

A 40-hour week?

the metal and engineering industry

Metal and engineering workers in South Africa work long, hard hours. Their average working week in 1995 was 49 hours. Production workers work an average five weeks longer per year than their non-production counterparts.

Shift workers often work even longer hours. They are exposed to serious health and safety risks, including a lower life expectancy. South Africa's poor and inefficient transport system cuts at least another five to ten hours a week from the time urban African workers spend away from home, community and leisure. The organisation of working time also impacts on workers' ability to access education and training.

Marx pointed to three mechanisms that capital can use to increase the extraction of surplus value (and hence profits) from labour:

- ❑ increasing the length of the working day;
- ❑ increasing the intensity of work (making workers work harder); and
- ❑ increasing 'productivity' through the introduction of new technology and work re-organisation.

The metal and engineering sectors are using all three strategies. The first is applied through the extension of shift work (the extension of operational hours), and more flexibility through overtime, rather than an increase in standard hours of work. Standard hours of work in all

Rob Rees' study of current work practices in the metal and engineering industry concludes that much can be done to achieve a reduction in working hours.

sectors of metal and engineering are declining. This is possible because of increasing work intensity, work re-organisation and higher levels of mechanisation. Individual companies are using overtime more frequently to meet 'just-in-time' orders and more demanding overseas deadlines.

The impact of a shorter working week on employment in these sectors will depend, in part, on whether or not employers pay workers the same wages. Put another way, it depends on the extent to which the state can pick up some of the employers' costs. Employers are in the business of making profits, not jobs. To the extent that a shorter working week erodes profit levels, it will encourage cuts elsewhere, and workers are normally the first to suffer.

Regulations

The metal and engineering sector is governed by two large industrial councils - the National Industrial Council for the

Motor Industry (NICMI) and the National Industrial Council for the Iron, Steel, Engineering and Metallurgical Industries (NICISEMI). Auto assembly has a national bargaining forum.

NICISEMI limits normal weekly hours to 44, while NICMI has a 45 hour week. These have each been reduced by one hour over the last decade, despite NUMSA's constant demand for a 40-hour week. In the highly concentrated and strongly organised auto assembly sector, NUMSA won a 40-hour week after a three-week strike in 1989. Only Mercedes Benz has, however, compensated the reduction in hours with an equivalent increase in the hourly rate of pay. Some 36 000 workers fall under house agreements, which are exempt from the main NICISEMI agreement. This includes Iscor and Highveld Steel and Vanadium, which run large, continuous operations. Normal weekly hours are generally 45.

NICISEMI sets a limit of 9,25 hours a day for workers working a five-day week, and 8,25 for a six-day week. Recent changes to the NICMI agreement allow for a 12-hour day, without overtime pay. NUMSA has suggested that this arrangement encourages employment. If it does, it achieves this through lowering access to overtime earnings. A smaller, but growing, number of companies outside of auto assembly work a 40-hour week.

Both councils provide for a maximum of ten hours overtime per week, of which four hours is compulsory for continuous operations under NICISEMI. It is possible to get exemptions, with the 1995 NICMI agreement allowing ten hours extra overtime a week, limited to an average 60 hours over a four week cycle. Some house agreements permit higher levels of overtime for site work, and allow limits to be exceeded without exemption in emergency situations.

Working hours

In 1995, the average production worker in metals and engineering worked 43,5 normal hours and 5,6 hours overtime per week, making an average total working week of 49 hours. Non-production workers worked 41,7 normal hours and 1,8 overtime hours - a total of 43,5 hours per week.

Data compiled by the Central Statistical Services (CSS) shows that there has been a downward trend in all engineering sub-sectors between 1993 and 1995, with the exception of basic metals. The trends are similar for total working hours. More recent information suggests that average hours in basic metals are beginning to decline. Some companies have introduced additional shifts, and others were exploring doing so. The impact is best shown by Iscor, given its high employment weighting in the iron and steel sector. Total working hours (standard plus overtime) will fall once the company implements a four-team, three-shift system in all its plants. This will decrease average working hours from 55 to 47,25.

