



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Impact of the Sectoral Determination for Farm Workers on the South African Sugar Industry: Case Study of the KwaZulu-Natal North and South Coasts

J Murray & C van Walbeek¹

Abstract

A survey of 103 sugarcane farmers on the KwaZulu-Natal coast was conducted in order to analyse the impact of the Sectoral Determination for Farm Workers (2002) on South African agriculture. The sample was separated into a high wage paying North Coast and lower wage paying South Coast. Typically farmers were unable to distinguish between the impact of the Sectoral Determination and other labour laws. Results indicate that the impact of the legislation is similar in each region. No respondents reported mass retrenchment, but job shedding is disguised by not replacing workers (especially unskilled workers) that leave the farm. A sizeable number of growers (17 per cent on the South Coast and 44 per cent on the North Coast) have reduced the working week to 27 hours (or 36 hours in the Felixton Mill Group Area) enabling them to pay wages on an hourly, rather than a weekly basis. This strategy reduces the effective wage. About 40 per cent of growers have reduced the in-kind benefits to their workers. About half of respondents indicated that they are likely to increase their use of seasonal and contract labour in future. Although a majority of respondents indicated that they considered mechanisation of the harvesting process, cost and topographical factors currently does not make this a serious alternative to manual harvesting. However, because of increased wage costs and the relatively strong currency in recent years, chemical weed control has become an attractive alternative to manual weed control.

1. Introduction

In 2002 the Minister of Labour introduced minimum wages and minimum conditions of employment in the South African agricultural sector by means of the Sectoral Determination for Farm Workers (Department of Labour, 2002). The intervention was predicated on the view that farm workers are the “lowest paid and most marginalised workers in South Africa” (Kassier *et al*, 2003:7).

The Sectoral Determination establishes a minimum wage rate that varies between two areas (A and B) and includes annual increases of the minimum

¹ Respectively, postgraduate student and senior lecturer at the University of Cape Town.

legislated wage. Per capita gross geographic product (GGP) was used as the criterion for subdividing the country into Areas A and B, with Area A having a higher per capita GGP and Area B a lower per capita GGP. Other than minimum wage requirements, the Sectoral Determination imposes a number of other conditions that seek to address past inequalities and injustices associated with agricultural employment.¹

The aim of this paper is investigate the impact of the Sectoral Determination on the sugar cane industry. The South African sugar industry utilises about 434 000 hectares of land, primarily in KwaZulu-Natal and to a lesser extent in Mpumalanga. The industry produced a total crop of 2.4 million tonnes of sugar in the 2003/04 season, and employs about 55 000 labourers in primary production (South African Canegrowers, 2003/04).

The study is based on a survey of 103 medium-sized and large commercial farms in KwaZulu-Natal. Of these, 60 were from the South Coast (which primarily pay the lower Area B wages) and 43 from the North Coast (which pay Area A and B wages in equal proportions).

The paper is structured as follows. Section 2 provides a short literature review on the expected impact of minimum wage legislation and some previous empirical results. Section 3 discusses the research methodology and the rationale for dividing the sample into the South Coast and North Coast. In section 4 the impact of the Sectoral Determination (and other relevant labour legislation) on wage structures, labour structures and labour/capital ratios amongst the sampled farmers is discussed. Section 5 concludes the paper.

2. Literature Review

Standard economic theory suggests that the introduction of a minimum wage would decrease employment and increase unemployment. A binding minimum wage, set above the market clearing wage, increases the cost of labour. Firms demand less labour, while more labour is supplied as new entrants want to take advantage of the higher wage. As the marginal cost of labour increases above the marginal productivity (of at least some workers), firms reduce their workforces.

The agricultural sector has been shedding jobs for a long period before the Sectoral Determination was introduced in 2002. According to Payne *et al.* (1990) agricultural employment had been decreasing at an average annual rate of 1.2 per cent between 1970 and 1990. A further 20 per cent of agricultural workers lost their jobs between 1990 and 1996 (Conradie, 2003, quoting the

Department of Labour, 2001). The sugar growing industry was not immune from this trend of labour shedding. Employment decreased at an average annual rate of about one per cent between 1973/74 and 2003/04 (South African Canegrowers, 2003/04). Changes in the sugar pricing structure in 1998 have stimulated the planting of sugar cane and have resulted in a reversal in the employment trends (Murray, 2006: 47-48). Since the late 1990s there has been a slight increase in employment in sugar cane production.

