

LABOR POWER AND MOBILE CAPITAL

THE MARKET GEOGRAPHY OF SOLIDARITY

Margaret Levi and John Ahlquist*
Department of Political Science
University of Washington, Seattle
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Democracies depend on countervailing power. Opposition to authoritarian regimes requires large-scale counter-mobilization. Labor organization—be it in the form of unions or social movements—is often key to both. But by most measures labor power is decreasing just when corporate power appears to be increasing. Union membership, electoral and lobbying pressure, and protest, the indicators we generally use to assess labor clout, all appear to be waning, especially in the economically advanced democracies (Ebbinghaus and Visser 2000; Wallerstein, Golden, and Lange 1997; Wallerstein and Western 2000; Western 1997).

With the simultaneous expansion of global finance and trade much of the blame for the seeming decline of labor power has been laid at the feet of “globalization”, particularly in the popular press (e.g., Greider 1997). Diminishing legal, political, and technological barriers to cross-border trade, capital, and credit increasingly empower employers vis-à-vis workers and the state. Productive capital and cheap credit can easily move to more business

* You can reach the authors at mlevi@u.washington.edu and jsa5@u.washington.edu

friendly climates; factories can close and move to lower-wage settings; unions can be stymied in organizing drives simply by the threat of exit. Governments are universally constrained by highly mobile capital's search for the most efficient returns, making large welfare expenditures and economically interventionist policies untenable in the long run. Capital has outgrown the state; social democracy has run aground, or so the argument goes.

Other observers, however, have pointed to the continued salience of state institutions in mitigating the effects of globalizing capital, at least in developed democracies. The current era of increased capital mobility, lowering trade barriers, new financial instruments, and relatively seamless transnational investment can be traced back to policy decisions largely endogenous to the USA, Japan and the UK (Sobel 1994; 1999). Global debt and equity markets incorporate state institutions as signals of creditworthiness (Sobel 1999). Swank (2002) identifies inclusive electoral rules (PR, multi-party legislatures) and decentralized decision making structures (federalism, etc.) as specific institutions that explain why some developed welfare states have been better able to withstand retrenchment pressures than others. Iversen (1999) puts the effects of global capital squarely in a domestic political context as he explores the institutional equilibria of monetary and collective bargaining institutions in Western democracies and Japan. Garrett (1998) points explicitly to strong, politically active, encompassing unions as a key variable explaining the increase in social welfare provision in some rich democracies.

Nor does increasingly mobile capital affect all states (and labor markets) uniformly. Research relying heavily on the Heckscher-Ohlin and Stolper-Samuelson models of relative factor endowment show that changes in relative factor prices have clear welfare effects that may differ across economies, privileging certain political actors over others (Midford 1994;

Quinn and Inclán 1997; Rogowski 1987; Rudra 2002). Decreasing barriers to trade may in fact improve the position of labor in places where it is the abundant factor. The ability of labor to translate opportunity into political and institutional victories is not a given, however. Strong labor movements and enabling institutions are critical (Rudra 2002).

Notwithstanding the somewhat indeterminate effects of financial globalization on the state, there is little question that in many countries and industries labor is less able to stand up to capital than it used to be. There are many reasons for the decline in labor power, and there is much variation in its actual decline across sectors and nations. What seems clear, however, is that labor must become both stronger and more innovative if it is to play an effective role in influencing policies that impinge on its interests.

But is it even possible for labor organizations to counter the power of multinational corporations with highly mobile capital? Throughout most of this paper, we focus on the structural power of workers and employers vis-à-vis each other. Such an analysis requires a typology of workers and strategies. Structural factors affect not only the incentives and strategies of individual workers; they also affect workers' capacity for collective action at the firm, state, and international level. A structural analysis helps us understand the conditions under which labor might possess "a more universal interest that may encompass even those who do not, at first glance at least, seem to share in a community of fate..." (Levi and Olson 2000, 312). In other words, how and to what degree can workers define their interests in ways that will help them overcome their collective action, coordination, and coalitional problems? Common interests are not enough, of course, but without a shared community of fate, labor groups will not begin the process of developing means to act collectively and coherently in their on-going struggle with big business.

Some might infer that labor, as a social aggregate, will be able to effectively contest capital *only if* it can organize along the same purportedly global lines as capital. How labor should achieve this level of organization and the form such transnational cooperation would take, not to mention what a global labor movement would hope to achieve, has been largely ignored. Those who do discuss the strategies of labor in the global political economy tend to either examine isolated cases of trans-national campaigns (Gordon and Turner 2000) or revitalization attempts by traditional labor unions (Baccaro, Hamann, and Turner 2003; Behrens, Fichter, and C.M. 2003; Frege and Kelly 2003; Hamann and Martinez Lucio 2003; Hurd, Milkman, and Turner 2003; Levi 2003; Voss and Sherman 2000). Others, like Beverly Silver (2003), tend to view labor's position through the prism of Wallersteinian world-systems theory. She emphasizes the necessity of labor finding an effective global framework through which to press collective demands. It is unclear, however, that workers in general have an identifiable common interest. Indeed, one variant of the Wallersteinian approach suggests that the deepest divide is between North and South or the core and periphery rather than between Capital and Labor.¹

The little in the way of truly comparative analysis of labor's role and prospects across polities tends to focus on the importance of institutions. Some analysts emphasize the significance of the Ghent system of unemployment insurance to account for variation in union power (see, esp. Rothstein 1990; Western 1997). Others focus on variations in labor law. Others consider vocational training, worker investment in skills, and social welfare programs as determinative of (as well as partially caused by) the organizational power of labor—and employers. One approach emphasizes the effect of “varieties of capitalism” with

¹ But see Boswell and Stevis (1997) for a different view.

its institutional complementarities (Hall and Soskice 2001; Iversen 1999). Institutions matter, yes, but so does the labor market situation of the specific workers. In our illustrative elaborations of our typology and in our conclusion, we return to the organizational power of labor. But first we focus on the political and economic geography of the markets that workers face as an additional and important factor in understanding the potential power of different kinds of labor.

