

IMPACT ASSESSMENT OF NATIONAL SKILLS DEVELOPMENT STRATEGY II

Developing Skills and Capabilities through the Learnership and Apprenticeship Pathway Systems

Synthesis Report. Assessing the impact of learnerships and
apprenticeships under NSDSII

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From May 2010 to January 2012, the Human Sciences Research Council, with its partner Development Policy Research Unit (UCT), undertook research to assess and evaluate the progress made in skills development since the implementation of National Skills Development Strategy II in March 2005. The research covered three thematic areas and produced nine research reports:

- A. Impact of skills development on placement of learners upon completion of the programme. (Indicator 1.2; 3.1; 4.2)
 - 1. Sumayya Goga and Carlene van der Westhuizen (2012) Scarce Skills Information Dissemination: A Study of the SETAs in South Africa.
 - 2. Renette Du Toit (2012) The NSF as a Mechanism to Address Skills Development of the Unemployed in South Africa.
 - 3. Morne Oosthuizen (2012) The Impact of Work Experience Grants on Learner Placement.

- B. Impact of skills development support on large, medium and small firms as well as on Government, BEE firms and BEE co-operatives. (Indicator 2.1; 2.2; 2.5)
 - 4. Pundy Pillay, Andrea Juan and Thembinkosi Twalo (2012) Impact assessment of skills development on service delivery in government departments.
 - 5. Pundy Pillay, Andrea Juan and Thembinkosi Twalo (2012) Impact assessment of skills development on service delivery in government departments: Appendices.

- C. Progress evaluation on support to high-level scarce and critical skills for both workers and unemployed learners. (Indicator 2.8 & 4.1)
 - 6. Dean Janse Van Rensburg, Mariette Visser, Angelique Wildschut, Joan Roodt and Glenda Kruss (2012) A Technical Report on Learnership and Apprenticeship Population Databases in South Africa: Patterns and Shifts in Skills Formation.
 - 7. Angelique Wildschut, Glenda Kruss, Dean Janse Van Rensburg, Genevieve Haupt and Mariette Visser (2012) Learnerships and Apprenticeships survey 2010 technical report: Identifying transitions and trajectories through the learnership and apprenticeship systems.
 - 8. Claudia Mummenthey, Angelique Wildschut and Glenda Kruss (2012) Assessing the impact of learnerships and apprenticeships under NSDSII: Three case studies: MERSETA, FASSET & HWSETA
 - 9. Glenda Kruss, Angelique Wildschut, Dean Janse Van Rensburg, Mariette Visser, Genevieve Haupt and Joan Roodt (2012) Developing Skills and Capabilities through the Learnership and Apprenticeship Pathway Systems. Project Synthesis Report. Assessing the Impact of Learnerships and Apprenticeships under NSDSII.

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DEVELOPING SKILLS AND CAPABILITIES THROUGH THE LEARNERSHIP AND APPRENTICESHIP PATHWAY SYSTEMS

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PREFACE

At the end of the five-year period of the National Skills Development Strategy II (2005 to 2010), the Department of Labour (DoL) sought to assess the impact of its mechanisms to promote the goals of skills development in South Africa. The DoL commissioned the Human Sciences Research Council (HSRC) to conduct a suite of research projects to evaluate the impact of key skills development programmes. The overall objective of the research project on which we report in this synthesis report was to measure the impact of the learnership and apprenticeship systems as they support employed and unemployed learners in the acquisition of skills to enter employment.

Our study adopted a pathways conceptual approach (Raffe, 2003; Harris et al, 2006), focusing on the trajectories of (young) people in the transition from school to un/employment, various forms of further study, and into the labour market. Central to the pathways approach is a focus on the institutional and structural arrangements in education, the labour market, the production system and other social and economic institutions, that facilitate transition. Learnership and apprenticeship qualifications rely on complex institutional and structural arrangements, a tripartite agreement between a SETA, training provider, and firm, to provide the theoretical and workplace experiential components.

The research investigates the extent to which these two pathway systems develop the right numbers, levels and kinds of basic, intermediate and high-level skills and capabilities required by firms across diverse sectors. The three main research questions are: What is the scale and kind of skills the learnership and apprenticeship pathway systems produce? What are the different learnership and apprenticeship trajectories in the transition to employment? To what extent do the pathway systems build the kinds of skills and capabilities that equip young people for the workplace and enhance the transition to employment?

To address these questions, we designed a series of inter-locking research components. Methods embracing both descending (population sampling) and ascending (case-study) research approaches have been shown to be an effective paradigm for transitions research (Bynner & Chisholm, 1998). Firstly, we identified the numbers and levels of skills produced by the apprenticeship and learnership systems, through an analysis of population datasets at key points in NSDSII. The results are to be found in the *Learnerships and Apprenticeships Populations Technical Report* (Janse Van Rensburg, Visser, Wildschut & Kruss, 2011), hereafter referred to as the Populations Report.

Secondly, we conducted two surveys, to trace patterns of individual transition, analysing individuals and groups in specific sectors that are more likely to enter employment, progress in

employment or remain unemployed, after completing a learnership or an apprenticeship. The results are presented in a second technical report, *Learnerships and Apprenticeships Survey 2010 Technical Report* (Wildschut, Kruss, Janse Van Rensburg, Haupt & Visser, 2011), hereafter referred to as the Survey Report.

Thirdly, we devised three case studies of key programmes to supplement the quantitative information, to analyse the extent to which they facilitate the development of skills and capabilities required in specific sectoral contexts. The results are to be found in three case study reports, selected to focus on dynamics at the basic, intermediate and high skills levels (HSRC, 2011a, 2011b; Wildschut, 2011). Respectively entitled, *Skills Development for the Health and Social Development Sectors*, *Skills Development for the Metal and Related Services Sectors*, and *Skills Development for the Financial Sector*, which will hereafter correspondingly be referred to as the HWSETA Report (Wildschut 2011), the MERSETA Report (HSRC 2011a), and the FASSET Report (HSRC 2011b).

The final output of the research project is the present synthesis report, which integrates and abstracts the trends from all three technical reports, and enters into a policy oriented discourse to offer constructive commentary on the impact of the learnerships and apprenticeships pathway systems in South Africa.

The technical support of Impact Research International, and of Field Research Solutions, in implementing the surveys and ensuring high quality data must be strongly acknowledged. Two case studies were conducted by Claudia Mummenthey in an extremely professional manner. Finally, the research would not have been possible without the active support and participation of SETAs, firms and training providers, and of staff in the Departments of Labour and of Higher Education and Training. The role of Tendani Ramulongo must be singled out in particular. The generous collaboration of those involved in the skills development systems was critical. The research team hopes that their analysis and interpretation will be appropriate to the original remit of the Department of Labour, and of wider benefit to further the goals of the National Skills Development Strategy.

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LIST OF ABBREVIATIONS

AgriSETA	Agricultural Sector Education Training Authority
BANKSETA	Banking Sector Education and Training Authority
CATI	Computer Aided Telephonic Interview
CBMT	Competency-based apprenticeship or traineeship
CETA	Construction Education and Training Authority
CHIETA	Chemical Industries Education and Training Authority
CTFL	Clothing, Textiles, Footwear and Leather
DHET	Department of Higher Education and Training
DoL	Department of Labour
EC	Eastern Cape
ESETA	Energy Sector Education and Training Authority
ETDP SETA	Education, Training and Development Practices
ETQA	Education and Training Quality Assurance
FASSET	Financial Services SETA
FET	Further Education and Training
FIETA	Forest Industry SETA
FOODBEV	Food and Beverage Manufacturing Industry
FS	Free State
GP	Gauteng
HEQF	Higher Education Qualification Framework
HSRC	Human Sciences Research Council
HWSETA	Health and Welfare Sector Education and Training Authority
INSETA	Insurance sector education and training authority
ISETT	Information Systems, Electronics and Telecommunications Technologies
KZN	Kwa-Zulu Natal
LGSETA	Local Government SETA
LP	Limpopo
MAPPP	Media, Advertising, Publishing, Printing and Packaging
MERSETA	Manufacturing, Engineering and Related Services
MQA	SETA for Mining and Minerals Sector
MP	Mpumalanga
NC	Northern Cape
NQF	National Qualification Framework
NSDSI	National Skills Development Strategy I (2001-2005)
NSDSII	National Skills Development Strategy II (2005-2010)
NSDSIII	National Skills Development Strategy III (2011-2015)
NCV	National Certificate Vocational
NW	North West Province
OECD	Organisation for Economic Corporation and Development
PCA	Principle Component Analysis
PSETA	Public Service Sector SETA
SASET	Safety and security SETA

SES	Socio-economic Status
SETA	Sector Education and Training Authority
SERVICES SETA	Services Sector Education and Training Authority
RPL	Recognition of prior learning
TETA	Transport Education & Training Authority
THETA	Tourism and Hospitality
Time-Based	Time-based apprenticeship
W&RSETA	Wholesale and Retail SETA
WC	Western Cape

EXECUTIVE SUMMARY

LEARNERSHIPS AND APPRENTICESHIPS AS MECHANISMS FOR INCLUSIVE SKILLS DEVELOPMENT IN SA

It is now widely accepted that the skills of the workforce is a critical determinant of global competitiveness. In order to advance - or simply keep up - countries have to develop their technological capabilities, to increase their share of knowledge intensive and complex activities which require higher skills levels in general, and in relation to the technological trajectory of specific sectors. The competitive edge results from firms' capability to 'absorb, use, adapt and build' on new technologies, which in turn, relies on national systems of education, training and skills development. The critical question is thus whether a country is able to produce not only *more* skills, but a higher *level* of skills across the workforce, and more significantly, a different *kind* of skills to respond to new information intensive technologies, the new organization of production and the management of knowledge networks (Lall, 2001). Vocational and occupational certification and capability building via learnership and apprenticeship programmes were placed firmly at the core of new inclusive skills development policies in South Africa after 1994, and it is in this light that this study assessed their impact.

LEARNERSHIPS AND APPRENTICESHIPS: INCREASING ACCESS AND MEETING TARGETS

The learnership pathway system is very new, and was created only in 2001, so it has grown rapidly but fluctuated widely in response to shifting government priorities during the period of NSDS I and II. Indications are that currently, the system caters for 44 000 to 55 000 learners per year. Official government targets set for enrolment of both employed and unemployed participants have consistently been met – and even exceeded - over the period of NSDSII.

The apprenticeship pathway system in contrast is long established, but enrolments declined significantly from the late 1980s until a recent reprioritization from 2006 and the setting of ambitious targets to re-grow the system rapidly. Indications are that currently, the system caters for approximately 9 000 to 12 000 per year. It is exceeding targets set for the enrolment of the unemployed, typically young people preparing for labour market entry, but not meeting targets for enrolling the employed.

A very simple assessment on the basis of the official targets set may thus conclude that the learnership pathway system is ‘succeeding’, and the apprenticeship pathway system is ‘reviving’. Indeed, both these systems have increased access to vocational training and skills development for female, black and low socio-economic status (SES) individuals, whose participation in these two pathway systems is proportionately greater than their participation in Further Education and Training or higher education pathway systems.

However, the research indicates the need to evaluate more critically the appropriateness of SETA targets in terms of the extent to which they are informed by firm demand and related to youth needs. The study finds evidence that targets do not match well with firm demand or the large scale need for post-school education and training opportunities at all skills levels for the large national youth cohort. For instance, the average age of participants are generally higher in comparison to typical participation rates in other countries, suggesting that young people are more likely to spend a period of time doing other activities before deciding to enter into a learnership or apprenticeship programme in SA. The evidence suggests a mismatch with firm demand in many sectors, and that the scale of provision is inadequate to the demand from young school leavers for education and training to enhance their employability.