There is substantial empirical support, both in the international and South African literature, for the traditional view that the introduction of minimum wages in the agricultural sector reduces employment. Lianos (1972), Gardner (1972) and Gallasch (1975) found that the extension of the Fair Labour Standards Act to cover agricultural workers and introduce minimum wages reduced total farm employment in the US. Watanabe (1976: 345), in a study on minimum wages in developing countries, concluded that "it seems undeniable that rapid wage increases will have negative employment effects". More recent studies from a variety of developed and developing countries generally came to a similar conclusion (Castillo-Freeman and Freeman, 1992, Partridge and Partridge, 1999, Zavodny, 2000, Rama, 2001 and Gindling and Terrell, 2005).²

A number of South African studies have investigated the impact of labour legislation on employment in the agricultural industry. Goedecke and Ortmann (1993), Vandeman *et al.* (1991) and Newman *et al.* (1997) found that contract labour replaced permanent labour when labour legislation was introduced. According to them, farmers perceived the shift towards contract labour as beneficial since their role as employer is concealed, as the contractor now represents the employer. This concealment protects the farmer from sanctions imposed by society's laws and regulations (Polopolus and Emerson, 1991). Also, making use of contractors economises on enforcement and information costs (Roumasset and Uy, 1980), allowing the contractor to benefit from economies of scale, which are transferred to the farmer.

Other than the substitution of contract labour for permanent labour, Newman *et al.* (1997) showed that the introduction of the minimum wage resulted in a substitution of machinery for labour, resulting in more capital-intensive production techniques. In contrast, Simbi and Aliber (2000:5) proposed that the "labour-saving, capital-using" nature of the technological change, labour shedding and the casualisation of labour in South Africa is not driven primarily by increasing real wages, labour scarcity, or the falling real cost of capital. Rather, they argue that non-economic factors, such as growers' fear of losing control of their land as well as a sense that labour is more difficult to

manage than “prior to 1994”, is driving the process of capital deepening in the agricultural sector (Simbi and Aliber, 2000:4).

In labour economics there exists a literature that aims to show that, under certain conditions, e.g. monopsony power by the employer, the introduction of a minimum wage may in fact increase employment (Lal, 1995 and Cubitt and Heap, 1999). While this may be true of some industries, the sugar growing industry is too atomised and geographically dispersed for this to be a serious hypothesis.

Recent research by Conradie (2003 and 2005), performed after the implementation of the statutory minimum wages in South Africa, found that grape growers in the Breede River Valley had adjusted quickly to the new legislation. Most farmers offered wages above the minimum wage. While she found no evidence of job shedding, there was a slowdown in job creation. Conradie (2005) found that, despite an increase in the minimum wage at a rate above the inflation rate, the increase was unlikely to result in significant job losses, although seasonal workers are more at risk than permanent labour. The fact that the wine industry was doing well financially enabled farmers to pay the higher real wages without significantly cutting back on employment. However, she also found that growers offset the wage increase by providing fewer benefits.

Investigating the impact of the minimum wages on mechanisation, Conradie (2003 and 2005) found no evidence that tractors and labour were substitutes, or that grape harvesters reduced employment.

3. Research methodology and preliminary data analysis

In order to determine the impact of the Sectoral Determination on the South African sugar industry a series of semi-structured interviews were conducted during January to March 2005, based on a questionnaire developed by Conradie (2003). Each of the 103 interviews lasted approximately one hour. Ninety-one interviews were conducted with ‘large scale commercial’ growers, while twelve were conducted with ‘medium scale’ emerging farmers. The latter group are growers that have benefited from the Black Economic Empowerment initiative and the downsizing of sugar estates owned by large corporate millers.

Given some bad press publicity in the past, many farmers were initially reluctant to talk about labour issues. However, using the primary researcher’s contacts in the sugar industry, it was possible to obtain a sizeable sample

through references and industry contacts. Nearly all farmers (at least 95 per cent) who were contacted agreed to being interviewed. However, given the design of the sample, it is not random. In particular, it does not adequately represent small-scale growers.

The initial aim was to select approximately half the respondents from higher-wage Area A and the other half from lower-wage Area B, to establish the different reactions to the Sectoral Determination in the two areas. This approach was thwarted as a sizeable number of Area A growers (29 of 54) have successfully applied for dispensation to pay the Area B wage. As a result, only 25 growers in the sample pay the Area A wage, while 78 growers pay the Area B wage.

