ONE OCCUPATION, TWO LABOR MARKETS: THE CASE OF LONGSHORE CRANE OPERATORS*

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Most analyses of labor markets search for uniform patterns across different industries and different occupations, and incorporate variables drawn from either individual skill, worker collective action, or employer strategy theories. This paper is a case study of a single (new) occupation within a single (old) industry—longshore crane operators—using aspects of all these theories. It argues that because the labor market is the arena of negotiation between firms and workers, analysis should focus on both labor market outcomes and labor market formation. In this case the labor market outcome has been the fragmentation of the occupation into two labor markets, the one providing workers an advantaged status, the other providing workers a disadvantaged status. This is related to technological changes in the industry, and to the conflict among employer goals, union principles, and individual worker interests.

The emergence of labor markets is usually portrayed as the consequence of the types of skill possessed by the workers whose labor is being supplied, employer strategies of domination and control, or worker collective action. This article discusses these conceptions of labor market emergence in the context of a case study of longshore crane operators on the West Coast.

Labor markets, as Sørensen and Kalleberg (1981) and Granovetter (1981) have pointed out, are arenas for the matching of persons to jobs. The simplicity of this definition belies the complexity of the matching process and the difficulty of observing it. In consequence, Baron and Bielby (1980) have noted, labor market studies have focused on either the characteristics of the persons or the characteristics of the jobs, predominantly the former. In this study, the job is the central unit of analysis. It is suggested that labor markets emerge from the efforts of firms and workers to shape the characteristics of jobs to the form most advantageous to each. A job's characteristics include whether its occupants have mobility between firms, and what kind of tenure its occupants have. Mobility rights and tenure rights are the criteria for differentiating labor markets in this analysis.

The West Coast longshore industry is a good site to examine the development of labor markets for a number of reasons. First, recent technological changes (the containerization of cargoes) have produced a new category of longshore worker (the crane operators), for whom new labor market positions have been created. A case study of these crane operators provides an opportunity for an intensive, longitudinal study of nascent labor market structures. Second, the selection of a single occupational category in a single industry for analysis allows consideration of the circumstances under which different labor markets appear, with occupation and industry held constant.

Most studies of labor markets transverse boundaries of occupation, class, industry, and sector, depending upon the choice of independent variables. This quantitative, aggregated approach facilitates generalization, but places much of the effort on the difficult task of distinguishing labor markets amid a host of competing criteria for differentiation. Consequently, the emphasis is invariably placed on the uniformity of these criteria across whatever categories or groups are being considered, rather than on the differences engendered by the context of employer-employee relations. The advantage of a case study is that it permits consideration of both employer and employee contributions to the constitution of labor markets, and enables labor markets to be viewed in the light of their actual outcomes.

The example of the longshore crane operators demonstrates that workers in the same occupation in the same industry and with the same skills may actually be in different labor markets. It is suggested that labor markets should be thought of as power or as bargaining relationships (cf. Rueschemeyer [1977], who has emphasized the importance of power for

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the question of structural differentiation). In this context, labor market outcomes reveal bargaining between firms and workers, bargaining within the union among different groups of workers, and competition among employers for employees. The findings of this paper are that employer strategy is the most significant factor behind the formation of labor markets, but that worker collective action factors are required to explain labor market outcomes.

WORKER SKILL THEORIES

These theories focus on the skills which individual workers bring to the job. They have made the distinction between "general" and "enterprise-specific" skills the critical determinant of labor market types. Examples include internal labor market theory (Doeringer and Piore, 1971) and transaction costs theory (Williamson, 1981). The internal labor market and transaction costs arguments can be reduced to the following bare essentials. Specific skills are those which are of primary benefit to the firm in which they are developed, but because they are acquired informally (i.e., on the job), and because they cannot be readily transferred to or obtained from other firms, there is no equivalently trained pool of workers in the external labor market from which substitutes can be drawn. Consequently, employers are faced with a "governance" problem, the need to embed the employment relationship with sufficient incentives to guarantee stability and continuity. Employers have resolved this problem by means of the "internal" or "firm" labor market, a bureaucratic system of labor allocation within the firm which ties rewards (career progression and salary or wage increments) to seniority (Doeringer and Piore, 1971; Rees, 1979; Williamson, 1981).

