

Ministerial Committee on the review of the funding frameworks of TVET Colleges and CET colleges

Information Report and Appendices

for presentation to

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Minister of Higher Education and Training

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Foreword

On behalf of the Ministerial Committee on the review of the funding frameworks of TVET Colleges and CET colleges, I wish to take this opportunity to express our gratitude to the Minister of Higher Education and Training, Dr Blade Nzimande, M.P., for affording us an opportunity to make contributions that will hopefully contribute to the strengthening of the TVET and CET Colleges. Since being appointed as Minister of Higher Education and Training in 2009, Dr Nzimande has brought the importance of these institutions for the development of our economy to the forefront and has contributed in meaningful and notable ways to the strengthening of the TVET College sector and the establishment of CET Colleges. These institutions were often neglected in budget allocations and development initiatives in various provinces. It is of utmost importance to ensure that these colleges are appropriately resourced and developed to enable them to fast-track the delivery of middle-level skilled individuals and fulfil their role in strengthening the economy and to enhance social mobility.

As cited in this report, the role of technical and vocational education and training is particularly crucial to the development of the country's manufacturing sector which at this point is seriously underdeveloped, given the country's level of development. The Community Education and Training Colleges will provide access to many marginalised South Africans who need skills to improve their quality of life. These Colleges will play a crucial role in addressing the approximately current three million NEETs which are the youth between the ages of 18 to 24 who are not in employment, education or training.

The poor outputs from these Colleges have been attributed to inadequate resourcing, a dire need for capacity development, lack of appropriate learning support materials, absence of appropriate student support services, inappropriate programmes and poor coordination of efforts. It is imperative that the Government's efforts will have to be supplemented with investments from local government as well as the private sector, the NSF and the SETAs.

Funding allocations did not keep pace with the huge increases in enrolments aimed at widening access, which led to high levels of under funding which is not sustainable in the long run. It is imperative that a balance be achieved in resource allocations and development initiatives for the various sectors of the post-school education and training system. More resources have to be mobilised from more sectors of society to put these Colleges on a healthy growth trajectory offering relevant and high-quality programmes with much higher levels of student success rates.

It is believed that this report will be a valuable input for the National Plan for Post-Secondary Education and Training which is currently being developed by various task teams appointed by the Minister of Higher Education and Training, Dr Blade Nzimande, M.P.

Dr Charles Sheppard

Chairperson: Ministerial Committee on the review of the funding frameworks of TVET Colleges and CET colleges

Executive summary

1. This is the **Information report** which formed the source for the compilation of the **Final report** of the Minister of Education's Ministerial Committee on the review of the funding frameworks of TVET Colleges and CET colleges set up in the *Government Gazette* of 3 October 2014 .
2. This substantial document comprises five sections, twelve chapters and six appendices of background papers, including two on funding formulae for TVET and Community Colleges respectively.
3. **Section 1** with **Chapter 1** lays out the details of the two briefs given to the Committee.
4. **Section 2** looks at the broad national context and the current TVET College and Community Learning Centre systems.
5. **Chapter 2** on the **Economy and Education** looks at the interaction between the economy and education and argues that though the education provides a foundation for development, its contribution to economic and social well being depends on its quality (i.e. its ability to transmit skills and knowledge) and the responsiveness of the economy in ensuring a demand for educated labour. In the economic development context in South Africa, the role of technical and vocational education and training is particularly crucial to the development of the country's manufacturing sector which at this point is seriously underdeveloped given the country's level of development.
6. **Chapter 3** examines **Post-school education as a public good** and proposes that there are social justice imperatives that drive the agenda for continuing to provide education even to those who have left the formal schooling system in any given society. In the context of South Africa, it means that the greater the proportion of the population that has completed secondary education and has acquired some skill to bargain with at the labour market, the better opportunity will be distributed in the population in general. South Africa currently lacks having a majority of working people have acquired a post-secondary school qualification. Attempts to address this lack in the post-school education system have until recently put the focus on TVET colleges only, but even these institutions do not yet function optimally. Adult education of a more basic type remains lacklustre in spite of the Community College policy proposals. Five principles that should inform the funding of post-school education are access, diversification of programmes, articulation, differentiation of institutions, and capacity building.
7. **Chapter 4** provides **An overview of post-school education and training** which briefly

8. **Chapter 5** describes the **Technical and Vocational Education Colleges**, their history, institutional form and the transfer from provincial to national oversight, programmes and current low throughput rates, inadequately qualified lecturers, insufficient industry-linked experience, and a limited programme qualification mix, with a lack of programmes relevant to local communities and industry. Their current funding is insufficient (and growingly so) and inequitable (because grants are based on historical provincial allocations).
9. **Chapter 6**, on **The Community Learning Centres** (what were previously provincially run Public Adult Learning Centres, now nominally part of nine virtual Community Colleges) examines their programmes, chronic underfunding and staffing with underqualified temporary educators. New policy on the new institutional form of “Community Colleges” is still at a largely vision stage with as yet no actual pilots of what would be district based Community Colleges with a number of attached Community Learning Centres and in turn satellites of these. **Appendix 1** has a fuller study on the Public Adult Learning Centre system.
10. **Section 3** is a single Chapter 7 which is a summary of a literature study on **International post-school systems** that looks at the shape, functioning and funding of these systems. Appendix 2 and Appendix 3 have the full literature review on **Post-school systems in other countries** and also one on **The Brazil Skills Development System**.
11. **Section 4** has four chapters that examine **Programmes, Staffing, Monitoring and Evaluation and Research**.
12. **Chapter 8** is on **Programme offerings, differentiation and articulation** and describes the main “ministerially approved” subsidized programmes currently offered at TVET Colleges and in the Community Learning Centres.
13. **Chapter 9** looks at **Staffing** in the TVET Colleges and Community Colleges and discusses the need for various forms of training of educators, management and support staff and looks at the principles for adequate staffing.
14. **Chapter 10** on **Monitoring, evaluation and research** explains the necessity for these in a sector where these have been very weak and underdeveloped. The role of universities in supporting these is also outlined.
15. **Section 5, Towards recommendations for the funding of TVET and Community Colleges** completes the information report with **Chapter 11** on **Funding models** and **Chapter 12** which has the Committee’s 58 recommendations on **A funding framework for colleges**.

Abbreviations

ABET	Adult Basic Education and Training
ABET 1	ABET level 1 equivalent to school grades 1 to 3
ABET 2	ABET level 1 equivalent to school grades 4 to 5
ABET 3	ABET level 1 equivalent to school grades 6 to 7
ABET 4	ABET level 1 equivalent to school grades 8 to 9
ACET	Adult and Community Education and Training
AdvCert	Advanced Certificate
AdvDip	Advanced Diploma
AET	Adult Education and Training
AET 1	DHET term for ABET level 1
AET 2	DHET term for ABET level 2
AET 3	DHET term for ABET level 3
AET 4	DHET term for ABET level 4
AETC	Adult Education and Training Centre
AHC	Ancillary Health Care
ALC	Adult Learning Centre
ANA	Annual National Assessments
CAPEX	Capital expenditure
CAPS	Curriculum Assessment Policy Statements
CAT	Credit Accumulation and Transfer
CC	Community College
CEM	Council of Education Ministers
CESM	Classification of Educational Subject Matter
CET	Community Education and Training
CET	Continuing Education and Training
CET	Centre Evaluation Team
CETC	Community Education and Training Centre
CETCAE	Community Education and Training College Administrative Centre
CGB	Centre Governing Body
CHE	Council on Higher Education
CLC	Community Learning Centre
CPI	Consumer Price Index
CSO	Civil Society Organisation
DBE	Department of Basic Education
DHET	Department of Higher Education and Training
Dip	Diploma
DOE	Department of Education
DOL	Department of Labour

ECD	Early Childhood Development
EMIS	Education Management Information System
ETDP	Education Training and Development Practices
FET	Further Education and Training
FETC	Further Education and Training College
FMS&G	Financial Management Systems and Guidelines
FTE	Full Time Equivalent
GETC	General Education and Training Certificate
GETC: ABET	General Education and Training Certificate: Adult Basic Education and Training
GETCA	General Education and Training Certificate for Adults
GDP	Gross Domestic Product
GRAP	Generally Recognised Accounting Practice
HBU	Historically Black University
HCert	Higher Certificate
HDI	Human Development Index
HEDCOM	Heads of Education Committee
HEQC	Higher Education Quality Committee
HEQSF	Higher Education Qualification Sub-framework
HESA	Higher Education South Africa
HET	Higher Education and Training
HOD	Head of Department
HRD	Human Resources Development
HRDCSA	Human Resources Development Council of South Africa
HSRC	Human Sciences Research Council
ICT	Information and Communication Technology
IEB	Independent Examinations Board
ISCED	International Standard Classification of Education
IT	Information technology
JIPSA	Joint Initiative on Priority Skills Acquisition
LTSM	Learning and Teaching Support Material
MPI	Multidimensional Poverty Index
MTEC	Medium Term Expenditure Committee
MTEF	Medium Term Expenditure Framework
MTSF	Medium Term Strategic Framework

NAMB	National Artisan and Moderation Body
NASCA	National Senior Certificate for Adults
NATED	National Education [technical education programmes]
NC(V)	National Certificate (Vocational)
NDP	National Development Plan
NEET	Not in Employment, Education or Training
NGO	Non-Governmental Organisation
NLRD	National Learners' Records Database
NPDE	National Professional Diploma in Education
NPNC	Non-Personnel Non-Capital
NPO	Non-Profit Organisation
NQF	National Qualifications Framework
NSA	National Skills Authority
NSDS	National Skills Development Strategy
NSF	National Skills Fund
NSF-ALCs	Norms and Standards for Funding Adult Learning Centres
NSF-CCs	Norms and Standards for Community Colleges
NSF-FETCs	Norms and Standards for Funding Further Education and Training Colleges
NSFAS	National Student Financial Aid Scheme
NT	National Treasury
OBE	Outcomes-Based Education
PALC	Public Adult Learning Centre
PED	Provincial Education Department
PFMA	Public Finance Management Act
PGDip	Postgraduate Diploma
PIRLS	Progress in International Reading and Literacy Study
PQM	Programme and Qualifications Mix
PSET	Post School Education and Training
QC	Qualifications Council
QCTO	Qualifications Council for Trades and Occupations
Report 191	Report 191/National Technical Education (NATED)
RPL	Recognition of Prior learning

SACE	South African Council for Educators
SACMEQ	Southern and eastern Africa Consortium for Monitoring Educational Quality
SAICA	South African Institute of Chartered Accountants
SANCO	South African National Civic Organisation
SAQA	South African Qualifications Authority
SAIVCET	South African Institute for Vocational and Continuing Education and Training
SDL	Skills Development Levy
SET	Science, Engineering and Technology
SETA	Sector Education and Training Authority
SLA	Service Level Agreement
SMME	Small, Medium and Micro Enterprise
STF	Sectoral Training Fund
TIMSS	Trends in Mathematical and Science Study
TVET	Technical and Vocational Education and Training
TVETC	Technical and Vocational Education and Training College
Umalusi	Council for Quality Assurance in General and Further Education and Training
UNESCO	United Nations Educational Scientific and Cultural Organisation
UNISA	University of South Africa
VCET	Vocational and Continuing Education and Training
VCETC	Vocational and Continuing Education and Training College
VET	Vocational Education and Training
WIL	Work-integrated Learning

A note on the problems and standardisation of terminology

Rapid changing terminology is a noted problem in policy development. It is therefore always helpful to have a set of useful categories and terms available with which to describe policy proposals. Terminological confusion is endemic in South Africa. Because of the frequency of changes in name of various forms of education and training (and of their institutional forms) during the last two decades, we have attempted to standardise our usage of some terms and to employ terms that are in common international and South Africa use.

Adult Education and Training (AET)

Adult education (and training) is a huge field covering literally thousands of forms of education, formal, non-formal and informal, that is not categorised as formal schooling, college and university education and training. As a term it cannot be meaningfully restricted to the very limited formal offerings of schooling equivalent ABET and FET offered by Public Adult Learning Centres (as the Adult Education and Training Act of 2000 as amended attempted to do). This reports therefore tends not to use this term unless the context makes clear what is being spoken of.

Adult Basic Education and Training and Adult Further Education and Training

Adult Education and Training (AET) has recently replaced Adult Education and Training (ABET) in much official naming of various bodies and programmes. This is invariably a cause of confusion. In international terminology Adult Basic Education and Training refers to education and training that is more or less equivalent to compulsory schooling. Thus in South Africa Basic education refers to General Education (grades 1 to 9) – but in other countries ABET may be equivalent to twelve grades of schooling. It all depends on the length of compulsory schooling. The name of the Department of Basic Education is therefore itself confusing because it serves both compulsory schooling (Basic Education in grades 1 to 9) as well as some Further Education and Training (grades 10 to 12), the latter, though not compulsory, is nevertheless a very dominant part of the school system. Where we refer in this report to education and training for adults that is equivalent to school grades 1 to 9 we correctly use the term ABET, but for that which is equivalent to grades 10 to 12 we use the term AFET. We avoid the use of the term AET as, used correctly, this term covers all adult education and training at whatever level, formal and non-formal. Therefore, where reference is made to education and training that is equivalent to grades 1 to 12 (or to levels 1 to 4 on the National Qualifications Framework) we use **two** terms ABET and AFET.

Apprenticeship

A workplace based training programme for occupational trades

Certification rate

An output rate of the number of learners who successfully completed a qualification or programme as a percentage of the number of eligible candidates (who had completed all the course work and examinations)

Community College

A Community Education and Training College (CETC) and a Community College are the same thing. We have favoured that latter term. Exactly what is a Community College is currently obscure – it could be a yet to be piloted vision of a local institutions (somewhat like a North American Community College) or the current conglomeration of previous Public Adult Learning Centres in a province into a nominal legal structure.

Community Learning Centre

An ALC (Adult Learning Centre), a CETC (Community Education and Training Centre), a CLC (Community Learning Centre) and a PALC (Public Adult Learning Centre) are more or less the same thing conceptually. We favour the now official term Community Learning Centre (CLC) except when specifically referring to the PALC as a legal entity until its transformation into a (at least nominal) community college substructure in April 2015.

Continuing education

Continuing education is a mainly North American term that can refer to post-secondary school learning through degree courses by non-traditional students, non-degree career training, workforce training, formal personal enrichment courses, non-formal courses and self-directed learning. It is not normally considered to include basic instruction such as literacy, English language skills, or vocational training. Professional continuing education is a specific learning activity generally characterized by the issuance of a certificate or license renewal within a particular profession. In South Africa the new use of the term to officially re-describe the post-school Further Education and Training system is somewhat confusing.

Dropout rate

Usually defined as the percentage of students who did not write the final examinations or fully complete the programme out of the number of students who originally enrolled or registered for the programme.

Experiential learning

This term is used and misused in a variety of ways as describing the following:

- Learning which derives either from and makes use of the general life-experience or from specific activities of the learner
- Learning derived from reflecting on the feelings and thoughts aroused in the learner while or after experiencing a here and now activity
- Practical work
- Work experience
- Work placement

As these definitions are clearly not about the same thing we have avoided the use of the term and clearly state what we are talking about.

