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FLEXIBLE SPECIALIZATION AND NEW FORMS  
OF LABOR MARKET SEGMENTATION:  
THE UNITED STATES MOTION PICTURE INDUSTRY

By

Michael Storper\* and Susan Christopherson\*\*

\*Michael Storper  
Assistant Professor  
Graduate School of Architecture and  
Urban Planning  
U.C.L.A.  
Los Angeles, California 90024  
(213) 825-2718

*University Institute of Industrial  
Relations (Los Angeles)*

\*\*Susan Christopherson  
Assistant Professor  
Department of Geography  
U.C.L.A.  
Los Angeles, California 90024  
(213) 825-1912

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**Michael Storper\* and Susan Christopherson\*\***

**\*Graduate School of Architecture and Urban Planning**  
Urban Planning Program  
University of California - UCLA  
Los Angeles, CA 90024 USA

**\*\*Department of Geography**  
University of California - UCLA  
Los Angeles, CA 90024 USA

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## 1. FLEXIBLE SPECIALIZATION AND LABOR

This paper is a case study of an industry where mass production has given way to a vertically-disintegrated form of production organization--the U.S. motion picture industry. Specifically, the case study is concerned with labor demand, labor supply, and the politics of the capital-labor relationship in this industry. We seek to investigate how a form of labor market segmentation typical of many industries in the middle of the 20th century is giving way in this industry to new arrangements for allocating work and is bringing with it a new form of labor market segmentation.

In the contemporary motion picture industry, production is carried out by a large number of small, specialized establishments that subcontract their services and equipment to an independent production company which organizes the film project. Only in unusual circumstances is a film made directly by a major studio without an independent production company. The scale of the subcontractors' output is limited, and the scope of activities (number of phases in the production process as a whole) of any particular firm is relatively narrow. Production of the film requires numerous market transactions among these establishments, rather than transactions internal to a large firm, as in the case of a mass production system. Thus, the production process is vertically disintegrated. The small, specialized establishments, in turn, reduce their risks by marketing their specialized services horizontally across the boundaries of output-defined sectors to other entertainment industries (video, recording, TV, etc.). Thus, while the motion picture industry has undergone a process of vertical

disintegration, a broader entertainment industrial complex has come into being.

In tracing the fate of labor in the course of the recent restructuring of the motion picture industry, we intersect with a broader debate on emerging forms of industrial organization and labor market segmentation. Much of 20th century thinking about industrial organization and labor market institutions in the U.S. and Western Europe has been dominated by models which posit distinct stages in the development of an industry's production process (Storper, 1985). A "mature" industry is one in which vertically-integrated firms carry out commodity production via mass or large batch production techniques. These production systems have labor processes characterized by extensive task fragmentation. They require "semi-skilled" workers who repeat narrowly-defined tasks (cf. Braverman, 1974). This is the so-called "mass collective worker." (Coriat, 1979; Murray, 1983).

Associated with these systems of routinized production is a series of labor market institutions designed to regulate entry into the labor force, maintain peaceful industrial relations, and channel latent militancy into bureaucratic channels. This is the familiar system of large unions negotiating multi-year agreements with large companies, internal labor markets, and limitations on the shop-floor autonomy of unions.

Recently, a growing international group of researchers has begun to question the basic idea that mass production and vertically-integrated film organization represent the culmination of sectoral development and industrialization as a whole. They claim that the extent to which mass production has dominated the western economies in the 20th century is more

due to active historical choices made, than a destiny imposed by the pursuit of efficiency. They describe the historical alternative to mass production by the term "flexible specialization." Flexible specialization refers to a system of industrial production organized around the interactions of a network of small firms. These firms specialize in certain types of output, not in the production of specific, rigidly-defined outputs in large quantities as in a mass production system. They use relatively sophisticated technologies, but in the form of general-purpose machines rather than dedicated, inflexible machine systems integrated at a large scale. Their workers are quasi-artisanal in that they are capable of using general purpose machines to turn out a variety of similar types of outputs. These workers have general skills, not skills designed for a specific, repetitive task as in the semi-skilled worker (cf. Piore and Sabel, 1984; Brusco, 1982). The production system as a whole is flexible because the mix of inputs can be shifted by altering the mix of subcontractors or commanding them to produce a different input.

In the literature on flexibly specialized industries, there is little consideration of the issue of work instability (cf. Bagnasco, 1977; Piore and Sabel, 1984). Indeed, the assumption that underlies these analyses is that labor will enjoy broad job guarantees because workers will be polyvalent and firms flexible, thus guaranteeing full capacity utilization and stable employment relations. Nor does this literature contain an explicit formal statement on the subject of wage determination. Piore and Sabel (1984), Reich (1983), and Abernathy, et.al. (1983), however, all imply that labor will possess different bargaining capabilities than the old, mass-collective worker, because the quasi-artisanal nature of the new

labor process requires that the worker exercise polyvalent skills (Brusco and Sabel, 1993). Management will depend on worker cooperation in the exercise of these skills in a highly-variable, unstandardized production process. One of the leitmotifs of these views of the "new" industrial working class and labor market is that some of the conflict that has characterized the relations between labor and capital in mass production industries will be replaced by a more amicable politics of implicit contracts.

In contrast to these authors, our case of the motion picture industry suggests that great uncertainty comes from multiple layoffs and rehires, and the politics of explicit contracts that allocate work and determine wages have traditionally been the only effective worker response to this condition. If this is true, then the labor market and its institutions in this type of industry are quite different from the rather halcyon picture painted in the literature on flexible specialization.

In this case study, we stress the ways that the one relationship (the organization of firms) and another (between firms and workers) set possibilities and limits for each other. Following Burawoy (1985), we believe the forms that industries-cum-social systems take in capitalist societies are very important to the specific forms that capitalist political economies take, for they determine some of the political and distributive outcomes of production. In looking at one case study, we hope to make some observations about those outcomes that the proliferation of flexible specialization might have on the political economies of industrial societies.

## 2. THE LABOR MARKET: WAGES, POLITICS AND INSTITUTIONS IN A DISINTEGRATED INDUSTRY

The fate of the worker in post-war western economies has been intimately connected to processes of labor market segmentation in those economies. As is well known, there are two basic explanations for labor market segmentation, one rooted in the structure of labor demand and the other in the structure of labor supply. On the labor demand side, segmentation is said to derive from the job structures in certain industrial sectors. Large-scale, usually capital-intensive industries require stable workforces, while workers typically have bargaining power in those sectors because of the potentially very great losses for even short or intermittent work stoppages. Internal labor markets are the result (cf. Doeringer and Piore, 1972). Internal labor markets represent a deal between labor and capital. Jobs in these sectors typically offer greater stability than elsewhere. Moreover, they offer higher average wages, both because entry level wages are above the economy-wide average, and because the large internal wage spread which accompanies the internal labor market raises the average by including workers with considerable seniority. In these industries (in the United States), there has typically been a political alliance between different groups of craftworkers based on their ability to exact concessions from management. This alliance is institutionalized in the form of industrial unions (Gordon, Reich and Weisskopf, 1975; Wilkinson, 1981).

