DO OPPOSITES ATTRACT? HOW INEQUALITY AFFECTS MOBILITY IN THE LABOR MARKET

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ABSTRACT

This paper contains a theoretical and empirical analysis of how wage dispersion affects job mobility rates. Via weakened incentives for workers to change jobs, reductions of wage inequality might decrease mobility. But inequality reductions may also have positive effects on mobility, and the net outcome is impossible to determine on purely theoretical grounds. Two main mechanisms are distinguished that might off-set the impact of incentives on mobility. Both operate as responses to wage compression induced from the supra-employer level by centralized collective bargaining. The first mechanism is ecological – as standardized pay scales are forced upon all employers, weak firms either lay off employees or are eliminated from the market, while profitable firms expand. The second mechanism is adaptive – the response to wage compression is not to lay off workers whose costs have increased, but to make them more productive. In both cases, a decrease in inequality leads to an increase in mobility. These hypotheses are tested on panel data from the Swedish Labor Force Surveys. The main finding is that the net effect of inequality on mobility is not positive, thus supporting the idea that the impact of incentives is counteracted by other mechanisms. Further work is needed to empirically establish the proposed counter-mechanisms more directly.

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INTRODUCTION

Sociology has a long-standing interest in inequality. Indeed, inequality is perhaps the single most central phenomenon to sociological inquiry; within research on stratification, at least, this is a mere truism. Why are sociologists so concerned with inequality? For three main reasons, it would seem: inequality is linked to: (a) fairness; (b) poverty and social exclusion; and (c) collective action and social change. However, sociologists rarely consider the relationship between inequality and efficiency. Since efficiency determines the absolute size of the resources being distributed more or less unequally, the sociological neglect of efficiency is somewhat curious. Obviously, the absolute amount of resources that individuals command is vitally important for their living conditions. Efficiency aspects ought therefore be explicitly taken into account in distributional considerations.

One of the main mechanisms through which inequality and efficiency are related is economic incentives as a structural guide to human action. As differences in outcome between alternative courses of action diminish, the incentives for individuals to choose one course of action over another become weaker. The presumed decay of incentives is the main rationale behind the common belief among economists that there is a fundamental tradeoff between equality and efficiency (see, e.g. Okun, 1975). An important instance of this general theme is the relationship between wage inequality and job mobility. Reductions of wage inequality might have a negative impact on rates of mobility between jobs, because incentives to move weaken when differences in rewards between positions become smaller. This paper contains a theoretical and empirical analysis of this issue. Whether incentives are important for individual mobility choices is not the question, however. Of course incentives are important. The issue is whether reductions of inequality also have *positive side-effects* on mobility that are sufficiently powerful to offset, or even supplant, the negative impact on economic incentives.

Consider two identical sets of jobs that differ only in their distributions of rewards. Relative to each other, one distribution is disperse while the other is concentrated. Which of these reward distributions will display the highest rate of individual mobility between jobs? In the incentive view, the larger the difference in rewards between any two jobs, the higher the rate of mobility from the lower to the higher rewarded job. In this sense, opposites attract. I will argue, however, that there are equally good reasons to expect mobility to be more common when jobs are tightly clustered in their rewards, and that the net impact of inequality on mobility is therefore impossible to determine on purely theoretical grounds.

Empirically, I analyze data on privately employed manual workers in Sweden for the period 1980–1992. The Swedish case is of considerable interest for two main reasons. First, wage differentials in that country have for a long time been

much more compressed than in comparable labor markets elsewhere. Indeed, as two observers have remarked: "When an outside economist first views the Swedish labor market, with its compressed wage differentials (and) . . . high marginal tax rates . . ., the first reaction tends to be amazement that the labor market works at all. Yet work it does" (Bosworth & Rivlin, 1987, p. 5). Although the present paper does not put Sweden into a comparative context, it has previously been shown that overall rates of job mobility in Sweden are not low by international standards (DiPrete et al., 1997; van Ours, 1990). Second, the narrowing of wage differentials has, to a large extent, been the result of *intentional market regulation* rather than the unintended operation of market forces (Hibbs, 1990). This is important because the debate on the consequences of equality centres on the notion of market disturbances. In principle, of course, the market may *by itself* decrease the dispersion of wages, if there is a shortage of low-paid workers or an excess supply of high-paid workers. In the world of neoclassical economics, such a market-driven decrease of inequality would not hurt efficiency. On the contrary, since it helps bring the labor market closer to equilibrium, the effects on efficiency are positive. What supposedly hurts is the pursuit of equality by market *regulation*, and this is precisely what wage determination in Sweden has been about during much of the period we will examine.

In order to arrive at clear hypotheses, it is useful to distinguish between different kinds of job shifts. I make two distinctions. The first is between voluntary and involuntary moves. Since this is a difficult distinction to make empirically, I translate it into upward and downward moves, probably without much loss of validity. By upward moves I mean job shifts that involve increases in rewards (e.g. status or earnings). Upward moves are the most common kind of shifts, and are also the focus of most theoretical models of job mobility (see Rosenfeld, 1992, for a review of findings and models). A second important distinction is between external and internal mobility. By external moves I mean a change of establishment or firm, while internal moves are job shifts within establishments or firms. In the analysis below, I will concentrate on voluntary mobility in general. The distinction between external and internal shifts is introduced toward the end of the theoretical section, and then applied in the empirical analysis.

The next section gives a more detailed account of the standard economic view on the relationship between inequality and mobility. I then turn to what I call the dynamic-distribution view containing counter-arguments that are in part based on notions from efficiency-wage models. In this context I also review the main traits of the Swedish model of market regulation. Following a description of the data and the strategy for empirical analysis, the results are presented. A final section concludes.

INCENTIVES AND SEARCH

The standard microeconomic tool for analysing mobility in the labor market is the human capital model (Becker, 1964; Sjaastad, 1962). Mobility is seen as an investment, where the costs of changing jobs are weighed against future returns in the form of higher earnings. A move is profitable, and will therefore be carried out, if the present value of future income increases is higher than the direct costs of moving. The dispersion of wages does not influence the costs of moving, but it does influence the gains. The present value of future income increases is higher the larger the wage dispersion is. This is true by definition if dispersion is a measure of the difference in rewards between any low-wage job (the origin position of an upward shift) and any high-wage job (the destination of an upward shift). The unequivocal conclusion is that the rate of upward moves varies positively with the inequality of wages.