EMPLOYER STRATEGY THEORIES

These theories also focus on the formation of internal labor markets, but assign a preeminent role to managerial guile. Internal labor markets are viewed as the product of ever more sophisticated strategies of employer control, appropriate to the era of advanced or monopoly capitalism (e.g., Edwards, 1975, 1979; Stone, 1975). Worker resistance to the arbitrary powers of the foreman and the assembly-line speed-up culminated in the replacement of these forms of control with "bureaucratic control." Bureaucratic control—here equated to the mechanisms of the internal labor market—emphasizes the formal and legal channels for both job and wage allocation, as well as grievance resolution. It is effective as a form of workplace control, because in Edwards's (1979:21) words, it encourages workers to view company policy as possessing the impartiality of the rule of law.

In the most recent statement of this model, Gordon et al. (1982) locate labor market changes as the outcome of structural transformations of the economy at large. Thus, the new "social structure of accumulation," characterized by bureaucratic control of the labor process and segmented labor market structures, had its immediate roots in the employers' need to refashion the existing system of labor management to ensure greater compliance and productivity, but became possible only because of the increased profitability of the large firms which had come to dominate the major industrial sectors after World War II.

WORKER COLLECTIVE ACTION THEORIES

These theories have been advanced by those in the Weberian tradition who stress the importance of the collective representation of skill in the shaping of labor markets. The issue is whether workers as a collectivity can direct labor market situations to their advantage (e.g., Form and Huber, 1976; Kerr, 1954; Larson, 1977; Montgomery, 1979; Stinchcombe, 1979). The emphasis is on workers as a group, whether this be a craft or a union or a profession.

The central questions remain those posed by Weber ([1921] 1978:45, 129) in his analysis of the division of labor: is a group of workers able to establish a "closed social relationship" against outsiders so that it has a monopoly in the labor services provided by the members of the group, and how are these advantages distributed within the group? The traditional professions are the most widely recognized groups which have been able to establish such monopolies over certain positions (the most skilled) in given lines of work (Larson, 1977; Stinchcombe, 1979). Many of the studies in this vein emphasize that restrictions on entry to occupations, variously termed "occupational power" (Form and Huber, 1976) and "worker power" (Kalleberg et al., 1981), do result in significantly higher earnings for the members of these occupations. (See also Sørensen and Kalleberg, 1981; Stolzenberg, 1975.)

One of the consequences of concentrating attention upon entry restrictions such as certification, licensing, and the like, is that the emergence of different labor market types is viewed as contingent on assorted noneconomic or social factors in addition to the specifically economic factors singled out by internal labor markets and transaction costs analyses. As Granovetter (1981:36) argues, the study of entry restriction

> involves not only the question of power differentials, but the nature of professionalization, the organization of interest groups and lobbies, the nature of occupational information networks that encourage some and not other students to choose this or that occupation, the maintenance of occupational mystiques and other topics of sociological import.

For example, Larson (1977:xvi) defines professionalization as "the process by which producers of special services sought to constitute *and control* a market for their expertise." The success of this enterprise, here identified as the acquisition of a general labor market status for all practitioners who meet the profession's requirements, depends upon various market and nonmarket factors (Larson, 1977). This general labor market status is enforced, in part, through obligatory off-the-job formal instruction, even though studies have revealed that learning in a typical profession actually takes place on the job (e.g., Becker et al., [1961] 1977). In short, not only is the unit of analysis shifted from the individual to the collectivity, but additional sociological variables are also brought into play to explain the development of labor markets.

COMPARISON OF THE THEORIES

The bulk of the labor market analyses have attributed labor market formation primarily to the characteristics of workers, whether as individuals as a result of the acquisition of specific skills, or as collectivities as a result of some form of joint action to establish more or less closed relationships vis-a-vis employers. In reaction to this, there have been repeated calls for studies to consider at greater length the role and motives of employers, to "decompose" employers' ways as Berg (1981) has put it. Sullivan (1981) has argued that we know a great deal about the queues in which workers find themselves, but comparatively little about how employers are stratified in queues or in similar arrangements. Stinchcombe (1979) has observed that we need a theory of what employee characteristics employers find desirable rather than a theory of which workers get the desirable characteristics.

The employer strategy perspective does make employers' demands the central issue, but only differentiates between employers in terms of whether they are core firms or periphery firms. This facilitates a broad view of the entire economy, but at the cost of the subtler analytic distinctions that must inevitably be made when specific industries, occupations, or labor markets are examined. Further, the scale of analysis of this theory does not permit consideration of the myriad ways in which worker responses distort employer demands, and the effects this has on labor market outcomes.

