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Abstract: Trade unions are widely seen to exert their power through political influence, ability to organise industrial action, financial resource allocation, and ability to exact a wage premium. However, the only direct metric for union power is union density, the proportion of employees who are members of trade unions. Upon closer examination it is doubtful whether union density is indeed a reliable indicator of union power. This conclusion is reached through several ways, first, there is little to no correlation between union density and South African policy outcomes. Second, the post-1996 agency shop agreement regime obscures the true extent of union density thereafter, and in turn does not fully capture the extent of financial resource allocation. Third, whilst union membership is conventionally seen as an obvious lever to exact wage premiums, the conditionality created by race, gender and seniority challenges this view. A speculative re-estimate of union density is conducted to show how agency shop agreements may have under-represented the true extent of union density.

1. Introduction

South Africa's persistently high unemployment rate has been its defining policy challenge because this exacerbates pre-democratic inequalities and frustrates a variety of goals, ranging from fiscal stability to community safety. Whereas the global unemployment rate averaged 5.6% in the decade leading up to the Covid-19 crises, South Africa's unemployment rate was a multiple at 25.8% over the same period (World Bank, 2022), and 36.0% based on the expanded definition. Worryingly, as of the second quarter of 2023, the expanded youth (15-29 years) unemployment rate was astonishingly high at 56.3% (StatsSA, 2023) and there is no compelling evidence that social policies aimed at creating jobs are having the desired effect. On the contrary, the number of broad unemployed of the working-age population as a whole increased by over 3 million in absolute terms in the decade leading up to 2023.

Against this background, the role and nature of labour unions are pertinent. Large, politically connected and indeed politically active trade unions have been part of the political infrastructure before democratisation in 1994. The foremost example is the so-called tripartite alliance between the ruling African National Congress (ANC) political party, the South African Communist Party, and the Congress of South African Trade Unions (Cosatu), a trade union federation. Understanding unionisation dynamics in the labour market is fundamental to respond to the policy challenge of unemployment. However, it is the contention of this study that upon closer analysis, the primary indicator, trade union density, lacks in both accuracy and analytical depth.

Consider, for example, the well-known "insider-outsider" theory, which states that current insiders (i.e. already employed workers) reap the benefits of stringent labour regulations at the cost of outsiders (i.e. unemployed). The theory has been used in South Africa as a shorthand to describe how pro-labour (and pro-labour union) regulations stifle employment creation to the benefit of the so-called "labour aristocracy" of higher paid contented workers, who amongst others, have less fear of dismissal and less incentive to organise for social change, the existence of such a labour aristocracy is disputed by Cottle (2022). If the insider-outsider theory is applicable, it assumes that trade unions are actively working to maintain this dynamic by exerting policy influence to either stall policy liberalisation or increase regulatory intervention to thwart de facto employer workarounds. However, it is a further contention of this paper that such a consistent policy influence, which would have to be ever stronger given societal pressure against a seeming employment-unfriendly regime, does not correspond with the actual peaks and troughs of union influence as discussed in Part 2. But considering union density alone, one might be tempted to conclude that union influence has not changed much in the past 30 odd years and that the insider-outsider argument might hold. Conversely, by questioning the accuracy of measures of union density, one also moved to question the insider-outsider theory.

Typically, trade union density – the proportion of employees who are trade union members – is widely regarded as a reliable indicator of union strength (Metten, 2021, citing Crouch, 2017: 54; Golden et al., 1999: 189; Traxler et al., 2001: 79). In turn, union density is expected to act as a credible indicator of the way in which unions exert their strength, which includes among others the ability of unions to organise industrial action (Golden et al., 1999) or political activity (Kerrissey & Schofer, 2018), exert political influence (Armstrong & Steenkamp, 2008; Wilson & Spies-Butcher, 2011), remain financially secure (Taras & Ponak, 2001), as well as exact a wage premium for its members (Armstrong & Steenkamp, 2008).

In the South African context, with the exception of few 'outlier' years, trade union density has been remarkably stable in the 33-39% range in 1997-2022 if only formal sector employees are considered. The density was even steadier by hovering between 29% and 32% if all employees from both formal and informal sectors were taken into consideration (see Figure 1, to be discussed later). Conversely, the average OECD total union density decreased from 20.9% in 2000 to 15.8% in 2019, or contracting on average close to 1.5% per year.

The clear trend differences between the stable union density and "sub-indicators" of union power calls into question the utility of union density as an indicator of union power. Therefore, this study aims to offer a critique of union density in South Africa as a reliable indicator of four manifestations of union power: political influence, resource allocation, ability to organise industrial action, and ability to exact a wage premium. Since Metten (2021) shows that union density is not a reliable indicator for cross-jurisdictional comparisons because of unique country factors, the paper is an extension of that argument to initiate a discussion on which indicators are relevant to South Africa.

Part 2 of the paper begins with an overview of salient labour market policy developments from 1910 to the present to illustrate instances of policy influence of labour unions in South Africa. The four main policy proposals from 1994 onwards are evaluated on how "labour friendly" they were and compared with the union density of the time. Part 3 looks at the agency shop agreement regime in South African labour law for the extent to which it obscures the true extent of union density. Part 4 reviews literature about the extent to which union members can exert wage premia. Part 5 provides a definition of the data and methods, followed by a discussion of data (Part 6) and conclusions in Part 7.

2. The ability of labour unions to influence policy

The ability of labour unions to influence economic policy is treated in two parts: first, a brief survey of salient labour regulations from 1910 to 1994 is provided alongside certain significant political events. This is done to illustrate historic instances of policy influence of labour unions in South Africa. Second, the four main policy proposals from 1994 onwards are evaluated on how "labour friendly" they were, and compared with the union density of the time. The argument is that there should be a correlation between union density and policy proposals if union density is a suitable indicator of policy influence.

1910 to 1994

The regulation of labour unions from the 1910 establishment of the Union of South Africa reflected the pre-democratic racial policies of South Africa, which included work reservation for white workers and the prohibition against the formation of trade unions or right to industrial action for black workers. For example, the Mines and Works Act of 1911 introduced job reservation for white workers, while the Native Labour Relations Act of 1911 prohibited industrial action by black workers (Budeli, 2012).

In the context of a segregated and discriminatory state, the political standing of white labour was not established in 1910 but intensified over time. For example, several strikes directed against a pro-mining government were organised by white labour unions due to the threat of displacement by lower-wage black labour. The protest action culminated in 1922 in a fully-fledged armed insurrection which was seen to be brutally suppressed (Money & Van Zyl-Hermann, 2023). Crucially, the 1922 revolt is widely seen to have contributed to the 1924 ouster of the pro-mining Smuts government by the Nationalist-Labour alliance which, among others, "instituted the notorious 'civilised labour' policy, which guaranteed the race-based privileges of white workers for subsequent decades" (Money & Van Zyl-Hermann, 2023). An example of the "civilised labour policy" was lower-skilled white work reservation practised in the government controlled railways (O'Meara, 1978). The Industrial Conciliation Act (ICA) of 1924 recognised and protected white labour unions, but did not allow black workers to join labour unions. One result of the racial exclusion of the ICA is that central bargaining structures exacerbated discrimination (Bhorat et al., 2014).