In addition to this sectoral version of labor market segmentation is an explanation rooted in occupation. Some types of skills require a great deal of specific human capital. Workers who gain these skills are able to

exact concessions from employers that go beyond what would be the result if wages for all occupations compensated proportionately for investments in training, because skilled workers use their market power politically. In craft unions, for example, they formalize job performance and training criteria so as to create entry barriers. By developing the craftworker's identity they also create artisanal solidarity which promotes the collective monopolization of that specific human capital. Both the sectoral and the occupational conditions described here may lead to creation of a primary labor market segment consisting of jobs offering better conditions than are the average in the labor markets of the capitalist economies.

It should be noted that neither of these explanations address the supply side of labor market segmentation. Here it is asked who fits into the various segments of the labor market, i.e. why women, non-whites, and the young and old tend to be confined to the secondary segments of the labor market. In the secondary labor market segment jobs, workers suffer discrimination by--among other things--receiving wages which are disproportionately below their accumulated skills or effort levels demanded of them on the job.

Jobs in the motion picture industry from the 1930s to the late 1950s exhibited all the characteristics of the primary labor market segment. In what is considered the "golden age" of the motion picture industry, production organization resembled that of large-scale industries with routinized production processes. From 1920 to approximately 1950, filmmaking took the form of batch production controlled by oligopolistic and integrated firms. Work was well-paid, stable, and populated

principally by white men. From the early 1930s on, workers were organized into a form of unionism that combined the characteristics of craft and industrial unions. There was a union for below-the-line<sup>1</sup> workers in the industry as a whole, a federation of the separate craft unions (much like the American Federation of Labor, but in this case restricted to one industrial sector) based on inter-craft solidarity.

Beginning in the early 1950s the structure of the industry began to change. The industrialized production methods of the studios were progressively abandoned as the major studios began subcontracting many phases of the production process in an effort to shed overhead. This reorganization was triggered by antitrust actions which made markets increasingly unstable and television, which reduced the absolute size of market for theatrical motion pictures. Various kinds of subcontracting began to be used by studios in the production of motion pictures. In effect, outwork became increasingly common in the motion picture industry.

A system of contractual arrangements was installed in the late 1950s to regulate entry into the labor force and influence wage setting in this disintegrating industry: the roster system. We describe this system in more detail in Section 2.1. The roster system prevented massive workforce entry in the early years of vertical disintegration. It created an externalized internal labor market and thus preserved the prevailing standard of living in the industry.

During the 1960s, the workforce began to grow, slowly at first. After 1970, however, when vertical disintegration achieved dominance as the organizational form of the industry, the workforce grew extremely rapidly. There are now many more workers in the motion picture industry than there

are full time jobs. The workforce has split into a "core" workforce which enjoys access to full time work, and a "peripheral" group of workers who are employed only intermittently (section 2.2). Hourly wages are the same for both groups, and they are actually increasing relative to wages in the economy as a whole on an hourly basis, but total income of the two groups of workers differs dramatically (Section 2.3). The solidarity among the workforce that was preserved in the early years of vertical disintegration by the creation of the roster system is now threatened (Section 2.4). The existence of the core-periphery distribution of work hours is a significant departure from the job structure of the period up to 1970. This new job structure appears to be based around the intraoccupational distribution of work time. Therefore the "primary" sector job is in the process of being replaced by a new form of labor market segmentation which is not captured by conventional labor market segmentation models.

### **2.1 From the 1950s to 1970: The Roster System**

These are four basic groups of workers in the motion picture industry. These groups are: managers and administrators of firms in the industry; other professionals, involved in product innovation or technical manipulation (in pre- and post- production) or direct creative input (in filming or production); craftworkers in the filming phase; and employees of firms providing business services other than in direct production. Each of these groups is governed by different labor market institutions. Most of the creative and R & D workers--actors, producers, directors, writers--go by the industry appellation of "above-the-line" workers (referring to a location in the film project's budget) and they are members of guilds.

Most production craftworkers are members of unions and are called "below-the-line" workers. The other two groups do not have unions or guilds. Figure 1 shows how each of these groups of workers in the labor process fits into the three phases of the production process: pre-production, filming or production, and post-production. Most companies in the motion picture industry in New York and Hollywood, including the majority of subcontracting firms, are signed to contracts with International Alliance of Television and Stage Employees (IATSE). IATSE is a federation of craft unions. Its principal rival in the industry is NABET, the National Association of Broadcast Engineers and Technicians. NABET is an industrial union. Here we will concentrate on below-the-line workers but we will return to compare their institutional arrangements to those of above-the-line workers.

The old system of labor market segmentation began to change along with the beginning of vertical disintegration of the industry, in the 1950s. The market had shrunk due to television and had become much less certain because anti-trust rulings forced the studios to sell their theater chains, ending their control over markets. By the late 1950s, it became clear that some studio production capacity could not be supported, and the studios therefore began using subcontractors to produce a portion of the industry's output.

Studio management actively cooperated with existing unions in setting up a system of rules for regulating entry into the laborforce: the roster system. Most large studios in fact agreed to use only those subcontracting firms who abided by union work rules identical to those in force at the studios themselves.

Under the roster system, firms in motion pictures proper (i.e., not television) sign contracts with IATSE. Members of IATSE unions are placed onto rosters according to the amount of seniority they have accrued. The union acts not simply as a worker representative but, in effect, as a hiring hall. To put the institutional structure of this industry's labor market in perspective, it will be helpful to refer to three kinds of labor markets in other industries. On one hand, some hire all their workers directly out of the labor market external to the firm; this is especially the case with industries such as apparel, that demand a low level of skill and pay low wages. Workers compete with each other in these external labor markets, and typically a very large pool exists from which employers can choose. A second kind of industry, such as aerospace or auto assembly, tends to hire only entry level workers from the external labor market. Because workers are unionized, and because employers often benefit from having a stable work force, contracts establish internal labor markets based on seniority or merit or both. Workers are hired into jobs from these restricted pools. This secures loyal and experienced workers for employers, while offering workers protection from undifferentiated supply-side competition which might prevail in the external labor market. Finally, the professions restrict entry into the workforce via credentialing and licensing. The latter function somewhat like the internal labor market, but are not internal to the firm, because they apply to the labor market for the occupational group as a whole.

The roster system works like union rules in the construction industry, ports, and farmwork (in California). In all of those industries, employment consists of short-term jobs and the union prevents entry and

allocates existing work. The roster system is thus an extension of the internal labor market to the external labor market in an industry where employment is unstable.