The economic geography of labor markets

It is intuitively plausible that more mobile capital has weakened the hand of labor. But not all workers and not all firms will be affected in the same ways. Some workers will be put at a severe disadvantage relative to their employers; others may find their bargaining power basically intact. We develop a simple formal model of workers' and firms' considerations in labor selling and purchasing decisions in order to gain analytical leverage on the differing positions of workers. We use this model to derive a typology of workers through which we can then examine the strategies available to labor. Our focus on the employment choice sets facing workers and firms and their implications for collective action distinguishes our model from models of worker migration (e.g., Bartel 1979, 1982) or spatial equilibria and wages (Topel 1986). Our model complements factor-endowment approaches insofar as we specify under what conditions workers stand to gain from increasing trade. We add to this literature by addressing the likelihood that various types of workers will be able to engage in positive collective action.

We construct a stylized description of the labor markets faced by both workers and employers. The worker's *labor selling market* is composed of the firms to which a worker is

willing to supply her labor. More formally, it is the region composed of all jobs, J , for which the worker is qualified and the (discounted) remuneration she can expect from a particular job outweighs the cost of finding the job and moving to it. In principle both the remuneration and costs can be broadened from pure material considerations to include things like more stimulating location (benefit) or leaving a stable social environment (cost). For simplicity, however, we assume that workers evaluate jobs based on (discounted expected) wages, benefits, and working conditions.² Assuming infinitely-lived agents,³ the expected value for any job, $j \in J$, can then be expressed as

$$V_j = \frac{1}{1 - d_j} f(w_j)$$

where d_j is the discount factor such that $0 = d_j < 1$, w_j is the expected level of wages, benefits, and working conditions.⁴ At this stage we assume that the individual worker is a price-taker in the labor market and that she knows the industry average wage and benefit level for a particular job in a particular institutional context. We model the worker's discount factor as $d_j = g(t_j)$, that is as a function of the amount of time, t , the worker expects to remain in that job. The more uncertain the employment duration, the more heavily discounted the value of

² "Working conditions" is clearly a catch-all term. Its inclusion is justified by the fact that most unions attempt to specify industry- and firm-specific working conditions guarantees in negotiated contracts.

³ Since workers show a declining propensity to move with age, this assumption ignores interesting facets of labor force demographics. For the purposes of our model, however, this assumption does not do too much violence to reality.

⁴ Insofar as "working conditions" specify possibilities for advancement (and hence wage increases), the expected wage could be modeled as a function of conditions. We assume a constant wage rate; raises can be thought of as new job-decision points at which the worker reevaluates her options in light of the new expected wage.

that job. This formulation for d implies that workers value job security and expect a remuneration premium for risky employment prospects.

The costs associated with taking a particular job can be expressed as

$$K_j = h(d_j, A); A = c \sum_{j=1}^J d_j$$

Where d_j is the distance the worker must move to accept j . A is the sum of the index of all jobs considered, implying positive and increasing search costs for each incremental considered job and c is some positive constant. Thus workers will search for jobs until $V_j = K_j$ and then take the job j^* that maximizes $V_j - K_j$. We are concerned with two implications of this formulation:

- 1) An increase in uncertainty about employment prospects or duration (decrease in d) or a decrease in real remuneration will *shrink* J , the market into which the worker will sell her labor.
- 2) An increase in uncertainty about employment prospects or duration (decrease in d) or a decrease in real remuneration will *shrink* d , the geographical distance the worker will be willing to travel to take a new position.

A firm's *labor buying market* is the set of all workers, L , that are qualified for a particular position and for whom it would be cost-effective for the firm to hire. We assume that firms consider only the marginal productivity of a worker, l , in job j when assessing the benefits of hiring. The expected value of any worker can then be expressed as

$$V_l = \frac{1}{1-d} f(p_l); p_l = \sum_{t=1}^T g(t_l)$$

where d is the firm's discount factor such that $0 < d < 1$, and p_l is the expected productivity of worker l . We model productivity for any worker as a function of time. As a result, the total

marginal production received by the firm is the sum of the marginal products for each time interval, i . Where $\frac{dp_l}{dt} > 0$, productivity increases with the worker's tenure at the firm. The extent to which this productivity increase affects firm preferences for a given worker, however, will depend not only on the steepness of this function, but also on how long the firm expects to retain that worker's labor and how heavily the firm discounts the future. We assume that firms discount all workers uniformly in proportion to the firms' costs of capital. This in turn implies that high productivity-growth industries will more highly value a given worker's labor than industries with slower productivity growth, *ceteris paribus*.