The present analysis employs factors from all three theories. Such a synthesis corresponds to the actual process of negotiation among three parties: employers, workers, and the union. Specifically, the concern is to explain what is perhaps the most remarkable aspect of the bargaining over the longshore crane operators—that it is the employers, not the union, who have sought to restrict the training and certification of crane operators. The interests of employers, workers, and the union are considered in order to understand how this state of affairs has arisen, and what it reveals about the formation, functioning, and outcomes of labor markets in general.

A BRIEF HISTORY OF THE WEST COAST LONGSHORE INDUSTRY

Longshoremen are the workers who load and unload cargoes from ships. On the West Coast, the industry is noted for its formidable and militant union—the International Longshoremen's and Warehousemen's Union (ILWU) which, it should be added, is wholly independent of the International Longshoremen's Association of the East Coast and Gulf Coast ports. Nearly fifty years ago, the ILWU transformed longshoring from a secondary job market into a primary job market (Kahn, 1976).

A primary job market has meant good wages and regular employment, accomplished in this case through the twin mechanisms of restricted longshore registrations and rotational dispatch to all longshore jobs. Only registered longshoremen receive regular work, and any additions to the registered lists (there is one in each port) are jointly determined by the employers (the employers' representative organization is the Pacific Maritime Association) and the union. The rotational method of dispatch requires that the longshoreman with the fewest accumulated hours worked on any given day gets the first choice of any available jobs. It is intended to ensure an equitable system of access to all work opportunities for every registered longshoreman. The dispatch hall in each port coordinates jobs and manpower by keeping records of job availability and longshoremen's hours. A job consists of the loading and/or discharging of a single ship. When it is completed—whether in one day or ten days—the longshoreman must return to the dispatch hall to await dispatch elsewhere.

Traditionally, most longshoremen have spent most of their time handling break bulk cargoes. These cargoes are stacked, sorted, loaded, and unloaded by hand. Because this work is physically demanding, longshoremen have been grouped into work units or gangs; a gang working in the hold of a ship, for example, is required to move each piece of cargo individually.

While break bulk cargoes and ships still exist, over the past twenty years this labor process has been fundamentally reshaped through the introduction of containers, a mechanized and highly capital intensive mode of handling cargoes. Containers simply consist of large standardized boxes into which what were formerly break bulk cargoes are now placed, and they are loaded and unloaded by giant cranes. The ships' holds are tailored to match the exact size of the containers, and the conventional gang in the hold is no longer needed. A container operation requires substantial investments in ships and equipment, but cuts labor costs considerably.

Together with a new division of labor, a new occupation has emerged, that of crane operator. These are the longshoremen who operate the container cranes. Before the late 1950s, there were no ILWU crane operators. Since then, crane operators have become, arguably, the single most important longshore workers, because they load and discharge the container ships almost singlehandedly.

DATA

The data were collected during seven months of field research in 1981 in the ports of Los Angeles and Long Beach. (Although Los Angeles and Long Beach are two separate, but adjoining, ports, in the longshore context they are generally treated as one.) On the West Coast, Los Angeles/Long Beach is the biggest port. It handles more containers and more break bulk cargo than any other port, and in fact, its total revenue tonnage for 1980 was more than double that of the next largest port complex, the San Francisco Bay Area (Pacific Maritime Association, *Annual Report*, 1980).

The data were drawn from two sources. First, they were obtained from the documentary record of the fourteen-year dispute between the Pacific Maritime Association (PMA) and Local 13 of the ILWU over the crane operator question. Many of the disputes were submitted to the jointly appointed arbitrator and were recorded by a court transcriber. Thus, it is possible to follow the course of the dispute from its outset, because there is a verbatim record of the arguments of the contending parties. Second, there are the data obtained from interviews and participant observation during the field research. These included interviews with union officials, PMA officials, company managers, supervisors, and longshoremen, as well as many hours spent aloft with crane operators during the working day. Finally, I attended a number of the joint Labor Relations Committee (LRC) meetings, at which the union and the PMA discussed the crane operator question and other issues.