The interviews were conducted in four different mill group areas: Umzimkulu and Sezela on the South Coast, Felixton on the North Coast and Eston in the Midlands. The Midlands growers were grouped with the South Coast growers due to historical precedent.³ During the course of the interviews it became apparent that there are regional variations in responses, in particular between South Coast and North Coast growers. The analysis in this paper is focused on these regional differences. On this basis the sample can be broken down into 60 South Coast growers (of which eight are from the Midlands) and 43 North Coast growers.

The division along regional lines still allows one to make inferences regarding the impact of the Sectoral Determination on the South African sugar industry. On the North Coast the growers fall into Area A and B categories in equal proportions. On the South Coast growers typically pay Area B wages, either because their farms fall in Area B or because they have dispensation to pay Area B wages, as is illustrated in Table 1.

Table 1: Distribution of minimum wage areas on KwaZulu-Natal South and North Coast sugar farms, 2005

	South Coast (n=60)	North Coast (n=43)
Area A	7% (4)	49% (21)
Area B	47% (28)	49% (21)
Dispensation	47% (28)	2% (1)
Total	100% (60)	100% (43)

Table 2 illustrates some characteristics of farms on the North and South Coasts. In terms of total labourers and labour intensity, both regions are

similar. In this sample the South Coast farms are somewhat larger than along the North Coast, but the differences are not significant.

Table 2: Labour patterns on sugar farms on the KwaZulu-Natal South and North Coasts, 2005

		South Coast (n=60)	North Coast (n=43)
Farm size (hectares)	Average	699	649
	Median	270	258
Total labour	Average	142	135
	Median	64	60
Total labour per 100 hectares	Average	26	25
	Median	23	22
	SD	19	10
Weighted average wage (Rand/month)	Average	819*	928*
	Median	782	824
	SD	175	296
Proportion of minimum wage earners	Average	61	51
	SD	26	29

* Significantly different to the other region at the 5% level of significance.

Table 2 indicates that the weighted average wage is higher on the North Coast than on the South Coast. The higher wages on the North Coast can be ascribed to a number of factors. Most obviously, a greater proportion of North Coast growers have to pay the higher Area A wage. Also, approximately half of workers on North Coast farms earn the minimum wage, while a greater percentage of workers on South Coast farms earn the (relatively lower) minimum wage. Some respondents suggest that competitive industries (especially the booming construction industry) are driving up agricultural wages on the North Coast. Furthermore, there is some evidence that the North Coast has better agronomic conditions and as a result is more productive, resulting in higher wages for labourers. In contrast, many South Coast growers indicated that they farmed marginal land, resulting in lower yields and were thus unable to pay the higher wage.

The differences between the North and South Coast, and how these differences have impacted on these two regions' reaction to the Sectoral Determination, are discussed in more detail below.

4. Impact of the sectoral determination

4.1 Employment effects

The Sectoral Determination is only one of a number of laws that have significantly impacted agricultural employment, the others being the Basic Conditions of Employment Act (1983, extended to the agricultural sector in 1993), the Labour Relations Act (1995), and the Extension of Security and Tenure Act (1997). The majority of growers were unable to differentiate the impact of a specific piece of legislation on their employment practices. Table 3 summarises growers' ex post and intended reactions to the labour legislation. The question was "what have you done in the past and what do you intend doing to minimise the impact of (a list of labour legislation)?"

Table 3: Growers' responses to labour legislation in the KwaZulu-Natal South and North Coasts, 2005

	South Coast (n=60)	North Coast (n=43)
Cancel new projects	25% (15)*	7% (3)*
Freeze posts	20% (12)	14% (6)
Retrench unproductive workers	67% (40)	56% (24)
Use contract labour	13% (8)*	35% (15)*
Mechanise harvesting	15% (9)	19% (8)
Phase out farm accommodation	23% (14)*	37% (16)*
Train labour	42% (25)*	56% (24)*
Nothing	12% (7)	7% (3)

* Significantly different at 5% level of significance.

As predicted by economic theory, a majority of respondents (from both regions) indicated that they have retrenched, or intend to retrench, unproductive workers. Unfortunately no numbers were given. Importantly, a sizeable proportion of respondents, especially on the North Coast, indicated a greater focus on training, presumably to increase their labourers' productivity levels. A significantly greater proportion of North Coast respondents indicated that they made (or intend to make) more use of contract labour.