Prior to the 1948 national election which formally introduced Apartheid, the racial character of most white unions replaced class-based considerations through overt efforts to either replace existing trade unions with new unions that supported the Apartheid ideology of Christian-Nationalism, or create mass social organisations such as the *Blankewerkers se Beskermingsbond* (White Workers Protection League) which further disassociated class from labour (O'Meara, 1978). O'Meara notes that the

powerful *Afrikaner Broederbond* (Afrikaner Brotherhood) centrally determined policy internally. The policies were then executed by cadres placed in executive positions in various public and private organisations, and many of the private organisations were in fact created by the Broederbond (1978). Put differently, very few policies were decided outside of the Broederbond, least of all within white labour unions. The fact that the Broederbond was exclusively composed of Afrikaner elites, who nonetheless managed white labour unions from behind the scenes, is further evidence of the success of the project to replace class as a unifier in white labour unions.

Having secured ideological conformity within white labour unions, Apartheid policy also aimed to suppress black labour unions. Among others, the 1948 National Party election manifesto promoted applying apartheid to workplaces, and opposed black trade unions but rather envisaged state control (Politicsweb, 2012). Budeli (2012) argues that the National Party recognised the potential of labour unions to provide support to resistance politics, which led to the Suppression of Communism Act of 1950, which banned the Communist Party of South Africa, and gave power to ban individuals, publications or organisations alleged to promote communism. Further, the Native Labour Act of 1953 criminalised strikes by black workers and the amendment of this act in 1964 included sanctions for absence without leave, breach of contract and insubordination (Giliomee, 2012).

The 1973 series of illegal strikes by an estimated 60,000 black workers in Durban is regarded as a turning point in labour relations, since it is seen as forcing the government's hand to decriminalise industrial action by black workers (Wood, 1992). The Bantu Labour Regulations Act which was passed in 1973 regulated conditions of employment of black trade unions but excluded several large industries and required employer-initiated committees (Budeli, 2012). Interestingly, Wood states that there is no evidence that unions played any part in planning the strike action, but rather that it was spontaneous collective action, and an all-white union portrayed the strike action as a left-wing conspiracy (1992).

Due to the activism by organisations such as the Urban Training Project (UTP) to organise labour, and the growing sense within government that the 1973 policy innovation was a half-measure to secure labour harmony, the Wiehahn Commission was constituted in 1977 to explore ways towards non-racial labour relations (Giliomee, 2012). Following the recommendations of the Wiehahn Commission, the reforms in 1979 deracialised the statutory system of collective bargaining and introduced an Industrial Court (Wood, 2001). These reforms allowed black unions to register, and decisions by the Industrial Court entrenched the right industrial action (Wood, 2001).

The labour market liberalisations allowed for the formation of the Congress of South African Trade Unions (Cosatu) in 1985, which overtly supported the then-banned ANC (Gilliomee, 2012). The political support was to such an extent in the late 1980's that "workerist" union members, who believed the union should primarily focus on conventional trade union aspects, were over time replaced by a "populist" school of thought which was more favoured towards political action (Wood, 2001). Ironically, the unbanning of the ANC and several other political organisations in 1990 quickly resulted in a lower level of influence for Cosatu in the tripartite alliance as previously banned representatives could now fully exert themselves to such an extent that Cosatu did not have representation at the 1991 CODESA constitutional deliberations (Budeli, 2012).

1994 to present
After the 1994 democratic transition, Cosatu enjoyed recognition within the tripartite alliance through securing direct representation in the National Assembly as ANC Members of Parliament (Wood, 2001). Since Cosatu is an umbrella organisation of several large trade unions, the decline in employment and union membership in mining and manufacturing from the early 1990s was more than offset by the increase in public sector union membership (Wood, 2001). Other peaks of union influence include the

passage of the Labour Relations Act and Basic Conditions of Employment Act in 1995 and 1997 respectively, and the installation of Jacob Zuma as ANC president in 2007 with the help of Cosatu (Budeli, 2012).

Another irony is that the proximity of Cosatu to government resulted in a so-called "brain drain" away from the union towards political and government posts, thereby weakening the trade union (Wood, 2001). This would suggest that closer political engagement by trade unions may plant the seed of its own demise, at least within the South African context. The trade-off seems to be between greater opportunity for unions to influence government action and policy by having direct appointees to senior positions in the government executive, against eroding their leadership cadre. An argument of the paper, that union influence has weakened from the 1990s to 2020s, would also suggest that this balance has not been struck.

The South African government has published four broad-ranging economic policy documents since 1994, which dealt with labour market matters, among others (see Table 1). Although the policies were not published at set intervals, and have different levels of detail and emphasis, each can be viewed as an indicator of the reigning view within the ANC on labour policy at the time. Conversely, the salient labour market items are indicative of the influence of labour (especially Cosatu) on ANC policy.

Table 1: Salient labour market proposals in each of the official policy documents

Policy and year	Proposed labour market policy interventions or salient points
RDP, 1994	1. Creation of NEDLAC and CCMA 2. Extension of the Wage Board scope of activity 3. Creation of new collective bargaining institutions 4. Legislative changes to collective bargaining 5. A new Labour Relations Act
GEAR, 1996	1. Creation of Sector Education and Training Authorities (SETA's) 2. "A more flexible labour market" 3. Avoiding nominal wage escalation 4. Limiting the scope of wage agreements 5. No national minimum wage
ASGISA, 2004	1. Key growth constraints are shortages of suitably skilled labour and spatial distortions of apartheid affecting low-skilled labour costs 2. Poor performance of training and education bureaucracy, including SETA's, to be reversed 3. Introducing Expanded Public Works Program (EPWP) 4. Creation of IT system to collect and disseminate labour market information
NDP, 2012	1. Youth wage subsidy, entry wage flexibility, and excluding unfair dismissal in the 6-month probation period 2. "A labour market that is more responsive to economic opportunity" 3. Link wage growth to productivity growth over 20 year period 4. Limiting industrial action for essential public services 5. Limiting scope of labour regulation for smaller firms

It is noticeable that there seems to be no relationship between the union density, which is supposed to indicate union influence, and the actual reigning policy position of the time, across the four policy proposals discussed below.