The roster system was encouraged by employers in the late 1950s because it served as a ready-made signaling and screening system for employers in a period of rapid transition and uncertainty. It avoided the inevitable transactions costs and labor strife that would have come had they attempted to institute a spot market for labor, yet allowed them to pursue their strategy of shedding overhead (cf. Spence, 1981; Stigler, 1961, 1962).

## **2.2 The Creation of Core and Peripheral Workforces**

As noted, the 1950s and 1960s were a period of the partial vertical disintegration of the motion picture industry, in the form of subcontracting that part of production capacity which could not be supported reliably. By 1970, however, the major studios found that they could no longer compete with the cost efficiencies or quality of films made by subcontractors (the latter principally because independent companies filmed a greater proportion of their movies on location than did the major studios). As a result, the major studios abandoned more of their production capacity by selling studio facilities and back-lots and contracting more of their own work to independent companies. Vertically-disintegrated production methods became the rule not only for low-budget features or made-for-television films, but for all segments of the filmed entertainment market.

In this reorganized industry, subcontractors have an intermittent, project-by-project output flow. Just as the major production organizations use subcontracting to minimize their overhead, so subcontractors reduce their overhead by tailoring their costs directly to the fluctuating quantity and nature of output. They do this by establishing a labor demand based around short-term contracts. These contractual relationships transmit the uncertainty employers face with respect to production companies (i.e. their levels of output), down the hierarchy of control in the industry, to their secondary subcontractors and their workers.

The roster system worked fairly well at preventing entry into the laborforce until the early 1970s. Table 1 shows that between 1958 and 1972, the workforce grew somewhat more rapidly than did output, but not at a level that suggested a dramatic expansion of the workforce. All that changed after 1970, however. The immediate result of vertical disintegration in the 1970s was the massive growth of the workforce without a concomitant expansion of work. The workforce grew very rapidly when compared to output. Payroll per employee dropped by almost one third in real terms between 1954 and 1982, and value-added per employee declined by almost 50% (The difference, as we shall see, is because real hourly wages have increased very rapidly since 1972.) Table 3 indicates that receipts per employee rose when calculated as a multiple of payroll per employee, and the same is true when compared to value added per employee. This suggests--indirectly--that firms are purchasing more inputs from outside the industry and that they are using a more capital-intensive production technique, both of which support the conclusion that there is less work available to the average worker now than in the past.<sup>2</sup> Thus, there has

been a clear change in employment offers in the direction of less work, on average, per worker. Vertical disintegration produces significant growth in the workforce relative to output and thus declines in the average employment offer to individuals.

Vertical disintegration leads to considerable instability in work patterns which is transmitted to the workforce in a highly uneven manner. Not everybody bears the effects of short-term employment contracts in the same way or with the same force. Figure 2 shows the distribution of work in the motion picture crafts, by hours, according to hours worked per capita. There are four groups of workers: those who worked overtime; those who worked full-time; those who worked a "medium" number of hours; and those who worked only a small number of hours. The figure reports the total number of hours worked by workers within that per capita category. Note that virtually all of the fluctuation in total hours is reflected in changes in the amount of work done on overtime. Only in the first half of 1981, when there is a fairly severe recession in the industry, and again the first half of 1982 when there is a smaller recession, does the amount of work done on full-time decline as well, with a concomitant rise in work done by workers with only a moderate level of hours. Figure 3 classifies the number of individuals according to the hours they worked (the data series is somewhat longer in this Figure, going back to 1971). Figure 3 allows us to infer that the core workforce is nearly always the prime beneficiary of increases in available work. The number of workers with overtime in Figure 3 is, in most years, negatively correlated to the number of workers with a medium level of hours, but positively correlated to workers with full-time, implying that in boom periods, some full-time

workers move up to overtime. This result is also consistent with the notion that some workers with medium hours move up to full-time work in a boom. When the industry as a whole is in a recession, the rise in number of workers with medium hours occurs against a decline in number with overtime and full-time, implying that the full- and over-time workers move down, most probably "bumping" the other workers.

Interviews with labor and industry officials suggest that the observed pattern of work allocation has several sources. A small proportion of workers has conventional full-time positions, usually with major studios. Table 4 indicates that the proportion of craftworkers on the payroll of major studios is much greater than in the workforce as a whole. The rest of the workforce most probably secures employment through short- to medium-term contracts, or works for firms with very uneven patterns of output. The "core" workforce appears to have little difficulty in finding positions after the end of a job.

The "peripheral" workforce, on the other hand, seems confined perpetually to second place. They gain no more than 25% of the industry's available work, even though they comprise a much greater proportion of the industry's workforce. Figure 4 shows the percentage of the workforce according to hours worked. The peripheral workforce fluctuates between 25 and 40% of employed workers. This, however, dramatically understates the true size of the peripheral workforce, since there is frequent exit and re-entry into the workforce. Workers who do not work the minimum number of hours are dropped from the statistics until they re-enter. We cannot give a precise estimate of this number, because the data do not permit us to construct individual work histories, but interviews with union officials

suggest that it is typically in the range of 5-10% per month (however, this figure cannot be taken as the basis for aggregate turnover of individuals in the workforce, since many of the same individuals exit and re-enter.) It follows that a large proportion (greater than 40%) of the industry's available labor supply is in the periphery.

### 2.3 Wages in the Disintegrated Motion Picture Industry

Wages in below-the-line work in the motion picture industry have always been high relative to production jobs in the economy as a whole. With vertical disintegration, however, wages in the motion picture industry have increased, in real terms relative to wages in the rest of the economy. In 1983, for example, the average hourly wage in motion pictures in California was \$18.24. In the United States, it was \$14.72, while average hourly wages in the U.S. economy as a whole were on the order of \$7.90 (manufacturing \$8.66, services \$7.28). In California, average wages in other industries were slightly higher than those in the nation, but well below those of the motion picture industry. Table 5 indicates that real weekly wages have gone from 167% of the average in 1977 to 247% in 1983; on an hourly basis the corresponding figures are 153% and 220%.

There are three basic ways this increase could be explained: (1) as a compensation for uncertainty, the so-called "compensating wage differential" that some analysts claim applies to jobs with adverse conditions;<sup>3</sup> (2) due to a rapid differential increase in skill or productivity per worker; or (3) due to political or institutional forces that govern wage setting. It is important to note that the first two

explanations lead to a belief in efficiency wages, whereas the latter is more consistent with labor market segmentation theory.