The costs associated with hiring a particular worker can be expressed as

$$K_l = S + \frac{1}{1+r} h(w_l, m_l); \quad S = k(r)$$

where w is the average wages, benefits, and conditions the firm faces in the market. We assume that the wage level facing a firm is exogenous to the firm at any particular time point. A firm will expand its search for workers depending on m_l , the cost of delivering the worker's output to the firm's relevant product market. Goods, services and assets that are highly site-specific can be thought of as making m infinitely large as the firm enlarges its search from the immediate vicinity of the product market or asset. In game-theoretic terms, m represents the credibility of the firm's threat to exit a particular worker's labor selling market. Firms also face search costs, S . We model search costs as a function of the skill level required, r , since higher skill positions require a larger investment in training and will have a correspondingly reduced number of qualified workers. Search costs are assumed to be positive. Thus firms will search for workers until $V_l = K_l$ and then hire the worker l that maximizes $V_l - K_l$. Employers (and workers) in this model show a willingness to

aggregate information before deciding to hire. Information is costly, however, and firms will only be willing to pay these costs up to the marginal productivity of the worker, i.e., it is rational for employers to spend more in hiring high-value workers. In this respect our conception differs from sequential choice models, like Carroll and Rolph's Markov search process (1973).

Our formulation leads to two further propositions:

- 3) As the cost of transporting workers' output decreases, the labor buying market, L , expands.
- 4) With increasing search costs and holding m constant, as the wage differential between two different worker markets, J_1 and J_2 , increases so does the firm's buying market, L .

We can now examine the difference between the scope of a worker's labor selling market and the firm's labor buying market. First, and most obviously, all workers in a firm's buying market are competing with each other for jobs *even if* they are geographically separated. The only way for a higher-cost worker to get hired is then to either accept a lower wage or find way in which to increase the cost of transporting the workers' products from one market to another. Because the worker's relevant labor market shrinks with wages this problem is exacerbated over time. This result conforms to the conventional wisdom that firms use competition among workers to drive down wages. A central contention, then, is that employers benefit whenever their labor buying markets expand more rapidly than the workers' selling markets.

The costs of transport, m , the ease of worker mobility, $h(d_j, A)$, and firms' search costs, S , each restrict the employers ability to take advantage of increased labor market opportunities.

These factors have opposite influences on the size of the firm's purchasing market, L , and the size of the market J facing the worker. The converse of proposition (3) implies that greater output transportation costs will privilege labor close to the asset and/or product market in question. Localized services provide the best example of this type of situation. These are services that, by definition, cannot be offered elsewhere. Everyone from janitors to teachers to longshoremen and truck drivers offer services that cannot be provided anywhere but at the local level. Thus with infinitely high transport costs, employers' buying markets will be restricted to the number of qualified workers near the firm. We can say that these firms face a localized labor buying market.

Worker mobility increases when workers' search costs are reduced, the cost of relocation is reduced, and/or worker's (expected) wages increase. All these things increase the range of feasible jobs the worker will consider as well her willingness to move further away to take advantage of work opportunities. Increases in employment uncertainty or decreases in wages will reduce mobility. It should be noted that worker mobility tends to have distinct limits, often coinciding with political boundaries. Capital may be able to cross borders with relative impunity, but workers are still largely bound by their countries of citizenship. Unions can both increase and decrease worker mobility. To the extent that a union reduces work search costs or raises wages, the member's mobility is enhanced. Some unions, notably the International Longshore and Warehouse Union (ILWU), enable their members to take advantage of work opportunities across locals. Unions can also decrease mobility, however, to the extent they reduce the incentives for workers to look outside a particular industry.

Steeply increasing search costs for firms also privilege labor. When the employer is looking for a rare skill set, even if output is cheaply transportable, qualified workers will

benefit simply due to the highly restricted market facing employers. Under these circumstances, employers may even find it in their interests to increase the mobility of workers by paying for their relocation expenses. High productivity-growth workers in sparsely populated labor markets can expect to do the best. The Silicon Valley bidding wars for qualified computer scientists and electrical engineers during the Internet boom is an extreme example. Workers with valuable and rare skills face an expansive market in which to sell their labor; such advantages may not be sustainable, however, as other workers have an incentive to acquire those skills, lowering search costs for firms in the medium term.

What of the role of productivity? In our model, productivity determines the value of the worker to the firm, but does not directly translate into wages. It is worth noting that higher productivity does not privilege workers over capitalists *within* an industry. If search costs are sufficiently small or output cheaply transported then the employer may be able to garner a greater portion of the worker's marginal productivity. Productivity does determine the relative value of an employee in one industry compared to another.

Putting the model in motion

The model to this point is intentionally skeletal, with many of the critical variables such as skill fit, transport costs, and discount rates exogenous. Others, such as institutions and differential individual worker mobility, have been ignored. Our central concern, however, is with the strategic possibilities for labor to protect its interests. The exogenous variables complicate the model but help define the actual choices for a worker or a firm. Specifically, changes in workers' skill levels, differential worker mobility, and state institutions all interact

to shape the incentives of firms and workers in relation to each other as well as their respective possibilities to engage in collective action.