The Reconstruction and Development Plan (RDP) was published as government policy in 1994 shortly after democratisation. The focus of the RDP was on the sizeable task of restructuring a severely unequal society, and to this end the labour market policy proposals focused on a new forum for social

dialogue, the National Economic Development and Labour Council (NEDLAC), and the creation of what would later become the Commission for Conciliation, Mediation and Arbitration (CCMA). Other salient labour policy examples were clearly pro-union, such as the extension of the Wage Board's scope of activities, the creation of new collective bargaining forums, legislative changes to entrench collective bargaining, and a new Labour Relations Act. The RDP also included the view that labour unions not only remained meaningful to the political debate, but would be a democratic counterweight to the government: "Mass-based organisations will exercise essential checks and balances on the power of the Government to ensure that Government does not act unilaterally, without transparency, corruptly, or inefficiently" (RDP, 1994).

Growth, Employment and Redistribution (GEAR) was published in 1996 and represented a tangible shift towards market-oriented policy, and notably stated that "a more flexible labour market" was preferred. Specific policy proposals that were anathema to Cosatu and labour unions at the time included the aim to avoid nominal wage escalation, limiting the scope of wage agreements, the variable application of employment regulations, and rejecting an economy-wide national minimum wage. GEAR went as far to state that wage demand by labour unions was a material limitation to job creation: "Within the unionised sector, remuneration typically includes a growing non-wage element, which has contributed significantly to the overall rise in the costs of labour. Although the magnitude of wage effects on employment are subject to considerable uncertainty, it is likely that wage-bargaining in unionised sectors has contributed somewhat to the slowdown in employment creation and to a rising gap between remuneration in unionised and unregulated segments of the labour market" (GEAR, 1996). Union density was only recorded from 1997, a year after GEAR's publication, which was 40.55% on a national level, one of the highest in the series.

The Accelerated and Shared Growth Initiative for South Africa (ASGISA) was published in 2004 and avoided any criticism against labour unions for any labour market distortions or high unemployment. The key constraints pointed to were rather shortages of suitably skilled labour, and the spatial distortions of apartheid affecting low-skilled labour costs, among others. The suggested policy response to this was to improve on the poorly performing Sector Education and Training Authority (SETA) system that was first proposed in GEAR and which replaced the industrial apprenticeship system, introducing an Expanded Public Works Program (EPWP), and creating an information sharing system to collect and disseminate labour market information. If any entity or grouping was criticised, it was the executive branch of government, and the solution in broad was not so much a change in fundamental labour market policy, but more of a technocratic intervention. The union density rate in 2004 was 34.70%, the fourth lowest figure in the 25-year series.

The National Development Plan (NDP) was published in 2012 and returned to the theme of labour market inflexibility as a limitation to job creation. In general, the policy proposals can be read as an attempt to roll back on some of the statutory requirements that have seemed to stifle a more dynamic labour market, and also to counteract the growing public sector wage bill which was caused by several years of government employment drives. The proposals included clarifying the dismissal and retrenchment provisions in the Labour Relations Act (1995), which many commentators at least at the time viewed as imposing disproportionate administrative costs on smaller employers, and in a similar vein, reviewing regulations and standards for small and medium sized enterprises. As with GEAR, the NDP also proposed that productivity and wage growth be explicitly linked, and also that multi-year agreements be reached on public service pay and that there should be greater statutory entry-level wage flexibility. Another significant proposal was to reform bargaining councils along occupation and skill levels in the public service. The union density rate in 2012 was 35.63%.

3. The impact of agency shop agreements on union resource allocation

The presence of the agency shop agreement regime in South African labour law is seen as evidence of successful political influence by labour unions in the mid-1990s, but the result of the policy also obscured the true extent of union density thereafter.

Before considering the implications of labour legislation, an overview of determinants for joining a labour union is instructive. Workers join trade unions due to various economic (e.g. higher salary and better working conditions), political (members would like the unions to exert a strong mobilising and influential force over government decision-making processes), social (e.g. improve comradeship and community acceptance, as well as earn the respect from others) and self-fulfilment (e.g. develop soft skills that they would not have been able to accumulate in their ordinary jobs) reasons (Finnemore, 2012: 93-94; Visser 2007: 17). Moreover, a wide range of factors influence a person's decision to become a trade union member (Fitzenberger et al., 2006; Kahmann, 2002; Lesch, 2004; Msila, 2008; Schnabel, 2013; Uys & Holtzhausen, 2016; Visagie, 2012): In general, older and lowly educated male workers who worked for shorter years at larger firms are relatively more likely to join trade unions. Moreover, at times of more rapid inflation, employees are more likely to be union members because they would like to be more vocal to defend their real wages so that their living standards would not be threatened by the rising consumer prices. Visagie (2012) and Msila (2018) suggest that with technological changes in the organisational structures of workplaces, there are new options on where and how the work tasks are conducted, thereby causing loss of union members and subsequently lower union density, because the Fourth Industrial Revolution may limit workforce interaction and weaken mass mobilisation capacity.

Whilst these considerations are intuitive and generally agreed, they become far less important once the majority of workers in a firm becomes unionised. The Labour Relations Act (LRA) was signed into law in 1995 and came into effect in 1996. The amendments between the draft Bill LRA and final legislation reveals the efforts of labour union lobbying since specific provisions were amended to strengthen the relative position of labour unions. Commenting at the time, Olivier (1995) points to among others, the more permissive agency shop agreement regime. In broad terms, an agency shop agreement provides that employees must pay union fees regardless of membership and is usually triggered by the majority union representation among employees. Similarly, a closed shop agreement mandates not only union fee contribution but full union membership. Agency and closed shop agreements are not unique to South Africa and there is a variety of regulatory nuances (and political controversy) across the world (see Taras & Ponak, 2001, below).

Particular to South Africa, the amendments introduced the final legislation which allowed unions with minority representation within a workplace to combine forces and agree an agency shop agreement, if the combined unions hold a majority of employee representation as per Section 25 of the LRA (Olivier, 1995). Crucially, Section 25(3) was amended to move administration of the contribution fund from jointly with the employer to unilateral union control. The scope of application of the contribution fund was also widened for "any expenditure that advances or protects the socio-economic interests of employees", although political contributions are not allowed (Section 25(3)). On the latter point, whether this exclusion of political contributions has been maintained remains to be tested, as there is a consensus that grassroots union mobilization (which of course requires financial resources) has a significant political impact in South Africa (Armstrong & Steenkamp, 2008) and indeed across the world (Wilson & Spies-Butcher, 2011).

The agency shop regime was hardly the harbinger of socialist dystopia which may have been feared at the time, but similarly is not inconsequential bureaucratic minutiae. Broadly speaking, the agency shop agreement gives unions what many businesses could only dream of: a steady flow of income of which up to 49% of those who contribute has no oversight over its use. It also effectively ensures that an extension of some political parties have operational funding.

The closed shop agreement (i.e. mandatory membership) is more controversial as it allows for termination of employment should an employee refuse to become a union member, and is in fact outlawed in several jurisdictions and by the ILO charter (Vettori, 2005). However, anecdotal evidence suggests it is nearly absent from the South African labour market and ripe for constitutional challenge as an unfair infringement of the constitutional right to freedom of association (Olivier, 1995).

