

# Examining the Role of Vocational Education and Training within Black Economic Empowerment: The Case of a Steel Producing Company in Pre-and Post-apartheid South Africa

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## **Abstract**

In South Africa, skills development is the cornerstone of the government's developmental strategy on which economic growth rests; rising unemployment and the skills shortage has added urgency to the issue. Before 1994, vocational education and training (VET) was the foundation of apartheid industrial and social programmes to alleviate poverty, particularly amongst poor white Afrikaners. Even today, skills development remains one of the government policies used to promote economic growth and address a range of developmental problems. Much public discourse on the South African economy has been on the unemployment crisis, skills shortage, and poor quality of education. However, few studies highlight the voices and real-world experiences of people who have participated in VET. Drawing on secondary literature and in-depth interviews, my study of the steel-producing company ISCOR/AMSA shows that during apartheid, the government social assistance and industrial policy supported the skills development programme and provided the poor whites who came to live in Vanderbijlpark with various employment opportunities. It also investigates why post-1994 VET is not as effective, showing that post-1994 policies have been unable to solve unemployment because (a) they are not embedded in social and industrial frameworks, and this has led to high unemployment, and (b) the stringent technical entry requirements and employment flexibility exclude many young, unemployed black South Africans and only benefit a few.

**Keywords:** vocational education and training; black economic empowerment; ISCOR; Operational Excellence; ArcelorMittal South Africa

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**About the author**

*Dr Jantjie Xaba* is a lecturer in the Department of Sociology and Social Anthropology at Stellenbosch University. This paper is based on his recently completed doctoral study, titled “A Comparative Study of Afrikaner Economic Empowerment and Black Economic Empowerment: A Case Study of a Former South African Parastatal in Vanderbijlpark”.

## Introduction

In South Africa, skills development has long been the cornerstone on which policies and discourses of economic growth are based, and the rising social problems such as poverty, unemployment, and inequality have added urgency to the issue. This urgency is reflected in numerous government commissions and policies, which stress the under-representation of black people in the economy due to the discrimination in terms of access to skills and jobs during apartheid (Department of Trade and Industry of South Africa 2001, 5). However, much focus has been on the unemployment crisis, poor response to market requirements and employer 'needs', and the developmental role of education in addressing social and community challenges (Ngcwangu 2019, 2). This article goes a step further by arguing for a better understanding of the deeply discursive situated contexts where lived experience and meanings of training occur. By asking different sets of questions, this paper develops a deeper understanding of why, amid high unemployment, skills development policy is not benefiting blacks, especially the youth, and why those who have completed training are not employed.

In this article, I examine how vocational training strategies developed by the steel-producing company ISCOR (now ArcelorMittal South Africa, abbreviated as AMSA) were applied to increase employment opportunities and improve working conditions and job mobility for white Afrikaners, and compare this to the situation since 1994. This study's material is based on PhD research I carried out between 2014 and 2017. The study is divided into two case studies. (a) I looked into what pre-1994 VET at ISCOR entailed, how it was accessed by white employees, and what the outcomes were. A literature analysis of ISCOR records and in-depth interviews with former white employees revealed that pre-1994 VET was successful because it was integrated into social and industrial programmes, which increased

white employment. (b) I compared the pre-1994 situation to post-1994 and asked what the post-1994 VET at AMSA entailed, how black South Africans accessed it, and what the results were. Using in-depth interviews and focus group discussions, I found that despite the similarities, the post-apartheid VET policy was unsuccessful in addressing the socio-economic challenges facing black Africans due to stringent technical entry requirements and lack of support in terms of industrial and social policy.

## Debates on skills development and social and industrial policy

It is almost two decades since the Skills Development Act of 1998 was passed, but there is little consensus on defining and measuring skills. Various terms, such as apprenticeship training, vocational education and training (VET), career and technical education (CTE), and workforce education have been used, and recently, skills development has been added to the mix. In 1999, UNESCO adopted the term Technical and Vocational Education and Training (TVET), which has now become internationally accepted as "a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding, and knowledge relating to occupants in various sectors of economic and social life" (UNESCO 2005, 7). Disagreement about the term is reflected in the debate about its social construction (Moss and Tilly 2001). Some researchers suggest that class, gender, and race influence workers' perceptions and evaluations of their skills and how they are rewarded for their work (Liu-Farrer et al. 2021, 2241). Liu-Farrer et al. argue that skills and technical requirements in the work process are established through non-objective processes. Some authors suggest that certain jobs had been deskilled – that capitalist

development has transformed and eroded skills content (Braverman 1974; Kenny and Webster 2021). Others point out the developmental function of training, which seeks to amplify the role of education in social and community development challenges (McGrath 2012). This article rejects a technicist definition of skill and presents a social constructionist view of the concept to consider how race, class, age, and gender affect our understanding of the term.

### **The intersection between VET and social and industrial policy under apartheid**

Various scholars have debated the relationship between skills development and the country's social and industrial policy. Drawing on Esping-Andersen's (1990) classic *The Three Worlds of Welfare Capitalism*, Iverson and Stephens (2008) compared the way human capital is formed in the 'liberal market economies' and 'coordinated market economies.' Within the coordinated market economy, Iverson and Stephens distinguished between countries dominated by centre-left coalitions on the one hand and countries with coalitions led by Christian Democrats on the other. The former is characterized by the redistribution of wealth, as well as heavy investment in public education (including high-quality public day-care and preschool) and industry-specific and occupation-specific vocational skills. This model encourages both high levels of general skills and high levels of industry-specific skills and allows flexibility in the labour market through extensive spending on retraining (Allais 2011, 638). In the latter, alliances are built across class lines; there is high social insurance and job protection, as well as strong vocational training in firm-specific and industry-specific skills. This approach challenges the idea that skills development is purely a matter of supply and demand, when in fact it is subject to the country's social and industrial policy.

