

**The Restructuring of Industrial
Relations in the United States**

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This paper discusses the extent to which a new industrial relations system including greater participation in decision making by workers and unions has diffused in the American economy. The paper uses the automobile as an illustrative case. The paper includes examination of the factors that have limited the diffusion of new industrial relations in the auto industry and elsewhere.

A Transformation in Industrial Relations?

Kochan, McKersie and I (KKM) claim that a major transformation is occurring in American industrial relations.' There are many dimensions to this transformation including a shift in the focus of industrial relations activity away from the "collective bargaining" to the "strategic" and "workplace" levels. Perhaps most controversial is our assertion that in a number of unionized settings a new system of industrial relations is emerging. The new system includes more contingent compensation, team systems of work organization, employment security programs, and enhanced worker and union participation in decision making. In contrast to the traditional arms-length and formal nature of collective bargaining, the new system involves more continuous and informal relations between workers and managers.

The new industrial relations also involves changes in the bargaining process. Process changes include a decentralization in bargaining structure; more direct communication between management and the workforce; and a more direct role for financial and operating managers in the negotiation and administration of

work rules and labor contracts. There is widespread agreement that these process changes have occurred (although less agreement about the consequences). Thus, this paper focuses around the evidence and controversy surrounding the industrial relations system outcomes (practices).

An Illustration: The Automobile Industry

The American automobile industry provides a rich illustration of new industrial relations practices and is often cited in the debates concerning the new practices. The auto industry receives so much attention from the press and academics because the industry has long served as a pattern setter and innovator within American collective bargaining.

The following discussion focuses on developments within the Big Three (General Motors, Ford, and Chrysler) and the UAW although similar changes have occurred in the independent auto parts sector.²

Contingent Compensation

From 1948 until 1979, Big Three contracts with the UAW always included annual cost of living increases (providing 90-100 percent protection from inflation) and annual improvement factor wage increases (since 1955 these were 3 percent per year). Autoworker earnings were made more contingent on corporate performance than these traditional wage formulas when profit sharing was introduced into the Big Three contracts with the UAW in the early 1980s. The profit sharing plans provide annual payouts that vary as a function

of company profits. Profit sharing has continued in subsequent agreements, including the 1990-93 contracts signed in the Fall of 1990.

The introduction of profit sharing has led to sizeable differences in pay across workers in the different companies. In 1987, for example, Ford hourly workers received a profit sharing payment of \$3700, while workers at General Motors (GM) received no payment, and workers at Chrysler received a \$500 profit sharing payment. Most of this variation was due to differences in the financial performance of the companies, with Ford earning record profits and GM suffering substantial declines in market share over the mid and late 1980s.

The introduction of profit sharing was accompanied by the use of lump sum wage increases. Annual lump sums have been paid in the Big Three contracts negotiated since 1982. The lump sums increases have varied between 2 and 3 percent. In some sense, the lump sum wage increases also are a form of contingent pay in that they are not automatic and their size varies somewhat as a function of how well the auto companies are doing financially at the moment a new labor contract is negotiated.

At the shop floor level in a number of auto plants, another variant of contingent pay has been introduced through the introduction of pay-for-knowledge schemes linking worker pay and skill competence. Under these pay systems workers receive more pay (often 50 cents per pay step) as they prove competence in a wider variety of jobs in their respective work area. In the past a

worker's wage was set strictly on the basis of the job classification of the worker. There had been very little variation across work areas in a plant, across plants, and across companies in the wage rates assigned to particular occupations. Thus, in the past assembly line workers across the Big Three all received nearly identical wage rates. Currently, as a result of pay-for-knowledge, some assemblers earn up to \$2.00 per hour more than other assemblers.

Pay variation also emerged between autoworkers in the U.S. and Canada in the 1980s. The UAW had worked hard in the immediate post World War II period to raise the pay of Canadian autoworkers up to the earnings of American workers. The UAW then bargained for equality in autoworker nominal pay across the border. The union pursued pay standardization here, as elsewhere, so as to eliminate any incentive for management to shift production to low cost regions. With the secession of the Canadian auto workers from the UAW (and the formation of the CAW) in 1985, pay standardization across U.S. and Canadian autoworkers was ended. The CAW refused to accept profit sharing into their labor contracts and instead, continued annual improvement factors wage increases, although they did not always gain the traditional 3 percent figure.'

