

A Union Strategy for Skilled Work and Technological Change

By Mike Parker

Labor Notes

Everyone talks about the fact that technology creates new, skilled jobs while it destroys and de-skills others. Yet the union movement has little strategy for organizing in the fast growing new technology areas where workers may consider themselves professionals, not workers. In large part this stems from weak and self-defeating strategies for dealing with skill issues in already unionized areas, where lean production techniques are reorganizing the workplace.

If the labor movement is to survive technological change and lean-work reorganization schemes, we must address the issues of skilled work, particularly training, how management organizes work, and the relationship between skilled workers and the rest of the labor movement. This latter has long been a thorny area. All too often skilled workers harbor the most racist, sexist, elitist, and pro-business attitudes in the labor movement. But skilled work can also be a stronghold of unionism.

The issues surrounding skill are critical to the labor movement for four kinds of reasons:

1. Better Jobs

What traditionally has been called "skilled work" has usually meant better jobs for workers. Not only do skilled jobs pay more, but generally they give the worker more control, more ability to vary the pace of work, more creativity, greater job security and marketability, more respect from management, and more power in dealing with management.

2. Lean Production Practices

Lean production is the set of methods, pioneered in Japan but now widespread worldwide, that attempts systematically to produce goods or services with fewer workers through a fine-tuned combination of speedup, work standardization, and deliberate scrimping on resources (just-in-time inventory and delivery systems are emblematic of the system). This system was popularly described--and lauded--in the MIT study *The Machine That Changed the World*.

The "High Performance Workplace" concept attempts to mix the lean production fundamentals with a pro-union organization. Advocates argue that the system needs highly skilled workers to achieve high productivity. With such high productivity, workers can gain a share of the benefits in the form of high wages, good working conditions and job security. By achieving these for the members, the union becomes stronger. The situation is supposed to be "win-win" for management and labor. Indeed, some unions are so enamored of this approach that they offer to teach management how to introduce such systems. (International Association of Machinists, 1997)

In reality, lean production's perspective on skill actually undermines union power. The system claims to promote teamwork and enrich jobs. But in the auto industry, for example, collaboration among skilled workers is nothing new. Skilled workers have frequently worked together, both within and across trades, to plan and execute their own work and cooperate in doing very complex projects. Ironically, the contracting out, the attempts to program work minutely, the attempts to intensify the work through "broadbanding" and the phony team structures--all characteristic of lean production--instead destroy some of the best jobs there are.

3. Areas to Organize

Many of the jobs associated with new technology and the information age are potential growth areas for unions. In previous decades necessity forced teachers' and government workers' associations to act like unions and become unions. So today "professionals" are finding that corporations regard them as disposable workers even if they are computer programmers, pilots, engineers, data analysts, trainers, or medical workers. For instance, temporary computer programmers working for Microsoft make more than \$27 an hour but lack benefits or guaranteed jobs. The state of Washington just gave them a reason to organize, ruling that they will help keep Microsoft competitive by also foregoing overtime premium pay after eight hours.

That the conditions needed for organizing are ripening can also be seen in the popularity of Dilbert, the cartoon engineer. But organizing these workers will require going beyond wages and benefits, to deal with skill, training, and work control issues that are at the heart of working conditions and job security.

4. Power for the labor movement

Skill is one of the most important ingredients of unions' economic power. Truly skilled workers cannot be so easily replaced either by managers or by scabs. To the extent that skilled work is concentrated in a small segment of the workforce, then that small segment has disproportionately large power. Skilled work has historically been critical to the labor movement, both for its direct economic power but also because the conditions of skilled work tend to generate leadership for the labor movement as a whole.

What is skill?

For purposes of this discussion, skill has two components: The first, the technical component, is the combination of genetic and learned abilities to accomplish tasks. We will assume here that the skills under discussion are learned abilities.

Second, the term has a social component in that it is usually applied to those whose capabilities are greater than the average population. Thus, although driving an automobile requires substantial training, the ability to operate a passenger car is not usually regarded as a skill because the ability is so widespread. Early in the Industrial Revolution jobs that required literacy were considered skilled. Universal public education now makes literacy a minimum requirement for "unskilled" jobs.

