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PUBLIC POLICY IMPLICATIONS OF IMPERFECTIONS
IN THE MARKET FOR WORKER PARTICIPATION

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Abstract: Increasing worker participation in decision-making can often increase productivity, but remains uncommon in the United States. This paper reviews theories of why the market may produce less than the efficient amount of worker participation. A novel policy intervention, in which tax subsidies are tied to multiple imperfect measures of participation, is proposed.

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Introduction

Recently, there has been a surge of interest in the effects of employee participation in decision making on firm performance. Interest in participation among American managers, unions, and workers has been spurred by the competitive assault on U.S. companies from Japanese and other foreign companies having more participatory industrial relations systems, by the challenges of new production technologies, and by the disappointing productivity performance of American companies. As a result, many firms are experimenting with various forms of worker participation in profits, decision-making, and ownership. These experiments include quality circles, employee stock ownership plans, team production techniques, employee representatives on company boards of directors, and profit or gain sharing.

However, participation, particularly substantive participation such as self-directing work teams, remains relatively rare in the United States. This article explores how the external environment affects a company's choice of how much worker participation is desirable. Because of these external effects, the market may lead to less than the efficient amount of worker participation.

Economists' typical policy advice is to subsidize under-provided goods. Unfortunately, any simple subsidy would encourage firms merely to go through the motions of participation, and therefore have little impact. In spite of this problem, a contingent tax subsidy on training in labor-management cooperation and in dispute resolution could be effective. The key is to make the subsidy contingent upon implementing a variety of additional policies that are only valuable to a firm that is serious about participation. One possibility discussed below is a tax credit for training expenses, with the credit only available for firms that also (1) allot employees one seat on the board of directors; (2) elect an Employee Relations Committee in each establishment; (3) implement a Health and Safety Committee at each establishment; (4) have a profit sharing plan; (5) create an employee stock

ownership plan (ESOP); and (6) implement a formal procedure for dispute resolution.

A variant would be to make the ESOP tax credit contingent on enacting the rest of the personnel policies described in the previous paragraph. The ESOP program was originally passed by Congress in order to increase worker commitment and productivity. There is substantial evidence (surveyed below) that these effects only occur in the presence of substantive worker participation. Thus, it is appropriate to tie the ESOP subsidy to policies indicative of worker participation.

Some Characteristics of Successful Participatory Systems

There are several characteristics of a firm's industrial relations system which are necessary for employee support of meaningful direct participation: some form of profit sharing or gain sharing; representative participation for higher-level decisions; job security and long-term employment relations; high levels of training; measures to build group cohesiveness; and guaranteed individual rights.¹

These characteristics of successful participatory systems are based on those characteristics frequently observed in both foreign and domestic firms with employee participation. Elsewhere, Laura Tyson and I have described how numerous foreign and domestic examples of successful participation, such as large firms in Sweden and Japan, the Mondragon group of worker-owned firms in the Basque region of Spain, and American firms such as Hewlett-Packard, simultaneously pursue these human resource policies and emphasize worker participation in management. While these cases all differ in their precise implementation, all share one basic feature that explains their similarities. In the words of Masahiko Aoki, "The body of employees is, together with the body of shareholders, explicitly or implicitly recognized as a constituent of

¹ There are important non-economic factors that can inhibit participation such as habit, history, and culture. In addition, there are some technologies where the costs of participation will always outweigh the gains, and some workers who are not interested in participating. The additional factors required to maintain management and union support are discussed in Levine and Strauss, 1989.

the firm, and its interests are considered in the formation of managerial policy." (1987) At the shop- or office-floor level, this attitude is reflected by increased autonomy for work groups, with groups taking over tasks such as the design of the work process, quality control, training new employees, and so forth.

Most participatory experiments in the United States change only a single facet of the workplace: either a modest amount of profit sharing or stock ownership, or a single union representative on the board of directors, or quality circles that consist of one hour of participation in an otherwise unchanged workplace, and so forth. It is, therefore, unsurprising that most of these plans have little long-lasting success. On the other hand, the modest number of plans that provide for substantive decentralization of authority to the work group, and also implement most or all of the list of prerequisites for participation, typically do demonstrate long-term increases in productivity and other measures of organizational performance. (Levine and Tyson (1990) review this evidence.)