There is a serious problem involved, however, in applying human capital theory to job mobility (cf. e.g. Mortensen & Neumann, 1989; Tuma, 1985). In a world of perfect information and no uncertainty, all rational individuals will choose a job that maximizes their lifetime earnings. But then there is no reason to expect any voluntary job shifts at all (assuming the labor market is in equilibrium). An extension of the simple human capital model involves taking uncertainty and information scarcity into account. In the job search model (Burdett, 1978; Devine & Kiefer, 1993; Mortensen, 1986), the likelihood that a worker will change jobs is the product of two probabilities: (a) that a job offer is received; and (b) that the offer is accepted by the worker. The arrival rate of job offers (a) is determined by both supply and demand factors. The supply factors include the worker's human capital (productive capacity) and search intensity while the demand factor is the number of vacant jobs. Of these factors, only search effort is usually considered explicitly. (I will explore the importance of the other factors in the next section.) Probability (b) is the likelihood that the wage of the offered job exceeds the worker's reservation wage.[1]

In standard applications of the search model, both the offer arrival rate and the acceptance probability are seen as decreasing functions of the initial wage (the wage of the origin job), holding human capital constant. This is because search intensity is believed to be low among high-wage workers, since their expected wage gains of a job shift are relatively small and their reservation wages are relatively high. The implication of this argument for the expected relationship between wage dispersion and job mobility is not evident, however. Although the arrival rate of job offers should be positively related to the degree of inequality, if search intensity is believed to be a positive function of incentives, the impact of narrow wage differentials on reservation wages is not straightforward. Compared

to a more unequal structure, reservation wages become less disperse but should not change on average. This might be sufficient, however, to depress the upward mobility rate, because quit rates and wages are negatively related. The reservation wages of low-wage workers are more important for the upward mobility rate than are those of high-wage workers, since the former dominate the group of quitters. Hence, the main prediction of the job search model, in line with human capital theory, is that the degree of wage dispersion has a positive impact on the rate of job mobility.

But there is another twist to the argument that should be taken into account. It involves the possibility of making a bargain. Consider the case of a consumer about to buy a new car. He has already decided what kind of car he wants, so what remains is choosing a dealer. Suppose that he knows the distribution of prices across dealers for the particular kind of car he wants, but not the prices that specific dealers will offer. Now compare two situations, differing only by the degree of price dispersion. In the first, prices are highly similar between car dealers, while, in the second situation, price variation is substantial. Surely, the elapsed time from the start of search for an acceptable dealer until the moment of purchase, will, on average, be significantly longer in the latter case. The consumer faced with a large price dispersion will clearly need more time to reach a decision, because his decision is much more consequential. This example may be carried over to the labor market setting. A large variance in wages among jobs within an individual's feasible set of opportunities might decrease the rate of mobility by increasing the duration until an individual accepts a job offer (see e.g. Mortensen, 1986).

To the extent that the bargain example is applicable to labor markets, there is thus a strictly economic argument, from within neoclassical theory itself, for why wage inequality actually should *depress* mobility rates. Other elements of the neoclassical model imply the opposite prediction, as spelled out above, and there seems to be no convincing way to tell in advance what the balance of these mechanisms will be. Apparently, the net outcome is a matter for empirical investigation.

THE DYNAMIC-DISTRIBUTION VIEW: THE JOINT DISTRIBUTION OF WAGES AND PRODUCTIVITY

I turn now to what I call the dynamic-distribution view on how inequality might affect mobility in the labor market. It draws on a second important extension of neoclassical economics (the implications of information scarcity that inspired job search theory being the first). This second extension involves the reversal of the causal link between wages and productivity, letting the latter be an outcome of the former, and is known as efficiency-wage models. The argument was well

summarized many decades ago by German industrialist Robert Bosch when he remarked: "I don't pay my workers high wages because I'm rich – I'm rich because I pay my workers high wages." As I will show, the implications of this perspective for the relationship between inequality and mobility are radically different from the conventional economic view.

As stated above, the job search model has it that the probability of a worker moving into a new job is the product of two likelihoods: the arrival rate of job offers and the probability that an offer is accepted. According to a recent survey of empirical evidence on job search (Devine & Kiefer, 1993), the role of acceptance probabilities in the mobility process is relatively small. Most offers tend to be accepted by the workers receiving them; estimates of the acceptance rate typically range from 0.8 to 1.0. An important conclusion of these results is that reservation wages are less significant for the movement of workers between labor market states than are job opportunities. Since most job offers are accepted, the process of (upward) mobility is mainly driven by the rate at which offers are received.

Specifying the determinants of the arrival rate of job offers is therefore crucial. Standard sociological models of job mobility (Sørensen, 1977; Tuma, 1976) suggest that there are three kinds of factors determining the rate at which vacancies in better jobs become available to the individual. First, there is the size of the feasible set of jobs to move into. Second, there is the individual's chance of acquiring a job in this set when a vacancy opens. Third, there is the general rate at which such vacancies appear. Operationally, these three factors are measured as: (a) the reward level of the current job; (b) the resources of the individual; and (c) a vacancy rate parameter (see Brüderl, 1992) estimated indirectly in individual-level models (because data at the level of jobs or establishments are usually lacking). Rewards are assumed to have a negative impact on upward mobility, since the number of superior jobs in any structure decreases with the level already attained (a simple ceiling effect). Resources have a positive effect on upward mobility; for any given job opening, the applicant with the largest amount of resources relative to other applicants gets the job. Finally, the rate of upward mobility will increase with the rate of vacancies opening up (provided that at least some vacancies open above the bottom level, and that these are not entirely filled with labor market entrants).

In what follows, I will suggest that a compression of wage distributions tends to increase the rate of upward job mobility via all three of these mechanisms. The more equal a distribution of rewards in a job structure, the average individual in this structure will: (a) confront a larger feasible set of alternative jobs; (b) have a larger amount of resources with which to compete for jobs in that set; and (c) face a higher rate of vacancies opening up in the feasible set. I spell out the arguments for these claims below.

The arguments may be divided into two main kinds of mechanism connecting inequality and mobility. The relative force of each kind of mechanism depends on the degree to which worker productivity on the job is variable. It is important to realize that the wage is not the critical variable for the employer in assessing labor costs, but rather the relation between worker productivity and wage costs, p/w. This ratio is to be maximized for the employer in order to effectively minimize labor costs. For analytical purposes, it is useful to separate the consequences of wage compression into different parts, depending on the degree to which productivity (p) is variable for the employer. If p is (more or less) fixed, then a compression of wages confronts the employer as given changes in relative labor prices. If p is variable (to some significant extent) then changes in w may be compensated by manipulations of p. Special consequences follow from such an employer strategy.

