The Post-Fordist High Road? A South African Case Study

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Introduction
During the 1980s and 1990s one debate crossing the disciplines of political economy, sociology and labour studies was whether a fundamental break was taking place away from the era of ‘Fordism’. Although isolated internationally for decades, the notion of ‘post-Fordism’ had great resonance within South Africa, especially during the period of democratic transition. In particular, the policy recommendations of the Industrial Strategy Project (Joffe et al 1995) that developed post-apartheid industrial policy came to be influenced by post-Fordist work organization methods associated with Japanese Management Techniques (JMTs). What was suggested was that practices such as multi-skilling, teamworking, and worker involvement initiatives could help chart a ‘high road’ for industry — benefiting not just productivity but redressing South Africa’s legacy of poor human resource development and a racially skewed labour market.

This influence of post-Fordism on South African policy development has been noted and questioned by a number of writers. Some argue that it is an imposed model, that does not reflect the material realities of South Africa (Fine 1995); others criticize the elitism of the post-Fordist ‘high road’ (Hart 1995); a further group see it in the context of shifts in economic thinking within the democratic movement away from a strong developmental state and towards micro-level interventions (Bond 1996; Padayachee 1997). Whilst much of this debate has been at the macro level, Maller and Dwolatsky’s (1993) critique of Gelb’s (1991) “racial Fordism” model, and Evert’s (1997) research, questioning the link between post-Fordist work organization and firms’ successful performance, both draw from micro-level studies. Combining both micro and macro analysis, a final emerging and important strand of research in South Africa has asked whether instead of a post-Fordist ‘high road’, a ‘low road’ involving the casualization of work through the increased use of casual contracts and part-time work, is being followed (Kraak 1996; Kenny and Webster 1998).

In this article, a review of both the labour implications of post-Fordist work organization and the formulation of industrial policy in South Africa will provide the context for a detailed case study of working conditions in a firm that adopted JMTs (also, as a system, called Lean Production). Through this case study, the
article asks: “how high is the post-Fordist high road?” suggested by South African industrial policy-makers. The selected firm is an appropriate one to shed light on this question because it has not followed the low road path of casualization, instead undertaking many of the post-Fordist work organization prescriptions associated with JMTs. In short, the article questions whether a high-skill, more democratic era with greater worker control can be driven through Japanese-influenced work organization changes, as suggested by industrial policy. However, whilst arguing that industrial policy was over-optimistic, the paper does not dismiss post-Fordist work organization out of hand, but suggests that further research is necessary before detailed conclusions about JMTs in South Africa and their effect on labour can be drawn.

This first section will end with a very brief introduction to the concepts of Fordism/post-Fordism, and clarification of the scope of the article and terminology used within it. Regulation theory writers are the starting point for this, with this school’s marxist-influenced approach characterizing the dominant post-war institutions and norms — the period of mass production and consumption — as ‘Fordist’, an era they see as being in crisis from the 1970s (Aglietta 1979; Lipietz 1995). This approach has been influential within political economy, and in South Africa’s racial context was adapted by Gelb (1991) into the notion of ‘racial Fordism’. A similarly broad and influential theory of contemporary change, but centred more on changing markets, was developed by Piore and Sabel (1984), who argued that fragmenting markets necessitate a move away from “mass production” towards what they call “flexible specialization”, either through small firm “industrial districts”, or within the firm, with craft-type labour and flexible production replacing standardized “mass production”. Whilst these two broad approaches capture well the claims of a crisis in “Fordism” or “mass production”, a related strand of enquiry — which will form the focus of this article — is the extent and nature of changes taking place to the Fordist labour process, and the implications of such changes for workers.

In the 1970s, study of the labour process was revitalized with Braverman’s (1974) *Labour and Monopoly Capitalism* which argued that capitalism tended to progressively de-skill work and increase managerial control over workers, particularly emphasizing the influence of Frederick Taylor’s principles of “scientific management”. Although this account has faced consistent criticism for its crudity (see the volume edited by Wood 1991a), a number of post-Fordist writings effectively turned the Braverman thesis on its head, arguing that the era of post-Fordism signals a new emerging synergy between the interests of business and higher skilled, more fulfilling, work.

The consequence of these varying theories and approaches is that the nature, extent, and terminology of contemporary industrial and economic change is still very much open to debate. However, in this article the term ‘Fordist production’ will be used throughout to refer to the labour process that Henry Ford’s car factories made famous, associated since then with unskilled or semi-skilled work.
in large mass-production firms. ‘Post-Fordist work organization’ will refer to the organization of work through methods that according to some writers provide a more efficient and fulfilling alternative to Fordist production. JMTs, such as team working, multi-skilling, and worker involvement schemes have particularly been associated with a break from Fordist production, and these will be looked at in detail.

The article examines successively the nature of JMTs/Lean Production; work organization in three countries, Sweden, Germany and Brazil; the influence of post-Fordism in South Africa; a detailed case study of a South African auto-components firm that followed the Lean Production model; the prospects for a post-Fordist ‘high road’ in South Africa; before concluding with a discussion of its findings.

Japanese Work Organization and the Transformation of Work?

Japanese Management/Lean Production

Womack, Jones and Roos (1990) in *The Machine that Changed The World* suggested, in what has become a classic illustration of the Lean Production thesis, that the dominant system of mass production was being supplanted by a new more fulfilling system of work organization, Lean Production; this involving the efficiency of Japanese techniques such as Just-In-Time delivery, team working and multi-skilling.