Profit Sharing or Gain Sharing

Some form of profit sharing, broadly defined, is a key element of participatory systems. One can imagine profit sharing without participation and vice versa, but in fact the two are likely to go together in successful participatory systems. In the short run, participation may be its own reward for many employees; in the long run, however, sustained, effective participation requires that employees be rewarded for the extra effort which such participation entails, and that they receive a share of any increased productivity or profits. Workers often feel that it is unfair if they do not share the benefits that their cost-saving ideas generate. Gain sharing based on the output of a work group provides workers with incentives to maintain norms of high effort, to monitor each other, and to sanction workers who are shirking. More positively, group-based pay also supplies workers with incentive to cooperate, and not to try to advance at the expense of their colleagues.

Just as participation can lead to demands for profit sharing, profit sharing can lead to demands for participation. When there is profit sharing, workers' incomes depend on the decisions of the firm, and workers want to have a say in these decisions. Moreover, there is growing evidence that profit sharing and participation interact positively, implying that the combination is more potent than the sum of its parts. A recent study concludes: "The available evidence is strongly suggestive that for employee ownership, including profit sharing and ESOP programs, to have a strong impact on performance, it needs to be accompanied by provisions for worker participation in decision making." (Jones and Pliskin, 1988)

Representative Participation

Indirect participation through elected representatives is an important component of most long-lasting participatory plans. Important examples include labor-management committees in unionized establishment (e.g., AT&T and the Communication Workers of America); work councils in Europe; and joint consultation committees in Japan. Such representatives are useful for resolving disagreements that arise at lower levels. For example, where the workers would like to introduce a change that their supervisor opposes, a body containing worker representatives and higher management can resolve the dispute. Representative participation can also solve problems that span group boundaries, where no single work group controls all of the resources required resolve the issue.

In addition, representative participation can provide important benefits to workers. As noted above, participatory workplaces typically have some sort of gain sharing plan. No single worker has a strong incentive to monitor the measurements reported by management; thus, a worker representative who has access to this information can add credibility to management's promises of gain sharing. More generally, worker representatives can monitor and help ensure that managers are listening to lower-level suggestions; can provide a mechanism for information to be shared with workers more broadly; and can

provide a forum for ensuring worker rights (an important aspect of participatory systems discussed below).

Long-term Employment Relations

Almost all participatory systems have implicit or explicit long-term employment contracts with their workers. There are several distinct but related reasons that job security and long-term employment relations are needed for participation to be effective. Most directly, workers are unlikely to cooperate in increasing efficiency if they fear that higher productivity will jeopardize their jobs. Guarantees of job security reduce fears that higher productivity will lead to layoffs. On the other hand, there have been several cases when the fear of layoffs has inhibited the success of participation (Kochan, Katz, and Mower, 1985: 290).

Workers with job security have a longer time horizon and are more likely to forgo short-term gains to build a more effective organization. To the extent that participation relies upon work group cooperation and employees monitoring one another, long-term employment relations are essential. The longer an employee expects to be in a work group, the more effective are group-based rewards and sanctions as motivators. Long-term employment relations also alleviate many of the problems of a gain sharing system, since a worker or work group that is shortchanged in one time period knows that there will be other chances for future rewards.

Finally, participatory firms often make large investments in the selection, socialization, and training of workers. If workers are to contribute to more decisions, they will need more skills and more information. From the firm's point of view, long-term employment relations are necessary to recover the higher investment in human resources that accompanies participation.

Guaranteed Individual Rights

Participatory systems usually have rules and procedures to safeguard employee rights. To participate effectively, people need "the assurance that they will not be penalized for their participation. Such acts as criticizing

existing procedures or opposing proposed policy changes could invite reprisals from management." (Bernstein, 1980) Personnel systems governed by the rule of law are perceived as more legitimate and fair than systems in which decisions are at the discretion of supervisory personnel. Paul Bernstein, in his review of participatory firms, found guaranteed rights in essentially all of the successful experiments he studied. He concluded that such rights are a necessary component of workplace democratization (1980: 75).