Further Education and Training

In international terminology Further Education and Training usually refers to post-school provision that takes place after Basic Education has been completed but is usually differentiated from Higher Education (in universities). In many countries Basic Education is identical to the full school curriculum (more or less 12 or 13 years long) so Further Education is genuinely post-school and much of it is at a higher level than secondary school. In South Africa, because compulsory schooling ends at only grade 9, Further Education and Training is categorised on the National Qualifications Framework (NQF) as being at levels 2, 3 and 4 (the same levels as grades 10, 11 and 12 in the school system). This creates comparison difficulties when looking at Further Education and Training systems in other countries. Generally we have tried in this report to specify exactly what is being referred to when we mention Further Education and Training (now officially and confusingly renamed Continuing Education and Training in relation to technical, vocational and adult and community education).

Internship

A short period practical work experience aimed at increasing the employability of a trainee.

Matric

One of the most abused terms used in South African education. Originally “the matric” was a university entrance examination. Over time the various Senior Certificate examinations (written at the end of secondary school at Grade 12) were accepted as a substitute for the university entrance examination provided the Senior Certificate was passed at a certain level and certain subject combination criteria were met. This is still the situation. However in popular discourse “the matric” is simply the Grade 12 level Senior Certificate examination whether it provides university entrance or not. Currently the Senior Certificate written in school has three achievement levels, one giving access to degree level studies, the next to diploma studies and the lowest to higher certificate studies.

NATED

NATED (National Technical Education) or “N” or “Report 191” programmes were the main programmes of the FET College sector until the institution of the National Certificate (Vocational) (NC(V)). They acted as the theoretical component of the training system for apprentices employed by private sector firms, though in recent years many students were enrolled who were not employed as apprentices. Although the NATED programmes were meant to be phased out they have remained popular and have been continued.

Non-formal education and informal learning

Because these two terms are often used interchangeably and thereby confusingly we have rigorously used **non-formal education** to mean planned and structured education which does **not** lead to any kind of recognised certification or qualification and **informal learning** (or informal education) to mean educational interactions which are not planned or structured and may not even necessarily be intentional.

Short skills programme

A short training programme usually three to six months long.

Technical and Vocational Education and Training College

A FETC, a VCETC and a TVETC are the same institution – a Further and Continuing Technical and Vocational Education and Training College. We have favoured the now official term Technical and Vocational Education and Training College except when making references to the period when they were legally called FET Colleges. Officially the term now only applies to a public institution, private TVETCs are simply called Colleges.

Throughput rate

The percentage of a cohort of students that start a qualification and eventually successfully complete that qualification within a specified period.

Acknowledgements

To:

The Minister of Higher Education and Training, Bonginkosi Nzimande, M.P.

The Chair of the Ministerial Committee on the review of the funding frameworks of TVET Colleges and CET colleges, Dr Charles Sheppard, of Nelson Mandela Metropolitan University

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Section 1: The brief

Chapter 1. The Committee, its purpose, tasks and Terms of Reference

The *Government Gazette* of 3 October 2014 gazetted the establishment by the Minister of Higher Education and Training of a *Ministerial Committee to review the funding frameworks for Further Education and Training Colleges and Adult Learning Centres* (DHET, 2014a).

The **purpose** of the committee included to:

- a) Proceed with the review process of the current funding framework for Technical and Vocational Education and Training Colleges (TVET Colleges), assess the funding framework's relevance and effectiveness in enabling TVET Colleges to play a key role in producing a skilled and capable workforce for the country, and finalize draft amendments to the national *Norms and Standards for Funding Further Education and Training Colleges (NSF-FET Colleges)* (Department of Education, 2009a) [that the Minister would then publish for public comments];
- b) Align the *National Norms and Standards for Funding Adult Learning Centres (NSF-ALCs)* (Department of Education, 2007) to the proposed new institutional type of Community Colleges.

The **main tasks** of the committee were identified as being to:

- a) Analyse the current funding frameworks to determine whether they are effective in achieving the goals of attaining a skilled and capable workforce to support an inclusive growth path;
- b) Investigate other funding modalities of Vocational and Continuing Education and Training (VCET) institutions (i.e. the Community Learning Centres (CLCs), Community Colleges, and TVET Colleges or other institutions similar to them) in other countries; make comparative analysis; and advise on the most suitable and preferable funding framework;
- c) Diagnose the relevance of the current funding approach in the light of funding modalities in other countries as well as all developments that have taken place especially at TVET Colleges e.g. diversification in terms of offering different types of programmes (NC(V) and NATED Report 191), development of artisans, technicians, etc. and propose the most appropriate funding framework;
- d) Draft amendments to the current NSF-FET Colleges legislation after taking into account the review process; and
- e) Draft amendments to the current NSF-ALCs to ensure alignment to the new institutional type, the Community Colleges.

The Committee was advised that, though the review processes to revise the funding frameworks for TVET Colleges and Community Colleges would be kept separate (as these institutions in their current state vary in terms of programme mix; number of learners and sites; determination of enrolments; ownership of facilities used, etc.), it was the prerogative of the Ministerial Committee to propose whether to continue to keep the two processes separate or to merge them.

There were therefore **two terms of reference**, the one related to TVET Colleges and the other to Community Colleges (and Community Learning Centres).

The *Terms of reference for the ministerial committee on the review of national norms and standards for funding further education and training colleges (NSF-FET Colleges)* (DHET, 2014b) provided background information and noted that the review process could include other aspects which were not catered for in the 2009 *National Norms and Standards for Funding Further Education and Training Colleges (NSF-FET Colleges)* (DHET, 2009), namely:

- the funding for NATED Report 191 programmes and other skills programmes;
- the introduction of a standard date for informing TVET Colleges about enrolments determined by Provincial Education Departments (PED) and the DHET (DHET) and indicative budgets for the following year;
- the introduction of measures to deal with poor performance by TVET Colleges rather than decreasing enrolments as it is currently stipulated in the funding norms;
- the funding of hostels;
- the funding for bridging programmes e.g. Literacy, Mathematics, Science, etc.
- the consideration of the geographic location of colleges and poverty as rural colleges at times face challenges in sourcing funds from nearby private sector industries;
- provision for access to and distribution of alternative funding sources (such as the National Skills Fund (NSF), Sector Education and Training Authorities (SETAs), etc.); and
- the review of funding for special needs with different disabilities.

Included in the scope of work were the (additional) tasks of:

- (a) making recommendations on changes to the current funding framework in relation to:
- whether the current funding framework and approach will be able to make it possible to achieve the enrolment target of 1 million students in TVET Colleges by 2014 and 4 million by 2030 (though this figure has been revised down to 2.5 million by the *White Paper* of 2013 (pp. Xii, 13);
 - the funding of all Ministerial approved programmes and other skills programmes;
 - how to deal with the under-funding of TVET Colleges as a result of over-enrolment (the current funding norms deal with over-funding and application of a claw back mechanism);
 - whether the funding norms should continue using least cost of delivery and apply funding formulas, or use average cost to avoid administrative burden of applying and revising formulas (if needs be) at certain intervals;
 - whether the current rate of college fee applied is appropriate (currently 20% of the total programme cost);
 - what measures should be considered for adjusting the funding requirements for distance education and for experiential learning;
 - how the earmarked recurrent funding should be applied in terms of its varied cost inputs per college;
 - the relevance of the Basic Minimum Package;
 - dealing with poor performance by TVET Colleges directly rather than indirectly by decreasing enrolments as currently stipulated in funding norms;
 - bridging programmes e.g. Literacy, Mathematics, Science, etc.;

- efficiency rates such as pass rate, throughput rate, certification rate, etc. taking into cognisance that some colleges have been put under administration;
 - a mechanism to subsidise private TVET Colleges considering the draft conditions.
- (b) advising how TVET Colleges can administer the recovery of college fees that in some cases culminate in bad debts.
 - (c) making the funding framework to respond to the needs of historically disadvantaged TVET Colleges and of rural colleges with small campuses that are far apart from the central offices.
 - (d) review the funding of students with disabilities.
 - (e) propose the funding mechanism for compensation of TVET College Council members
 - (f) determining the minimum size of a college and a campus which would be economically viable whilst delivering optimum outcomes.
 - (g) determining a separate funding framework for hostel accommodation;
 - (h) developing guidelines on how other sources of funding such as Sector Education and Training Authorities (SETAs) and National Skills Fund (NSF) could contribute towards FET college expansion and the funding other skills programmes which are not part of the Ministerial approved programmes.

The Committee was also empowered to include other areas of focus that were pertinent.

The *Terms of reference for the ministerial committee on aligning the National Norms and Standards for Funding Adult Learning Centres (NSF-ALCs) of Adult Education and Training (AET) to the proposed institutional model for Post School Education and Training (PSET)* [i.e. Community Education and Training Colleges (CET Colleges)] (DHET, 2014c) provided background information, noted the Discussion document ***Adapting the NSF-ALCs to envisaged CET Colleges*** (DHET, 2012e), and outlined the scope of works, namely to:

- (a) analyse the current funding framework to determine whether it is effective in achieving the goals of attaining a skilled and capable workforce to support inclusive growth path;
- (b) consider and compare the advantages of other funding modalities of Community Colleges in other countries;
- (c) diagnose the relevance of the current funding approach in the light of all developments that have taken place, e.g. the new proposed Community Colleges taking into consideration other funding modalities globally, formula funding programme and funding of ABET level 1 to 4 learning areas and propose the most suitable preferable funding model;
- (d) align the NSF-ALCs to cater for funding of qualifications from National Qualifications Framework (NQF) levels 1 to 4 as proposed in the Further Education and Training (FET) Colleges Amendment Bill of 2012 (which implies that some TVET College programmes such as the National Certificate (Vocational) (NC(V)) and NATED Report 191 may be offered in Community Colleges);
- (e) examine the funding of other skills programmes from such as the National Skills Fund (NSF) or Sector Education and Training Authorities (SETAs);
- (f) determine the typical characteristics Community Colleges with regard to performance, accountability, staff development, use of posts, payment of Community Learning Centres personnel, compensation of Council members, growth potential, etc.;
- (g) examine the funding of the different models of institutions as proposed by the Ministerial Task Team on Community Education and Training Centres;

- (h) investigate the offering of other types of vocational qualifications proposed in the report and determine cost implications thereof;
- (i) determine a measure on how to deal with poor performance by Community Colleges to avoid reducing enrolments which might have a negative effect on students who might already be from disadvantaged communities and may not have any other recourse; and
- (j) conduct a study of the demographics of target groups (including particular age cohorts) and identify where new Community Colleges should be established and where dwindling enrolments suggests mergers.

The Committee was specifically asked to make recommendations on:

- (a) funding for distance education in Community Colleges (taking into account the low success rates for distance education and that therefore models of distance student support and high level contact technologies would need to be developed and funded (including, for example distance students with laptops and funding for connectivity);
- (b) the size of a Community College which would be economically viable whilst delivering optimum outcomes and consider the possibility of having Central/ Main colleges with satellites (that might require the rationalizing of centres and the providing of hostel accommodation (with its funding implications).
- (c) funding of special education needs (and the consideration of the different types of Community Colleges (and different funding models) to cater for this);
- (d) a funding mechanism for National Senior Certificate for Adults (NASCA) taking into account the challenges and cost implications of offering the NASCA at Community Colleges (including additional infrastructure costs such as laboratories as NASCA proposes physical science, computer science, life science, etc.);
- (e) conditions for granting subsidies or grants to Private Centres considering the draft conditions attached as Annexure F;
- (f) a different funding model for rural Community Colleges to be able to make such centres more economically viable as they are unlikely to receive other forms of private funding; and
- (f) conduct research to better understand the cost implications regarding the expenses of Community College Council members incurred as part of their duties before making recommendations on how to regulate the remuneration of Community College council members via the funding norms, if their constitution or structure might differ from that of TVET Colleges.

The Committee comprised:

Dr Charles Sheppard (Chairperson) (Nelson Mandela Metropolitan University)
 Professor John Aitchison (University of KwaZulu-Natal)
 Professor Ahmed Bawa (Durban University of Technology)
 Professor Peliwe Lolwana (University of the Witwatersrand)
 Professor Kehla Ndlovu (Mangosuthu University of Technology)
 Dr Gerald Ouma (University of Pretoria)
 Professor Pundy Pillay (University of the Witwatersrand)
 Professor Divya Singh (University of South Africa) who tendered her resignation from the Committee on 19 August 2015.

To fulfil these briefs the Committee met on a regular, more or less monthly, basis and commissioned a number of pieces of research and writing from members of the Committee as well as field visits by them (and analysis of the results thereof) to a number of TVET Colleges and former Public Adult Learning Centres.

Section 2: The national context and the TVET College and Community Learning Centre systems

Chapter 3. Economy and education

Introduction: education and development

It is well known that education in every sense is one of the fundamental factors of development. No country can achieve sustainable development without substantial investment in education. However, the converse is not always true – not every country that has invested in education has achieved sustained patterns of development.

Education enriches people's understanding of themselves and the world. It improves the quality of their lives and leads to broad social benefits to individuals and society. Education raises people's productivity and creativity and promotes entrepreneurship and technological advances. In addition, it plays a crucial role in securing economic and social progress and improving income distribution.

Education impacts on economic development through its effects on labour productivity, poverty, trade, technology, health, income distribution and family structure. Education provides a foundation for development, the groundwork on which much of our economic and social well-being is built. It is the key to increasing economic efficiency and social consistency. By increasing the value and efficiency of their labour, it helps to raise the poor from poverty. It increases the overall productivity and intellectual flexibility of the labour force. It helps to ensure that a country is competitive in world markets now characterised by rapidly changing technologies and production methods. By increasing a child's integration with dissimilar social or ethnic groups early in life, education contributes significantly to nation building and inter-personal and inter-group tolerance.

Several studies find that since most of the South East Asian countries (which reached high levels of economic and social development in a relatively short time span) had achieved universal primary education early on, the rate at which secondary education expanded (necessary for a successful manufacturing and export strategy) was crucial in achieving high rates of investment and high income per capita growth. Secondary and higher education expenditures are more significant after primary enrolments are universal. The major overall conclusion of these studies is that heavy initial investment in human capital by households and governments, as well as high investment in physical capital is largely responsible for the high income per capita growth in East Asia.

Primary enrolments in the initial period are highly significant. However, in a context where universal primary education has largely been attained, as in East Asia, additional public

investment in primary education as a percentage of Gross Domestic Product (GDP) does not provide a very good pay-off. One possibility is that East Asian governments have been able to continue to increase effectiveness at this primary level, as measured by maths and science test scores, without increasing expenditures as fast.

Cross national data for developing countries outside of South East Asia show no association between increases in educational capital due to rising educational attainment of the labour force and the rate of growth of output per worker. In other words, the impact of education has not been the same in every country.

Three explanations have been put forward for why the impact of education has varied and has so often fallen short of what was hoped.

First, it is likely that educational quality has been so low that more “years of schooling” have not created much more human capital. Schooling has in some countries been enormously effective in transmitting knowledge and skills while in other countries it has been essentially worthless and created few skills.

Second, the returns to investment in education could have fallen rapidly as supply expanded while demand for educated labour was stagnant. The rate of growth of demand for educated labour (in part due to different sectoral shifts, and in part due to policies (such as openness to the world economy), in part due to differences in technological progress, has varied widely across countries so that the returns to education have fallen dramatically, stayed constant, or risen.

Third, it is suggested that the institutional environment could be sufficiently perverse such that the educational capital accumulation lowered economic growth. In some countries, schooling has created cognitive skills and these skills were in demand, but to the “wrong thing”. In some countries, the institutional environment was sufficiently bad that the bulk of newly acquired skills was devoted to privately remunerative but socially wasteful work.