A greater proportion of South Coast growers indicated that they have cancelled new projects, frozen posts and retrenched workers than North Coast growers. Economic theory suggests that the negative employment effect of the Sectoral Determination should be more pronounced on the North Coast, where the minimum wage is, on average, higher. The evidence does not bear this out. In fact, these results suggest that although the South Coast growers are impacted less by the legislation (i.e. they typically pay the lower Area B wages), the legislation seems to have had a bigger impact on their employment practices. From this analysis we can conclude, albeit tentatively, that factors other than the labour legislation are likely to explain the differences in the regions' employment practices.

Table 4 indicates that about a third of both South Coast and North Coast growers have employed new workers in the last year. The reason for employing new workers was high labour turnover, not the creation of new posts.

Table 4: Percentage of growers on the KwaZulu-Natal South and North Coasts that have employed new workers in 2004

	South Coast (n=60)	North Coast (n=43)
Employed new workers	33% (20)	35% (15)
Not employed new workers	58% (35)	65% (28)
No response	9% (5)	0% (0)
Total	100% (60)	100% (43)

Respondents noted that the main reasons for the high labour turnover were death, disability or illness (about 70 per cent of respondents mentioned this factor), followed by absconding (35 per cent) and disciplinary action (35 per cent). North Coast growers (42 per cent) were significantly more likely to dismiss their workers because of disciplinary issues than South Coast growers (28 per cent). Other explanations for the high labour turnover included resignations (26 per cent), retirements (14 per cent) and retrenchments (14 per cent). Other than for disciplinary action, there were no significant regional differences in the causes of labour turnover.

Many growers indicated that they are downsizing their labour forces. The downsizing of labour forces typically occurs benignly, rather than by mass retrenchment. Growers simply do not replace some of the workers that leave the farm. In many cases only skilled labourers are replaced. Many respondents

indicated that they often would not replace unskilled labour that left the farm, but that they aimed to improve the productivity of the remaining unskilled workers.

4.2 Weekly vs. hourly wages

The minimum wage legislation ensures that employees who work more than 27 hours per week are paid the full monthly wage. For employees who work less than 27 hours per week, the legislation mandated a minimum wage of R4.47 per hour in Area A and R3.66 per hour in Area B for the period 1 March 2004 to 28 February 2005. If growers were to shift from a 45 hour week (which the Sectoral Determination is premised upon) to a 27 hour work week, Area A growers would be able to decrease their workers' monthly wage from R871.58 to approximately R523.00. Similarly, Area B growers would be able to decrease their workers' monthly wage from R713.65 to approximately R428.00.⁴

The option of paying an hourly rate can be analysed from at least two points of view. A more cynical approach would be to regard the hourly option as "exploitative", where a farmer tries to extract as much labour as possible in the stipulated 27 hour work week, while paying them a wage lower than that prescribed in the Sectoral Determination for full-time labourers. On the other hand, the hourly rate can be seen as a mechanism aimed at minimising the employment impact associated with the Sectoral Determination.

The 27 hour working week was taken a step further by some North Coast growers (in the Felixton Mill Group Area) who received dispensation to pay the hourly wage up to 36 hours. These growers felt that, because of the heat and humidity in their region, their labour was not productive past mid-morning. Rather than working a 45 hour week, the standard has become a 36 hour working week, the wages of which are paid on an hourly basis.

Both the 27 and 36 hour working week decrease the marginal cost of the employee (relative to a full 45 hour week) and therefore allows the grower to retain the employee, who might otherwise have been retrenched. For many growers (and workers as well), it is more attractive to employ workers for less than a full week than retrenching them. Table 5 illustrates the percentage of growers that have underemployed their labour by instituting either a 27 or 36 hour working week. A greater proportion of North Coast growers have changed to an hourly wage system.

Table 5: Percentage of growers on the KwaZulu-Natal South and North Coasts who have changed to an hourly wage system

	South Coast (n=60)	North Coast (n=43)
27 hour working week	17% (10)*	30% (13)*
36 hour working week	0% (0)*	14% (6)*
Total	17% (10)*	44% (19)*

* Significantly different at 5% level of significance.