Guaranteed rights increase worker trust in the firm. Several studies indicate how high trust environments depend on employee perceptions of due process. Such environments facilitate employee participation, and better performance, creativity, and communication. Guaranteed individual rights are an important part of long-term employment relations, since workers have an alternative to quitting if they are unhappy about one aspect of their jobs. A series of studies have shown that union workers with guaranteed individual rights have higher productivity and lower turnover rates than other workers (Freeman and Medoff, 1984).

When firms guarantee individual rights, such traditional motivators as fear of dismissal become less effective. In most successful participatory firms, however, workers are motivated by group rewards, peer pressure, and so forth--not by traditional fear of punishment. The evidence suggests that the gains in perceived fairness and in workers' willingness to participate outweigh the losses for participatory firms. A just-cause dismissal policy is a critical right for participation. The fact that high-commitment firms such as Hewlett-Packard have voluntarily adopted just cause and established many other employee rights implies that the firm anticipates net benefits from such constraints on managerial actions.

In contrast to just-cause dismissal policies, at-will dismissal policies mean that employment can be terminated by the firm at any time "for good cause, for bad cause, or even for cause morally wrong." (Steiber, 1984: 2)

Measures to Increase Group Cohesiveness

Almost all participatory systems reduce pay and status differentials among employees, particularly between workers and managers, relative to those observed outside. There are three related reasons that smaller differentials are associated with participation.

First, narrow differences in wages and status help develop an atmosphere of trust and confidence among workers and management, and so reinforce the atmosphere of participation. There is evidence that large differences in status can inhibit participation (Bluestone, 1974).

Second, bonuses based on group output provide workers incentives to work for group goals and to monitor and sanction free riders. Narrow wage differentials can promote cooperation, while large wage differences and competition for promotions can reduce cooperation, as workers try to win the promotion "tournament."

Group-based pay, almost by definition, reduces individual pay differentials. According to Morton Deutsch, who has been studying the relationship between egalitarianism and productivity for over forty years, when "efficiency requires efficient cooperation, almost any movement towards a democratic egalitarian structure increases effectiveness." (Deutsch, 1988) Numerous laboratory experiments have found that narrow wage differentials increase worker cohesiveness and increase productivity (Levine, 1989).

Finally, participation may extend into the realm of compensation. To the extent that the median employee exerts influence on the firm's compensation policy, there is likely to be pressure to reduce high-end wages, thereby compressing wage differentials.

In practice, most participatory workplaces, including worker-owned firms in the U.S. and abroad, large Japanese and Swedish firms, and successful participatory firms in the U.S., tend to pay relatively egalitarian wages, largely to induce cohesiveness within the work force. Personnel research in support of these findings include John Witte (1980) and Katrina Berman (1982) on U.S. participatory firms, Keith Bradley and Alan Gelb on foreign

cooperatives (1983), and William Ouchi (1981), Thomas Rohlen (1975), and Ezra Vogel (1979: 120; 140-141) on Japanese companies. Edward Lawler (1981) and Michael Beer, et al. (1984: 145), have turned this finding into a recommendation, counseling participatory firms to rely heavily on group-based compensation and narrow wage differentials.

The Interaction of Participation and the Firm's External Environment

Many economists have concluded that the low incidence of participatory arrangements in the United States implies that such arrangements are inefficient -- for if participation were a good idea, then the market would favor companies with participation. Despite the potential efficiency of participatory workplaces, conditions in product, labor, and capital markets can discourage firms from adopting the characteristics that are necessary for successful participation. Specifically, stable aggregate demand, low unemployment, wage and status compression, universal just cause, and long investor time horizons are favorable for participatory industrial relations systems.