All countries do not follow the same path of development and each of these explanations contributes different amounts to explaining the overall impact of schooling on growth in different countries. In other words, in the end, it is likely that some mix of the three explanations plays a role in most developing countries.

In summary, nearly all countries saw education access and attainment grow rapidly – even as many saw their economies collapse. While education expansion was at historic highs in developing countries in the 1980s and 1990s, economic growth in large parts of the developing world fell to historic lows. The cross national data show that – on average – education contributed less to growth than expected.

None of these arguments suggest however, that governments should invest less in basic schooling, for many reasons.

First, most, if not all societies believe that at least “basic” education is a merit good so that its provision is not, and need not be justified on economic grounds at all. To deny a child an education because the expected economic growth impact is small would plainly be wrong.

Second, schooling has a large number of direct beneficial effects beyond raising economic output, such as lower child mortality. Third, the evidence is clear that education (especially if

done well) does raise cognitive skills. The implication of a poor aggregate payoff from increasing cognitive skills in a poor policy environment is not “don’t educate” but rather reform the education and economic systems now so that investments (past and present) in cognitive skills pay off.

In South Africa, the persistence of high income inequality, which is clearly inhibiting economic growth and poverty reduction, cannot meaningfully be dissociated from the limited and unequal access to human capital; they are inextricably linked. Therefore, efforts to foster education accumulation, and particularly education equality, will pay off handsomely.

Improving the quality of macroeconomic management and the implementation of structural policies can only take South Africa so far. Raising the overall quantity of education means little if quality improvements do not go hand in hand. By all accounts the quality of education and general skills development is low. This common observation is confirmed by empirical evidence from national tests (e.g. the recently- introduced Annual National Assessments – ANA – of the Department of Basic Education) and regional and international comparisons of student learning (such as SACMEQ, TIMSS, PIRLS).

These poor human capital outcomes have little to do with low public expenditures. Education for instance is at the very minimum a R500 billion industry in South Africa inclusive of the private sector. The efficiency of that expenditure, however, leaves a lot to be desired.

South Africa thus continues to exhibit a poorly distributed and low quality human capital. While providing quality and extensive education to all socio-economic groups in society is a matter of social justice, the issue of education distribution is also one of crucial economic implications. While gains have been made in increasing average education levels, they have not been accompanied by a better distribution of education. South Africa’s poor educational distribution is not attributable to the lack of initial access to schools, but partly to high and more rapid drop out rates among the poor. The result is that school systems remain highly stratified and are not a mechanism of social mobility. Rather, they act to perpetuate current socioeconomic structures and reinforce inequality.

While the role of education in development is generally acknowledged by policymakers, there is at best a lack of clarity about the role of post-secondary education and training (PSET) in particular in enhancing development.

PSET raises some important challenges for policy makers. Access and equity are at the top of these challenges. Second, there is a trade off between quantity and quality. Third, there is the challenge of reaching a graduate mix that is compatible with labour market needs and national development.

Moreover, the challenge of changing the composition of outputs from the PSET system entails mobilising additional resources to PSET especially but not only in science and technology disciplines. Finally, there is another important challenge that calls for a balance between transmitting the information and skills needed for the labour market, fostering innovative and creative talents, and developing broad intellectual capacities among higher education students and graduates.

One possible channel through which PSET can enhance economic development is through technological catch-up. In a knowledge economy, post-secondary schooling (built on the foundation of effective primary and secondary education) can help economies gain ground on

more technologically advanced societies as graduates are more likely to be more aware of and better able to use new technologies. What all of this suggests therefore is a renewed emphasis on investing in post-secondary education which has to be at the heart of the country's sustainable development processes. Only post-secondary institutions can provide the human capital necessary to ensure good governance which lies at the core of the solution to the country's greatest challenges, from health to business, science and technology, teacher training and the environment.

In the economic development context in South Africa, the role of technical and vocational education and training is particularly crucial to the development of the country's manufacturing sector which at this point is seriously underdeveloped given the country's level of development. Moreover, one of the major constraints to the development of a manufacturing sector and a productive export strategy is the lack of middle level skills in terms of technicians of various kinds, welders, plumbers, etc.

Education and economic growth

The relationship between education and economic growth is a mutually reinforcing one. Education of the appropriate quality and quantity increases the productivity of labour because of its skills and knowledge enhancing roles. High and sustainable levels of economic growth, on the other hand, make possible greater investment in education and other social sectors because of the increased tax revenues that accrue to governments because of growth.

It is generally agreed that economic growth is a necessary (but not necessarily sufficient) condition for improvements in living standards and for enabling higher levels of investment inter alia, in education, health and innovation.

Tables 1 and 2 show the rate of growth of the economy for most African countries (growth of real GDP) respectively for the periods 2004-2008, and 2009-2013. On average, growth rates were higher in the former period; for Africa, the average annual growth rate in 2004-2008 was 6.1 per cent compared to 4.6 per cent in 2009-2013. The former period was characterised by huge demand for Africa's natural resources (oil, minerals, gas) while the latter coincided with the 'Great Recession' in the industrialised world and a fall in the demand for commodities.

Table 1
Economic Growth (Growth of Real GDP), average, 2004 –2008

Average growth rate (%)	Countries
< 0	Eritrea, Zimbabwe
1.1 – 2.0	Comoros, Cote d'Ivoire
2.1 – 4.0	Algeria, Benin, Burundi, Cameroon, Central African Republic, Gabon, Guinea, Guinea-Bissau, Lesotho, Swaziland
4.1 – 6.0	Botswana, Burkina Faso, Congo, Djibouti, Egypt, Kenya, Madagascar, Malawi, Mali, Mauritius, Senegal, Seychelles, South Africa, Tunisia, Zambia
6.1 – 8.0	Cabo Verde, Democratic Republic of Congo, Ghana, Liberia, Libya, Mozambique, Namibia, Niger, Nigeria, Sierra Leone, Sudan, Tanzania
8.1 – 10	Rwanda, Uganda
10.1 – 15.0	Chad, Ethiopia
> 15.0	Angola, Equatorial Guinea
6.1	Average

Source: *African Economic Outlook 2015*

In the period 2004-2008, as stated earlier, high growth in many African countries was due to increased demand in the extractive industries (e.g. Angola, Equatorial Guinea, Chad, Uganda, DRC, Ghana, Libya, Liberia, Mozambique, Namibia, Nigeria, Sudan). However, high growth rates were not confined exclusively to resource-rich economies (Africa Progress Panel, 2015). For instance, two examples of high growth economies not endowed with natural resources were Ethiopia and Rwanda.

For the period 2009-2013, several countries showed significantly lower growth rates (e.g. Chad, Angola, Equatorial Guinea, Ethiopia, Rwanda, Namibia, South Africa, Tunisia and Mauritius). On the other hand, some countries increased their growth rates in spite of the recession, including in particular Zimbabwe (negative growth for 2004-2008, and 7.2% for 2009-2013) as well as Ghana and Burkina Faso.

Table 2
Economic Growth (Growth of Real GDP), average, 2009 -2013

Average growth rate (%)	Countries
< 0	
1.1 – 2.0	Cabo Verde, Madagascar, Swaziland
2.1 – 4.0	Algeria, Benin, Botswana, Cameroon, Central African Republic, Comoros, Cote d'Ivoire, Egypt, Gambia, Guinea, Guinea Bissau, Mali, Mauritania, Mauritius, Namibia, Senegal, Seychelles, South Africa, Sudan, Tunisia
4.1 – 6.0	Angola, Burundi, Congo, Djibouti, Equatorial Guinea, Eritrea, Gabon, Kenya, Lesotho, Malawi, Morocco, Niger, Sao Tome and Principe, Togo, Uganda
6.1 – 8.0	Burkina Faso, Chad, Democratic Republic of Congo, Liberia, Mozambique, Nigeria, Rwanda, Sierra Leone, Tanzania, Zambia, Zimbabwe
8.1 – 10	Ethiopia, Ghana
10.1 – 15.0	Libya
4.6	Average

Source: *African Economic Outlook 2015*

During the post-apartheid period growth has been modest in South Africa at best. Between 1994 and 2012, the average growth rate was 3.2 per cent (Bhorat *et al*, 2016). Since 2012, the annual growth rate fell from 2.2 per cent to 1.3 per cent in 2015. This level of economic growth is far short of the estimates of the National Development Plan of more than 5% per annum to 2030 (National Planning Commission, 2011), and far below the 8 to 10 percent per annum needed for a period of two decades to address the “triple challenge” of unemployment, inequality and poverty in South Africa

Bhorat *et al* (2016, p. 313) examine the relationship between education and economic growth in South Africa. By differentiating between ‘tertiary’ (university) and vocational training, they find that TVET graduates are “almost as likely to be employed as school leavers without higher education.” However, the conclusion from their analysis is that university education contributes to economic growth whilst other post-secondary education including TVET colleges “do not productively contribute to economic growth”.

Bhorat *et al* (2016, p. 314) also show that there is a strong correlation between educational attainment and unemployment. For degree holders, the average unemployment rate between 1995 and 2012 was 4.2%. In contrast the unemployment rates for those with Grades 8 to 11 was 31%, 11% for certificate- and diploma-holders, 16% for those with no education, 26% for those have completed Grade 12, and 24% for those with Grades 0 to 7.

This explanation for the mismatch between outputs from the education system and the labour market is that there is “an excess supply of labour with some education (Grades 8 to 11 and Grade 12)” (p. 314). At the highest end of the education spectrum (namely, degree holders), unemployment rates are the lowest.

The conclusion is the high overall unemployment rate is due to two factors: a) the labour market is oversupplied with individuals with relatively low levels of education in an economy biased towards skilled occupations; and b) the poor quality of schooling and education in general inhibits access to productive employment.

One of the findings is that in 1995 four times more certificate holders were unemployed than degree-holders and in 2010, this proportion increased to five times. Their conclusion is that “during the post-apartheid period FET and private colleges have been unable to improve the employment outcomes of individuals relative to the performance of the entire schooling system, except for those with incomplete secondary education.” (p. 315).

Moreover, according to the analysis there was a clear “increase in skilled occupations for degree holders [but] the result for certificate-holders is less obvious and is concentrated across medium- and high-skilled occupations” (p. 318). However, this is exactly the type of skills that TVET colleges are engaged in producing, so it should not be surprising that certificate-holders are producing high- and medium-skills. This is further confirmed by the finding that “certificate holders showed high growth in the professional occupational category” (32.5%) (p. 318).

The authors also show that workers with formal education are replacing those with no education in occupations that are generally regarded as low skilled. However, this issue of “education inflation” or “qualification inflation” has been understated in the paper, and may even be happening at the higher end of the occupational spectrum. In a labour market with ever increasing numbers of young people with educational qualifications (not necessarily with skills and knowledge at a commensurate level), employers choose individuals with the highest levels of education available. So it may not necessarily be a situation where university graduates are necessarily more skilled and productive than certificate holders but one in which a high degree of “filtering” or screening is taking place whereby employers are choosing those individuals whom they see as less costly in terms of ‘on-the-job’ training.

Inequality and poverty

It is known that levels of inequality and poverty are high in South Africa in spite of our status as an upper middle income country (GDP per capita in Purchasing power parity (PPP) terms of \$11 000 in 2012 (United Nations Development Programme, 2015)). The high level of inequality in South Africa is also demonstrated by the discrepancy in its **economic status** (measured for example by GDP per capita) and its **development status** (measured by UNDP’s Human Development Index (HDI), based on a combination of an economic indicator – GDP per capita – and two social indicators, education and health). On the economic indicator, GDP per capita, a measure of the relative wealth of the country, South Africa ranks 64th out of 182 countries, but on the HDI it ranks much lower at 116 (United Nations Development Programme, 2015). Inequality in the provision and quality of education and health drags South Africa down in the development rankings.

The conventional view on the relationship between economic growth on the one hand, and inequality and poverty on the other, is that growth will always and everywhere reduce inequality and poverty. In this view, policymakers should focus only on strategies that will raise the growth rate of the economy. However, as was demonstrated in the previous section, South Africa and many other African countries showed respectable and even high rates of growth in the 2000s. However, poverty and inequality remain pervasive across the continent.

It is evident that in order to attain the high levels of sustained growth needed in the country policy has to focus on the simultaneous enhancement of growth **and** the reduction of inequality and poverty.

None of this is to minimise the role of education, and especially post-secondary education in contribution to the eradication of poverty and the reduction of income and other inequalities in South African society. As stated in the previous sections, education can contribute both to higher and sustained levels of growth, as well as to lower levels of societal inequality and poverty through its skills- and knowledge-enhancing roles.

Inequality

While it is possible to measure and describe inequality in a number of areas, e.g. income, wealth, land or education attainment distribution, this section describes largely the distribution of income because data is most widely available in this area.

Inequality (income or otherwise) is most often described in terms of the Gini coefficient. A Gini coefficient of 0 indicates “perfect equality”, i.e. everybody earns the same, while a Gini Coefficient of 1 shows ‘perfect inequality’, that is, all income is earned by one individual. The Gini coefficient can thus only be in the range 0 to 1, with proximity to 0 indicating greater equality, and to 1 indicating greater inequality.

Income Inequality

Finn (2015) shows that earnings inequality is very high in the South African labour market and that such inequality contributes directly to inequality at the household income level. Finn also shows that a high proportion of wage earners in the country lives in households that fall below the poverty line.

Although average real wages have increased in the post-apartheid period, wage inequality and household income inequality have remained very high. Wage differentials thus remain the primary driver of inequality in South Africa, accounting for between 80% and 90% of overall inequality in the country (Liebbrandt *et al*, 2010).

For the poorest households, wage income is a relatively small part of household income – ranging from 15% to 25% on average (Finn, 2015, p. 3). This is because many households at the bottom of the income distribution do not contain a wage earner, and therefore rely on other sources of income, mainly government grants, and the share of income from government sources is between 70% and 85% for households in the lower part of the income distribution. Higher up the income distribution the share of income from government sources decreases as the share of wage income jumps for each successive decile except for the top 10% of households. Wages overtake government grants as the largest contributor to household income after the fourth decile, in which mean monthly household income per

capita is approximately R580. The importance of remittance income diminishes as we move from poorer to richer households, and investment income is only substantial for those households in the top decile (Finn, 2015, pp. 3-4)

The overall Gini coefficient for household income per capita in 2012 was 0.66 (Finn, 2015, p. 5). On the African continent, other countries with a similar high Gini coefficient for income are Botswana, Namibia, Equatorial Guinea, and Seychelles. African countries with low Gini coefficients (i.e. low income inequality) are Malawi and Tanzania. In the case of the last two countries, this reflects a relatively equal society in terms of income distribution, but at a very low level of income (reflected, for instance, in income per capita). Industrialised countries with low Gini coefficient for income include Norway and Sweden (around 0.25).

In South Africa, the Gini coefficient for household income per capita is significantly higher than the Gini coefficient of earnings only, mainly because the household measure includes households in which there are no wage earners. Liebbrandt *et al* (2010) show that at least one-third of the contribution to the share of wage inequality in household income inequality is from households in which there are no employed adults.

Wages are also the central drivers of poverty dynamics in the country. Table 3 shows the percentage of people in each decile who live in a household in which there is at least one earner. 85% of people in the poorest decile were not co-resident with an earner. This proportion only falls below 50% from decile 4 onwards. By contrast, over 90% of people living in the top three deciles are co-resident with at least one wage earner.

