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Do low-paid workers' wage increases raise unemployment – and is this relevant for the minimum wage debate?

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Increasing the wages of workers in the bottom half of the wage distribution contributes less to regional unemployment than increasing the wages of better-paid workers. The wages of the worst-paid – who live in regions of low union and large-firm concentration – play almost no role in unemployment. Collective bargaining arrangements appear to explain these differences. This phenomenon may soften the negative impact of a national minimum wage on employment in the short run, but might make matters worse in the longer run.

Introduction

The reason for South Africa's high rate of unemployment has often been laid squarely at the feet of the country's high labour costs compared with those of our international competitors. In line with this argument, the proposed introduction of a national minimum wage could potentially result in wage increases that would lead to job losses. However, not enough is known about how wages in different pay segments affect employment. Are increases in wages in some occupations less likely to affect employment? Are the reason for job losses found in increases in *overall* wage levels or only in unskilled wages? Is it not plausible, in a skills-hungry economy, that wage increases for well-paid occupations may have no effect on employment levels while the opposite may be true for low-wage occupations?

We know that various studies have found that employment levels are very sensitive to wage increases *on average* (for an overview, see Fourie 2011: 53-56). However, such studies of averages often lump together the experiences of very different workers. Some studies isolate the effects on employment of specific wage increases (due to, for example, sectoral minimum wages or industry-specific union agreements), but their conclusions are limited to specific sectors. Few studies have presented a comprehensive picture of how the different effects (for different categories of workers, for instance) weigh up against each other.

In particular, the question is how the employment effects of changing the wage levels of unskilled (low-paid) workers compare to those of changing the wage levels of skilled (better-paid) workers.

Existing evidence

Existing evidence shows that the effects of wage increases depend not only on the sector of the economy, but also on when the study was conducted. Although unskilled agricultural workers – some of the worst paid in the formal sector – suffered large job cuts when minimum wages were initially introduced in 2003 (Bhorat *et al.* [Econ3x3](#), 2013), this did not happen when they were hiked by close to 50% in real terms in 2013 (BFAP 2016). In most other sectors, unskilled jobs were not destroyed when minimum wages were introduced.

In contrast, it has been shown that when collective bargaining agreements (which generally cover workers that are paid substantially more than minimum wages) are introduced, wages tend to increase by roughly 10% – *and* result in a similar proportion of jobs being lost (Magruder 2012).

Such results suggest that job losses may be more severe when wages increase in the upper ranges than when they increase in the bottom ranges of the pay scale. The question of whether such patterns are encountered across the economy has been tackled in new research by Von Fintel (2016). It assesses the validity of a widely-held prediction that wage escalations of *unskilled* workers are the primary drivers of unemployment – or, alternatively, whether it is plausible that wage growth of *better skilled* workers contributes relatively more to unemployment.

New evidence: two key patterns can be observed

The research uses nationally representative Labour Force Survey data from Statistics SA between 2001 and 2004. The responsiveness¹ of (un)employment rates to changes in relatively low and high wages is estimated for 55 district-council areas (also see 2015 article by [Von Fintel](#) on [Econ3x3](#)). This is done by measuring the percentage change in regional employment and/or unemployment levels that are associated with a given percentage change in wages.² What is novel is that the analysis tests whether such effects may differ across the pay scale, e.g. be different for low-, middle- and high-wage workers. This would enable us to identify and distinguish different employment responses flowing from wage increases to low-paid or highly-paid workers.