We make our arguments using a parable of two fictitious non-union auto plants. The first plant, MUNNI (Manufacturing by United Nifty Neighbors, Inc.), uses a highly participatory work organization. It has the characteristics necessary for successful participation: gain sharing, high levels of training, long-term employment relations, narrow wage and status differentials to increase group cohesiveness, and guaranteed individual rights. Its competitor in the auto industry is Farmingham, one plant of Motors Gigantium (MG). The Farmingham plant uses a traditional labor relations system with none of these characteristics.

The Effects of Product Market Conditions

At both Farmingham and MUNNI, nominal wages are set once a year. Farmingham lays off workers whenever there is a downturn in demand. MUNNI, on the other hand, has long-term employment relations and a no-layoff policy. During downturns MUNNI trains workers, freezes hiring, transfers workers within the firm, and ultimately hoards excess labor. Farmingham's use of

layoffs is relatively cheaper when recessions are frequent and deep, while MUNNI's no-layoff pledge and long-term employment relations are relatively cheaper when recessions are shallow or infrequent. As a result, MUNNI will flourish if its product market is characterized by lower probabilities of declines in demand; that is, the lower the variability of industry and aggregate demand, and the higher the average growth rate of the industry and the economy. (While economic crises can prod management, workers, and unions to initiate participatory experiments, demand stability reduces the costs of maintaining participation.)

There is also feedback from the firm's employment system to the macroeconomy. Recessions are deeper when many companies have layoffs (Farmingham style). Layoffs lead to lower spending on consumer goods by Farmingham workers, resulting in further layoffs at stores in the Farmingham area, and eventually affecting producers around the world. On the other hand, recessions are shallower when many firms avoid layoffs (MUNNI style). Since the costs of running participatory systems increase as the variability of product demand increases, policies that reduce this variability will tend to encourage such systems.

The Effects of Labor Market Conditions

Low Unemployment: Because Farmingham's disciplinary system is based on fear of dismissal, it is relatively profitable when unemployment is high. Whenever unemployment drops, however, Farmingham suffers an increase in absenteeism and turnover and a decrease in productivity and quality. On the other hand, MUNNI's motivational system is based on participation, gain sharing, worker-worker monitoring, and so forth. Correspondingly, when unemployment is low, MUNNI and other participatory firms gain in relative productivity.

If most firms have the Farmingham system, the macroeconomy tends to generate a high average unemployment level. If unemployment temporarily drops to a low level, wages and costs increase and profits and investment decline; both developments reduce labor demand and increase unemployment.

On the other hand, if all firms use participation, then low unemployment and tight labor markets are sustainable. Since motivation does not depend on the threat of dismissal, tight labor markets will not inevitably lead to declines in profits and investment coupled with increases in wages and turnover. While participation does not ensure full employment (other macroeconomic policies may be needed), participation may be necessary to sustain low levels of unemployment.

Thus, there can be two stable economy-wide outcomes: a "Farmingham" situation, in which firms motivate workers with fear of dismissal, and the average unemployment rate is high; and a "MUNNI" situation, in which firms motivate with participation and the average unemployment rate is low. A new auto plant built in the Farmingham situation would find Farmingham-style management to be profit maximizing -- with many unemployed workers, there is no need to utilize participation to motivate. On the other hand, a new auto plant built in the MUNNI situation would find MUNNI-style management profit maximizing -- with low unemployment, the firm would be encouraged to introduce participation to motivate. As this parable of multiple stable outcomes demonstrates, the choice of work organization by new firms will partly depend

on how tight the labor market is. When average unemployment rates are low for sustained periods, participatory work organizations become more attractive as ways to motivate and retain workers.

In Sweden, for example, the government has consistently held the unemployment rate below 3%. According to one Swedish expert, this situation has "increased rates of turnover and absenteeism in monotonous, exhausting, and dirty jobs to the point that job redesign and increasing worker satisfaction become vital for any manager who wants to maintain a stable, competent labor force." That is, at low unemployment, firms find it necessary to make work intrinsically motivating to maintain productivity.