There are many reasons for the reduction in working hours. Statutory reductions have been achieved in engineering, motor and auto assembly. An increase in the number of shifts may lead to shorter average working hours. Capital investment and increasing work intensity result in higher output over shorter periods of time. Other reasons include successful union struggles and a permanent reduction in hours due to the recession of the early 1990s.

The CSS data for 1994 shows that overtime ranges from four hours in 'other transport equipment' to over seven in basic metals. Vehicles, parts and accessories showed the lowest overtime. While overtime use fluctuates in line with growth periods in the economy, it is also

used extensively (albeit at a lower level) during recessionary conditions. While most sectors retrenched during periods of recession, remaining workers work harder and longer to maintain output.

International comparison

While there are methodological problems with international comparisons of hours of work, a comparison of selected countries for which figures are available suggest that, in 1992, South Africa had relatively longer hours of work compared to the Organisation for Economic Co-operation and Development (OECD) countries.

A more complex picture emerges in comparison to Southeast Asian countries, with South Africans working longer hours compared to some countries in particular sectors like iron and steel, but shorter hours in others.

Employment

Employment in basic metals dropped by an estimated 30% between 1990

and 1994. Those workers who remained worked longer hours and probably more intensely, despite higher levels of capital investment. There were also large employment losses in vehicles, parts and accessories. Despite a reduction in working hours, evidence points to a greater work intensity.

It is also clear that machinery has replaced workers. The capital labour ratio, a measure of capital intensity, reached 1985 levels in 1991. The new Columbus mill will increase steel output four times, but employment will only increase by 10%.

A number of companies have introduced multi-tasking/multi-skilling, which results in higher work intensity. Alusaf, for example, has introduced five grades, rather than the 14 provided for under NICISEMI, implying that workers undertake a broader range of tasks or skills. While multi-tasking may only mean more 'extensive' work (a broader range of tasks/duties), it is also being used, alongside multi-skilling, to decrease 'unproductive' labour time. The four-shift system at Iscor, for example, will include greater functional flexibility.

International hours of work, metals and engineering, 1992

| | Basic metals | Metal products | Machinery & equipment | Electrical machinery | Transport equipment |
|-------------|--------------|----------------|-----------------------|----------------------|---------------------|
| Germany | 38,8 | 39,0 | 38,4 | 37,7 | 38,1 |
| Japan | 39,8 | 39,9 | 39,8 | 37,9 | 40,2 |
| Australia | 42,7 | 40,2 | 40,2 | 40,2 | 40,9 |
| US | 43,0 | 41,6 | 42,2 | 41,2 | 41,8 |
| UK | 43,8 | 45,9 | 44,4 | 42,2 | 42,6 |
| Hong Kong | 43,9 | 43,9 | 44,6 | 41,1 | 44,6 |
| Mexico | 47,0 | 45,1 | 44,2 | 43,7 | 45 |
| SA | 50,5 | 43,8 | 44,7 | 45,0 | 43,45 |
| Korea | 49,5 | 49,5 | 48,1 | 46,4 | 41,2 |
| Singapore | 53,3 | 51,0 | 50,7 | 48,1 | 52,3 |
| Philippines | 53,9 | 47,6 | 47,0 | 49,3 | 48,8 |

Source: ILO, 1995, CSS, 1993a

Similar trends can be identified in the transport sub-sector, but total hours have been reduced alongside a substantial decline in employment figures, with a fairly large increase in capital intensity. Fewer workers are producing the same number of cars and components in shorter hours.

Shorter hours mean increased workloads. Nissan shopstewards report that work study methods are used by the company to ensure that units previously

produced in 45 hours are made in 40 hours. Management has restricted workers' movement around the factory and reduced the cycle time per workers: "If you are away from the line and there are no bottlenecks," says a shopsteward, "then you will get behind in your work". A number of factories in this sector have introduced work flexibility. Workers are beginning to operate additional machines.

Overtime

While overtime adds an average 17% to basic wages, the figure is higher for those who work regular, long overtime hours. Even two hours of overtime a week adds at least 6% onto basic wages. Policies aimed at banning or restricting overtime have not taken the resulting loss of income into account.

