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POLICY MEMO

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Engineering hours of work

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While all Naledi publications adopt a pro-labour perspective, their conclusions do not represent the policies of COSATU.

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1. Introduction

The National Union of Metal Workers of South Africa (Numsa), following Cosatu, has since its foundation argued for a 40 hour week and a ban on overtime to increase employment. The goal of a shorter working week should not, however, limit itself to employment. Metal workers work long, hard hours, an average 49 hour week in 1995. (ILO,1996:334) Shift workers often work longer, with serious health and safety risks, including shorter lives. A poor and inefficient transport system cuts at least another 5 to 10 hours a week from the time urban africans spend away from home, community and leisure. (CSS,1995)[1] Workers too must have the right to a healthy work environment and proper access to leisure time and family. The organisation of working time is also important, impacting on the ability of workers to effectively access education and training.

Summarised by the ILO, the arguments for a shorter working week are compelling. In addition to work-sharing and social reasons, shorter hours reduce fatigue and thus also improve productivity. Against this is the assertion that shorter hours increase labour costs. Employment will not increase because jobs cannot be broken down, and non-wage labour costs (including recruiting and training) make the cost of part-time labour prohibitive. (ILO,1996:135)

Marx pointed to three mechanisms for capital 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. All three are apparent in the metal and engineering industry. The first though, is largely applied through the extension of shiftwork (the extension of operational hours), and more flexibly through overtime work (rather than increasing standard hours). And employers, through the use of non-permanent labour, achieve the same levels of output at lower cost. The macro-economic data used in the study show that standard hours of work in all sectors of metals and

engineering are declining. This is possible because of increasing work intensity, work re-organisation and higher levels of mechanisation, making profits less dependant on longer working hours. This shouldn't however detract from the fact that many individual companies use overtime more frequently, to meet just-in-time orders and more demanding overseas deadlines.

The study draws on two surveys conducted by the author, the Auto Components Survey (ACS) and the Numsa Leadership Survey (NLS).[2] This is a shortened version of a much longer paper, whose goal is to explore the constraints on reducing long working hours in the engineering and metals sectors, whilst maintaining the same pay and conditions, and if possible to expand employment without lowering either employment security or conditions.

2. Long hours, but declining standard hours.

In 1995 the average production worker in metals and engineering worked 43.5 standard hours and 5.6 overtime hours a week, making the average total working week 49 hours. [3] In contrast non-production employees worked 41.7 normal hours, and 1.8 overtime hours. (ILO,1996:334) This is the equivalent of working five and a half weeks less per year, than production employees. This inequality is echoed amongst auto components companies, where production employees work a 40 hour week at 19% of companies whilst non-production workers are on 40 hours at 77% of companies. (ACS)

Table 1: Weekly working hours: production workers and non-production employees, metals and engineering, 1995

Employees	Standard	Overtime	Total
Production	43.5	5.6	49.0
Non-production	41.7	1.8	43.5
Difference	*1.8*	*3.8*	*5.5*

Source: ILO, 1996:334

CSS sectoral data for the period 1983 to 1995 show that normal hours of work decline over the period in all metal and engineering sectors (including auto). In 1995, the average normal working week in each sector was 42 hours or less. Basic metals is the only exception, but as Iscor introduces the 4 team, 3 shift system in all plants, this sector's *total* hours will also decline (in Iscor by 16%).

The major influences resulting in a lower working week come from:

- The statutory and other decreases won through the Nicisemi and the auto bargaining forum.
- The increasing use of shiftwork in so far as this results in lower hours.
- Increasing capital and work intensity, making profitability less dependent on long hours.

3. Fewer workers work harder: basic metals and transport equipment[4]

Data on employment, investment and hours of work for basic metals indicates that while hours of work have increased, employment declines significantly. Between 1990 and 1994 some 30% of workers lose their jobs, but demand levels in 1994 are similar to 1990. Machines have replaced workers, and anecdotally workers are not only working more "extensively" (multiskilling tasking) but more intensely. *Fewer workers are working harder and longer, producing the same levels of output.* In contrast, employment in transport equipment declines by 20% between 1990 and 1994, with physical output in 1994 reaching 1990 levels. At least in auto manufacture, there is greater work intensity, lower cycle times and less time to take breaks from the line. *Fewer workers work harder,*

producing the same number of cars and components, but unlike basic metals, they do this over a shorter working week.