The existence of agency shop agreements obscures the true extent of union market share, for lack of a better adjective. It is because the labour force surveys of Statistics South Africa (StatsSA) over the years (i.e. October Household Survey (OHS), Labour Force Survey (LFS) and the current Quarterly Labour Force Survey (QLFS)) on union density only captures whether an employee is unionized or not by asking one simple question "Are you a member of a trade union?", but non-unionised employees were not asked if they are part of an agency shop agreement. The implication is that the official union density estimate is best understood as the lower limit of union market share. One speculative method to estimate the market share is to "round up" those industries with union densities higher than 50%, i.e. once an industry has more than 50% union representation it is fair to assume that the industry is covered by agency shop agreements. Section 6 below will compare trade union density before and after adopting this speculative method.

A second impact of agency shops is that the resources allow unions to grow or at least maintain membership. In a study comparing often diametrically opposed policy positions on agency shops between the US and Canada, Taras & Ponak (2001) show that the financial security brought by the agency shop regime has enabled Canadian unions to have a level of union density twice as high as that of their American counterparts. This difference is more striking given the highly similar business environments between the two countries. The ability to remain financially secure is possibly the most fundamental manifestation of union power, and therefore not fully captured by union density alone.

4. The ability of unions to exact wage differentials
Whilst the conventional view is that union members are able to exact wage premia, the extent may be overstated. In the South African empirical literature, some studies examined the trade union wage premium. First, Armstrong & Steenkamp (2008) analysed the 1995-2005 labour survey data and found that a substantial increase in the mean union wage premium took place. Detailed decomposition of this wage gap showed that a sizable part of the union wage differential was attributed to the changing composition of skill levels within union, rather than union density per se. Bhorat et al. (2008 & 2012) took the analysis one step further by taking bargaining council coverage into consideration; the econometric analysis found that after controlling for differences in personal, firm and job characteristics, as well as non-wage benefits such as entitlement of written contract and paid leave, along with union membership and bargaining coverage status, the union wage premium dropped significantly from 34% to 6% in 2005.

Further analysis of the South African labour market suggests that the wage premium is a function of gender and race. Casale & Posel (2008) investigated whether unions were associated with comparable gender wage effects amongst African employees by analysing the 2003 wage data. The authors found that the gender wage gap size was higher in the unionised sector than non-unionised sector. Also, African women enjoyed significantly higher productivity-related endowments, while African men had far larger returns to these endowments, thereby resulting in a gender wage gap in the unionised sector that favoured African men. On the other hand, Millea et al. (2012) used the 2000-2007 labour survey pooled data to investigate the impact of minimum wage policies in different segments of the population. After including various personal and work characteristics explanatory variables as well as numerous interaction dummy explanatory variables in connection with minimum wage laws in each sector, the Ordinary Least Squares log earnings regressions indicated that the union wage premium

was as low as 10% for white workers, about 30% for Coloured workers, but was as high as 32% for African male and 39% for African female workers.

A further nuance is that the union wage premium in South Africa could rather be conflating seniority. To the authors' knowledge, Kerr & Wittenberg (2021) is the most recently conducted South African study in connection with the union premium. Using the 1993-2020 labour survey data, the authors first derived some descriptive statistics on union density and found that it was relatively higher amongst male black skilled workers who worked in the public sector. The study proceeded to conduct econometric analysis, and found that the union wage premium was extremely high, whereas trade union membership had become increasingly concentrated at the top-end of the wage distribution as well as in the public sector. Lastly, the authors found that unions played a role in increasing wage inequality upon conducting variance decompositions.

To conclude, the impression from the literature is that whilst union membership is conventionally seen as an obvious lever to exact wage premiums, the conditionality created by race, gender and seniority challenges this view. Further, descriptive statistics on union membership (to be shown later) contradict the generalisation from the studies as discussed above.

5. Definition of the data and methods
This study uses the selected waves of the 1997-2022 OHS, LFS and QLFS data to derive numerous labour market estimates, such as labour force participation rates, unemployment rates and union density. All surveys were conducted by StatsSA to capture labour market information, ranging from job-seeking action, work activities and duration of being jobless and seeking work. Note that the OHS took place once a year until 1999, before being replaced by the LFS in 2000. The LFS took place twice a year in 2000-2007, before it was replaced by the QLFS in 2008. In addition, the 1999-2022 Annual Industrial Action report data would also be analysed, to examine the correlation (if any) between the industrial action indicators (e.g. number of work stoppages) and the labour market indicators.

Lastly, the trade union density rate would be derived in three different ways:
(1): Using the typical approach (employees who are trade union members / all employees), but only formal sector employees are included;
(2): Using the above-mentioned approach; however, all employees (from both formal and informal sectors) are taken into consideration; or
(3): As discussed in section 3, for the broad industry categories with trade union density of at least 50%, we will assume that the true density is 100%, as the industry is covered by agency shop agreements. Then we will re-estimate the overall trade union density from all industries.

6. Discussion on the data
In StatsSA's 1995-1999 OHSs, 2000-2007 LFSs and QLFSs from 2010 onwards, there was only one simple question asked relating to trade union density, that is, the employees were asked whether they are members of a trade union. Note that the question was not asked in the 2008-2009 QLFSs before it was asked from the first quarter wave of the 2020 QLFS. In addition, Frangi & Barisione (2015: 2) argued that declaration of trade union membership in surveys should be understood in subjective terms, as it does not take into account a person's awareness of being a union member, his/her sense of belonging to the union, and the social desirability of stating his/her membership publicly (that is, measurement of union membership in objective terms).

Table 2 shows that the number of trade union members steadily increased over the years, from 2.59 million in 1997 to 3.86 million in 2022 if only formal sector employees are considered, and increasing from 2.82 million to 3.91 million during the same period if both formal and informal sector employees are included. Whilst not shown in the table, in absolute terms, trade union members were the highest

in 2020 (4.22 million if only formal sector employees are included; 4.24 million if both formal and informal sector employees are taken into consideration). Moreover, it seems there is no strong correlation between union density and LFPR and unemployment rate.

Table 2: Trade union statistics, selected years

Year	Formal sector employees only			All employees from both sectors			LFPR (%)	Unemploy-ment rate (%)
	Employees (1 000s)	Union member (1 000s)	Union density (%)	Employees (1 000s)	Union member (1 000s)	Union density (%)		
1997	6 386	2 589	40.55	8 167	2 816	34.47	45.26	21.23
2001	7 202	2 810	39.01	9 012	2 894	32.12	56.32	29.40
2005	7 960	3 008	37.79	9 846	3 109	31.58	56.53	26.73
2010	9 596	3 531	36.80	11 698	3 559	30.42	54.79	23.88
2014	10 921	3 856	35.31	13 256	3 900	29.42	56.48	24.21
2018	11 330	4 005	35.35	14 012	4 042	28.85	59.09	27.03
2022	10 924	3 857	35.31	13 370	3 907	29.22	58.18	32.68

Source: Authors' own calculations using the OHS 1997, LFS 2001 and 2005 September, and 2010, 2014, 2018 and 2022 QLFS fourth quarter data.