Could wage increases be due strictly to skill? We have no direct quantitative information on either the skill content of motion picture production occupations nor on the change in skill requirements during the decade. Interviews with both unions and producers in the industry suggested that some jobs have extraordinarily high skill requirements but, these very highly-skilled "workers" tend actually to be supervisors of one sort or another (chief cinematographer, chief electrician, etc.). The remainder of the main production crew consists of highly-skilled workers (30 or so), but added to this main crew is a large number of other workers with lower skill/experience levels. It seems unlikely that such skill levels, taken alone, could generate average hourly wages more than twice the national average which, if translated into a full-time annual income would amount to more than \$37,000. We conclude that wages are not set strictly by differences between skills demanded in this industry and economy-wide averages. There is no evidence to suggest that worker productivity has risen rapidly, either. As Table 3 shows, the real level of value added per real payroll dollar has actually tended to decline during the past three decades. It is unlikely, however, that the hourly wage increase is due purely to a compensation for instability. Compensating wage differentials has generally been intended to apply to jobs where some type of adverse condition exists. In the motion picture industry, there is instability and insecurity of employment, but a substantial segment of the labor force frequently works full-time or greater than full-time. In this case, it might be supposed that a

compensating hourly wage differential would not be necessary, whereas it would be necessary with respect to the peripheral workforce. Yet peripheral workers do not receive higher hourly wages than the core workforce, because observed hourly wages are actually very close to union wage floors.

Many of the core workers must therefore earn very high incomes from the combination of their ability to work a large number of hours, and the high hourly wage, whereas peripheral workers are able to earn high hourly wages, but their income is depressed by the fact that they lose work easily in downturns. In other words, earned income is probably distributed much more unevenly than figures on either average wages or average income would indicate, due to the uneven distribution of work itself. Many workers in the core laborforce are probably enjoying incomes much higher even than their industry-occupation averages, and many workers in the same categories are probably earning much lower incomes. Put in statistical terms, there is probably a high variance of earnings behind the average weekly earnings reported in Table 5 just as there is a great variance of work time behind average hours worked.

Why, in light of this uneven pattern of work distribution, do such high hourly wages persist? The existence of compensating wage differentials is logical in an industry with uniformly unstable employment offers and high skill demands, but the "differential" would not seem necessary for that part of the industry's workforce that works full-time or more most of the time. It is not logical for employers to concede high hourly wages to the core labor force simply to reproduce the peripheral labor force. To do so voluntarily would be to reassume some of the risk

that employers assign to subcontracting firms and their workers through vertical disintegration.

#### 2.4 The Old Politics of Production

The answer to our puzzle lies in the institutional structure of the industry's labor market. Wages are only one outcome of workers' market power; the core-periphery distribution of hours is another outcome, which is the product of both skills and institutions. The two exist in combination. Let us explain what we mean here. "Skills" in the motion picture industry refers both to creative or technical skills and to normative or social skills. This is obvious in the case of above-the-line personnel, especially producers and directors. It also applies to the technical and crafts workforces. Much of the production and post-production work in the industry is done in teams. But it differs from teamwork in other industries, where the practices governing daily life in the team are highly-standardized and designed to reduce uncertainties that could produce conflicts. Work traditions have also been developed in the motion picture industry to govern the teamwork in the labor process. Indeed, since the product itself is unstandardized, a much higher-than-normal degree of uncertainty on the job is common in production and post-production work; it requires constant decisionmaking and negotiation, which are only possible where a high level of cooperation exists. This cooperation requires that workers understand not only their technical roles, but also how to interact and what the overall norms of the industry are with respect to interaction and cooperation. It requires an

understanding of when and where the rules are to be bent, and where the line is to be drawn.

Thus, core workers depend, on the job, on workers in the periphery. Teamwork cannot function if there are large intra-occupational hourly wage differentials. The core workers, who enjoy market power, can wrest wage concessions from employers; the peripheral workers do not have the market power. This establishes wage floors and unifies workers, giving peripheral workers an incentive not to allow their wages to be bid down. The core workers have also, however, used this market power politically to establish institutional (the roster system) and informal (networks) protections for themselves. The outcome of these protections is that those in the core labor force enjoy the advantages of both compensating differentials and differential seniority. In return for the high income they enjoy, the core workers stand by contractual wage floors even for peripheral workers. The system encourages both solidarity and hierarchy within the workforce (cf. Zeitlin, 1979). High wages for all and the core-periphery division of the laborforce are both products of one set of worker-employer relations in production or what we can call the substantive production politics of this industry (cf. Burawoy, 1985).

This marks a shift from the way the roster system worked when it was first set up. In the late 1950s, the roster system was supported by both workers and employers as a way to assure the labor supply under conditions of vertical disintegration, and because artisanal solidarity in the industry--developed during the days of the vertically-integrated studio system--was very strong. Hourly wages and work time were uniform within occupational groups, because seniority was not as differentiated as it is

today. As noted, this system basically extended the internal labor market to the external environment of the industry.

The core and periphery developed slowly as a result of increases in the differentiation of seniority rights accompanying increased entry into the workforce (which is legally mandated once a worker accrues a certain number of hours, under U.S. labor law). As additional workers have entered the workforce, it has become more heterogeneous with respect to seniority, but the roster system has survived because it represents a "deal" between two very different groups of workers. Solidarity over wages has been maintained in return for continuation of the hierarchy of access to work.

### **2.5 New Forms of Labor Market Segmentation?** **Contractual Labor, Work, and Inequality**

A number of recent studies of service industries and "high-tech" manufacturing industries have pointed to a trend toward increasing disparities in the distribution of earned income as the economy shifts its output toward these sectors. Some studies also show that the regions in which these new industries are situated have greater income disparities than places whose economies are oriented primarily toward older manufacturing industries, which are now undergoing employment declines (Stanback et.al., 1983; Massey, 1984; Stanback and Noyelle, 1982).

Actually, two sources of income inequality are at issue in these discussions. On the one hand, the difference in wage structure between low waged industries and firms and high-wage industries is identified. As is well-known, the low wage group includes whole industries (such as textiles) and firms who are capacity subcontractors to other firms in the same industry (cf. Berger and Piore, 1981). On the other hand, there are deep

occupational wage disparities within some new industries. Electronics, for example, is characterized by a polarized occupational structure consisting of very high-waged engineers and R&D professionals as against the low-waged production workers. In both cases, the disparities are rooted in the enormous differentials in occupational wages which are part of the emerging industrial structure. It is also the case that the 1980 U.S. census revealed increasing income inequalities in the U.S. economy as a whole for the first time since the Great Depression (cf. Bluestone and Harrison, 1982).

While both of these sources of stratification of the labor force are interesting, they represent predictable outcomes of forms of labor market segmentation which have been well theorized for quite some time now.