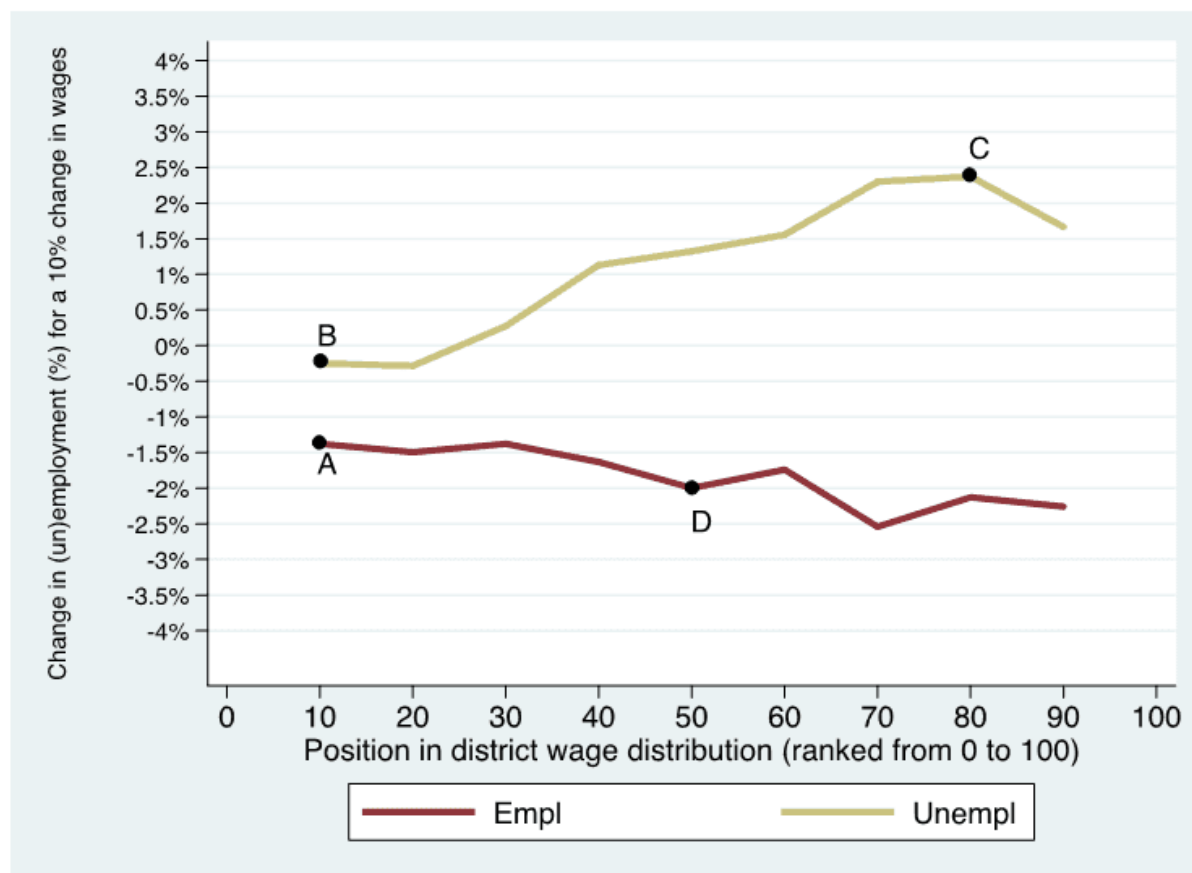
The empirical findings displayed in figure 1 show that this differentiation matters. It shows the estimated percentage change in employment and unemployment for given changes in wages in South Africa. The red line shows how the responsiveness of total *employment* (amongst the *entire* working-age population within regions) differs across the range of the wage distribution: at higher wage levels a higher percentage decline in total employment is associated with, or results from, a given percentage wage increase (than at lower wage levels). Thus, employment levels respond more strongly to wage changes where initial wages levels are high than where initial wage levels are low. For example, if wages were to increase by 10 per cent for workers earning in the bottom 10% of their district wage

¹ This responsiveness is also called the ‘elasticity of employment’ with respect to wages, or the ‘wage-elasticity’ of employment.

² The distinction between employment and unemployment responsiveness is subtle: in the first instance, job loss is measured as a percentage of the entire working age population (aged 15 to 65); in the second instance, it is expressed only as a percentage of the population that *wants* to work. The difference is meaningful if wage increases also change the willingness of the jobless to find work. See Von Fintel (2016) for more detail.

distribution, overall employment levels would fall by less than 1.5 per cent (see point A in Figure 1).³

Figure 1. The responsiveness of employment and unemployment to wage growth at different points in the wage distribution