In African countries such as Botswana, Lesotho, Mauritius, Mozambique, and Namibia, the development of VET has been linked to colonization and concerns about economic development (Akoojee et al. 2005). The assumption is that education and training will contribute to economic development by enabling national and global economic competition. Vickerstaff (2007, 342) argued that post-war VET was successful in Great Britain because it was strongly embedded in the social relations and occupational structure of local communities. Further, training developed participants' ownership of, and commitment to, the attainment of substantive skills, vocational knowledge, and work habits. This discussion reveals a need for a social approach which considers the role of family, groups, and civil society in mobilizing VET support.

Like the African countries mentioned above, South Africa's VET system is a product of colonization and the subsequent racial discrimination in the economy and broader society (Akoojee et al. 2005, 99). Vocational education was introduced in the latter half of the 19th century at the Cape Colony by the missionaries as an attempt to 'civilize' Africans (and coloured people) (Kallaway 1984, 17). After the 1890s the Dutch Reformed Church used industrial education to alleviate the destitution of poor white children that accompanied war, epidemics, and economic depression (Malherbe 1977, 164). In the 1920s VET policy was profoundly shaped by the government's industrialization strategy as part of efforts to entrench the economic power of the white population and oversee the establishment of an Afrikaner industrial class (TIPS 2016, 5). From 1925 technical colleges started establishing technical high schools that offered pre-apprenticeship training, with the entrance qualification being a pass in Standard 6 (Badroodien 2004, 21).<sup>1</sup>

<sup>1</sup> South Africa's National Qualifications Framework (NQF) recognizes three broad phases of education: General Education and Training (GET), Further Edu-

Following the devastation and rising poverty and unemployment amongst the white population after the Anglo-Boer War (1898–1902), the 1924 Pact government introduced industrial training, job reservation, and welfare services to empower ‘poor whites’ (Seekings 2007, 382). Using international examples based on Keynesian theory, the apartheid welfare state intervened in the economy by establishing a range of autonomous state-initiated research organizations. These included the Council for Scientific and Industrial Research, several state-led industries, including the steel-producing company ISCOR and SASOL, the manufacturer of synthetic fuel technologies and other different liquid fuels, chemicals, nuclear power, coal tar, and electricity. These organizations provided protected employment to white workers and ran training facilities to produce skilled workers (Freund 2019, 105–106). Evidence of social insurance and job protection, as well as strong vocational training in firm-specific and industry-specific skills, could be found in various commissions, legislation, and parastatals, which were established to address the social and educational needs of the large number of poor white children in schools (Badroodien 2004, 27).

For instance, the Carnegie Commission Inquiry into the Poor White Problem cited poor education as a contributing factor to the problem of poor whites

(Seekings 2006, 6). The Commission found that on leaving school nearly 47% of all white rural boys went into farming, and that up to 58% of them had not even completed Standard 6 at that stage (Malherbe 1932, 111). Malherbe (1977, 164) argued that poor whites needed to be “trained to become good and as far as possible, skilled workers” who were self-reliant rather than dependent on the state or church. Concerns about Afrikaner ‘proletarianization’ and their impoverishment forced the apartheid state to focus specifically on making technical education provision more amenable and accessible to Afrikaans speakers (making the medium of instruction at many colleges Afrikaans), and on ensuring that learners were trained in areas that guaranteed employment (Badroodien 2004, 54). The intersection between VET and industrial and social policy will be discussed further later.

From the 1960s onwards, the Nationalist Party-led government adopted racist labour market legislation and this triggered debate among liberal and radical thinkers about the intersection between class and race. The anti-apartheid movement grew during the 1970s and 1980s, both internally (in the townships) and outside (through international organizations and corporations), compelling the government to modernize apartheid through reforms (Bond 2012, 248). The United Nations General Assembly enacted Resolution 1761, denouncing apartheid practices, in the wake of the Sharpeville Massacre in 1960. Boycotting was one of the main ways the world community expressed its opposition to apartheid. These events, along with shortages in skilled labour and economic recession, contributed to the apartheid government’s decision to set up a policy reform process. Pieter Botha, then prime minister, instituted a commission led by Nicholas Wiehahn to look at the industrial relations system in South Africa.

The appointment of the commission was a watershed moment, for it brought the impact of economic and military sanctions under

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cation and Training (FET), and Higher Education and Training (HET). General Education and Training runs from Grade 0 to Grade 9. Further Education and Training takes place from Grades 10 to 12, and also includes career-oriented education and training offered in other Further Education and Training institutions – technical, community, and private colleges. Diplomas and certificates are qualifications recognized at this level. Higher Education and Training, or tertiary education, includes education for undergraduate and postgraduate degrees, certificates, and diplomas, up to the level of the doctoral degree (Republic of South Africa 2008). Sub A/B, Standards 1–10, and Forms 1–5 are old terms for Grades 1–2, Grades 3–12, and Grades 8–12 respectively.

scrutiny. The Wiehahn Commission recommended the legal recognition of black trade unions and migrant workers, the abolition of statutory job reservation, the retention of the closed shop bargaining system, the creation of a National Manpower Commission, and the introduction of an Industrial Court to resolve industrial litigation. Unlike the Carnegie reports, which received no backlash from white conservatives, the Wiehahn Commission faced backlash from the white conservative trade unions that sought to retain the white privilege promised to them by the National Party government (Moncho 2020, 41). Trade unions such as Solidarity responded to the Commission's recommendation to scrap the job reservation policy by organizing a strike on May 5, 1979. Dan O'Meara (1996, 65) wrote that the "emerging Afrikaner elite sought to move the racialised welfare system that had put them into power to a more efficient capital accumulation strategy". For black South Africans, the Commission opened a space for greater trade union mobilization and put into motion the process of legislative reforms and a new labour market approach to dealing with issues of unemployment and skills formation.