A 1989 SEIFSA/FCI survey found that 55% of workers in the steel and engineering sectors work overtime of more than two hours a week. There is a tendency for regular overtime usage to increase as the firm size increases. Engineering and motor shopstewards say workers in their plants work high levels of regular overtime. Just over half the respondents in the NUMSA leadership survey estimate that members in their plants work seven or more hours overtime a week, resulting in a working week of between 48 and 54 hours. Again, this increases with firm size.

Not all production workers necessarily work overtime. Maintenance workers, automotive machinists, computer operators, setters and programmers, as well as those operating bottleneck machinery, are more likely to work overtime. Workers doing overtime also include those who need cash, low-wage earners, those from the rural areas, those who have just purchased homes and those preparing to get married.

The NICISEMI rates for overtime are 1,33 for the first six hours and 1,5 thereafter. Most chapters of the NICMI agreement set a rate of 1,5 times the basic rate of pay. If 1,33 is used as an average, overtime adds an average 17% onto a production workers' normal pay. In auto components, a third of employees regularly pay between 11% and 19% of basic wages as overtime. Workers at Iscor add a week's basic wages every month through scheduled overtime work, while in basic iron and steel the figure is 19%. These examples highlight the importance, for a significant group of workers, of regular overtime pay.

Why use overtime?

According to a survey conducted by the National Association of Automotive Component and Allied Manufacturers (NAACAM) in 1996, the most important pressures to work overtime stem from meeting demand in the context of market fluctuations, shorter deadlines and just-in-time practices. Increased demand also results in higher breakdowns, requiring some overtime maintenance. Some companies also use overtime to test the market before committing themselves to increasing permanent employment. A large part of overtime derives from management inefficiency, whilst some workers may slow production to claim overtime during periods of low volumes.

Overtime and employment

Why does overtime not translate into employment?

According to the ACS survey amongst auto component suppliers, this is because of the cost of retrenchment (56%), non-wage labour costs (47%), insufficient demand (47%) and uncertain future demand (11%). No employer listed direct wage costs as the reason for not employing.



The auto assembly industry is moving to greater flexibility.

Companies also point to shortages in skilled, semi-skilled and supervisory labour as reasons for not employing. SEIFSA data for the 1990s show a greatly changing skills mix in the engineering sector, with far higher demand for semi-skilled workers, and considerably lower demand for unskilled workers.

Workers have also resisted overtime cuts. Two Cape Town companies, Henrik Freuhof and Gabriels, which have introduced a multi-shift system, were willing to introduce three shifts and greater employment possibilities. In both cases, workers opted for a two-shift system of 12 hours each day, in order to benefit from high levels of overtime. At Iscor Vanderbijlpark, workers revolted against the elimination of overtime pay, settling on a 32-hour gratuity each month that compensates for the loss of overtime.

Towards policy

In a recent survey of shopstewards, 88% said they would support less overtime if it

created more jobs. However, half said that they *could not* work less overtime, as it is contrary to their contracts. When asked whether they would accept less pay in order to create more jobs, 96% said 'no'.

Since its inception, COSATU has called for an overtime ban in the interests of employment creation. While the federation's 1996 Living Wage Conference reaffirmed this position, conference delegates raised the importance of overtime as a source of income, with some calling for a campaign to ensure its incorporation into the basic rate.

The 1996 Green Paper on Employment Standards and Policy Documents produced by the ILO and the Labour Market Commission propose that overtime rates be increased to one-and-a-half times the normal rate, as an incentive to reduce overtime and increase employment. Eleven percent of auto component manufacturers interviewed said that, if this was the case, they would increase employment. All of these claimed their labour costs were less

than 20% of total costs. Thirty-three percent said they would continue to use overtime in the same way. Their labour costs were mainly below 19%. Sixty percent said they would decrease overtime without employing extra labour. These respondents have a wide variety of labour costs. They regularly use overtime of more than two hours a week.

Company decisions with regard to overtime do not, therefore, appear to correlate with labour costs. Asked to motivate how they would reduce their labour costs without increasing employment, companies said they would increase capital expenditure and automation, improve efficiency, shift schedules and set-ups. Some specifically said that they would automate constraint areas to manage bottlenecks more efficiently. The range of methods mentioned to improve productivity include work methods, maintenance, training and process re-engineering. One company indicated that they would introduce swing shifts, with a floating labour pool, while at the same time contracting more of their work out.