ANALYSIS

The Crane Operators

Crane operators on a container operation work on their own. Perched in their cabs approximately 100 feet off the ground, they are not only physically separated from the other longshore workers on the dock, but in addition, the performance of their work is only loosely dependent on the activities of other workers. Consequently, employers are able to isolate the contributions of the crane operators to the productivity of their operations, in a manner never possible with longshoremen working in gangs where individual productivity is subordinate to collective productivity (cf. Alchian and Demsetz, 1972). Further, employers have won the right to hire crane operators on a permanent basis—these are the so-called steady crane operators—whereas virtually all other longshoremen on the production side continue to be rotationally dispatched.[1] As a result of both these factors, crane operators have been evaluated and compared by employers more than any other longshoremen.

Crane operating has become the best paying longshore job, which is a measure of the employers' concern that longshoremen make themselves available for this kind of work. Crane jobs pay the highest hourly differential—$0.95 over the basic longshore wage of $12.22 an hour, and steady crane operators receive additional benefits. These include a 176-hour-a-month guaranteed salary, regardless of whether they actually work fewer hours, and the right to check in at the dispatch hall on days when they are not working (many steady crane operators work only two or three days a week) in order to earn extra money in addition to their salaries.

There are today four types of crane operator in the LA-LB harbor. First, there are the 259

[1] The union's motives for conceding steady crane operators are too complicated to discuss here. For a full treatment of this matter see Fairley (1979). It should be noted that the PMA's demand for steady men was accepted by the ILWU international officers despite objections from Local 13 leaders in Los Angeles.

steady crane operators, men who work permanently for companies that have hired them. These operators are further divided into two groups, certified (135 men) and noncertified (124 men), a distinction that will be clarified shortly. The bulk of the analysis will focus on these two groups. Second, there are the *hall* crane operators, likewise divided into certified and noncertified operators. The certified hall operators (i.e., type 3) are the men who have successfully completed the Pacific Maritime Association's off-the-job crane training program, and consequently have been certified, but have not entered steady employment. Longshoremen are selected for the training program based on seniority (length of tenure as a registered longshoreman) and race (a court-mandated affirmative action requirement requires the same percentage of blacks in the crane training program as there are in the registered work force).

The fourth, and lowest in status, group of crane operators consists of those who have not undergone crane training, and who are not in steady employment. These noncertified hall operators are on what is known as the Crane Specialist list. They are aspiring crane operators who have been acknowledged as competent on certain pieces of crane equipment by various individual employers, but because they do not meet either of the above criteria, they are not eligible for the official training program, and have received no general certification. The biggest handicap for the noncertified hall crane operators is that they are dispatched for one day only instead of for the duration of the job, and at the beginning of the next day may be preempted by a certified operator. Consequently, the noncertified hall crane operators cannot rely on the crane jobs as their primary type of employment.

It is striking that so many of the steady men—124 out of a total of 259—are noncertified crane operators, because it is the employers who requested the crane training program, and who pay for it. Yet they have bypassed many certified operators in order to hire noncertified operators. Indeed, it is precisely this issue, as well as the functioning of the closed crane board, that has generated heated controversy on the waterfront in recent years.

The union has supported a restrictive policy toward the hiring of steady men, insisting that they be hired from the crane board only, whereas the employers prefer also to consider the noncertified crane operators for steady jobs. On the other hand, it is the employers who have generally advocated restricting entrance onto the crane board in order to limit the number of certified crane operators, whereas the union has favored less formal entrance qualifications in order to maximize the number of certified operators.

Until 1978, contract arbitrations upheld the employers' position; an employer was free to hire any longshoreman for a steady job. However, the 1978 contract limited employers' future selections to certified men only, although employers were allowed to retain noncertified operators who were in their employment at the time of the contract. The crane board itself, nonetheless, remains restricted to certified operators, at the employers' request.

This dispute is interesting for two reasons: first, because the parties have adopted stances contrary to what might be expected; second, and more important, because the negotiations both before and after the 1978 contract reveal how labor market differentiation proceeds independent of technical differentiation within a division of labor. In the following sections how employer goals and union goals have affected the nature and outcome of this dispute will be considered.

Employer Goals

The employers' advocacy of a closed crane board—limited to those who have been officially certified—and the union's opposition would seem to fly in the face of the reasoning that it is employers who are the greatest beneficiaries of open employment relationships, and that it is union members who benefit when they are closed. In this instance there was no contradiction. A closed crane board not only saved money for the companies, but also undermined union control of the labor market by expanding employer access to noncertified and, therefore, unprotected crane operators.