We have taken the skill set of workers as common knowledge and static. As the large literature on efficiency wages and adverse selection indicates, however, the actual skill level of workers is known only by workers; firms and (high-quality) workers will engage in signaling games to communicate their actual levels of qualification (e.g., Akerlof 1984; Arai 1994; Campbell 1993; Weiss 1990). Firms will only really know how qualified a worker is *ex post*. Information, skill levels and skill investment are important because they directly translate into a key decision variable in the model: the employer's search costs. The greater the pool of workers with firm specific or other highly valued skills and the more certain employers can be of these qualifications, the lower the search costs for firms and the larger their labor purchasing market.

Workers' skill levels can and do change. The introduction of new technology requiring new skills and institutions that aid the dissemination of valuable skills will trigger new decisions points by firms and workers. Estevez-Abe, et al. (2001) find that workers invest in improved skills only with the assurance that they will be compensated for their investment and insured against risks (also see Mares 2003); firms' commitments in this regard are not typically credible. Institutions like unemployment insurance play a critical role in encouraging workers to acquire skills over time. Educational institutions also play a role in disseminating skills and lowering firms' search costs. These institutions will not benefit all workers and firms equally; typically they will privilege high technology sectors and high-skill manufacturing.

Our model illustrates how worker mobility relative to capital will enable a given worker to take advantage of improved opportunities elsewhere or negotiate a more favorable remuneration package at her current job. If workers face differing mobility prospects, however, this mobility may create opportunities for one group of workers (and the employer) at the expense of the other workers even if the employer is relatively restricted. Relatively low-wage workers can drive down wages in a higher wage location depending on their ability to be the agents of wage arbitrage. In most trans-national immigration contexts, the receiving country's workers have no incentive to leave while the immigrants clearly have an incentive to come. The immigrants and firms, whose search costs have just declined, benefit while the high-wage labor find themselves priced out of the market with no near-term migration recourse. In other words, immigration triggers new decisions by workers and firms.

From our model we are now in a position to derive a typology of workers based on the geography of buying and selling markets for labor. Both workers and capital can be either localized or mobile. Localized selling markets occur when labor is tightly linked to a highly specific asset or market. Employers owning these geographically circumscribed assets or selling products that are location specific also face localized labor markets. Firms in industries where capital is easily moved and output transport costs are small relative to wage savings enjoy expansive labor markets where they can search for workers across institutional contexts that offer the lowest wage costs. Much turns on labor's mobility in the face of highly mobile capital. If workers are highly mobile and/or possess relatively rare skills, they also face an expansive market in which to sell their labor. If, on the other hand their skills are not in high demand they will find themselves in stiff wage competition with other

workers outside of their individual labor selling markets. Figure 1 summarizes the typology of workers, giving example industries that fit into each cell.

Figure 1.

		Labor	
		<i>Localized</i>	<i>Mobile</i>
Firms	<i>Localized</i>	I. Site-specific services A. Government B. Low-wage	II. Transport & distribution
	<i>Mobile</i>	III. Non site-specific A. Manufacturing B. Literate services	IV. “Knowledge industries”

Putting the model in motion we see that the shocks from technology introduction, changing institutions, and knowledge and skill dissemination precipitate employment decision moments for both workers and employers. This is in part because they affect the monopoly of labor by facilitating capital mobility or by changing the pool of those with competitive skills through influencing immigration or skill attainment. These shocks have not affected all workers equally. As they enter into negotiation with each other, firms and workers in different labor market positions will pursue different strategies. Only some of these will support the formation of a “community of fate” and then only among a subset of workers.

The institutions that matter

Institutions, particularly immigration law and enforcement effectiveness determine the mobility costs for immigrants. Employer strategies can also have an effect both directly and

indirectly. Employers can actively lower the mobility costs of immigrants, as it appears Wal-Mart subcontractors have been doing (Greenhouse 2003), or they can agitate politically for lax immigration rules. Wage arbitrage via immigration, however, is mitigated by skills and capital mobility. Thus type-IB workers from figure 1 will be most affected by immigration. The fact that only a segment of the workforce is exposed to immigration risk may explain why immigration seems to have only a minor effect on overall regional unemployment and wages (Gabriel, Shackmarquez, and Wascher 1993; Groenewold 1997).

Legal institutions and national rules and regulations affecting collective action processes make it harder or easier to organize in different countries and at different times. This is well-established in the literature on union density.⁵ Such institutional arrangements can also affect solidarity by increasing the likelihood that workers will share a “community of fate” by possessing a shared focal point of action and ethical reciprocity. For example, the coordinated and encompassing bargaining of the Scandinavian countries appears to facilitate the linking of the fate of one set of workers to another through an integrated system of government regulations and benefits, on the one hand, and by ensuring bargaining across workplaces, on the other. Required extension of contract provisions to all workers in the same sector seems to have somewhat similar consequences in France.

As the a new literature on the “varieties of capitalism” demonstrates (Hall and Soskice 2001; Soskice in press), there are at least two ideal types of capitalism—and possibly several more. In one, designated as Liberal Market Economies (LMEs), employers are much more likely to use top-down control strategies and to resist unionization and wide-spread social insurance. Britain, the U.S., Canada, and Australia most nearly fit this category. In

⁵ There is a large literature on this subject. For a recent summary, see Levi (2003).

the second, Coordinated Market Economies (CMEs), employers often see it to their advantage to negotiate with workers, to encourage corporatist arrangements, and high levels of social insurance. Germany and the Scandinavian countries are among those which fit into this category. In each variety of capitalism, there are institutional complementarities that both result from and cause the employers' responses.