Wage compression involves a relative increase of pay to low-wage workers. Hence, for this worker category the ratio between worker productivity and wage costs (p/w) will decrease, thus worsening the terms of trade for employers who might respond in two different ways. The first employer response occurs if worker productivity is difficult to adjust to the new level of wage costs, i.e. if worker productivity is more or less fixed. In that case, jobs or entire establishments that are no longer profitable to the employer will be eliminated, while new jobs are created in places where the wage-productivity relation has become more favorable. This sets an ecological process of job turnover in motion, with worker mobility as a consequence. The second kind of employer response occurs if worker productivity is more variable. In this situation, productivity might be adjusted to the new wage rate, and profitability thus preserved. Instead of affecting job turnover, this response affects worker turnover via adjustments of worker productivity. This mechanism is adaptive rather than ecological in nature. Next, I discuss these two mechanisms in turn, devoting one section to each.

THE IMPACT OF INEQUALITY ON MOBILITY WHEN PRODUCTIVITY IS FIXED

A crucial feature of the traditional Swedish model for wage determination is a "solidaristic" wage policy, aiming at minimizing the correlation between wages and firm profitability. This was accomplished by wage negotiations at the central level between the national confederations of employer associations and trade unions. The outcome of the centralized system of negotiations, in force without interruption between 1956 and 1983, was a common wage level across firms for similar jobs. The purpose of eliminating employer wage differentials was

two-fold. First, it was considered *unjust* to let firm profitability influence wages. Fair wage differentials should be based mainly on the kind of work carried out and, to some extent, on individual performance (via piece-rates, for instance). The profitability of the particular firm where the worker is employed should not matter, however, since profitability is typically dependent on many factors, most of which are unrelated to the work carried out by specific employees, or even by the entire personnel. Second, it was also considered *inefficient* to let firm profitability influence wages, net of variations in worker quality. Think of wages as a kind of tax on employers. A (positive) correlation between profitability and wages is then, in effect, a subsidy to unprofitable firms and a penalty on profitable ones. Hence, on pure efficiency grounds, there is good reason to eliminate the correlation. For unprofitable establishments, this means that they cannot stay alive by paying low wages, and are therefore pushed out of business if they cannot afford the centrally determined wage rate. For profitable establishments, the situation is the reverse. Since wages are determined centrally, high profits are not used to pay higher wages than elsewhere. This is the source of "excess profits," i.e. the share of profits that would have been used for wages in an unregulated labor market. These profits are not distributed to shareholders either, due to prohibitively high tax rates compared to the tax rate on re-invested profits. The result is that profitable firms tend to expand operations by hiring more workers. Altogether this leads to a speed-up of the shift of workers from less to more profitable establishments. Active labor market policies, including extensive retraining and placement services, were designed to help individuals and firms adjust to the rapid pace of restructuring.

The attempt at combining equality and efficiency is the core of the Swedish model.[2] For a number of reasons, it has tended to gradually break down during recent decades. As a consequence, wages have increasingly come to be determined at an intermediate (industry) and local (establishment) level. There is no doubt, however, that wage differentials across employers are still relatively small in Sweden. The weeding out of unprofitable firms thus continues to be supported by the structure of wages, although less forcefully than in the past.[3]

The wage-driven process of turnover among firms has important repurcussions on the conditions of individual workers. Restructuring may partly be achieved by the retirement of older workers in contracting parts of the economy and the channeling of young labor market entrants to expanding parts. But evidently a large amount of job mobility across establishments will also take place. Although in a sense involuntary in kind, this mobility is mainly upward since the created jobs are on average more highly rewarded than the lost jobs. In sum, minimizing wage differences across employers increases the rate at which: (a) jobs are destroyed in dying or contracting firms; and (b) jobs are created in new or expanding firms. In turn, this has a positive effect on the rate of job shifts, especially upward.

The second turnover process occurs among jobs within establishments (net of turnover among firms). Again, the mechanism in the process is that relative price (wage) differences make some jobs too expensive for employers and others comparatively cheap. In the early phase of the period of central wage negotiations in Sweden, until the late 1960s, the guiding maxim was "equal pay for equal work." This led to a levelling of wages across employers, as described above. Subsequently, the pursuit of equality became more radical. The "equal work" part of the maxim tended to disappear, leaving "equal pay" more in general as the guideline. In particular, special provisions were made in each wave of negotiations, until central bargaining was abandoned in 1983, to improve the relative standing of the lowest paid workers. Thus, the relative price of unskilled labor increased. This favored a further transformation of the job structure in the direction of skill upgrading. Pressure on employers to economize with low-skill labor leads to an increase in the destruction rate of unskilled jobs and a decrease in the creation rate. The simultaneous drop in relative prices for skilled labor leads to the converse pattern of creation and destruction of such jobs. In sum, wage compression sets in motion a job turnover process which, as in the case of turnover among firms, increases the rate of job shifts. These shifts will primarily go in an upward direction, due to the effects of decreasing wage differentials on the structure of vacancies.

THE IMPACT OF INEQUALITY ON MOBILITY WHEN PRODUCTIVITY IS VARIABLE

As spelled out in the previous section, central determination of wages will significantly affect relative prices for labor. This is the first consequence of wage compression that I distinguish. It will lead to increased rates of firm and job turnover via the mechanisms explicated above. Such turnover comes about when productivity (p in the employment contract profitability ratio p/w, w being the wage) is more or less fixed. A second important consequence of wage compression is changes in productivity distributions, which come about as a result of p being more variable.

One empirical justification for assuming productivity to be variable in response to relative wage changes is that demand for unskilled workers in the Swedish labor market has fallen much less than expected. Edin and Topel (1997) pose the latter fact as a puzzle that is difficult to explain within the traditional confines of the Swedish model (cf. also Lindbeck, 1997). Their main explanation is that firms expanding due to "excess profits" do so by creating not only (comparatively cheap) high-skill jobs, but also low-skill jobs. One of the mechanisms involved

in such a process may be that the technology of expanding firms is (or was) such that hiring only skilled workers was not profitable, despite the low relative price of such labor. Another conceivable mechanism is that the supply of skilled workers has not kept pace with demand. An alternative explanation I will consider in this section is that changes in relative labor prices not only affect quantities of employed labor, but also qualities. More specifically, *labor that becomes relatively more expensive may become more productive as a consequence*, and (although probably to a lesser extent) *vice versa*. This mechanism, then, might account for the fact that the demand for unskilled labor in Sweden has not fallen as much as would be expected from a purely quantitative point of view. As spelled out below, it may also have important consequences for rates of job mobility.