This belief in the fundamental ascendancy of JMTs, and a new emerging synergy between the interests of labour and capital, was given credibility not only by the tremendous economic performance of Japan, but also by claims of Fordism’s decline. Work such as Piore and Sabel’s (1984) *The Second Industrial Divide: Possibilities for Prosperity*, contributed to this conviction, highlighting the need for greater flexibility within production, leading to a devolution of responsibility to the shopfloor, a return to craft skills and more co-operative management/labour relationships. Japanese work organization techniques such as multi-skilling, teamworking, and flatter hierarchical structures, fitted particularly well with this prescription. For workers, it was claimed, this new system of work organization provided “more challenging and fulfilling work” (Womack *et al* 1990: 225) with employees becoming “highly skilled problem solvers” (*ibid* 1990:102). Although Womack, Jones and Roos’s analysis is extremely crude, more sophisticated, but similarly optimistic, accounts of Japanese Management can be found elsewhere (see particularly Kenney and Florida 1988). This optimistic scenario, with Japanese forms of work organization often at the forefront, was not shared by all writers on post-Fordism, but the opportunity for a break from the drudgery of Fordist labour practices was reflected in a number of academic accounts as well as in more popular writings, the latter demonstrated well by the following opening line to a book aimed particularly at the labour constituency: “The secret is
out! Work need no longer be performed in conditions of anger, frustration and alienation ...” (Mathews 1989:1).

In response to these claims a considerable amount of research has now gathered around the question of whether JMTs do indeed involve a fundamental break from, and improvement to, the Fordist practices of the past. This article will argue that much of the optimism is unwarranted. However, before looking in more detail at this research, it is necessary to outline the key features of the system, this summary focusing primarily on the technical, rather than the social, side of JMTs.

The key features of JMTs/Lean Production are the delivery of goods Just In Time (JIT), stock “pulled” through the production system using a system of tags (the kanban system), greater emphasis placed on “quality at source”, and workers constantly instituting “continuous improvement”. The overriding philosophy of Lean Production is the elimination of waste (in Japanese muda) at all stages in the production process. Flexibility is enhanced through team working, with workers trained to undertake a number of duties (multi-skilling). These individual measures provide the biggest benefits when they are implemented systematically — suppliers deliver JIT, buffers (‘cushions’ of stock) are subsequently reduced, greater emphasis on quality is necessary, workers must become more involved in the firm, and less hierarchical structures and team working facilitate this.

The extent to which the social organization of work in Japan is embedded within the country’s economic and social structure is a point of debate (Wood 1991b; Elger and Smith 1994a). This emphasis on national context will be looked at through discussions of work organization in Sweden, Germany and Brazil later in this section. However, before this, four points about the labour implications of Lean Production will be made.

1. Evidence has repeatedly associated Lean Production with work intensification or “Management by Stress” (Parker and Slaughter 1988; Garrahan and Stewart 1992; Lewchuk and Robertson 1996; 1997; Graham 1996; Green and Yanarella 1996). This is often said to be caused, in part, by the reduction of ‘buffer’ stock through the JIT/kanban system, which places employees under greater stress by reducing the cushion of stock if mistakes are made or demand increased. It has also been suggested that Lean plants are typified by long and flexible working hours with large amounts of overtime often ordered at very short notice (Berggren 1993). A second set of explanations notes the preference in Japanese plants for a ‘unitary’ environment, excluding independent trade unions that might challenge work intensification, preferring to locate in ‘greenfield’ sites, and creating a distinct “company culture” that through the mechanism of teamworking can create an environment of competition and peer pressure amongst workers. For some this amounts to a “new regime of subordination” (Garrahan and Stewart 1992). Although some Japanese firms have accepted unions, avoidance has been noted in the US (where most of the Japanese assembler transplants are set up in non-union ‘greenfield’ sites with none of the 350 supplier transplants unionized) (Berggren
1993: 168); in the UK (Ackers et al 1996:10-11); and in Brazil (Humphrey 1996:114). A final cause of work intensification is said to be the constant pressure to reduce muda or waste, as demonstrated through Rinehart’s (1994) study of Kaizen teams (forums where workers meet to suggest improvements in productivity).

2. There is little to suggest that Lean Production is a fundamental break from the Taylorist organization of work that allows workers little control over the production process. Both the two major quantitative studies of workers in Lean plants have suggested the opposite, with direct comparisons finding workers in Lean plants less able to influence the work process (Lewchuk and Robertson 1996; 1997). Furthermore, studies of teamwork in Lean plants suggests that they typically cede little control to workers (Dassbach 1996:22; Cressey 1997a). More widely, a number of writers have pointed out the direct influence of Taylor’s principles on the development of Japanese Management itself (Dohse et al 1985; Conti and Warner 1993; Rawlinson and Wells 1996). Indeed it has been argued that for the JIT system to work without ‘just-in-case’ inventory, and through ‘high velocity’ output, unvaried quality and work stations are necessary. As a result JIT factories tend to operate with short cycle times (the amount of time a worker performs a task before repeating it) allowing for little worker discretion (Conti and Warner 1993:36). So whilst one aspect of Japanese Management is to encourage suggestions from workers on improvements, “[t]he labour process at the visited sites is contradictory, with employees working four hours a month in a very non-Taylorist manner to make their work for the rest of the month even more Taylor-like” (Conti and Warner 1993:39).

3. Evidence has supported a link between Lean work and some additional training, although with a heavy emphasis on ‘soft’ rather than technical skills. Lewchuk and Robertson (1996:79) say that the only area where their research supports claims put forward by advocates of Lean Production was that Lean plants had a greater amount of training than non-Lean plants. Writers on the developing world have also linked training closely with the successful implementation of JMTs (Kaplinsky 1995; Humphrey 1996). However, it is often claimed that one of the core elements of Lean Production, multi-skilling (implying ‘upskilling’), is in reality mainly multi-tasking (workers performing different tasks that do not result in significant new skills) and job-enlargement (Garrahan and Stewart 1992:115; Rawlinson and Wells 1996; Yanarella and Green 1996:12). Much training, too, is aimed, at winning worker consent. In North America training programmes emphasize interpersonal skills over technical skills (Yanarella and Green 1996:12), with Graham (1994:134) recording how 71.5 hours of the 127.5 hours of training at the Isuzu factory in the US was attitudinal.