4. Overtime, worker resistance and employment

On average workers in metals and engineering add *17% onto their basic wages through overtime pay*. 60% of auto component companies regularly work more than 2 hours overtime a week, whilst 50% of shop stewards, work in companies doing more than 7 hours overtime a week (a 48 to 54 hour week). (ACS, NLS)

Responses from employers in auto components, foundries and construction engineering suggest that the pressures to work overtime results largely from meeting demand in the context of market fluctuations, shorter deadlines and just-in-time (JIT) practices. Increased demand results in higher breakdowns requiring more maintenance overtime. Several respondents claim that a large part of overtime derives from management inefficiency, whilst some workers may slow production to claim overtime in periods of low volumes.

Auto component suppliers forward a number of important reasons as to why overtime does not translate into employment: the cost of retrenchment (56%), non-wage labour costs (47%), insufficient demand (47%), and uncertain future demand (11%). (ACS) Asked to clarify the meaning of retrenchment costs, employers say this is largely the potential disruption resulting from the retrenchment process itself, rather than the cost of severance. (ACS) ***Direct wages*** are not in themselves an obstacle to greater employment. Significantly a number of employers say that there is a shortage of semi-skilled and skilled labour, forcing them to use overtime more often.

Workers themselves resist overtime cuts, with 17% of auto component companies claiming that this inhibits employment creation. (ACS) The Hendrik Freuhof and Gabriels examples reinforce the point. Both were willing to introduce 3 shifts and expand employment. But workers in both situations favored a 2-shift system to benefit from high scheduled overtime. At Iscor Vanderbyl, cuts in scheduled overtime resulted in a strike where the company agreed to pay a 32 hour monthly gratuity, as compensation (Interviews: shopstewards).

Asked to list the problems they have with overtime, only 8% of shop stewards noted that it limited employment, whilst double the number cite higher tax and transport as problems. (NLS) Workers also expressed concern over the health and safety consequences of long working hours, with the majority claiming that overtime is voluntary. There were however complaints that workers are treated as a "bad boy" if he/she did not work overtime.

Asked how they would respond to a statutory increase in overtime to one and a half times the hourly rate, 11% of auto component companies say they would increase employment, 33% would use overtime in the same way, whilst 60% would reduce overtime without increasing employment. In the last, workers will take pay cuts, without any extra employment.

5. More shifts, more employment, more health and safety risk

The number of companies running shifts has increased over the last 5 years. In 1989 Seifsa found that 19% of companies ran more than one shift a day, whilst the ILO found this to be 33% and 37% respectively, for 1994 and 1995. The 1996 figure for auto component companies was close to 60%. (ACS)

Facilitating the introduction of further shiftwork is widely supported. (ILO,1996; LMC;1996; government in the National Employment Standards negotiations) However international studies show that the negative consequences of night shift work *cannot be*

avoided. Any policy encouraging shiftwork must therefore take account of a large body of international evidence on its health and safety aspects. In an overview of the scientific literature between 1978 and 1990, Waterhouse et al conclude that there is an increased incidence of mortality amongst former shift workers, as well as a greater incidence amongst current shift workers compared to day workers. Shiftwork is associated with an increase in cardiovascular disease, and with a greater tendency towards general malaise, including anxiety and depression, as well as greater fatigue. Furthermore safety and productivity both decrease on night shift, while shifts in excess of 8 hours are associated with a decline in performance. (Waterhouse, 1992:20-21)

Workers in South Africa face other shiftwork-related problems. Shop stewards cite the following major problems: transport (28%), low shift allowances (24%), health and safety (16%) and shift change-overs (8%). (NLS) Limited transport during off peak hours lengthens the "working day". Workers arrive earlier at work to be on time for a shift, and take longer to return home. High levels of crime and political violence worsen the effect of poor transport, sometimes resulting in no transport at all forcing workers to sleep at the factory. (Interview: Iscor shop stewards) Women in particular are most vulnerable in this context.[5] In order to protect themselves against violence, workers have demanded the introduction of 12 hour shifts (6 to 6), in place of the usual 10pm knock-off time. Whilst there was no available data recording the extent of accidents during the night, shop stewards argue, sometimes in opposition to management that a number of accidents occur at night as a result of workers sleeping. (Interview Iscor shop stewards)