Table 3
Presence of earner in the household by income deciles

Decile	No earner in household	Earner in household
1	85.38	14.62
2	64.82	35.18
3	55.07	44.93
4	37.72	62.28
5	16.18	83.82
6	15.89	84.11
7	18.19	81.81
8	7.23	92.77
9	4.38	95.62
10	8.97	91.03

Source: Finn, 2015, p. 6

In Table 4, poverty rates in households with at least one earner are compared with households without any earners. The poverty line chosen is based on Budlender *et al* (2015) and is R1 319 in April 2015 rand, and the national poverty headcount rate for this poverty line in 2012 was 62%. The poverty rate in households without any wage earner was 88.13%, while the rate in households with at least one resident wage earner was 50.01%.

Table 4
Poverty and wages (as %)

	No earner in household	Earner in household
Non-poor	11.87	49.99
Poor	88.13	50.01
	100	100

Source: Finn, 2015, p. 6

These tables show two of the roles that wages play in poverty. First, those living in households with the lowest income are least likely to live with a wage earner. This lack of access to wage income is therefore a key contributing factor to poverty. Second, as is evident from the Table 4, half of people who co-reside with a wage earner live in households that are below the poverty line. Therefore, having access to wages does not guarantee household income per capita will rise above the poverty line.

Table 5 compares ‘race’ and poverty status for the poverty line of R1 319. Almost 71% of Africans fall below the poverty line, with the corresponding poverty rates for Coloured, Asian/Indian and White respondents standing at 57%, 20.5% and 4% respectively. This shows that ‘race’ is still a key determinant of poverty, as it is with wages.

Table 5
Poverty and race (as %)

Race	Non-poor	Poor
African	29.25	70.75
Coloured	43.22	56.78
Asian/Indian	79.53	20.47
White	95.94	4.06
	100	100

Source: Finn, 2015, p. 7

The Gini coefficient of earnings varied little between 2003 (0.553) and 2012 (0.554). This compares to a higher Gini coefficient of household income per capita of between 0.65 and 0.70 over the same period.

Comparing the wage shares accruing to each decile in the earnings distribution over time shows that the total share going to the bottom 60% of the distribution (i.e. deciles one to six) is only 20%. The share of wages going to the highest paid decile is about 40%, and this is just over double the share going to the next highest 10% of the earnings distribution (the ninth decile).

The share of the total income going to the top decile in the household income distribution (as distinct to the earnings distribution) is about 60%. This shows that overall household income is more heavily concentrated amongst the wealthy than wage income alone. A higher number of wage earners per household in the top decile, as well as this decile's relatively high share of investment income are possible explanations.

One commonly used measure of income inequality is the 90/10 ratio (the ratio between the wage or salary income earned by individuals at the 90th percentile (those earning more than 90 percent of other workers) compared to the earnings of workers at the 10th percentile (those earning higher than the bottom 10 percent) stood at close to 15 at the end of 2012, down from 17.3 at the start. This ratio of 15 is high when compared to other developing countries. For example, in the mid-2000s the 90/10 earnings ratio for Brazil, another very unequal society (but one in which income inequality is decreasing fairly consistently), was approximately 7.

The analysis of earnings inequality by race group shows that the earnings inequality for African and Coloured workers was generally higher than the income inequality for the Asian/Indian and White groups. Although mean earnings for White workers were far higher than for African earners, the African-specific Gini coefficient was always higher than the White-specific coefficient. Most of this growth in inequality took place between 1995 and 2000 and was due mainly to the economic empowerment of a small group of Black Africans in the top two deciles, but with the majority remaining confined to the lower deciles.

In summary, earnings inequality is very high in the labour market, and this is significant as it feeds directly into inequality at the household income level. The importance of within industrial sector earnings inequality in driving overall earnings inequality increased relative to between-sector inequality, from about 60% to about 85%.

Wealth inequality

Measures of wealth inequality are extremely difficult to find for several reasons, the main one being the fact that in an increasingly globalised world, it is becoming relatively easy for wealthy individuals to conceal their wealth across the world.

However, recent research by Orthofer (2016) shows that the wealthiest 10% of the South African population owns at least 90-95% of all **wealth**, whereas the highest earning 10% only receives 55-56% of all **income**. The next 40% of the population (the so-called middle class) earns about 30-35% of all income, but only owns 5-10% of all wealth. The poorest 50% of the population, who earn about 10% of all income, own no measureable wealth. From this data, it is evident that wealth is much more unequally distributed than income.

Poverty

South Africa does not have an official National Poverty Line. Therefore measures of poverty differ according to who is measuring it, ranging from the most conservative estimates being produced by the National Planning Commission (2011) and the World Bank (the international poverty measures of \$1 and 2\$ per person per day) to more “reasonable estimates” being produced by Statistics South Africa and Budlender *et al* (2015).

This section firstly describes two measures of poverty, namely the Multidimensional Poverty Index (MPI) developed by the Oxford Poverty and Human Development Initiative (OPHI) (Alkire *et al.*, 2015), and the income poverty measures of the World Bank.

The MPI has three dimensions (health, education and living standards) and 10 indicators (health – child mortality, nutrition; education – years of schooling, school attendance; living standards – cooking fuel, sanitation, electricity, type of flooring, assets).

Table 6 shows OPHI’s MPI by country for the African continent. In terms of the indicators used to derive the MPI, the countries of Botswana, Egypt, South Africa and Gabon are ‘non-poor’ in this regard, and to a lesser extent so are Congo, Djibouti, Ghana, Swaziland, and Zimbabwe. Countries in the 0.40 - 0.49 MPI range would be regarded as “very poor” and those in the “greater than 0.50” category, would be classified as “extremely poor”.

Table 6
Measuring Poverty using the Multidimensional Poverty Index (MPI), 2006-2010

MPI	Countries
> 0.50	Burkina Faso, Ethiopia, Niger, Guinea, Mali, Guinea Bissau, Somalia
0.40 – 0.49	Benin, Central African Republic, Liberia, Madagascar, Sierra Leone, DRC
0.30 – 0.39	Cote d’Ivoire, Gambia, Malawi, Mauritania, Mozambique, Senegal, Zambia, Tanzania, Uganda, Rwanda
0.20 – 0.29	Kenya, Lesotho, Namibia, Togo, Nigeria, Sao Tome and Principe
0.10 – 0.19	Congo, Djibouti, Ghana, Swaziland, Zimbabwe
0.06 – 0.09	Gabon
< 0.06	Egypt, Botswana, South Africa

Source: OPHI, 2014

The poverty levels (per cent of the population deemed to be living in poverty according to this MPI measure) are shown in Table 10 below.

Twenty seven of the 38 countries for which data are provided in Table 7 have a poverty level higher than 50 per cent of the population and 14 of these exceed the 70 per cent mark.

Table 7
Poverty Levels using the MPI, 2010 – 2014

Level of Poverty (per cent of the population)	Countries
Less than 10	Tunisia
11 – 20	Gabon, Morocco, South Africa
21 – 30	Ghana, Swaziland, Zimbabwe
31 – 40	Comoros, Lesotho
41 – 50	Cameroon, Kenya, Namibia
51 – 60	Cote d'Ivoire, Mauritania, Senegal, Sudan, Zambia
61 – 70	Benin, Gambia, Madagascar, Malawi, Mozambique Rwanda, Tanzania, Uganda
71 – 80	Burundi, Central African Republic, DRC, Guinea, Guinea Bissau, Liberia, Mali
More than 80	Burkina Faso, Chad, Ethiopia, Niger, Sierra Leone, South Sudan

Source: OPHI, 2014

Tables 8 and 9 show respectively the proportion of the population living below the World Bank's income poverty measures of US\$1.25 and US2 per day respectively. These measures have been justifiably criticised because they suggest that people living above these lines are "not poor". Rather they appear to define at best what may be termed "starvation lines", rather than "poverty lines".

Nevertheless, even at these conservatively-defined poverty levels, the proportion of people below these levels is rather staggering. For example, Table 8 shows that 22 African countries have more than 30% of the population living below the \$1.25 line and eight countries have more than 60 per cent below this level.

Table 8
Income Poverty: proportion of the population living below \$1.25 per day
(2010-2015)

Proportion of the population (%)	Countries
Less than 5	Egypt, Tunisia
5 – 10	Gabon, South Africa
11 – 20	Namibia
21 – 30	Cameroon
31 – 40	Chad, Ethiopia, Niger, Senegal, Swaziland, Uganda
41– 50	Burkina Faso, Guinea, Tanzania, Niger
51 – 60	Benin, Lesotho, Mali, Sierra Leone
61 – 70	Central African Republic, Mozambique, Nigeria, Rwanda
71 – 80	Malawi, Zambia
More than 80	Burundi, Madagascar

Source: OPHI, 2015

The figures in Table 9 are even more shocking. For those countries, where this information is available, the data reveals that 21 countries have more than half the population below the \$2 a day level, and 18 countries have more than 70% in this category. Even in upper middle income countries such as Gabon and South Africa between one fifth and a quarter of the population is below this level.

Table 9
Income Poverty by country: Proportion of the Population living below \$2 per day (2010-2015)

Proportion of the population (%)	Countries
Less than 5	Tunisia
5 – 10	
11 – 20	Egypt
21 – 30	Gabon, South Africa
31 – 40	
41 – 50	Namibia , Swaziland
51 – 60	Cameroon
61 – 70	Chad, Senegal, Uganda
71 – 80	Benin, Burkina Faso, Central African Republic, Ethiopia, Guinea, Lesotho, Mali, Niger, Tanzania, Zambia
More than 80	Burundi, Madagascar, Malawi, Mozambique, Rwanda, Nigeria, Sierra Leone

Source: OPHI, 2014

Furthermore, the analysis of MPI values in 36 African countries not only shows major differences between capital regions and other regions, but also the larger regional gap in poorer countries, such as Ethiopia, Mali, and Niger (*African Economic Outlook*, 2015). The MPI data also shows significant disparities between coastal and landlocked areas of many African countries, where the MPI is equal to 0.23 and 0.43 respectively (*African Economic Outlook*, 2015). The MPI states that 86% of the poor (252 million people) live in landlocked areas and only 14% (41 million) in coastal areas.

South Africa's *National Development Plan* (National Planning Commission, 2011) recommended using a poverty line of about R418 (in 2009 prices) per person per month. According to the *National Development Plan*, this recommendation 'is based on a proposal by Statistics South Africa for a poverty line for the country that takes into account the prices of a basket of food and other essential items (p. 3). Using this poverty line it was estimated that 39 percent of the population was living below it. The NDP intended reducing this figure to zero by 2030.

Finally, Table 10 shows poverty data from Statistics South Africa compiled by De Lannoy *et al* (2015).

Table 10
Income Poverty South Africa: proportion of the population living below \$2 per day
(2010-2015)

	Upper-bound poverty line (%)	Lower-bound poverty line (%)	Food poverty line (%)
<i>By race</i>			
African	60.3	48.1	37.6
Coloured	38.5	25.4	17.6
Asian/Indian	14.2	8.5	6.0
White	4.0	2.3	1.7
<i>By sex</i>			
Male	50.1	38.9	30.1
Female	55.0	43.6	33.9
<i>By age</i>			
Children (0 - 14)	65.0	53.9	42.9
Youth (15 - 24)	58.5	47.0	37.1
Adults (25+)	42.7	31.3	23.5
<i>By total population</i>	52.6	41.3	32.1

Source: De Lannoy *et al*, 2015, p. 24

Note: The poverty lines are derived by StatsSA. Their rand values, in 2011 prices, are R620 (upper-bound), R443 (lower-bound) and R321 (food poverty) per month.

From Table 10, analyses of the Census data show that in 2011, 53% of the South African population was still living below the upper-bound poverty line of R620 per person per month. Table 10 also shows that income poverty, as measured using the StatsSA upper-bound, lower-bound and food poverty lines, remains strongly associated with race, sex and age. Africans, females, children and youth are over-represented among the poor. In particular, 65% of children, and 59% of young people were living below the upper bound poverty line, while 43% of the adult population fell below this line.

Unemployment

It is common knowledge that unemployment is unacceptably high in South Africa. Table 11 shows that in absolute number terms, more than 5.6 million people were considered unemployed. In terms of the 'narrow' measure of unemployment, the rate was 26.6% in April-June 2016 and in terms of the 'expanded' definition, the corresponding figure was 38,6%. (The main difference between the 'narrow' and 'expanded' measures of unemployment is that in the former 'discouraged' workers are excluded, i.e. workers who

consider themselves unemployed but have stopped looking for a work for a variety of reasons, the main one being the high costs of job search.)

Of great concern is the fact that unemployment, in both absolute and relative terms, has not been declining.

Table 11
Number unemployed and unemployment rate, April-June 2015 – April -June 2016

	April - June 2015	January - March 2016	April - June 2016
Number unemployed (narrow definition)	5 230 000	5 723 000	5 630 000
Unemployment rate (%) (narrow definition)	25.0	26.7	26.6
Unemployment rate (%) (expanded definition)	39.0	38.5	38.6

Source: Statistics South Africa. 2016b. *Quarterly Labour Force Survey, Quarter 2: 2016*. April-June 2016

Skills and employment

According to *Quarterly Labour Force Survey* of April-June 2016, White and Indian/Asian population groups dominate employment in skilled occupations, while the majority of black African and Coloured men were employed in semi-skilled occupations.

Black African women are more vulnerable in the labour market, with larger shares in low-skilled occupations – the share of black African women in low-skilled occupations was around 43%. Conversely the share of white women in low-skilled occupations was around one per cent and that of Indian/Asian women was around 5.2% (Tables 12 and 13).

Table 12
Share of employed men by occupation and population group (%)

Population group	Skilled	Semi-skilled	Low-Skilled	Total
African	14.7	55.5	29.8	100
Coloured	21.0	47.4	31.6	100
Asian/Indian	53.5	43.2	3.3	100
White	64.5	32.2	3.3	100

Source: South Africa. 2016b. *Quarterly Labour Force Survey, Quarter 2: 2016*. April-June 2016

Table 13
Share of employed women by occupation and population group (%)

Population group	Skilled	Semi-skilled	Low-Skilled	Total
African	18.3	38.5	43.1	100
Coloured	22.5	49.0	28.5	100
Asian/Indian	45.5	49.3	5.2	100
White	58.2	40.7	1.1	100

Source: South Africa. 2016b. *Quarterly Labour Force Survey, Quarter 2: 2016*. April-June 2016

Table 14 shows employment by race and education. These statistics show that the Black African and Coloured populations are disproportionately represented in the lower education categories, while the converse is true for Indians/Asians and Whites. This contrast is especially stark when comparing the distribution of post-secondary education and employment by race. For example, Black Africans have almost 20% in the PSET category (i.e. other tertiary plus graduate) compared to almost 48% of Whites and 29% of Indians/Asians in these categories.

Table 14
Share of employment by race and education qualifications group (%)

Education level	African	Coloured	Indian/Asian	White
Less than Senior Certificate	53.3	50.8	19.9	10.5
Senior Certificate	29.6	33.6	49.7	41.4
Other tertiary	10.5	8.3	11.1	20.6
Graduate	5.4	5.8	17.6	26.9
Other	1.2	1.5	1.8	0.6
Total	100	100	100	100

Source: Statistics South Africa. 2016b. *Quarterly Labour Force Survey, Quarter 2: 2016*. April-June 2016

Note: 'Graduate' includes post-higher diploma, bachelor's degree, post-graduate diploma, honours and higher degree.

Table 15 compares youth employment and unemployment for two periods, 2008 and 2016. This table shows that youth employment decreased by approximately half a million during this period and unemployment increasing by a similar amount.