### Skills crisis under post-apartheid

Since 1994, the ANC-led government has introduced legislative and institutional reforms with the aim of increasing access to education and training to boost the employment chances of young people. In 2004, the government adopted Broad-Based Black Economic Empowerment (B-BBEE), which is a government policy to advance economic transformation and enhance the economic participation of black people in the South African economy. The B-BBEE policy states that skills development must a) contribute to the achievement of the country's economic growth and social development goals; b) promote the development of an industrial skills base in the critical sectors of production and

value-added manufacturing, which are largely labour-intensive industries; and c) support professional, vocational, technical, and academic learning programmes, achieved by means of professional placements, work-integrated learning, apprenticeships, learnerships, and internships that meet the critical needs for economic growth and development (DTI 2001).

The reasons for South Africa's high unemployment rate are many and varied. Some scholars believe that the biggest social issue facing contemporary South Africa is the unemployment crisis (Burns 2008; Taylor 2022). Bosworth and Collins (2003) point out that an overriding factor influencing employment is macroeconomic policy. Altman and Mayer (2003) maintain that rising unemployment in South Africa is due to the loss of jobs in the traditional resource-based industries of mining and agriculture. This is where the legacy of apartheid in education continues to be felt, especially among the youth. The Department of Labour's (2013) report claimed that South Africa had many young people (aged between 15 and 35) with low educational achievement associated with low skills.

However, the University of Cape Town's Development Policy Research Unit (DPRU) (2007) report claims that the post-1994 economy has a mismatch between labour demand and supply. Skills shortage has been identified as a constraint on delivery, equity, and competitiveness (Akoojee et al. 2005, 100). Taylor (2022) maintains that a lack of sufficient skills and previous work experience is one of the challenges facing young jobseekers. The economy demands skilled and experienced jobseekers, which reduces the chances of unqualified or inexperienced young people finding jobs. However, Bodede (2022) argues that the current skills development policy fails to address youth unemployment because of a mismatch between available employment and skills acquired, limited training personnel, and lack of funding for skill development/

education.

Researchers have also linked VET to the developmental discourse, arguing that it should be given a greater role in poverty reduction, human rights, and human capabilities, all of which relate mainly to the impact of capitalist configurations under neoliberalism (Ngcwangu 2019, 2). Education and skills shortage are the two important developmental problems affecting formerly marginalized and disadvantaged black South Africans under post-apartheid (Akoojee 2008, cited in Adams 2019, 9). As a result, there are a growing number of young people who lack education, skills, or vocations (Adams 2019, 11). According to Field et al. (2014, 7), one-third of individuals aged 15–24, or 3.4 million people, are neither employed nor enrolled in education or training. Two million of them have not completed matric or Grade 12, according to Further Education and Training. These young people form part of the working poor, fuelled by the rise of labour market flexibility. Marais (2011) analysed the impact of flexibility and noted several exclusions to wage agreements, which led to a rise in the number of working poor people. As a result, a large number of people earn poor pay and labour under precarious conditions, sometimes without benefits. Their occupations do not protect them from poverty. Webster and Francis (2019, 29) described this as a ‘paradox of inequality’, meaning that even though South-Africa has one of the most progressive constitutions in the world, one which is supported by powerful pro-labour legislation in the form of the Labour Relations Act (LRA), Employment Equity Act (EEA), and Skills Development Act (SDA), it has not managed to apply them to reduce inequality.

Many unemployed people rely on social welfare for survival. Scholars such as Marais (2011) have questioned the developmental philosophy of the government. In 1994, the ANC adopted the Reconstruction and Development Programme (RDP), thereby establishing one of the largest welfare systems in the world by any

developing or middle-income country’s criteria. Chapter 7 of the 1997 *White Paper on Social Welfare* deals with social security, which covers a wide variety of public and private measures that provide cash or in-kind benefits or both (RSA 1997). This can apply, firstly, in the event of an individual’s earning power permanently ceasing, being interrupted, never developing, or being exercised only at unacceptable social cost, and secondly, to maintaining children (Patel 2015). As a result, the number of people receiving benefits grew from 3 million to 18.2 million in 2020 (Business Tech 2021). The department does not say how these funds are being used to support education and training or to reduce youth unemployment.

In 1996, the RDP was replaced with Growth, Employment and Redistribution (GEAR), which emphasized global integration and trade (Altman 2006, 11). GEAR sought to encourage higher growth rates and create sufficient employment opportunities for the available pool of labour, thereby reversing the high unemployment levels that prevailed before 1994. Instead of focusing on attracting foreign direct investment, GEAR resulted in deindustrialization and a shrinking manufacturing sector (Mohamed 2010). In July 2005, the then President Mbeki announced the launch of the Accelerated and Shared Growth Initiative for South Africa (AsgiSA), which aimed to halve unemployment and poverty, accelerate employment equity, and improve broad-based black economic empowerment. AsgiSA saw education and training as central to growth. The government maintained that the single greatest impediment to economic growth is a shortage of skills – including the skills of professionals such as engineers and scientists; managers such as financial, personnel and project managers; and skilled technical employees such as artisans and IT technicians (McGrath and Akoojee 2007, 425).

Acknowledging the slow pace of delivery and its failure to produce sufficient skills to meet the objectives of economic growth and

social development, the government launched the Joint Initiative on Priority Skills Acquisition (JIPSA) in 2006. The aim was to target a broad range of skills such as high-level engineering and planning skills for infrastructure development; city, urban and regional planning, and engineering skills for local and provincial governments; artisans and technicians, especially for infrastructure development, etc. (McGrath and Akoojee 2007, 426). These policies will be discussed further in the following sections.

### Methodology

The material used in this article consists of 57 individual in-depth interviews, observations of union meeting and a summit, and two focus groups with former white and current black employees at the Vanderbijlpark branch of ArcelorMittal South Africa. The study used a case study approach, where ISCOR (1954–1994), now AMSA (since 2004), was selected to examine what skills development entails, how workers accessed training, and what were the results. A non-probability purposive sampling method was adopted to select a sample consisting of former white employees and managers who had been actively involved at ISCOR and who could reflect on the training process at ISCOR from 1954 to 1994 and how it benefitted the people, as well as the current workers and their representatives. The other sample consisted of current employees of AMSA. This group of workers provided an important insight into how the current VET policy is affecting them and their chances of employment. Although the research was limited to only one parastatal and the findings cannot be generalized, it produced rich narratives on how to reconceptualize and implement VET to benefit the unemployed youth.