QUALIFICATIONS LEAD TO EMPLOYMENT, BUT SOCIO-ECONOMIC STATUS STILL PLAYS A ROLE

Through an evaluation of transitions and trajectories of individual participants, it is clear that both systems, in the main, do lead to employment, and a link between successful completion of either vocational qualification and finding employment is established. More importantly, the analysis finds that in the aggregate, both systems decrease the unemployment rate of participants, although the learnership system appears to have a more significant impact. The participants in each system have thus shifted from a higher to a lower unemployment rate, substantially lower than that of the national population.

Although the positive impact of both systems is profoundly illustrated by their completion and employment outcomes, the continued impact of the socio-economic status of participants on the equity of these outcomes remains a concern.

ROOM FOR IMPROVEMENT IN ENSURING SKILLS SUPPLY AND DEMAND MATCH

The analysis suggests that although these systems are increasing access and contributing to the development of skills at all levels, there is a perception of lack of preparedness in critical skill areas, and in some of the sectors studied, the skills imparted are outdated and not keeping up

with the technological cutting edge. In the MERSETA case study this challenge was for instance, illustrated through an acknowledgement by respondents that those who qualified especially through the accelerated artisan training (ATT) route would still require up to two more years of practical experience to be fully competent artisans (see also NBI, 2009). Furthermore, there were indications by firms in the metal sector, that some of the curriculum content as well as trade tests dated from the 1950s.

For learnerships, individuals were more positive about the acquisition of ‘soft’ or generic skills, while very few reported that their technical, computer and numeracy skills had been developed. Just over half reported that no qualification was necessary for their current job, and more than a quarter reported no positive employability outcomes at all. Those with an apprenticeship qualification were more positive, in terms of the development of both generic and technical skills. The negative area and a major concern at artisanal level, was computer skills.

Taken together, this information suggests that these qualifications may serve more as an indication of employability to employers, rather than a capability for specific skills required in a sectoral labour market. Such evidence from the research raises alarm bells about the mismatch between the skills and capabilities developed during training and those required in the workplace. This emphasizes the critical importance for a skills development pathway system to actively support the institutional and structural arrangements between education, the labour market, the production system and other social and economic institutions in order to facilitate successful transition into employment.

THE NEED TO GROW AND STRENGTHEN THE LEARNERSHIP AND APPRENTICESHIP PATHWAY SYSTEMS

Contrary to the widespread negative perceptions, the learnership and apprenticeship pathway systems have had a positive – but very limited - impact as skills development mechanisms in the period of NSDSII. The majority of individuals enrolled on a learnership successfully made a transition to the labour market, and was employed a few years later. They were employed in a fairly stable manner, in the formal sector, predominantly in basic and intermediate skills levels jobs.

There are limits dictated by significant sectoral differences, and historical patterns of exclusion and inequality are not sufficiently shifting. Another negative is that most of these vocational and occupational qualifications are attained at the basic and intermediate skills levels.

The most negative – and deeply problematic - aspect relates to the kinds of skills and capabilities imparted, which varies widely between sectors and occupations. Both the learnership and apprenticeship pathway systems in specific sectors do not operate optimally. There is not a strong enough alignment between SETAs, education and training providers and firms in determining and regularly updating curricula frameworks and assessment standards such that they match industry demand, and particularly, so that they keep up with shifting global technological developments. The institutional and structural arrangements between education, the labour market, the production system and other social and economic institutions do not always facilitate appropriate, responsive and up-to-date development of skills and capabilities that will enhance global competitiveness.

However, on balance, the evidence sufficiently tilts towards an overall positive assessment. It leads to the recommendation that the learnerships and apprenticeship pathway systems should be extended in scale and reach, to encompass more young people, on a more equitable basis, and in a more effective way that builds national learning capabilities. Specific policy issues are identified in the course of the analysis to contribute towards outlining the nature of the task ahead.

INTRODUCTION

SKILLS, CAPABILITY BUILDING, GLOBAL COMPETITIVENESS AND INCLUSIVE DEVELOPMENT

It is now widely accepted that the skills of the workforce is a critical determinant of global competitiveness, as new technologies become more complex and competition is increasingly driven by quality, flexibility, design, reliability and networking. In a time of global economic recession, debt crises and burgeoning unemployment, skills and capabilities are even more significant. In order to advance - or increasingly in the present context, simply to keep up - countries have to develop their technological capabilities, to increase their share of knowledge intensive and complex activities which require higher skills levels in general, and in relation to the technological trajectory of specific sectors. The competitive edge results from firms' capability to 'absorb, use, adapt and build' on new technologies, which in turn, relies on national systems of education, training and skills development. The successful developing countries typically held up as shining examples for emulation – Korea, Malaysia, Singapore – all foregrounded and prioritized strategies for education, skills and capability development.

The technological capability approach (Nelson & Winter, 1982; Lall, 2001) stresses that what is critical in developing countries is the learning process within firms, the ability to master the tacit elements of new technology imported through foreign direct investment or through acquiring new physical plant and equipment. The question is thus whether a country is able to produce not only *more* skills, but a higher *level* of skills across the workforce, and more significantly, a different *kind* of skills to respond to new information intensive technologies, the new organization of production and the management of knowledge networks (Lall, 2001). These higher level and new kinds of skills are required at *all* levels of the workplace – worker, technical and supervisory, engineering and managerial (Lall, 2001). New 'communicative' skills such as the ability to work in teams, problem solving, driving quality improvement and to comply with health and safety regulations are stressed. The knowledge and capabilities that are built through experience and not simply the formal education-based skills built through institutional learning are equally significant.

The 'national capability' to learn is based on but goes beyond formal education systems, to include a wide range of government policies and coordinated skills development institutions and funding mechanisms. Whether a country advances in skills formation to promote comparative advantage – or avoid deep recession in the current global context - will depend largely on the national systems for experience-based skill and technological learning.

Government policies and strategies to coordinate, guide and fund learning and skills development are thus critical.

However, new skills development systems may lead to further marginalization of those who do not have the opportunity or ability to enter skills development programmes to enhance their employability. Employability refers to an individual's qualifications and skills that signal to a firm that if he or she is employed, they can contribute to firm processes and productivity. Governments' roles have shifted to provide skills development opportunities to allow all individuals to become employable, but it is the individual's responsibility to equip themselves to access the labour market (Kruss, 2004). In a developing country context like South Africa, those most vulnerable to such marginalization, who may struggle to become employable and to access the labour market, are women, young people from low socio-economic backgrounds with poor education, or those located in isolated rural areas. Given historical trajectories, such social differentiation tends to coincide with racial categories. South African government policies thus require mechanisms to promote inclusive skills development, to find ways to ensure a broad reach so that past inequalities are not reproduced by new systems.

Vocational and occupational certification and capability building via learnership and apprenticeship programmes were placed firmly at the core of such a new inclusive skills development policy in South Africa after 1994, and it is in this light that we need to assess their impact.

LEARNERSHIPS AND APPRENTICESHIPS AS MECHANISMS FOR SKILLS DEVELOPMENT AND CAPABILITY BUILDING IN SOUTH AFRICA

Policy concerns around a 'skills crisis' have intensified in South Africa over the past ten years – that we are not producing enough of the right numbers or the right levels and kinds of skills to support global competitiveness, to address poverty and inequality, and to support inclusive economic development.

From the 1970s, there was widespread evidence of market failures in the national system for skills development in South Africa. 'Skills shortages' were recognized as a critical constraint on firms' responses to new technological challenges and hence to global competitiveness, prompting the apartheid government's attempts during the 1980s to create new systems of 'manpower' training to match the changing skills needs of the economy, but to maintain the racialised system of provision. The debate shifted dramatically after 1994, around what new policies could best address the 'skills crisis' and at the same time, promote equity and widen access to skills development opportunities. Concern was not simply with skills shortages, but with addressing the changing nature of demand for high level skills, although it was increasingly

recognized that in the South African context, a multi-level skills strategy is required (Kraak, 2005).

An evolving set of government policy interventions and funding mechanisms were organised under the rubric of the National Skills Development Strategy (NSDS), which is now in its third iteration for the next five year period, 2011 -2015. Borrowing from international practice, a key role was allocated to new sectoral education and training authorities, SETAs, in partnership with employers and a range of public and private training providers. Such institutional mechanisms were established to promote linkages between education and the productive sector and to promote firm-based training. These mechanisms are particularly significant in the face of a fragmented and uncoordinated post-school education and training system dominated by universities and universities of technology. The promise of higher education for enhancing employability and high status careers has led to heightened expectations and increased demand for access, but this is not aligned with the poor levels of performance at the basic education level. The further education and training college system is grappling with institutional restructuring and multiple shifting mandates to become a viable route to vocational and occupational certification. The opportunities for young people preparing for transition to the labour market are thus limited.

A steady decline in the number of apprentices, growing concern about the quality of workplace training and the technical skills produced, and the limited reach of the apprenticeship system in terms of race, gender and industrial sector, informed the development of the new more 'modern' system of learnerships, instituted from 2001 under NSDS I (2001-2005). Large scale public sector investment was channeled via the National Skills Fund, complemented by mandatory private sector investment via employer levies (DoL, 2003). As the name suggests, the 'learnership' system was proposed as a key institutional mechanism to promote skills creation and enhance national learning capabilities. It aimed to provide a recognized occupational qualification achieved through structured institutional learning *and* applied competence developed through workplace experiential learning. In this way, the learnership system aimed to build more, but also higher levels and new kinds of skills and capabilities.

The new learnership system was intended to address the shortcomings of the traditional apprenticeship system, particularly the lack of structured workplace learning and to increase access.¹ It differed from the traditional apprenticeship system in that it operates across all industrial sectors and across all skills levels, not only at the intermediate level in relation to artisanal skilling (NQF Level 4). The learnership system also includes basic skills level (NQF levels

¹ It should be noted here that the learnership system was not instituted to replace the apprenticeship system, but the two operated in parallel.

1 to 3) and high skills level (Level 5 to 8) certification. It incorporated traditional and well established professional internship training programmes in fields such as accountancy into an integrated national system, but also created new structured occupational learning pathways in service sectors such as tourism, media or community care. The new system has a dual mandate, to enhance skills upgrading across all levels of the existing workforce in firms (those who enter as 18.1 or employed learners) as well as provide vocational education and training for the (young) unemployed to facilitate transitions to the labour market (those who enter as 18.2 or unemployed learners).

Shifting national policy priorities shaped the fledgling learnership system in complex ways over a concentrated period of time. At the Growth and Development Summit of 2003, for instance, concern centred on the high rate of youth unemployment. National skills targets were set, driving SETA strategies to enroll large numbers of unemployed youth under the age of 35. One unintended consequence was a SETA focus on achieving numerical targets rather than on the quality or nature of skills developed. A shift in priorities was evident, away from a demand-led skills intervention mechanism, towards a stronger emphasis on learnerships as a mechanism to promote youth transitions to the labour market (Grawitzky, 2006; Visser & Kruss, 2009).

Within a few years, the emphasis shifted back to a focus on addressing critical and scarce skills upgrading. Regulations governing apprenticeships had remained in place with the introduction of learnerships, but the relationship between the two was not clearly defined. The apprenticeship system continued to decline in importance as a skills development mechanism. A period of economic growth in the mid 2000s made it evident that there was a critical shortage of artisanal skills that neither the new learnership nor the traditional apprenticeship system could address. With JIPSA as a catalyst, from 2006 attempts were made to revive the apprenticeship system as a specific mechanism to produce intermediate level skills, and to address the shortage of artisans.

New mechanisms for national recognition of artisan qualifications were developed, through articulation of four different learning routes, legislatively enacted in a series of amendments to the Skills Development Act (2008). The new act used the overarching concept of 'learning programmes' - agreements registered with a SETA - which could take the form of a learnership, an apprenticeship, a skills programme or any other prescribed learning programme (such as at a FET college) that includes a structured work experience component.