Diverse employer reasons for using overtime suggest diverse policy responses. A uniform single instrument, such as increasing overtime rates, may result in small employment increases, but large reductions in overtime income.

Where overtime is a consequence of 'skills shortages', it might be possible to allow for exemption from higher overtime rates, as long as new workers receive training and eventual employment. This would require union and shopsteward monitoring. A gradually declining maximum limit on weekly overtime, especially when this is scheduled, would allow unions time to increase basic rates of pay. This will not, however, necessarily result in higher employment. Employers

might simply increase mechanisation.

A collective labour pool, with employers and the state sharing the costs associated with new employment (training and safety equipment, for example), would reduce some of the indirect wage costs of new employment. There might also be cost savings resulting from economies of scale if retirement and medical care provision were shifted away from industry to the state. Such strategies should, however, avoid increasing the cost workers already carry for these funds.

The health and safety implications of long working hours require access to regular medical care and check-ups. Finally, allegations about the partisan allocation of overtime suggest the need for a mandatory union involvement and monitoring role to ensure fair allocation when overtime is unavoidable, and its elimination for greater employment where possible.

Shift work

Shift work has become a permanent feature of capitalist society. An international study by the ILO in 1978 estimated that the number of workers involved in shift work doubled between 1950 and 1974. Writing in 1991, Adler describes South Africa as a "comparative heavyweight" in the shift working league. Five years later, Standing argued that South Africa still has a long way to go before reaching the levels seen in the Southeast Asian economies. There are two major reasons for working shifts:

- they allow for the maximum utilisation of existing equipment, thereby spreading high overhead costs;
- the nature of the process or long start-up times require shifts.

The earliest data on shift work in the engineering sector dates back to 1981. The metal sector as a whole showed a decline, due to recession, but sectors like

motor vehicles, parts and accessories and non-ferrous metals showed an absolute increase in the number of hours worked on shifts. This was most dramatic in the non-ferrous metal sector, where shift work increased from a third of total hours in the sector to just under half.

The 1989 SEIFSA/FCI survey found that 6% of companies worked three full shifts, 9% worked two full shifts and the vast bulk of respondents worked less than two full shifts. Six years later, ILO data showed that a third of all metal and engineering companies ran more than one shift per day in 1994, increasing to 37% in 1995. These figures show the increasing use of shift work. In motor components companies, 59% of companies are running two or more shifts daily. It should be noted that the samples in these surveys are different and cannot be directly compared.

Greater use of shift work not only increases the utilisation of productive capacity, but may also have a significant employment impact. The ILO found that the major reason for an increase in shifts for the manufacturing sector was increased production.

Any policy encouraging shift work must, however, take account of the large body of international evidence on its health and safety aspects. There is an increased incidence of mortality amongst former shift workers as well as amongst current shift workers compared to day workers. Shift work is associated with an increase in cardiovascular diseases and with a greater tendency towards general malaise, including anxiety and depression, as well as greater fatigue. Safety and productivity both decrease on night shift, while shifts in excess of eight hours are associated with a decline in performance.



Iscor, Vanderbijlpark.

Workers in South Africa face other shift related problems, including transport and low shift allowances. High levels of crime and violence worsen the effects of poor transport. Women are particularly vulnerable.

Despite the negative features of shift work, three quarters of shopstewards interviewed supported an extension of shifts if it creates more jobs. Some answers were conditional on what kinds of shifts were introduced, the extent that workers determine conditions and that it would not result in a loss of income.

International studies show, however, that the negative effects of shift work cannot be avoided. If shift work is encouraged, workers require the protection of lower daily shift hours, such as an eight hour limit. There should also

be stricter limits regarding quick shift changes (such as finishing at 10pm on one day and starting a new shift pattern at 6am the next day), access to meal facilities and longer leave. Workers must have regular access to medical care and check-ups. If a worker suffers health problems as a result of shift work, he/she must be able to transfer to a suitable day job. A more efficient transport system would reduce lengthy travelling time. Recognising the negative features of shift work also entails higher compensation for workers in the form of night shift premiums. If such a premium came from the state, for example, in the form of tax rebates, it might result in even greater employment.