Efficiency wage models are based on the reversal of the causal link between wages and productivity (Akerlof & Yellen, 1986; Stiglitz, 1987). Rather than the wage being a simple function of the marginal productivity of the worker, as neoclassical economics would have it, the influence is believed to run both ways: productivity is, to a significant extent, a function of the wage. There are several conceivable reasons why this might be true, according to the standard models. One is actually based on incentives – a high wage may be used by the employer as a device for eliciting work effort from his personnel. Since high-wage jobs are costly to lose for the employee (the wage being above the external market rate), his job performance will increase due to fear of being caught "shirking" (Shapiro & Stiglitz, 1984). Another mechanism is "gift exchange" – workers reciprocate high wages paid by their employer by returning a high performance on the job, since high wages are seen as gifts (Akerlof, 1982). Sociological theories of class also assume that wages influence productivity. Goldthorpe's (1982, 1995) analysis of how the employer ties employees to the firm in a "service relationship" closely resembles efficiency wage reasoning, as does Wright's (1985) discussion of "loyalty dividends."[4]

However, the efficiency wage arguments must be revised in order to make sense of the mobility effects of wage compression, at least as the latter has been pursued within the context of the Swedish model. The Swedish model implies that "efficiency wages" (wages above the market clearing level in the absence of regulation) for low-wage workers are centrally set through collective bargaining. For each employer, high wages for low-wage workers are thus exogenously given and have to be dealt with. In unprofitable firms, workers are laid off. Net of employment exits, this then produces external (upward) job mobility. In more profitable firms, low-wage workers are not laid off, but their jobs might be transformed into more skilled jobs because of the increase in the relative price of low-skill jobs. This then produces internal (upward) mobility. If their jobs are not transformed, the workers will be. In order to decrease mis-match, the employer will attempt to raise

the productivity of the employee, i.e. to adjust p to the new level of w in the p/w employment contract profitability ratio. This in turn makes the low-wage workers more competitive, and increases both internal and external (upward) mobility. So while employer-induced high wages may elicit higher effort from employees, which is the main mechanism in standard efficiency wage models, supra-employer (centrally) induced high wages may in addition elicit efforts from employers to increase the productivity of its personnel. It is thus efficiency-wage theory extended one level up.

In effect, then, the Swedish model is a mix of neoclassical and efficiency wage elements. The neoclassical element is the law of one price (the wiping out of employer wage differentials). The efficiency wage element is that the labor market does not clear by itself due to some jobs (workers) being paid a wage rate above the market clearing level (the latter being defined as the rate that would have prevailed in the absence of central bargaining).[5] To this mix, a specific element is added: Some jobs (workers) are paid a wage *below* the market-clearing level. This is possible because the enforcement of the law of one price closes the exit route of wage-driven, status-lateral worker quits.

We then arrive at the weberian notion that "exchange primarily takes place among equals," with adjustments of productivity as the mechanism: the less wage inequality within a given structure of jobs, the larger is the feasible set of alternative jobs for the average individual, where "feasible" means that the difference is small between the capacity of the person and the requirements of the alternative jobs. The mechanism may be specified in two ways: (a) for a given distance in wages (i.e. productivities) the number of feasible jobs increases with wage compression. (b) Alternatively, for a given size of the feasible job set, the average distance between endowed and required productivity is smaller. Either way, the rate of mobility should increase with the degree of compression of the wage structure.

SUMMARY OF THEORETICAL MODELS

In the theoretical discussion above of the impact of wage inequality on job mobility, I first distinguished between three different models within the perspective of neoclassical economics. I then singled out two different models within the alternative perspective that I call the dynamic-distribution view. An overview of the predictions following from this set of models is given in Table 1.

In a neoclassical economic perspective, the primary driving force in the impact of inequality on mobility is worker incentives. In the human capital model, the rate of job mobility is determined by the difference in the present value of future income between origin and potential destination jobs. Therefore, mobility rates

Table 1. Predictions of the Impact of Wage Compression on the Rate of Job Mobility Following from Alternative Theoretical Models.

	Impact of Wage Compression on Job Mobility	Driving Force	Mechanism
Neoclassical economics			
(a) Human capital model	Negative	Worker incentives	Decrease in estimated pay-off of moves
(b) Job search model	Negative	Worker incentives	Decrease in search intensity and increase in reservation wage
(c) Bargain model	Positive	Worker incentives	Decrease in duration before move
Dynamic-distribution view			
(a) Ecological model	Positive	Employment contract profitability = worker productivity/wage costs = p/w	Adjustment of p/w when p is fixed leads to job turnover, which leads to worker mobility
(b) Adaptive model	Positive	Employment contract profitability = worker productivity/wage costs = p/w	Adjustment of p/w when p is variable leads to decrease in gap between worker capacity and requirements of alternative jobs, which leads to worker mobility

will be higher the larger the wage dispersion is, and, conversely, will decrease with wage compression. In the job search model, also for incentive reasons, a reduction of wage inequality will depress job shift rates via decreases in the intensity of search for alternative jobs and increases in the reservation wage of workers in the lower part of the wage distribution. The third neoclassical model in Table 1, however, turns the incentive argument on its head. According to the bargain argument, the elapsed time between job moves will decrease with wage compression, because the pay-off to waiting for alternative offers diminishes.

In the dynamic-distribution perspective, the main driving force is not worker incentives, but the relation between workers' productivity and employers' wage costs (p/w) that determines the profitability of employment contracts. The impact of wage compression on job mobility runs via attempts by employers to maximize, or at least preserve, this profitability. There are two different mechanisms involved. The first is ecological – as standardized pay scales are forced upon all employers,

weak firms either lay off employees or are eliminated from the market, while profitable firms expand. The second mechanism is adaptive – the response to wage compression is not to lay off workers whose costs have increased, but to make them more productive. In both cases, the effect of a decrease in inequality is an increase in mobility, thus off-setting the impact of incentives.

I turn now to an empirical investigation of the issues laid out above. The main purpose is to determine whether incentive effects dominate the impact of wage inequality on job mobility. If they do, i.e. if the association between wage compression and the rate of job shifts is strong and significantly negative, the orthodox economic view is supported. If not, the implication is that powerful counter-mechanisms to incentives are involved. I will not attempt to empirically establish the operation of specific mechanisms, however. The empirical contribution is limited to estimating the *net* association between inequality and mobility. Conceivable expansions of the data sets used below will make more precise assessments of *gross* forces possible. For the ecological mechanism, data on job creation and destruction are needed, while direct examination of the adaptive mechanism would require empirical indicators on productivity variability.

DATA

The LO-SAF Register

The data on wage dispersion come from a comprehensive set of yearly employer reports on hourly wages (or some equivalent thereof) for all employees at establishments covered by the Swedish Confederation of Employers (*Svenska arbetsgivareföreningen*, SAF; recently reorganized into *Svenskt Näringsliv*). The coverage is around 80% of all manual workers in the private sector. Altogether, the data contain wage information on around 600,000 employees in around 20,000 establishments each year. These data were collected every year during the period 1970 through 1992. The data set is owned and administered jointly by the Confederation of Employers and the Swedish Trade Union Confederation (*Landsorganisationen*, LO, the central organisation of manual worker unions). Regrettably, for reasons that need not concern us here, the employer confederation decided to stop data collection from 1993. But the available data set provides a rich opportunity for the kind of analyses carried out below.