The skills development system has not yet had sufficient time to mature, and implementation is beset by many problems (Akoojee et al, 2005; Badroodien & McGrath, 2005; Kraak, 2008a, 2008b). At the systemic level, there are widespread failures caused by a lack of coordination and alignment between government departments and agencies responsible for education, skills development, industrial policy and economic development. The learnership system and the

revived apprenticeship system are inserted into a complex and increasingly bureaucratized qualifications and quality assurance institutional structure that constrains coordination and the ability to understand and meet firms' skill demands. While JIPSA initiatives have succeeded in increasing the number of artisans in training, the revived apprenticeship system continues to experience problems that impact on the quality of skills produced, such as the variable and often outdated quality of training and trade tests and the availability of workplace mentors and trade assessors (Elliot, 2009).

Both systems are administered by SETAs, newly created institutions that have yet to develop capacity to drive skills development effectively and efficiently (Marock, 2008). The SETAs have suffered failures such as bureaucratic, rigid and inefficient management, low standards of training, a lack of information on student needs and firm demand. The result has been a process of amalgamation so that there are now fewer SETAs than there were at the time of the study, the period of NSDSII, 2005-2010². SETAs lack capacity to conduct demand forecasting to inform sectoral and national strategies, generally recognized as a major weakness.

A further abiding problem is that despite incentives, many firms remain reluctant to invest in training. Pauw et al's (2006) research for instance, claimed that learnership grants as an incentive scheme has not increased employment above the levels that would have occurred if left solely to market forces. Rather than training above their needs, most firms train the number of learners they are likely to employ, linked tightly to recruitment strategies.

'BIG' STRATEGIC QUESTIONS AND 'MODEST' RESEARCH QUESTIONS

Critical questions have thus been raised about the impact of the learnership and the revived apprenticeship systems on the national capability to learn, and hence, ultimately, on enhancing competitiveness and inclusive economic development. There are many who are extremely critical, arguing that learnerships are untested, and apprenticeships are outdated and still need to be modernized. To what extent are these systems meeting the targets set by the NSDSII and contributing to the strategic goals of skills development, equity and economic growth? To what extent are these two skills development mechanisms achieving their goals of certification and upgrading at basic, intermediate and high skills levels for the employed and the unemployed, particularly those most socially and economically vulnerable and marginalized? Are they

² In April 2010 the proposed new SETA landscape was announced, to result in fifteen of existing SETAs to be recertified with minor changes, the formation of six new SETAs (as a result of amalgamation), and a reduction in the total number of SETAs from 23 to 21 (International Network of Sector Skills Organisations (INSSO), 2011).

providing more of the right levels and kinds of skills that firms in key sectors require and that enable young people to make successful transitions to the labour market?

To address these 'big' strategic policy questions requires large-scale empirical data on the size and shape of the learnership and apprenticeship systems in the first instance. How many young unemployed people do these systems cater for, and how many of those in employment are participating in skills upgrading programmes? How do different groups of young people proceed from school to apprenticeship or learnership programmes? How employable are those who attain qualifications, and do they make the transition to the workplace and how, in key sectors? Are there patterns of inclusion and exclusion that reflect South African's unequal social structure? How do learnerships and apprenticeships articulate with other institutional mechanisms, such as public and private FET colleges, and with the higher education system?

Here, we face a major problem – a lack of reliable and valid data that regularly monitored access to, progress through and completion of learning programmes, or tracked transitions to the workplace of those who completed learnerships and apprenticeships. This is a general problem in South Africa, where data on skills development and vocational education and training is woefully inadequate. There is little data available in the public realm that allows for assessment of the outcomes and impact of the public FET college system on skills development, for example. By 2009, while progress had been made to develop mechanisms and methodologies, neither a management information system for the FET and SETA systems nor a skills supply information management system were available (Elliot, 2009). The lack of supply side data is particularly acute in relation to learnerships and apprenticeships. SETA databases have been used for aggregated reporting against targets to the Department of Labour, but have not been analysed systematically. A similar problem is evident in the lack of analysis of the National Learner Record Database maintained by SAQA. There is a general lack of priority accorded to these skills qualification routes by education and labour market researchers.

Hence, this study had a far more modest research objective: to assess the impact of the learnership and apprenticeship skills development systems, in terms of the number, levels and kinds of basic, intermediate and high level scarce skills acquired by the employed and the unemployed, and in terms of participants' ability to enter different kinds of employment after completion of the skills development programme.

A DIVERSITY OF TRANSITIONS, TRAJECTORIES AND PATHWAYS

The framework and design for the empirical research drew conceptually on the literature on pathways studies, which provided a systematic methodology and framework for tracing individuals into, through and out of vocational education and training and skills development

systems (ACER, 2001, 2010; NCVET, 2010). The notion of pathways is used to describe the 'connection between an educational programme and its destinations, mediated by a set of institutional arrangements that include qualification systems, curriculum content, labour market arrangements and information and advice systems' (Sweet, 2001). Raffe (2001, 2003) argued that the concept of 'pathways' has been a useful heuristic to guide research on the links between education and work. It has operated largely as a metaphor rather than a theoretical framework or rigorous tool for analysis, and has served to bridge policy with empirical research and theoretical debate. Comparative work was stimulated by a large scale global comparative study on youth transitions commissioned by the OECD (OECD, 2000; Bowers et al, 2000; Austen & Macphail, 2010; Cruz-Castro & Conlon, 2001; Russell & O'Connell, 2001) in the face of high youth unemployment and major changes in youth transitions to work from the 1990s.

Such an approach allows an assessment of the extent to which education, training and skills development systems equip young people with the right numbers, levels and kinds of skills required in the labour market through a range of mechanisms (Dumbrell, 2003; Curtis, 2008; Marks, 2006; Figgis, 2001; Harris et al, 2006; McMillan et al, 2005). The approach focuses on the characteristics of individuals participating, their progress through, and the outcomes associated with, each contextually defined pathway (Marks, 2006). Investigating the impact of different forms of education and training in promoting equity and occupational mobility amongst young people with diverse socio-economic characteristics, whether gender, race, class, or urban-rural locations is critical (Bartlett, 2009; Brown et al, 2003; Curtis, 2008; Simmons, 2009; Marks, 2006).

A strand of the literature that focuses on the link between pathways as structured opportunities, and the ways in which young people actively use them (Dwyer & Wyn, 2010; Ainley & Corrigan, 2005; Feinstein & Peck, 2008) directly informed the design of the two surveys conducted for this study. As Raffe (2003: 6) puts it, the concern of much of this research is to distinguish 'genuine pathways from official maps'. In Australia for example, a distinction was drawn between the ideal pathways that policy makers intend, the institutions and formal structures that governments put in place to promote youth transitions, and the actual decisions and activities of young people, which may not correspond (ACER, 2001). The complementary notions of 'transitions' and of individual 'itineraries' or 'navigations' or 'trajectories' were invoked to study the diversity of young people's needs and experiences, relative to the ideal 'pathways' or 'maps' created by official policy (Heinz et al, 1998; MacDonald et al, 2005; Ferguson, 2004).

Understanding the sequence of successes and failures of different groups in the process of transition to the workplace is significant for evaluating impact. The work of Robinson (2004) was adapted as a simple but effective technique to map individual patterns, by coding a participant's status at the beginning and end of critical points. The individual's trajectory over

the course of a programme can then be represented as a series of codes. It is possible to tally the number of individuals in the system with the same code series – and hence, obtain a nuanced analysis of a finite but large number of trajectories through the system.

THE DESIGN OF THE EMPIRICAL RESEARCH

The design of the empirical research consisted of three intersecting components, and is summarized in Table 1, while Figure 1 illustrates the different datasets used in the study. It shows the three guiding research questions in relation to the main methodology and the empirical sources accessed, for both the learnership and apprenticeship pathway systems.

Population datasets used for reporting to government departments were accessed, cleaned and distinct cohorts analysed, to map the size and shape of each pathway system.

Surveys of learnership and apprenticeship participants were designed, informed by the pathways approach, to trace the patterns of transition and trajectories at an individual level³. The learnership survey was longitudinal, tracing a cohort of those who enrolled for a learnership in year 1 of NSDSII, 2005, who were originally surveyed in mid 2007, and then again in mid 2010, year 5 of NSDSII. The apprenticeship survey created such a cohort for future longitudinal tracking, and included those who had either enrolled or completed an apprenticeship programme in year 5.

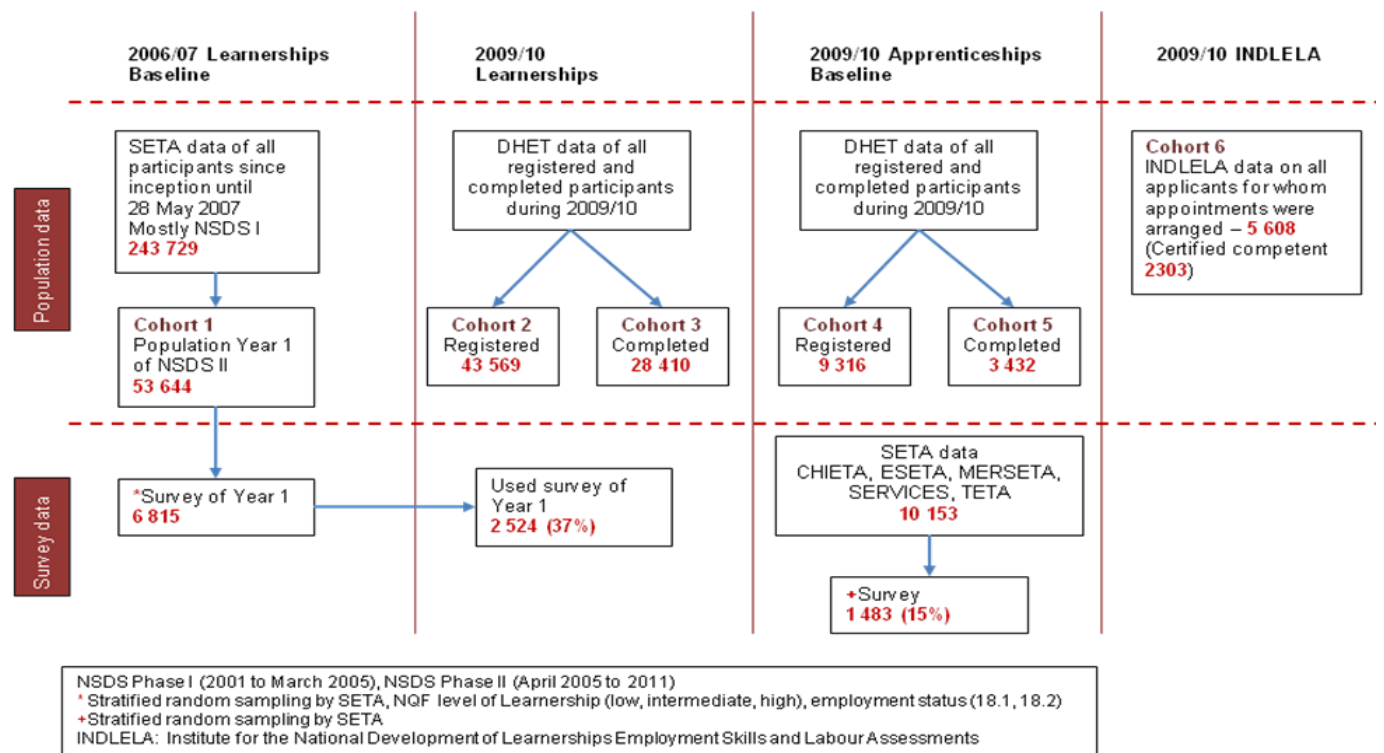
³ For a comprehensive discussion of the specific way in which this approach was conceptualized and incorporated into the design and analysis for these surveys, the reader is referred to the Surveys Report (Wildschut et al, 2011).