In the employers' cost accounting in the longshore industry, the costs of an open board are seen to outweigh the costs of a closed board for three reasons. First, the fewer the number of men actually entitled to regular work as crane operators out of the dispatch hall, the more likely these men are to perfect the skills required of a crane operator. Second, the fewer the number of men trained in the official training program, the greater will be the number of men trained privately. This means the costs of training will be shouldered by specific employers and by the men. Third, the distinction between officially trained crane operators (the certified men) and the privately trained operators (the noncertified men) has permitted the construction of a separate, and inferior, labor market status for the latter, with the union's compliance for reasons that will be explored shortly. Each of the above three factors has appeared in employer-union negotiations.

The perfection of skills argument is perhaps the oldest one. It has arisen whenever the union has demanded an increase in the number of trainees and a loosening of the restrictions for membership on the crane board. The PMA's standard response has been that this would "flood" or "overload" the board, resulting in a "dilution of the work opportunity in the skill." The arbitrator has concurred with the employers since the contract is quite specific on this matter:

> The number of men allowed to check in as regular crane drivers shall be limited by the Joint Port Labor Relations Committees so that crane drivers who have skills will maintain their skills through the regular performance of crane work. (*Pacific Coast Longshore Contract Document, 1981–1984*, p. 76)

The issue here is that the time spent in the training course is quite short, averaging around fifty days. Most men actually learn to operate the cranes well by driving them on the job, (i.e., after they have been formally trained and certified). Consequently, the employers wish to give those who are to be crane operators every possible opportunity to acquire this skill. But because of the brevity of each container-handling job it is difficult to spread such work around. Under these circumstances, and given the importance of the container crane operator, closure is a rational strategy for the employers to pursue in order to achieve their goal of an adequately qualified pool of crane operators.

Second, closure has also saved money for the employers as a whole by allowing lower general training costs. Nearly half of the steady operators today are noncertified; they were privately trained by specific employers without cost or inconvenience to the other employers or the PMA. The official training program requires equipment and money from all the companies, and the PMA to run it. In addition, the official trainees have to be paid, whereas the private ones do not, and the latter even end up subsidizing their own training in order to get steady jobs. As one longshoreman who had become a noncertified steady man told me:

> This port would be in sad shape if the guys hadn't on their own initiative gone out and learned to drive the cranes . . . I even took days off to come down here and learn how to drive crane on my own time, because it was a step up pay-wise.

Third, the noncertified operators who entered steady employment (when this route was allowed) were placed in a vulnerable labor market position from the outset. Such operators were hired for steady positions on the condition that if one operator lost or quit his job and had to return to the dispatch hall, he was no longer entitled to regular crane work. On the other hand, a certified man in steady employment was assured crane jobs if he returned to the hall. Thus, the noncertified operators have always had to bargain with employers and potential employers from a weak position, whereas certified operators have been dealt a strong hand. Not only have employers found noncertified operators attractive under these circumstances, but these operators themselves have been willing to tolerate an inferior status in return for the rewards of steady employment.

Until 1978, noncertified crane operators could be hired and rehired for steady jobs, so they were not altogether defenseless, but the 1978 contract eliminated this provision. The result is that those noncertified men who are in steady jobs today have been there since before the 1978 contract went into effect, and they have no freedom of movement between companies. If they wish to continue to operate cranes, they must retain their steady jobs.

Union Goals

The restriction on the hiring of noncertified men was a major union goal in contract negotiations, and was finally conceded by the employers to avoid a possible strike. The question which naturally arises concerns the union's motives and reasons for wanting to restrict the hiring of noncertified crane operators and to have an open crane board.

In the context of the PMA's insistence on a closed crane board, the union response was torn between two conflicting principles: the income-maximizing principle, and the rewards-for-seniority principle. Following the income-maximizing principle, the union could allow any longshoreman to take a high-paying steady crane job. If it so desired, a company could first hire a noncertified longshoreman, and then train him to operate the cranes—an internal labor market type of arrangement. Since such a policy would enable noncertified men to be hired, if adopted it would spread the benefits of steady employment more widely than would be the case if only a privileged elite of certified men could be hired. But it would also mean the creation of a category of dependent workers alongside the category of privileged workers, both competing for steady jobs.