The data on wages from the LO/SAF-register have two very desirable properties: first, they are very detailed, reliable, and (close to) complete. There is very little measurement error in them. This is, of course, a desirable property in any empirical study. (However, there is classification error in that entire “collective

agreement areas" (*avtalsområden*), rather than individual establishments, are the unit for industry classification. But the error due to matching problems is small.) Second, they map a part of the labor market in which wage determination has been influenced to an unusually high degree by market regulation rather than market forces. This is an especially desirable property in the present study, for two reasons. The first reason is that the debate on the consequences of equality, be they positive or negative, centres on equality achieved by explicit purpose rather than driven by unintended market factors. The second reason is that it diminishes one of the main methodological problems in a study of this kind, namely, isolating the specific effects of inequality net of other factors which may be correlated with inequality. If the amount of inequality is essentially market-driven, the correlations between inequality and mobility are probably spurious to a larger extent than if, as in the case here, the amount of inequality is largely determined by purposive design.[6]

Note that the data on wage dispersion are based on actual wages, not wage offers. Theoretically, it is inequality in wage offers rather than observed inequality among job holders that should affect mobility. Since the distribution of wage offers is unobserved, however, we use actual wage inequality as an approximation, justified by the fact that the large majority of job offers are accepted (Devine & Kiefer, 1993).

The Labor Force Surveys

The micro data in the analyses that follow come from the Swedish Labor Force Surveys (*Arbetskraftsundersökningarna*, AKU). These surveys are conducted every month by Statistics Sweden. The respondents participate eight times with three-month intervals during a period of 21 months. Each eight-interview wave has a sample size of about 18,000 (with some variation over time). Only a third of these are potentially available for job shift analyses, however, due to limitations in direct information on mobility. The data set used here consists of thirteen one-year panels of respondents interviewed in January or February at year t and in the same month at year $t + 1$. The time period covered is $t = 1980$ through 1992, except 1986 for which panel data are not available ($t + 1 = 1981$ through 1993, except 1987).

For the purpose of the analyses carried out here, the sample is restricted in the following manner. Since the macro (employer-based) data set on wage dispersion covers privately employed manual workers, a similar restriction is applied to the micro sample. In addition, due to either very small numbers of micro survey respondents or limitations in the coverage of the macro data set, a few industries were excluded (mining and quarrying, basic metal industries, construction, and

Table 2. Distribution Across Industries Among Privately Employed Manual Workers in the Swedish Labor Force Surveys 1980–1992 (Percent, $N = 15{,}619$).

Agriculture	2.1
Forestry	1.7
Manufacturing	
Food, beverages, tobacco	6.0
Textile, leather	3.2
Wood, wood products	6.4
Pulp, paper, paper products	5.1
Printing, publishing	3.3
Chemicals, rubber, plastics	4.6
Non-metallic mineral products	2.1
Fabricated metal products, machinery	30.3
Manufacturing total	61.0
Wholesale trade	6.7
Retail trade	18.5
Transport, storage	5.9
Sanitary services	2.3
Repairs, laundries	1.9
Total	100.0

restaurants and hotels). Further, these restrictions are applied to both year t and year $t + 1$, since information on wages is lacking for job destinations outside the target area.[7] With these restrictions in force, the total number of respondents over the time period covered is 15,619. Of these, 32% are women and the mean age is 37 years. The percentage distribution of respondents over industries is shown in Table 2.

ANALYTICAL STRATEGY

In the empirical analyses below, I consider three different kinds of job mobility: shifts within the origin firm, shifts across firms within the origin industry, and shifts out of the origin industry. All of the shifts are voluntary in the sense that they do not involve a drop in occupational prestige.[8] This may seem a weak distinguishing criterion, but is motivated by the character of the sample: a large majority of all job shifts are lateral with respect to prestige, partly due to the rather highly aggregated occupational schema used in the Labor Force Surveys. The weakness is limited, however, by independent evidence that the rate of voluntary

mobility in the Swedish labor market is so much higher than the rate of involuntary moves (Björklund & Holmlund, 1989; Stafford, 1981) that a dominant fraction of all lateral job shifts are likely to be voluntary.

Individual-level covariates include age, education, and status.[9] These are conventional control variables, with clear expectations of the signs of their respective influence. Age has a strong negative impact on job mobility, because (for a number of reasons) work careers tend to be relatively erratic in youth and then stabilize over the life-course. Education has a net positive effect on voluntary job shifts, since (other things being equal) individuals with greater resources are preferred to other job candidates by employers filling vacancies. Finally, status has a negative net impact on voluntary mobility, due to a ceiling effect: in any structure of jobs stratified by status there will be a negative relationship between the level of achieved status and the relative number of positions above that level.

Inequality is measured across years and industries.[10] In order to avoid spurious effects of inequality on mobility it is necessary to take into account other factors than wage dispersion that (a) might have an impact on job mobility; (b) vary significantly across years or industries; and (c) correlate with inequality. Needless to say, this task is difficult. It is impossible to accomplish exhaustively, but nonetheless crucial to pursue (although the problem is probably unusually small in the present case due to the advantages of the LO/SAF data; see above). The most obvious candidates with regard to time are indicators of the business cycle. Generally, the rate of job shifts tends to be higher when business goes well, and lower during economic slumps. The main mechanism is that mobility opportunities are larger in economically good times, because the relative number of firm births and expansions exceeds the relative number of firm deaths and contractions. Two cycle indicators are included in the models below. The first is the rate of unemployment, expected to have a negative effect on voluntary job mobility. The second is the rate of real wage growth, with an expected positive impact on mobility.

With regard to industrial indicators, the main candidates would appear to be firm (or establishment) size and the structure of occupational status. The rate of job shifts within a firm tends to be a positive function of firm size (the number of employees), because promotion opportunities are relatively large in internal labor markets which are less developed in small than in large firms. Conversely, the rate of voluntary firm exits is negatively related to firm size, for the same reason. The structure of status is also of apparently large importance. Most obviously, perhaps, there will be a negative relationship between the difference in status across jobs within any given structure and the rate of mobility between them. This is mainly because job requirements tend to differ less in more concentrated status structures. In other words, it is easier to travel across a short distance than to make a long journey. At least this should be true *ceteris paribus* (including variation in

rewards). This structural aspect of industries is measured by two indicators: (a) the coefficient of variation of occupational status within a given industry; and (b) the distance (ratio) between the mean statuses of destination and origin industries.[11] In addition, the mean status of the origin industry is included in models of voluntary job shifts across industries. Given own status, a negative effect of mean status in the origin industry on industry exits is probable. Other things being equal, it seems straightforward (almost tautological) to assume that most individuals are reluctant to leave desirable surroundings. In addition, the mean status measure might capture some of the variation in occupational status not captured by the aggregated occupational schema.