Teams

Team systems of work organization have spread throughout many of the Big Three plants. Although the form of teams varies substantially across plants, all the teams involve a shift away

from the traditional numerous job classifications. A typical team requires workers to perform some machine maintenance, housekeeping, repair, and inspection duties in addition to normal tasks. In some teams workers rotate across job tasks and some teams use pay-for-knowledge. In some extreme cases, teams are led by hourly "team coordinators" who perform many of the tasks that were traditionally carried out by supervisors. These coordinators continue to be represented by the UAW.

There has been much debate concerning the effects of team systems. Often in these debates, as at the workplace, the operation of teams is closely linked to greater worker and union participation in decision making and employment security programs. So, this paper describes these other industrial relations changes before considering the debate that has surfaced over the new practices.

Employment (and Income) Security

In the traditional auto industrial relations system workers were laid off when recessions produced declines in auto sales. The UAW had negotiated a number of programs to provide income protection to employees during these temporary layoffs, the most important were the supplemental unemployment insurance benefits (SUB) paid in addition to government provided unemployment insurance benefits.

In the 1980s, the Big Three-UAW contracts included a number of employment and income security programs. The Jobs Bank,

introduced in the 1984 contracts, was the major innovation. The Jobs Bank provides that if workers are laid off for reasons that were in the control of the company (layoffs due to technological change, corporate reorganization, outsourcing, or negotiated productivity improvements) the workers receive full compensation while placed in a "jobs bank". Notably, the Jobs Bank program in the 1984-87 and 1987-90 contracts did not protect workers laid off due to volume related reasons. As a result, in the mid and late 1980s, when GM's market share fell, many GM workers were laid and did not qualify for the Jobs Bank (they did receive SUB benefits or transfer opportunities).

For workers covered by the Jobs Bank and other new employment security programs there is less frequent recourse to layoff (even in the face of business downturns) and more secure career attachment to the firm. In GM's Job Bank program, for example, workers displaced by new technology sometimes are placed in retraining programs. The degree to which this new program actually provides valuable retraining to the workforce varies substantially across auto plants.⁴ Nonetheless, the Job Bank and other programs provide covered workers in the auto assembly firms with work careers that looks more like the traditional employment security possessed by white collar workers in the U.S..

At the same time the new employment security programs encourage the auto assemblers to rely more extensively on either temporary and part-time workers or greater overtime to respond to fluctuations in auto demand. At GM's Packard Electric division,

for example, the negotiation of employment security for existing employees was accompanied by an expansion in the use of temporary and part-time employees.⁵ In this way the expansion of the new industrial relations system will have the byproduct of making the U.S. employment structure look more like a dual structure. This shift, not coincidentally, makes the U.S. employment structure more similar to that found in Japan.⁶

The 1990-93 contract made a major change by extending the Jobs Bank to workers laid off for volume related reasons. The 1990-93 contracts provide that during the term of the three year agreement, a worker cannot be laid off for longer than 36 weeks. Once a worker has been on lay off they are to be recalled to work or receive full pay while placed in a Jobs Bank.

The 1990-93 contract also provides a number of other new features that increase the compensation provided to workers affected by lay off or plant closings. SUB and early retirement benefits, for example, are greatly expanded. The contract provides that GM alone is liable for up to \$4 billion in additional pay outs to workers under the expanded income security programs.

The auto companies (and to some extent the UAW as well) were hoping that the expansion of various employment and income security programs would strengthen the link between employees and the companies. One of the reasons GM agreed to the new \$4.0 billion liability is the company's guess that it would not have to pay out much of the money. The company hoped that further layoffs and

plant closings would be avoided in part as a result of productivity improvements.

Thus, in many ways the latest income security programs should be seen as a form of insurance. The workers give up pay or other potential contract improvements in exchange for these programs. Meanwhile, the auto companies do not have to pay out as long as they manage to avoid extensive layoffs and plant closings.'

The parties hoped that these programs would reduce workers' fears that productivity improvements would lead to worker displacement and this would spur workers to agree to restructure work. The companies and the UAW created various committees operating at the plant level to develop more effective work practices.

It is, of course, possible that income and employment security programs have an effect that goes exactly in the opposite direction from what the companies' hoped. These new (and expanded programs) reduce the hardships workers face if companies lose market share and close more plants. It is possible that the reduction in these hardships leads workers to be more complacent and less enthusiastic about changing work practices. In the face of the new programs, workers have less to lose if they maintain traditional work practices. It remains to be seen whether the new security programs actually spur productivity improvements.