TABLE 1: ILLUSTRATION OF THE LINKAGE BETWEEN RESEARCH QUESTIONS, METHODOLOGY AND EMPIRICAL SOURCES

RESEARCH QUESTIONS	LEARNERSHIPS		APPRENTICESHIP	
	<i>Main methodology</i>	<i>Empirical Sources</i>	<i>Main methodology</i>	<i>Empirical Sources</i>
What numbers and levels of skills does the pathway system produce?	Population trends of 2005/6 and 2009/10 cohorts of those who enter and complete a learnership programme	DoL / DHET population database 2009/10 HSRC 2007 dataset HSRC 2010 tracer survey dataset	Population trends of 2009/10 cohorts of those who enter and complete apprenticeship and who register for and pass the trade test.	DoL / DHET population database 2009/10 Indlela database of trade tests taken during the period: 1 April 2009 - 31 March 2010 ⁴ . HSRC 2010 survey dataset
What are the different trajectories in the transition to employment?	Follow up survey tracking transitions and trajectories of the 2005/6 cohort by 2010	HSRC 2007 survey dataset Tracer survey of 2007 cohort	Survey tracking pathways of 80% of apprentices enrolled or completed 2009/10	New database with assistance of five SETAs and new survey sample
How does the pathway system build the kinds of skills and capabilities that enhance employment?	Surveys tracking pathways			Interviews (employers, SETAs, training providers) sectoral data, documents
	Three case studies: low, intermediate and high level skills sectors: HWSETA, MerSETA, FASSET			

FIGURE 1: ILLUSTRATION OF DATASETS USED

⁴ The INDLELA dataset traces the size and demographic profile of those who have undergone the final stage of artisanal skills development through trade test certification in Year 5 of NSDSII. The INDLELA dataset however, is not directly comparable with the information on completions in both the Learnerships and Apprenticeships 2009/10 datasets. Please refer to the *Populations Report* where the differences between the datasets are detailed.



Finally, three case studies analysed in depth the ways in which SETAs, firms and training providers interact to ensure that theoretical courses and experiential learning align with one another, with scarce skills needs and with the technological cutting edge in specific sectors. Full details of the methodology, samples, datasets and analysis of data trends are available in the technical reports. Here, we synthesise and interrogate key findings and trends in relation to policy challenges.

OUTLINE OF THE REPORT

The purpose of this report is to integrate the main trends identified that allow us to address the research questions and engage with the ‘bigger’ strategic policy questions. It is structured by the three main research questions. Section One interrogates the evidence to provide a quantitative map of the current capacity of each pathway system, in terms of total numbers, types of programmes and profiles of participants. Section Two analyses the outcomes and trajectories of those who completed a learnership or apprenticeship. Section Three analyses how skills and capabilities that meet firm demand are developed, focusing on the alignment between SETAs, training providers, firms and intermediary organizations. Throughout the report, the policy and research issues raised by the analysis are highlighted within text boxes, to

inform the final conclusions. In the last section, we assess the generally positive but very limited impact of learnerships and apprenticeships, and summarise how these pathway systems can be expanded and strengthened as potentially valuable mechanisms for developing national learning capabilities.

A few points of clarification are required regarding the categories used in the data analysis:

- **Targets:** The targets reported are as set by NSDSII, and the individual SETA registration and completion targets are set by government through the relevant department.
- **Section 13 and Section 28 apprentices:** Section 13 is formally indentured after signing an apprenticeship contract with an employer. Section 28 has applied to write the trade test and be assessed as competent after gaining sufficient work experience.
- **Unemployed (18.1) or Employed (18.2):** These categories can be somewhat misleading in terms of the social group they refer to. A learner categorized as unemployed at entry – 18.2 - may refer to both a school-leaver preparing for the labour market, or to an older individual who has been unemployed for some time. A learner categorized as employed - 18.1 - would be expected to be an (older) person interested in upgrading their skills or changing careers, already having some work experience, but this is not exclusively so.
- **NQF levels:** We use the levels as prescribed during the period of NSDSII. NQF level 4 is equivalent to grade 12, NQF level 5 is pre-degree certificates or diplomas, and the highest qualification possible is at level 8 (Masters and Doctoral degrees).
- **Racial classification:** We report on racial classifications in this project, as a way in which to measure the extent of transformation, rather than based on any desire to perpetuate race-based discrimination.

1. SECTION ONE: WHAT NUMBERS AND LEVELS OF SKILLS DO THE LEARNERSHIP AND APPRENTICESHIP PATHWAY SYSTEMS PRODUCE?

The learnership pathway system is very new, and was created only in 2001, so it has grown rapidly but fluctuated widely in response to shifting government priorities. Indications are that currently, the system caters for 44 000 to 55 000 learners per year⁵. Official government targets set for enrolment of both employed and unemployed participants have consistently been met – and even exceeded - over the period of NSDSII.

The apprenticeship pathway system in contrast is long established, but enrolments declined significantly from the late 1980s until a recent reprioritization from 2006 and the setting of ambitious targets to revive the system rapidly. Indications are that currently, the system caters for approximately 9 000 to 12 000 per year⁶. It is exceeding targets set for the enrolment of the unemployed, typically young people preparing for labour market entry, but not meeting targets for enrolling the employed.

A simple assessment on the basis of official targets may thus conclude that the learnership pathway system is ‘succeeding’, and the apprenticeship pathway system is ‘reviving’.

However, there is strong evidence to suggest a high degree of SETA compliance to meet performance targets and numbers, without sufficient consideration for the quality of the training and skills developed, or for impact on the employability of participants (Badroodien & McGrath, 2005; Kraak, 2008; Grawitzky, 2006). Thus, we need to question how these national targets were set - how well do they relate to firm demand for capability building and to the

⁵ In the period of NSDSI, from February 2001 to March 2005, the total enrolment was 135 000. A total of 88 410 unemployed and 45 813 employed participants (Kraak, 2008; DoL, 2006), although other sources suggest that the total might be closer to 165 000 (HSRC 2008, Visser & Kruss 2008). This means that the system had the capacity to cater for approximately 33 750 to 41 250 registrations per year, but by Year 1 of the NSDSII, 2005/6, approximately 56 000 registrations were reported (Janse Van Rensburg et al, 2010). The unexpected trend we identified is that participation then dropped by 19%, to around 44 000 registrations in 2009/10. This drop illustrates the vulnerability of the institutions in this pathway system, as two SETAs, the Construction SETA and the Safety and Security SETA, accounted for 80% of the decline.

⁶ In 2009 a total headcount of 9 261 apprenticeship registrations was recorded (Janse Van Rensburg et al, 2010). This represents a 26% decline from the apprenticeship registration figure of 12 661 in 2008 (in Elliot, 2009). The overall target for the registration of apprenticeships was not quite reached (with only 9316 out of a target of 10540 was registered – 88%). More specifically, the target was over-achieved for the unemployed (7655 registered in comparison to a target of 4066 - 188%) and not reached for the employed (only 1661 registered against a target of 6474 - 26%). This is a slight misnomer, as many of the employed will not register for an apprenticeship programme but will apply to write the trade test as a section 28 apprentice based on sufficient prior learning and work experience.

demand for skills training on the part of young school leavers? This section primarily draws on the Population Report to consider the evidence on enrolments.

1.1 ARE SETA TARGETS AND PROVISION INFORMED SUFFICIENTLY BY FIRM DEMAND?

To consider first the issue of the extent to which these targets match and are informed by firm demand. The weak capacity in the SETAs to understand the drivers of sectoral skills demand to inform their planning has been recognized and indeed, identified as a priority for attention in NSDSIII. A few examples will illustrate the nature of the problem. In 2009/10 Agriseta set an extremely low target of providing learnerships for 650 employed and 50 unemployed participants, and apprenticeships for 10 employed and 40 unemployed participants – a total target of 750 opportunities across the entire country. It easily exceeded these low targets, except that it did not offer a single learnership opportunity for the unemployed. This low level of provision is in a sector that although declining, accounted for 5.1% of employment in 2009 (World Bank, 2011). The extent to which these targets were set in relation to demand from farmers and agribusiness for upskilling their employees, and from the unemployed in rural areas who would benefit from skills training to create their own farming operations or SMMEs, is thus questionable. Another example is that enrolments in certain key sectors – construction and security and transport – declined significantly between year 1 and year 5 of NSDSII. We need to determine whether the reasons relate to sectoral shifts - or to the lack of capacity of the SETA and/or the training system.

Another clear trend that highlights how SETA programmes are rolled out in a fairly arbitrary manner to meet numerical performance targets, is the limited geographical spread of learnership and apprenticeship opportunities. Learnership programmes are concentrated in metropolitan areas in three more densely populated and affluent provinces - almost 60% are provided in Gauteng, Western Cape and Kwa-Zulu Natal. There is very little provision of and access to programmes in the poorer provinces where they may be needed most to contribute to regional, and particularly to rural, economic development.

Yet another trend that raises critical questions about national targets is the spread of NQF skills levels, in relation to firm demand for upskilling across all levels of the workforce. Only two SETAs tend to enroll a majority of learnerships above NQF level 4, in high level skills programmes. FASSET enrolled 93% of their learnerships in year 5 at NQF level 7 (and accounted for 99% of the total Level 7 enrolments), and BankSETA enrolled 75% of their learnerships at

NQF level 5.⁷ The vast majority of high level skills qualifications provided through the learnership pathway system were thus concentrated in the financial sector. Is this the only sector that requires vocational education and training at high skills level?

The majority of learnership enrolments were at the basic and intermediate skills levels – NQF 4 and below. Overall, the shift between year 1 and year 5 tended to an increase in enrolment at *lower* NQF levels. Bear in mind that the survey of those who enrolled in year 1 (HSRC, 2008) found that 71% already held a qualification at NQF level 4 (and 83% of this group were matriculants). A further 19% already had a qualification at the high skills level, and these people were on professional training trajectories in the financial sector. Only 10% had a qualification below level 4 and hence, required basic level education certification. The lack of progression provided by the learnership system (Visser & Kruss, 2008) is related to poor articulation and progression in general (Cosser, 2010, 2011). However, this means that SETAs tend to provide occupational certification at *lower* skills levels than participants already have, and that rather than providing more intermediate and high level skills opportunities, learnerships provide more basic skills levels opportunities.

The adequacy and causes of this low skills bias need to be investigated, relative to the goal of promoting a multi-level skills strategy in South Africa. Is the concentration at low skills levels supply side driven by those who are accredited to offer training programmes (Grawitzky, 2006), or is it related to government imperatives to tackle the large scale problem of youth unemployment (Kraak, 2008)? Or is it responding to firm demand for workers, technicians and supervisors with better basic or intermediate level skills to support firm strategies? And of course, how does this vary between sectors?

Policy Issue 1: *Strengthen the capacity of SETAs to forecast skills supply in relation to sectoral and spatial demand, to inform targets for skills development.*

Policy Issue 2: *Identify ways to extend the reach of SETAs into all nine provinces, to offer skills development opportunities on a more decentralized basis.*

Research Issue 1: *Investigate how SETA targets and programmes are informed by firm demand, and particularly, why so many learnership programmes are offered at basic skills levels, in diverse sectors.*

Research Issue 2: *Investigate the total scale of current provision of scarce artisanal skills through apprenticeship, learnership, FET college and recognition of prior learning routes.*

⁷ As the case study of FASSET highlights, these sectors have long established education and training pathway systems and clearly structured interaction between firms and training institutions, that were incorporated into the learnership framework. See Section 3 below.