The motion picture industry, however, suggests a new form of labor market segmentation. It exhibits a bifurcated earned income pattern, but for different reasons than those alluded to above. In this industry, a de facto gap in the conditions of working life opens up between workers in the core and those in the periphery, in spite of the fact that many of them are in the same occupations and the same industry, and that these occupations are relatively well-remunerated. It appears that contractual work opens up new opportunities for the re-creation of social inequalities, even within industries, and within highly-skilled workforces (cf. Solinas, 1982). If this distribution of work is, in fact, so critical to earned income, then the ways that we conceptualize the relationship between work and standard of living--primarily through the occupational wage structure--may not be adequate for understanding work in flexibly specialized industries, not only in manufacturing but also in business services and information

oriented sectors, where so much of contemporary employment growth is occurring.

Whether this represents a new form of labor market segmentation--based not only on occupation/skill and sector, but within the sector, on access to intermittent work--is a topic that urgently deserves attention if flexible specialization emerges as an important form of industrial organization in the near future (cf. Wilkinson, 1981).

### 3. THE NEW POLITICS OF PRODUCTION

#### 3.1 The Decline of Intercraft Solidarity

The political compromise described above is very tenuous. Despite its exclusivity with respect to the best working situations, the roster system has not actually been able to prevent entry into the industry's workforce. Even under the roster system, with each production boom the workforce gains new "legal" members. As a result, a recomposition of the workforce has now been effected, from the mass-collective workforce of the "golden age" of Hollywood in the 1930s and 1940s, to the more heterogeneous workforce of today. The breakdown in uniformity of conditions translates most decidedly into real differences between core and periphery in the unfolding of work life.

The craft unions are caught in a very serious dilemma. They have been exclusive enough to produce a great deal of resentment on the part of virtually all workers who have entered the workforce during the last 10-15 years, but not exclusive enough to prevent their entry. Now that periphery workers abound, they are much less supportive of the unions than were their forebears. Nor have they gone through the battles between labor and

management that their predecessors endured to secure the wage levels and work rules they take for granted. Moreover, as technological change alters the division of labor within the industry, the IATSE unions face the dilemma of craft unions in many other sectors: they are unable to solve jurisdictional disputes, so they battle each other rather than employers. The "deal" between core and periphery is thus proving to be an unstable one at the present time. There is tension between those in the core and those who dream of making it, leading to an inherent instability in the life of labor's regulating institutions.

Some of these tensions apply to above-the-line workers as well. For example, the recent breakdown in consensus within the Writers' Guild, which led to an early settlement of their recent strike largely in favor of the studios, was due to the inability of the more solidaristic well-established writers to hold the allegiance of the arrivistes who are most eager to work now, whatever the price may be in the future. The significance of this is apparent when we realize that the Workers' Guild membership has increased ten-fold (approximately 800 to 8000) in 15 years, with essentially stable film production.

The Guilds function less as gatekeepers for the above-the-line workforce than do unions do for below-the-line workers. Guilds do not have a roster system, but they do enforce regulations with respect to wage minima for a certain amount of work output, and they also enforce a set of regulations concerning working conditions--as when writers are on research assignments. Regulation of working conditions and wage floors is extremely important, for they eliminate much of the incentive that employers would have, in their absence, to use an inexperienced workforce. Even though

wage minima mean little to the determination of wages for the most famous and sought-after writers, they mean that the middle range of writers--those who are experienced but who can command a higher price--are not faced constantly with price competition from new entrants.

This is not the case, however, with inclusionary guilds, such as the Screen Actors. Here, the most important role of the Guild is to regulate working conditions. Wage floors are important in preventing exploitation of the entry-level actors, but they mean very little to wage determination of even slightly experienced actors. These are deep divisions over the role of the organization as an economic agent, as when actors recently rejected a proposed merger with the Screen Extras Guild.

Preserving inter-craft solidarity is thus much easier in principle than in practice in this flexibly specialized industry. The long-standing practice of labor mobility in America creates serious pressures on labor solidarity in two ways. First, just enough workers are admitted to unions and guilds to introduce a "foreign" element into formerly consensual communities. This translates into very real differences in seniority and standard-of-living, making it difficult to have the shared norms upon which political choices can be made. Second, in the face of labor mobility, unions seem to become very defensive about occupational categories and work rules, giving them a reputation for merely blocking progress. Rather than functioning as a community of polyvalently-skilled innovators, they become defenders of the "labor aristocracy," and are portrayed as such by management both to the newer entrants or would-be workers and to the public. These issues might not arise in another political economy, where interindustrial labor mobility is not what it is in America. This suggests

that flexible specialization in America poses very special problems for workers, where no overall climate exists which is conducive to the formation of solidaristic, stable, artisanal communities.

### **3.2 The Employers' Attack on the Roster System**

Employers now openly criticize the roster system, and many--especially the smaller firms--attempt increasingly to hire off roster or to hire non-unionized workers entirely. During the past two years, two of Hollywood's largest independent studios announced that they would not sign union contracts. It is rumored that 50% of production work today is carried out by non-union firms. Employers are now prepared to fight the roster system because they believe there are sufficient labor supplies in most occupations, and well-established recruitment networks, that the roster system now serves only to restrict labor supply and limit employers' discretion. There are two dimensions to this: wages and work rules.

We have already noted that employers in the motion picture industry are accustomed to high wages. Behind wage levels, however, lie prospective wage levels, which are built into the institutions we have described by encouraging workforce solidarity. Without the roster system--i.e. with an unregulated labor market--there would be nothing to prevent employers from renegotiating wages in exchange for greater hours with peripheral workers, at the expense of wage rates in the industry as a whole. They would break down the intra-industry (both intra and inter-craft) pattern bargaining that now exists with respect to wages. Institutions formalize political relations, and channel the exercise of power--in this case that of workers and employers in the motion picture industry--via established rules of

discourse and practice (cf. Dworkin, 1985; Clark, 1985). These rule-bound procedures stabilize the outcome of power relations. Employers would prefer greater informality in the labor market. Without rules and procedures to channel action, employers would always have more tactical space available to maneuver to break down privileges (and wages) institutionalized by workers, by destandardizing wages and working conditions (Clark, 1983; 1985).

Moreover, producers have discovered the use of location shooting to avoid work rules in Los Angeles and New York. West Coast union work rules prevail within a radius of 300 miles from the corner of Beverly and La Cienega Boulevards in Hollywood. Since these rules limit the length of the working day, they can force production to stay on location for more shooting days than would otherwise be the case, with all the fixed costs that involves. Even though the skilled personnel that go to these locations from Hollywood rarely accept lower hourly wage rates when on location, they sometimes informally agree to waive union work rules. These rules were probably more important in the unionization struggles of the 1930s than wage rates. The employers' attempt to weaken them thus represents an attack on one of the major sources of union legitimacy and inter-craft solidarity.