As far as trade union density (i.e. proportion of employees who are trade union members) is concerned, it can be seen from Figure 1 that regardless of whether informal sector employees are included or not, the union density declined steadily between 1997 and 2015, before a slightly upward trend took place in 2016-2019. An abrupt increase took place in 2020 before a sharp decline happened in 2021-2022. Trade union density was the highest in 2020 (40.3% if only formal sector employees are included; 33.6% if both formal and informal sector employees are included).

Figure 1: Trade union densities, 1997-2022
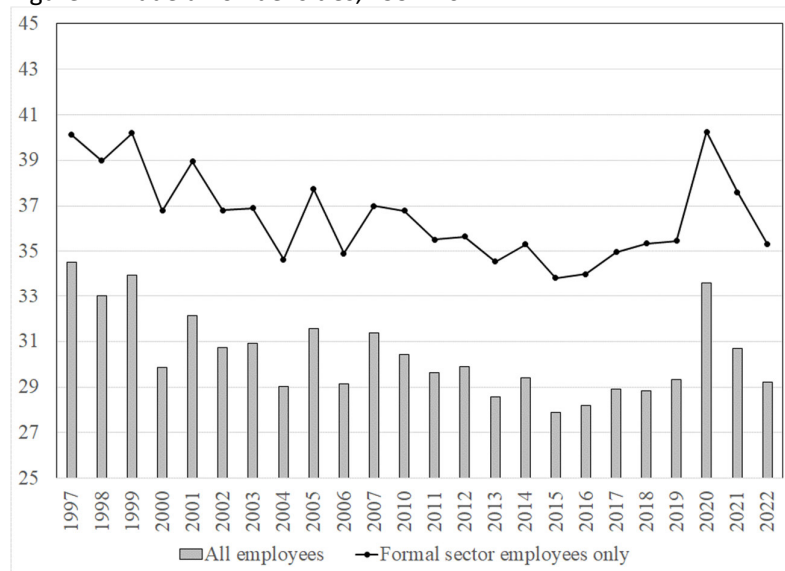
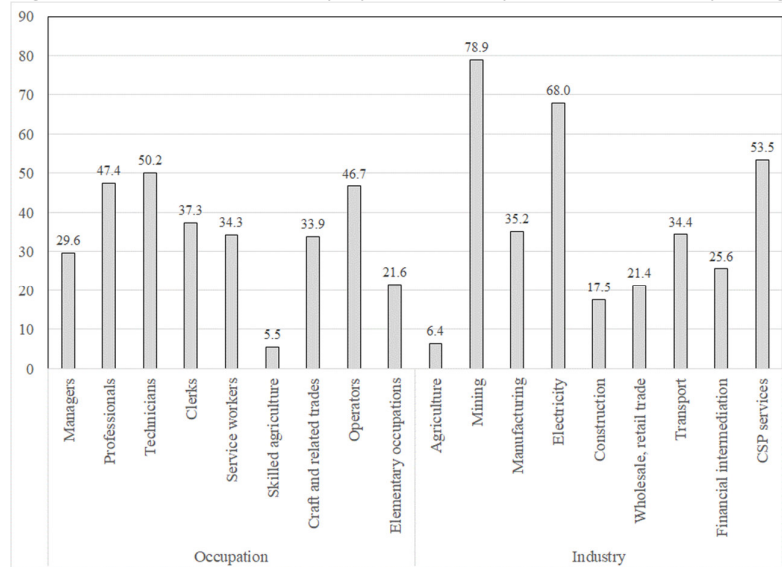Source: Authors' own calculations using the OHS 1997-1999, LFS 2000-2007 September, and 2010-2022 QLFS fourth quarter data.

Next, Table A1 in the Appendix shows that in 2022, trade union density was relatively higher amongst formal sector employees who are permanently employed Africans and aged 35-65 years who lived in the urban areas of North West and Mpumalanga, with post-Matric qualifications, worked as

professionals, technicians or operators in the public sector, with long tenure with the current employers, and in larger enterprise.

In addition, union density was higher in the mining, electricity, as well as community, social and personal (CSP) services industry workers (see Figure 2). In fact, mining and CSP services are the two broad industry categories which have always been associated with union density exceeding 50% every year between 1999 and 2022. In contrast, trade union density was notably lower amongst lowly educated youth employees aged 15-34 years who were employed with verbal contracts with limited duration in small-sized enterprises in the private sector, working in the agriculture and construction industry categories.

Figure 2: Trade union density by broad occupation and industry categories, 2022

Source: Authors' own calculations using QLFS 2022 fourth quarter data.
Note: Only formal sector employees were included.

Looking at the results of Table A1 in greater detail, it is interesting that some of the findings contradict the generalisation from the recent studies as discussed earlier. First, there is no indication that lowly educated workers are more likely to be trade union members; in fact, the opposite took place in South Africa as trade union density increased across the more educated categories (incomplete primary: 17.6%; degree: 48.6%). It is also noticed that employees with shorter tenure with their current employers rather had lower likelihood of joining trade unions. Lastly, whilst the earlier literature review suggests that the relationship between job permanence and trade union membership probability is ambiguous, the findings from Table A1 suggest that in the South African labour market context, those with written and permanent contracts were associated with much higher trade union density.

When comparing South Africa with other countries, data compiled by the ILO (see Table 3) shows that out of 139 countries under study, trade union density was as low as 0.2% in Venezuela and as high as 91.4% in Iceland. South Africa had the 27th highest trade union density (29.3%), almost 10 percentage points above the international mean of 19.8%. In fact, South Africa's trade union density was higher than other upper middle-income countries, with the exception of China and Serbia, as shown in Table 3. The cross-country comparison should, however, be read with some caution given that the calculation of union density is highly sensitive to jurisdictional quirks, as pointed out by Metten (2021).

Table 3: Trade union density of selected upper middle-income countries (%)

China (2017)	44.2
Malaysia (2018)	8.7
Thailand (2019)	3.3
Russia (2017)	27.5
Serbia (2010)	33.3
Turkey (2019)	9.9
Argentina (2014)	27.7
Brazil (2019)	13.0
Mexico (2020)	13.2
Mauritius (2018)	27.7
Namibia (2018)	18.3
South Africa (2019)	29.3

Source: International Labour Organisation (2022).

In terms of the link between union density and industrial action, the results are hardly convincing. Between 1999 and 2022, the number of work stoppages was as low as 47 in 2002 and as high as 165 in 2018. The number of employees involved in these stoppages fluctuated greatly between 66 000 (in 2002) and 1.14 million (in 2000). The percentage of formal sector employees in these stoppages hovered in the 1-5 percent range, with the exception of a few years such as 2000 (15.8%) and 2010 (12.4%), as shown in Figure 3. Both the number of stoppages and proportion of formal employees involved in these stoppages were abruptly higher in 2000 and 2010. Also, after all the fluctuations taking place in 1999-2013, both indicators became relatively more stable in 2014-2022.