CMEs have another possible advantage in dealing with economic integration. The peak-level bargaining institutions that tend to be part of CMEs typically provide for worker skill-development and retraining (Thelen 2004), making workers more valuable to their current employers while also cushioning them from the impact of job relocation. Peak-level labor organizations have fewer incentives to pursue protectionist strategies than industry-level labor organizations (though whether they do or not is an open empirical question).

The existence of national institutions and organizations may (or may not) enable inter-union solidarity, but they are even less likely to facilitate international solidarity, especially in the absence of an effective international framework. International federations do exist among the labor unions of the democracies and, most notably, within the transport sector. There are also important international institutions, especially the International Labor Organization (ILO) that sets the standards that countries are supposed to meet in terms of workers' rights. However, few of the federations or institutions possess the capacity to keep member unions and states in line.

Incentives and strategic interaction

If we look in each cell in our matrix, we can identify offensive employer strategies to ensure high profitability and defensive worker strategies meant to ensure job security and to

secure higher wages and benefits to the extent possible. What is not immediately evident is any basis for solidarity across the boxes. There is even some question as to the possibility of transnational solidarity for workers facing similar labor market challenges. The extent to which workers' incentives tend to reinforce recognition of a common plight will play a role determining the possibilities and forms of collective action among workers.

Type I. Local services

This includes two very different kinds of work: government employment and low-wage private sector service jobs.

The employer response to the first is privatization and contracting, perhaps partially in response to or at least justified by, global competition or pressures. This is as true throughout Latin America as in the United States, Europe, and the Antipodes (Murillo 2001). In all countries, the worker response is strikes, on the one hand, and civil service protections on the other.

In a few U.S. cases, workers also respond with legal strategies in which they take employers to court for misclassifying them as temporary or part-time. One employee law firm in Seattle has been a leader in using this strategy. It has won cases against the King County Government for denying benefits to misclassified workers. King County counted as part-time or temporary workers who were full-term and of long service.⁶

Because they have a common employer and because work force reductions, privatization, contracting out, and misclassification tend to affect all non-management personnel within the government service, there is some potential for solidarity among this

⁶ The firm is Bendich, Strobaugh, and Strong. For details of the legal campaign, see material on the web site of the Center for a Changing Workforce, <http://cfcw.org/>.

group. However, it tends to be localized and certainly not transnational.

The employer response in the case of low-wage workers is to use, even import immigrant labor that competes for the jobs and is easily disciplined, as the recent Wal-Mart example so well illustrates). Employees' response is a combination of traditional organizing and social movement organization. The Hotel and Restaurant Employees (HERE) campaign in Los Angeles is an example of the first; Justice for Janitors represents more of an example of the second. Both employers and employees also try to introduce laws and regulations that protect their interests.

The competition created by low-wage immigrants often has divisive effects among workers. This has traditionally been a problem faced by unions, and some unions and some countries have solved it better than others. Often, the major task of the labor organization is to educate its own members that they will benefit in the long run by allying with rather than competing with the immigrant workers. In the United States, this has been the recent strategy of SEIU, which is primarily low-wage and low-skill service workers, and of UNITE, the organization of needle trade workers. Where they have been successful, they have created the basis for transnational solidarity to some extent. The real battle is generally to prevent governmental legislation that will divide "native" and immigrant workers. Proposition 187 in California and some recent European laws are meant to give immigrants fewer rights and welfare protections than citizens (Martin in press).

Type II. Manufacturing and Non-site-specific services

Traditional manufacturing industries have seen the greatest expansion of employers' labor purchasing options relative to workers' selling opportunities, particularly in the

developed nations of North America and Western Europe. Reduced barriers to trade, increasingly mobile financial capital, and new management paradigms like flexible “just-in-time” production have all contributed to decreased output transport costs, enabling employers in industries as diverse as textiles, automobiles, consumer goods, and low-skill services to shift production facilities in response to new opportunities and constraints. As employers’ threats to shift production to different locales become more credible, workers in these industries have found their employment options increasingly restricted. Of all the workers in our typology, type-II workers may be the most in need of a broad, transnational labor movement while also the least likely to achieve it.

Employers have typically moved first in these industries to secure cost savings and production efficiencies offered by new technology, management techniques, and institutional openings. Production has shifted across borders, positions have been “outsourced,” and contracts have been rewritten, often at lower wage and benefit rates. High-wage workers in these sectors, often already organized into traditional unions, have typically responded with attempts to raise the costs of output transport. Firm- and industry-based unions, faced with losing the jobs that make up their membership, have often pursued protectionist strategies, sometimes in coordination with their employers (e.g., steelworkers). These efforts have largely failed; jobs continue to shift to workers in lower-wage settings. Low-wage workers, however, have arguably benefited from improved employment opportunities. Thus, it seems unlikely that workers in these industries have a common interest across nations and institutional contexts.

Consider the scenario where workers work for the same MNC, some in a high-wage country and others in a low-wage country. Workers in the high wage country are expecting

their wages to decline (or even disappear) as it becomes easier to shift work to their distant, lower-wage counterparts. The best the workers in the high-wage country can hope to do is slow the deterioration of their position, whereas the low-wage workers still have much to gain from the firm’s mobility and relocation activities. Viewed in such a way, there really is no collective action problem, since there is no collective interest over which there could be action.