#### 4. CONCLUSIONS

This paper has attempted to unravel some of the complexities of the microregulation of the social system in a mature, disintegrated industry. Here, we have concentrated on only one part of that system, labor demand and labor supply, and we have largely ignored relations between firms (see

Christopherson & Storper, 1985). If the examples of the motion picture industry, the "Third Italy," and the advent of flexible production organization and the just-in-time system in the automobile and tool industries foreshadow a much more important role for disintegrated sectoral organization and contractual employment in the near future in modern industrial economies, then it is worthwhile here to suggest the more general implications of our case study.

The basic purpose of flexible production organization is to make labor and capital inputs more variable, relative to each other, and relative to output. The problem of labor hoarding that afflicts mass production systems when there are market fluctuations, is partly solved by this form of production organization. Flexibility for producers (i.e. making labor a more variable input), however, produces instability for at least some part of the workforce. One of the ironies we observed in this study is that the institutions that regulate the employment relation are not only incapable of solving the instability of demand that small firms face, but they actually seem to encourage the division of the workforce into core and periphery. Workers have created this division among themselves as a response to the uncertainty passed through to them by firms who themselves face considerable uncertainty. This suggests that no system of institutions for regulating the employment relation in a disintegrated industry can succeed in creating stable employment for the majority without institutions to allocate production among different firms as well.

Even within production occupations, we observed the strong divisions between core and peripheral workforces. The difference means everything from the standpoint of individual experience. For a peripheral worker is

one with a high hourly wage and a "blue-collar" standard of living, while a core worker is one with a high earned income, a dense network of social relationships at work, and all the security, status, and intangible rewards that go with both. The growth of this "blue-collar professional" stratum has, of course, been observed elsewhere: in academics, in business services (especially consulting), and so on. It is critical to note that this difference in objective circumstances appears to be having very important impacts on political behavior on the part of peripheral workers.

In principle, flexible production organization makes it possible to redeploy capital and labor and thus to maintain high rates of capacity utilization for both capital and labor. But, as our case study reveals, there is nothing which insures that the same units of capital and labor will be redeployed and fully utilized at all times. This would require institutional mechanisms that go well beyond anything that now exists. These mechanisms would have to be of two types: a first set to redeploy capital to insure its full utilization; and a second set to maintain stable employment relations in firms.

Be that as it may, such sectoral coordination is hardly likely in a political economy such as that of the contemporary United States. In the absence of such fundamental change, workers are faced squarely with the problem of obtaining enough work at an adequate wage. In the motion picture industry, there remains a considerable struggle between workers and employers over the system of rules workers favor to regulate entry into employment in the industry. This struggle bids fair to increase in the very near future, as employers will very likely attempt to defeat closed shop agreements in a variety of establishments. The notion, then, of a new

era in labor relations, based on mutual respect--of the employers for their quasi-artisanal workers, and the workers for the enlightened managers-- seems naive in the current American context (cf. Davis, 1984).

Much has been made, of course, of the fact that the Third Italy is the area where some of the most militant worker traditions in Italy have existed for some time; Bologna, for example, is dominated by Communist unions. We find little reason to generalize from the Italian case of militant workers to all flexibly specialized industries, as do Piore and Sabel (1984). In the motion picture industry there exists the potential for a breakdown in worker solidarity as a result of the tensions created by work instability and the de facto core and periphery that have eventuated. It is not clear, in other words, that the mass-collective worker will necessarily be replaced by the solidaristic, occupation-conscious artisan in this industrial transition in the United States. Flexible specialization will have different political economic outcomes in different concrete contexts (cf. Elbaum and Wilkinson, 1979).

We are faced, then, with a form of economic organization with very complex lines of internal fragmentation (thus, the disintegrated, contractual division of labor), but also a complex set of forces that coordinate the industries economically and socially. These industries are shot through with complex social relations between labor and capital and within labor. It is our hope that this case study provides questions for further research that can provide us with more precise analysis of the issues raised.

## FOOTNOTES

- 1 The terms "below-the-line" and "above-the-line" are explained in section 2.1.

MPHWF refers to the "Motion Picture Health and Welfare Fund." The MPHWF is an inter-union pension fund, in effect. For more than forty Hollywood unions, and some non-union workers as well, the MPHWF is responsible for the contributions toward health and pension benefits. As such, it is the only place where records on Hollywood workers with multiple employers, and for workers in the vast majority of small firms without their own pension funds, are kept. Moreover significant numbers of major studio employees are also on the rolls of the MPHWF.

- 2 It is unlikely that the increase in receipts per employee is due to increasing rents on employee performance, since those would be manifested in much higher average profit rates for the industry.

- 3 From the workers point of view, a career in the motion picture industry must involve a higher risk of unemployment than might a career in an industry where a stable, full-time job is the norm. Therefore, it might be expected that the industry would have to do something special to induce workers to enter the industry's workforce and remain there. That is, the unstable labor demand of the industry might be expected to make it difficult to generate the labor supply required to satisfy it. This is because, with all other things equal, intermittent unemployment should reduce the worker's average income (irrespective of the hourly wage), making other industries with lower wages equally or more attractive to the worker. Building on the latter concept, a number of models assume that employers must augment their wage offer to offset the periods of unemployment workers will endure and pay them a premium for the stress and risk associated with intermittent unemployment. This is known as the "compensating differentials" theory of wage determination (cf. Brown, 1980; Duncan and Holmlund, 1983; Freeman, 1978; Smith, 1979; Abowd and Ashenfelter, 1981).

The contracts literature takes a different approach. It recognizes that something akin to compensating differentials might exist, empirically, but explains wage levels and their rigidity by the ways that agents attempt to minimize risk. For the most part, the literature on explicit contracts has been concerned with the rationality of vertically-integrated firms trying to prevent their investments in firm-specific human capital from getting away from them (cf. Klein, 1984; Klein, Crawford, & Alchian, 1978). Internal labor markets are one means of accomplishing this (Doeringer and Piore, 1972). These arguments have now been extended to the case of implicit contracts as well, in which wage rigidity results so that employers

are not so much at risk due to labor turnover, even in non-union industries with "quasi-spot" labor markets (Wachter and Williamson, 1978; Azariadis and Stiglitz, 1983).

Going further than contract theory is a conception of the labor market based on the institutions and politics, as in the labor market segmentation framework described in this paper.