Narrow Wage Differentials: At Farmingham, wage and status differentials are important motivators. In contrast, MUNNI reduces status and pay differentials to increase worker cohesiveness. There are no reserved parking places, no executive dining rooms, and so forth. In fact, there are not even any "workers," only "associates." MUNNI also has lower wage differentials. Promotions are based largely on seniority, and promotions for star workers are less rapid than at Farmingham. This policy promotes cooperation for group goals and reduces individual efforts for self-promotion. The extensive use of group-based pay, not individual incentives, also promotes cooperation and worker norms of high effort.

MUNNI's policies of narrowing differentials partly occurs by increasing pay for the bottom of the wage distribution, with the increase paid for by the increase in productivity from participation. Thus, low-end workers at MUNNI receive wages above the market rate. A benevolent planner who was trying to maximize national income would encourage the creation of firms that earned high profits and that paid above-market wages. The forces of selection in a free market, on the other hand, only favor firms that earn high profits, and ignore the above-market wages that some firms pay.

For example, consider a firm that intends to hire 100 workers, but must decide whether to adopt the MUNNI or Farmingham strategy of motivation. Assume that if it adopts the MUNNI strategy it will make \$200 in profits and

pay its low-end workers a total of \$100 above the market wage. On the other hand, if it adopts the Farmingham strategy it will make \$250 in profits, and pay all of its workers exactly the market wage. GNP is maximized if the firm adopts the MUNNI strategy, but profits are maximized if it adopts the Farmingham strategy. Although the MUNNI workers are more productive, MUNNI profits are lower than are Farmingham profits, and MUNNI may go out of business. Thus, the market will supply inefficiently few firms paying high wages to their less skilled employees.

In addition to raising low-end wages, part of the narrowing in differentials occurs at the expense of high-wage workers. Thus, MUNNI has trouble keeping "star" and high-skill workers. If star and high-skill workers are needed for production, MUNNI's policy will be costly in the presence of firms with wide wage differentials. On the other hand, if Farmingham and all other firms had narrow wage and status differentials, MUNNI could keep its stars, and all firms could enjoy the efficiency gains of participation. Such an economy-wide situation, however, is not usually stable. Starting from a position where all firms pay narrow wage differentials, Farmingham can bid up the wages of star employees. The star employees will earn higher wages, and Farmingham will make high profits. Farmingham's policies will make paying narrow differentials difficult for all firms. Thus, the gains of participation will be lost for all firms.

Universal Just Cause: Farmingham relies upon the threat of dismissal to motivate its workers, and is not required to provide a reason when it dismisses a worker. MUNNI has a just-cause policy and must justify any dismissal. MUNNI management is concerned that its workers feel that personnel policies are fair and that employees would not be subject to reprisal for making suggestions which their supervisors might view as being critical. MUNNI motivates by internal motivation and worker-worker monitoring, not fear of dismissal; its dismissal rate is only 10% of Farmingham's.

Because only MUNNI has just cause, many of the less motivated workers at Farmingham want to work there. This is especially the case for workers who do

not work very hard but whose shirking does not create evidence that would convince an outside authority; at MUNNI they can enjoy a lengthy on-the-job vacation. Even if these talented shirkers make up a very low proportion of the population, their concentration in MUNNI's applicant pool will vastly increase MUNNI's screening costs. On the other hand, if just cause were universal, then these poorly motivated workers would be distributed evenly across firms, without concentrating at MUNNI. Under these circumstances, the efficiency gains of participation and just-cause policies are more likely to outweigh the burden imposed by shirkers.

The fact that each employer who adopts just cause makes it less expensive for other firms to do so is a second reason that more than one stable outcome is possible. One can imagine a Farmingham outcome in which few firms have just-cause policies, and the costs of introducing such policies are very high for individual firms. In this situation, the few firms with just cause will have to pay very high screening and monitoring costs. Alternatively, there can be a MUNNI outcome in which just-cause policies are the rule, and each firm finds that the benefits of just cause outweigh the costs.

Capital Market Conditions

Just as the success of participation depends on product and labor market conditions, it also depends on capital market conditions. MUNNI faces three problems: capital markets are inherently biased against the hard-to-monitor human capital and trust that are prerequisites for participation; takeovers that result in companies reneging on their commitments "can in the long run result in deterioration of trust necessary for the functioning of the corporation;" (Shleifer and Summers, 1988) and capital costs can be higher for participatory firms. All of these problems are less severe when firms have close long-term relations with their banks and equity holders.