Participation Processes

Workers and union officials have acquired increased participation through a number of channels in the new industrial relations system. Team systems, for example, involve workers in a broader variety of tasks. Some teams workers even have become involved in budget and planning. In a number of auto plants hourly workers now have the authority to contact vendors and parts suppliers directly, and some workers make regular trips to these vendors to resolve complaints.

Union officers now spend much more of their work time in meetings with management. In some plants unions officers serve on "administrative" committees that direct plant operations. GM's Saturn plant represents an extreme case. At Saturn, the president of the UAW local is a member of the executive management committee. This committee decides matters including picking vendors to supply parts. In this role, the union president must decide how much to weight unionization as a factor in parts purchases. The local union president at Saturn already has been criticized for agreeing to parts purchases from nonunion plants. In point of fact, a high percentage of Saturn's parts come from unionized suppliers. Nevertheless, this well illustrates the kinds of criticism union officers are opened to in the face of their involvement in strategic business issues.

Workers and union officers also participate in strategic issues in the auto industry through a number of other committees and joint activities. These range from plant level committees concerned with productivity and quality enhancement to quarterly

forums where the companies report their business plans. In some plants union officers are now a part of the management committees that provide plant input into corporate strategic planning.

The Debate Surrounding the New Practices

A serious challenge to the KKM thesis comes from those who believe that we completely mischaracterize the nature of new industrial relations practices. According to these critics, the current period does amount to a transformation, but it is a transformation defined by a substantial increase in management's control of industrial relations.' KKM claim that there are new experiments (and possibilities) involving greater worker and union involvement in decision making. In contrast, the critics argue that new practices produce hyper-Tayloristic practices, a speed-up in the pace of work, and the weakening of worker rights. KKM see the emergence of team systems as a shift toward higher skill work and mechanisms to involve workers in the coordination and direction of work tasks. The critics claim that teams are a device to eliminate traditional worker protections and introduce a system of "management-by-stress".'

Academics are not the only parties arguing about whether the restructuring of industrial relations is focused on a speed-up in the pace of work and the avoidance (or weakening) of unions. In the auto industry the "New Directions" movement reflects these sentiments and there are similar militant groups opposing joint labor-management programs in other industries. Although the New

Directions candidates failed in their recent efforts to win executive positions in the UAW, support for their positions on the shop floor is not trivial.¹⁰

In fact, it is my sense that the militant opponents to "jointness" (joint labor-management programs and activities) have greater support among the workforce on the shop floor than their limited electoral success inside unions would suggest. Why haven't the militants been elected to union offices in even greater number? The electoral weaknesses of the militant opponents to work reorganization in auto (and other industries) in part derive from the fact that the militants have not yet articulated a clear and comprehensive alternative strategy. To date, their main criticism of "cooperative" unionists in the UAW and elsewhere boils down to the charge that it was possible to win more from management.

The militants argue that harder bargaining could maintain traditional union work standards while at the same time win more concrete employment assurances than those won to date by the cooperatists. Yet, the supporters of New Directions and other militants have not clarified how this all could be accomplished. As a result the militants have a hard time overcoming the appeal of the cooperatists who claim that joint cost control efforts and restructuring will save jobs.

Yet even if the militants were able to more clearly articulate an alternative strategy, ultimately their political strength inside the American labor movement may prove to be limited. New Directions and other militants have to contend with the historical

absence of ideological opposition to capitalism within the UAW and the American workforce. The workforce has long been deeply suspicious of managements' motives (often for very good reasons) in the auto industry and elsewhere. Yet, this suspicion rarely has been translated into deep rooted programmatic opposition to management's objectives.

The American labor movement has been characterized (and distinguished) by its pragmatic approach to industrial conflict. Typically, in the current scene this pragmatism leads the workforce and union officials to be willing to at least try joint programs. The joint process frequently starts through the initiation of a joint labor-management committee given the task of improving a plant's viability by analyzing competitors' costs and productivity. Such a process often begins under the presence or threat of the outsourcing of work, business volume declines, or some other threat to employment in a plant. Where the joint process takes hold it goes on to consider how industrial relations restructuring in the plant can be linked to the reorganization of management and/or manufacturing procedures to answer competitive threats.

The actual negotiation of the "productivity coalitions" that often follow these joint discussions is no easy matter and in fact, is often extremely fragile. Nonetheless, the workforce and American unions seem to be willing to make a try at these efforts and see where they lead.