Consequently, the union has rejected this principle in favor of the second principle of rewards for seniority. This principle entails restricting access to high income jobs to union members who have been in the industry the longest—a novel tradition on the waterfront where restrictions of this kind have hitherto been avoided by the union. One reason that such restrictions are avoided is that they promote artificial scarcity and inequality, which are unwelcome reminders of the era before the rotational dispatch when the industry was characterized by the "shape-up" and its attendant evils.[2]

The union leadership has determined that because steady crane jobs endow privilege, they should be awarded to those who have earned them by virtue of seniority, which in this case is tenure as a registered longshoreman. (To this criterion, a court later added an affirmative action requirement.) The noncertified steady operator is perceived, accordingly, as the usurper of a senior man's job, and moreover, as the willing accomplice to company contract violations and operation speedups. This state of affairs had come about because employers—over union objections—had been able to employ noncertified operators and impose on them dependent, internal labor market statuses. This group was then used to undermine the general labor market statuses of the certified operators, who could be both afforded this standing, and simultaneously excluded from the steady jobs to which it supposedly entitled them. Under these conditions, the goal of union leaders simply became that of preventing the further expansion of noncertified operators into steady jobs.

For the union to have agreed to let employers hire and then train their own operators would have been an acknowledgment that the occupation of crane operating should be modeled along internal labor market lines. This is the feature of many other industries in which unions operate. It was anathema to the longshore union because it violated the bedrock precept of the longshore dispatch, which is that the occupations are to be established independent of firms in order to imbue them with a general labor market status. But in restating its commitment to this precept, the union has been forced to sacrifice its other principles of maximizing the income of all its members, and of allowing every longshoreman the opportunity to take a high-paying job. Noncertified employment was deemed unacceptable, even if such employment did increase access to steady jobs for union members.

The union's stand on the above issues means that it is the party with the most to gain from an expanded off-the-job training program, since this is a means of extending the benefits of crane operating in a "legitimate" fashion, and hence opening the crane board. Such an expansion may only be effected with the compliance of the PMA, which has not been forthcoming. Further, the union has not been entirely successful in eliminating internal labor market statuses, for the 1978 contract specified that noncertified operators then in steady jobs should be permitted to stay in them, as many have done. (As of the middle of 1982, 48% of all steady operators are not certified.) This compromise has actually frozen the fragmentation of the occupation into two distinct labor markets, the one for all certified men, and the other for the steadily employed noncertified men.

Two Labor Markets

The position of the noncertified steadies was considerably weakened by the 1978 contract; they are sometimes referred to as being in "involuntary servitude," because if they leave their present steady jobs they may not work again as a steady crane operator unless certified. In the words of the PMA Area Manager for southern California:

> A number of Crane Specialists [i.e., noncertified operators] are still steadily employed. As long as they continue their steady employment, they will continue to be crane operators. When, and if, they return to the Hall, however, they will revert to the Crane Specialist list and their prospects for future crane work would be very dim.

One man who had worked steadily as a noncertified operator, and had since become a foreman, told me that he had decided to apply for a foreman's job because he enjoyed little prospect of certification in the near future. He said,

> The guys who are not Class A [i.e., certified] . . . they've always got that thing if for some unknown reason they have to go back to the hall, whether they're fired or the company has to let them go . . . they're dead as far as driving cranes because under the situation now . . . they wouldn't drive crane every day.

Their skills have afforded them many of the benefits of steady employment, and yet the

[2] The shape-up refers to the system of hiring and dispatching longshore workers which prevailed on the West Coast until the 1934 strike. All those who wanted longshore work on any day would present themselves (literally, "shape-up") before the hiring foremen, who would then select the men they needed for particular jobs. Not surprisingly, this practice was particularly susceptible to bribery and favoritism, and it engendered endemic underemployment (Stern, 1932).

most important benefit—the ready transferability of these skills between companies—is denied them because of social arrangements within the industry. Technically, their skills remain general, but socially, they are now enterprise-specific. Although it may be argued that the employers were also better off when they were free to choose either the certified men, or the "younger, hungrier" noncertified men for steady employment, it is apparent that those employers who have noncertified operators on their payrolls have benefited from the situation. They now have the complete advantage of their noncertified employees because the latter may not move between companies.[3]

In contrast is the labor market position of the certified men, which has been considerably bolstered by the removal of the potential competition from the noncertified crane operators. Their existence as an occupational status group was always somewhat compromised by the fact that steady employment could be offered to those outside their ranks, but as of 1978 this threat was withdrawn. The contraction in the pool of men eligible for steady employment has been accompanied by an increase in competition for those who are available to switch companies and have proven track records.