Of course, enormous barriers exist in the labor market, and training is not readily available to all who want it. The result is that the common use of the term "skill" is often a measure of how a set of abilities is rewarded in the marketplace: the higher the pay, the more "skilled" the job is regarded to be. This shows up in the distinction generally made between skill and experience. A worker can be trained to do a number of highly complex operations that require exceptional manual coordination and/or critical decision making, involving very expensive processes and materials. Yet if the combination of operations is specific to just one particular workplace, the worker is described as "experienced." On the other hand, a worker who is trained in a series of tasks which as a package has significant demand in the marketplace is considered "skilled" and is paid more than her "experienced" counterpart.

The market is further distorted by various structural features, particularly sexism and racism. These cause jobs mainly held by women and minorities to be regarded as less skilled than jobs requiring similar amounts of training that are held by white males. Thus for years nurses and elementary school

teachers were less well regarded and paid less than mechanics. Similarly, as dry-wall installation in the Southwest came to be a predominantly Latino workers' job, pay failed to keep up.

The dual nature of skill--technical and social--leads to two approaches to increasing what is regarded as skill.

One is for the worker to gain additional knowledge and analytic abilities and to become more proficient in a range of technical tasks.

The other approach is to manipulate the barriers so as to improve the market position of skilled workers, by limiting entry into the trade. Training can be restricted and licensing and admissions barriers can be installed to prevent the hiring of those who have learned the trade on their own. Union contract requirements limiting specific tasks to specific trades provide a different market barrier. The barrier approach in turn can be pursued in different directions:

Conservative. Skilled workers can make an alliance with management to maintain the barriers. What management gets from this arrangement is the skilled workers' political and social support for monopolistic practices and higher profits. This approach can easily give social support to racist and sexist discrimination so long as these are convenient and effective barriers to entry. Historically, this strategy is associated with construction trades organized into a different union for each craft, allied with local political machines. This approach leads to identification with management goals and to a conservative political orientation.

Solidarity. An alternative path is an alliance with workers that the market declares are not skilled. What do the "nonskilled" get out of helping skilled workers restrict entry? First, it is possible that the power skilled workers wield can be used to advance the interests of production workers. The Tool and Die Strike is an excellent example. Second, the organized relationship between nonskilled and skilled can provide the route by which nonskilled workers can move into skilled positions.

This, we suggest, is the genius of the CIO's strategy of "industrial unionism" in the 1930s. It was not just that the new unions organized all production workers into one union facing a common boss. It was also that they found ways to unite skilled and production workers that built on the power of the skilled tradesmen. The CIO used the power of skilled work, but not in isolation. A mass movement of production workers provided the dynamism, the vision of social justice, and the possibility of political power that drew the skilled workers and their extra strength to the union cause.

The alliance, though not without problems, has worked out well. The UAW leadership, historically conscious of maintaining this critical unity, adopted the policy of reducing the wage gap between production and skilled. The main tool turned out to be the standard wage increase derived from cost-of-living adjustments, which maintained the absolute difference between skilled and unskilled while closing the percentage gap. The result was that the UAW achieved wages for its production members much higher than non-union workers and set the standard for other unionized production workers.

The hourly wage of UAW skilled members lagged behind that of craft union construction workers, but industrial trades workers won more job security, better benefits and steadier work. This complementary relationship between skilled workers and those classified as semi-skilled can be seen in the 1997 strike at United Parcel Service. One of many reasons for the Teamsters' signal victory over UPS was the strong support from the UPS pilots' union, the Independent Pilots Association. UPS was particularly vulnerable here since the one small-parcel area the company did not dominate was air freight and it was in a desperate fight for market share. If it could move the

planes UPS would have used its managers and small number of scabs to focus on the priority air parcels. It might have chanced recruiting strike breakers and certainly would have tempted management to prolong the strike. But the pilots were a model of preparation and solidarity work. They issued members detailed information in advance in a pamphlet, "IPA's Support Guide to a Teamsters Strike," featuring the logos of both unions and the slogan "Strength Through Unity." They made it clear that the union would tolerate no scabbing and that this included any contract carriers UPS might try to hire. In addition to useful strike information they included Jack London's famous definition of a scab and a striker code of conduct.