Table 15
South African youth employment and unemployment, 15-34 years

Labour market category	April - June 2008	April - June 2016
Employed	6 517 000	6 053 000
Unemployed	3 076 000	3 636 000
Discouraged	756 000	1 648 000
Other not economically active	7 907 000	8 598 000
Total	18 256 000	19 936 000

Source: South Africa. 2016b. *Quarterly Labour Force Survey, Quarter 2: 2016*. April-June 2016

Not in Employment, Education or Training (NEET)

Table 16 provides data on youth who are not in employment, education and training (NEETs):

Table 16
NEET Rates for youth aged by sex, age and population groups: Q2, 2016 (%)

Age	African	Coloured	Indian/Asian	White
<i>Males</i>				
15 - 19	12.3	22.9	6.9	4.1
20 - 24	48.1	36.6	24.2	14.0
15 - 24	30.4	29.7	16.0	9.1
<i>Females</i>				
15 - 19	13.8	20.1	12.5	4.2
20 - 24	56.3	52.2	30.8	21.2
15 - 24	35.1	35.9	22.1	12.8

Source: South Africa. 2016b. *Quarterly Labour Force Survey, Quarter 2: 2016*. April-June 2016

The data shows that Black/Africans and Coloureds are disproportionately represented amongst the NEETs, with the rates for females in these two groups being much higher than those for the equivalent male groups. For the total population, the NEET rate for the 15-19 year age group was 13.2%, for the 20-24 year age group it was 48.9%, and for the 15-24 year age group it was 31.2%.

Inequality in schooling, higher education and the labour market

It is well known that there are large inequalities in access to higher education in South Africa. However, not much is known about how factors such as schooling background, academic performance, race and gender are linked with key higher education outcomes (Rogan and Reynolds, 2016). The Rogan and Reynolds analysis, used in this section, suggests that schooling background, race and sex are associated with study choices and unemployment.

The authors draw attention to the fact that access to and success in tertiary education are still very closely associated with socio-economic status. They also point out that the literature on graduate outcomes in both industrialised and developing countries has been concerned largely with whether graduates find jobs and how university curricula align with the demands of the labour market.

Rogan and Reynolds (2016) show that all graduates, however, do not experience the labour market on equal terms. Their research shows that black African graduates, and particularly those from historically black university's (HBUs), are significantly less likely to find employment immediately after graduation. The reasons for the poorer employment prospects of HBUs are not clear, but some research has suggested that some employers may still perceive HBUs as having a lower quality of graduates. An alternative explanation for graduate unemployment is that graduates with general degrees, and particularly those from the HBUs enter the labour market without any substantive social networks among private-sector firms and enterprises.

Rogan and Reynolds (2016) draw attention to graduate tracer (or destination) studies conducted in South Africa. The first national graduate study to focus on university graduates traced 2 672 students who graduated between 1990 and 1998. The study found that the rate of unemployment among university graduates to be generally low (only about 6% of graduates had not found employment within a year of graduation) and, where unemployment did occur, it was only for short periods.

Despite these low levels of unemployment, the study showed that black African graduates, women, those with degrees in the Humanities and graduates from HBUs were all significantly more likely to report having experienced a period of unemployment. Among the employed, employment sectors also seem to differ by race and the findings suggest that the public sector is often the first employer for black African and coloured graduates, while white and Indian graduates obtain their first jobs in the private sector.

In 2005, the Human Sciences Research Council (HSRC) extended this work with a graduate tracer study which investigated how the field of study is chosen and what determines the success of university outcomes and transition to the labour market. Again, one of the key findings was that black African graduates and those who obtained a degree in the Humanities, in particular were more likely to be unemployed. The findings lead to the unfortunate conclusion that race is still one of the strongest indicators of both graduation and employment, even after controlling for type of institution and field of study.

Finally, Rogan and Reynolds (2016) cite the most recent graduate tracer study that was conducted by the Cape Higher Education Consortium, which tried to trace all 2010 graduates from the four public universities in the Western Cape. The respondents were contacted in 2012 to identify employment and unemployment transitions and outcomes. Overall the study

found that 84% of the interviewed cohort was employed at the time of the interview. Similar to the two earlier studies, two of the key findings were that the burden of unemployment was highest among black African graduates and that the institutional differences were significant.

In their study Rogan and Reynolds (2016) examined a cohort of graduates from Rhodes and Fort Hare universities. Despite the far lower levels of schooling quality among Fort Hare graduates, degree preferences between the two groups were similar. For example, the same percentage (30%) of graduates from both universities reported that, during the final year of school, they planned to study a discipline within the fields of Science, Engineering and Technology (SET). At the same time, the Fort Hare cohort exhibited a slightly higher preference (relative to that of Rhodes graduates) for Commerce and a slightly lower intention to study Humanities. In terms of realising these intentions, about 47% of the Rhodes graduates and 41% of the FH graduates went on to complete a degree in their first choice subject. In other words, Rhodes graduates were only slightly (and not significantly) more successful in completing the degree which they intended to study while still in school.

However, as the authors point out, these figures mask large differences between fields of study. At Rhodes, for example, about 60% of graduates who intended to study a SET discipline successfully completed a SET degree (but not necessarily in the same discipline or subject as originally intended). Among Fort Hare graduates, however, only 48% of those who intended to obtain an SET degree did so. Across the four main categories of educational subject matter (CESMs), science, engineering and technology (SET), business and commerce, education, and humanities, Rhodes graduates were significantly more likely than Fort Hare graduates to complete a degree in the field in which they originally intended to enrol. Among all graduates who changed their study category (between matriculation and university graduation) the largest percentage switched to Humanities. For example, among those who intended to study SET and Education, 26% graduated in a Humanities discipline instead.

Rogan and Reynolds also show that the main reasons for changing from the intended course of study also differ between the two groups. The main reason that Fort Hare graduates changed their intended course of study (32%) was that their marks were not good enough to gain entry or to continue to completion. The Fort Hare group was also more likely to change degrees due to future employment considerations or because of the lack of grant funding for their first choice subjects (14%). Among the Rhodes graduate group, the main reason was a loss of interest (48%).

The research shows also that the unemployment rate of 7% among Rhodes graduates corresponds with the national average for university graduates while the rate (20%) among Fort Hare graduates is almost three times higher.

Among graduates who are employed, there are some important differences in job search strategies which may explain some of the differences in labour market outcomes. The single most common way that Rhodes graduates found their current job was through personal contacts or networks (30%). Moreover, if the categories of 'relatives', 'social media' and 'personal contacts' are combined, then just under half of Rhodes graduates found their current employment through a social network. Fort Hare graduates, on the other hand, relied more on newspaper advertisements (36%) than on any other specific search strategy. These findings link to the finding that a large majority (73%) of Rhodes graduates found employment in the private sector and by contrast most (67%) Fort Hare graduates are employed in government (Rogan and Reynolds, 2016, p. 10).

According to the authors, the results of this study are important for at least two reasons. First, the findings extend the existing work on degree or programme choice by suggesting that the completion of a first-choice degree is further conditioned by ‘pre-higher education’ factors such as school quality, race, sex and intended field of study. The analysis suggests that at least part of the preference gap is explained by poor schooling backgrounds and, by extension, a lack of adequate preparation for university study.

The implication is that schooling quality and low socio-economic status do not only have the expected impact on higher education access or performance but they are also clearly linked with study choices and employment. This suggests that poor quality of support interventions (e.g. career guidance) in the run-up to Grade 9 in under-resourced schools could have long-term negative effects, as can poor support for learners as they approach the Senior Certificate examination.

Second, the findings suggest that, while unemployment is far higher among Fort Hare graduates, at least some of the disadvantage is actually carried over from the type of schooling. The implication is therefore that interventions aimed at improving the employment prospects of graduates from HBUs should be targeted at university students from the low-quintile schools or, as already suggested, at pupils from those schools who might qualify to attend university.

The Rogan and Reynolds analysis does not support the view that black African students (including those who are enrolled in HBUs) are more likely to enrol in subjects with poorer prospects for immediate employment. Moreover, the evidence from the Eastern Cape universities does not suggest that Humanities graduates are significantly more likely to be unemployed after controlling for other factors.

The final question the authors raise is whether the far higher rate of unemployment among Fort Hare graduates is really the result of the oversupply of certain skills or whether factors such as poor matching and poor signalling – including the effects of perceptions and preferences of prospective employers about graduates from HBUs such as Fort Hare or a lack of appropriate social networks in the labour market apply (Rogan and Reynolds, 2016).

Concluding Summary

Education and Development

It is well known that education in every sense is one of the fundamental factors of development. Education impacts on economic development through its effects on labour productivity, poverty, trade, technology, health, income distribution and family structure. Education provides a foundation for development, the groundwork on which much of our economic and social well-being is built.

Education’s contribution to development, depends, however, on its quality (i.e. its ability to transmit skills and knowledge) and the responsiveness of the economy in ensuring a demand for educated labour.

In South Africa, the persistence of high income inequality, which is clearly inhibiting economic growth and poverty reduction, cannot meaningfully dissociated from the limited

and unequal access to human capital; they are inextricably linked. Therefore, efforts to foster education accumulation, and particularly education equality, will pay off handsomely.

Improving the quality of macroeconomic management and the implementation of structural policies can only take South Africa so far. Raising the overall quantity of education means little if quality improvements do not go hand in hand. By all accounts the quality of education and general skills development is low. This common observation is confirmed by empirical evidence from national tests (e.g. the recently- introduced Annual National Assessments – ANAs – of the Department of Basic Education) and international comparisons of student learning (such as SACMEQ, TIMSS, PIRLS).

Post-secondary education and training raises some important challenges for policy makers. Access and equity are at the top of these challenges. Second, there is a trade-off between quantity and quality. Third, there is the challenge of reaching a graduate mix that is compatible with labour market needs and national development.

Moreover, the challenge of changing the composition of outputs from the PSE system entails mobilising additional resources to PSET especially but not only in science and technology disciplines. Finally, there is another important challenge that calls for a balance between transmitting the information and skills needed for the labour market, fostering innovative and creative talents, and developing broad intellectual capacities among higher education students and graduates.

In the South African economic development context, the role of technical and vocational education and training is particularly crucial to the development of the country's manufacturing sector which at this point is seriously underdeveloped given the country's level of development. Moreover, one of the major constraints to the development of a manufacturing sector and a productive export strategy is the lack of middle level skills in terms of technicians of various kinds, welders, plumbers, etc.

Education and economic growth

The relationship between education and economic growth is a mutually reinforcing one. Education of the appropriate quality and quantity increases the productivity of labour because of its skills and knowledge enhancing roles. High and sustainable levels of economic growth, on the other hand, make possible greater investment in education and other social sectors because of the increased tax revenues that accrue to governments because of growth.

It is generally agreed that economic growth is a necessary (but not necessarily sufficient) condition for improvements in living standards and for enabling higher levels of investment inter alia, in education, health and innovation.

During the post-apartheid period growth has been modest in South Africa at best. Between 1994 and 2012, the average growth rate was 3.2 per cent (Bhorat *et al*, 2016). Since 2012, the annual growth rate fell from 2.2 per cent to 1.3 per cent in 2015. This level of economic growth is far short of the estimates of the **National Development Plan** of more than 5% per annum to 2030 (National Planning Commission, 2011), and far below the 8 to 10 percent per annum needed for a period of two decades to address the “triple challenge” of unemployment, inequality and poverty in South Africa.

The Bhorat *et al* (2016, p. 313) analysis showed that TVET graduates were as likely to be employed as school leavers without tertiary education that it did not seem that TVET colleges were contributing productively to economic growth.

Their conclusion is that the high overall unemployment rate is due to two factors: a) the labour market is oversupplied with individuals with relatively low levels of education in an economy biased towards skilled occupations; and b) the poor quality of schooling and education in general inhibits access to productive employment.

They also find that workers with formal education are replacing those with no education even in those occupations that are generally regarded as low skilled. This “education inflation” may even be happening at the higher end of the occupational spectrum. Employers choose individuals with the highest levels of education available even where they are not necessarily more skilled and productive but they may be less costly in terms of ‘on-the-job’ training.

Inequality and Poverty

It is generally known that levels of inequality and poverty are high in South Africa especially with respect to our status as an upper middle income country ((GDP per capita in Purchasing power parity (PPP) terms of \$11 000 in 2012 (United Nations Development Programme, 2015). The high level of inequality in South Africa is also demonstrated by the discrepancy in its **economic status** (measured for example by GDP per capita) and its **development status** (measured by UNDP’s Human Development Index, based on a combination of an economic indicator – GDP per capita- and two social indicators, education and health). On the economic indicator, GDP per capita, a measure of the relative wealth of the country, South Africa ranks 64th out of 182 countries, but on the HDI it ranks much lower at 116 (United Nations Development Programme, 2015). Inequality in the provision and quality of education and health drags South Africa down in the development rankings.

The conventional view on the relationship between economic growth on the one hand, and inequality and poverty on the other, is that growth will always and everywhere reduce inequality and poverty. In this view, policymakers should focus only on strategies that will raise the growth rate of the economy. However, as was demonstrated in the previous section, South Africa and many other African countries showed respectable and even high rates of growth in the 2000s. However, poverty and inequality remain pervasive across the continent.

It is evident that in order to attain the high levels of sustained growth needed in the country policy has to focus on the simultaneous enhancement of growth **and** the reduction of inequality and poverty.

None of this is to minimise the role of education, and especially post-secondary education in contribution to the eradication of poverty and the reduction of income and other inequalities in South African society. As stated in the previous sections, education can contribute both to higher and sustained levels of growth, as well as to lower levels of societal inequality and poverty through its skills- and knowledge-enhancing roles.

The overall Gini coefficient for household income per capita in 2012 was 0.66. On the African continent, other countries with a similar high Gini coefficient for income are Botswana, Namibia, Equatorial Guinea, and Seychelles. African countries with low Gini

coefficients (i.e. low income inequality) are Malawi and Tanzania. In the case of the last two countries, this reflects a relatively equal society in terms of income distribution, but at a very low level of income (reflected, for instance, in income per capita). Industrialised countries with low Gini coefficient for income include Norway and Sweden (around 0.25).

In South Africa, the Gini coefficient for household income per capita is significantly higher than the Gini coefficient of earnings only, mainly because the household measure includes households in which there are no wage earners.

Comparing the wage shares accruing to each decile in the earnings distribution over time shows that the total share going to the bottom 60% of the distribution (i.e. deciles one to six) is only 20%. The share of wages going to the highest paid decile is about 40%, and this is just over double the share going to the next highest 10% of the earnings distribution. (the ninth decile).

The analysis of earnings inequality by race group shows that the earnings inequality for African and Coloured workers was generally higher than inequality for the Asian/Indian and White groups. Although mean earnings for White workers were far higher than for African earners, the African-specific Gini coefficient was always higher than the White-specific coefficient. Most of this growth in inequality took place between 1995 and 2000, and was due mainly to the economic empowerment of a small group of Black Africans in the top two deciles, but with the majority confined to the lower deciles.

In summary, earnings inequality is very high in the labour market, and this is significant as it feeds directly into inequality at the household income level. Within industrial sector earnings inequality is an important influence on driving overall earnings inequality increased relative to between-sector inequality, from about 60% to about 85%.

South Africa does not have an official National Poverty Line. Therefore measures of poverty differ according to who is measuring it, with the most conservative estimates being produced by the National Planning Commission (2011) and the World Bank (the international poverty measures of \$1 and 2\$ per person per day to more “reasonable estimates” being produced by Statistics South Africa and Budlender *et al.* (2015).