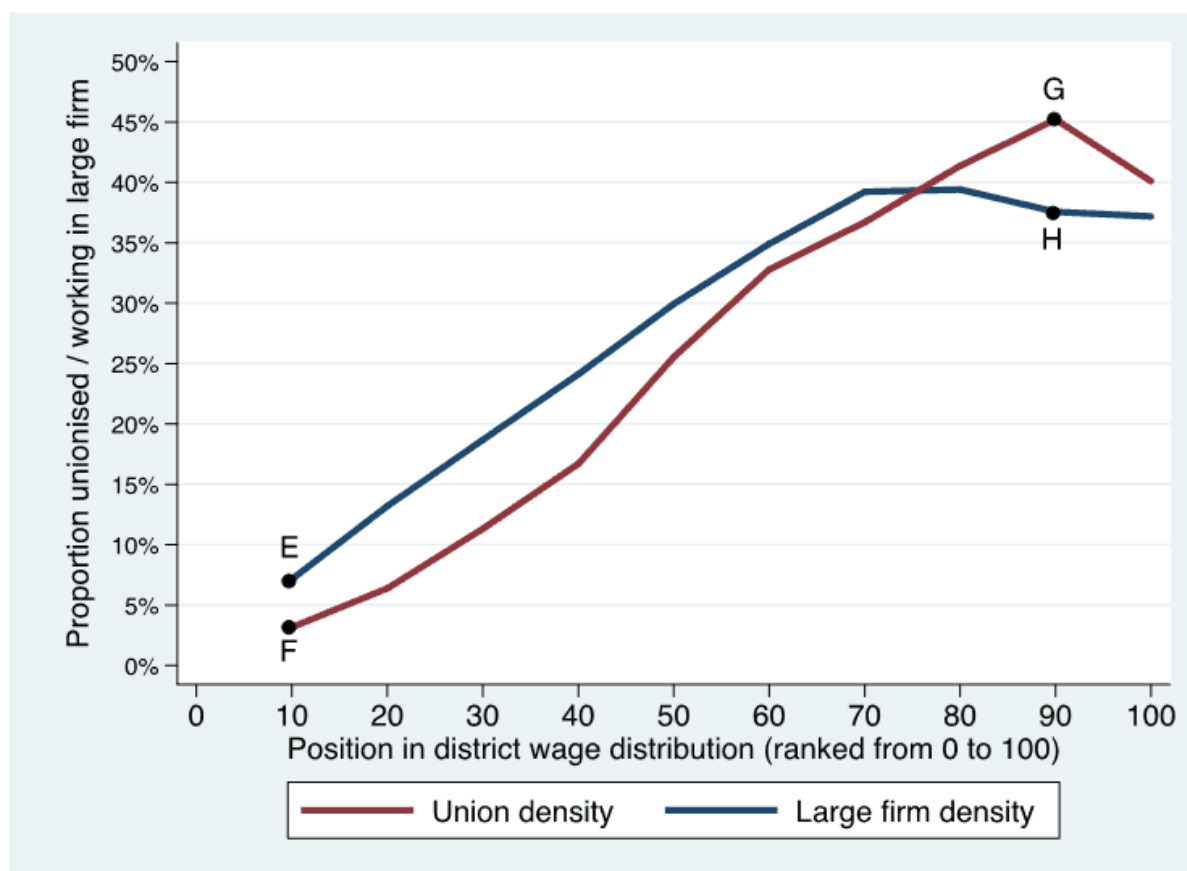
Similarly, the yellow line illustrates that *unemployment* (as a percentage of all the people who are willing to accept jobs within districts) increases more sharply if the wages of better-paid workers are increased, compared to when those of low-wage workers are increased. For the same 10 per cent wage increase of the lowest paid workers, the overall unemployment rate remains virtually unchanged (point B). Contrast this with the top 20% of wage earners (at point C) where job losses are estimated to be much greater: following a 10 per cent wage increase here, the overall unemployment rate would increase by almost 2.5 per cent.

Why this result, which is so contrary to the common contention that *unskilled* wage increases are the major cause of job losses? Figure 2 shows some characteristics of the sampled workers along the pay scale. Better-paid workers are more likely to live in districts that are highly unionised and where large firms are the dominant employers (see points G and H, where about 40% of workers match these criteria). In contrast, the lowest-paid workers tend to live in districts with lower concentrations of large firms and less unionisation (points E and F). Generally, large firms and dominant unions tend to establish collective bargaining councils that exert a substantial influence on wage increases. As shown in earlier work, in making their wage demands, unionized and large-firm workers are

³ More specifically: at the 10th percentile of the wage distribution.

less responsive to local labour-market conditions than non-unionized and small-firm workers (see my 2015 [Econ3x3](#) article).

Figure 2. Proportion of workers in a district who are unionized or work in large firms: differentiated by ranking in wage distribution



The patterns of unionization and firm-size along the pay scale (as in figure 2) are uncannily close to the different increases in unemployment due to wage hikes (as in figure 1). In fact, one can use statistical models to re-estimate the relevant responsiveness values of figure 1 whilst taking account of the differences in regional unionization rates and the prevalence of large firms. The results indicate that the presence of these characteristics explains most of the impact of wage increases on unemployment.

This is a critical point: the different responses of employment (and unemployment) to wage increases of respectively low- and highly-paid workers can largely be explained by the variation in the role of unions and large firms in setting wages at low versus high points on the pay scale.

The analysis of the data therefore shows that all instances of wage growth do not affect unemployment in the same manner. First, wage increases for better-paid workers reduce total employment more than increases for worse-paid workers. Secondly, the likely channel through which this effect operates is that better-paid workers tend to be beneficiaries of unionisation and collective bargaining agreements, which have been known to reduce wage flexibility in South Africa (see Von Fintel [Econ3x3](#) article, 2015).