This view is too simplistic, however, as both groups of workers do have a fundamental interest in improving the employment conditions in low-wage settings. Insofar as conditions in low-wage countries represent the “lowest common denominator”, improvements in these conditions upgrade the prospects for all workers. As such, we can consider workers in these sectors engaged in a game of Assurance, depicted in figure 2, in which both players are better off *if* they can credibly commit to cooperation.

Figure 2.

		High-wage workers	
		<i>Cooperate</i>	<i>Defect</i>
Low-wage Workers	<i>Cooperate</i>	3, 2	-3, -1
	<i>Defect</i>	0, -2	0, -1

Payoffs in the matrix here assume that pressure put on the MNC by high-wage workers in the absence of pressure by the low-wage workers will result in faster deterioration of the high-wage workers’ position, while the reverse will likely cause repression or termination in the low-wage country. In the situation where workers in the high-wage country defect, their wages keep declining as they would in the absence of any action, hence the negative payoff for any defection on their part.

Expensive workers may have a hard time convincing their low-wage brethren of their

trustworthiness. The history of xenophobia and protectionism does not provide a strong precedent for such a commitment. Add to this the possibility that there may not be any organized workers in either location, and suddenly the costs of coordination grow dramatically. Workers in both places must organize virtually simultaneously, both locally and in cooperation with their counterparts across borders in order for them to effectively realize any benefits. The simple example above illustrates both how limited in scope of these workers' common interests are and the difficulty in translating a meager "community of fate" into transnational action.

Institutions, however, can make a difference. Peak-level bargaining is one institutional arrangement that facilitates solidarity. Nevertheless, in order to act on the common interests of both high-wage and low-wage workers a third party will be necessary. Raising the minimum standards bar will require coordinated efforts of governments which in turn necessitates coordinated action by citizens. Only if the second- (and third-) order collective action problems can be overcome are we likely to see improvements for manufacturing workers in *both* settings. The critical player in this mobilization game then becomes labor groups that are better organized to press demands against their governments, specifically local service workers (to the extent they are organized) and, critically, transport and distribution workers, to whom we now turn.

Type III Transport and distribution

Transport and distribution workers include those in trucking, railroad, aviation, and shipping. These are highly localized services in the sense that they are geographically dependent. Employers may sometimes substitute railroads for trucks or planes for ships.

They cannot, however, easily move airports or seaports; they are generally tied to an expensive infrastructure of roads, rails, and runways. Thus, it is not surprising that this is a sector with significant labor power. According to Silver (2003, 97-103), this sector has the highest rate of militancy cross-nationally.⁷ Not only are transport and distribution workers the most likely to strike, they have the power to impose very crippling strikes that virtually close down the economy. Note the effects of trucker strikes everywhere. In France, for example, they close down international as well as national trade. Dock workers clearly have this capacity and use it in support of dock workers in other parts of the world as well as in their own countries.

There are interesting contrasts among these workers, however, in terms of their attitudes towards solidarity. The contrast is particularly sharp between two powerful US unions, the International Brotherhood of Teamsters (IBU, or Teamsters) and the International Longshore and Warehouse Union (ILWU), and especially between the bargaining units of long-haul truckers and dockworkers, two groups that effectively control access to jobs that employers cannot easily outsource. Both are willing to threaten and use the strike threat as necessary. Both are effective in getting their demands met. Where they differ is in their internationalism. The Teamsters are strongly protectionist; moreover, they have shown little tendency to demonstrate solidarity with Mexican truckers empowered by NAFTA. Although the ILWU remains extremely critical of NAFTA, it advocates reducing trade restrictions with

⁷ Interestingly, her statistics include only those who work in aviation, shipping and docking and the railroads. She excludes truckers. This may be because in many countries in the world, trucks are privately owned as individual trucks or small fleets.

China and other countries. It regularly closes down the ports to aid striking workers whose goods go through the ports, to prevent military material going to potential enemies, and on social policy issues.⁸ It is a leading member of the International Transport Federation, an effective and militant organization which coordinates sympathy strikes and other actions on behalf of transport workers world-wide.

What accounts for these differences? There are several reasons. The organizational cultures of these two unions (Levi under review) provides part of the explanation for their distinctive preferences about trade, social justice policies, and international solidarity. Also important, however, are the differences in the structure of their industries. Teamsters face direct competition from Mexican truckers, who are independent driver-owners or parts of fleets whose employers pay lower wages and enforce lower safety standards than the hard-won contractual terms of the IBU units in the US and Canada. NAFTA, therefore, is seen as a mechanism for weakening the union and the power of the US and Canadian truckers. The threat to dockworkers is more likely to come from technology, particularly containerization and mechanization, than from other workers. So far, efforts to replace dockworkers with foreign, migrant, or lower paid workers has generally been rebuffed. This was the import of the major Australian strike of 1998 (McConville 2000; Turnbull 2000). However, technological change continues to threaten jobs, the import of the lock out of West Coast waterfront workers in 2002.

⁸ Examples include closing the ports on behalf of the United Farm Workers, to prevent pig iron going to Japan in the years leading up to WWII, and to protest the execution of the death penalty in cases believed problematic.