A better match between firm demand and apprenticeship targets and provision could be expected, given the prioritization of artisanal training by JIPSA. JIPSA processes to support the revival of the apprenticeship system included research on priority artisanal skills needs for key sectors, particularly engineering and construction, as well as targeted funding and investment (JIPSA, 2010). Analysis of population cohort data confirmed that the overwhelming majority of apprenticeship programmes are in the JIPSA priority areas, clearly aligned to artisanal skills needs. However, if the total artisan related training during NSDSII was estimated at 37 800 (Elliot, 2009), apprenticeships contributed roughly a quarter of the training.⁸ Only 15 SETAs registered apprenticeships in 2009, more than 80% of these concentrated in five SETAs – MerSETA, Services SETA, TETA, CETA and CHIETA. The apprenticeship system thus remains small and is not yet capable of attracting or registering sufficient numbers annually to meet the projected critical shortage of 50 000 to 60 000 artisans⁹.

Our analysis thus confirms that SETA targets are not sufficiently informed by analysis of sectoral or spatial demand.

1.2 ARE SETA TARGETS AND PROVISION SUFFICIENTLY RELATED TO YOUTH NEEDS?

The question remains, are the learnership and apprenticeship pathway systems providing a valuable missing, and complementary ‘niche’ of vocational education and training at the basic and intermediate skills levels in the post-school sector?

High levels of youth unemployment are increasingly a concern even in developed economies since the 1990s (OECD, 2000), ranging widely from 7% in countries like Austria and Japan to 34% in Italy and Spain (Breen, 2005). The scale of youth unemployment in South Africa tends to the upper range, and relative to most OECD countries, is severe (CDE, 2008; Marock, 2008). The unemployment rate for youth between the ages of 16 and 24 was 39.4% and between the ages of 25-34 was 21.5% in 2008 (Leibbrandt et al, 2010). More complex analysis of shifts over time suggests that the growth in youth unemployment results from school leavers who are not able to access the labour market (Burger & Woollard, 2005). Hence it is significant to consider how well apprenticeship and learnership pathway systems respond to the demand for education and training opportunities from young school leavers preparing for labour market transitions.

⁸ Artisanal skills development is also provided through the learnership route, but we need to analyse the scale of provision, a complex task that requires inspection of enrolments for specific learning programmes.

⁹ The national master scarce skills list of 2006 projected a shortage of 40 000 artisans, and in 2008 a shortage of 60 000 in engineering and construction related skills. JIPSA research estimated 50 000 individuals with priority artisanal skills were needed by 2010 (JIPSA, 2010).

The learnership system since its inception was strongly promoted as a means of occupational certification to address high youth unemployment. This appears to be shifting: in year 1, a high 79% of enrolments were unemployed, but in year 5, a much lower 56% were unemployed at enrolment. Sectors that shifted to enroll a larger proportion of employed learners were agriculture, local government, mining, security and safety, services and tourism and hospitality. Without trend data, it is difficult to be definite about the likely balance in provision between upskilling and preparation for the labour market in future, but it seems that sectoral differentiation is critical.

Comparative analysis of population cohorts shows that the majority of participants remains young, with the average age in 2010 of those on apprenticeship programmes being 26 years old, and the average age on learnership programmes being 28 (the average age only increased very slightly between 2005 and 2009). The legal age of school leaving in South Africa is 15 but the actual age tends to range from 18 to 21, a pattern that is constant over time. The OECD typically calculates the participation rate of young people in education and training in terms of the cohort of 20-24 year olds, and the South African learnership and apprenticeship cohorts are a few years older than this typical range. The higher average age suggests that young people may be spending a period of time on other activities before deciding to enter a learnership or apprenticeship programme – including raising funds for further study.

What proportion of the age cohort typically participates in the learnership and apprenticeship systems? In 2009, a total of approximately 20 000 young people aged 20-24 enrolled for a learnership or apprenticeship. This is very low relative to the total of almost 335 000 school leavers in 2009 (DoBE, 2010). Relative to the 20-24 year old¹⁰ national age cohort of almost 5 million, there is an extremely low national participation rate of roughly 0.41%. The number and rate of those who complete a learnership or apprenticeship in a given year is likely to be even lower.

The total registration in the learnership and apprenticeship systems in 2009, approximately 54 000, is also insubstantial if we compare with other pathway systems. The total enrollment in public higher education institutions was approximately 840 000 or 15% of the age cohort, and in FET Colleges was approximately 42 000, for the same year. Although this is only a very rough measure of relative size, it highlights how small the skills development system still is relative to the demand from young people for certification to enhance employability.

¹⁰ Statistics South Africa 2009 Mid-Year population estimates indicate that 4 920 900 persons fell in the 20 to 24 age group in 2009 (rounded to nearest hundred).

1.3 MEETING NATIONAL TARGETS, BUT HOW DOES THIS RELATE TO DEMAND?

An assessment drawing on a more nuanced analysis of population enrolment datasets rather than a simple measure of whether national performance targets are attained, allowed us to raise critical issues about the impact of learnerships and apprenticeships.

The majority of those pursuing learnerships and apprenticeships are the young unemployed, although a shift to enroll more employed participants motivated to improve their skills may be occurring in some sectors. Programmes are concentrated at NQF levels 2 and 4. While national enrolment targets for learnerships and apprenticeships are typically met, these targets do not match well with firm demand or the large scale need for post-school education and training opportunities at all skills levels for the large national youth cohort.

Policy Issue 3: *Extend the scale of learnerships and apprenticeships to offer alternative skills development pathways to a larger proportion of the youth than at present.*

Policy Issue 4: *Shift the balance of learnership programmes offered at basic and intermediate skills levels towards more opportunities at the intermediate and high skills levels, in order to facilitate better articulation in the post-school system.*

Policy Issue 5: *Set targets to balance provision for upskilling the employed and skilling young school leavers on a sectoral basis.*

Research Issue 3: *Investigate the causes of a shift to enroll more employed participants in the learnership system, and the likely future trajectory.*

Given the realities of constrained access to a wide range of post-school opportunities in South Africa, and the recognition of widespread skills constraints in firms, it is pertinent to consider whether learnerships and apprenticeships should, and how they could, offer alternative skills development pathways on a larger scale than at present. Whether the systems should be expanded depends on their impact on the life chances and employability of individual participants. If many school leavers enter these systems and drop out without completing, or if they complete the qualification and do not access employment to any significant extent, or if the systems do not provide opportunities for those who are most vulnerable and potentially marginalized, or if those in employment complete programmes and do not progress in their chosen career, then the pathway system has little value as a skills development policy mechanism.

The remaining sections of the report will thus assess the impact of learnerships and apprenticeships in these ways.

1.4 WHO ENTERS A LEARNERSHIP AND APPRENTICESHIP?

If we aggregate trends, the majority of those enrolled on learnership programmes were black, 85% of participants in year 5. In contrast, in the same year, 2009, 21% of those enrolled in higher education were white and 79% black (65.5% African) (DoE, 2010). Generally, there is a move towards more equal gender representation. The evidence is that those participating in high level skills learnerships and those who were employed at registration are more likely to be white and male. Gender and racial differentiation between sectors largely reflect traditional occupational patterns, although shifts are increasingly evident. For example, black participation in FASSET, one of the two SETAs to offer high level skills programmes, increased to just over half by year 5; and enrolment in the Security and Safety SETA shifted to an almost equal gender distribution between year 1 and year 5.

The majority of those on apprenticeship programmes remain male, but there has been a significant shift of past racial patterns, to 72% black apprentices. The proportion of white apprentices still remains larger than their presence in the total population – and in the higher education population - particularly concentrated in some sectors such as agriculture, services, forest industries and energy, the latter being the only SETA to register a majority of white participants.

Is entering a skills development programme a first choice, and for whom? To assess this, we asked those who registered for a learnership in year 1 about their motivations for enrolment, and what they expected to gain from a learnership programme (HSRC, 2008). Those who were still busy with their programme expected that the learnership would enable them to access employment and improve career opportunities (99%). A small group expected that the learnership would not enable them to gain employment, because they would not have the required work experience or a qualification that is recognized by employers. However, the majority, who did expect to access employment, thought they would do so for the same reasons! For those who had completed or terminated their programme, there was a clear difference between the employed, who were more strongly motivated by career advancement goals, and the unemployed, who were motivated by a desire for certification that can enhance employability, and by access to free study.

These trends confirmed that the main motivation was to improve skills, gain work experience and a formal qualification - but this was not very helpful in determining why an individual had chosen a skills development programme as opposed to a FET college, or university programme, or indeed, if they had actively chosen a learnership. Obviously many do not meet the entrance requirements for higher education, and until recently, funding was a challenge for accessing FET colleges.

We thus asked those who entered an apprenticeship in year 5 to track their trajectories from the time of leaving school (Wildschut et al, 2011). What was striking is that an extremely small number, 4% of our sample, entered the apprenticeship directly from school. This group is predominantly white and male with a higher average socio-economic status, reflecting the influence of past racialised patterns of artisan preparation. This is the tiny group that actively chose an apprenticeship as a first choice option.

Most individuals were likely to enter an apprenticeship after two or three transitions, undertaking one or two activities after leaving school, such as work, or study or spending a period unemployed. Those who were unemployed immediately after leaving school were unlikely to enter an apprenticeship, only 9% of the sample. The majority entered into an apprenticeship after first studying something else (56%) or working (29%) after leaving school. These trends suggest that the system is not attracting those without clear options or proven abilities, but during the period of NSDSII, the apprenticeship system has widened access to education and training opportunities.

African participants were least likely to enter directly from school or after first working, and were most likely to first study, or study and work part-time. Coloured participants were most likely to work first. Women were attracted to apprenticeships at a later point than young men, and were more likely to study first. What we could not establish is whether they had completed those studies before proceeding to the apprenticeship, or whether the job or studies were related to the subsequent apprenticeship, which would indicate a career path and progression. It does seem clear however, that an apprenticeship is not a first choice education and training route that is highly valued by many young people. Africans, females and those with lower socio-economic status were more likely to experience a more complicated trajectory of entry into the system. We need further research to establish why the apprenticeship is not an option of choice, and why it is so difficult for those who are unemployed to access the apprenticeship system.

Policy Issue 6: *Extend knowledge and shift general perceptions of young people, their parents and employers, to promote learnership and apprenticeship as viable and valuable post-school vocational education and training options.*

Policy issue 7: *Enhance the capacity of SETAs to market skills development programmes more effectively, particularly a public interface for enrolment.*

Policy Issue 8: *Deepen shifts in more equitable gender, racial and SES patterns of enrolment, particularly in priority sectors.*

Research Issue 4: *Why are Africans, females and those with lower socio-economic status more likely to have a 'zig-zag' trajectory of entry into the apprenticeship system?*

1.5 WHO COMPLETES A LEARNERSHIP AND APPRENTICESHIP?

We do not have accurate data to assess the length of time taken to complete a programme, but we do have data that suggests high proportions of completion of learnerships and low proportions of drop out.

More than two thirds, 65% of those who had first registered for a learnership in year 1, 2005, had completed the qualification by 2007. Only 15% had dropped out without completing their programme, typically after less than six months, and typically because of dissatisfaction with the quality of the training in the workplace or in the theoretical component. A fifth of the cohort were still busy with longer programmes, and they tended to be enrolled on programmes at a higher level than their existing qualification, indicating progression up an occupational and career ladder, typically in FASSET and BankSETA.

When we went back to survey this cohort in 2010, 86% had completed the qualification, and 14% had terminated, suggesting that almost all of those who were still registered in 2007 had completed subsequently. These completion rates are very high, and positive, particularly in comparison with the higher education sector, where drop-out rates are very high and completion takes extended periods.

Completion rates for apprenticeship could not be established as clearly, as we only surveyed a single cohort in 2010. The largest group was still in training, but 45% of the sample had completed their apprenticeship at that point. The majority of those who completed were Section 28 apprentices, those who had been in employment and were ready to take the trade test, based on their experience (34%). This stands in contrast to enrolment patterns, where the majority was Section 13 apprentices, those who are formally indentured to an employer. What is evident is that a very low 4% of the sample terminated or actively left the programme without completing. Once in an apprenticeship programme, participants appear to appreciate its potential value.