4.3 In-kind benefits

Labour in agriculture traditionally receives a cash wage as well as payments in-kind (Newman *et al.* 1997: 75). These in-kind payments comprise a combination of housing, food rations, and protective clothing and sometimes transport, funeral assistance, childcare and credit. The Sectoral Determination stipulates that employers may deduct a maximum of ten percent of the employee's wage for housing and ten percent for food supplied to the farm worker (Department of Labour, 2002: 8). Growers thus have an incentive to reduce the in-kind benefits previously provided if they feel that the ten percent deduction does not cover the provision of such benefits. Furthermore, where certain in-kind benefits were previously supplied "free", growers may now charge for such benefits in order to reduce the cash wage. Conradie (2003: 10) found that many wine farmers in Worcester utilised the housing deduction in order to limit the amount by which their cash wage had to rise.

Respondents were asked whether they had added or removed any in-kind benefits since the introduction of the Sectoral Determination. Half of South Coast growers and 56 per cent of North Coast growers indicated no change in in-kind benefits, as indicated in Table 6. A small percentage indicated an increase in in-kind benefits (usually in an attempt to increase productivity or out of a sense of social responsibility), while 40 per cent of respondents in both regions indicated a reduction in in-kind benefits.

Table 6: Percentage of growers on the KwaZulu-Natal South and North Coasts that have changed the provision of in-kind benefits

	South Coast (n=60)	North Coast (n=43)
No change	50% (30)	58% (25)
Increased	10% (6)*	2% (1)*
Decreased	40% (24)	40% (17)
Of which: removed housing	5% (3)	2% (1)
Of which: removed rations	17% (10)*	30% (13)*

* Significantly different at 5% level of significance.

The most common benefit that has been removed is the provision of rations, especially on the North Coast (30 per cent), and to a lesser extent on the South Coast (17 per cent). This seems counterproductive, since respondents pointed out that providing labourers with rations served a number of useful functions: (1) the employer protects the employee from food inflation, (2) it ensures that the employees do not have to travel to purchase food, (3) it generally ensures a better and more balanced diet, and (4) it maintains the health and strength of the workforce. A number of growers noted that since they had stopped providing rations their workers' productivity had decreased. Also, the higher cash wage increased the incidence of discipline issues when the employees' increased spending power was spent on alcohol.

4.4 Changing labour structures

As indicated earlier, the introduction of the Sectoral Determination is predicted to change the labour structures of growers. In particular, an increase in the wage and transaction costs of labour encourages growers to substitute contract and seasonal labour for permanent labour. Contract labourers are not employed by the grower but by a labour contractor. The grower, in turn, employs the contractor to supply specific labour services, for example, to harvest his cane at some predetermined rate per ton. At the time of the survey 13 per cent of South Coast and 35 per cent of North Coast growers employed contractors (not shown in table). Respondents who employed labour contractors argued that the main reason for doing so is that the contractors reduce the stress of managing labour issues and also reduce the non-wage cost of labour. In contrast, growers who did not use contractors quoted the additional cost and the loss of control of their operations as the major restraints. While the current use of contractors is modest, 58 per cent of North Coast and 44 per cent of South Coast growers indicated that they are likely to

increase their use of contractors and seasonal labour in future, as shown in Table 7.

Table 7: Predicted changes among KwaZulu-Natal South and North Coast sugar farmers in usage of seasonal and/or contract labour

	South Coast (n=59)	North Coast (n=43)
No change in seasonal/contract labour	27% (16)	19% (8)
Increasing complement of seasonal/contract labour	44% (26)*	58% (25)*
Decreasing complement of seasonal/contract labour	29% (17)	23% (10)
Total	100% (59)	100% (43)

*Significantly different at 5% level of significance.

Other than the move towards contractors, some growers are making more use of seasonal staff, rather than permanent staff. Seventeen per cent of South Coast growers indicated that they were using more seasonal labour while 33 per cent of North Coast growers indicated the same trend (not shown in table). Seasonal labour is cheaper than permanent staff as they are paid an hourly rate for up to 27 hours per week. Employing seasonal staff also removes the non-wage costs of labour, and problems posed to growers by the Extension of Security and Tenure Act.

Seasonal labour does not have the drawbacks that a contractor might have. There is no additional “mark-up” cost associated with seasonal staff, and the grower is still in control of the quality of work done and the quality of workers on the farm. Also, there is a history of growers employing seasonal staff to supplement their permanent staff during the harvesting season.