Inequality is measured at three levels: (a) total wage dispersion (between plus within industries) by year; (b) wage dispersion between industries by year; and (c) wage dispersion within individual industries by year. Thus, measures at the first two levels vary only across years (1980–1992), while measures at the third level vary across years by industries (12 years by 15 industries). In addition, a measure of between-industry wage dispersion is constructed at the third (year by industry) level. Similar in kind to the status distance variable, it is the ratio between the median wages of destination and origin industries (the numerator of which is the weighted median wage among the typical industry destinations from a given origin industry).

The main empirical analysis below is carried out in two steps. First, a general model of voluntary mobility is estimated, the outcome event being any kind of voluntary job shift. Inequality in this model is measured at level (a), that is, as total wage dispersion by year. Second, separate models for different kinds of voluntary job shifts are estimated. Here, inequality is measured at levels (b) and (c), with the models including appropriate controls for industry characteristics.

EMPIRICAL RESULTS

As a prelude to the regression models, it is useful to show the variation in inequality and mobility across industries and over time. A distinguishing trait of the Swedish labor market is the low degree of overall wage dispersion, and one may reasonably wonder whether the amount of inequality varies enough across time and space to have any potential impact on individual mobility choices. Table 3 contains a ranking of the 15 industries included in the data set according to the size of within-industry blue-collar wage dispersion, and a corresponding ranking of the 12 years covered by the data according to (a) the degree of total wage dispersion among blue-collar workers in the industries concerned, and (b) the degree of dispersion of blue-collar wages between industries.

Table 3. Variation Across Industries and Over Time in Wage Dispersion and Job Mobility.

Industry Rank	Ineq W	Mob W	Year Rank	Ineq T	Mob T	Ineq B	Mob B
1	129	74	1	117	66	115	26
2	123	151	2	114	52	113	69
3	122	107	3	111	123	111	21
4	115	88	4	102	141	102	132
5	114	61	5	100	128	102	124
6	102	123	6	99	103	101	87
7	102	63	7	99	144	99	89
8	101	86	8	99	109	97	163
9	99	123	9	97	55	95	75
10	94	50	10	94	91	94	72
11	91	127	11	94	94	90	101
12	88	112	12	91	74	86	211
13	87	69					
14	87	87					
15	81	90					
Rel. average	100	100		100	100	100	100
Average rate	0.113	0.051		0.170	0.068	0.058	0.017
Pearson corr.	0.115			−0.170		−0.704	
Spearman corr.	0.050			0.063		−0.552	

Notes: Relative Rates, Average = 100. (W = within industries, B = between industries, T = total.)

(a) Industries and years are ranked by rate of inequality (W, T, and B, respectively) at year t (1980–1992).
(b) Measure of inequality is the coefficient of variation of hourly wages among blue-collar workers.
(c) Measure of mobility is the proportion of all blue-collar workers in category who make the indicated move between year t and year $t + 1$.

In general, wage dispersion rates vary substantially across industries, i.e. they do not tend to cluster close to the average rate. In the industry with the most disperse wage distribution, inequality is almost 60% larger (129/81) than in the industry with the most equal wage structure, and the other 13 industries tend to cover most of the range between the end-points of the distribution. Note, in addition, that this variation in rates is based on averages for the whole period under consideration (1980 through 1992), so the variation in inequality shown in the table is an underestimate of the differences in rates between individual industry-year combinations.

Rates of within-industry job shifts vary even more across industries than inequality does, with 200% (151/50) as the maximum difference. Evidently, there

is a substantial variation in mobility to be explained, and inequality varies enough to be of potentially large importance in such explanatory attempts. For no more than illustrative purposes, since it is obvious that a number of confounding factors need to be taken into account in line with the discussion above, the zero-order correlations between the rates of within-industry inequality and mobility are shown in the bottom rows of the table. Both the Pearson and the Spearman coefficients are positive, indicating possible support for the orthodox incentive view, but are very small in magnitude. The regression models below will provide more conclusive evidence on the matter.

In the right part of Table 3, the yearly variation in overall wage dispersion and in between-industry wage dispersion is shown. The variation is quite substantial, given that the time period under consideration is rather short – not much longer than a decade. In the year with the largest wage dispersion, overall inequality was 29% larger (117/91) than in the year with the least disperse wages, while between-industry wage dispersion differed by 34% (115/86) between the two extreme years. As in the within-industry case, mobility rates vary even more than does inequality. The difference in total job shift rates between the top and the bottom years is 171% (141/52), while the occurrence of job shifts from one industry to another varies very much over time, such that the rate in the top year was about ten times higher (211/21) than the rate in the bottom year. This large time variation in mobility rates underscores the need to take cyclical factors into account in the analysis. The zero-order correlations between inequality and mobility are weak in the case of overall rates, and strongly negative in the between-industry case, but we must turn to the regression models before arriving at more reliable conclusions.

In sum, the figures in Table 3 show that there is a sizeable variation in both the degree of wage dispersion and the rate of job shifts, across industries as well as over time. The amount of variance in inequality and mobility is clearly sufficient for the former to have a potentially large impact on the latter. We now turn to estimating regression models in order to determine the size of this impact.

Table 4 shows results of logistic regressions where the dependent variable is the occurrence of any voluntary job shift. The outcome event is thus the sum of all three kinds of voluntary shifts to be considered: within a given firm, across employers within a given industry, or across industries. Inequality is measured as the total coefficient of variation of wages, i.e. the sum of wage dispersion within and between industries. It is thus a yearly rate, so all individuals in a given year face the same amount of inequality. In other words, inequality varies across but not within years.

In the first model, only individual-level control variables are included (having significant effects in the expected direction). The effect of inequality is negative in this model, that is, a large wage dispersion tends to depress the general rate of

Table 4. Determinants of Voluntary Job Shifts (Logistic Regressions, $N = 15{,}619$).