Using the Multidimensional Poverty Index, South Africa is classified as ‘non-poor’. On the US\$1 a day index, there is 5 to 10 per cent poverty in South Africa, and using the US\$2 a day measure, there is between 21 and 30% poverty. De Lannoy *et al.*’s analysis of StatsSA data show that 60% of the African population is below the ‘upper-bound’ poverty line, 48% below the lower-bound line, and 38% below the food poverty line.

Unemployment

It is common knowledge that unemployment is unacceptably high in South Africa and has not been declining in either absolute or relative terms. More than 5.6 million people are considered unemployed. In terms of the ‘narrow’ measure of unemployment, the rate was 26.6% in April-June 2016 and in terms of the ‘expanded’ definition, the corresponding figure was 38,6%.

According to *Quarterly Labour Force Survey* of April-June 2016, white and Indian/Asian population groups dominate employment in skilled occupations, while the majority of black African and coloured men were employed in semi-skilled occupations.

Black African women are more vulnerable in the labour market, with larger shares in low-skilled occupations – the share of black African women in low-skilled occupations was around 43%. Conversely the share of white women in low-skilled occupations was around one per cent and that of Indian/Asian women was around 5.2%.

Furthermore, the Black African and Coloured populations are disproportionately represented in the lower education categories, while the converse is true for Indians/Asians and Whites. This contrast is especially stark when comparing the distribution of post-secondary education and employment by race. For example, Black Africans have almost 20% in the PSE category (i.e. other tertiary plus graduate) compared to almost 48% of Whites and 29% of Indians/Asians in these categories.

Inequality in schooling, higher education and the labour market

Using cohorts of graduates from Rhodes and Fort Hare universities, Rogan and Reynolds (2016) show that the unemployment rate of 7% among Rhodes graduates corresponds with the national average for university graduates while the rate (20%) among Fort Hare graduates is almost three times higher.

Among graduates who are employed, there are some important differences in job search strategies which may explain some of the differences in labour market outcomes. The single most common way that Rhodes graduates found their current job was through personal contacts or networks (30%). Moreover, if the categories of ‘relatives’, ‘social media’ and ‘personal contacts’ are combined, then just under half of Rhodes graduates found their current employment through a social network. Fort Hare graduates, on the other hand, relied more on newspaper advertisements (36%) than on any other specific search strategy.

According to the authors, the results of this study are important for at least two reasons. First, the findings extend the existing work on degree or programme choice by suggesting that the completion of a first-choice degree is further conditioned by ‘pre-higher education’ factors such as school quality, race, gender and intended field of study. The analysis suggests that at least part of the preference gap is explained by poor schooling backgrounds and, by extension, a lack of adequate preparation for university study.

The implication is that schooling quality and low socio-economic status do not only have the expected impact on higher education access or performance but they are also clearly linked with study choices and employment. This suggests that poor quality of support interventions (e.g. career guidance) in the run-up to Grade 9 in under-resourced schools could have long-term negative effects, as can poor support for learners as they approach matric.

Second, the findings suggest that, while unemployment is far higher with Fort Hare graduates, at least some of the disadvantage is actually carried over from the type of schooling. The implication is therefore that interventions aimed at improving the employment prospects of graduates from HBUs should be targeted at university students from the low-quintile schools or, as already suggested, pupils from those schools who might qualify to attend university.

The Rogan and Reynolds analysis does not support the view that black African students (including those who are enrolled in HBUs) are more likely to enrol in subjects with poorer prospects for immediate employment. Moreover, the evidence from the eastern Cape universities does not suggest that Humanities graduates are significantly more likely to be unemployed after controlling for other factors.

The final question the authors raise is whether the far higher rate of unemployment among Fort Hare graduates is really the result of the oversupply of certain skills or whether factors such as poor matching, poor signalling – including the effects of perceptions and preferences of prospective employers about graduates from HBUs such as Fort Hare or a lack of appropriate social networks in the labour market apply (Rogan and Reynolds, 2016).

Chapter 3. Post-school education as a public good

Introduction

Where are South African young people supposed to go after they complete their basic and compulsory education at grade 9? If they do then go on to complete the 12 grades of school education, what are they supposed to do next? In other words, what happens after school? How is it possible that South Africa can be regarded as one of the educationally ambitious countries in the world that is close to achieving universal basic education enrolment for 7 to 15 year-olds, and yet four out of every ten learners are not able to complete 12 grades of school education? How is it that South Africa's access to education attainment is considered to be in the highest quadrant by global standards and yet the contribution of that education to the economy remains in the lowest global quadrant (Altman and Marock, 2008)? Why is it that, in spite of increased public spending in social grants by many government departments on young people, those young people still remain so vulnerable in society? Why is the problem of youth unemployment so acute in spite of the Skills Development Levy that is supposed to resource the provision of training and work experience opportunities? Why is it that, in an affirming policy environment for black South Africans, most of the young and unemployed are still black youth (Altman and Marock, 2008; Altman, 2008)? How is it possible that in spite of the rapid enrolment growth that has been experienced in the higher education sector over the past twenty years, participation rates still remain far below the targets of the National Plan for Higher Education of 2001 (Ministry of Education, 2001; Bunting and Cloete, 2008)? What is to be done to achieve and exceed this target soon if it is true that the capacity of the current higher education institutions has already maxed?

There is a wide acknowledgement that education for the young is not in itself enough to meet adequately the socio-economic challenges in the world. Specifically, all nations at the turn of the twenty first century are challenged by the notion of promoting economic prosperity and egalitarian societies. This challenge has become more and more pronounced since the collapse of the Cold War, blurring the boundaries and needs between the developed and underdeveloped states (Sall, 2003). In other words, the need for continuing education seems to be growing in both developing and developed countries as the world's political and economic systems continue to be thrown into doubt by a fast internationalizing world. It can be expected that those countries experiencing most changes will also experience a greater need to step up their provision for everyone in order to prepare their citizen to deal effectively with a changing world. In South Africa, education for those who have left school has become more topical and many policy developments and interventions are on the cards for the post-school population, and yet there seems to be no common understanding of what exactly this education is all about. For example, is post-school education simply an extension of schooling or is it something different – adult education? Are post-school education and adult education the same or are these concepts that overlap? What is it that defines adult education: is it the age or the learning programme?

When education takes too long, it becomes adult education. In many countries, especially in middle to low income countries, there is a tendency of high repetition and attrition in school going populations that in some instances even senior secondary education becomes adult education when there are many individuals who cannot complete their school qualifications.

After completion of twelve years in education, one is regarded as an adult who can vote and participate in all adult activities and duties. In fact not long ago, few individuals in most societies continued beyond primary education as this was often adequate for accessing elementary and even intermediate level training and jobs. This is no longer the case. The growth of modern industrial, business and communications technology has required higher education and skills for more and more jobs. In addition, in a situation of high unemployment, higher level qualifications render work seekers more employable, even if their level of education is not strictly necessary for the job.

Post-school education as a public good

Despite hopes to the contrary, South Africa has become a less equal society since the demise of apartheid. In spite of the many interventions that the government rolls out for the poor, such as social grants, subsidised water and electricity, housing, public health, and free school education, inequality, as measured by the Gini co-efficient continues to grow and is arguably the one of the highest in the world (Bosch *et al.*, 2010).

What most of these policies and interventions have in common is the emphasis on the redistribution of resources. While such policies are important within a context of inherited resource inequality, they cannot be implemented at the cost of an emphasis on the redistribution of opportunities. Some emerging economies, particularly those in Latin America, which share a history of inequality, have over the past decade reaped the benefits of a growing focus on the latter by purposefully channelling opportunities towards the more disadvantaged sections in society (De Barros *et al.*, 2009).

The principle of equal opportunity, of levelling the playing-field, is, firstly, a more sustainable approach, and secondly, a more appealing longer-term proposition to address income inequalities in contexts where high levels of emotive contestation exist around ownership of resources. Having access to opportunities in life prepares people for accessing further opportunities that provide social mobility, itself a critical social mechanism, which contributes to a stable body politic (Tyree *et al.*, 1979). Social mobility, whether taken in small steps, or long leaps, provides a measure of the gap between the social origins and social destinations of individuals. When the ultimate gap is wide for those who start from a position of disadvantage, achievement reached reflects opportunities given and taken along the way, and thus provides the measure of mobility possible for individuals.

Education is one of the primary social resources that offer opportunity to individuals. As a result most countries strive to provide their citizens with access to education in order to enhance the quality of their citizenship, but also to provide a platform for social mobility. Quite often a distinctive feature that separates developed from developing societies is the extent to which this opportunity is extended to individuals. Frequently developing countries limit this opportunity to a few years of – mostly primary – education. Such limited approaches are short-sighted, particularly in a country like South Africa, where social mobility is limited by insufficient education, which, in turn, exacerbates existing levels of inequality. It consequently underscores the importance of completion of senior secondary education, which is a gateway to opportunities for individuals, and skilling individuals and provide access to higher education.

The benefits of providing education at higher levels and to all citizens are numerous. Besides the objective of developing mental and vocational capacities of individuals, a highly educated society also has many other benefits. Research has, for example, shown that educated societies are generally healthier and more tolerant. An educated society has more capacity for reasoned thought, and the nurturing of culture and scholarship. In this vein Kennedy (1997) sees education as strengthening the ties which bind people, taking the fear out of difference and encouraging tolerance. In addition, it helps people to see how the world works and the ways in which they, individually and together, can make a difference to the way it works. It is the likeliest means of creating a modern, well-skilled workforce, reducing levels of crime, and creating participating citizens.

There are social justice imperatives that drive the agenda for continuing to provide education even to those who have left the formal schooling system in any given society. In the context of South Africa, it means that the greater the proportion of the population that has completed secondary education and has acquired some skill to bargain with at the labour market, the better opportunity will be distributed in the population in general. Concentrating all energies and resources in the trickling effects of a growing primary education system, does not seem to be getting us to a point where educational opportunities are being distributed fairly in our society. Also, putting most of our post-school education resources into the university system still means the by-passing of millions of citizens. In order to equalise the opportunities given through educational access, much more effort must be put into the promotion of a completed senior secondary schooling and skilling South Africa and access to tertiary education. This is the 'missing middle' in our education and training system. The recent OECD review of vocational education and training in South Africa (OECD, 2014b) also states that in most developed countries the majority of working people have acquired a post-secondary qualification, which might be one or two year qualification after the completion of secondary school. Equality of opportunity is about levelling the playing field for everyone during key stages of life, and the last three years of schooling and beyond are vital to this exercise. A shift in the debate towards equality of opportunity in this area promises to be a better guide for public policy and give similar chances to all citizens. Education must be seen to be a public good for all.

High / Low / Middle: income and adult education

High income – high adult education

There seems to have been a globalization of ideas about adult education in the high-income countries, especially during and after the disruption of the First World War which brought about major shifts in focus and how adult education and training is seen in societies. The war was also followed by many socio-economic changes, like the slowing down of the economic growth; extension of citizenship rights to the working class, women and immigrants; growing length of life expectancies; changing family systems; and many more. The net effect of these changes was the preoccupation with tackling unemployment and as people began to spend more time in their jobs, the meaning of work itself changed and formed a greater part of individuals' identity. As a result, more and more education for adults became in demand as it provided access to new opportunities for the new groups.

The double pronged trajectory of adult education development in the United States of America is a good example of these developments. The first trajectory includes completion of

schooling and access to post-school (higher) education. On one hand there has always been a focus on enabling adults who did not complete school education successfully to do so. (American Council on Education, 2001). On the other hand, access to post-school education has expanded dramatically (with the Community College as one particular institution that can be singled out for increasing participation in higher education). Almost 50% of all higher education is said to be in the college system and it also has the highest participation of non-traditional students (Gallagher, 2006). The second trajectory is what North Americans call ‘career programmes’, which are work and vocationally related .

In the United Kingdom and later in Anglophone countries, originally served mainly by an apprenticeship system that was developed during the industrialisation periods of development, there has also been a massive development and expansion of post-school education consolidated in what is now known as **further** education providing mainly vocational education qualifications. In Scotland the further education colleges concentrate on ‘access’ courses that provide access to higher education for those students who have not met the traditional higher education admission route, as well as foundational degrees where students take the first part of their degrees programme in a college and the second part in a university (Gallagher, 2006). The Germanic and Asian countries on the other hand have developed a long tradition of technical and vocational education at the post-school level.

The point is that in higher income countries ‘adult education’ is largely in the higher education, post-school area. By contrast in low income countries adult education remains literacy and adult basic education. (It is helpful in this context to see the term “adult basic education” as meaning the equivalent of what compulsory schooling provides, whatever that level is in particular countries.) As school education becomes adult education in lower income countries, in rich nations higher education has become adult education, and often second chance education (rather than a straight continuation from school). This is often reflected in the type of higher education that adults participate in, like distance education, community colleges, training programmes and sometimes in private institutions which are flexible enough to accommodate the needs of adults. Adult education then in industrialized countries became an integral part of modernizing and dealing with industrial development and competitiveness of nations. When finally globalization descended on the world, the use of adult education as an instrument in globalization became almost synonymous with ‘globalizing tendencies’ of corporate border expansions and competition. Concepts like ‘knowledge-based economy’; ‘life-long learning’; ‘learning societies’ ‘learning organization’; redefinition of vocational education; and the relation between education and work started to surface and dominate the adult education discourse. Industrialization and later globalization can also be seen as being direct cause for the dramatic rise in investment in human resource development through adult education.

Low income – low adult education and training

Colonisation and underdevelopment left Africa with massive literacy backlogs. Post independence countries were confronted with the low literacy rates of extreme levels. Gebremariam (2001) chronicles how country after country, as it realized the inadequacies of the formal education system it has inherited, was led to a systematic development of the notion of adult education in Africa. Development became the big political movement and adult education took a centre stage during the immediate post-independence periods. International donor agencies also legitimized this politically but giving needed funding.

There seems to be common threads which typify the problems of implementing adult education in the African continent for example. Firstly, many African countries have been trying to use adult education to engender development and these efforts have been thwarted by the unavailability of adequate resources to support substantive programmes. Secondly, democracy in many African countries has been largely limited to forms of government and not a way of responding in a robust and dynamic way to the African problems (Ntiri, 2001; Gebremarian, 2001; Maruatona, 2006; Stewart, 2001). As a result, adult education has remained largely as a service given to the people by government when it can, and not a process where all can determine what their needs are. Thirdly, today's economy (and technology) requires much, much more than primary education as a basis for skills development (Levy and Murnane, 2004).

South Africa in the middle

South Africa can be described as being quite schizophrenic about adult education and this schizophrenia has partly arisen from its racial apartness. During apartheid, access to education for black South Africans was extremely poor. When South Africa emerged from the dark apartheid days, it was clear that there were many citizens who had never accessed formal education. This situation was ably chronicled by the Non-Governmental Organisations that worked in the literacy movement as well as institutions of higher learning which were working towards the remedying this situation. The emergence of strong unions which had large membership that was illiterate, like in the mining, strengthened the hand of the literacy and adult basic education advocates. The efforts made in expanding school access by the new Department of Education right from the onset, did not seem to shift the perceptions about adult education needs – which remained largely fixated on adult basic education. It is these perceptions that need to shift.

National education and training challenges

In South Africa the challenge of providing for those who have left the schooling system is strongly defined by **access** issues. In other words, young people, once they leave school, are not able to access education and training as easily as they used to when still at school. These difficulties include components of both internal and external barriers.