Qualitative in-depth interviews were used for data collection, which was conducted between 2014 and 2017. Fieldwork consisted of observation during a company tour, with the help of one trade union official,

and attendance at a one-day Jobs Summit held in Vanderbijlpark (November 2014). The summit was organized by Business and Job Opportunity (BJO), a non-governmental organization formed in 2013 to promote youth empowerment in Vanderbijlpark. The summit was attended by representatives from AMSA management, black entrepreneurs, and jobseekers in and around Vanderbijlpark. Additionally, two focus groups were conducted with union officials from a predominantly Marxist, black union called the National Union of Metal Workers of South Africa (NUMSA), and another rival union, with roots in craft unions and Afrikaner nationalist politics, called Solidarity.

Interviews were conducted in local languages, English, Afrikaans, and Sesotho, and then transcribed; finally, the Afrikaans interviews were translated into English with the help of an Afrikaans first language speaker.<sup>2</sup> The interview material was analysed using thematic analysis (see Bryman 2012, 580).

### ISCOR (AMSA): Intersection between VET and social and industrial policy

It was nice, ISCOR spoiled us at the beginning. There was a medical fund, doctors in the service of employees, a medical station with permanent staff, you got a finger cut, and there was an ambulance ready to take you to the hospital. We were looked after, they pampered people. There was a small amount subtracted from the salary. What ISCOR did I suppose they had to make it pleasant for people to come to ISCOR, at the time it was an agricultural setup, but they made it... in addition to medical aid we had an excellent pension scheme, there

<sup>2</sup> All the interviews were anonymised, and pseudonyms were used to protect the identity of the participants and to ensure confidentiality.



was an insurance scheme, which you could join at the time. At the end of employment, there was a lot of money available. (Benade, interview, April 14, 2015)

The rising unemployment and poverty amongst whites at the end of World War I triggered an alliance of the white Labour and the Nationalist Party, which was premised on the proposition that the white working class be incorporated, partly by more or less temporary schemes of employment relief for poor whites, and by job reservation more generally. This coalition signalled the loss of hegemony of imperial capital (foreign or English capital primarily identified with mining) to national capital (agriculture and manufacturing, both of which are closely identified with Afrikaners) (Rustomjee 1993, 113). ISCOR was founded in 1928 through the South African Iron and Steel Act No. 11 to produce iron and a range of steel products, as well as to create employment opportunities for poor whites (ISCOR 1989, 4). Between 1943 and 1971, two new plants were established in Vanderbijlpark and Newcastle.

ISCOR's skills and training policy is remarkably unique and worth researching for empowerment purposes. The above quote from one of the participants at Vanderbijlpark expresses the general feeling of nostalgia and evidence of the intersection between VET and social and industrial policy during apartheid. From the early 1920s, various white-led states representing the interests of the Afrikaner farmers and petty bourgeoisie instituted and maintained empowerment plans consisting of several state-owned industries, a skills development plan, job creation, and social policies intended to uplift the white, particularly the white Afrikaners (see Xaba 2020). ISCOR was established in 1928 as part of an empowerment strategy by the white nationalists to produce iron and a range of steel products locally, as well as to create employment opportunities for poor whites.

Lipton (1986, 283) argued that parastatals such as ISCOR were not only used to strengthen Afrikaner participation in the industrial progress of the country, but also served as meeting points between the state's industrial and social policies. White working and lower middle classes at ISCOR enjoyed preferential access to resources such as welfare benefits and education. With the cooperation of white labour unions, such as the Miners' Union (MWU) and the Yster en Staal Unie (Iron and Steel Union), the state established and used parastatals such as ISCOR as training bases for business and management skills. The latter established a system of racial barriers and a labour monopoly, including an institutional framework for obtaining skills and relationships with employers through government 'civilized labour' policies and regulations and guaranteeing the employment of unskilled and semi-skilled workers (Greenberg 1980, 30).

Morris and Kaplan (1976, 1) argue that apprenticeship was combined with an industrial policy where ISCOR was used to promote the interests of white labour. When production began in 1933, ISCOR had an all-white workforce (Giliomee 2002, 635). In 1984, ISCOR published in the *Financial Mail* that it ran one of the biggest apprenticeship programmes in the country (ISCOR 1984). Training centres were developed at Pretoria and Vanderbijlpark. A study by Meth (1979, 58–59) suggested that public sector firms provided a higher level of training to apprentices than private sector firms did. ISCOR's policy was to centralize artisanal training and to take responsibility away from the artisanal unions (Morris and Kaplan 1976, 30). Due to job reservation and the civilized labour policy, training for whites was completely separate from training for blacks.

ISCOR (1984, 13) also reported in the *Financial Mail* that they had approximately 700 internal training courses registered with the Department of Manpower (now the Department of Labour). On arrival at ISCOR, recruits were put through an academic

achievement battery (AAB) test and selection procedures were based on a three-group classification: unskilled and semi-skilled, mechanical, and leadership (Morris and Kaplan 1976, 29). During the interviews, many former workers talked about these AAB tests and how they were selected.<sup>3</sup> According to Nzimande (1995), these assessment practices were used to justify the exploitation of black labour and to deny blacks access to education and economic resources.

ISCOR, like many parastatals, followed the Apprenticeship Act of 1922, and later the Apprenticeship Act, No 37 of 1944 in terms of artisanal development. The 1944 Act set a minimum entry requirement for entering a formal apprenticeship at Standard VI, to cater for all youths who lacked access to formal education beyond rudimentary schooling (Gamble 2021, 6). According to Kraak (1989, 215), the Act was amended during the war years (1939–1945), “primarily to co-ordinate the training of thousands of young white workers employed in the armaments and manufacturing industry”.