While they are often willing to give jointness a try, from what I have observed, American unionists are rarely duped by

managements who use jointness primarily as a device to speed the pace of work and/or weaken the workforces loyalty to the union. Unionists usually enter trial joint processes ever mindful of previous managerial betrayals and new betrayals of the principles of jointness quickly lead unionists to withdraw from a joint program. If anything, the unions' and workers' willingness to engage in cooperative experiments concerning the use of work teams and the like recently has been enhanced by reports coming from some sites of the continuation of productivity coalitions and strong unionism on the shop floor (a possibility the militants deny).

It is interesting to note that the different interpretations of the consequences of work reorganization do not arise from the fact that the two sides are looking at different cases. On the contrary, the very same worksites, such as the NUMMI plant (jointly owned by GM-Toyota) and other auto plants, are viewed by some as an example of enhanced participation and by others as an illustration of hyper-Taylorism."

Such contrasting interpretations can be drawn from the same cases in part because of the nature of the changes underway on the shop floor. In the face of heightened international and domestic non-union competition many unionized firms have struggled to lower production costs. One would be hard pressed to find a unionized workplace in the U.S. that after 1979 did not experience changes in work rules that entailed the tightening of production standards, reductions in manning levels, and a relaxation in the role of seniority in job transfers and assignments.¹² Consequently, few

would quarrel with the claim that for unionized workers the pace and difficulty of work has intensified in the 1980s. On this score the critics of teams and work reorganization are surely right.

But the pace of work is not the issue that divides the two positions. The central question is whether in their efforts to lower production costs American management has begun to experiment with a decentralization in decision making authority in the factory and a system of industrial relations that allows broader roles for workers and their union representatives. The critics claim that American management either will not (because of ideological predilection) or cannot (because of the nature of capitalism) allow such a reorganization of work.¹³

Critics of work reorganization have a difficult time explaining why management did not merely speed up the traditional production and industrial relations systems in their efforts to lower costs. I became most convinced that work rule changes were part of a serious rethinking of managerial practice when I observed that management was not solely choosing the simpler and more direct route of speed up. Yet, since intensification of work and work reorganization are occurring simultaneously it is no surprise that the debate is confused and the evidence is mixed.

Of course, it is difficult to learn how much influence the union or the workers actually exercise in strategic discussions and the mere existence of labor input does not conclusively refute the critics claim that such input is superficial or cooptive. Clearly, much more research has to be done to identify the staying power and

scope of this strategic participation. We need to know more fully if unions can and have used such participation to change management's decisions and whether such involvement expands once it is set in motion. Strategic issues often take much time to resolve themselves and even if union involvement were clear, decisions still have to be followed to ascertain the influence of labor's involvement.

Evidence From Other Industries

There is evidence that many of the changes discussed above are occurring in many other industries and companies. Comprehensive data across industries are lacking, nevertheless, indicative data are available. The best recent data come from a GAO study and this data suggests that there is a fairly sizeable spread of a number of the features of the new industrial relations system.¹⁴ KKM and others also have identified cases in the steel, airlines, machine tool and trucking industries. In the public schools there have been experiments and debates concerning the role of teachers in peer review and curriculum (what are essentially strategic issues in the KKM framework).¹⁵

What about the nonunion sector in the U.S.? Is there evidence of a transformation in work practices there as well? In the non-union sector it is useful to distinguish the practices of those non-union firms utilizing what KKM call sophisticated human resource management policies and those firms that practice traditional forms of autocracy and paternalism. KKM outline the

organization of work in the sophisticated employers and sketch out the post World War II evolution of these practices. Yet, detailed evidence on the current workplace practices of non-union employers is extremely limited.

There is some recent evidence indicating the emergence of a bifurcation of job opportunities in the nonunion sector (and elsewhere in the American economy). Firms may be able to acquire flexibility through their reliance on more "contingent" employment relationships with greater part-time, temporary, or sub-contracted labor. Christopherson and Stolper, for example, suggest that such practices have spread in the movie industry as that industry shifted towards a corporate and product form that looks similar to "flexible specialization".⁶ Noyelle claims that the collapse of internal labor markets in a number of service industries is a result of a similar shift towards flexible specialization.⁷

In these cases there are some employees, such as technicians and independent producer-financiers in the movie industry and buyers in the retail clothes industry, who experience a merger of conceptual and manual tasks. Thus, these cases provide some support that there is upskilling. But there are many other workers (who may be in the majority) in these industries who suffer a deterioration in employment conditions. Furthermore, in the 1980s the American income distribution became more unequal, reversing a modest shift to greater equality that occurred over the late 1960s and early 1970s.⁸

The Role of Union Strategy

The difficulty in determining whether the U.S. employment structure is traveling down a path of higher skills and worker participation or just the opposite arises from the nature of recent changes as much from a lack of information. There is no reason to believe that all firms, industries or industrial sectors should necessarily follow the same development path. KKM suggest the important role that strategic choice plays in industrial relations change and there is good reason to believe that firms differ substantially in how they chose to respond to given environmental pressures." Thus, employment practices may evolve along different courses either because environmental pressures vary by sector or because labor and management exercise important choices in the course of development.