Figure 3: Proportion of formal sector employees involving in work stoppages, 1999-2022
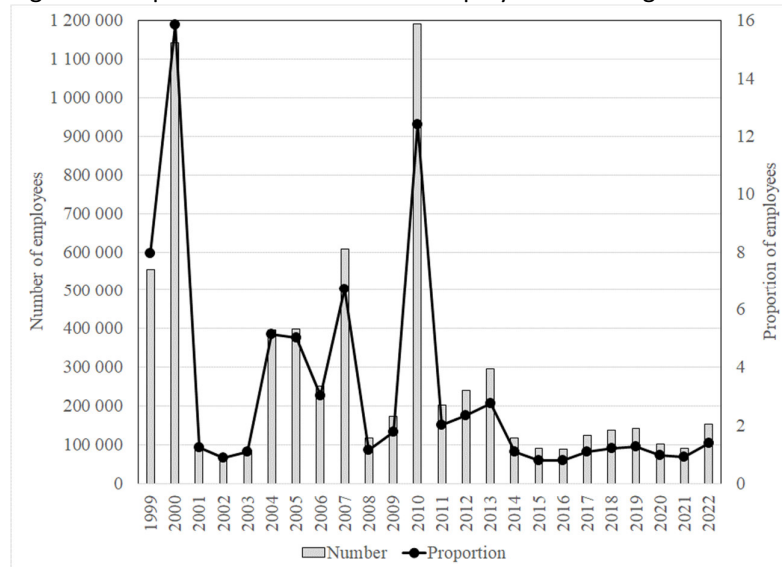
Source: Department of Labour's Industrial Action Reports, numerous issues.

While Vernon (2006: 192) suggested that higher trade union density is associated with more strikes, the results in Figure 4 suggests otherwise in the South African context, as there is no strong positive correlation between trade union density and number of work stoppages. In fact, the correlation coefficient between the two variables is extremely weak (-0.17). It is noteworthy that union density has a relatively strong negative correlation with real GDP (-0.50), log real GDP (-0.49) and the

annualised real GDP growth rate (-0.20), which is intuitive and certainly an avenue for further analysis using the speculative method discussed above and below.[1]

Figure 4: Correlation between trade union density and number of work stoppages, 1999-2022
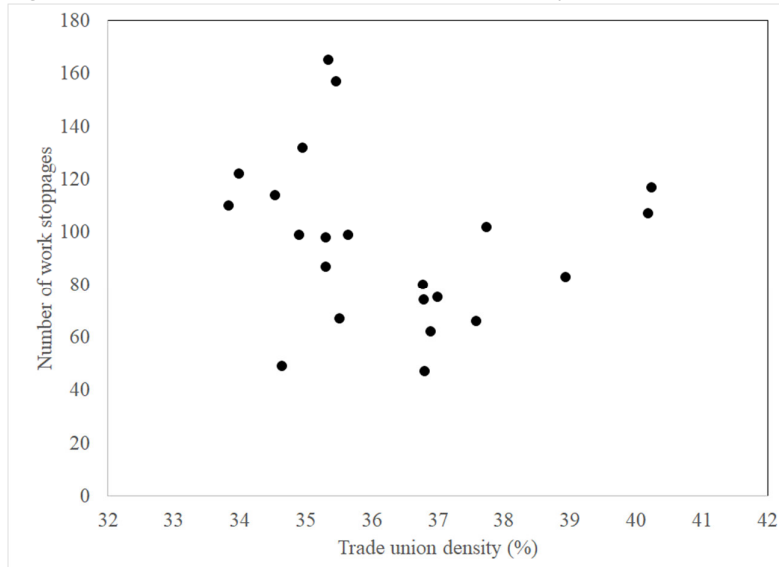
Source: Authors' own calculations using the OHS 1999, LFS 2000-2007 September, 2010-2022 QLFS fourth quarter, and 1999-2022 Industrial Action report data
Note: Only formal sector employees were included.

Applying the speculative method discussed in section 5, i.e. rounding up industries with union densities higher than 50% to 100%, it is estimated that the union market share has on average been more than 12 percentage points, or over 5.8 million employees in absolute terms, higher than union density from 1997 to 2021. It is because two of the largest sector employers, community, social and personal (CSP) services (which includes all levels of government employees) and mining industries has always had union density greater than 50% since the start of the series in 1997. The market share estimate should easily be captured as an extension of the QLFS and is a recommendation of this study.

Unsurprisingly, the market share estimate is as relatively stable as union density as per Figure 5, and leads to the question on whether union density is a meaningful indicator. But it is instructive to consider why market share is at least a more accurate representation of union power or influence. As discussed above, the additional financial resources enable unions to participate in political discussions to a greater extent than would otherwise be the case.

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[1] Using the revised union density variable by adopting the speculative method, the correlation between this revised estimate and number of work stoppage is even weaker (-0.05). In addition, this revised union density still has a moderately strong negative correlation with real GDP (-0.46), log real GDP (-0.49) and the annualised real GDP growth rate (-0.34).

Figure 5: Revised trade union densities, by assuming 100% unionisation rate in mining and CSP services industries
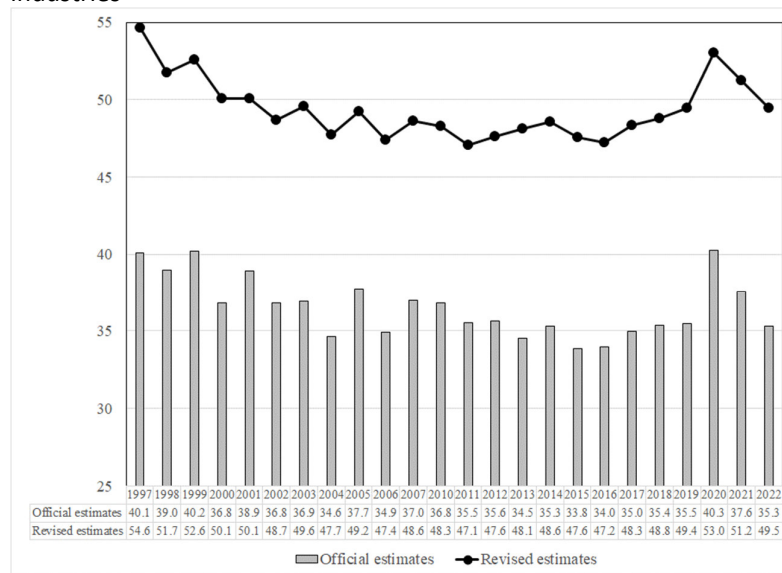
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Official estimates	40.1	39.0	40.2	36.8	38.9	36.8	36.9	34.6	37.7	34.9	37.0	36.8	35.5	35.6	34.5	35.3	33.8	34.0	35.0	35.4	35.5	40.3	37.6	35.3
Revised estimates	54.6	51.7	52.6	50.1	50.1	48.7	49.6	47.7	49.2	47.4	48.6	48.3	47.1	47.6	48.1	48.6	47.6	47.2	48.3	48.8	49.4	53.0	51.2	49.5

Official estimates ▬▬ Revised estimates ●

Source: Authors' own calculations using the OHS 1997-1999, LFS 2000-2007 September, and 2010-2022 QLFS fourth quarter data.