Apart from on-the-job training, apprenticeships required learning about the practical and theoretical aspects of the relevant profession. According to former workers, the training period lasted seven years and was divided into actual operational work, production work, and maintenance. A former ISCOR employee described the training as follows:

ISCOR had the best apprentice training centre in the whole of South Africa. You worked six months in the training centre, and they taught you [...] motors, cable adjoining,

cable tunnel wiring, amateur wiring, and then you move out after three months, to another section, three months to another section. The experience that you pick up during those three months across all of ISCOR was enormous. There is not a bloke in South Africa who got that type of education. After I completed my training, I got my red certificate as an artisan and signed a contract for five years as required by the Apprenticeship Act. What the certificate did was to allow the apprentices to apply for any work anywhere as qualified. (Fourie, interview, April 14, 2015)

Regarding more skilled technical manpower, such as engineers, ISCOR provided white students with bursaries to undergo engineering training at institutions such as Technikons and universities; over 200 white students received ISCOR engineering bursaries. Upon completion of their training, students were obliged to work for the corporation for a stipulated period.

Interesting observations were made about the relationship between apprenticeships and social capital at ISCOR. Elsewhere (Xaba 2022, 4), I have explained the significance of culture (especially language and religion) in facilitating the development of networks and norms of reciprocity and trust, and inspiring the establishment of civil society organizations (CSOs) and formal institutions that have united people across various social divides. Typically, for white Afrikaners, family networks or paternalism, religion and civil society accounted for the Afrikaner economic success. Family played a very significant role in assisting young white boys to apply for an apprenticeship, ‘choose’ a trade, and get a position at ISCOR. For many young white boys who came to live in Vanderbijlpark and work at ISCOR, being part of the apprenticeship was

<sup>3</sup>See Biesheuvel (1949, 6–19) for more on the use of psychometric tests during apartheid. The AAB is a complete achievement assessment that assesses basic academic skills such as reading, spelling, and mathematics. AAB does not require certification or intensive preparation; it enables organizations to investigate the individual’s strengths and weaknesses and offers a wealth of data on the basis of which to make interpretations and recommendations.

like being part of a local community, as one former white employee of ISCOR recalled:

You know as an apprentice, there were sports clubs, during the 3 shifts period, there was not much time, ok church and all that was factored in, in 1956, there were a lot of Hungarians, Portuguese, French and English from Britain that came to stay here. There were a lot of interactions even though we could not understand each other but one thing that was sure is that we were a group, and we enjoyed each other's company. (Botes, interview, April 14, 2015)

Another important aspect of pre-1994 apprenticeships for young men was that it socialized them into masculinity, learning to handle themselves, and becoming 'a man'. One participant explained how staying with other 'Appies' (an Afrikaans name for 'rookie') at the hostel instilled discipline in many young white boys and prepared them for adulthood and marriage:

I stayed with the 'Appies' at a hostel we called 'Appie Hostel'. Before I came here, I stayed with people from Benoni, so it suited me better, the 'Appies' were like an army – only for single men. When I decided to get married, I then applied for a housing subsidy and immediately got a house and paid R83 per month for rent. (Mocke, interview, April 14, 2015)

Another respondent explained as follows,

You know as a young man you don't ... at that stage, you don't have any future, how can I put it, you don't think of tomorrow. You are a young

man yourself, ok you start as an apprentice, go on your ranks, there was... later on during my apprenticeship, there was a chance to choose different directions at ISCOR. (Botes, interview, April 14, 2015)

It is clear from the discussion that VET at ISCOR formed an important part of the government's industrial strategy and depended on the support of family and community to mobilize many young white boys for skilled employment.

### **Vocational education and training post-1994: AMSA**

Empowerment is not only about skills, but also about empowering communities. If the company was channelling resources to empower our communities that will be empowerment. We have brothers and sisters that are unemployed out there, they could benefit from that. Where I am sitting, I must take care of 3-4 families. If the company was saying to me, Petrus, we've got this entrepreneur development project, that will be empowerment to me. If they develop entrepreneurs, those entrepreneurs will employ few people. Poverty will be eradicated, and unemployment and inequality will be lessened. (Dikotsi, interview, August 2, 2015)

The above quote from one of the trade union officials at ISCOR expresses the disconnect between VET and social capital among black workers and trade unions and confusion about the role of economic and social policy in eliminating poverty and unemployment. According to Freund (2019, 85), prior to 1994, training for blacks was not far from Hendrik Verwoed's Bantu education philosophy. It consisted

mainly of: a) an induction course, b) instruction in the Fanakalo language,<sup>4</sup> c) pre-school education, d) safety instructions, e) training of instructors, and f) training of operators. This training was criticized as unsuccessful due to its limited focus on performing tasks and its emphasis on the need to work hard and be obedient to whites (Freund 2019, 85).

Since 1994, skills development has been regarded as a bridge for crossing the gulf between white and wealthy, and black and poor nations (Mbatha et al. 2014, 1). The biggest challenge for ISCOR was not only how to compete globally but how to find a balance between the short supply of high-end skills and the over-supply of an unskilled and semi-skilled workforce. Since it became AMSA in 2004, workers have received various forms of training (including employee training, learner pipeline, bursaries, and science centres) as prescribed in the Skills Development Act No. 97 of 1998. However, accessing this training required Grade 12 certificates in mathematics and science subjects (AMSA 2014, 23).

AMSA training is regulated by the Iron and Steel Manufacturing Learnership for the NQF levels 2 to 4, in line with the SDA of 1998. The NQF is a national structure used by the government to arrange the levels of learning achievements a person obtains under the South African Qualifications Authority (SAQA). The NQF records the credits assigned to each level of learning completed, to ensure that the skills and knowledge that have been learnt are recognized throughout the country. The SDA defines learnership as a contract between a learner, the employer and a training provider for a specific period. Applicants are required to have a Grade 12 certificate with Mathematics at 40% or Mathematics Literacy at 50%; if successful, they enter a 40-week production training contract, focusing on the iron and steel manufacturing process. During this

period, the learner acquires a national qualification or a credit towards a national qualification. Qualifications need to be registered by the South African Qualifications Authority (SAQA).