4. There is some support for Lean Production leading to a softening of management, although the nature of co-operation is highly contested. Rover’s ‘New
Deal’ in the UK (Cressey 1997b) and the joint General Motors/Toyota NUMMI plant in the US (Adler and Cole 1992) are two examples of improvements in industrial relations being attributed to Lean Production. Furthermore, single-status terms and conditions — with workers and managers wearing the same overalls, single cafeteria and non-reserved car parking spaces — are all initiatives that have been associated with Japanese plants. Greater job security in Lean plants has also been reported in the case of American transplants (Berggren 1993:172-3), whilst in Brazil the adoption of Japanese techniques led to more stable employment as well as a softening of attitudes towards workers (Fleury and Humphrey 1993; Humphrey 1993). However, as noted earlier, Lean plants have been particularly associated with ‘greenfield’ location, attempting to exclude independent trade unions and create a unitarist ‘company culture’. Elger and Smith (1994b:50) see Lean Production as reflecting not greater co-operation, but increased managerial power: “management appear to have clothed a quite long-standing agenda of enhanced flexibility and work intensification in the revised language of Lean Production”. Graham’s (1994) six-month participant observer study also tracks how compliance was achieved through measures ranging from an exhaustive pre-employment selection process to company rituals such as workers joining arms and shouting Yosh at the end of meetings.

In sum, the system of Lean Production has been characterized as operating through a particular form of “coercion and consent” (Yanarella and Green 1996:5). Although there are differences between plants, and research is biased towards North America and the United Kingdom, examinations of Lean plants outside Japan have often linked the techniques of Lean Production to common social outcomes. Whilst there are likely to be benefits and losses for workers under the system, most studies have concluded that Lean Production is far from a post-Fordist panacea. Indeed, the authors of the only major quantitative study comparing working conditions in Lean and non-Lean plants concluded that: “Our survey results suggest that working in traditional Fordist plants is far from paradise. They also suggest that working in Lean plants is worse” (Lewchuk and Robertson 1996:79).
pation, rather than “functional forms of worker participation” associated with Lean Production (Cressey 1993:89).

Another attempt to construct labour friendly alternatives to Lean Production was developed in Germany, where powerful unions tried to forge a strategy of “Going Our Own Way”, shaping dominant work organization changes (such as teamworking) through key demands. These included that team leaders should be elected, production goals be reasonable, and that the system should promote workplace solidarity (Roth 1992). This built on the unions’ “humanization of work” campaign in the 1970s, with co-determinist structures such as works councils playing a leading role in designing these group work concepts (Turner and Auer 1996:241). In a three-country analysis, Turner and Auer (1996) compare the Swedish and German models with the Lean Production system, dominant in the US, concluding that the first two systems offer much greater skill enhancement and control by workers than Lean Production. The study contrasts the evolution of the systems, arguing that the history of co-determination and extensive vocational training in Germany and Sweden, and the tight labour market conditions in Sweden, were key factors in the evolution of more ‘human friendly’ forms of work organization.

Whilst much of the literature on comparative employee relations focuses on European countries, Humphrey’s (1993) work on Brazil raises important questions for South Africa. Like South Africa, Brazil is typified by low levels of mutual commitment between management and labour and a long history of authoritarian management. With a new focus on exporting, and the need to improve competitiveness, firms in both countries have increasingly looked towards the Japanese production system. In Brazil, although trade unions were largely bypassed when JMTs were introduced, there were signs of an implicit bargain, whereby workers accepted change whilst management provided more stability of employment, linked productivity gains to pay or training and promotion opportunities, and placed greater value on workers, through softening its management style.

Humphrey asks why Brazilian employers, despite weak unions, appeared unable or unwilling to impose conditions on labour as severe as Western case studies had highlighted. In part the answer lies in recognizing the poor historic conditions in Brazil. Hence, areas of improvement linked to JMTs in Brazil (such as offering greater employment stability, albeit without guarantees) in other countries would represent a worsening of conditions (Humphrey 1993:108). Other factors were labour shortages for educated workers, attempts to win worker support to stop unions mobilizing against change, and management’s inexperience in using new control mechanisms. However, in a later piece Humphrey (1995:342) argued that these conditions may be changing: management is learning how to develop the evaluation and control systems needed to increase pressure on workers.

The paper will now examine the influence of post-Fordism in South Africa.
Post-Fordism and ‘Japanization’ in South Africa

In the late 1980s researchers increasingly began to confront the country’s considerable economic problems: low growth, an uncompetitive manufacturing sector, poor human resource development, low productivity, and hostile industrial relations. In this context, the concept of ‘post-Fordism’ began to be promoted within South Africa by prominent scholars (Kaplinsky 1990; Ngoasheng 1990). For one of these writers, although the path was not predetermined and unpleasant tasks still remained, post-Fordism was “a new form of capitalist organization, one which is demonstrably superior in growth performance” (Kaplinsky 1990:2). Under post-Fordism workers can become a resource and not simply a cost and “there can be little doubt that the nature of work within post-Fordist enterprises is relatively more satisfying than that in classical Fordist firms” (Kaplinsky 1990:8).

Despite less positive assessments elsewhere (Lloyd 1994), post-Fordism remained influential in South Africa in the early 1990s. In part, this was because of its attraction to the powerful labour constituency even if, according to Bond (1996:25), post-Fordism was a “catchy heuristic device” that hid the fact that the outward orientated policy proposals developed by the Industrial Strategy Project (ISP) were not likely to serve labour’s interests. The increased focus on post-Fordist firm-level prescriptions was also consistent with the shift in economic policy within the democratic movement in the early 1990s, away from a national demand-side interventionist approach towards a more global, supply-side strategy for economic reconstruction associated with the ISP (Padayachee 1997:14). For some, the attraction of post-Fordism also coincided with a reluctance to threaten the interests of large-scale capital in South Africa’s conglomerate dominated economy (Fine 1995:116).