Registration and completion of an apprenticeship programme is only the first step to artisanal certification however, which requires successful completion of a trade test. Our analysis of trends at the largest public testing system, INDLELA highlighted a high degree of wastage and inefficiency in the assessment system (Janse Van Rensburg et al, 2011). Only 41% of candidates actually passed in year 5, and for almost 30% of these candidates, this was their second, third or even sixth attempt at passing the final proficiency test. This raises quality concerns about the skills and capabilities imparted through the apprenticeship pathway system that will be explored further in Section Three below.

Research Issue 5: Investigate in greater depth the causes of the low pass rates for the artisanal trade tests.

In general then, a high proportion of participants see sufficient value in their learnership and apprenticeship, so that they complete the qualification. Bearing in mind the assertions by Pauw et al (2009), the question remains whether this is a misguided assumption, or whether employability is enhanced through completion of the programme. The next section therefore analyses transitions and trajectories into and through the labour market.

2. SECTION TWO: WHAT ARE THE DIFFERENT TRAJECTORIES IN THE TRANSITIONS TO EMPLOYMENT?

We need to understand how well the learnership and apprenticeship pathway systems work as institutional arrangements for youth transitions to the labour market, and for skills upgrading at all levels within firms. We begin by considering some of the conceptual distinctions we drew from the pathways literature, to inform our analysis, and then this section primarily considers the evidence presented in the Survey Report (Wildschut et al, 2011).

More complex analysis is required of patterns of individual processes of transition, outcomes and progression evident in practice. The means conventionally used to do this kind of analysis relies on the use of micro-level data to identify the differentiated patterns of individual 'navigations' of pathways, which can then be aggregated to the national level (Raffe, 2008). A key research insight is that individual pathways are typically not linear, but may take multiple twists and turns (Harris & Rainey, 2006). This was evident in our analysis above of access into the apprenticeship. Entry to the labour market is not necessarily a once-off occurrence. The changing nature of work, technology and occupational structures, and the decline of jobs in many economies, means that for many young people, there are likely to be periods of unemployment, of 'substandard' employment (in terms of the security and tenure of employment), more frequent changes of employer and more frequent changes of occupations, with a higher degree of mobility, than was the case in the past. A pattern is evident, particularly for those who are most socially disadvantaged, of 'interrupted transitions' and cyclical relocations between government schemes, formal education and training, unemployment and employment that is often insecure and low-paid (Simmons, 2009).

2.1 LEARNERSHIP AND APPRENTICESHIP SYSTEMS LEAD TO EMPLOYMENT

Thus, equipping young people for the workplace, or employability, is both relative and absolute (Brown, 2003). An individual may be employable because of their absolute skills, abilities and qualities but they may not succeed in obtaining employment because of relative conditions in the economy and labour market at a specific point in time (Simmons, 2009).

What is quite clear from our analysis is that there is a link between employment outcomes and the successful completion of a learnership or apprenticeship qualification. We found in aggregate, that both systems decrease the unemployment rate of participants, although the learnership system appears to have a more significant impact. Figures 2 and 3 show the unemployment rates relative to the national age norm for three groups – those who entered a

learnership or apprenticeship as unemployed (18.2), those unemployed after their first transition out of the learnership¹¹ or apprenticeship¹², and those unemployed as their final outcome at the time of the survey in 2010. It is evident that unemployment rates after the first transition and final outcomes are very low, far below the national age norm – whereas prior to the learnership or apprenticeship, unemployment rates were far higher than the national norm. The gain in employment is particularly marked for the youth. These participants have thus successfully shifted from a disproportionately higher unemployed rate, to a rate of employment higher than the national population. This is despite the context of global recession and economic downturn in South Africa by 2010. It also stands in stark contrast to low formal employment rates (48%) recorded in 2009 for individuals completing a qualification in the FET College sector (Gewer, 2010).

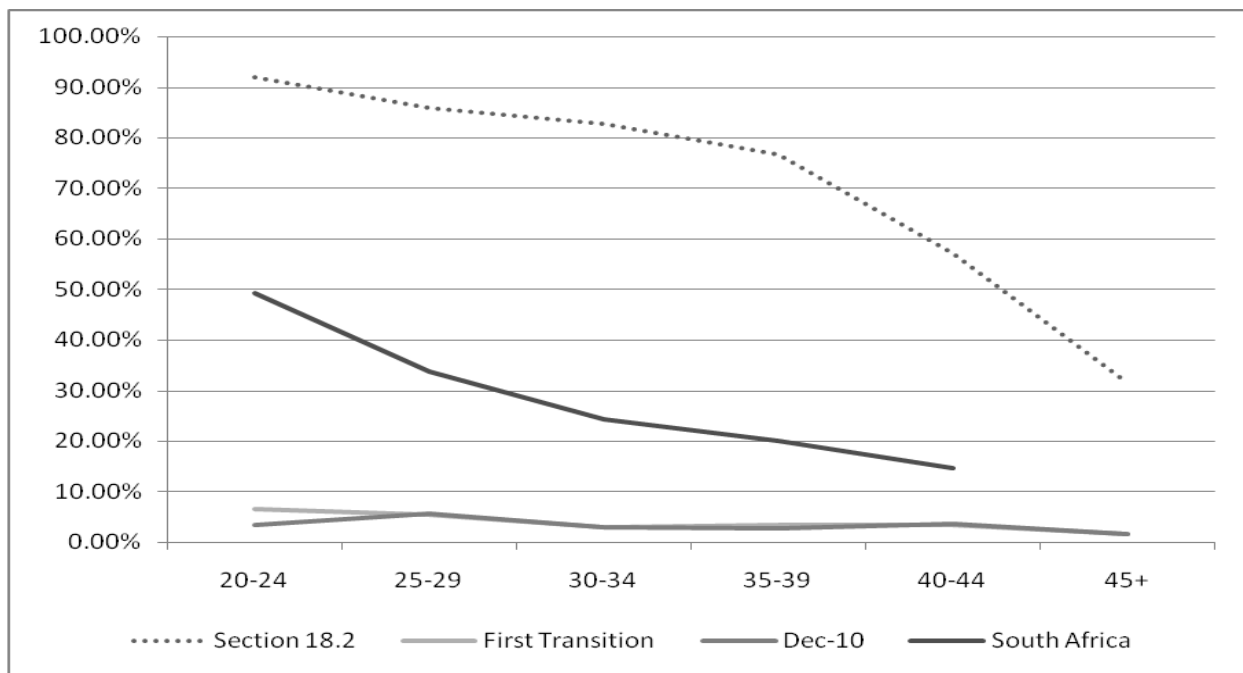


FIGURE 2: UNEMPLOYMENT RATE BY AGE FOR LEARNERSHIP PARTICIPANTS

¹¹ This learnership survey sample (2010) consisted of 2 524 participants, who were randomly sampled from a cohort of approximately 7 000 learners, who had registered in Year 1 of NSDS II (HSRC, 2007), and were first surveyed between June to September 2007.

¹² The apprenticeship survey sample (2010) consisted of 1 483 participants, who were randomly sampled from a population of 10 153 individuals in 5 SETAs (ESETA, CHIETA, TETA, MERSETA and SERVICES SETA), constituting over 80% of apprenticeship provision in the relevant year (Year 5 of NSDS II).

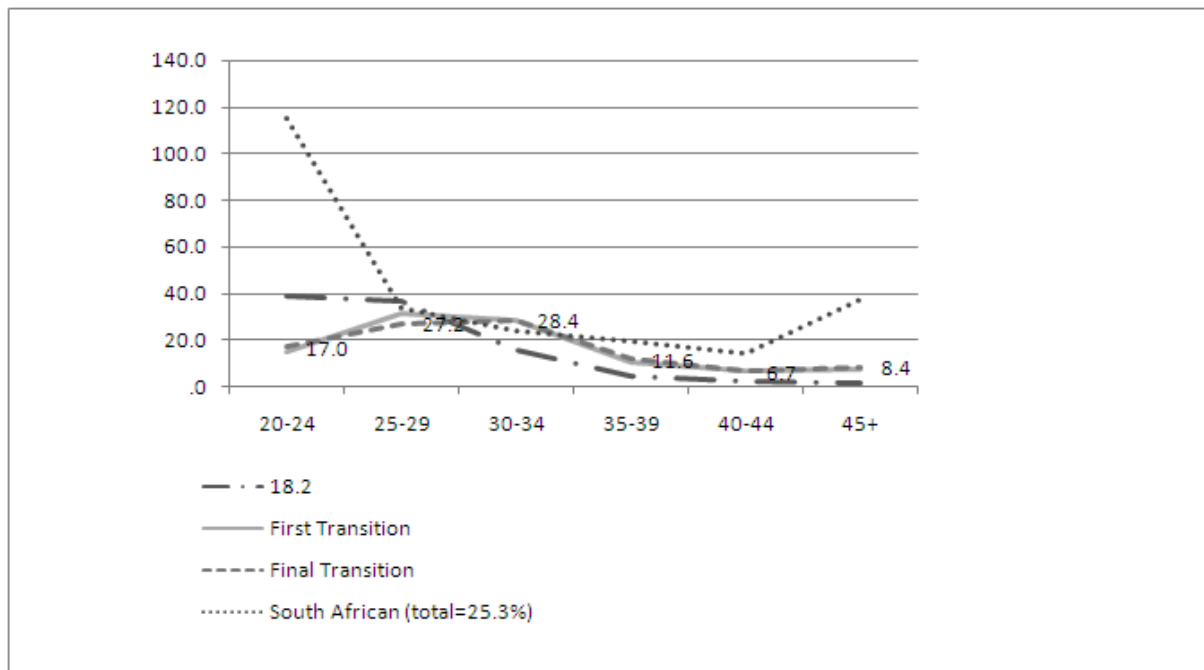


FIGURE 3: UNEMPLOYMENT RATE BY AGE FOR APPRENTICESHIP PARTICIPANTS

2.2 APPRENTICESHIP PATHWAYS AND EMPLOYMENT

It was clear that the majority of apprenticeship participants who completed the qualification experienced a smooth transition directly into employment (70%) with an overall 76% finding employment after slightly more complex trajectories. There was one individual for instance, who worked, was unemployed, then worked, was unemployed again, and finally was in employment at the time of the survey – but such experiences were the minority.

Participants may have accessed the labour market, but is this likely to be temporary or more substantive? This is particularly significant given the overall rise in casual and part-time work in South Africa over the past two decades, in the context of a new labour law dispensation (Leibbrandt et al, 2010). Just over half of the employed former apprentices found permanent employment (56%), while 40% was in less stable contract or temporary jobs, although only a minority was in the unstable type of casual employment (4.2%). The majority are absorbed by the private sector and large firms, while the public sector is also a significant employer, but there are very few who are self-employed or working in micro-enterprises.

Significantly, a high 90% of the group that was employed claimed that the job was related to their apprenticeship qualification, while 70% claimed that they required certification for their current job. Participants perceived the apprenticeship system as impacting positively on their overall employability and skills. In particular, 93% of this group claimed that the apprenticeship

qualification was an important factor to obtain adequate employment and to manage more responsibility in the workplace. The least positive outcome was promotion, which raises questions about the extent of firms' recognition of skills and upgrading.

The high overall employment rate of those who completed an apprenticeship derives from an increase in the employment rate of those who initially were employed (and these are most likely to be Section 28 apprentices). Section 13 apprentices were more likely to be still completing their apprenticeship programme. Of note however, is that Section 13 apprentices who had completed their qualification were over-represented in the groups who were working and studying, studying or unemployed, and were less likely to be employed. That is, they were less likely to follow the official pathway 'map' of 'school-> apprenticeship-> job'. We need to research why this is the case. Employers may not be offering trainees full-time employment on qualification, but it may also be related to the final artisanal certification process, given that very few Section 13 apprentices had passed the trade test.