4.5 Capital-labour substitution

The literature suggests that increased real wage and transaction cost results in capital-labour substitution (Payne *et al.* 1990 and Newman *et al.* 1997). The harvesting of cane is very labour intensive and forms one of the grower’s biggest expenses. There are mechanical harvesters available but so far their adoption has not been widespread. During the interview process, it became evident that apart from combine harvesters, which are rare (only two growers indicated owning a combine harvester), growers make use of harvesting aids. These are attached to tractors to assist in harvesting. The proportion of growers who own or rent a mechanical harvester is illustrated in Table 8.

Table 8: Percentage of growers on the KwaZulu-Natal South and North Coasts making use of mechanical harvesting, 2005

	South Coast (n=60)	North Coast (n=43)
Do not own or rent a mechanical harvester	93% (56)*	84% (36)*
Own or rent a mechanical harvester	7% (4)*	16% (7)*
Total	100% (60)	100% (43)

* Significantly different at 5% level of significance.

Table 8 shows that 16 per cent of North Coast growers own or rent mechanical harvesters compared to only 7 per cent of South Coast growers. While the incidence of mechanical harvesters is very low in both regions, the higher incidence on the North Coast reflects the topography of the regions, rather than a greater influence of Sectoral Determination. Respondents indicated that only 43 per cent of South Coast farm area can be harvested mechanically compared to 61 per cent of North Coast farm area. The South Coast sugar cane often grows on slopes too steep for mechanical harvesting.

Fifty-five per cent of South Coast growers have considered mechanised harvesting compared to 65 per cent on the North Coast. The most common reasons for not mechanising the harvesting process were cost and topography. Some growers' decision not to move to mechanised harvesting was based on social responsibility considerations. They argued that in a labour surplus economy it makes no sense to choose a more expensive mechanised harvesting system and in so doing put many people out of work.

Those growers that consider mechanised harvesting a viable option have done so because of the perceived high cost of labour and poor labour productivity. Another common reason given was 'labour issues', such as labour productivity, discipline and crime. Some growers that do own harvesters barely use them but retain them as a warning to their labour that they (the workers) are replaceable.

Mechanised harvesting is not the only capital-labour substitution that takes place. The increased cost of labour along with the relatively strong currency (in recent years) has made chemical control of weeds a more viable alternative to hiring seasonal labour. Sixty-one per cent of South Coast and 58 per cent of North Coast growers have increased their use of chemicals within the last three years. The most common reason given for the increased use of chemicals is that it is a cheaper and more effective method of weed control than manual hoeing.

5 Conclusion

By extending the labour legislation to the agricultural sector the government aims to address some of the abuse that has occurred in this sector, and to afford agricultural workers certain minimum rights. The Sectoral Determination aims to supplement the other labour legislation by imposing a minimum wage in the agricultural sector, while taking cognizance of existing regional differences in agricultural wages. To this end the Sectoral Determination classifies the country into a higher-wage Area A and a lower-wage Area B. The legislation is not rigidly applied. For example, farmers can apply for dispensation to pay Area B wages, even though they fall in Area A, or they can reduce the work week and pay their labourers at an equivalent hourly rate.

The fact of the matter is that practically all legislation has costs - real or perceived - associated with them. For the Sectoral Determination, the costs are borne by farmers who now have to pay a higher wage *and* by workers who get retrenched because their employer cannot afford to pay the higher wage. The beneficiaries of the legislation are those workers who remain in their jobs and enjoy the benefit of the higher wage.

The aim of this paper was to investigate the impact of the Sectoral Determination on the employment patterns and practices on sugar farms on the KwaZulu-Natal North Coast and South Coast. Given differences in per capita GGP and historical differences in wage rates between the two regions, the minimum wage, as prescribed by the Sectoral Determination, is higher on the North Coast than on the South Coast.

It was impossible to establish conclusively whether the North Coast was influenced more significantly by the Sectoral Determination than the South Coast. Respondents from the South Coast were more likely to cancel new projects, freeze posts and retrench unproductive workers. Although numbers are not available, this suggests a negative employment effect. Most respondents indicated that the decrease in employment occurred "benignly", typically through natural attrition, rather than mass retrenchments.

A greater proportion of North Coast farmers mitigated the impact of the Sectoral Determination by paying workers on an hourly basis and employing them for either 27 or 36 hours a week, as opposed to the standard 45 hour working week. Furthermore, a substantially larger proportion of North Coast growers make use of seasonal and/or contract labour and intend using more

contract labour in future. The topology of North Coast farms allows more mechanised harvesting. Although only 16 per cent of North Coast farmers current own or rent a mechanical harvester, two thirds of growers have considered mechanising their harvesting. However, cost considerations and topography constraints do not make this a viable option for most growers.