The final report of the ISP was co-authored by Joffe, Kaplan, Kaplinsky and Lewis. The ISP proposals aimed to improve the competitiveness of industry as protection was reduced and exports were encouraged. In meeting this challenge, post-Fordist work organization emerged as an important strategy. Not only would these supply-side measures benefit competitiveness, but they would reduce hierarchies, promote the de-Taylorization of work, encourage skill acquisition, and devolve and democratize work through teamwork. The ISP report argued that “a short-term thrust, designed to unlock the skills and experience from the hierarchical and authoritarian forms of work organization, would enhance productivity substantially” (Joffe et al 1995:95). Institutionally, these policies should be supported by a new training system, a legislative framework promoting co-operative labour/management relations, and a “wage-skill nexus”. Hence workers would benefit through higher skilled, more democratic working, and better pay, whilst management would achieve greater productivity, flexibility, and skills, allowing them to move into higher value-added production.

Underlying the ISP’s approach towards the labour implications of post-Fordist work organization are two central beliefs. On one hand, there is an optimistic assessment of post-Fordist work organization, with a dynamic and symbiotic
relationship suggested whereby the practices lead to an increase in competitiveness at the same time as providing a break from the Taylorist, hierarchical management practices of the past. Although Lean Production had been tried in South Africa, it was said, some of the elements of the system had been “misinterpreted” (Joffe et al 1995:195). For instance, multi-skilling (involving an element of up-skilling) in South Africa had been wrongly implemented as multi-tasking (rotation between simple tasks). The clear implication was that, if implemented correctly, post-Fordist work organization techniques had the potential to up-skill and democratize work. However, in a somewhat more critical tone, the ISP also recognized that some aspects of Lean Production were “not suitable for copying” (Joffe et al 1995:197). This led to suggestions that in South Africa work organization changes must be adapted into an environment demanding more democratic practices, and the German system, noted above, was suggested as an example of this (Joffe et al 1995:197). Indeed, when the “happy scenario for workers” implicit in the work of the ISP was challenged by Nattrass (1994:522), one of the authors further restated that many of the ISP’s policy prescriptions aimed at charting a “labour friendly” approach to flexibility (Kaplinsky 1994:535). The net result of these two strands, then, is both an underlying optimism towards post-Fordist work organization, and recognition that institutional changes must channel these along a ‘high road’. The extent that this high road has been followed will be examined through the following case study.

Lean Production in South Africa: The Case of ‘Firm A’

Methodology and Background

Firm A is an auto-components company in KwaZulu-Natal that has adopted a number of Lean Production techniques and is likely to be amongst the leading utilizers of JMTs in South Africa. The areas that the study will focus on are working conditions in the plant (taken broadly to encompass skill levels, worker participation and intensity of work), how these compare to Lean Plants elsewhere, and what signs there are of adaptations towards a labour friendly South African path. The case study is based on interviews with management, the shop steward, and the regional union official, lasting two days, as well as interviews with 30 workers, 15 from each of the company’s two sites, which lasted one day per site. The workers were interviewed using a semi-structured questionnaire and the interviewer was a Zulu-speaker who noted workers’ responses in shorthand before later transcribing them in full. Workers were selected through computer generated random numbers, and the interviews were held in private and conducted in early 1998.

Firm A has two separate sites 40km away from each other, both situated in the hinterland of KwaZulu-Natal. The firm’s main customer is Toyota. The first site (Site 1), was set up in 1989 and is staffed predominantly by black workers, 80 per cent belonging to the National Union of Metalworkers (NUMSA). It employs approximately 300 workers. The second site (Site 2) opened in 1996 and employs...
approximately 500 Indian workers. It is not unionized. Virtually all employees at both factories are female, management saying that women are less “problematic” and more “productive”. Site 1 is located in a former industrial decentralization zone, although the incentives associated with this have now been withdrawn. Central to the location of Site 2 was its proximity to the first site and the abundance of female Indian workers in the locality. One manager said “Indian people are better ... black people are pretty militant ... unions, that type of thing”.

There has been a long history of confrontation and distrust at Firm A, particularly at Site 1. In 1997, workers at this plant held a strike for 10 weeks over pay and there have been other disputes in recent years. Pay at Firm A is R5.11 an hour (approximately US 80 cents) which falls below the industry minimum rate. However, the company says that now that there are no longer incentives attached to the decentralization zones, the firm will be forced to relocate nearer to Toyota in Durban if the industry levels are matched. These tensions can be viewed against the backdrop of the increasingly competitive pressure in South Africa’s automotive industry as a consequence of tariff reductions and reduced domestic demand (Barnes 1997). In response to both this need for productivity improvements, as well as the influence of Toyota, Lean Production was progressively adopted in Site 1 from the early 1990s, but particularly from 1995. Site 2, established in 1996, began operations as a much ‘Leaner’ plant than Site 1, with JMTs implemented on an on-going basis since then.

It is clear that Lean Production has brought large productivity improvements. At Site 1 figures provided by management show that from 1995 until late 1997: total labour cost of sales has decreased from 18 per cent to 12 per cent; hourly paid head count has reduced from 572 to 314 (a 45 per cent decrease); work in progress has decreased from 24 days to 15 days; and external rejects have decreased from 2 600 parts per million to 620. According to management’s calculations, overall plant efficiency has increased from 22 to 54 per cent. During this period of change there has been only a very slight increase in the amount of casual workers employed in the plant, the number remaining low (roughly 5 per cent).

For most workers, the production process is simple assembly work: a group of some dozen workers stand around a carousel (a rotating circular production line), each with a task of wrapping wires around clips attached to a board. Whilst this has remained the same, the adoption of elements of Lean Production has led to a number of changes: the company has introduced the JIT/kanban system at both plants (although this is only partially implemented); greater autonomy has been given to team leaders; a worker suggestion scheme has been implemented, with 150 suggestions at Site 1 implemented in 1997; and on the job (multi-skilling) as well as off-line training have both been increased.
Working Conditions: (i) Has Lean Production Affected the Work-Pace?