Despite this training, AMSA maintains that it continues to experience a huge shortage of technical skills because of the mass exodus of skilled personnel in the mid-1990s. The collapse of apartheid has been described in terms of a brain drain (Crush 2002, 150). Some of these emigrants were self-styled 'refugees from democracy' (privileged whites who, rather than contemplate the redistribution of privilege, decided to leave for other shores). Crush estimated that between 1987 and 1997 South Africa recorded a total of 62,088 people (including 10,140 with professional qualifications) that emigrated from South Africa to Australia, Canada, New Zealand, the United Kingdom, and the United States.

To resolve these challenges, the state launched AsgiSA in 2006 to: 1) improve higher levels of literacy and numeracy in the early grades of the school; 2) double maths and science high school graduates by 2008; 3) upgrade career guidance and further education and training (FET) colleges; and 4) expand adult basic education and training (ABET) delivery. This was followed by the Joint Initiative for Priority Skills Acquisition (JIPSA), which focused specifically on technical skills development. JIPSA identified artisans as a specific occupational category that was experiencing significant levels of skills decline. A shortage of 40,000 artisans was identified, and a target of training 50,000 artisans by 2010 was set (see Elliot 2009). AMSA applied these policies by establishing a skills development programme of its own that included five different strategies for attracting, retaining, and developing talented people (see Figure 1 below).

Artisanal development remains the company's flagship programme, even after the phasing out of technical and vocational education

<sup>4</sup>Fanakalo is the lingua franca of the South African mining industry, spoken on a daily basis in the workplace.

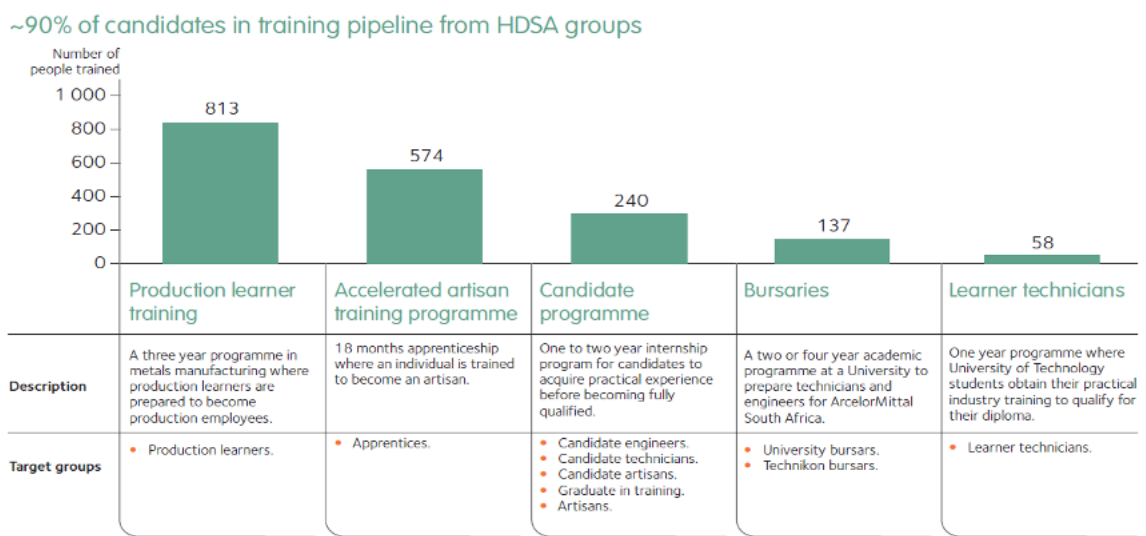


Figure 1: Training Strategies at AMSA. Source: *AMSA Factor Report* (2014)

programmes. Apprentices are trained at technical colleges across the country, some at AMSA University. Training takes six months and includes practical work experience under the supervision of an AMSA senior craftsman. All learners who finish their 18 months of training are given an internship for one to two years to enhance their experience. To maintain the continuous supply of skills, AMSA offers bursaries, in-house programmes, and graduate development initiatives to employees and their children to enrol on formal courses for apprentices, learner technicians, production learners, and graduate engineers at a Technikon or university (AMSA 2004, 57). Finally, there is a *learnership technician* programme, which is a one-year programme aimed at giving learner technicians practical experience before they qualify for their diploma (AMSA 2014). All these elements have been used to empower blacks. As one interviewee described:

Before 1997, apprenticeship took four years, but now the legislation changed the number of years of study to 18 months. That means you undergo a one-year training. ISCOR even built their training centre and that training centre was

like an accredited training centre in which people from different companies like Cape Gate, Sasol, and Nampak were doing their trade tests here. NUMSA said no, this thing of 18 months should go because after 18 months you find out that when they go to the plant, they do not qualify, that's why they added one year to give our members more exposure and experience. (Bokhwe, interview, August 2, 2015)

The interviews revealed numerous obstacles in the current training system facing black workers and youth. The participants identified stringent entrance requirements, the short duration of the training, and the lack of incentives after completing the training as factors excluding blacks from participation. The SDA reduced the apprenticeship period from four years to 18 months to meet the skills shortage requirements. A NUMSA shop steward explained:

It takes 18 months to complete the training; this is highly incomparable to the guys who went to training for four years. After 18 months when

these guys go to the plant, they do not qualify as artisans. For this reason, AMSA decided to add another year to give these guys more experience. During the 2003 wage negotiation, NUMSA demanded that the duration of training be extended to four years. (Sono, interview, July 6, 2015)