I will encourage my fellow pilots to maintain unity and participate fully in the strike. Should any of my fellow pilots choose to perform struck work, I will identify them to the Association and its members so they will forever be known as SCABs.

I will maintain my undiminished integrity and professionalism throughout the strike and be loyal to those who strike alongside me.

In effect the Association declared that its right not to cross picket lines applied to what we might call virtual picket lines over the entire world. Although UPS threatened to strand pilots overseas, the Association stood firm that no flights would be initiated anywhere after the strike deadline and pilots would make arrangements at their own expense to return home if necessary. The pilots not only honored the Teamster strike 100 percent, they went regularly to Teamster picket lines and rallies to provide refreshments and other forms of support. The IPA organized Internet communications to allow all its members to report and keep all members informed.

Part of the reason the Pilots supported the Teamsters was that they were in their own dispute with UPS management over safety and wages lower than other carriers. But why such a strong alliance with the Teamsters? Why not identify as professional business people (as do many pilots) and ally with UPS to help break the strike, in exchange for increased wages. Indeed, in 1989 the Pilots had left the Teamsters in disgust. The answer is that the reformed Teamsters made the difference by their willingness and commitment to use the power of their own members, to take on UPS and to make alliances with other workers.

The solidarity path and the conservative path for skilled workers are both only potentials, often coexisting. Powerful streams of conservative craft consciousness exist among the skilled in industrial unions. Similarly, union identification and broad worker solidarity are sometimes strong in unions organized by craft. Specific situations, leadership and traditions make a big difference.

Where does the power come from?

While wages and the definition of skill may depend heavily on artificial market barriers, in the long run the power of skilled workers in the production process depends primarily on their technical skills. More important than their general technical abilities is the job-specific knowledge that results from the interaction of the technical skills and the specific machines and processes in that workplace. Part of what gives workers power in a strike is the difficulty and expense management has in replacing them, either temporarily or permanently. As automation and capital equipment increase and tolerance requirements are made tighter, the leverage of the skilled worker responsible for set-up, adjustment and maintenance becomes greater, all else remaining equal. Until recently, if the United Auto Workers declared a strike, the major producers would not even consider trying to recruit a scab workforce. Even if they could recruit sufficient bodies with general skills, they would risk a lot by allowing them to work on expensive machines. When Caterpillar broke new ground by recruiting

scabs--and using them productively--during UAW strikes in 1991-92 and 1994-95, the company greatly reduced the bargaining power of the union.

Skilled workers also feel their power individually. The fact that a skilled worker has job knowledge required by management often gives her the choice to cooperate or not in specific instances, depending on the relationship with the particular boss. To the extent that skilled work requires mental activity, it is not so easy for the boss to monitor the worker's output. A worker standing in front of a machine with a cup of coffee could actually be working very hard.

Most skilled jobs, particularly repair work, require considerable mobility--to the work site, to the tool crib, to locate parts, to consult the vendor via phone or in person. Mobility is an enormous plus for organizing and also keeps the boss guessing. Skilled jobs require cooperation and frequent consultation between and across trades and with production workers. Are the two workers with the cups of coffee consulting on an urgent production problem, discussing union organizing, or on break? Higher literacy levels among skilled workers also facilitate written communication, which helps in organizing large or dispersed groups.

These opportunities provided by the job or skill, added to the sense of power, the higher self-esteem and the degree of protection against management interference and punishment, all make it easier for skilled workers to be organizers. They help to explain the high proportion of organizers and leaders in industrial unions who come from the skilled trades. The union movement keeps rediscovering this lesson about organizers. The leader of a successful breakthrough drive to organize clerical workers at Harvard University makes this observation: "What we found is that the more freedom and respect a person has on the job, the easier it is for her to get involved in the union. [We seek out for organizers] people who are the happiest at work and the most independent." (Hoerr, 1997, p. 156)