At both sites of Firm A there is strong evidence of work intensification. At Site 1, interviews suggest roughly a 35 per cent increase to targets with a similar rise noted at Site 2. Although some increase is likely to be due to improvements in efficiency (for instance because of worker suggestions), almost all the workers interviewed complained about work intensification, with many saying that they didn’t even have time to go to the toilet. At Site 1 one worker said:

> Working is difficult because each time you think of going to the toilet you think of your score and it is even more difficult when you need to change your sanitary towel.

At Site 2, one worker said:

> Our target was 15 per hour and now it is 22. Our boards were set on four minutes and our boards are now set at two minutes and it is quite fast. To go to the toilet you have to advance it and when you come when the board is gone you have to follow it. We have to tell the supervisor that we want to go to the toilet and if she is not there you cannot go.

One of the reasons for this intensification, and a major point of contention amongst workers, was management’s decision to take away chairs that most workers used to rest on — the workforce now has to stand for the full 7am until 5pm workday. One worker at Site 2 said:

> There is no time to go to the toilet or even to drink water. Sometimes we cannot even talk because we know that it slows us down. It is very unfair to work here because you have to stand, but there is nothing I can do. Most of us have problems with our feet.

Management accepts that workers now work harder at both sites, in part because of the removal of chairs, but maintains that they are still not working at an acceptable speed, particularly at Site 1. Before removing the chairs, management said that an industrial engineer undertook a study, finding that there was a lot of ‘unnecessary’ sitting. Management also looked at practices in Japan, saying that employees in similar factories were working at a much faster pace, and did not use chairs to rest. Not only does this demonstrate the influence of Taylorist ‘time and motion’ studies, but it emphasizes the constant drive towards eliminating *muda* or ‘waste’, which is a prominent philosophy within the factory.

Whilst the JIT/kanban system is not fully implemented, there is some evidence to suggest that it has led to an increased intensity of work. The first possible illustration of this is the high amount of overtime at Site 2, often demanded at very short notice. One worker commented:
When it comes to overtime we cannot refuse, we just work. They tell us all of a sudden and if you are married you just have to see what you can do. If they tell us in advance we can prepare. ... But here we are forced to work, we should have the right to say no.

Furthermore, when overtime is not used, changing demands are accommodated, not just through buffers but through increasing the speed of work, one worker saying: “The targets are raised when there are urgent orders but not the amount of people”. A worker at Site 2 also spoke about having to “work ahead” to increase production in order to avoid overtime. Finally, one worker said: “I have to run to the toilet because I should not accumulate more than one harness on my desk at a time” which also suggests that rules to reduce ‘buffers’ place increasing demands on workers. Although JIT/kanban is only partially implemented, taken together these findings suggest that there are signs that the system has indeed improved productivity through reducing stock, although this process has not been socially neutral but has increased the demands placed on workers.

International evidence has also linked the unitarist culture promoted in Lean Firms with work intensification. There is some evidence supporting such a link at Firm A. Particularly through training, management has tried to create a unitarist ‘family’ culture within the firm. Teams are encouraged to compete and unions discouraged at the newer site, Site 2. Some competition between teams, according to both management and workers, is visible at Site 2 although it appears that this is less so at Site 1. At Site 2, one worker said:

Mine is called the famous six and this is because it is better because people were not concerned about putting things in order. It is good because we compete and see who is better, we want to be the best.

However, this did not appear to be a common view, even in Site 2. Indeed, there was enthusiasm for an independent union at both sites with almost all workers still seeing their interests strongly in conflict with management’s. Hence, strategies that could lead to divisions within the workforce appeared at this stage to have had some, although a limited, impact.

Finally, the interviews also suggest that of central importance to workers’ acceptance of the increase in work pace, and wider working conditions, are ‘external’ factors, particularly the high rate of unemployment in the locality. It is notable that even though workers are unhappy about many aspects of the work, labour turnover was extremely low. Interviews with both management and labour suggest that this is due to the high and increasing unemployment rates in the regions. As one said, reflecting the predominant view in both sites: “Workers are very committed because they know that they cannot get another job.”
Working Conditions: (ii) Has Lean Production Given Workers More Control over the Labour Process?

Tasks in Firm A are highly standardized with short cycle times of around two minutes. There has been some devolution of control to team leaders, particularly over disciplinary duties. Yet this appears not to have led to a reduction in authoritarianism, rather a devolution of authoritarianism. Workers spoke of supervisors very much as if they played the role of an authoritarian manager. As mentioned, it was clear that most workers had difficulty leaving their stations to go to the toilet, even having to obtain a disc when they wish to do so. Supervisors themselves were under pressure to perform: “If you make a mistake they will scold the supervisor and they take it out on her and she will swear at us.” There was also constant fear within the workforce about “signing a warning”, which included targets not being met: “Anything we do is like a warning”, one said.

There are some areas where workers have been able to exert greater influence in the firm. The suggestion scheme allows workers to have some influence on the ‘conception’ of work and this can lead to an improvement in the working environment. Workers were generally positive about the scheme, one saying: “I had to bend to fetch some components and it was hurting my back so I asked for a table and they gave me that and a T-shirt as well”.

Yet ultimately workers either individually, or through teams, have a limited ability to influence the workplace. Complaints about conditions that workers are particularly unhappy about, for instance the removal of chairs, can simply be ignored.

Working Conditions: (iii) Has Lean Production Increased Skill Levels?

Firm A has increased the training of its workers, and this has resulted in some new skills. Yet much of the training is either attitudinal or aimed at understanding Lean Production. For instance, training courses include: “kanban”, “Oh! To be World Class”, “Double Throughput” and “Muda Elimination”. Extra training also takes place to multi-skill workers, with management saying that the main advantage of this is the ability to cover more efficiently for absenteeism. Yet whilst the process is called multi-skilling, training for the different jobs takes only about one or two hours — workers learn a new pattern with which to assemble the product. Despite this, employees’ reactions to multi-skilling/tasking are mixed, but on the whole positive. Most confirmed that it was used mainly to cover for absenteeism, but felt that it made work less boring. One worker said: “Multi-skilling is good because you learn about more than one part in the component.” However, another said: “It is bad because if you know too many things, you will have to stand in for people who are absent.”