South Coast respondents have been more passive in their response to the Sectoral Determination (other than doing the predictable things like freezing posts and cancelling new projects) while North Coast respondents have tried to escape the legislation's impact by making more use of seasonal and contract labour and getting dispensation to pay their labour on an hourly basis.

Kassier *et al.* (2003) proposed the eventual fusion of the Area A and Area B classification. That proposal has been included in the latest revision of the Sectoral Determination for Farm Workers (2006). According to this proposal Area B wages will be raised by between 10 and 13 per cent annually between 2006 and 2008 while Area A wages are increased by 4.7 per cent per cent over the same period.⁵ The result is one minimum wage for both Areas from 1 March 2008 (Sectoral Determination, 2006: 5).

The revised Sectoral Determination is likely to have a significant impact on Area B growers and Area A growers with dispensation to pay Area B wages. The intent of the revised legislation is to simplify the rules, remove perceived loopholes and remove geographic discrepancies in wages. However, Area B farms are often less productive because of less suitable agronomic circumstances than Area A farms, and may be less able to absorb sizeable wage increases. On average, South Coast growers find themselves at an agronomic disadvantage to North Coast growers, which may explain why the South Coast has been affected more heavily by the Sectoral Determination than the North Coast. There will be increased pressure on growers to find creative solutions to the challenges posed by the Sectoral Determination.

The impact of changes in the labour legislation is not felt immediately, but rather over a number of years. Too little time has elapsed to determine the full impact of the Sectoral Determination. The compression of the minimum wages between Areas A and B will have an as yet unknown impact on labour patterns, especially in Area B. This paper has investigated the immediate impact of the Sectoral Determination. There has been some impact, but, in fairness, the impact has been less dramatic than some people may have predicted before the implementation of the legislation. However, in due course the full impact will become clearer. This is an avenue for further research.

Acknowledgements

We would like to thank the Centre for Social Science Research for financial support and Prof Nick Vink, Cecil Mlatsheni and an anonymous referee of the journal for useful comments on an earlier draft. We also thank Elizabeth Baldwin for editorial support. The usual disclaimer applies.

Notes:

1. These requirements include the provision that a worker working more than 27 hours per week must be paid the full monthly wage for the area they fall under. A maximum of 20% of their earnings may be deducted from the employee's wages: 10% for accommodation and a further 10% for food provided (Department of Labour, 2002). The additional provisions serve to ensure an adequate cash wage for agricultural labour.
2. In contrast, Katz and Krueger (1992) and Card and Krueger (1995) found a positive relationship between minimum wages and employment. Dickens, Machin and Manning (1999:1) found that "minimum wages significantly compress the distribution of earnings but do not have a negative impact on employment" in the UK.
3. The Midlands are geographically closer to the South Coast. Previously Midlands growers delivered their cane to the Illovo mill on the South Coast, but in 1995 the Illovo mill was moved to Eston, to be closer to the source of supply.
4. For the period 1 March 2006 to 28 February 2007 the monthly minimum wage has been set at R994 for Area A and at R885 for Area B. The hourly rates were set at R5.10 and R4.54 for the two respective areas (Department of Labour, 2006).
5. The minimum wages are the following:

	1 March 2006 – 28 February 2007	1 March 2007 – 29 February 2008	1 March 2008 – 28 February 2009
Area A	R 994.00	R 1041.00	R 1090.00
Percentage increase	4.7 %	4.7 %	4.7 %
Area B	R 885.00	R989.00	R1090.00
Percentage increase	12.7 %	11.8 %	10.2 %