Economic pressures themselves also contain the roots of diversity in employment conditions. Since cost reduction can be accomplished by speeding up the pace of work and by reorganizations of the production system, it is not surprising that some firms will initially proceed along a mixed strategy that tries to combine these adjustments. Thus, even if sizeable parts of the economy were to head down a reorganization (upskilling) strategy it would not be surprising to observe the sort of sluggish growth in real income and the increasing inequality that has appeared in the U.S. in recent years. Clearly, more research is needed to identify the extent to which participation is spreading as well as trends in skill requirements.

The Dilemmas Facing Union Leaders

The labor movement does not have the luxury to wait for researchers to clarify exactly where firms and the labor market are heading. On the shop floor labor leaders face a multi-dimensional problem as they confront managements eager to modify work rules. Even if local union leaders conclude that management at their worksite is primarily oriented toward speeding up work pace, union leaders (and the workforce) must decide whether the employment gains from such a speed-up are worth the sacrifice. In such a situation labor leaders might also strive to improve the terms of the trade-off by encouraging an upskilling-participatory reorganization strategy. But playing out such a strategy is no simple exercise. Often union leaders are put in the awkward position of trying to identify what management is up to while they simultaneously struggle to develop plans for a more positive adjustment strategy. The former is complicated by the widespread confusion that exists within management's own ranks concerning their choice of strategy.

Where they fail to convince management to pursue reorganization and decide that the employment gains from speed-up are not worthwhile, union officers must prepare their organizations for the conflictual tactics necessary to oppose these measures. Although preparing for conflict is difficult, given the prevailing uncertainty in management's intentions and the environment, at the least, if it comes to conflict the union can rely on a repertoire

of traditional tactics. Furthermore, in the face of sophisticated managerial strategies the labor movement recently has begun to employ pressure tactics that fall short of strikes and rely on "workplace strategies". These workplace strategies include working to rule, sick outs and the like.²⁰

The development of strategy for the labor movement becomes more difficult if the reorganization of work and industrial relations proceeds, although the returns may be greater. The new system of industrial relations demands from union leaders novel roles and union structures.²¹ On the shop floor more continuous and informal relations with management demands non-traditional skills and personalities.

The union also faces the difficult task of resolving competing advantages provided by the new industrial relations system. Team systems, for example, are often most advantageous to younger workers who gain access to broader and more interesting jobs. These are the sort of jobs which in the traditional seniority system are only available to high seniority workers. More senior workers meanwhile often are resentful of the losses in entitlements brought by the new system. Mediating across these competing claims is at least in principle not foreign to labor unions and successful compromises provide some role for seniority rights within work teams or in cross-team transfers.

More severe issues derive from unions' need to rethink their basic bargaining and organizational structures in the new industrial relations system. Here one problem arises from the fact

that the new system involves greater diversity in employment conditions across work groups, plants and companies. In the past unions strove to impose standardization so as to reduce invidious competition. Yet, in the new system diversity in employment practices across work groups is an important source of innovation and flexibility. The unions need to develop mechanisms to coordinate and communicate across work sites. But the whole subject of work rules, teams and related practices are now so controversial that it is difficult for unions to discuss what is going on, let alone to create coordinated policies.

Given the extent of change and the ambiguities surrounding the possibilities for change, labor and management clearly have a full plate in front of them.

