense, the job of first line supervisors stands to be enhanced, but the ranks will be pared down. For middle managers, greater discretion is occurring in some areas (notably in customer service, quality, human resource management, and industrial relations), but not others (control over resource allocation).

Training systems for managers, already quite developed and well-funded in the old Bell system, do not appear to be undergoing dramatic change. Changes appear to be more in the thrust of training in new areas such as knowledge of business, marketing, and the industry; and management and leadership skills. There are much greater changes in deployment: in the break with tradition by recruiting externally for middle and upper management positions and in the

decline in vertical mobility. While the notion exists that more lateral mobility will occur across the organization, current downsizing has dampened most movement overall, and it is unclear how long this will continue. The radical departure from the past is in what may be termed "forced lateral movement" -either due to consolidations and relocations of offices or transfers to other nonregulated growth subsidiaries as a means of ensuring continued employment. Continuity with the past exists in continued high levels of occupational segregation by gender. Employment security is now contingent on skill and performance; wage rules create variable rather than fixed pay and income security.

What is the significance of these changes for firms and managers? Do these new practices achieve the goal of creating an enterprise culture that is more suited to new competitive markets? The long vertical career ladders of the past created two central benefits: first, they preserved the skill base in the industry through continuity in the training and development of technicians and professionals; second, they built loyalty and commitment through job and income security. They sacrificed creativity and breadth. Companies are attempting to undo the worst excesses of bureaucratic behavior by altering internal labor market rules to favor an enterprise culture. While gaining participation they may be losing the goodwill of managers.

One of the effects of the new enterprise culture is to create a new cleavage -- between lower and middle managers on the one hand and top management on the other. Other researchers have noted the contradiction in constraints imposed by top management in the context of also promoting "entrepreneurialism" (Donaldson 1985). Researchers studying the restructuring of British Telecom also found evidence of this contradiction: the devolution of authority to middle managers turned out to be more rhetoric than reality and created high expectations among middle managers who were subsequently demoralized when the reality turned out to be far less than that promised (Colling and Ferrier 1992). Middle managers in the old Bell system companies talk openly of their resentment towards top management -- who on the one hand ask middle managers to be more committed and creative than ever in improving quality and customer service; but on the other hand, who cut the resources needed for these managers to accomplish this goal. On the one hand, middle managers say they are told they have new power to make quality improvements in work processes; on the other hand, company-wide reengineering teams announce process changes without the input of middle and lower managers. On the one hand, middle managers are told to create an on-going learning organization; on the other hand, they have no certainty that they will lead those organizations in the near future.

The extent to which these contradictions undermine quality improvements or firm competitiveness remains to be seen, as does the extent of change in internal labor markets that actually occurs. While company policies governing internal labor markets have changed, actual changes in practice are lagging. The regional Bell companies, for example, have been downsizing much more slowly than AT&T, and have resisted forced separations even when they have been officially announced. While external recruitment is occurring to a greater extent than in the past, these companies still maintain a strong commitment to internal promotions. While new performance management systems have been announced, the systems of the past were intended to differentiate "higher" and "lower" performing employees, but as implemented did not. Changes in job design and human resource policies are difficult to implement because their implementation often depends upon managers who stand to lose in the process. Thus, this study captures organizations in the midst of transition, but the endpoint is still unclear; and it may fall far short of the lean and nimble entrepreneurial player that is envisioned in current management theory.

Table I
Growth of Managerial Workforce at AT&T:
1950-1990*

	1950	1960	1970	1980	1984	1990
AT&T Bell						
Managers	70,630	105,833	169,401	248,562	111,432	115,851
Non-managers	446,129	466,795	574,534	589,939	267,568	137,920
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Total	523,251	580,405	772,980	847,768	379,000	253,773
Managers as % of total	13.5%	18.2%	21.9%	29.3%	29.4%	45.7%
Ratio of Managers to Non-mangers	1:6.3	1:4.4	1:3.4	1:2.4	1:2.4	1:1.2
% Change over prior decade:						
Managers		+49.9%	+60.1%	+46.7%	-55.2%	+ 4.0%
Non-mangers		+ 4.6%	+23.1%	+ 2.7%	-54.5%	-48.5%
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Total		+10.9%	+33.2%	+ 9.7%	-55.3%	-33.0%

*Source: BellSystem Statistical Manual 1950-1980, June, 1982, AT&T Comptrollers' Office. NY:AT&T, pp. 701-708, In Keefe (1994), Table 1. The figures for 1950 to 1980 are for the Bell System, excluding Bell Labs (research and development) and Western Electric (manufacturing). The 1984 and 1990 figures represent AT&T's total U.S. operations following divestiture, including manufacturing but excluding NCR.

Table II
Telecommunications Services
Business Strategy and Production Organization

Components	Old System	New System
Capital Market	Regulated by FCC, State PUCs	Partially regulated: Sensitive to stock market
Pricing Mechanism	Regulated: Cross-subsidized (local/long dist.) (resident/business)	Partially regulated: More competitive "Incentive-based" "Cost-based"
Product Market	Standardized: Voice	Differentiated: Voice, data, video, image
Technology	Lead, copper transmission; Analog, mechanical switching	Fiber optic transmission; Digital switching
Competitive Advantage	Low cost, scale economies	Cost, quality, customer service
Business Strategy	Universal public service, "Engineering driven"	Segmented service markets, "Market driven"
Management Structure	Vertical Bureaucratic Centralized	Horizontal Entrepreneurial Dual: regional/local
HR/IR	Centralized	Dual: regional/local