Source: Department of Labour, 2006

References

- Card D & Krueger AB (1994).** "Employment effects of minimum and subminimum wages: Panel data on state minimum wage laws: Comment". *Industrial and Labor Relations Review*, 48:487-496.
- Castillo-Freeman N & Freeman R (1992).** "When the minimum wage really bites: The effect of the US-led minimum on Puerto Rico" in G. Borjas and R. Freeman (editors), *Immigration and the Workforce*. Chicago: University of Chicago Press
- Conradie B (2003).** *Labour, wages and minimum wage compliance in the Breërivier Valley six months after the introduction of minimum wages*. Centre for Social Science Research Working Paper 51, University of Cape Town. Available at http://www.cssr.uct.ac.za/pubs_cssr.html.
- Conradie B (2005).** "Wages and wage elasticities for wine and table grapes in South Africa". *Agrekon* 44(1):138-155.
- Cubitt RP & Heap SPH (1999).** "Minimum wage legislation, investment and human capital". *Scottish Journal of Political Economy* 46(2):135-157.
- Department of Labour (2002).** Basic Conditions of Employment Act (Act 75 of 1997): Sectoral Determination 8: Farm worker sector, South Africa. *Government Gazette*, No. 24114.
- Department of Labour (2006).** Basic Conditions of Employment Act (Act 75 of 1997): Sectoral Determination 13: Farm worker sector, South Africa. *Government Gazette*, No. 28518.
- Dickens R, Machin S & Manning A (1999).** "The effect of minimum wages on employment: Theory and evidence from Britain". *Journal of Labour Economics* 17(1):1-22.
- Gallasch HF (1975).** "Minimum wages and the farm labor market". *Southern Economics Journal* 41:480-491.
- Gardner B (1972).** "Minimum wages and the farm labor market". *American Journal of Agricultural Economics*, 54(3):473-476.

- Gindling TH & Terrell K (2005).** *The effects of multiple minimum wages throughout the labour market.* Institute for the Study of Labor (IZA) Discussion Paper 1159.
- Goedecke B & Ortmann GF (1993).** "Transaction costs and labour contracting in the South African forestry industry". *South African Journal of Economics* 61(1):67-83.
- Kassier E, Cherry M, Du Toit I, Aihoon K & Le Clus K (2003).** *Advice and assistance in the process of assessing applications for the ministerial determination to vary prescribed minimum wages in the farm worker sector.* Report issued by the Department of Labour.
- Katz LF & Krueger AB (1992).** "The effect of the minimum wage on the fast food industry". *Industrial and Labor Relations Review* 46(1):6-21.
- LAL, D. 1995. *The minimum wage.* UCLA Department of Economics Working Paper 723. Available at <http://www.econ.ucla.edu/workingpapers/wp723.pdf>
- Lianos TP (1972).** "Impact of minimum wages upon the level and composition of agricultural employment". *American Journal of Agricultural Economics*, 54(3):477-484.
- Murray JJ (2006).** *Impact of the Sectoral Determination for farm workers on the South African sugar industry: Case study of the KwaZulu-Natal North and South Coasts.* Unpublished Masters thesis, University of Cape Town.
- Newman RA, Ortmann GF & Lyne MC (1997).** "Farm labour remuneration, labour legislation and commercial farmers' perceptions in KwaZulu-Natal". *Agrekon* 36(1):73-84.
- Partridge MD & Partridge JS (1999).** "Do minimum wage hikes reduce employment? State level evidence from the low wage retail sector". *Journal of Labour Research* 20(3) 393-413.
- Payne NL, Van Zyl J & Satorius Von Bach HJ (1990).** "Labour related structural trends in South Africa: A comparison between the summer and winter rainfall areas, 1945-1987". *Agrekon* 29(4):407-417.
- Polopolus LC & Emerson RD (1991).** "Entrepreneurship, Sanctions and Labour Contracting: Discussion". *Southern Journal of Agricultural Economics*, 23(1):69-74.

Rama M (2001). "The consequences of doubling the minimum wage: The case of Indonesia". *Industrial and Labour Relations Review* 54(4):864-881.

Roumasset J & Uy M (1980). "Piece rates, time rates and teams: Explaining patterns in the employment relation". *Journal of Economic Behaviour and Organisation* 1:343-360.

Simbi T & Aliber M (2000). *Agricultural employment crisis in South Africa.* Trade and Industry Policy Strategies (TIPS) Working Paper 13. Available at <http://www.tips.afrihost.com/research/papers/pdfs/415.pdf>

South African Canegrowers (2003/04). *Labour cost and utilisation survey.* Unpublished statistics obtained from South African Canegrowers Association.

Vandeman AM, Sadoulet E & De Janvry A (1991). "Labor Contracting and a Theory of Contract Choice in California Agriculture". *American Journal of Agricultural Economics*, 73(3):681-692.

Watanabe S (1976), S. 1976. "Minimum wages in developing countries: Myth and reality". *International Labour Review* 113(3):345-358.

Zavodny M (2000). "The effect of the minimum wage on employment and hours". *Labour Economics*, 7:729-750.