The attack on skilled work

This control over the workplace that skilled workers exercise both individually and collectively makes them a crucial target for managers seeking to implement lean production. This is especially true in unionized situations where the power of workers may be organized collectively. Lean production is best described from the workers' vantage point as "management-by-stress": Management exercises tighter control over production by using devices such as statistical process control charts or visual display systems. These make any problems in production immediately visible, and any unresolved deviation quickly generates large and visible consequences. (In the extreme, a single missing item under just-in-time almost immediately shuts down the entire operation.) This way of functioning is a more efficient and effective disciplinarian of the workforce than layers of monitoring supervisors. (See Parker and Slaughter, 1988, 1994)

In this system, the priority placed on "flexibility"--instant worker adaptability to managers' shifting requirements--and an urgent, pressurized atmosphere largely shape the approach to skilled work. While the system may raise skills in some cases, it also retards the ability of skilled union workers to maintain their skills as it reduces their real power in the production process. Lean production attacks the power of skilled workers on the shop floor in several related ways: shifting key skilled work from union workers to management personnel and to outside vendors, the bundling of skilled work, standardizing work and capturing knowledge, and controlling the nature of training.

The bundling of skilled work

If we think of skilled work as a bundle of specific skills, then lean production forces a change in the shape of the bundle. Traditionally craft skills in the workplace have been bundled vertically. The hierarchical ranking of functions will vary depending on the particular skill and job. In some cases installation, for example, may require exceptional skill while in others only minimal. Also, the relationship between trades is not two-dimensional but multidimensional; all trades have some overlap with several other trades.

Lean production's rearrangement of responsibilities allows a significant amount of work to be moved away from those who traditionally have done it--well-paid skilled trades workers in the union. At the bottom end, it shifts the lower-skill parts of the bundle to production workers. As one of the leading authorities on Total Productive Maintenance explains: "The key innovation of TPM is that operators perform basic maintenance on their own equipment. They maintain their machines in good running order and develop the ability to detect potential problems before they generate breakdowns." (Nakajima, 1989, p. 2)

At the same time, the higher-skilled parts of the bundle are removed as well. Contracting out is now near-universal, and technology allows some jobs such as machine troubleshooting and analysis, which previously had to be done on the shop floor, to take place over networks in remote offices outside the bargaining unit and even outside the plant.

The lean production emphasis on "full utilization" retrains skilled workers for a wider range of tasks. Although the horizontal training may seem to encompass the same total area of skills as the older, vertical model, the horizontal formation has a number of negative consequences.

The quantity of new skills that are truly new under "cross-training" is partly illusory. Knowledge about different trades has always been required in normal work. An electrician who is diagnosing problems in a Computerized Numerical Controlled (CNC) milling machine must know a fair amount about its mechanical design and operation, as well as how the machine typically behaves, in order to work with the machine repairperson and the operator. This was true even when rigid lines existed between trades. The lines did not prevent different trades from learning related areas covered by other trades nor from working together as a team. It also did not prevent substantial work across lines on a voluntary basis. What the rules did was keep the trades from performing major work in areas not their own and provided a right of refusal in minor cases. The point of most cross-training is not "cross-understanding" but a way for the company to require "cross-working."

Skills taught in this way are likely to be machine-specific and company-specific, adding little to the worker's value in the market. Such training reduces the sense of craft in the job. It was craft pride, in part, that motivated workers to keep up with changing technology, and less craft pride means less incentive and ability to do so. Cross-training seeks to substitute pride in the company, usually unsuccessfully.

Any additional power workers might gain by machine specific knowledge is countered by moving in the direction of "standardized work" and detailed documentation. By making skilled workers more interchangeable, the horizontal model changes the balance of power between management and workers on the shop floor and reduces the individual worker's protection in dealing with individual managers.

The horizontal arrangement may move substantial work out of the bargaining unit. Lean production is moving to limit in-plant maintenance workers to short-term jobs. This may be accomplished by outsourcing construction, installation, and repair or diagnostic jobs that take more than four hours. It is the installation jobs and large repairs, particularly in combination, that use and develop the most skills in a trade.

Taking the more routine tasks away from skilled work classifications and shifting them to operators benefits the operators in the sense of providing a more varied and less alienating job experience. But the advantages are limited. Remember that the operator's job is also being broadened for flexibility. Since the job has to be designed so that a new operator can be easily moved into place, the amount of maintenance the operator can learn or be entrusted with is limited. At the same time the removal of even routine parts of skilled jobs from skilled workers reduces the number of skilled positions so opportunities for production workers to advance are also lost. The effect is to chop off the bottom of the career ladder.