7. Conclusion

We find that union density is not a reliable indicator of union strength, but suggest that the measure be amended to better capture the economic reality because of the inconclusive or weak correlation between union density and key metrics of union power, which include the ability to organise industrial action, financial resource allocation, and ability to exact a wage premium. This conclusion is reached through several ways, first, there is little to no correlation between union density and South African policy outcomes. Second, the post-1996 agency shop agreement regime obscures the true extent of union density thereafter, and in turn does not fully capture the extent of financial resource allocation. Third, whilst union membership is conventionally seen as an obvious lever to exact wage premiums, the conditionality created by race, gender and seniority challenges this view. A speculative re-estimate of union density is conducted to show how agency shop agreements may have under-represented the true extent of union density.

The results create several questions for further consideration. On data collection and metholodgy, the first question is whether StatsSA should ask additional questions in the QLFS to capture trade union density better (currently there is only one question - in subjective terms - simply 'do you belong to a trade union?') That is, should more questions be asked to capture union membership in objective terms as raised by Frangi & Barisione (2015: 2), so that we can estimate trade union density more accurately? The second question is whether a methodological tweak could be used to create a second union density metric, e.g. "broad definition of union density", where firms with more than 50% unionised workers are rounded up to 100%. The third, and most involved methodological adjustment would be to introduce a multi-variate metric similar to that proposed by Metten (2021).

The results also suggest it is necessary to reconsider the results of studies on unionised wage premium given serious questions over data accuracy related to trade union membership and trade union density.

Reference

Armstrong, P. & Steenkamp, T. (2008). *South African trade unions: An overview for 1995 to 2005*. Stellenbosch Economic Working Papers: 10/08. Stellenbosch: Stellenbosch University.

Bhorat, H., Goga, S. & Van der Westhuizen, C. (2012). Institutional wage effects: Revisiting union and bargaining council wage premia in South Africa. *South African Journal of Economics*. 80(3): 400-414.

Bhorat, H., Van der Westhuizen, C. & Goga, S. (2008). *Analysing wage Formation in the South African labour market: The role of bargaining councils*. Paper presented at the 2008 Development Policy Research Unit (DPRU) Conference, Cape Town, October.

Budeli, M. (2012). Trade unionism and politics in Africa: The South African experience. *The Comparative and International Law Journal of Southern Africa*. 45(3): 454-481.

Casale, D. & Posel, D. (2008). *Unions and the gender wage gap in South Africa*. Paper presented at the 2008 Development Policy Research Unit (DPRU) Conference, Cape Town, October.

Cottle, E. (2022). The myth of a labour aristocracy in South Africa. *New Agenda: South African Journal of Social and Economic Policy*. 2022(84), 18-22.

Department of Labour (various years). *Annual Industrial Action Report*. Pretoria: Government Printer.

Finnemore, M. (2012). Chapter 4: Trade unions: Goals, strategies and organisation. In M. Finnemore, *Introduction to Labour Relations in South Africa*. 11th edition. Durban: LexisNexis (Pty) Ltd: 91-138.

Fitzenberger, B., Kohn, K. & Wang, Q. (2006). *The erosion of union membership in Germany: Determinants, densities, decompositions*. IZA Discussion Paper No. 2193. Bonn: Institute for the Study of Labor.

Frangi, L. & Barisione, M. (2015). 'Are you a union member?' Determinants and trends of subjective union membership in Italian society (1972-2013). *Transfer*. 21(4): 1-19.

Giliomee, H. (2012). *Die Laaste Afrikanerleiers: 'n Opperste Toets van Mag*. Cape Town: Tafelberg.

Golden, M. A., Wallerstein, M. & Lange, P. (1999). Postwar trade-union organization and industrial relations in twelve countries. In H. Kitschelt, P. Lange, G. Marks, & J. D. Stephens (Eds.), *Continuity and change in contemporary capitalism*. Cambridge: Cambridge University Press: 194-230.

International Labour Organisation. (ILO) (2022). *Statistics on union membership*. [Online]. Available: https://ilostat.ilo.org/topics/union-membership/ [Accessed: 9 September 2022].

Kahmann, M. (2002). *Trade unions and young people: Challenges of the changing age composition of unions*. Brussels: European Trade Union Institute (ETUI).

Lesch, H. (2004). Trade union density in international comparison. *CESifo Forum*. 5(4): 12-18.

Metten, A. (2021). Rethinking trade union density: A new index for measuring union strength. *Industrial Relations Journal*. 52: 528-549.

Millea, M., Rezek, J.P. & Pitts, J. (2012). *Minimum wages in a segmented labour market: Evidence from South Africa*. Unpublished manuscript.

Money, D., & Van Zyl-Hermann, D. (2023). This Year in History: The 1922 Rand Revolt. *South African Historical Journal*, Ahead-of-print(Ahead-of-print), 1-3.

Msila, X. (2018). *Trade union density and its implications for collective bargaining in South Africa*. Unpublished Masters research article. Pretoria: University of Pretoria.

Olivier, M. (1995). The new Labour Relations Act - an update. *De Rebus.* 1995(336): 767-770.

O'Meara, D. (1983). *Volkskapitalisme: class, capital, and ideology in the development of Afrikaner nationalism, 1934-1948*. Cambridge: Cambridge University Press.

Organisation for Economic Co-operation and Development (OECD). OECD Stat. Trade Union Density. [Online]. Available: ECD stat https://stats.oecd.org/Index.aspx?DataSetCode=TUD%20 [Accessed: 23 October 2023].

Politicsweb. (2012). *Apartheid: The NP's 1947 manifesto*. [Online]. Available: https://www.politicsweb.co.za/news-and-analysis/apartheid-the-nps-1947-manifesto [Accessed: 1 September 2023].

Schnabel, C. (2013). Union membership and density: Some (not so) stylised facts and challenges. *European Journal of Industrial Relations*. 19(3): 255-272.

Statistics South Africa (StatsSA). *Quarterly Labour Force Survey, second quarter 2023*. Pretoria: Statistics South Africa.

Taras, D.G. & Ponak, A. (2001). Mandatory agency shop laws as an explanation of Canada-U.S. union density divergence. *Journal of Labor Research*. 22(3): 541-568.