Aside from the short duration, the increasing requirement to have Grade 12 and a preference for mathematics and physical science subjects excluded many youths and reflected a deep crisis in the post-apartheid education system. A report by the Sedibeng Municipality indicated that Sedibeng District was experiencing significant deindustrialization because of the decline in the steel industry, which was one of the main employers in the district (South African Cities Network 2014, 19). Research by Balwanz and Hlatshwayo (2015, 140) indicated that supply-side skills development for formal employment is insufficient to meet the challenge of unemployment and poverty reduction. During my first visit to the area in the early 2000s, I found that the manufacturing industry in Sedibeng, which used to be the main source of employment, was in serious decline, and was thus a major contributing factor to unemployment in the area (Xaba 2006). This and other economic factors have had major negative effects on the region's economic growth, resulting in a high unemployment rate. Sedibeng Region displayed some of the highest unemployment rates in the country. In 2001, youth unemployment stood at 57.9%, and at 45% in 2011 (RSA 2020, 49). Of all three local municipalities in Sedibeng, Emfuleni had the highest percentage of unemployed youth. Youth unemployment is compounded by the high school dropout rate, despite the nine combined schools, three intermediate schools, 149 primary schools, and 82 secondary schools in the municipality. In addition, the municipality hosts eight tertiary institutions and 18 (other)

colleges (RSA 2020, 16). According to Spaull (2015, 34), most school dropout in South Africa occurs in Grades 10 and 11, resulting in 50% of learners in any one cohort dropping out before reaching Grade 12. This is problematic given the country's poor performance in mathematics and science.

The participants expressed concern about the requirements for Grade 12 certificates and the preference for mathematics and science subjects as follows:

You see, the minimum requirement according to the Manufacturing, Engineering and Related Services (MERSETA) is Grade 10 or 11, but now the problem is that when we negotiated around 2003, ArcelorMittal South Africa said it wanted a minimum requirement to be Matric (Grade 12) and mathematics and science subjects. Candidates must have obtained 40 and 60 per cent or more respectively. We complained and asked what about those with N2 (which is equivalent to Grade 10) and N3 (the equivalent of Grade 11) national certificates. Before you become an artisan, you have to have at least N3 with at least two technical subjects, which are maybe Matric with mathematics and science, and you have to have trade theory. (Bokhwe, interview, August 2, 2015)

The quote above indicates how restrictive the entry requirements are for training, and to some extent expresses frustration about failure to achieve the qualifications of the N2 and N3 NATED courses (qualifications obtained from TVET College). As the participant indicated, NATED courses use both theoretical and practical teaching to give students the best career-based learning, but the AMSA management pushed for NQF level 4 (Grade 12), which

comes with the benefit of students doing a trade test to qualify as artisans. In the context where learners drop out before they reach Grade 12, this means only a small number of students will benefit from training, while the majority remain excluded.

Regarding the lack of incentives, workers complained that after completing their training, they were neither permanently employed nor had their employment conditions improved. A NUMSA shop steward added that when AMSA realized that other companies were poaching their artisans, they decided to build their training centre with fully accredited qualifications.

In 2009, the union (NUMSA) proposed three changes to training at AMSA: *first*, candidates, typically blacks and contract employees, who finished their training – so-called candidate artisans – be kept in a system for 12 months so that if ever there is a vacancy, they can be employed. *Secondly*, AMSA would extend their contracts so that, whenever permanent workers go on leave, they can be employed or deploy them. *Thirdly*, the implementation of learner-ship contract between AMSA and MERSETA where apprentices will be paid R5400 per month and, on the completion of their training, be paid R8000 instead of R2400 per month. (Bokhwe, interview, August 2, 2015)

The union alleged that AMSA did not want learners to acquire level 4 of the NQF, because, once they acquire NQF level 4, they must be registered as artisans with a trade. This means that the current training does not lead to an improvement in the conditions of employment.

Another problem with training was the accreditation system. One union official

explained that, although AMSA was training apprentices, not all of them were employable because they lacked relevant experience; they had to go and beg employers for employment. The implementation of VET under neoliberal conditions means that it is proving difficult for the workers to influence either the employer or the government. This is illustrated by the fact that union density at AMSA has declined due to employment flexibility. The majority of workers are contract, part-time workers, working for various labour brokers. The few that remain permanent belong to Solidarity – a historically whites-only trade union representing skilled miners and artisans. NUMSA, representing mostly black, blue-collar employees, no longer has the power to influence policy or decisions. Although the VET objective is to replace the highly racialized, low-status, fragmented education system, its highly exclusionary entrance requirements has resulted in low participation from black employees. This means a change in government philosophy.

### **Tragedy of education and training as a social and economic panacea to retrenchments**

My first visit to Vanderbijlpark was in the early 2000s, almost 20 years after ISCOR was privatized.<sup>5</sup> In 1987, the National Party adopted a *White Paper on Privatisation and Deregulation* (RSA 1987), allowing the government to reduce the size of the public sector and government spending, minimize state intervention and regulation, and implement cutbacks on state spending by selling off state assets (including ISCOR in 1989) to provide much-needed funds for the government.

Alexandre (2007, 54) reported that ISCOR was bloated and inefficient and only served the needs of the local economy. The privatization of ISCOR in 1989 shifted the goals of the firm, although substantial changes

<sup>5</sup> See Todes (1997) for more on the restructuring of the steel industry.

in direction only came with the appointment of Hans Smith as managing director in 1993. The focus moved from production and output to profitability for the first time. As stated in ISCOR's annual report of 1995:

Our new vision of the company's direction has brought with it certain shifts in emphasis, among them the recognition that profitability must take precedence over production volumes. Smith further argued that 'the key to our strategy ... is that we've accepted ISCOR has irrevocably tied to the international commodity cycle and a specialised part of it at that. What drives this company now is what the balance sheet will look like at the bottom of the next downturn. This is the determinant of every project we undertake (ISCOR 1995, 10).

Following the 1989 privatization and restructuring of the company in the early 1990s, the total employment fell from 59,000 to 22,700 (ISCOR 2001). At the Vanderbijlpark plant, the number of workers dropped from 24,000 in 1984 to 14,000 in 1990 and had further dropped to 6,500 by 2014 (AMSA 2014). Fewer people were employed permanently, other jobs were outsourced, and there was an increase in non-standard work as people became employed on a contract and part-time basis. Besides the retrenchments, some 3,000 employees took voluntary retrenchment packages following the introduction of new technologies (Todes 1997, 232). Hlatshwayo (2013, 162) reported that ISCOR granted workers early retirement and offered white workers between the ages of 50 and 63 retrenchment packages.