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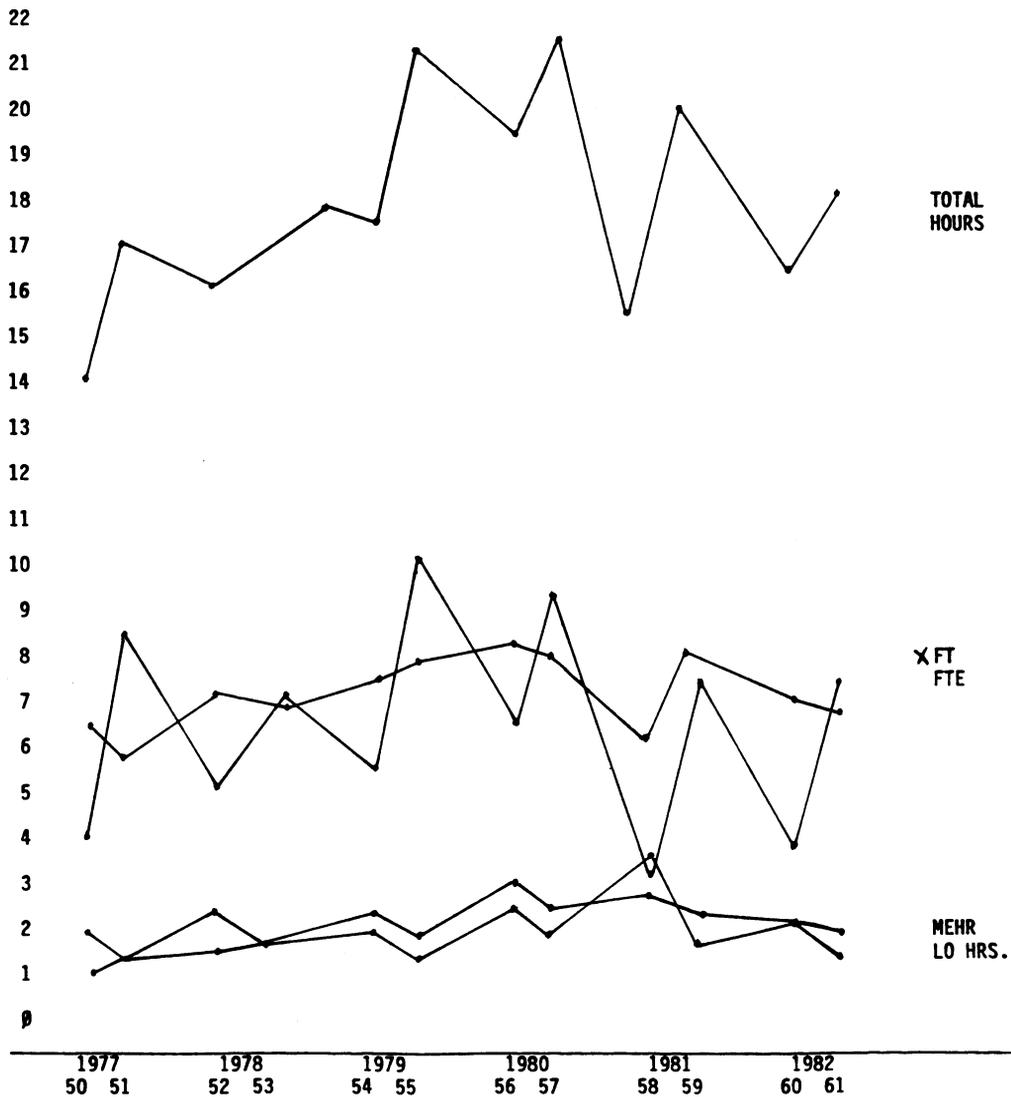
FIGURE 1

<u>Labor Process</u>	<u>Production Process</u>		
	PRE- PRODUCTION	PRODUCTION (FILMING)	POST- PRODUCTION
Managers of Firms-- No Organization	X	X	X
"Professionals:" Above-the-line/Guilds			
Product Innovation (composers/writers)	X		X
Technical Manipulation		X	X
Direct Input (Actors + Musicians)		X	
Craftworkers: Below-the-line: unions		X	
Operatives: Below-the-line: unions		X	
Business Services-- No Organization	X		X

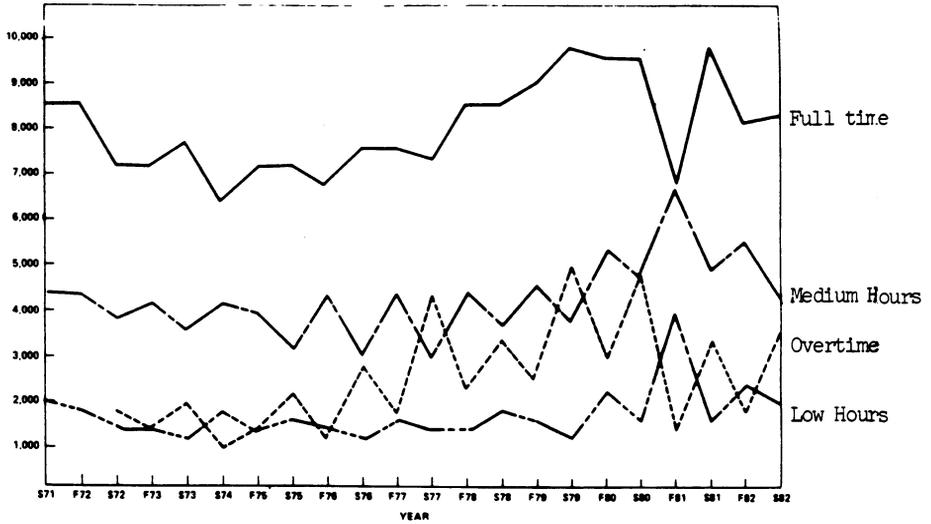
SOURCE: Storper and Christopherson (1985)