Capital Markets Lead to Too Little Participation: Both Farmingham and MUNNI face imperfect capital markets. In perfect markets all investments with positive present values are undertaken. When information is imperfect,

however, there will be inefficiently little investment in hard-to-monitor projects. Banks, stockholders, and the central headquarters of multi-divisional firms all prefer investments in tangible assets. They fear that when managers claim to be investing in intangibles (e.g., reputations with workers, R&D, and so forth), they might really (1) be using the resources to cover up their own incompetence; (2) be purchasing on-the-job amenities and leisure; or (3) be increasing current reported performance at the expense of investments that pay off in the future. This general bias of capital markets is especially severe for MUNNI, since its participatory style requires high levels of investment in human capital and in worker commitment -- investments that are very difficult to monitor.

Breach of Trust and Participation: MUNNI's investment in human capital and in worker-company trust pay off only in the long run, and only if the company's promises are credible. Every time a firm reneges on its promises, the faith that MUNNI workers have in their company's promises diminishes. Recent takeovers, leveraged buyouts, mergers, and restructurings have often been designed to yield short-term gains. Typically, they quickly lead to the dismantling of human organizations and the rapid erosion of human capital. Takeovers whose profits come from renegeing on promises to workers make it harder for remaining high-commitment strategies to work.

Capital Cost Problems of Participatory Firms: Participatory firms face higher costs for raising equity and loans. Farmingham's owners have all rights to the profits of Farmingham and have complete legal control over decision-making. MUNNI's owners, in contrast, share profits and decision-making rights with MUNNI employees. Thus, all other things being equal, MUNNI will confront a higher cost of equity capital than Farmingham.

While MUNNI is disadvantaged in the equity market, it cannot survive solely on loans. In a world with imperfect information, the cost of debt increases as the debt-equity ratio increases. A firm (whether it is participatory or not) that tries to rely exclusively on debt finance will find that it faces higher costs of funds than does one with partial equity

financing. This line of reasoning suggests that the higher the debt-equity ratio that a company can support without encountering an increase in its capital cost or a loss of autonomy to its creditors, the more supportive are capital market conditions for participatory policies.

What Capital Market Conditions Foster Participation?: Although the problems noted above are serious, MUNNI can succeed under certain conditions. Suppose, for example, that MUNNI relies on investors, such as banks or other organizations, who have long-term interests in the firm and extensive communication links with it. Further, assume that MUNNI borrows from banks with which it has close, continuous relationships. These investors, in turn, have detailed information about MUNNI and its investments over a substantial period. As a result of such relationships and of the investors' and creditors' information, MUNNI will have access to finance at more favorable rates to finance its investments, including its investments in human capital and in corporate culture. In this case, the suppliers of finance are likely to be more willing to share their income and control rights, because their information about the firm reduces their risks and monitoring costs.

In contrast, if MUNNI has arms-length relationships with its investors, it will face a higher cost of capital. Stock market investors with limited access to information about the firm's performance will rely on the information that can be effectively summarized in short-term fluctuations in its stock price. Banks will rely on the price and period of loan payoff as the main decision criteria. Such investors will be much less willing to share their income and control rights with firm employees. Moreover, when MUNNI encounters financial difficulties, it may be forced by its creditors to cut back first on its human resource investments, even though to do so may quickly harm the trust and legitimacy on which its participatory system depends.

In sum, capital market arrangements that increase the proportion of funds raised internally and from workers, lengthen the time horizon of outside investors, and that broaden and improve the flow of information between a firm

and its investors are likely to be relatively more favorable to participatory arrangements.

These arguments are important for understanding the borrowing practices of participatory American firms such as Hewlett-Packard. This company has relied heavily on retained earnings and employee stock purchases and has avoided long-term debt. These policies are explicitly designed to promote investment in hard-to-observe human capital and R&D and to remove obstacles to Hewlett-Packard's job security policy. The close relation between firms and their creditors is also an important factor behind the growth of participatory firms in Japan.