The problem of access can itself be further characterised by four features, namely:

- spatial inequalities
- lack of second chance opportunities
- limited provisioning
- financial constraints.

Spatial inequalities

Why does place matter in determining the extent of exclusion or inclusion in society and, consequently, inequality in society? First of all we know that employment and income generation is the greatest contributor to improving the economic conditions of individuals – nothing beats employment. We also know that unemployment tends to be concentrated

spatially in certain areas. These areas tend to share common characteristics, like the unavailability of jobs and the availability of affordable housing far from places of employment, post-school education and skills development. A number of recent studies have examined the inequalities or social and economic exclusions that are represented by the spatial places where people live (e.g. White and Green, 2015; City Strategy Learning Network, 2010; Houston, 2005; Gobillon *et.al.* 2007; Weller, 2008).

In South Africa, there is not much research known that tackles the issue of spatial inequalities in the context of the changing economy. Our labour market studies give us averaged out statistics about many of the problems we want to address, like unemployment rates, educational achievements, growing economic sectors, etc. Yet we all know that we are living in a country that has an apartheid legacy of Group Areas Act spatial segregation that confined different race groups in different geographical localities. Whilst there have been attempts to reshape the geography of local governments, the reality is that these entities inherited an unequal past, have parts that have weaker economies and the burden is shared more heavily by certain municipalities than others. In South Africa the urban economies have always depended on the inward migration of labour, initially confined to hostels and the poorer parts of the townships, now settling in the growing informal settlements on the periphery of many metropolitan areas. Also, whilst the rural population has declined, it is still estimated as being a third of the country's population. , this is still a large segment of the country's population. Whilst there are general government interventions to alleviate poverty in households and for individuals affected the most, these are not specific enough to help make a difference in these communities.

In the past, both the Technical and Vocational Education and Training Colleges and the Public Adult Learning Centres landscapes have always been biased towards an urban geographical space, with the township population having access to fewer institutions and the informal settlement and rural population the fewest. The current government has not built any new institutions in its 21 years of governance. The urban areas have expanded in the periphery as many people move from rural areas to towns and cities as well as the influx of new foreign nationals. This therefore means that there are more individuals who do not have access to the institutions inherited by the current government when the population was still under 40 million. If spatial access is not addressed soon, the system will remain unequal and no amount of money poured into the system will reverse this fact.

Lack of second chance education

Passing the national senior certification examination or 'matric', as it is known, has become the minimum requirement for a better future for many young people and their families, who struggle at great expenses to obtain this. Due to various social and economic reasons, this key to a better life becomes elusive if learners do not succeed at their first attempt, because the education system offers little opportunity for second chances.

Secondary education serves as a link between schooling and work, work-preparedness and higher education. Given that labour markets, both in South Africa and the rest of the world, have become more predisposed towards skilled workers in recent decades, there has been a corresponding requirement regarding the capacity of education systems to produce larger numbers of skilled labour market entrants. In a context where post-secondary qualifications are increasingly in demand, **a secondary education has become the absolute minimum**

requirement for those who want improve their livelihoods through employment (Levy and Murnane, 2004).

Secondary education is not only important as a necessary acquisition for trainability, but it is at this level that young people consolidate their acquisition of disciplinary knowledge that guides them through their professional lives. Young (2008) regards the imparting of such disciplinary knowledge as one of the main functions of schools, and argues that it is this element of education, more than attendance, that has the capacity to engender equality. He is convinced that the acquisition of this 'powerful knowledge' enables children from disadvantaged backgrounds to move, intellectually at least, beyond their local and particular circumstances. Townsend and Dougherty (2006) also advance this argument and regard it as a critical requirement for adapting to an increasingly knowledge-based global economy.

The provision of universal secondary education has been a critical common variable amongst countries that have experienced economic booms in recent years. Brazil, which has experienced concurrent growth and a decline in its high inequality levels, provides one such example. Prior to its growth phase many of its citizens were unskilled and lowly educated, which translated into highly differential pay scales. Economic growth coincided with and improvement in education, because it's expanding welfare system attached conditionalities, such as the senior secondary completion, to the extension of government support to poor households (de Moura Castro, 2012, 2011). Such measures contributed to the narrowing of inequality in the Brazilian society and produced sufficient skills for a rapidly expanding economy. South Korea, once one of the world's poorest nations, offers another example where educational development has been tied to economic development, and has allowed the country to shift its industrial base from heavy capital-intensive industries to a knowledge-intensive economy (Sang Hoon, 2011; Young-Chu, 2011; Young-Hyun, 2011). The universalising of tertiary education, which provided the foundation for this transition, was predicated on an already universalised secondary education system.

When the present government assumed office in 1994, compulsory education was pegged at nine years of education. This decision was largely informed by international practices, where developed countries were making education available and compulsory until the ages of 15 or 16 (National Education Policy Investigation, 1992a). The structuring of school education into a system that distinguished between general compulsory education on the one hand and senior secondary education on the other, was a pragmatic consideration, given that the new government could not guarantee a budget that was able accommodate twelve years of equitable education. Today, twenty one years later, it is becoming increasingly clear that the lower threshold of nine years has become a significant barrier for young people to become productive citizens (National Youth Commission, 2008; Altman and Marock, 2008). Altman and Marock, for example, show that those who do not complete their senior secondary schooling or access higher education are the most vulnerable and their chances to be employed are greatly reduced. Indeed, Cloete (2009b, p. 3) contends that the two 'worst' things that can happen to a young person is either to drop out of school between the Grades 10 to 12, or to get a National Senior Certificate without matriculation exemption which does not allow access to degree study. This, unfortunately, is the reality for the majority of young South Africans. Only a minority completes high school with a degree-accessing National Senior Certificate that allows them to proceed to higher education.

Even though the Senior Certificate pass rates have been improving, the composite pass rate masks other details in the system. For example, because of the growing number of Senior Certificate candidates, the actual number of young people who obtain this qualification is

growing. However the number of those who pass at a level that qualifies them for university admission has remained more constant, leaving out a growing number of certificated individuals who have very few options to access work or further learning. This group of young people adds to the equally large group of students who fail the examination annually.

Limited provisioning

In both the TVET and Adult education space, there are severe limitations on useful post-school programmes. The DHET funded programmes are limited to the National Certificate Vocational (NCV) certificate and NATED courses (Department of Education, 2001a, 2001b). Sectoral Education and Training Authority (SETA) non-trade programmes, like learnerships, have not been particularly effective. The National Qualifications Framework (NQF) has, in the main, had the unintended consequence of reinforced a tendency for workplace-based and vocational training to lead to narrow, atomized skills. The ensuing qualifications have been cumbersome and difficult to use, because of the tendency of competency-based systems to lead to narrow but lengthy and over-specified qualification documentation (Wolf, 1995; Allais, 2007, 2010). Adult Education provisioning is dominated by the General Education and Training Certificate for Adults (GETCA) programme, which is the equivalent of a school Grade 9. As the TVET colleges are slowly moving towards trades programmes, their graduates are also beginning to be connected more with work-places and employment. But the opportunities for industry links are still limited and many students remain with only institutional base of qualifications for a very long time. In this environment, it is still not easy for providers to develop and offer programmes they find useful, and get funded for this. In fact, all users – whether they be providers, learners or employers, find it hard to put forward their needs for qualifications and programmes for funding in this system. This has aggravated the lack of diversity and the weaknesses of our post-school institutions, probably the single biggest problem currently. Inadequate quality, quantity, and diversity of provision characterize the post-school education sector as a whole.

Financial constraints

Landman *et al.* (2003) give us a good account of the state of poverty and inequalities in South Africa, confirming the reality of ‘two economies’ in the country. They further advocate a comprehensive list of interventions that would have to be considered by the state to address this crisis and solve the problem by 2014. That date looked far away in 2003, and now it has come and gone, and yet the problems experienced a decade ago still exist if not exacerbated.

Inequalities and poverty are often assumed to mean one and the same thing because they often co-exist, but they are different. Landman *et al.* (2003) for example give us a detailed account on the differences between the two phenomena. According to them, it is possible that both poor and wealthy societies can be unequal in their poverty and wealth. An economically well off or better off society is better even if it has some poor people than a society where everybody is impoverished. This means therefore that poverty is the worse than inequality, whether experienced in an unequal or equal society. In other words, the people who are poor feel the sting of their unfortunate circumstances more, irrespective of the broader circumstances of their country. But at the same time it is clearly possible to combat poverty by reducing inequality and there should be targeted interventions to roll back poverty and bring more people to into income levels that take them out of economic misery.

Access to gainful and continuous employment seems to be one sure thing to get individuals out of economic misery for themselves and their families, but this is something that seems to be elusive for most individuals living in poverty. There are many reasons why individuals remain unemployed for long periods and therefore cannot sustain their lives with constant resources that come into the family, but the three are the most common reasons: (1) lack of job opportunities; (2) lack of education and skills for the jobs that are available, and (3) a mismatch of skills and jobs in the area in which they live. These three factors are all related and in poor areas all can be found to co-exist.

Lack of education and skills for the jobs that are available is often a significant contributor to the inability to access employment. This happens in different ways. First it is when individuals experience dysfunctionality in the education system, making it impossible for them to reach the required levels. Secondly, it could be that the resources required to continue with education are not available and the individuals stop pursuing educational goals. Thirdly, it is possible that lack of resources and the geographic distance to educational institutions are other factors that disrupts one's goals to go further in education and training. Fourthly, it is also possible that individuals do not have enough knowledge on what is possible in terms of pursuing a vocation, especially when they are removed from active employment scenes and their networks also do not provide them with adequate information on what is possible.

We know that far too many individuals are prohibited from participation in post-school education because of financial constraints. This group of people include learners from poor families, working individuals who cannot afford the fees levied by post-school institutions, and that group called the 'missing middle' (that is, people whose families have a lower middle class income that excludes them from being considered disadvantaged enough to receive financial aid but is not enough to finance further education). It is not only the actual fees that are unaffordable but also the costs related to studying – like transport, accommodation, meals, books, access to internet, etc. Students who attend TVET and PALCs are likely to be in institutions that do not have good infrastructure to support their learning, as compared to universities and therefore need to fund most of their learning themselves.

The effects of inaction in the education and training system

South Africa has a long history of 'insiders' and 'outsiders' throughout the different historical periods. Von Holdt (2011) for example, writing about class formation in South Africa, argues that, in the context of various "dislocations of the transitions from apartheid to democracy", there is a large underclass of unemployed and precariously employed who are generating fierce struggles over inclusion and exclusion both within the elite, between the elite and themselves, and within the underclass itself. These struggles are in part marked by contestation over the meaning and content of citizenship and the processes of class formation is producing a "differentiated citizenship" – which distributes treatment, rights and privileges differentially among formally equal citizens according to differences of education, property, race, gender and occupations" (Holston, 2008, pp. 7-9).

A useful theory through which to understand the participation of youth in the everyday conflicts witnessed in our country's townships is that of Bourdieu's theory of social differentiation. It helps explain the way social divisions are reproduced and how 'insiders' and 'outsiders' are constituted. For example, in his classic work, *Distinction*, Bourdieu

(1984) argues that class structure is reproduced through the accumulation of cultural capital, which can provide access to high-status occupations and social circles. According to him, a class society is reproduced because upper class students are more likely to have the cultural capital favoured by the education system (itself an agent of upper class). Central to this argument is the assumption that what constitutes cultural capital is agreed upon by all segments of society, else there would be alternate markets in which those lacking legitimate cultural capital could succeed.

Although Bourdieu's theory is more complex than the paraphrase above, it does provide us with a framework in which to see social divisions, which we will try and apply it in the current South African context. During apartheid, the boundaries were clear as 'race' was the dividing line. Nowadays 'race' is no longer the dividing line as a new black elite class has emerged. In their study, von Holdt *et al.* (2011) explain how the new elites living amidst the poor have been able to accumulate, namely through the state and the various contracts; limited local business opportunities, and in informal settlements through 'land grabs'. Local and other levels of government provide the primary base for elite formation, through the dispensation of jobs and tenders. Through the distribution of treatment, rights and privileges differentially among formally equal citizens there is an emergence of a 'differentiated citizenship' in the townships, rural areas and informal settlements. This differentiation has produced 'social distances', identified by Bourdieu in communities that had a history of sameness. For the citizens who have been waiting for their constitutional rights to be fulfilled in the form of housing, jobs, electricity, water, education etc., in the midst of corruption, nepotism and seemingly growing affluence for a few, it all boils down to justice being denied.

The struggle against apartheid was fundamentally a struggle for citizenship for blacks and a differentiated citizenship evokes similar sentiments from the underclass of the excluded. Youth are ready to resort to repertoires of the past in attacking state property and responding with violence to the violence of police. In this circle of violence, the youth are always the face as the protest leaders remain in the background. Violence is understood as a language that both the protesters and authorities understand well. Booyens and Crause (2012, p. 256) describe these youth as living an existence of "bleak monotony and pervasive sense of helplessness" and that such individual social exclusion compounds into a national crisis. It begins with an appalling schooling, which leads to a large number of drop-outs at the senior secondary phase and finally helplessness on street corners. This is inevitably continued into a cycle of substance abuse and teenage pregnancy. The adage "NEETs" (Not in Employment, Education or Training) sticks fast and the possibilities of breaking the cycle appear to be ever fewer. Government will ignore this group at its peril. If skills and qualifications have been used to exclude, now skills and qualifications are being used as a demand to include.

What South Africa needs – five principles for action

The apartheid struggle in South Africa was not only an attempt to stop a crime against humanity but should be regarded as a war from which there are many casualties and veterans. As the years progress, these casualties are not being eliminated from the system. Instead the lack of attention to them has created a situation where there are parallel economies; the first and third world economies. Attempts to address adult education in the post-school education system have until recently put the focus on TVET colleges only, but even these institutions do not function optimally yet. Adult education of a more basic type remains lacklustre in spite of Community College policy proposals.

It is no longer useful to view adult education in terms of literacy and adult basic education only. The debate about post-school education is synonymous with adult education in a broader sense in the country. It is synonymous because we know that the country has been providing universal education up to the 9th grade. This means that for a while, we have not been having the problem of complete illiteracy with the new generation (however weak the actual reading, writing and numeracy competencies are). This means that we have a population in South Africa of up to the mid-forties in age who have gone to school, and at least completed between 8 and 9 years of education. The problem of complete illiteracy, where it exists, must be confined to a much older generation, and this the *Kha Ri Gude* adult literacy campaign has been addressing (weak though its post-literacy follow up has been). If this assumption is correct, it provides a guide for DHET on the population that requires the most education, and this profile can be described as being: between 16 and 45 and having between 8 and 9 years of basic education.

We believe that there are **five** principles that should inform the funding of a post-school system that would address our post-school needs: **access, diversification of programmes, articulation, differentiation of institutions, and capacity building.**

Access

Whilst the major debate about TVET and Adult Education in developed countries tend to be about parity of esteem with general academic education acquired in schools, in South Africa it can be said that there is lack of visibility of the TVET system. Many people either do not know where to go to in order to develop the skills needed for the labour market or cannot afford to. Yet, lack of opportunity to develop one's skills presents a barrier in leveraging social mobility in any society as well as inability to exploit the gains already made through basic education. Access in the system will happen when the issues of *spatial inequalities; expanded provisioning* and *financial constraints* are removed.

Funding must be made to increase access to the post-school system and make it available to all who want to participate by:

- (i) Increasing the infrastructure available in all communities by either putting up new buildings; auditing all public spaces that can accommodate learning and make use of or doubling the learning sessions in other institutions like schools, TVET colleges and even universities.