Asked what effect a statutory night shift allowance of 20% would have on employment, a small number of motor component companies said they would definitely reduce employment, through automation of bottlenecks, better work processes, and increased productivity (presumably during the day).[6] Some companies would expand their day shift, maintaining overall employment levels.

Significantly none of the shop stewards raised the problems faced by women workers on night shift. Some women work standing up all night, and then go home to cook or clean, and potentially face greater possibilities of sexual harassment when travelling at night. (Tiger Wheels, shop stewards) Nor did they show any concern regarding the problems shiftwork places on union organisation.

Despite the many negative features of night work three quarters of the shop stewards supported an extension of shifts if it creates more jobs. (NLS) 89% of those already working shifts supported the extension of shifts, whilst single shift workers record lower support (56%).

6. Increasing use of non-permanent labour

The data available indicate that there is an increase in the use of casual/temporary labour and contract labour. Existing regulations are open to abuse, and in this context some employers are making use of the LRA provision for the "independent contractor", whereby they avoid any form of industrial council regulation. Management and Seifsa officials very explicitly say that they use this type of labour to ensure easy termination, in the context of expanding worker rights.

7. A 40 hour week?

Cosatu and Numsa have put forward the demand for a 40 hour week. A number of organisations support this move, though they are cautious about the pace of reduction. (ILO,1996:136 ;LMC,1996:17; DOL,1996)

A small but significant number of the ACS respondents (19%) already have a 40 hour week for production workers. Table 2 excludes these companies and shows that if there was a statutory 40 hour week without loss of pay, 17% (5) of companies would increase employment, 48% (14) would retain existing employment numbers, and 34% (10) would decrease employment. Thus two thirds of the companies either increase or maintain employment. There was no correlation between these results and company labour costs: firms with high and low labour costs could be found on both sides.[7] This finding begs the question as to how the majority can maintain or increase employment. One can only conclude that a company's response to reducing the working week with no loss of pay is linked to other factors that have little to do with labour costs. This suggests that much can be done to meet the 40 hour goal without reducing workers' income.

Table 2: Employment and the 40 hour week

	Without loss of pay		***Loss of pay***	
	%	*N*	*%*	*N*
Increase employment	*17*	*5*	*28*	*8*
Maintain employment	*48*	*14*	*66*	*19*
Decrease employment	*34*	*10*	*7*	*2*

Source: ACS
Note: excludes companies currently on a 40 hour week

As expected the results show a far lower possibility of employment reduction (7% as opposed to 34%) if there is a drop in weekly pay, with a higher number of companies increasing employment.

Comments from 2 senior Seifsa personnel indicate that they did not foresee any problems with a reduction in the working week, provided however that the reduction was gradual, and that it was accompanied by a proportionate loss in pay. They assert that already the last hour of everyday is unproductive, and that even the poorest of firms should be able to make up their productivity losses with a shorter working week. One also added that a 40 hour week would make the future introduction of shifts easier. Crucially both do not see it as having an employment impact.

A range of both comments and evidence suggest that a shorter working week generally results in higher productivity. (Interviews: Tiger Wheels, Iscor; Bosch,1994; EIRR,1994a:7; LMC,1996:17; Hart,1987:270) This as a result of work re-organisation and/or the intensification of work, as well as less worker fatigue. Even the BSA cautiously acknowledges this (BSA,1996:28), with the qualification that it results from flexibility arrangements, pointing out that if pay does not decrease proportionately, then the productivity gains are not sufficient to make this up. *What is important is that while both senior Seifsa officials and the BSA recognize the productivity gains, they at the same time assert or imply the need for weekly pay to reduce proportionately, thus increasing profits.* (BSA,1996:31)