Federal Labor Relations Policy

The theories briefly reviewed above, coupled with the evidence that participation can (under some circumstances) increase productivity, leads us to believe that the market system may be systematically biased against participatory workplaces. Despite the potential efficiency of such workplaces, product, labor, and capital markets can all make participation unprofitable for the individual firm. As a result, the economy can be trapped in an inefficient position.

The U.S. government has never had a labor relations policy for the non-union sector. Our research on the potential efficacy of well-designed participation programs, coupled with the list of market imperfections that can inhibit their spread, leads us to propose a government policy that provides the private sector with incentives to solve its own labor-management problems more energetically, and to increase U.S. competitiveness.

A straightforward approach to increasing participation would be to subsidize it through the tax system. Unfortunately, any simple subsidy would encourage firms merely to go through the motions of participation with little impact. As we noted above, most participation plans give little power to workers, and plans that are promoted externally would be especially likely to be ineffective. In spite of the problems, a tax subsidy on training could be effective. The key is to make this subsidy contingent upon implementing a

variety of other institutions that are only valuable to a firm that is serious about participation.

One possibility is a tax credit on training that is available for firms that also (1) allot employees one seat on the board of directors; (2) elect an Employee Relations Committee in each establishment; (3) implement a Health and Safety Committee at each establishment; (4) have a profit sharing plan; (5) create an employee stock ownership plan (ESOP); and (6) implement a formal procedure for dispute resolution.

This list of measurable characteristics of a participatory labor-relations system is merely representative, and could be modified. Any element of the list can easily be implemented by a firm with no intention of actually implementing participation. Nevertheless, it is doubtful that a firm would implement all of them just in order to receive a tax credit on training. On the other hand, these characteristics are valuable for participatory firms, and most of them are implemented voluntarily by such firms.

The Training Subsidy: The proposed credit would be a ten percent tax credit for training programs. The recent report of the Department of Labor's Commission on Labor Force Quality and Labor Market Efficiency recommended a subsidy on training to address imperfections in the market for human capital. They note that

Since many categories of expenditures could be distantly related to training, the credit must be based on fairly narrow and specific expenditure categories. In the absence of such limitations, firms would have incentives to adopt extremely broad definitions of training expenses. We suggest that the training tax credit be based on expenditures in the following categories: compensation of employees whose sole duties are the design, implementation, or presentation of training programs; the purchase or development of instructional materials and equipment; and payments to third parties (e.g., schools) that provide education or training services (1989: 17).

An alternative plan would cover a narrower range of training, and be more focussed on participation: a twenty-five percent credit for training programs in management-labor cooperation and in dispute resolution. The

training providers would have to be approved by the Department of Labor's Bureau of Labor-Management Cooperation.²

Since training costs are highest when participation is introduced, subsidizing training will focus the money on new plans, and reduce the subsidy to already-existing plans. Thus, the subsidy will maximize the amount of new participation introduced per dollar spent.

Employees on the Board of Directors: As noted above, employees on boards of directors are typically not very powerful. Nevertheless, such representation can further participation, promote information interchange, and indicate a firm's seriousness about participation. Perhaps most importantly, requiring an employee director would discourage non-participatory firms from attempting to gain the tax subsidy.

Employee Relations Committee Elected in Each Establishment: Each establishment of over 50 employees or firm of over 100 employees would be required to establish an Employee Relations Committee. The committee would be elected on a one-person one-vote basis, and exempt and non-exempt employees would vote separately for their representatives. The committee would meet at least one hour per quarter.

The law would not legislate particular duties for the committee. As with an employee director, such a committee would be valuable for high-commitment firms, where it could be used for management information sharing, for upward communication, for appeals from shopfloor participatory bodies (e.g., when a quality circle and supervisor disagree), and for higher-level participation in decision-making. Conversely, such a committee would be a burden for firms merely attempting to gain the tax subsidy.³

² The relevant unions would approve any training in unionized establishments.