	B	*t*	*B*	*t*	*B*	*t*
Age	−0.0442	14.1	−0.0439	14.1	−0.0439	14.1
Lo Sec Educ	0.2684	2.3	0.2574	2.2	0.2619	2.2
Hi Sec Educ	0.2091	2.5	0.1994	2.4	0.1988	2.4
Tert Educ	0.1123	1.1	0.1098	1.0	0.1077	1.0
Status	−0.0207	4.4	−0.0206	4.3	−0.2690	3.8
Unemp Cycle			−0.0693	6.2	−0.0702	6.3
Wage Cycle			5.3427	3.7	5.5385	3.9
Wage Disp	−4.2472	1.6	5.4761	1.8	−42.7818	3.0
WD × Status					1.4486	3.6
Intercept	0.2089		−6.2265		1.8503	
Shift Rate	0.068		0.068		0.068	

Notes:

(a) Reference category for education is only elementary schooling.
(b) Status is Treiman (1977) prestige scores.
(c) Unemp Cycle is yearly unemployment rate (all industries).
(d) Wage Cycle is yearly rate of real wage growth (all industries).
(e) Wage Disp is yearly coefficient of variation in wages (sum of between and within industries).

voluntary job shifts. However, the effect is not significant at conventional levels. Further, it is, of course, necessary to control for other conceivably important determinants of mobility that vary significantly over time and might be related to wage dispersion. For this reason, as discussed above, variations in the business cycle should be taken into account. This is done in the second model of Table 4.

The business cycle indicators have a strong impact on mobility in the expected direction. The sign of the effect of wage dispersion is now reversed, implying that wage inequality increases mobility. However, as in the previous model, the effect is not statistically significant. So the conclusion is still that the (net) effect of inequality is close to zero.

The third model is similar to the second, but includes an interaction term between inequality and status. This interaction is theoretically motivated by the potential adjustments of worker productivity as an employer response to wage compression, in line with the previous discussion. Adjustments of p in the p/w ratio will primarily enhance the productivity of low-status (or low-wage) workers, but may also dampen the productivity of high-status (or high-wage) workers. Since, *ceteris paribus*, productivity has a positive impact on voluntary job mobility, we would expect a positive interaction effect between status and inequality on mobility. The

estimation of the third model in Table 4 supports this hypothesis: the interaction term is positive and clearly significant. Interestingly, there is also a significant negative main effect of inequality. Hence, the implication is that the net effect of wage dispersion is to depress rates of voluntary job mobility for workers in low-status jobs. (For workers holding jobs with a status level close to the average among all workers, the effect of inequality is not significant, as indicated by the second model in Table 4.)

In Table 5, the event of any voluntary job shift is divided into different kinds of mobility. The first model concerns the event of changing jobs across industrial borders. In addition to controls at the level of individuals and years, characteristics of the origin industry are held constant. These include the average establishment size and mean status of the industry, as well as the distance in status to the typical destination industries of each origin industry. As expected, all these variables have a negative effect on the rate of industry exits; two of them are significant. The inequality measure is the between-industry coefficient of variation of wages (with values differing only across years). It turns out to have a significant negative effect on voluntary job shifts across industries. The implication is that the negative side-effects of inequality on mobility dominate whatever positive impact that incentives might have. (An interaction term between inequality and status was also tested. The signs of the main effect of wage dispersion and the interaction effect are consistent with the result in Table 4, but the effects are not significant in this case. Neither are there significant interaction effects between inequality and status in the models discussed below.)

It would be desirable, however, to extend the variation of the wage dispersion measure to cover not only years, but also industries. That would bring the measure of inequality a good deal closer to the actual context of individual workers contemplating a job shift. To this end, an indicator of the wage distance between the home industry of workers and their typical industry destinations is constructed (as discussed above). The construction is problematic, however, due to the limited sample size. Estimated weights for the wages of destination industries according to the relative frequency of job shifts across specific industrial borders contain a large amount of noise because of the small numbers in each cell of the mobility matrix. Nonetheless, a construction has been attempted, with the result being shown in the second model of Table 5. In accordance with the conclusion of Model 1, the effect of the weighted distance in median wages between origin and destination industries (Wage Distance) is negative. But the effect is not significant at conventional levels. It is probable that the lack of significance is due to the low reliability of the wage distance measure. The conservative interpretation is that positive incentive effects of wage dispersion between industries on the rate of voluntary mobility between them are neutralized (if not supplanted) by negative side effects.

Table 5. Determinants of Three Kinds of Voluntary Job Shift (Logistic Regressions, $N = 15{,}619$).

	New Industry		New Industry		New Firm Within Industry		New Job Within Firm	
	B	*t*	*B*	*t*	*B*	*t*	*B*	*t*
Age	−0.0600	9.1	−0.0603	9.1	−0.0435	9.3	−0.0278	5.5
Lo Sec Educ	−0.0741	0.3	−0.0705	0.3	0.2823	1.7	0.4089	2.1
Hi Sec Educ	0.1756	1.1	0.1565	1.0	−0.0077	0.1	0.4993	3.6
Tert Educ	−0.0675	0.3	−0.0613	0.3	0.0741	0.5	0.2946	1.7
Status	−0.0618	5.7	−0.0612	5.6	−0.0043	0.5	0.0046	0.5
Mean Size	−0.0029	1.6	−0.0041	2.0	−0.0070	3.3	0.0048	3.7
Mean Status	−0.0853	3.6	−0.0888	3.7				
Status Disp					−6.5951	4.7		
Status Distance	−1.7399	2.8	−2.0308	3.2				
Unemp Cycle	−0.0481	2.0	−0.0728	3.4	−0.0591	3.7	−0.0596	3.3
Wage Cycle	6.1397	2.0	10.0586	3.5	4.2342	2.0	1.0141	0.4
Wage Disp B	−52.3827	3.2						
Wage Distance			−1.3911	1.5				
Wage Disp W					4.3304	1.5	1.8326	0.6
Intercept	0.0083		−5.1625		−4.8519		−4.0661	
Shift Rate	0.017		0.017		0.028		0.023	

Notes:

(a) Reference category for education is only elementary schooling.
(b) Status is Treiman (1977) prestige scores.
(c) Mean Size is mean establishment size in origin industry.
(d) Mean Status is mean occupational status of blue-collar workers in origin industry.
(e) Status Disp is coefficient of variation of occupational status of blue-collar workers in origin industry.
(f) Status Distance is ratio between mean statuses of destination and origin industry.
(g) Unemp Cycle is yearly unemployment rate (all industries).
(h) Wage Cycle is yearly rate of real wage growth (all industries).
(i) Wage Disp B is yearly coefficient of variation of wages between industries.
(j) Wage Distance is ratio between median wages of destination and origin industry.
(k) Wage Disp W is coefficient of variation of wages within origin industry (industry by year).

I now turn to voluntary job mobility within industries. In this case, we stand on firmer ground with respect to measures of wage dispersion. The amount of inequality on an industry-by-year basis is measured very reliably by using the detailed employer-based reports of wage payments. Of course, the same data were used in the previous models as well, but, as indicated above, it is desirable

to achieve as close a match as possible between the context of wage dispersion and the individual worker. It is this match that is particularly good in the case of within-industry job shifts.