Shop stewards from the NUMSA indicate that workers overwhelmingly reject the notion of reducing pay in order to create jobs. They make statements such as we are "fighting for a living wage and not less pay" and that ".... the greater sentiment of the workers is to reduce expensive management salary packages, and the excessive management headcount, thereby creating the conditions for job creation and improved productivity".[8]

8. Tentative conclusions, and policy

The results of the ACS do not allow us to quantify precisely how many jobs would be won or lost if a shorter working was introduced without loss of pay. But any assessment of the employment consequences of shorter working-time must take into account that 45% of metals and engineering companies claim they could produce the same output with an average 16% less labour. (ILO,1996)

In pursuing a 40 hour week, what then are the package of policy options, given a goal to reduce long working hours whilst maintaining the same pay and conditions, and if employment expands to prevent the lowering of both employment security and conditions?

Clearly there are indications from a range of employers that if there is a statutory reduction in the working week, it should be accompanied by a proportionate reduction in pay, with some threatening increased mechanisation, if this is not the case. This option is however unacceptable to workers. How then to achieve a 40 hour week without loss in pay, and we should add, also retaining similar work conditions?

- Firstly it is widely acknowledged that a reduced working week is associated with *greater productivity*.
- Secondly it is clear that one *obstacle* to increasing employment relates to *high levels of non-wage labour costs* (benefits for example). In the medium term employment and a move towards the 40 hour week without loss of pay, would benefit to the extent that some of these costs are shifted onto the state, especially the areas of *retirement, health and more efficient transport*. More efficient transport for particularly black workers would also shorten the time spent getting to and from work, impacting positively on millions of working lives and could result in small employment gains. (ACS)
- In the interim it may be worth pressurising employers to internalise more of the costs of transporting workers especially if employers want flexible hours, more shifts and continuous operations. The costs of this would be offset to the extent that it impacts on absenteeism and lower injuries at work.
- There is also an argument that the gradual reduction of the working week, would place workers in a better position to struggle and ensure a maintenance of their wage levels.

Employers may however respond to a shorter working week, as at Nissan, through increasing the intensity of work (getting 44 hours work out of a 40 hour week). In order to deal with this, workers must be able to:

- Negotiate such changes, including the *negotiation of output levels*.
- Similarly there needs to be *negotiation over the introduction of new technology*, as employers attempt to replace workers with machinery.

At the same time employers may respond to a shorter working week by increasing levels of overtime and not employing extra workers. The average metal worker receives an additional 17% of basic pay from overtime. (derived from ILO,1996) Without a serious union thrust to compensate these losses, perhaps through a revitalised living wage campaign, it is unlikely that union membership would support measures either to limit or ban overtime work.

To discourage the use of overtime, some suggest increasing the rate to one and a half times. The problem with this is that it may still be cheaper for employers to utilise existing labour, because of high non-wage labour costs paid to existing labour.[9] And, a number of companies including those in basic metals, the highest user of overtime, already pay one and a half times.

A more employment friendly option would include:

- Targeting a reduction in regular, scheduled overtime, distinct from less regular (perhaps emergency) overtime. This could be done gradually, allowing the union to struggle to make up losses in overtime pay by increasing ordinary hourly rates.
- Secondly, if it can be shown that there is insufficient skilled labour for a particular job, to allow for exemptions, linked to a commitment to training the necessary substitute workers. This would require sophisticated monitoring by the shop stewards.
- A requirement for employers to provide adequate notice (outside of emergency work) for overtime work and for union shop steward involvement to ensure the fair allocation of overtime would deal with some areas of concern raised by shop stewards. (ACS)
- An annual review of overtime contracts, as suggested by the Green paper on employment standards would strengthen the bargaining position of unions around the usage of overtime.

The consequence of both reducing the working week and placing tighter limits on the use of overtime will be to encourage the greater use of shift work. To guard against the well-known health and safety risks of especially night work, entails a set of policies, which may include:

- Shorter daily hours (e.g. 8) and shorter weekly hours of work, longer leave, as well as access to regular medical check-ups and care, and the right to change to day shift.
- Compensation for anti-social hours must entail increasing shift premiums. We should pursue the Labour Market Commission's suggestion to investigate whether the state could carry some of these costs.
- Secondly increasing use of shift work may undermine union organisation and democracy. To avoid this we need to find a way of extending worker rights, such as the right for all shop stewards to meet at the same time, and less often the right for all workers to hold a joint general meeting.
- Related to both these points is that all changes in shift patterns would have to be negotiated, and in this regard the union needs to strengthen its capacity, knowledge and research into the range of possible options.