Following trade liberalization in 1994, the steel tariff dropped from 30% to an effective 5%, causing major flooding of the South

African market by cheap Chinese steel products, which resulted in a reduction in sales volumes and production, and a fall in the capacity utilization of the South African steel industry (ISCOR 1995, 9). ISCOR saw its total number of employees at the Vanderbijlpark plant drop from 14,000 in 1990 to 8,500 in 1998 (ISCOR 2001). Although both blacks and whites were affected by retrenchments, the employees most affected were unskilled African workers, which was a general trend in the South African iron and steel industry (Von Holdt and Webster 2001).

To cope with the retrenchments, ISCOR appointed the international consultants, McKinsey International, to advise them on how to maximize the value of existing operations for continuous improvement. Hans Smith, the ISCOR Chief Executive Officer from 1993 until 2002, argued that the challenge facing ISCOR was to shake off its parastatal shackles and its association with Afrikaner nationalism and transform itself into a truly international, competitive company (ISCOR 2001, 1). McKinsey proposed a turn-around strategy for the company to audit its resources called Operational Excellence (OPEX). OPEX was established with the following related objectives:

The *first* of the objectives had to do with the organisation itself. This includes cutting costs by 22 per cent and to retrench 'surplus labour' within two years, establishing a centre known as the Opportunity Centre and redeploying employees to customers and suppliers of raw material to ISCOR around the Vaal Triangle. The *second* objective was to provide workers who were affected by retrenchment with skills to find new employment, re-employment or establish business start-ups to generate an income for



themselves (ISCOR 2001, 84).

According to ISCOR, training included technical, job-related, and computer literacy skills. In addition, affected workers were provided with psychological counselling to enable them to cope with the effects of retrenchments, and financial advice to enable them to invest their severance packages or early retirement packages. Finally, ISCOR relied on various networks of suppliers and customers in and around Vanderbijlpark to place the retrenched in employment and assist them in establishing businesses.

The interviews with the affected workers revealed that training was introduced as an economic and social panacea to retrenchments and to prevent future unemployment (ISCOR 2001). Training included courses such as poultry management, curtain-making and dressmaking, beauty therapy, game wardenship, professional hunting, and computer skills, which were typically unsuited to workers. This training, unfortunately, mainly benefitted a few mostly white senior workers (former foremen and supervisors) who scored higher on AAB tests. Most black employees were migrants, unskilled and illiterate, and did not benefit because many did not have the basic reading, writing, and mathematics skills to be able to enrol. This finding supports Hlatshwayo's (2013) claim that during the restructuring of ISCOR in the 1990s, formal education was used as a tool for the exclusion of many workers. As he states:

Lean production and technological changes led to the development of criteria for excluding many workers by management and it entailed a level of formal education being used as a tool for this purpose. This had less to do with workers' skills and 'trainability'. In fact, those workers who remained at the plant spoke about how new machines

and computers did what is regarded as appropriating diagnostic and cognitive skills from workers in the production process (Hlatshwayo 2014, cited in Ngcwangu 2019).

The research findings demonstrated that, in fact, the majority of South Africans do not have the functional skills required in a modern economy. Besides the conceptual problems in training, training was outsourced to various institutions around the country, making it inaccessible to workers and impossible to monitor (Xaba 2006). From the workers' perspective, training failed because it happened after many of them had left the company. After all, many workers were too old, unskilled, and illiterate to undertake training. Sadly, these failures reflect a wider crisis in the education system and the unsuitability of training for many young, black, and illiterate people in Vanderbijlpark.

## Conclusion

This article has revealed continuities and discontinuities in labour relations between the apartheid and post-apartheid eras in terms of how VET is seen as a component of economic empowerment. However, the post-apartheid capitalist configurations under neoliberalism have made VET less effective in addressing poverty and unemployment. The Vanderbijlpark case shows how, before 1994, VET empowered white unemployed youth economically and socially, while maintaining discrimination against blacks in general and youth in particular. Likewise, since 1994, VET has continued to marginalize black youth through its stringent entry requirements. The study established a direct relationship between education and training as vital elements of vocational training and welfare as a solution to poverty.

The introduction of new education and training frameworks and institutions may

open up new opportunities for people to access training. The case of former ISCOR workers shows that the government's industrial and social policies are important pillars of VET in terms of improving job security and wages for white workers. This finding does not apply to the experiences of black South Africans, who do not enjoy training and employment due to the impediments posed by training requirements and capitalist development under neo-liberalism in post-apartheid South Africa.

This study goes beyond the institutional and political approaches to VET. It has demonstrated the role of social capital in training, and particularly how family and community networks could be harnessed to support VET by mobilizing youth to participate in training. As Vickerstaff (2007) pointed out, apprenticeships are most likely to be successful when they are strongly embedded in the social relations and occupational structure of a local community, and when the approach to training develops participants' ownership of and commitment to the attainment of substantive skills, vocational knowledge, and work habits. For example, the pre-1994 VET policy received support from

the Afrikaner nationalists who pushed for training to be made accessible to poor whites, as we saw at ISCOR in Vanderbijlpark.

These findings cannot be applied to the post-1994 context because of the legacy of apartheid and its impact on education and training. The new skills legislation and training institutions are no guarantee that everybody will be able to access training, as many black South African youth drop out of school and those who graduate are not academically prepared to enter vocational training. For the minority of people who do complete school, to qualify for training they need maths and science. Those who undergo training experience non-accreditation, job insecurity, and income instability. Skills development or vocational training starts at school, with strong curricula and quality teaching that meets skills needs. An effective VET approach needs to build on the existing curriculum and balance qualifications and work experience. Connections between industrial policy and social assistance to support youth in accessing training and employment opportunities need further attention from the government.

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