Workers are also required to take greater responsibility for quality. A quality controller at the end of the production line identifies the cause of any errors, informing the worker who made the mistake, who then rectifies it whilst at the
same time being responsible for normal duties. This both informs employees of their mistakes and acts as a disincentive for further errors. As such, few new skills are learnt from this devolution of responsibility.

**Working Conditions: (iv) Has Lean Production Led to Greater Co-operation and Softer Management?**

The attitude of management towards the union at Firm A has been contradictory. The company has increased communication with the union at Site 1, inviting the shop steward to discuss the performance of the business, although not to participate in the decision-making process. Site 2, in contrast, was set up in a location partly to avoid unionism, and union officials were not permitted to enter the premises when they recently visited on a recruitment exercise. At this site management made a strong effort to increase co-operation with workers *outside* union structures, through a workers’ committee.

Workers in both factories were extremely positive about the union, a typical comment at Site 1, being: “They are the ones that know how to solve the problems. In many cases one may be wronged by an employer and if there are any queries the union can help.” At Site 2, the interviewer noted how the workers appeared “timid”, and very scared of management. Yet, although very positive towards the union, most workers were too frightened to join, one comment being:

> There was gossip on the shopfloor that management was going to fire. ... I would love to be in a union but at the time the people came I needed the job badly. ... Like now, there was a holiday and if we are in a union we should have been on holiday because the other companies had a holiday. ...

More generally, there are signs that Lean Production has led to some softening of management attitudes at Firm A. At both sites the company distributed a ‘bitching sheet’, through which workers could anonymously highlight aspects of work which they were unhappy about. Additionally, workers report that management is now more approachable. Four important roles in Site 1 were also held by black workers — the Kaizen co-ordinator, the trainer, the production foreman, and the human resource manager. Although black people could be promoted simply because, some distance from the main cities, white labour is scarce, or it demands a premium, this is also consistent with the emphasis on gaining ‘consent’. Workers were generally positive about these steps, saying: “When it was just whites we were scared to talk to them.”

**Summary**

Given the time constraints of the study, firm conclusions on every point are not possible. Another limitation is the only partial implementation of Lean Production, with human resource elements implemented further than technical measures such as *kanban* and JIT. Nonetheless, interviews at Firm A suggest the following:
that there has been a considerable intensification of work; in some areas there has been a tightening of managerial control, particularly through warnings; that location in an area of high unemployment has had a disciplining effect on labour; and, to a lesser extent, that teamwork has led to some competition between workers. Furthermore workers have little control over the work process. Jobs are designed by management, with workers having only a small influence on the ‘conception’ of work; cycle times are extremely short at around two minutes; and authoritarianism has largely been devolved and not diminished. On the positive side, there has been some increase in training, and this training has led to some new ‘soft skills’ such as how to develop suggestions, and with several hours of extra training as a consequence of multi-skilling and a greater variety of work. The company has also placed more emphasis on gaining the consent of its workers and, in some respects, management’s attitude has softened. Workers were also positive about the suggestion scheme, multi-skilling and teamwork — although the latter may be partly because of its ability to share more evenly an increased workload. Additionally, it should be noted that whilst workers were generally positive about multi-skilling they did not approve of the fact that lower employment requirements resulted from the more efficient covering of absenteeism.

Whilst this evidence is broadly consistent with studies of Lean plants elsewhere, the findings also reflect Firm A’s particular context. The simple nature of the labour process and flat skill structure means that the acquisition of additional skills, with one or several groups of workers being upskilled, is unlikely. South Africa’s political and social history has also clearly affected the implementation of Lean Production. It is likely that the strong and independent union at Site 1, characteristic of South African industrial relations, played a part in resisting attempts to create a unitarist culture and competition between workers at the factory; it is noticeable that this was reported more at Site 2 (the non-unionized firm) than at Site 1. Wages are also an underlying point of great discontent, particularly at Site 1, and South Africa has one of the most unequal wage distributions in the world.

Furthermore, change is relative and interviews suggest that the small break from the racial and authoritarian practices of the past — through management’s softening of attitudes in some respects, and the promotion of some black people — has had a positive impact on workers’ perception of the firm. However, despite this, the absence of moves towards the introduction of single-status terms and conditions (a feature associated with Lean Production elsewhere), and the reduced but still strong hierarchical organization of the firm, are areas where South Africa’s racial and hierarchical legacy can be seen. Finally, it is important to recognize that there are also likely to be wider societal explanations for the actions of black and Indian women workers at the two sites of Firm A — the effects of marital status, workers’ contribution to the family wage, power relations within the family, and the disciplining effect of job losses in the two areas, could all be looked at independently. It is especially important to recognize the complex way
that the South African market is structured, particularly along racial and gender lines, and the way that these divisions intersect in different ways over time and place. For example, although national figures show that women are disproportionately represented in unskilled, low paid and poorly organized sectors and occupations (Standing et al 1996), the particular intersection between gender, race and place clearly leads to very different social processes at the two sites.

**Work Organization and the Post-Fordist High Road in South Africa**

The results of the case study demonstrate the complex interaction between gender, race, management strategy, the production process, the wider political economy, and South Africa’s antagonistic, hierarchical and racist past. They caution against reducing analysis to simple conclusions. However, in keeping with the thrust of this article, the limited role that Japanese-influenced work organization changes played in democratizing, de-Taylorizing, or significantly increasing skill levels, is noted, as well as evidence that a labour friendly South African path does not appear to be emerging. To shed light on this, the present section will reflect on four points: the nature of work organization changes taking place at South African firms, the wider institutional context, the political economy of industrial change, and the impact of the spatial organization of production on the firm.