How are these two observations related?

The legislation that enables collective bargaining agreements across industries and regions is relevant here. [Bargaining councils are usually formed by large unions](#) and large firms.

The main role of such a council is to negotiate the terms of employment among dominant industry players and their workers. Workers are shifted to a significantly higher pay scale merely because they work in sectors that are 'covered' by this type of arrangement.

As discussed by Seekings & Nattrass ([Econ3x3](#), 2015), the Minister of Labour may extend these decentralized bargaining agreements to entire industries or regions, including firms or employers that have not even been party to the negotiations ('uncovered' firms). Effectively, large profitable companies determine sectoral and regional minimum wages for many uncovered firms (including small and less profitable ones). This means that, especially for smaller firms, employing workers is more costly in regions where bargaining-council arrangements have been extended and are being enforced.

Here lies the root of the job losses. In the absence of bargaining councils, workers in these small firms would typically be low-paid workers. However, in a region with bargaining-council agreements, the collective bargaining premium elevates them to higher parts of the wage distribution. The wage elevation in such sectors could be as much as 10% (Magruder 2012), moving typically unskilled and semi-skilled workers to an area in the pay scale (as in figure 1) where regional unemployment and employment is much more responsive to local labour costs. (This occurs primarily in small firms.) As a result, when subsequent general wage increases occur, they frequently lead to job losses amongst the lower-skilled workers, which are then reflected in increases in *overall* regional unemployment.

This means that the presence of bargaining-council agreements can explain why observed increases in the wages of better-paid workers (plus, in terms of the agreement, increases in the wages of un- and semi-skilled workers who automatically benefit) appear to have a relatively large negative impact on unemployment. In contrast, increases in the wages of 'uncovered' low-paid workers (i.e. who are not covered by bargaining agreements) do not have the same detrimental impact on job losses. Essentially this is what figure 1 reflects.

This conclusion is supported by statistical analysis. Once one takes account of the patterns in figure 2 – which correspond to the presence of the bargaining system – the responsiveness of unemployment to wages (lines such as those in figure 1) becomes more uniform across the distribution.

Possible implications for the minimum-wage debate

One conclusion from this evidence could be that low-paid workers could receive wage increases without large-scale job losses occurring. That could mean that the introduction of a national minimum wage is unlikely to lead to major losses of low-skilled, low-paid jobs.

However, one must recognise the possibility that there may be material changes to the wage structure as a result of the introduction of a national minimum wage. Sectoral minimum wages as they currently operate are non-binding in many cases, while collectively bargained wages are binding.⁴ Therefore, current minimum wages that target the lowest-

⁴ First, sectoral minimum wages (e.g. for farmworkers and domestic workers) are currently set at levels that are much lower than those typically agreed on by collective bargaining agreements via bargaining councils (e.g. for clothing and metalwork). Secondly, compliance with sectoral minimum wages is not universal, while collectively bargained wages are monitored by the parties to the agreement (unions and firms).

paid workers exert minimal influence on jobs and job losses (as reflected in a typical point A in figure 1). The opposite is true for collectively bargained wages, which cover jobs that fall in the more responsive part of the wage range (such as at point D in figure 1): they do provoke negative responses from employers when wage levels increase.

Therefore, if a national minimum wage were to become as binding as collectively bargained wages, the empirical picture painted above may not remain valid. Current low-wage workers will transition to a higher range of wages, where they may become subject to a higher degree of employers' responsiveness to wage increases.⁵ Instead of a small response, employers may start to show larger negative reactions to wage increases among the lowest-paid workers than at present. Such workers may thus become more vulnerable in the labour market.

⁵ Graphically, the lower portions of the current wage distribution will be truncated. The left-hand portions of the responsiveness lines in figure 1 will shift to positions closer to the current mid-range points (such as point D in figure 1).

References

- Bureau for Food and Agricultural Policy (BFAP) (2015). [*Farm sectoral determination: an analysis of agricultural wages in South Africa 2015*](#).
- Fourie FCvN (2011). *The South African unemployment debate: three worlds, three discourses?* SALDRU Working Paper 63. University of Cape Town. Also: [REDI3x3 Working Paper 1](#) (2012).
- Magruder J (2012). High unemployment yet few small firms: the role of centralized bargaining in South Africa. *American Economic Journal: Applied Economics*, 4(3): 138-66.
- Von Fintel DP (2016). *Institutional wage-setting, labour demand and labour supply: causal estimates from a South African pseudo-panel*. [REDI3x3 Working Paper 13](#).

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