Table IIIa
Managerial Perceptions of Changing Participation and Discretion,
(percentages of positive responses to questions)

Job Dimension	All Line Managers	All Network Managers	All Cust. Ser. Managers
Middle managers:	N = 41	N = 31	N = 10
Have substantial control over*			
Quality programs	82	79	84
Labor relations	76	75	77
Training	64	71	58
Capital allocations	54	43	61
Have increased control over**			
Training	20	21	19
Quality programs	60	63	58
Labor relations	47	42	52
Have decreased control over**			
Capital budget	57	57	55
Lower Level Managers:	N = 290	N = 199	N = 91
Have substantial control over*			
Tasks	59	59	58
Procedures	58	57	61
Pace of work	59	58	62
Have increased control over**			
Customer service	56	56	55
Tasks	34	34	27
Pace of work	29	30	25
Middle & Lower Managers	N = 331	N = 230	N = 101
Have participated in**			
Quality teams	46	45	48
Crossfunctional teams	44	44	46
Problemsolving teams	51	49	55
QWL teams	28	26	35
Support use of SMTs**	72	68	85
Support union participation:**			
In total quality	92	92	93

* % of positive responses to yes/no question.

** % of positive responses to question (1-2 on 5-point scale).

Table IIIb
Managerial Perceptions of Workloads and Career Opportunities
 (percentages of positive responses to questions)

Job Dimension	All Line Managers	All Network Managers	All Cust. Ser. Managers
Middle & Lower Level Managers	N = 331	N = 230	N = 101
Workload has changed:			
Larger span of control**	72	67	82
Work 10+ hours/day	63	68	52
Increased workload**	93	92	97
Too much overtime*	61	60	64
Frequent understaffing*	60	64	51
Opportunities have declined:**			
Vertical promotions	89	92	82
Lateral transfers	80	83	74
Employment Security	92	91	93
Have been forced to relocate**	38	41	33

* % of positive responses to question (12 on 5-point scale).

** % of positive responses to yes/no question.

Table IIIc
Managerial Perceptions:
Satisfaction, Commitment, Attitudes Toward Top Management

Job Dimension	All Line Managers	All Network Managers	All Cust. Ser. Managers
Middle & Lower Managers	N=331	N=230	N=101
Are satisfied with:*			
Participation in decisions	68	65	75
Job	78	77	80
Sense of accomplishment	86	83	90
Job's use of skills	81	79	86
Career opportunities	17	12	28
Benefits	73	66	92
Pay	83	77	97
Company	70	64	94
Are Committed to Company:**			
Willing to work harder for company	61	56	72
Are proud to work for company	60	53	74
Feel loyal to company	56	52	66
Had zero absences in 1993	84	87	78
Have similar values	29	24	44
Are satisfied with top management:*			
Strategic direction	40	31	58
Resource allocation	31	22	53
Commitment to quality	29	26	38
Consideration of employees	19	15	28
Demographics:			
%Female	31	14	71
%White	88	92	77
%age 41-50	63	58	73
Education: means	Some coll.	Some coll.	Some coll.
Tenure: 21 yrs or more	77	80	67

* % of positive responses to question (1-2 on 5-point scale).

** % of positive responses to yes/no question.

Table IV
Implications of Organizational Change for
Managerial Internal Labor Markets

Components	Old ILM	New ILM
Job definition o Span of control o Discretion o Skill requirements o Training Lower/middle Upper	Rigidly defined, Narrowly functional 1:6 Very limited Specific functional and technical Co. provided technical plus college tuition Co. paid executive ed.	Broader, Cross-functional 1:15-30 Greater in areas of customer service, HRM/IR Technical plus general management, leadership, HR/IR Co. provided technical plus quality, business, leadership training; tuition aid Co. paid executive ed.; more stress on finance, marketing, industry analysis
Deployment o Mobility	Internal recruitment High: non-manager to mid-manager 1st level to top-manager Vertical/functional High occupational segregation by gender	Internal & external recruitment Low: nonmanager to 1st level 1st level to midlevel More lateral, external: "forced lateral transfers" High occupational segregation by gender
Employment security	Cradle to grave	Contingent on skill and Performance
Wage rules	Salary-based + automatic annual raise	Variable-based + 10% at risk + contingent raise

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Endnotes

¹ Comparing managers who do and do not have direct experience with self-managed teams, 90 percent of those with experience supported their use; but even among those without experience, fifty-one percent favored them. Asked directly whether self-managed teams undermine the authority of first line supervisors, 70 percent of those with experience said rarely or never, compared to 45 percent of the managers of traditional groups.

² Jeff Keefe, personal communication, 8/15/94.

³ Comparing manager who do and do not have direct experience with self-managed teams, 90 percent of those with experience supported their use; but even among those without experience, fifty-one percent favored them. Asked directly whether self-managed teams undermine the authority of first line supervisors, 70 percent of those with experience said rarely or never, compared to 45 percent of the managers of traditional groups.

⁴ The data consists of 331 line managers in two core departments – network and customer services. About two-thirds of the respondents are from network and one-third from customer services, reflecting the relative size of the workforce in each of these departments. The survey asked three levels of managers in each department (middle, lower middle, and first line) a series of questions concerning changes in the job characteristics, skill requirements, work organization, and human resource practices in the firm.

⁵ Surprisingly, over 50% of managers said that opportunities for training had not changed, and over 70 percent said that more training was not a high priority; most managers responded that their training was adequate. Two interpretations are plausible: This may reflect the fact that the old Bell system companies have historically invested heavily in training (currently at 3.5 percent of payroll in this company); alternatively, it may be that managers are reluctant to admit their skill deficiencies.