Firstly, the work organization changes adopted at Firm A were clearly rooted in the principles of Japanese Management, consistent with the growing influence of JMTs in South Africa (Maller and Dwoatsky 1993; Rogerson 1995; Hunter 1998b). Yet, as has been argued, the Japanese system is, for workers, fundamentally an adaption of Fordism, allowing employees only limited autonomy and involvement in the work process. Attempts to transform work organization along more democratic, high-skilled, lines — for example the Swedish system — are based on very different principles to those of Lean Production. Although South Africa’s racial and authoritarian history clearly impacted on the implementation of Lean Production, the findings at Firm A are broadly consistent with evidence from other Lean plants, set out in Section Two. As argued earlier, and despite the optimism reflected in industrial policy, this has, at best, mixed effects for workers, demonstrating little ability to democratize or de-Taylorize work.

Secondly, evidence from other countries, such as Germany, has demonstrated that it is possible to channel work organization changes along a labour friendly route. Indeed the ISP specifically elected for such a path, through encouraging labour’s participation in the restructuring process in South Africa. But at Firm A and elsewhere in South Africa, there are few signs of the Lean Production system being adapted in this fashion. Teamworking is one example of this: nationally the trade union NUMSA developed a set of demands for teamwork, for example for team leaders to be elected. But in none of the 10 firms visited in a recent study of Human Resource Development were these met, nor were they even being ad-
advanced, and whilst labour relations were becoming less hostile in the post-apartheid period, there were no signs of workers playing a significant part in decision-making (Hunter 1998b). A NUMSA regional official confirmed these findings, saying that regionally the union has had very little success in promoting a union agenda for changes in work organization.9

Why is it that in a country where unions played a large role in policy formulation and in moves towards regulating the labour market, there appear to be few signs of labour friendly variations of work organization developing? Section Two suggested that more human friendly forms of work organization evolve from a country’s social, economic and political context, especially labour’s ability to influence change through the institutions of co-determination and systems of training. But the contrast between Germany or Sweden and South Africa’s long history of industrial conflict, uncohesive organization of labour and capital, and the ‘capacity crisis’ within the labour movement (Baskin 1996:14) are obvious. In South Africa, whilst a labour-friendly path to industrial restructuring has been promoted, institutional reforms aimed at this are at a very early stage and evidence so far is mixed. One important new institution, workplace forums (modelled on German works councils that promote co-determination at the plant level), have had a very poor take-up, described recently as a “massive failure” (Mail and Guardian January 16, 1998). Indeed, several years ago, Kraak (1996:15) warned that South Africa’s racially segregated labour market and obstinate managerial tradition could hinder the implementation of post-Fordist work organization in a way that would transform the South African workplace, a point supported by Barchiesi’s (1997) recent study at SAMCOR.10 What Firm A, and wider evidence, seem to show is that however much institutional attempts are aimed at charting a labour friendly high road, at this early stage (when labour legislation promoting co-determination has been implemented, although training legislation has not) there are little signs that this is being followed. More widely, the increasing evidence of casualization of the labour market further questions the extent that employers themselves are interested in following a high road (Kenny and Webster 1998).

A third factor is the need to situate work organization changes within an understanding of the wider political economy. Workers and trade unions have much less power and influence in today’s world economy than in the early post-war era, as capital has become more mobile, global unemployment has risen, and rapid trade and financial liberalization has increased competition. The globalization process itself has greatly weakened unions in the Third World (Thomas 1995). In today’s economic environment, even the two famous human friendly Volvo plants in Sweden (Kalmar and Uddevalla) mentioned earlier have been closed, although the reasons for this are heavily contested.11

Trade unions were pivotal players in South Africa’s transition, a consequence of the leading role they played in the democratic struggle. But since 1994, their position has weakened. Although trade unions are numerically strong, the rapid
pace of trade liberalization has dramatically increased competition, with 100 000 jobs shed from the formal sector in 1997. Unemployment now stands at around 30 per cent. The effects are visible at Firm A. At both sites high unemployment, and the weakening hand of labour, was one factor keeping workers ‘committed’, despite poor working conditions. High unemployment also gave management the flexibility to pick and choose the location of its second site where it felt that labour resistance would be low. Furthermore, management at Site 1 used threats of relocation to keep wages below the national rates. This strong position relative to labour appears to be in contrast with labour market pressures on employers in Brazil to improve conditions, as noted by Humphrey. Finally, the environment of job losses and increased competition can even undermine institutional reform, such as attempts to create greater co-operation — a point demonstrated by the strike at Site 1 following pay restraints. In sum, whilst industrial policy emphasized how meeting new competition in a global market economy necessitated new and more progressive forms of work organization, the down side of liberalization and its effects on labour’s ability to shape change, was not adequately reflected.12

A final factor impacting on the ability of work organization to drive workplace change is the spatial organization of industrial production. The spatial division of labour between nations and regions is an important determinant of skill levels in the auto-sector, as with all industries (Deyo 1996). In South Africa, policymakers suggested that work organization was one route towards higher skilled production and more democratic work practices. Firm A, however, questions just how easily the transmission can take place: it is locked into low value-added activities through the centralized sourcing policies of powerful automotive firms operating on an increasingly global scale. Although the automotive industry is one of the most extreme examples of centralized multinational sourcing, Firm A highlights how skill levels and workers’ attempts to democratize work were shaped by the company’s peripheral position in the enormously competitive international auto-industry.

Conclusions

The construct of ‘post-Fordism’ had a particular resonance in South Africa during the early 1990s as the country steered towards democracy. It offered the prospect of a high road through a win/win strategy for labour and business, with work organization changes driving a high-skill, highly productive, and more democratic era. Indeed, two central features characterized industrial policy’s approach towards labour and work organization: the potential synergy between work organization, productivity and working conditions, and the potential for a labour friendly path to be charted. Primary and secondary evidence suggests that this was both an over-optimistic reliance on Japanese-inspired production techniques, and on the prospects for a South African high road.
Opinions may differ as to whether negative changes, such as work intensification, outweigh a number of positive features, such as the softening of management attitude and some increase in training in Firm A. But the research certainly questions the ability of post-Fordist work organization to transform the South African workplace along a high skill, de-Taylorized path. It also challenges the conceptualization of industrial change through a post-Fordist lens. If part of the productivity gains at Firm A resulted from work intensification, and the system continued to operate through tight Taylorist principles, this clearly challenges the win/win scenario implicit within policy. For industrial policy, these findings raise questions about how the proposed ‘wage/skill nexus’, and ‘moving up the value chain’ are to operate if skills are not significantly increased through work organization. They also open up the possibility that post-Fordist work organization changes could lead to increased intensification of work and the worsening of working conditions, instead of improvements for workers. For labour, they point to the importance of increasing internal capacity and awareness towards different forms of work organization, and developing strategies to advance labour friendly alternatives.