However, a further group of 24% was unemployed on completing the apprenticeship, and 21% remained unemployed. This may simply represent a lag in finding employment, in the face of the current economic downturn. It may also be a result of processes of social and economic exclusion, because we found that those who were unemployed were slightly older than the average, were more likely to be African and female. Sectoral dynamics were also evident, as many of these individuals were in occupations linked to the Services sector, an over-representation relative to their proportion in the total sample. It is a concern though, that those with certification in scarce artisanal fields are unemployed, and this requires further investigation. The majority of the unemployed apprentices are still active work seekers, through formal mechanisms. This group spends their time looking for work or doing casual work, and they survive by receiving support from family or friends, or casual work.

Policy Issue 9: *Strengthen the mechanisms for the transition of qualified apprentices into stable labour market opportunities.*

Research Issue 6: *Why are Section 13 apprentices less likely to follow the official pathway map of 'school-apprenticeship-job'?*

Research issue 7: *Why do some apprentices who have completed their artisanal training remain unemployed?*

2.3 LEARNERSHIP PATHWAYS AND EMPLOYMENT

If we compare the experience of those who completed a learnership, we find similar trends but a stronger positive impact. An even higher 86% of those who completed a learnership were employed, the majority immediately after completing the learnership, and this was the most likely trajectory the cohort had taken. Most were absorbed by the formal sector, in large private firms or the public sector, with the largest proportion in the community, social and personal services economic sector, followed by finance and manufacturing. Of note is that 90% reported that they are employed in permanent positions. Disaggregation by occupational category suggested that the majority is employed in community and personal services, with sizable groups of professionals, technicians and trade workers, and those in clerical and administration occupations. Just over half were employed at the same work place as their experiential training, which highlights that roughly half of employers who train are not employing the skilled talent that they have nurtured. However, an extremely positive indicator is that a learnership qualification appears to facilitate transition into stable employment opportunities for a sizable proportion of the cohort.

We also traced the trajectory of those who continued to study further after completing a learnership. Two thirds of those who are currently studying are involved in programmes concentrated between NQF level 1-3. Astonishingly, roughly 90% of these individuals had qualifications at NQF level 4 and above when they entered the learnership programme. Such further study it seems, is primarily motivated by a desire for occupational certification to enhance employability and labour market access rather than a means of career or academic advancement. The data points to the need for further in-depth study of certification and career paths in the specific sectors where these trends are most commonly found.

Research Issue 8: *Why do firms not employ those they have invested in training through a learnership?*

Research issue 9: *What are the certification and career paths in specific sectors that lead some who have completed a learnership to enroll for another qualification at lower NQF levels?*

A vignette in Box 1 below illustrates the experience of an individual whose life has taken this trajectory of studying further in a positive manner, illustrating how progression is possible.

Box 1: AN INDIVIDUAL TRAJECTORY

Mr X is an African male, 30 years of age, who completed a learnership through ESETA. He is from a humble background, living in an informal dwelling in a backyard. He is single, but lists one adult as a dependent. He uses public transport and his female guardian is listed as not working outside of the home. His SES score falls in the bottom 2% of the sample.

He attended school in a rural area, growing up in central KwaZulu-Natal, having now migrated to live in Gauteng. His highest qualification prior to the learnership was Matric. He completed his learnership and received a National Certificate in Electrical Engineering (Electrical Construction) at NQF Level 2. He perceives participation in the learnership to have imparted technical, computer, numeracy, language and literacy, teamwork skills and self-confidence. He has worked at three different jobs since 2006 until he decided to study again in 2010.

He is now studying towards a Diploma in Education at NQF level 5 (a 3 year qualification) at a university, while still working part time. He is studying further because he feels that this qualification will enable him to find work in an area of scarce skills, and also to gain a higher level of formal qualification. He is being supported by his parents in terms of his study expenses.

2.3.1 HIGH LIKELIHOOD FOR UNCOMPLICATED TRAJECTORIES BUT CONTINUED PATTERNS OF INEQUALITY

Contrary to the expectation of complex or 'interrupted' individual navigations from skills development programmes into the workplace, we found that the majority experienced relatively straightforward trajectories. Our analysis indicated the high likelihood of a single transition into work after leaving both the apprenticeship and learnership pathway systems, indicating a relatively seamless link. For the learnership system, where more time had elapsed, 95% of the sample experienced two transitions - or moves between working, studying or unemployment - since completion of the qualification and their present status in 2010.

This trend related in the main to individuals who completed their qualification, and points to the importance of gaining the qualification to ensure employment, as opposed to just participating in the system. Our analysis highlighted that the two qualifications enhance employability for the majority – but not all participants. Significantly, the analysis of individual navigations as opposed to official 'maps' allowed us to identify which groups were likely to have more complex trajectories, in terms of race, gender, age, location or socio-economic status. It also allowed us to identify where the link between learnership, apprenticeship and the workplace is problematic, in terms of specific sectors, occupations and skills levels.

More complex analysis of the racialised, gendered and socio-economic, patterns of individual participation and progression is required. In the main, it appears that skills formation through the learnership and apprenticeship pathway systems has not yet significantly shifted past patterns of inequality and social exclusion. Our analysis of both pathway systems illustrated the continued impact of these variables on access to the labour market and on the nature of

trajectories and outcomes. Although there are signs that access to the labour market is moving away from former race-based to a class-based form of discrimination, the close intersection between race and socio-economic status still confounds clearer assessments. African learnership participants still complete at a significantly lower rate and have more complex trajectories, than other race groups, and SES continues to be closely related to earnings potential. The trends thus proved to be in line with assertions that we are more likely to find a pattern of 'interrupted transitions' and cyclical relocations for those who are most socially disadvantaged (Simmons, 2009).

Participation in the apprenticeship system appears to have intervened so that the socio-economic status of a participant has less of an impact on their final labour market outcome. In other words, the relationship between SES and the propensity of employment after participation in an apprenticeship is not linear, as one might expect. In general, the apprenticeship pathway system seems more successful in impacting positively on the prospects of employed individuals, in comparison with new entrants into the labour market.

Policy issue 10: *Identify mechanisms to support the labour market transitions of those who are most vulnerable in terms of race, gender and SES, to shift patterns of exclusion and enhance equity.*

Research issue 10: *Follow the learnership and apprenticeship cohorts in three years time, to assess labour market outcomes in greater detail.*

Research issue 11: *Deepen analysis of trajectories and labour market outcomes in scarce and critical skills areas.*

3. SECTION THREE: HOW DO THE LEARNERSHIP AND APPRENTICESHIP PATHWAY SYSTEMS BUILD SKILLS AND CAPABILITIES THAT ENHANCE EMPLOYMENT?

3.1 SKILLING AT ALL LEVELS, BUT MISSING NUMERACY, COMPUTER AND TECHNICAL SKILLS

The question still remains how the learnership and apprenticeship programme developed the skills and capabilities that enabled individuals to access the workplace, and whether these are the higher levels and different or newer kinds of skills that will enhance national learning capabilities in firms.

Lall (2001) presents a powerful argument that it is not simply the case that each individual should have qualifications at higher levels, but that at *each level of the workforce*, new kinds of skills are required for technological advancement and moving the economy as a whole to higher levels of development. For instance, at the level of workers, we may need a larger pool of better educated and trained workers who have sound literacy, numeracy and information technology capabilities, and who have the communicative skills for teamwork, flexibility, the attitudes that allow them to respond to changes in production processes and to learn to use new technologies and so on. The ability to handle electronic and computerised production processes, new continuous improvement operating approaches, increased regulatory and quality assurance systems, and cutting edge technologies becomes increasingly critical. We can identify the kinds of skills and capabilities required at each level in this way, whether technical, supervisory, engineering, managing or marketing levels.

Hence, what is important is whether learnerships and apprenticeships are developing these new kinds of skills and capabilities through the integrated training offered, whether at basic and intermediate or high skills levels. Section Three assess this first, by drawing on the perceptions of individuals as analysed in the Survey Report. Second, it highlights the experience of trainers, firms and SETAs in relation to the institutional dynamics evident in selected sectors, as presented in the Case Study Reports (HSRC 2011a, 2011b; Wildschut, 2011).

When we analysed the perceived impact on the *specific skills* participants developed, we gained a less positive picture. Most individuals who completed a learnership were positive about the acquisition of 'soft' or generic skills such as team work and self confidence, but of concern, very few reported that their technical, computer and numeracy skills had been developed. Just over half reported that no qualification was necessary for their current job, and more than a quarter

reported no positive employability outcomes at all. This suggests that these qualifications may serve as an indication of employability to employers, rather than a capability for specific skills required in a sectoral labour market. This is not entirely negative, as this function adds to labour market efficiency by signaling who is employable. In a country where employers assert that they are unsure of the skills and capabilities linked to a matriculation qualification for instance, there is value in a system that at the very least converts these into an indication of employability.

The perceptions of those with an apprenticeship qualification were more positive about the skills developed – an overwhelming majority claimed that their technical, team-work, self-confidence and language skills had been developed, and about two thirds were positive about numeracy skills. The major negative area and a major concern at artisanal level, was computer skills, which only a quarter rated positively.

3.2 SKILLS AND TECHNOLOGICAL DEVELOPMENT: THE CASE OF A MISMATCH IN PROVISION

Evidence from our case studies raised alarm bells about the mismatch between the skills and capabilities developed during training and those required in the workplace. We do not have evidence on how widespread such problems are across the system, but here we provide one example to illustrate the challenges faced.

The case study focused on artisanal training in the manufacturing, engineering and related sectors, which occurs through both learnership and apprenticeship routes, the latter being offered in the traditional mode as well as through an accelerated priority programme. The accelerated route had the advantage of producing more artisans more quickly, but it was widely acknowledged that those who qualified would still require up to two more years of practical experience to be fully competent artisans (see also NBI, 2009).

Employers, trainers and SETA employees in the metal, motor and new tyre and plastics sectors all raised serious concerns about the adequacy of these artisanal qualifications, essentially because *“the curriculum content and the trade test requirements are out-dated”*. Industry involvement in determining the technological content of the curriculum and setting standards was seen as insufficient, and there are not sufficiently skilled subject experts to develop material. Firms claimed that international material could rather be used if adapted to the South African context, particularly to suit literacy and numeracy levels.

A number of instances were cited that help to explain the poor pass rates we observed on the trade tests (see Section One above) and raise questions about the in/adequacy of skills and

capabilities. In the metal sector, firms reported that some of the curriculum content as well as the trade test dated from the 1950s. They had to keep obsolete equipment simply to allow apprentices to practice in preparation for the trade test. Firms then had to devise their own training to suit current production processes. Where learners did not come in with required entrance qualifications and abilities, they could not cope with the learning required, and hence, could not pass the trade test. The prevailing attitude amongst learners was reported to be one of 'how do I pass the trade test' rather than building on achieved competence and preparation in key learning areas in ways that are flexible and responsive to change. In the motor sector, these practices were equally rife, but the problem was seen as even more urgent - competitiveness in the automotive sector is driven by constant technological changes that require a constant up-date of skills to keep artisans at the standard of the latest global developments. A concern was the lack of problem solving skills, to understand how systems work, and diagnose faults. These were not being adequately developed, partly because of shifts in technology, with the increased use of computerized diagnostics, and partly because of a conflict between production time and training time.

An im/balance and mis/alignment between the practical and theoretical components of the training was a further concern. In the metal sector, the learnership route was considered to equip future artisans more holistically, particularly on the soft skills required, but with the risk of a lack of technical exposure and insufficient workplace experience. Other problems reported were that the practice component was not sufficiently monitored, or theoretical learning was not occurring in institutions, but through self-study material. Training providers tended to be defensive about the quality of their training, typically viewing it as a good preparation for the workplace, on the grounds that their training standards are in accordance with SAQA registered qualifications. They claimed that they were not allowed to deviate from the SAQA qualification, so as one provider admitted, 'you are forced to train what you already know is wrong'. The need for closer involvement and stronger linkage with public sector institutions was stressed.