**FIGURE 2**  
**HOURS WORKED, BY GROUP OF WORKERS**  
**DEFINED BY THEIR HOURS PER CAPITA**

Millions of Hours



**FIGURE 3**  
**NUMBER OF WORKERS, CLASSIFIED BY NUMBER OF HOURS WORKED**



• Source: Motion Picture Health and Welfare Fund: our calculations

FIGURE 4

PERCENTAGE OF WORKFORCE  
NUMBER OF HOURS WORKED PER CAPITA

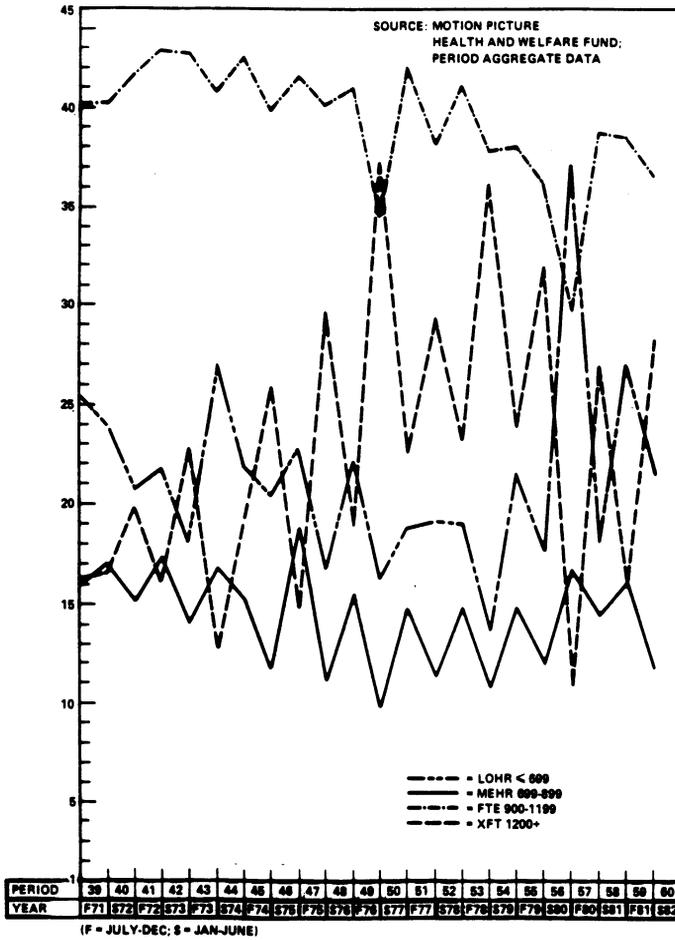


TABLE 1

	<u>Output**</u>	<u>1958=100</u>	<u>Employment*</u>	<u>1958=100</u>	<u>Difference</u> <u>Employee-Output</u>
1958	327	100	53569	100	0
1963	203	62	49219	91.9	29.9
1967	229	70	64600	120.0	50
1972	279	85.32	64700	120.7	35.38
1982	209	63.9	127209	237.5	173.6

\* Source: Table 2

\*\* Source: Storper and Christopherson 1985

TABLE 2

	Employees SIC 781	Payroll 1000 \$	Payroll 1000 1907\$	Value Added Billion \$	Value Added Billion 1967\$
1954	51099	367502	469951		
1955				1.0	1.24
1958	53569	443248	511833		
1960				0.9	1.02
1963	49219	481964	525587		
1965				1.2	1.26
1967	64600	699000	699000		
1970				1.6	1.375
1972	64700	812000	649044		
1975				1.8	1.116
1977	NA	1377000	758677		
1980				3.8	1.539
1982	127209	2451053	847821	4.5	1.56

SOURCE: U.S. Statistical Abstract  
Up to 1967, all establishments  
After 1972, establishments with payroll

**TABLE 3**

	<b>Payroll Per Employee (1967 \$)</b>	<b>Value Added Per Employee (1967 \$)</b>	<b>Value Added Payroll Per Employee</b>	<b>Receipts Per Employee (1967 \$)</b>
<b>1954</b>	9196	24266	2.63	NA
<b>1958</b>	9554	19040	1.99	NA
<b>1963</b>	10678	25599	2.39	33745
<b>1967</b>	10820	21284	1.96	33592
<b>1972</b>	10016	17248	1.72	35260
<b>1977</b>	NA	NA	NA	33133
<b>1982</b>	6654	12263	1.84	27509

**Source:** See Table 2

	<b>Receipts: Payroll Per Employee</b>	<b>Receipts: VA Per Employee</b>
<b>1963</b>	3.13	1.32
<b>1967</b>	3.10	1.57
<b>1972</b>	3.52	2.04
<b>1977</b>	NA	NA
<b>1982</b>	4.13	2.24

TABLE 4  
OCCUPATIONAL DISTRIBUTION OF THE MOTION PICTURE INDUSTRY

	All	Motion Pictures Without Actors <sup>1,3</sup>	Corporate <sup>4</sup>	Services <sup>2</sup>	Nonservices <sup>2</sup>	Manufacturing <sup>2</sup>	All Industries <sup>2</sup>
<b>Professionals,</b>							
Technicians,							
Managers	64.3%	25.0%	35.4%	34.1%	24.1%	22.1%	30.8%
Clericals	12.4%	26.1%	24.4%	20.5%	9.1%	11.3%	16.9%
Sales	13.0%	27.3%	0	9.0%	2.0%	2.8%	6.0%
Skilled Crafts	4.0%	8.6%	19.5%	7.2%	20.7%	14.9%	11.7%
Operatives & Laborers	6.1%	12.8%	16.7%	10.9%	42.6%	47.2%	21.4%
Service Workers	0	0	4.8%	19.2%	1.4%	1.9%	13.3%

1 All statistics on SIC 781 have been adjusted to eliminate potential biases due to the inclusion of theaters in SIC 781. We have eliminated theater managers from the managerial category; projectionists from the operatives category; and service workers have been deleted altogether because they are so heavily associated with theater/retail services, 1980. Source: U.S. Census, 1980.

2 1975. From Stanback, Moyelle, Bearse, and Karasek, 1981: 68

3 This column recomputes the occupational structure without artists and actors, 1980. Source: U.S. Census, 1980.

4 This column reports the occupational structure of employment at Paramount Pictures Corporation, 1976.

TABLE 5  
A. EARNINGS GROWTH--UNITED STATES

	ALL	HOURLY	1967\$	781	1977=100	1967\$	781:ALL
1977	5.25	100	2.89	7.96	100	4.38	151%
1978	5.69	108.38		9.57	120.22		
1979	6.16	117.33		10.64	133.66		
1980	6.66	126.85		11.06	138.9		
1981	7.25	138.09		12.13	152.38		
1982	7.68	146.28		13.31	167.21		
1983	8.02	152.76	2.77	14.72	184.92	5.09	183%
1984	8.26	157.33		17.46	219.34		
	ALL	WEEKLY	1967\$	781	1977=100	1967\$	781:ALL
1977	189.	100	104.13	296.91	100	163.58	157%
1978	203.70	107.77		361.75	121.83		
1979	219.91	116.35		407.51	137.25		
1980	235.10	124.39		440.19	148.25		
1981	255.20	135.0		463.37	156.06		
1982	267.26	141.4		485.82	163.62		
1983	280.70	148.5	94.06	571.14	192.36	191.40	203%
1984	289.10	152.96		698.40	235.22		
	ALL	SIC 7813,4 WEEKLY	1967\$	7813,14:ALL	HOURLY	1967\$	7813,14:ALL
1972		253.26	202.12	NA	6.30	5.02	NA
1973		261.63			6.46		
1974		270.34			6.53		
1975		287.12			6.74		
1976		291.81			7.10		
1977		316.37	174.30	167%	8.05	4.43	153%
1978		427.78			11.14		
1979		455.24			11.86		
1980		467.19			12.01		
1981		491.21			12.66		
1982		608.46			15.97		
1983		694.94	232.88	247%	18.24	6.11	220%

SOURCE: U.S. Bureau of Labor Statistics  
Employment and Earnings