The new bundling of skilled tasks also offers management the possibility of keeping or moving the critical skilled tasks out of the bargaining unit and into management classifications. This is most extensive in telecommunications, where the companies have long concentrated key skills in bloated management categories so that they can withstand strikes of many weeks with virtually no disruption of services.

The idea that the skilled trades must become "multiskilled" seems to be deeply embedded in all lean production thinking. But here we see where the priorities lie, among the bundle of contradictory claims of lean production advocates. Compare two possible arrangements for factory maintenance: a team of eight skilled workers each of whom is a specialist in his or her field (say electricians, machine repair, millwrights and pipefitters), or a team of four persons trained in general maintenance.

The specialist arrangement raises a red flag for lean production, because often there will not be exactly the right work in the right proportions to keep all the specialists busy. Muda! (Japanese for waste.) Much better to have fewer skilled workers who can be assigned any job and always kept busy. This also helps maintain the desired atmosphere of urgency and pressure.

But lean production claims to have other goals. These include safety, quality, machine uptime, and tracing problems to the root cause. If you examine each of these goals, the specialist model is preferable. Having a specialist in control of a task such as preventive maintenance means she is more likely to notice abnormal circumstances. The less a person knows about a particular trade, the more likely that he will "jumper out" or otherwise defeat safety mechanisms or quality devices (lean production's "foolproofing") to get production running again as quickly as possible. The less able such a person is to track a problem to its root cause. And the less able such a person is to resist supervisor pressure to take shortcuts.

Of course, experts and specialists still must exist under lean production. Indeed, as technology advances, being expert in a field requires more, not less, specialization. But under the horizontal skill arrangement, increasingly the expertise is located in management classifications, or with outside contractors.

In all the studies of work reorganization, we have seen none that seeks to prove the case for teams of generalists rather than skilled specialists on the shop floor. For management, it is simply a given. The reason management is so committed to multiskilling is the same reason that unions should be

defending clear specialist lines--multiskilling greatly reduces the power of skilled workers in the production system.

Standardized work and extracting knowledge

Management attempts to apply these two well-known aspects of lean production to the trades. Documenting job knowledge through ISO 9000 or similar processes and writing standardized maintenance procedures may benefit the smooth running of the process and the quality of the product. But they also make it easier for management to use replacement workers during a strike, and hence greatly reduce the power of skilled workers. Documented maintenance records and standardized job descriptions are quickly turned into scab manuals. Job knowledge by its nature takes a considerable time to develop, but once given away cannot be retrieved. Workers certainly never receive job security or other sources of power in exchange for the knowledge given away.

Training

While everyone pays lip service to training, almost no attention is paid to its real content nor to its implications for the power of skilled workers.

The role of training for skilled work has changed substantially in just one generation. Previously, the apprenticeship model was adequate. In this model, young workers, presumably with a recent high school or perhaps college background, are provided with an intensive combination of on-the-job and classroom training in their field at the beginning of their working careers. After that they maintain and advance their skills through experience, on-the-job training, some vendor training, and some extension courses. Those who wish can become masters in their craft. Technology changes, but sufficiently slowly that it is possible to keep up through these means. To put it another way, with the apprenticeship model, the trades could maintain the required industrial skills and the power those skills provided.

But in the last generation advances in computers, automation and materials, as well as increased government regulations and tighter tolerances, mean that the old model doesn't work. For most skilled workers it is difficult or impossible to keep up simply through on-the-job learning. Even if the apprenticeship training is adequate for the day (most is not), the technology base shifts so rapidly that tradespeople find themselves behind in a short time. For example, 15 years ago, an electrician who wanted to be at the cutting edge of her trade had to trace electrical circuits to the component level.

This meant she had to understand the function of individual electronic parts in a highly complex arrangement and, using test and soldering equipment, locate defective components on a printed circuit board and replace them. Today this kind of work is rarely done in the plant. Today a skilled maintenance electrician has to be versatile with a computer and some number of programming languages and diagnostic programs. The "half-life" of most computer programming skills is only a few years. To one degree or another it is the same in all trades. Drafting is out, computer-aided design is in. Eyeballing alignment on straightedges is out and laser interferometers are in.