Type IV. Knowledge industries

“Knowledge industries” such as finance, communication, information technology, media, professional services, and software and hardware engineering, have received much attention in recent years. Some key observers (e.g., Federal Reserve 1999) attributed the strong economic performance of the late 1990s to innovations in these very industries. Due to the relatively scarce population of qualified workers as well as the pace of innovation, workers in these industries are effectively able to sell their labor broadly, in many cases worldwide. Professional services firms (banks, consultants) recruit from top universities and business schools across the US and Europe. Media empires span continents. Software engineers can sell their services to firms in Silicon Valley, New York, London, and Bangalore.

Firms in knowledge industries can source labor anywhere they can find workers qualified to supply it as the cost of output transport is low. In many cases workers’ output consists of analysis, computer code, financial models, or engineering designs that can be transmitted electronically. The growth of the “virtual office” in these industries is no accident; much can actually be accomplished from home. And what was cheap is getting cheaper. By some estimates wholesale bandwidth costs have fallen by over 80% since 2000 (Handford 2003).

Despite stories of high wages, perks and exorbitant signing bonuses offered in these industries, assuming that workers will continue to enjoy a strong position relative to their employers would be faulty. We have already seen how low search costs and reduced output transportation costs have undermined the position of workers in trade-exposed manufacturing

and services sectors. Since transport costs are already low relative to product prices in knowledge industries we can expect employer strategies to focus on decreasing search costs in attempts to enlarge the pools of qualified workers. Specifically, employers will support education and the creation of secondary markets for labor search. Both these trends are becoming increasingly evident in knowledge industries with the growth of outsourcing and “off-shoring” of various work functions.

For good reason off-shoring and outsourcing are often intertwined within the same inter-firm relationship. We will treat them as analytically separate, however, since the former involves taking advantage of low output transport costs and the latter lower search costs. Off-shoring is simply moving production functions to another locale to take advantage of cost-savings. As we formalized in our model, it only makes sense for firms to look for labor offshore to the extent that cost savings outweigh the expense of looking for qualified workers and moving offshore output to the relevant product market. Moving jobs off-shore thus implies some critical mass of qualified workers. For knowledge industries, this is a significant development since workers’ primary advantage is the scarce skill sets they possess. The market premium conferred on these workers has not gone unnoticed. In recent years we have seen the development of large groups of capable “knowledge industry” workers in India, China, South Africa and elsewhere. Firms have responded and IBM is hardly alone. Major American and European financial services firms have moved data processing and other “back end” service work abroad in recent years. JP Morgan is relocating some of its equity analyst work to Bombay (Boston Globe 2003b). An oft-quoted report from Forrester Research, one of a raft of similar consulting studies, forecasts 3.3 million US jobs moving overseas by 2015 (New York Times 2003a).

Outsourcing work to other firms is also a way of lowering labor search costs. Firms with a comparative advantage in hiring certain kinds of labor will be able to aggregate workers and sell labor back to the firms more cheaply than could otherwise be achieved. For this very reason outsourcing is often combined with the off-shoring of production functions as search costs in foreign institutional settings would be expected to be higher than domestically.

Our analysis of the outsourcing and “off-shoring” parallels both Silver’s (2003) “spatial fix” as well as Vernon’s (1966) “product life cycle”. Workers in knowledge industries are also clearly “trade exposed” in the language of Swenson (1991) and Iverson (1999). That these other authors are writing about what we have here termed standardized production industries is illuminating. Workers in the knowledge industries face similar labor-market challenges over the medium term as those in more standardized production settings. We would then expect worker responses in knowledge industries to look similar to strategies employed in the past by industrial employees attempting to protect their position. Indeed we are beginning to see the emergence of labor opposition reminiscent of the protectionist strategies employed by those in older manufacturing industries. In the U.S. there has been increasingly vocal opposition to the H-1B visa.⁹ Traditional unions as well as new labor organizations like Alliance@IBM, Washington Alliance of Technology Workers, TechsUnite, and others have begun mounting campaigns to prevent companies in their

⁹ “The H-1B program allows an employer to temporarily employ a foreign worker in the U.S. on a nonimmigrant basis in a specialty occupation or as a fashion model of distinguished merit and ability. A specialty occupation requires the theoretical and practical application of a body of specialized knowledge and a bachelor's degree or the equivalent in the specific specialty (e.g., engineering, mathematics, physical sciences, computer sciences, medicine and health care, education, biotechnology, and business specialties, etc.)” (US Dept. of Labor 2003; also, see Martin in press)

respective industries from outsourcing labor abroad. They have also engaged in legal strategies to prevent firms from using temp agencies and thus evading payment of health and other benefits offered to workers in similar situations but on the firm's direct payroll.

The prospect of developing a "community of fate" amongst knowledge industry workers across institutional contexts is indeterminate. On the one hand a significant segment of these workers will face a situation looking more and more like that facing type-II workers where they are in fact largely in competition with one another. Neither are knowledge industry workers facing conditions as oppressive as the sweat shops that have garnered so much press for textile workers. Trying to drum up public sympathy in high-wage countries for the plight of relatively well-paid technology workers will not be easy. On the other hand, type-IV workers are already the most globalized. They are fluent in the exploitation of the newest communication technologies and in contact with other workers around the world on a near-daily basis. To the extent that these workers confront a situation with a Pareto optimal outcome as part of the choice set these workers are in a unique position to cooperate across borders. Yet, even they face daunting challenges.