Shift work may undermine union organisation (shift work has a disuniting impact on union members), suggesting the need to extend certain basic rights to shift workers, such as paid time-off for all shopstewards to attend union meetings jointly, and the right of all workers to meet jointly.

Casual and contract labour

The increasing use of temporary, casual and part-time work is an international phenomenon. South African employers are following this path. The engineering sector is using more and more contract and casual labour. Forty-four percent of motor component companies employ temporary (casual or contract) workers, representing approximately 8% of employment across all companies. In the metal and engineering sectors, 82% of companies employ temporary labour, 58% employ contract workers, 22% employ part-time workers and 7% employ home workers.

NICISEMI provides for a limited duration contract, and the NICMI for casual labour. Both are open to abuse. Labour brokers may receive exemption under the NICISEMI for benefit and leave payments by paying higher rates of pay. "

Under NICMI, workers have no retirement cover if they work for less than six months in the industry.

The number of non-permanent workers is set to increase. Existing regulation will be strengthened if the requirement to provide non-permanent workers with *pro rata* benefits and conditions of work is made law. The key question is how to organise these workers. This ultimately depends on shopstewards and members. Any struggle for permanence needs to begin long before the contract ends. A union or federation-wide campaign would provide greater focus to the threat this type of flexibility poses for union organisation and labour standards.

Two ideas worth exploring include setting limits on the number of contract labourers permissible and/or establishing some kind of pool from which this labour is drawn. The Italian metal unions have won a limitation on the ratio of fixed-term contract employees to permanent employees of 10% in firms of less than 100 workers, and 8% in larger concerns. Successful application of this scheme requires exploring effective enforcement mechanisms, as well as low ratios. The TGWU has entered into negotiations for the introduction of a labour pool on the docks, from which all employers should draw their casual labour. This aims to guarantee each worker a minimum of four days work a week, access to training and greater benefits.

A 40-hour week?

COSATU and NUMSA have put forward a demand for a 40-hour week. There are some organisations who support this move. The protestations of the business community notwithstanding, the most contentious issue is not whether there should be a reduction in the working week, but the period of its introduction

and whether workers will suffer a pay loss.

A small, but significant number of the companies in the ACS survey (19%) already have a 40-hour week. Those who do not said that, if there were a statutory 40-hour week without loss of pay, they would increase employment (17%), they would retain existing employment numbers (48%), or they would decrease employment (34%). Firms with high and low labour costs could be found on all sides. This finding begs the question how the majority of companies are able to maintain or increase employment. The conclusion can thus be made that a company's response to reducing the working week with no loss of pay is linked to factors other than labour costs. This suggests that much can be done to meet the 40-hour goal without reducing workers' income.

If employment is to result, workers need some leverage over the constant changes at the workplace: the intensity of work and the introduction of new technology, as well as the levels of overtime worked. This suggests the duty to bargain output, as well as staffing levels at the plant, to moderate the increasing tendency to employ non-permanent labour on a contract or casual basis.

A successful strategy requires compensation for loss of earnings. To the extent that productivity grows with a shorter working week, part of the increase in wages is compensated. If profit levels erode, employers are likely to reduce employment. Another route to making up the difference could be phased in, in proportion to the ability of the state to cheapen the cost of labour, through providing public health and retirement benefits, as well as more efficient transport.

If a shorter working week results in greater employment, it will be as a result of new workers *sharing the existing*

workload, leaving unanswered the question of new jobs associated with new investment creating *new employment opportunities*. Workers would, however, benefit substantially in other ways, particularly through the opportunities created by reducing the inequality between production and other employees. These include more time to develop their organisational and intellectual capabilities, as well as greater leisure. ★

The two surveys referred to in this paper were both done by Rob Rees. They are the Auto Component Survey (ACS), a postal survey through the National Association of Automotive Components and Allied Manufacturers (NAACAM) in April 1996, and the NUMSA Leadership Survey (NLS), questionnaires conducted with the NUMSA motor and engineering national shopstewards councils in March 1996. The paper on which this article is based was completed in 1996. Some of the policy documents referred to have now been translated into law.

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Rob Rees is a researcher at Naledi. This is an edited version of a report prepared for Naledi's 'Long-term research project on hours of work in South Africa', which was co-designed with the Industrial Health Research Group.