These men have been able to translate their newly found bargaining strength into the elimination of irksome work practices which the contract actually requires them to perform. The negotiation of extracontractual work arrangements was the outcome of competition among the companies, as these comments from the manager of a stevedore company reveal.

> We got in a labor relations situation where we only employed Class A [i.e., certified] crane operators, and so the only way we could get them was to steal them from other companies, so the companies started off making deals. So right now, if you're a crane operator you just drive cranes, they've got another guy down there on the signaling. When the crane operator isn't driving, he's sitting there drinking coffee, or driving around town. So essentially what that's done is force us to employ another man, to employ a signalman on the ground, and that's the employers' fault of trying to get crane operators.

All the company officials to whom I spoke, save one, agreed that the different companies compete with one another for the good certified operators, and that efforts to hire a crane operator from another company are quite common. In short, the certified operators' labor market allows them to capitalize on their skills by moving from one company to another.

CONCLUSIONS

Cross-industry studies of labor markets have generally discovered that different industries or different sectors often have different labor markets. The most extreme of these arguments have asserted an isomorphism between economic sectors and labor markets. For example, Beck et al. (1978) and Edwards (1975) suggest that firms in the advanced or core sector of the economy have developed primary or structured job markets, and that firms in the peripheral sector have secondary or unstructured job markets. Tests of the relationship between economic segmentation and labor markets have not supported this thesis, and show instead that the fit between sector and labor market is messy at best (e.g., Kalleberg et al., 1981) and in certain industries nonexistent (e.g., Thomas, 1981). Revisions of this argument have sought to specify more precisely how labor markets vary as an outcome of transformations of capitalism, or as an outcome of certain general features associated with workers, such as the degree of worker power, which are to be found in a number of industries.

In this article a different tack has been taken through the examination of a single industry and a single occupation. This decision reflects two concerns: first, that aggregated variables may not translate well across industries and across occupations; second, that while it is valuable to examine, say, different industries that share common labor market characteristics, it is also worthwhile to examine one occupation in one industry. For in this manner, labor market differentiation may be isolated from industry-specific effects, and further, may be viewed not simply as the direct consequence of a changing technology, but rather as the product of negotiations between employers and workers.

The employer strategy perspective assumes that employers are able to establish internal labor markets because they have remodeled the labor process. The hierarchy of differentiated jobs with seniority as the criterion for upward mobility corresponds to a putative deskilling of workers occasioned by a new division of labor. Internal labor markets provide the appropriate form of control once general

[3] An interesting comparison is suggested by the Japanese practice of permanent employment. Cole (1979) argues that this extreme version of the internal labor market was erected by the Japanese companies in order to curtail the bargaining power of skilled blue-collar workers during a period of labor shortages.

skills have been transformed into job-specific skills (Stone, 1975). The problem with this approach, as with internal labor market analysis (e.g., Doeringer and Piore, 1971), is that it assumes that a social arrangement, such as a labor market, is determined by technical changes in skill. Instead, this paper shows that labor markets are also constructed independent of skill: longshore crane operators are in two labor markets despite possessing equally a single general skill.

The existence of a two-tiered system of labor markets within a single industry for workers with equivalent skills demonstrates the usefulness of making the job, and not the occupation or the industry, the unit of analysis. Job differences within an occupation are shown to be a significant, if little noticed, source of labor market segmentation. The certified and noncertified crane operators are in qualitatively different labor markets, according to the criteria of interfirm mobility and transferability of skills. If labor markets are conceptualized as structures which provide workers resources with which to bargain (Hodson and Kaufman, 1982), then it is apparent that the certified operators have at their disposal resources not available to their noncertified counterparts.

Finally, the analysis of a single industry permits consideration of the role of labor markets in employer-employee relationships. The question of whether internal labor markets result from employer demands (Edwards, 1979) or union pressures (Montgomery, 1979; Rubery, 1980) is addressed, at least in the longshore case, by examining the preexisting labor market. The employers sought a closed crane board (i.e., a limitation on the number of certified men) because each firm could obtain additional crane operators by establishing internal labor market structures. Internal labor markets circumvented existing union control of the labor market. Labor market studies should not only be alert to the varied interests of employers and workers as they collectively, albeit antagonistically, negotiate job characteristics, but should also be sensitive to the historical factors which influence the postures and positions of the parties.

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