Workers of the world unite?

Following Marx, most class-based analysis starts with the assumption that all members of the same class share a fundamental common interest, whether they realize it or not. If capitalists share an interest in preserving the institutions of private property and profit while also striving for the lowest cost labor possible, then workers also possess a collective

interest to capture more of the value of their labor¹⁰--or, in simpler terms, to ensure that they also share in profits and improvements in economic welfare.

But neither capitalists nor workers are so neatly homogeneous or antagonistic as classes. The preferences and interests of firms in one industry may be opposed to those in another. Capitalists themselves may appeal to labor to help “organize competition” (Bowman 1989). It is becoming increasingly documented that in many advanced capitalist countries employers actually initiate or certainly coalesce around social policy and educational programs that are very much in the interests of the workers (Estevez-Abe, Iversen, and Soskice 2001; Mares 2003; Swenson 2002; Thelen 2004).

Workers, just like capitalists, may often find themselves at cross-purposes as well. In one of the starkest of recent examples, IBM human resources managers describe their plans to move both manufacturing and lower-productivity service jobs “offshore”:

Workers in the country where the work is being relocated from will in many cases be asked to train their replacements...That’s going to create a lot of tensions as you’re training someone to do a job that you know is no longer going to be yours after some fixed period of time. (I.B.M. 2003)

Any attempt by the higher wage worker to protect her position is clearly to the detriment of her lower wage counterpart. Any attempt by the lower wage worker to improve her position would still likely leave the higher-wage worker worse off. How can they possibly find a basis for cooperation?

Xenophobia, racism, sexism, and protectionism create further divides among workers.

¹⁰ See Przeworski and Wallerstein (1982) for an analytical treatment of the dynamics of these two classes functioning as unified collective actors.

Silver draws attention to this fact when she states:

[T]here is a continual struggle not only over defining the content of working class ‘rights’, but also over the types and numbers of workers with access to those rights. How—and how quickly—a new crisis of legitimacy/profitability is reached is determined in large part by ‘spatial strategies’—efforts to draw ‘boundaries’ delineating who will be ‘cut in’ and who will be ‘left out’. (2003, 21)

Iversen (1999) describes three broad segments of labor: trade-sheltered, high-skilled workers, trading-sector exposed high-skill workers, and low-skill workers. Each of these groups faces differing incentives as they make wage demands of their employers and the state in trade-exposed economies. The demands and position of each of these groups can put them in conflict with one another, depending on the institutional context of bargaining and monetary policy.

Many analysts have attributed this lack of realized common interest among workers to divide-and-rule strategies on the part of employers and governments or “false consciousness” among workers. Yet, there is strong reason to believe that simply being a worker is insufficient to create the basis for unified political action as a class. Whether or not workers have an identifiable common interest has a lot to do with how the workers are related to one another within actual firms, industries and international organizations as well as the institutions of markets and states that they populate. Class consciousness is not easy to build (Przeworski 1985).

An objective common interest, even if it could be shown to exist, is far from sufficient to ensure collective action. Workers also must possess a form of solidarity that

enables them to see their interests as interconnected, what Levi and Olson characterized as a “community of fate” (2000). This requires that wages, job security, benefits, etc. of each worker depends on what the other workers receive. It further requires that workers recognize their interdependency and thus engage in some form of ethical reciprocity (Levi 1997), that is, they have a shared focal point of action and can enforce compliance with that action on each other by threats of ostracism from the group and its benefits, social and economic. Ethical reciprocity helps overcome the tendency to free ride and make a better individual deal. It is reinforced by norms that encourage group members to punish each other; thus, it is a form of what Gintis labels “strong reciprocity” (Gintis 2000, 261-283; Gintis 2002). Strong network ties enabling monitoring, enforcement, and the emergence of group norms have been shown to make collective action more feasible, even in risky environments (Baland and Platteau 1996; Chong 1991; Taylor 1982). “Communities of fate” can be further created and reinforced by institutional arrangements within the labor organization (or, in some countries, by the state) which inhibit free riding and ensure that all workers of a certain category receive the same treatment. As a rule, however, both unions and states tend to include some workers and exclude others, thus encouraging only partial solidarity at best within the working class.

We remain pessimistic about the ability of labor to effectively organize across borders, especially given that hard-won national solidarities are currently under threat. The problem internationally is intensified by the huge divisions among countries. Bridging this economic gap will require short-term sacrificial undertakings on the part of workers in the developed capitalist democracies in the hope of reaping a benefit that is likely distant in both time and causal linkages, making effective realization of a “community of fate” problematic. If conditional transnational cooperation is to be sustained, even in limited job actions or policy

campaigns, the time horizon for workers wherever they are found needs to be considerable (see Chong 1991; Taylor 1987). With many workers rotating jobs or even industries due to industrial decline and/or contract-style employment, developing longer (even cross-generational) time horizons is all the more difficult.

To overcome these constraints requires recognition that transnational solidarity is highly unlikely to ever be possible for all workers everywhere. It will, to the extent it succeeds at all, be for some subset of labor, perhaps in combination with citizens and consumers who share the desire for global justice. Developing the cognition that these various actors share a common fate will depend on a combination of objective factors and an ideology that makes them perceptible and felt. “Workers of the world unite!” will no longer do. The unifying cry of the twenty-first century remains but a whisper.

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