The change in technology is so fast that it has caused a qualitative change in the ability of tradespeople to control their own training and therefore their relationship to the trade. The tools and software used by all trades become more elaborate and more expensive. Increasingly, skilled workers cannot afford to own their own, closing off another route for self-training. Unless they receive systematic and organized training, the current skilled workforce is automatically and rapidly deskilled by advances in technology.

As inadequate as on-the-job training is in keeping up with the march of technology, features of lean production make it an even less supportive environment for ongoing learning: Plants are equipped with neither the tools nor the tasks conducive to learning. The removal of the construction, installation and major service portions of the work leaves little opportunity for training. The drive to more fully utilize production capacity means there is less on-the-job time that skilled workers can use the machinery to investigate or learn. The leaning of the workforce means that there is less learning time available. Even the new concepts of cleanliness and order (the 5 Japanese S's) work against learning. One important method of on-the-job learning is experimenting with old or defective parts or equipment. Frequently the first act of born-again managers is to clean up by throwing out parts that do not have an immediate use.

One result is that the economics of training are altered for management. If new generations of technology must be taught, then it is more costly to train the current workforce than to recruit workers newly trained. The experienced worker requires a much higher pay both for training and regular work. Besides, the experienced worker may not be as adept at the new skills. Much better to recruit new workers trained on their own time at public expense, where it is possible for management to select the ones with exactly the right skills and job attitude. Companies then add the job-specific training that binds them to the firm.

The older workers can be left to deal with the older technology that remains in use; hopefully they will retire by the time all their usefulness is gone. If not, they can be pushed out. This training strategy becomes even more attractive to management as unions agree to sharply reduced wages for new-hires and a longer period before reaching the full wage. It becomes still more attractive when the public subsidizes the costs of training.

Yet the need for some advanced training for those already working seems so obvious that unions, companies, government, and various agencies all promote massive training programs. What happens to these training efforts?

Consider the experience of one class in a 1994 training course to upgrade electronic skills for electricians in a newly remodeled auto assembly plant. Electricians were to learn to troubleshoot the latest model programmable logic controller (PLC)--a specialized industrial computer that controls the operations of assembly and production lines. On the surface, everything was in place for a good training program. The curriculum had been examined and approved by a joint company-union committee. The module had been used many times before with ample opportunity for improving it. The teacher had substantial experience with the particular PLC and with auto plants. The class was scheduled for 80 hours (two weeks) at a well-equipped community college.

The class contained 12 journeymen electricians with varying degrees of experience with PLCs. The instructor estimates that two of the twelve attended for less than 20 hours, and six others for less than 60 hours. Some used the class time to read newspapers, one worked on his private business and one played computer games. One thoroughly mastered the PLC, and one novice became reasonably proficient in simple programming.

It would be correct to hold those electricians who did not master the material responsible for their own failure. On the surface, they seem to fit the stereotype of lazy workers taking advantage of time off the factory floor. But the issues go deeper than that.

The company had refused a request to assign the electricians to jobs that involved PLCs beforehand, to stimulate interest and allow them to use the skills. The curriculum was generic, not based on plant examples or programs. Thus for most of the electricians there was no connection between training and use. Most believed it unlikely that they would be assigned to work on PLCs in the near future. Up to that point the company carefully restricted which electricians got to do such work and they saw no reasonable chance that they would get a PLC assignment even if they asked. In some ways, not learning was a defense. One cited a previous experience of being sent to class and then not being able to work on the corresponding equipment for more than a year. By that time he had forgotten almost everything and looked foolish as his supervisor kept pointing out that he had been trained, hadn't he? The lack of any reasonable connection with what they actually expected to do at work meant that, for most, the appropriate attitude was the same as for a hobby, namely, you spend as much time and attention as is enjoyable, then stop.

It is noteworthy that the one electrician who did develop expertise brought to class programs from machines he was assigned to in the plant, to work on and discuss with the instructor. Besides not being part of the curriculum, this behavior violated company rules.