³ In non-union companies these employment relations committees would not be permitted to deal with compensation matters. In unionized companies the employment relations committees would not be empowered to deal with any matters covered by the collective bargaining agreement, unless that agreement specifically permitted the topic to be discussed.

Health and Safety Committee: Each establishment of over 50 employees or firm of over 100 employees would be required to establish a Health and Safety Committee. This committee, elected proportionately by exempt and non-exempt employees, would encourage labor and management to resolve their health and safety problems privately, outside the purview of the federal regulatory apparatus.

Economic theory suggests that information about workplace hazards will be under-provided by the free market, since no single worker has a strong incentive to collect the information that is valuable to everyone. The presence of a health and safety committee would provide knowledge about safety and health concerns. It would also be able to voice worker concerns to management.

Profit sharing plan: To receive the tax subsidy, firms would be required to set up a profit-sharing plan with average profit sharing (averaging good and bad years) equal to five percent of the wage bill. Profit sharing can act to build identification with the firm, and may have favorable macroeconomic consequences (Weitzman, 1984). More directly, it is a prerequisite to effective long-lasting participation.

ESOP: Firms would be required to establish an ESOP with over five percent of the company's stock. Furthermore, employees would be allowed to vote shares held by any ERISA covered plan (e.g., ESOP, 401-K plans, stock bonus plans, savings plans, defined benefit pension plans that own company shares, and any deferred profit sharing plans). Workers would be allowed to vote both allocated and unallocated shares of the ESOP. (Unallocated shares are owned by a leveraged ESOP, but not yet purchased by workers.)

For each ten percent of company stock voted by the workers, workers would elect an additional ten percent of the corporation's board of directors.

Formal dispute resolution procedure: Firms would be required to establish formal procedures for dispute resolution. The procedure would qualify if (1) the decision maker is impartial and the individual was afforded due process; (2) the decision reached is based on a full record; (3) the

employee implicitly or expressly agrees to be bound by the results of the dispute settlement mechanism; and (4) the decision is consistent with public policy in the state in which the complaint arose. (This language is adapted from Block and Wolkinson (1989: 2038), who cite Westin and Feliu (1988) for the first three points.)

Such procedures for dispute resolution should reduce the explosion of litigation and labor management disputes in the non-union sector, reducing the time and lawyer fees spent by employees, the economic costs for firms, and the over-crowding in the judicial system. Furthermore, the record will speed trials when they occur (Block and Wolkinson, 1989: 2039).

Alternative formulations: While the law outlined above is framed as a contingent training subsidy, an alternative formulation focussed on ESOPs has several desirable features. There is substantial evidence that ESOPs are only effective at increasing productivity when they are combined with worker participation (General Accounting Office, 1987; Quarrey, 1986). ESOPs were originally granted tax advantages largely because Congress believed that worker stock ownership would increase productivity and worker identification with the firm. Thus, it is appropriate that ESOP subsidies should only be given to firms that combine their stock ownership plan with employee participation in decision-making.

If Congress decides to focus ESOP subsidies on participatory firms, the problem of measuring participation would arise. The strategy described here--requiring several imperfect indicators of participation that are beneficial for participatory firms yet costly for firms merely trying to win a tax advantage--would be appropriate in the ESOP case as well. Such a law might limit ESOP subsidies to firms that (1) give employees one seat on the board of directors; (2) elect an Employee Relations Committee in each establishment; (3) implement health and safety committees at each establishment; (4) have a profit sharing plan; and (5) implement a formal procedure for dispute resolution. Such a modification in ESOP legislation can potentially reduce

the federal deficit, better meet Congress's original intent, and increase national productivity.

Implications of a Labor Relation Policy

The initial effect of any such participation-linked tax subsidy would be modest. It is doubtful that many firms would rush to change their labor relations system merely for a subsidy on training expenses or on ESOPs. On the other hand, to the extent that participatory firms stabilize aggregate demand, provide economic rents to low-wage workers, and provide other positive externalities, these contingent subsidies can increase productivity and labor market efficiency. While the government neither can nor should legislate the organization of work, it has both the ability and the responsibility to correct market imperfections that reduce American competitiveness and productivity.

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