There are of course limitations to drawing concrete conclusions from a single case study. Firm A is a low-skilled plant, it has not fully implemented all of the Lean Production measures, and local factors clearly shape social dynamics within the firm. It is also important to reiterate that South Africa does not come from a history of comfortable Fordism. Change is relative, and the case study, whilst pointing to some negative effects of Lean Production, also highlighted some positive outcomes. Evidence from Brazil, with a similar history of authoritarian management, suggests the importance of judging change over time. Additionally, it is impossible to predict the effects of alternative strategies to increase productivity had these been pursued. Working conditions at Firm A are very poor, but would alternatives have left workers in a better or worse position? Further studies are clearly necessary to provide a fuller picture of how sectoral dynamics and the recent and prospective institutional changes combine with South Africa’s legacy of terrible human resource development to shape working conditions across industry. In this light, whilst critical of the unrealistic optimism of the post-Fordist model, this article does not dismiss such changes out of hand, and seeks to make a positive contribution to further necessary studies of workplace change. To answer the question posed at the beginning of the article, “How high is the post-Fordist high road?” the case study and wider review suggest that the answer is: certainly not as high as suggested, in need of re-planning, subject to severe restrictions, but given the poor state of the existing path, not to be dismissed!

Notes
1. The primary research for this article draws on a Human Resource Development study conducted by the author for the KwaZulu-Natal Industrial Restructuring Project (KZN IRP), University of Natal, and funded by the Human Sciences Research Council (HSRC). I would particularly like to acknowledge that this research draws on the KZN IRP’s wider auto sector study conducted by Justin Barnes. I am also very grateful to the following people for critical
comments: Lisa Bornstein, Peter Cresse, Ben Fine, Bill Freund, Mike Morris, Vishnu Padayachee, Eddie Webster and an anonymous referee. Thanks too to Sharon Mlambo for undertaking the worker interviews; the Trade Union Research Project, University of Natal, for the use of its library; and the workers and management at ‘Firm A’ for generously sharing their perspectives on workplace change. The conclusions within the paper do not necessarily reflect the views of the HSRC, KZN IRP, or individuals mentioned above.

2. Although post-Fordism and Japanese work organization techniques were important influences on South African industrial policy, many of the ISP’s proposals drew from longstanding union demands, such as the establishment of a new national training system. Whilst this is recognized, this article focuses primarily on post-Fordist work organization techniques in South Africa.

3. For general reviews of post-Fordist literature, see Wood 1989; Sayer and Walker 1992; Curry 1993; and Lane 1995. Although the impact of microprocessor technology has also contributed to debates about post-Fordism, this will not be looked at in this article, although see Freund (1992) for a discussion of post-Fordist technology in South Africa.

4. The essence of unitary theory is that workplaces are integrated and harmonious wholes existing for a common purpose. There is no conflict of interest between management and workers, and trade unions are often viewed as an illegitimate intrusion on co-operative structure of the workforce (Farnham and Pimlott 1990).

5. A good example of this is the Rover plant in the UK. As part of a “New Deal”, when Lean Production was adopted, management decided that all workers were to be called ‘associates’:

   “Rover will be a single status company. We are all employees and the only distinction is the contribution we make. ... A single status sick pay scheme will be progressively introduced. ... Everyone working within the company with the exception of external facing activities will wear company workwear. ... Single status catering will apply throughout the company. ...”

   (Cresse 1997b).

6. This section summarizes research presented in much more detail elsewhere (Hunter 1998a).

7. The reasons for drawing this conclusion are as follows. In early 1998 the author conducted a study of Human Resource Development in 10 auto-components firms in KwaZulu-Natal (Hunter 1998b). This sample was skewed to reflect auto-components firms in the province that had attempted to adopt work organization changes. Of these 10 firms, Firm A had implemented Lean Production the most thoroughly. Although elements of Japanese Management have spread across a number of sectors internationally, its origins are in the autosector, and indeed research shows that Toyota was the first major firm to implement Lean Production in South Africa, also promoting it amongst its component suppliers, although adoption has been piecemeal (Duncan and Payne 1993:51). Thus, although comprehensive cross-sectoral research on Lean Production has not been undertaken, both the depth of adoption in Firm A (Duncan and Payne 1993, Rogerson 1994; Kraak 1996) and Firm A’s leading position in the auto sector in KwaZulu-Natal, suggest that the company is likely to be amongst the furthest forward adopters of JMTs in South Africa.

8. One particularly interesting finding, not explained through unionization, was that young Indian women appeared more critical of the company than older women, whereas the reverse was true for African women.


10. This obstinate managerial tradition and its impact on shaping a distinct South African path to restructuring was illustrated graphically when a manager interviewed by the author in 1998 confided that suggestion schemes had failed in the past because “people think that ‘kaffirs’ can’t make suggestions”.

11. See Sandberg, 1993 and 1996 for the claim that the two plants, closed in the early 1990s, were highly productive. Adler and Cole (1992) however, in a comparative study of Uddevalla and NUMMI — the joint General Motors/Toyota plant in the US credited as being one of the most ‘labour friendly’ Lean plants — claim that that whilst Uddevalla would be a more desirable place to work, NUMMI is a more efficient operation.
12. A further questionmark hangs over the funding of the institutional changes, such as the new training system, which some argue are restrained by the policy of Growth, Employment and Restrribution (GEAR) (Mail and Guardian October 9, 1998).

References