In general, reported shortcomings in the curriculum, flaws in the integration of theory and structured work-experience, poor assessment standards and a lack of alignment raised serious concerns about the quality of artisanal training provided. This is where the real gap between official 'maps' and the actual navigations of individuals through a pathway system becomes clear. Individuals with formal certification but without the requisite skills and capabilities will not allow firms to absorb or adapt new technologies and keep up with the global technological cutting edge. The extent to which skills certification translates to skills and capabilities in the workplace is the real test, and this is the critical challenge facing skills development systems. The following section thus goes on to contrast how a sectoral learnership pathway system can work well, to inform policy debate to address this critical challenge.

Policy issue 11: Address concerns about the quality of theoretical and experiential learning, and the alignment between them.

Policy issue 12: Strengthen alignment between the quality of apprenticeship and learnership programmes and the trade test system to improve artisanal pass rates and to ensure skills and capabilities match firm demand.

Research issue 9: Investigate the role of SAQA and the relationship between SAQA, firms and training providers in determining curricula and assessment standards.

3.3 HOW DO WE STRENGTHEN PATHWAY SYSTEMS?

Learnerships are by definition “stakeholder-rich interventions”, which have to be implemented in a multidimensional environment consisting of multiple stakeholders and the often complex interactions between them (Davies & Farquharson, 2004). The metal sector case illustrated that the mechanisms used, and how well these parties interact to ensure that the theoretical courses and experiential learning are aligned, makes a critical difference to the quality of skills and capabilities developed. Here we provide a contrast example to illustrate what is possible when the alignment works well.

The focus is on FASSET, which offers the majority of high skill level qualifications, specifically, on the chartered accountancy learnership. The theoretical foundation is provided by public universities, and the SETA works in close coordination with the professional regulatory body, SAICA, and with firms to manage the work experience component. The qualification is highly valued, and believed to equip trainees very well for the workplace, especially in terms of technical skills, as attested by local and international acceptance of the qualification, high placement rates and salary levels. There were of course problems noted about aspects of the programme, particularly when pursued part-time, and in relation to the development of soft skills, but our concern here is to illustrate the mechanisms that facilitate the generally positive alignment and facilitation of transition to the workplace.

The long history of workplace-based training in the sector undoubtedly facilitated the introduction of learnerships, as has the fact that the qualification relates to an established profession with a continued and strong industry demand. This set of factors is not easily replicated in other sectors and all occupational categories. However, the sound preparation of learners was also found to be strongly related to the way the learnership pathway system is structured and implemented, and this can be replicated.

At its core is a well-defined division of roles and a complementary working relationship between SAICA - as a recognised professional regulatory body accepted by industry that manages implementation and quality assurance – and FASSET - as a facilitation agent for the sector that establishes market needs and matches its education and training measure through

consultation to those requirements. The learnership qualification is regulated through a competency framework developed by SAICA that prescribes responsibilities and requirements through the curriculum. The framework ensures the alignment of theory with practice and relates all learning back to competencies as they are required in the profession at entry level. It regulates assessment standards by providing clear learning pathways and at the same time strict guidance to all stakeholders. Three to five years of work experience provide for sufficient practical exposure in the workplace. Examinations follow a set national standard in order to maintain the high status of the qualification and to ensure recognition in the industry. That is - there are no short-cuts to good quality vocational and occupational education and training.

An existing international competency framework was utilised and adapted through consultation with employers and providers to the South African context. The qualification has thus been driven by industry demands in terms of required skills and capabilities. Continuous consultation with both universities and firms keeps the framework up to date and ensures alignment. SAICA was reported to regulate alignment well, managing the 'old debate between universities and business: The university wants it as theoretical as can be and the business wants it a lot more practical'. A reflective and consultative practice in the qualification design process appears critical to adequately match skills demands. Internal quality assurance mechanisms are implemented in both universities and firms that offer workplace experience. Depending on the size of the firm, workplace procedures and incentives were put in place to guide the work-based experience in line with the competency framework, such as induction sessions, job rotation plans, job assignments, simulation training, incentive bonuses or promotions. A personal counselor or mentor system for each trainee and additional in-house and external technical and professional training are also common. External quality assurance by a range of bodies further contributes to quality, centred on regular SAICA audits of universities and firms that are mandatory to maintain accreditation. It was reported that 'SAICA is ruthless in taking rights away from training offices' if shortcomings are not addressed within a given period. Firms were also reviewed by other professional bodies, as were universities through academic review panels.

In this illustrative case, the institutional and structural arrangements between education, the labour market, the production system and other social and economic institutions facilitate labour market transition very well. It is possible to replicate and construct such a pathway system more systematically in other sectors.

Policy issue 13: *Strengthen the alignment between the structures, frameworks and (internal and external) mechanisms that enhance interaction between SETAs, firms, education and training providers and intermediary organizations, to improve the quality of curriculum and assessment standards.*

IN CONCLUSION: THE NEED TO GROW AND STRENGTHEN LEARNERSHIP AND APPRENTICESHIP PATHWAY SYSTEMS

We began the project aware of the lack of data to address the ‘big policy questions’ and have attempted to develop both credible datasets and methodologies that can be used for regular monitoring and evaluation in future.

The policy implications are clear: contrary to the widespread negative perceptions, the learnership and apprenticeship pathway systems have had a positive – but very limited - impact as skills development mechanisms in the period of NSDSII.

Their impact is positive because, taken as a whole the learnership and apprenticeship pathway systems are meeting national performance targets. They have increased access to vocational training and skills development for female, black and low SES individuals, whose participation in these two pathway systems is proportionately greater than their participation in FET or higher education pathway systems.

However, these national performance targets themselves are limited – they do not take the demand for new kinds of skills from firms in specific sectors’ sufficiently into account, nor do they take into account the high need for education and training on the part of large numbers of young school leavers.

Nevertheless, their impact is positive because the vast majority of individuals who registered in year 1 of NSDSII completed their learnership qualification and very few dropped out without completing. And the majority of these individuals successfully made a transition to the labour market, and was employed a few years later, in year 5 of NSDSII. They were employed in a fairly stable manner, in the formal sector, predominantly in basic and intermediate skills levels jobs. We did not have a longitudinal lens on the revived apprenticeship system, but it appears to have a similar pattern, although trends are not as strongly positive, and as yet, more limited.

Thus, the majority of those with learnerships and apprenticeship qualifications are accessing the workplace, and in a fairly straightforward trajectory, with only one or two transitions after completing the integrated programme of theoretical and workplace learning.

There are limits dictated by significant sectoral differences, and historical patterns of exclusion and inequality are not sufficiently shifting. Positive employment outcomes are least likely and more complex ‘zig-zag’ trajectories are most likely for women, those with low socio-economic status, those who are African and those with low educational levels.

A negative trend is the lack of progression in the post-school system. A large proportion of those who enroll for learnerships or apprenticeships are matriculants, who pursue certification

at the same or lower NQF levels, and some who complete go on to study further at lower NQF levels. There is a clear argument to support calls for better articulation, progression and routes for individual advancement in the post-school sector.

A further negative trend is that most of these vocational and occupational qualifications are attained at the basic and intermediate skills levels. We can also interpret the concentration at lower skills levels more positively, in the light of the need for a multi-level skills strategy in South Africa. In this sense, the learnership and apprenticeship pathway systems play a potentially critical role in expanding education and training opportunities to complement the existing public and private higher education and further education pathway systems.

The most negative – and deeply problematic - aspect relates to the kinds of skills and capabilities imparted, which varies widely between sectors and occupations. Both the learnership and apprenticeship pathway systems in specific sectors do not operate optimally. There is not a strong enough alignment between SETAs, education and training providers and firms in determining and regularly updating curricula frameworks and assessment standards such that they match industry demand, and particularly, so that they keep up with shifting global technological developments. The institutional and structural arrangements between education, the labour market, the production system and other social and economic institutions do not always facilitate appropriate, responsive and up-to-date development of skills and capabilities that will enhance global competitiveness.

Box 2 below summarises the policy issues identified in the course of the analysis, to contribute towards outlining the nature of the task ahead. The limitations and negative trends identified from analysis of the trajectories and navigations of individuals provide important indications on how these pathway systems could be better aligned and strengthened. In the course of the analysis, a number of issues that require further research were identified, and these are summarized in Box 3 below.

On balance, the evidence sufficiently tilts towards an overall positive assessment. It leads to the recommendation that the learnerships and apprenticeship pathway systems should be extended in scale and reach, to encompass more young people, on a more equitable basis, and in a more effective way that builds national learning capabilities.

Policy issue 1: Strengthen the capacity of SETAs to forecast skills supply in relation to sectoral and spatial demand, to inform targets for skills development.

Policy issue 2: Identify ways to extend the reach of SETAs into all nine provinces, to offer skills development opportunities on a more decentralized basis.

Policy issue 3: Extend the scale of learnerships and apprenticeships to offer alternative skills development pathways to a larger proportion of the youth than at present.

Policy issue 4: Shift the balance of learnership programmes offered at basic and intermediate skills levels towards more opportunities at the intermediate and high skills levels, in order to facilitate better articulation in the post-school system.

Policy issue 5: Set targets to balance provision for upskilling the employed and skilling young school leavers on a sectoral basis.

Policy issue 6: Extend knowledge and shift general perceptions of young people, their parents and employers, to promote learnership and apprenticeship as viable and valuable post-school vocational education and training options.

Policy issue 7: Enhance the capacity of SETAs to market skills development programmes more effectively, particularly a public interface for enrolment

Policy issue 8: Deepen shifts towards more equitable gender, racial and SES patterns of enrolment, particularly in priority sectors.

Policy Issue 9: Strengthen the mechanisms for the transition of qualified apprentices into stable labour market opportunities.

Policy issue 10: Identify mechanisms to support the labour market transitions of those who are most vulnerable in terms of race, gender and SES, to shift patterns of exclusion and enhance equity.

Policy issue 11: Address concerns about the quality and alignment of theoretical and experiential learning.

Policy issue 12: Strengthen alignment between the quality of apprenticeship and learnership programmes and the trade test system to improve artisanal pass rates and to ensure skills and capabilities match firm demand.

Policy issue 13: Strengthen the structures, frameworks and (internal and external) mechanisms that enhance interaction between SETAs, firms, education and training providers, and intermediary organizations to improve quality curriculum and assessment standards.

Research issue 1: Investigate how SETAs' targets and learnership programmes are informed by firm demand, and particularly, why so many learnership programmes are offered at basic skills level, in diverse sectors.

Research issue 2: Investigate the total scale of current provision of scarce artisanal skills through apprenticeship, learnership, FET college and recognition of prior learning routes .

Research issue 3: Investigate the causes of a shift to enroll more employed participants in the learnership system, and the likely future trajectory.

Research issue 4: Why are Africans, females and those with lower socio-economic status more likely to have a 'zig-zag' trajectory of entry into the apprenticeship system?

Research issue 5: Investigate in greater depth the causes of the low pass rates for the artisanal trade tests.

Research issue 6: Why are section 13 apprentices less likely to follow the official pathway maps of 'school-apprenticeship-job'?

Research issue 7: Why do some apprentices who have completed their artisanal training remain unemployed?

Research Issue 8: Why do firms not employ those they have invested in training through a learnership?

Research issue 9: Investigate the role of SAQA and the relationship between SAQA, firms and training providers in determining curricula and assessment standards.

Research issue 10: Follow the learnership and apprenticeship cohorts in three years time, to assess labour market outcomes in greater detail.

Research issue 11: Deepen analysis of trajectories and labour market outcomes in scarce and critical skills areas.

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