The third model of Table 5 concerns the event of changing employer within a given industry. Control variables at the level of individuals and years are the same as before. As to industrial characteristics, it is again relevant to hold average establishment size constant. Measures of the industrial status structure need to be different, though, compared to the case of industry exits. The crucial indicator would appear to be the variation of status within the industry, rather than the indicators of mean status and status distances across industries that were employed in the industry exit models. And the within-industry variation in status actually shows the expected negative (and significant) effect on within-industry firm shifts. The measure of inequality is the coefficient of variation of wages within the particular industry of each individual worker. Its effect on employer change within the industry is positive, but not significant. The standard error of the estimate is very large, indicating that the impact of inequality on mobility differs considerably across industries. This is a matter for further, much closer investigation. The same conclusions hold for firm-internal job shifts (Model 4). The effect of wage inequality on mobility is positive, but very unstable.

CONCLUSION

The main conclusion of the empirical analysis is that incentive effects do not dominate the impact of wage inequality on job mobility. As stated at the outset, whether or not incentives make a difference for individual choices is not the issue. Obviously, incentives are important. The issue is to what extent inequality has *side effects* which dampen, neutralize, or even outweigh the positive effects of incentives on mobility. In the empirical models presented above, estimates of the *net* effect of inequality on various kinds of job mobility have been supplied. According to these estimates, the gross positive effect of incentives is in some cases neutralized by counteracting gross negative effects, and in other cases actually supplanted by them. There is no clear-cut instance of a positive and significant net effect of incentives.

Still, the empirical results are naturally not conclusive. This study is based on data for one category of workers in one country for a limited period of time. Although the example would appear to be a particularly pertinent one, findings for other workers, countries, or time periods might, as always, be at odds with the conclusions reached in a special case. This has yet to be tried. The Swedish case

is, no doubt, special. The main forces I have distinguished that may counteract the impact of incentives are tied to wage compression as market regulation through collective bargaining on a national scale. But wage compression may also have other kinds of causes, and whether incentive effects will be counteracted in those cases as well has not been my concern here. I do think, however, that the analyses of the present paper have general implications for all labor markets where wage determination to some significant extent takes place at the supra-employer level.

Even in the case at hand, alternative specifications of models are of course possible, and might lead to conflicting results. Empirical testing of the issue is in its infancy, and there is no obvious way to specify the regression equations. In particular, the large standard errors of the inequality effects on within-industry mobility calls for a closer examination of how the nature of internal (to the firm or industry) job shifts differs across sectors of the economy. Another important issue emerging from the above findings is how the balance of counteracting gross effects of inequality differs across status groups. Apparently, the impact of incentives in some cases, but not in others, varies positively with occupational status. This matter needs more empirical attention.

Finally, reliable theoretical conclusions are even more distant. The theoretical discussion of the current paper provides an account of why it is that incentive effects do not dominate the impact of wage inequality on job mobility. This account consists of a number of smaller pieces, or mechanisms, which should each be tried further. But the main message should hopefully be clear enough: a simple incentive view of the relationship between wage dispersion and job mobility is both theoretically and empirically inadequate. In sum, although some confidence may be attached to the conclusion that inequality does not increase mobility to any significant extent, explanations of *why* the power of incentives is apparently neutralized by counter-forces have yet to be empirically tested in a systematic manner. This task lies ahead.

The potential implications of the theoretical analysis and empirical results are far-reaching. At least with regard to the issue addressed here, the negative association between equality and efficiency appears to be much less pervasive than many (mostly economists) tend to think. However, the lesson is not that the tradeoff may be safely ignored, but that it apparently can be overcome. A major strength of the traditional Swedish model of wage determination is that the relationship between equality and efficiency is explicitly acknowledged as the principal challenge in designing useful egalitarian policies for the labor market. The living conditions of ordinary workers typically depend at least as much upon the absolute size of an economy's resources as upon each worker's relative share of them. Any attempt to regulate the latter while disregarding the former runs a significant risk of

backfiring. Incentives are powerful forces that should either be used productively or balanced effectively. In the future design of such efforts, sociological work will hopefully be more conspicuous than it has tended to be in the past. Indeed, for all sociologists interested in issues of inequality, efficiency should become a key concern.

NOTES

1. The reservation wage is the lowest wage at which an individual will accept a job offer.
2. The main ideas were developed in the late 1940s and early 1950s by Gösta Rehn and Rudolf Meidner, two economists at LO (the confederation of manual worker trade unions). English versions of the main texts are contained in Rehn and Meidner (1953) and Turvey (1952). Recent formal treatments are Agell and Lommerud (1993) and Moene and Wallerstein (1995).
3. For empirical analyses of the effects of wage determination on restructuring in Sweden, see Hibbs and Locking (1996) and Edin and Topel (1997).
4. The general idea is quite old. For instance, Akerlof (1982) explicitly departs from Homans' (1954) case study of "the cash posters." Most modern economic models of employers' and employees' behavior inside firms are based on case studies from the 1940s and 1950s, many of them sociological (see Baron & Hannan, 1994; Groshen, 1991). But the historical roots extend much further back in time, at least (as is almost always true) to Adam Smith's *Wealth of Nations* 1776 (see the opening citations in Stiglitz, 1987).
5. The market is *helped* to clear, however, through active labor market policies such as retraining programmes, employment exchange services, etc. These functions ease the transition of workers from jobs that are eliminated in the restructuring process to new jobs at expanding firms.
6. To put it another way: suppose we distinguish the factors (a) inequality; (b) market forces, i.e. the relation between labor supply and demand; and (c) mobility. We are interested in the effect of (a) on (c). In order to determine this effect we need to take the influence of (b) into account, since (b) might (strongly) affect both (a) and (c). Now, the importance of controlling for (b), i.e. the potential bias involved by failing to control for (b), is smaller the lower the correlation between (b) and (a). At the extreme, if (b) and (a) do not co-vary at all, there is no need to control for (b) when estimating the impact of (a) on (c). Since it is difficult to control for (b) in a satisfactory way, it is desirable that the correlation between (b) and (a) is as small as possible. And, in fact, the correlation between these two factors is most probably low in the data at hand (Hibbs, 1990; Hibbs & Locking, 1996).
7. The alternative of censoring job shift events involving exits from the target area has been tested, but does not change the main conclusions of the empirical analysis.
8. The prestige scale is an adapted version of the one developed by Treiman (1977).
9. The latter is measured by occupational prestige scores, but is labelled "status" in keeping with the terminological practice of job mobility studies.
10. In the analyses reported below, the coefficient of variation (the standard deviation divided by the mean) of wages is used as a measure of dispersion. The data include several other dispersion measures, such as the Gini and Theil coefficients, but the main conclusions do not depend on the particular coefficient employed.

11. The numerator in this ratio is the weighted average of status among the typical industry destinations from a given origin industry.

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