In some cases higher employment may result from a reduction in hours. However there is a good possibility that employers make up lost hours by employing non-permanent labour. The union needs to tighten regulation here. There are a number of options:

- One is to extend the limited duration contract of the Nicisemi to all sectors. However this must entail a proper degree of statistical recording at the council (at the moment, employers register the LDC, but do not tell the council when it is ended, or if the contract is renewed).
- A second option is to follow the Italian unions in fighting for a low, fixed, acceptable ratio of non-permanent labour to permanent labour.
- The setting up a labour pool, with employers sharing the costs of training, safety equipment, and other costs associated with hiring, through which all casual, temporary or contract labour must pass. The latter establishes a better basis to both monitor the regulations, and for the organisation of these workers.
- While increased regulation would help, the union itself must ultimately ensure, through education and campaigning, that this layer of workers finds a home inside Numsa, and that shop stewards are effectively armed to deal with this. Legislation is of very limited use if there is no one to ensure its implementation.

The extent that shortening the working week creates new employment, depends firstly on the extent that *existing work can be shared. New and expanded employment* opportunities will come from strategies to *increase investment* and develop coherent industrial strategies. 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 capacities, as well as greater leisure.

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[1] 38% of urban africans spend 1-2 hours daily getting to and from work, another 21% spend more than 2 hours. In contrast 72% of urban whites spend less than an hour (CSS,1995)

[2] The ACS was a postal survey sent out through the National Association of Automotive Component and Allied Manufacturers (Naacam), in April 1996. Thirty-six companies out of about 160 companies responded, a response rate of 23%. The sample contains companies from both industrial councils and one house agreement. Whilst the response rate is low these represent about 20% of firms in the sector. The sector provides a critical test since it is subject to high levels of competitiveness and global pressure. The ACS established existing working time arrangements and possible responses regarding statutory changes, amongst auto components companies. The NLS consisted of a questionnaire conducted at the motor and engineering Numsa national shop steward councils held on the 16/3/96. All 32 shop stewards attending the Engineering council responded, as did the 18 from the Motor council. The NLS sought the opinions of Numsa shop stewards regarding problems and reasons for various aspects of their working time. The author also conducted 7 case studies, some chosen through the Numsa survey through "expert choice", based on firms that have decreased their hours and made changes to their shift arrangements, and others to give wider sectoral opinion (basic iron and steel and construction engineering).

[3] The ILO includes auto assembly in its definition of metals, engineering. The SIC codes covered include 357, 359, 366 and from 371 to 389.

[4] Data sources for this section: CSS 1993a, 1993b, 1994, 1995a, 1995b, 1996; NPI 1994 & interviews.

[5] Before 1982 no female in the engineering sector could work between 18h00 and 06h00, after 13h00 for more than 5 days a week or work overtime for more than 2 hours a day on more than 3 consecutive days, for more than 60 days a year. Although the industry is largely male dominated, data indicates that around 15% of employment is female (ILO,1996:350)

[6] The figure of 20% was taken from the National Employment Standards green paper.

[7] Similar exercises were carried out in relation to existing hours of work (including regular overtime), capacity utilisation and size of production run. Non of these indicated any meaningful correlation with support for a 40 hour week without loss of pay or employment.

[8] An artisan earns on average 3 to 4 times the wage of the lowest graded labourer. This increases if one adds in benefits. (Rees,1995:7-9) The corresponding gap with middle management would be far higher.

[9] Employers pay non-wage labour costs whether there is overtime or not. If these represent 33% of the total employment bill and 66% represents wages during ordinary time, then the actual rate for overtime will equal 66% (the wage) times one and a half (the overtime rate). This results in the same cost as the hourly rate during ordinary time (if benefits, etc. make up 33% of the employment bill).