FOOTNOTES

1. See Thomas A. Kochan, Harry C. Katz and Robert B. McKersie, The Transformation of American Industrial Relations, New York: Basic Books, 1986.
2. The history of auto industrial relations is reviewed in Harry C. Katz, Shifting Gears: Changing Labor Relations in the U.S. Automobile Industry (Cambridge, Mass.: MIT Press, 1985).
3. Autoworker earnings in the U.S. and Canada are compared in Harry C. Katz and Noah M. Meltz, "Profit Sharing and Auto Workers' Earnings: The United States vs Canada", Relations Industrielles, forthcoming.
4. See Ruth Milkman, "Technological Change and Job Security: A Case Study From the Auto Industry", unpublished paper, Department of Sociology, Queens College and the CUNY Graduate Center, April 1988.
5. Events at Packard-Electric are described in Kochan, Katz and McKersie, The Transformation of American Industrial Relations, pp.168-171.
6. On Japan's employment practices see Ronald Dore, British Factory-Japanese Factory, Berkeley: University of California Press, 1973 and Robert E. Cole, Japanese Blue Collar, Berkeley: University of California Press, 1971.
7. The auto companies also will utilize attrition to create job openings that workers can be placed into and thereby avoid the need for income security payouts. The contracts do, however, require the companies to replace one half of all the jobs lost through attrition. This latter requirement is quite novel within American collective bargaining.
8. See Mike Parker and Jane Slaughter, Choosing Sides: Unions and the Team Concept, Boston: South End Press, 1988; Raymond L. Hogler, "Critical Labor Law, Working-Class History, and the New Industrial Relations" , Industrial Relations Law Journal, Vol. 10, No. 1, 1988, pp. 116-143; and Guillermo J. Grenier, Inhuman Relations, Philadelphia: Temple University Press, 1988.
9. See Parker and Slaughter, Choosing Sides, pp.16-30.

10. The recent UAW convention and the debates surrounding New Directions are reported in the following issues of the Daily Labor Report, June 21, 1989, p. A-14, June 22, 1989, p. A-13, and June 27, 1989, P. A-3.
11. For example, contrast the characterizations of the NUMMI plant in Haruo Shimada and John Paul MacDuffie, "Industrial Relations and 'Humanware'", Alfred P. Sloan School of Management, M.I.T., working paper 1855-88, December 1986 and in Parker and Slaughter, Choosing Sides, 100-122.
12. For a description of work rule changes in the auto industry see Harry C. Katz, Shifting Gears: Changing Labor Relations in the U.S. Automobile Industry, Cambridge, Mass.: MIT Press, 1985, pp. 64-85. The impacts of work rules on plant performance are assessed in Harry C. Katz, Thomas A. Kochan and Jeffrey H. Keefe, "Industrial Relations and Productivity in the U.S. Automobile Industry", Brookings Papers on Economic Activity, 1987:3, pp.685-715.
13. These debates are reviewed in Harry C. Katz, "Policy Debates Over Work Reorganization in North American Unions", in New Technology and Industrial Relations, edited by R. Hyman and W. Streeck, Oxford: Blackwell, 1988, pp. 220-232.
14. See U.S. General Accounting Office, Survey of Corporate Employee Involvement Efforts, (Washington, D.C.: Mimeo, 1987). Adrienne Eaton and Paula Voos provide an excellent analysis of this data in "Unions and Contemporary Innovations in Work Organization, Compensation, and Employee Participation", University of Wisconsin, manuscript, June 1989.
15. For an insightful analysis of developments in the public schools see, Samuel B. Bacharach and Joseph B. Shedd, "Power and Empowerment: The Constraining Myths and Emerging Structures of Teacher Unionism in an Age of Reform", NYSSILR, Cornell University, unpublished manuscript, July 1988. The implications of school reform for collective bargaining are analyzed in Harry C. Katz and Thomas A. Kochan, An Introduction to Collective Bargaining and Industrial Relations (New York: McGraw Hill, forthcoming): Chapter 12.
16. See Susan Christopherson and Michael Storper, "The Effects of Flexible Specialization on Industrial Politics and the Labor Market: The Motion Picture Industry," Industrial and Labor Relations Review, 42, 3, April 1989, pp. 331-347.
17. See Thierry Noyelle, Beyond Economic Dualism, Boulder, Colorado: Westview Press, 1987.

18. See Frank Levy, Dollars and Dreams: The Changing American Income Distribution, Russell Sage Foundation: New York, 1987, p. 18.

19. Choice also is paramount in the writing of P-S. They speak in terms of development paradigms or paths. See Piore and Sabel, The Second Industrial Divide, pp.19-48.

20. See The Inside Game: Winning with Workplace Strategies, Industrial Union Department, AFL-CIO, Washington, D.C.: 1986.

21. See Harry C. Katz and Charles F. Sabel, "Industrial Relations and Industrial Adjustment in the Car Industry", Industrial Relations, Vol. 24, No. 3, Fall 1985, pp. 295-315.