Second, there was little connection between the training plan and the workers' framework. The pedagogy was totally wrong for adult education. It treated the worker as an empty vessel to be filled with the appropriate layers of knowledge. No respect was paid to the learner's experience as the best starting point; the instruction focused instead on modules derived from a Taylorist "task analysis." (For discussion of a better approach to training see Saganski, 1995.)

Why don't the workers object to the inadequate training? They feel powerless and see no connection to their work lives.

Why doesn't the union object? The union representative who stopped by each day to pick up the timesheet said nothing about the members' lack of participation. The workers are not complaining and prefer the training time to their regular work assignment. Getting people paid time off can be useful politically.

Why doesn't the company object? The company needs to conduct training to fulfill contractual obligations. Consistent with its interest in horizontal rather than vertical bundling of skills, the company is not interested in most workers getting advanced training. Indeed, the failure of the training might even be to the company's advantage: the inadequacy of the workforce even after such "training" is one of its chief arguments for moving skilled tasks out of the bargaining unit.

Why don't the instructors object? Because the training work is well paid, and if class time is shortened the instructors get free time. Almost anything is acceptable as long as the company and the union are both happy.

Soft Skills and Bureaucratic Structures

Unfortunately, all too much of current training follows the pattern described above. On the whole, companies pursuing lean production are not particularly interested in helping union members develop advanced technical skills. What they do want is a more flexible workforce, but management flexibility is decreased when worker skill translates into power and resistance to management. Management is most interested in training that can grease the process of work reorganization. And therefore much of the large sums of money supposedly devoted to training goes to the soft skills of work reorganization-problem-solving, interpersonal communication, "thinking outside the box"--and

management's view of the demands of global competition. Another major portion is used to purchase the cooperation of unions by providing union-appointed jobs as program administrators and facilitators.

Consider the joint Chrysler-UAW training programs. The programs are funded by the company based on various calculations. A total of \$0.15 is contributed for each employee hour worked. In addition, certain penalties also go to the training funds. For example, if overtime exceeds more than five percent of straight time over a twelve-month period, the company will contribute an additional \$1.25 to \$5.00 per overtime hour. (UAW-Chrysler 1996, pp. 382-383) Even with no overtime, at current levels of employment, this generates approximately \$15 million just for the training apparatus. In addition, these programs manage to capture considerable portions of public money allocated for training. The funds are directed by a joint union-company committee but are managed by the company. Unlike union funds, the records of which must be available for inspection by union members, the holdings and expenditures of the training funds are kept as confidential business information not readily available to union members.

The Chrysler-UAW joint funds (like their counterparts at Ford and GM) have indeed built large buildings and hired a large staff. But the direction of training is most apparent in the contractual list of duties and responsibilities (UAW-Chrysler 1996, pp. 143-145):

- Identify Skill Development and Training needs for active employees in the areas of basic education, job related, and interpersonal skills.
- Design promotional materials and activities to encourage the expansion of Joint Union-Management efforts in our society.
- Sponsor appropriate activities to provide a forum for national experts from labor, academia, business and government to convene and deliberate upon the future of Human Resource Development.
- Authorize studies, demonstration projects and research activities on topics of mutual interest and importance.
- Monitor and evaluate National and Local Joint Training Committee Activities
- Investigate other career and training counseling alternatives.

Beginning at the base

The "win-win" vision of lean production advocates--that management will promote higher skills for union workers because the lean system requires such skills--does not work. Quite the opposite: The only way workers can acquire the skills they need is for their union to fight for them against the imperatives of lean production.

If management-driven changes flowing from lean production undermine unions, so do unions trying to stand pat. Clinging to old definitions of skill and old practices that once protected skilled jobs disarms us. Technology is changing. Unions need to be flexible. There is no future in internal union battles over the distribution of skills within the current bargaining unit. The task is to quickly settle these issues and move to a unified challenge for new areas of work. It means training programs which

simultaneously address the questions of power and skill in the work place not top-down glossy wrapped packages. There are important cases where unions have taken some important steps in this area. (See for example, Parker and Slaughter, 1995, pp. 271-286) We need to be building on our successes and developing training methods and programs that reflect a worker/union agenda not the company agenda. And once again we have to relink the questions of skilled work and good jobs to the social vision and power of the union movement.

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