Uys, M. & Holtzhausen, M. (2016). Factors that have an impact on the future of trade unions in South Africa. *Journal of Contemporary Management*. 30: 1137-1184.

Vernon, G. (2006). Does density matter? The significant of comparative historical variation in unionisation. *European Journal of Industrial Relations*. 12(2): 189-209.

Vettori, S. (2005). The Labour Relations Act 66 of 1995 and the protection of trade unions. *South African Mercantile Law Journal*. 17(1): 295-304.

Visagie, J.C., Uys, M., Linde, H.M. & Havenga, W. (2012). A comparative analysis of current trade union trends in the European Union and South Africa. *African Journal of Business Management*. 6(44): 11095-11109.

Visser, J. (2007). Trade union decline and what next: is Germany a special case? *Industrielle Beziehungen: Zeitschrift für Arbeit, Organisation und Management*. 14(2): 97-117.

Wilson, S., & Spies-Butcher, B. (2011). When Labour Makes a Difference: Union Mobilization and the 2007 Federal Election in Australia. *British Journal of Industrial Relations*. 49(S2), S306-S331.

Wood, G. (1992). The 1973 Durban strikes: of local and international significance. *Contree : Journal for South African Urban and Regional History*. 31(1): 19-24.

Wood, G. (2001). South African trade unions in a time of adjustment. *Labour / Le Travail*. 47(1): 133-150.

World Bank. (2022). *World Bank Data*. [Online]. Available: https://data.worldbank.org/ [Accessed: 15 September 2022].

Appendix

Table A1: Trade union density in South Africa by personal and employment characteristics (including formal sector employees only), 2022

		Employees (1 000s)	Union members (1 000s)	Trade union density (%)
All	All	10 924	3 857	35.3
Gender	Male	6 056	2 143	35.4
	Female	4 868	1 713	35.2
Race	African	7 854	2 980	38.0
	Coloured	1 360	464	34.1
	Indian	420	104	24.9
	White	1 290	308	23.9
Province	Western Cape	1 989	650	32.7
	Eastern Cape	857	315	36.7
	Northern Cape	261	87	33.2
	Free State	517	208	40.2
	KwaZulu-Natal	1 802	585	32.5
	North West	611	301	49.3
	Gauteng	3 317	1 029	31.0
	Mpumalanga	739	335	45.3
	Limpopo	831	348	41.9
Area type	Urban	8 696	3 166	36.4
	Rural	2 228	691	31.0
Age	15-24 years	707	86	12.1
	25-34 years	3 297	879	26.7
	35-44 years	3 436	1 270	37.0
	45-54 years	2 532	1 136	44.9
	55-65 years	952	487	51.1
Education	Incomplete primary	385	68	17.6
	Incomplete secondary	2 971	745	25.1
	Matric	4 392	1 520	34.6
	Matric + Certificate / Diploma	1 249	613	49.1
	Degree	1 801	875	48.6
Occupation	Managers	941	279	29.6
	Professionals	937	444	47.4
	Technicians	1 257	632	50.2
	Clerks	1 478	552	37.3
	Service workers	1 887	647	34.3
	Skilled agriculture	34	2	5.5
	Craft and related trades	939	318	33.9
	Operators	960	448	46.7
	Elementary occupations	2 478	536	21.6
Industry	Agriculture	685	44	6.4
	Mining	425	336	78.9
	Manufacturing	1 364	480	35.2
	Electricity	117	80	68.0

	Construction	634	111	17.5
	Wholesale, retail trade	1 998	427	21.4
	Transport	581	200	34.4
	Financial intermediation	1 980	506	25.6
	CSP services	3 127	1672	53.5
Sector	Private	8 587	2 310	26.9
	Public	2 337	1 547	66.2
Firm size	1 worker	16	3	16.2
	2-4 workers	135	24	17.8
	5-9 workers	919	110	11.9
	10-19 workers	1709	428	25.1
	20-49 workers	2371	808	34.1
	50+ workers	4 958	2 277	45.9
Contract type	Written	10 245	3 840	37.5
	Verbal	678	17	2.5
Contract duration	Limited	1 668	142	8.5
	Permanent	7 715	3 636	47.1
	Unspecified	1 541	79	5.1
Years of working with current employer	<1 year	1 876	194	10.3
	1-2 years	1 229	263	21.4
	2-3 years	772	204	26.4
	3-5 years	1 672	539	32.2
	5-10 years	2 174	893	41.1
	10-15 years	1 496	742	49.6
	15-20 years	738	417	56.5
	20+ years	995	610	61.4

Source: Authors' own calculations using QLFS 2022 fourth quarter data.

Table A2: Trade union member number and densities, using three different approaches (%)

	[A]		[B]		[C]	
Year	Number (1 000s)	Density (%)	Number (1 000s)	Density (%)	Number (1 000s)	Density (%)
1997	2 816	34.47	2 589	40.55	3 489	54.63
1998	2 750	32.97	2 639	39.16	3 487	51.74
1999	2 995	33.86	2 835	40.58	3 672	52.55
2000	2 797	29.84	2 667	36.98	3 612	50.09
2001	2 894	32.12	2 810	39.01	3 607	50.08
2002	2 792	30.74	2 732	36.91	3 605	48.70
2003	2 870	30.93	2 796	36.89	3 758	49.59
2004	2 732	29.02	2 677	34.70	3 681	47.72
2005	3 109	31.58	3 008	37.79	3 917	49.21
2006	2 966	29.13	2 915	35.04	3 940	47.38
2007	3 431	31.37	3 358	37.05	4 408	48.64
2010	3 559	30.42	3 531	36.80	4 636	48.31
2011	3 611	29.62	3 585	35.53	4 749	47.06
2012	3 682	29.89	3 653	35.63	4 881	47.61
2013	3 728	28.57	3 708	34.55	5 162	48.09
2014	3 901	29.42	3 856	35.33	5 304	48.59

Year	[col]	[A]	[col]	[B]	[col]	[C]
2015	3 837	27.90	3 798	33.84	5 337	47.55
2016	3 849	28.18	3 821	34.00	5 309	47.24
2017	3 990	28.92	3 946	34.97	5 455	48.34
2018	4 042	28.85	4 005	35.37	5 525	48.80
2019	4 071	29.33	4 020	35.49	5 599	49.43
2020	4 245	33.61	4 219	40.27	5 556	53.04
2021	3 700	30.68	3 643	37.48	4 966	51.22
2022	3 907	29.22	3 857	35.31	5 402	49.45

Source: Authors' own calculations using the OHS 1997-1999, LFS 2000-2007 September, and 2010-2022 QLFS fourth quarter data.

Note:

[A]: (Union members / Total employees) x 100, including both formal and informal sector employees

[B]: [Union members / Total employees) x 100, including formal sector employees only

[C]: [Union members / Total employees) x 100, including formal sector employees only, and assuming 100% unionisation rate in the mining as well as community, social and personal (CSP) services industry categories