- (ii) Ensure that all communities can get the kind of programmes they need where they are without having to move to urban areas. Temporary training may have to go to other communities periodically.
- (iii) Ensure that learners are not constrained by finances from accessing programmes of their choice.

Diversification of programmes

Useful programmes are needed in both the TVET and broad adult education and training (AET) sectors. Usefulness will be decided by the users' demands, the currency of such programmes, and the credentialing system. Nowadays employers use qualifications as an information proxy for skills and continuously move jobs around the world for low-price qualified-skilled people. On the other hand, people use the qualifications to move themselves and their families around in search for a livelihood. Qualifications have become an important exchange commodity in acquiring expertise and competencies for employers, whilst it creates life opportunities for individuals and mobility for communities and societies. The following seems to be the kind of post-school education the country needs:

- Completion of a high school qualification should be prioritized. Basic education is also synonymous with the completion of 12 years of schooling (not just nine). In addition, this is the most effective way of brushing up and catching up in general education and learning skills for those who have been out of school for some time.
- A vocational education qualification that has a value in the labour market is important for this group. But, it is important to note that many in this group are unable to access this kind of education because of (i) the way it is packaged, (ii) the way it is delivered, (iii) the cost, and (iv) the geographical location.
- Many in this group require short courses in: (i) general education; (ii) vocational or skills development or upgrading; (iii) and personal development, rather than full qualifications that take too long to gain.
- Non-formal education which does not have to be examined should still be an important aspect of post-school education, and in particular the community education and training institutions.
- There is a particular case for expanding participation in higher education by what can be considered to be 'non-traditional' students. The only way this can be done is an increase in the number of institutions that provide for higher education. In practice this means increasing participation through higher education in colleges – which is the largest gap in the South African education system, which relies only on the elite system of universities.
- More post-high school qualification, e.g. short-cycle qualifications like Higher Certificates and Diplomas, which used to be offered by Technikons and now have largely disappeared from the system

A funding model that stimulates the diversification of programmes in the system is sorely needed for both TVET and AET.

Articulation

When there are no progression routes from one sector to the other sector or they are weak, no matter what goodwill there is in the system, both massification and differentiation will be rendered futile. The college system (TVET and CET) is currently structurally sitting outside the entire education system. As a result, the government sponsored programmes in TVET colleges, like the NCV, are seen as a regressive move by many students. Attempts to align the TVET College system through the NQF have not really worked as this exercise did not really look inside what is provided but merely created a frame within which the new qualifications were to be pegged. The weakness of this whole process is now felt through the illogical sequencing of courses that have no relationship and do not take the pacing of the knowledge requirements at different levels. Articulation as an important concept in opening up access and ought to be an important lever in steering education, instead of being left to individual institutions and students. Programmes and institutional relations between TVET and CET institutions, as well as TVET and HE institutions must be funded. The most important key to articulation is about institutional relationships, and the following may help:

- Funding a relationship between the TVET and CET institutions through space sharing; satellite campuses and even merging some of these institutions
- Funding a relationship between the TVET colleges and the Universities of Technology through franchising and other means that would make HE happen in colleges
- Put all funding for HE–TVET education partnerships in the TVET college budgets so as to incentivise the higher education institutions.

TVET should be used as anchor institutions to foster these relationships and make it possible for programmes to overlap with this institution. Funding incentives will go a long way to make this happen.

Differentiation of institutions

One of the most common problems that occur when different institutions are expected to act within the same space is that they all adopt a single set of institutional characteristics within that system. Isomorphism is inevitable when a new type of institution enters the terrain as they will want to fashion themselves after the older ones. So, in this case it can be expected that the TVET college education institutions may want to fashion themselves on the university sector as they enter the higher education system, and the Community Colleges on the TVET college system (a development unfortunately encouraged by the legislation which mechanically models them on TVET colleges). It is desirable that even though the two types of institutions co-exist within a single system, they must still maintain some sense of functional and organisational boundaries. Largely, the choices to be made here revolve around maximising the resources available in each sector for each institution, as well as being able to influence the direction and growth of each sector. Funding that incentivises the differentiation will go a long way toward steering the system in the right direction.

Capacity building

The effectiveness of the whole system will hinge on the capacity that has been built over time to deliver what is needed to the population of South Africa. This means training of educators in both sectors as a starting point. The strength of the sector is as strong as its educators. Also, training funds must be available for all personnel in the system, whether it is for teaching, administration, or leadership in order to have an effective system. The sector is sorely in need of research capability in order that interventions must be evidence- based. This capacity must be developed in the sector itself instead of relying solely on external capacity.

Chapter 4. An overview of post-school education and training

Introduction

The South African education system comprises three broad bands that are referred to as General education; Further education and training (FET), which comprises vocational and occupational education, and training offered at colleges and at the last three years of school education; and Higher education and training (HET) at universities, comprehensive universities and universities of technology. Adult Basic Education and Training takes place at the General Education level. Vocational education refers to education that gives students the knowledge and skills to enter the economy, by providing a general, broad vocational orientation and general learning in essential areas such as language and mathematics. Occupational education refers to educational programmes that prepare students for specific occupations and ongoing professional development and training in the workplace (DHET, 2012e). Skills development programmes are provided through Sector Education and Training Authorities (SETAs) and vocational and continuing education and training (VCET), in TVET colleges at both FET and HET levels.

The changing education landscape (1994 to 2016)

The Secondary School system

In the past two decades the South African state has made big strides in making school education more accessible to children. The country has not only expanded and massified schooling but also retained the widespread cultural commitment to education. When the new post-apartheid government took office, the education cause was boosted immensely by the ‘back to school’ calls made by former President Mandela. Millions of students responded and enrolled *en masse*. Enrolment and retention numbers have continued to increase steadily, according to the major survival and drop-out rate study carried out in the country for its 12 grade school system (Ministerial Committee on learner retention in South African schooling system, 2008). So the issue of access, including that of girls, is one of the lesser problems of the South African school education system (there is gender parity in every province except Limpopo (more males), and Western Cape (more females)). More challenging is the question of learner retention and drop out, which becomes most pronounced after grade 9. Currently only about 45% of the learners exit from the schooling system having completed Grade 12.

Table 17
Survival rates and drop-out rates associated with each school grade

GHS years	2003-2005		2006-2008		2009-2011	
Birth Cohort	1979-1981		1982-1984		1985-1987	
	Survival per 1000	Percentage dropping out with this grade attained	Survival per 1000	Percentage dropping out with this grade attained	Survival per 1000	Percentage dropping out with this grade attained
Zero education	1 000	2.0	1 000	1.8	1 000	1.1
Grade 1	980	0.3	983	0.2	989	0.2
Grade 2	977	0.4	980	0.4	987	0.3
Grade 3	973	0.9	976	0.5	985	0.6
Grade 4	964	1.3	971	1.1	979	0.9
Grade 5	951	1.8	961	1.6	970	1.3
Grade 6	935	3.1	945	3.1	957	1.9
Grade 7	906	5.2	916	5.2	939	3.7
Grade 8	858	7.5	868	7.4	904	5.7
Grade 9	793	11.1	804	11.3	853	9.9
Grade 10	705	18.5	713	17.5	769	17.5
Grade 11	575	27.6	588	28.3	634	28.3
Grade 12	416		422		455	

Source: *General Household Surveys: 2003-2011* in Department of Basic Education (2013, p. 39)

The number of times learners repeat years is also large, averaging from 15% to 28% in all grades (Branson *et al.*, 2013, p.7). There is a particularly large repeat population in Grade 10.

Completion rates of the secondary education system can be measured in two ways. It can, firstly, be done by looking at the pass rate at the end of the schooling system (grade 12) or, secondly, by looking at the survival rates of the same cohort at the end of grade 12.

Table 18
Senior Certificate/National Senior Certificate: numbers passing and pass rate, 1991–2014

Year	Total candidates	Total passes	Percentage total passes	Total failures	Percentage total failures
1991	409 076	216 147	52.8	192 929	47.2
1992	447 904	243 611	54.4	204 293	45.6
1993	470 948	239 556	50.9	231 392	49.1
1994	495 408	287 343	58.0	208 065	42.0
1995	531 453	283 742	53.4	247 711	46.6
1996	518 032	278 958	53.8	239 074	46.2
1997	555 267	261 399	47.1	293 867	52.9
1998	553 151	279 986	50.6	273 165	49.4
1999	511 159	249 831	48.9	261 328	51.1
2000	489 941	283 294	57.8	206 004	42.0
2001	449 371	277 206	61.7	172 126	38.3
2002	443 821	305 774	68.9	137 991	31.1
2003	440 267	322 492	73.2	117 604	26.7
2004	467 985	330 717	70.7	137 173	29.3
2005	508 363	347 184	68.3	160 996	31.7
2006	528 525	351 503	66.5	177 022	33.5
2007	564 775	368 217	65.2	196 558	34.8
2008	533 561	333 604	62.5	199 817	37.5
2009	552 073	334 718	60.6	217 355	39.4
2010	537 543	364 513	67.8	173 030	32.2
2011	496 090	348 114	70.2	147 976	29.8
2012	511 152	377 847	73.9	132 881	26.0
2013	562 115	439 764	78.2	122 351	21.8
2014	532 860	403 874	75.8	128 986	24.2

Source: Department of Basic Education statistics from 2009, 2011 and 2014

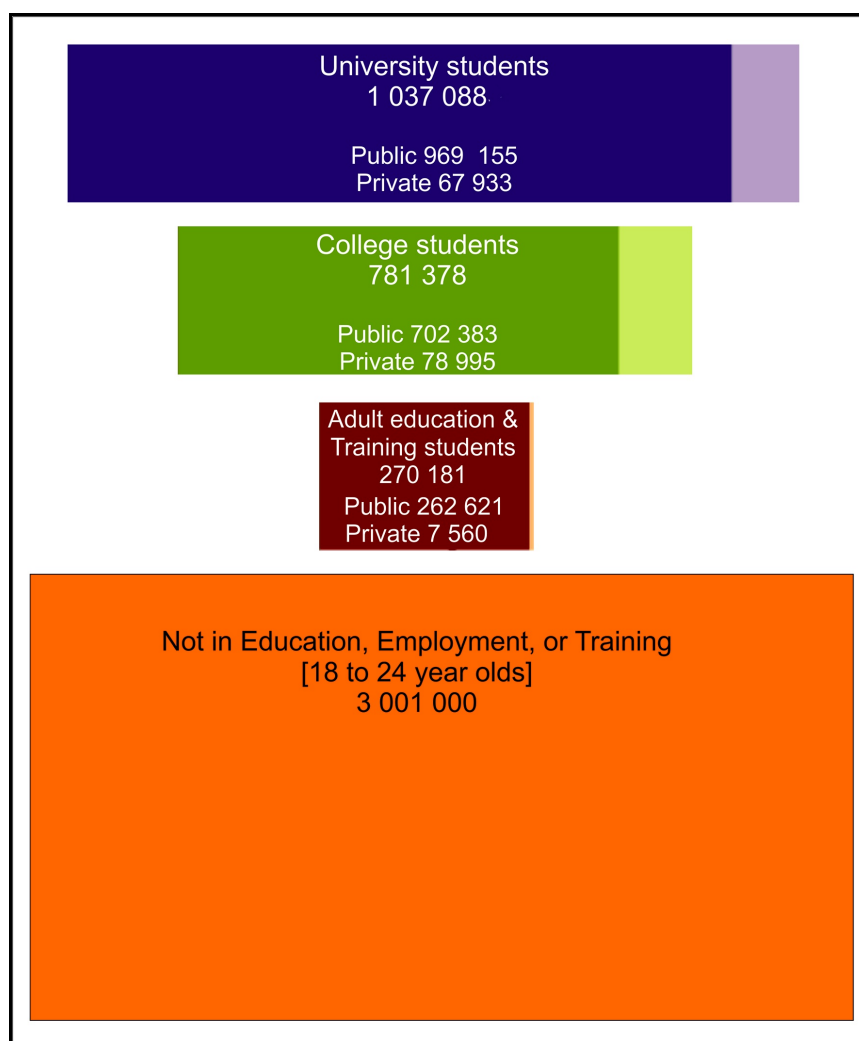
Note: These results are only for full-time school candidates.

Post-school education and training

The growth of students passing the National Senior Certificate is not matched by the number of students who eventually end up in some form of post-school institution or programme. For example the 2013 data shows that whilst, more than 400 000 students passed the National Senior Certificate, new additional places available in higher education institutions were about 40 000. It is not clear how many students can be accommodated by the TVET institutions at the beginning of each year, but generally the numbers in these institutions are still generally lower than the university sector. Those young adults who never gained a Senior Certificate because of failure or through dropping out of the school system at an earlier stage through failure (or even through never having attended school) are accommodated in adult education, though enrolments here have not changed much since 1994. It is therefore clear that many young people grow up, do not finish the 12 years of school education, some fail and some pass poorly and many reach a *cul-de sac* in their educational pursuits (Branson *et al*, 2015).

Figure 1

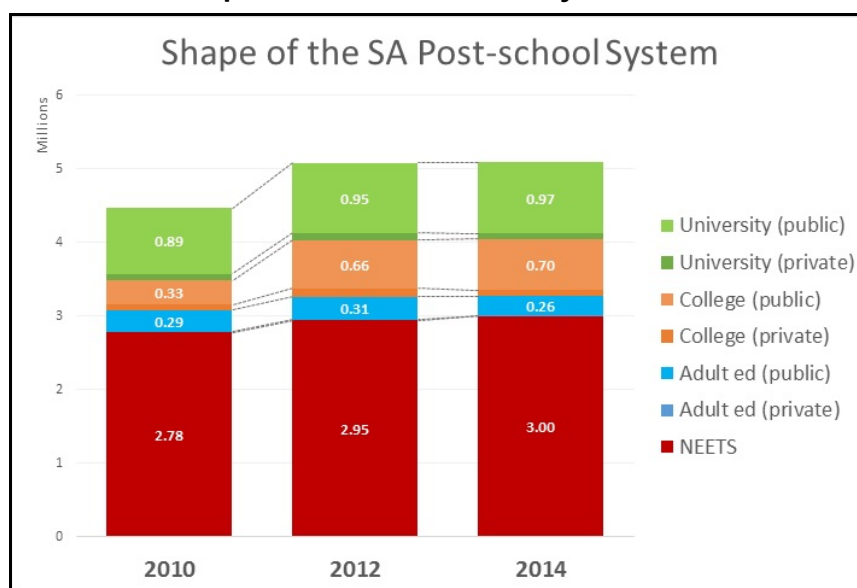
Shape of the South African post-school education system in 2014



Source: Adapted from Van Schalkwyk and Sheppard, 2014. Note that enrolment figures are not FTEs.

As can be seen from this chart, the overall ‘shape’ of participation in the South African post school system has not changed significantly since 2010:

Figure 2
Shape of the South African post-school education system: 2010 to 2014



Adult literacy and adult basic education and training

Assessing the quantity and quality of South Africa’s adult education provision for undereducated adults is difficult because of the continuing lack of accurate data.

The major development in the post-apartheid dispensation was the erecting of the ABET system solidly wedded to new standards and outcomes-based educational policies and systems. Harley *et al.* (1996, p. 60) estimated that in the period 1994/1995 there were about 335,480 adult basic education learners with a less than grade 9 level of education being served by all sectors. Very few of these learners would have been true illiterates and most instruction was a replication of primary and secondary schooling content. The introduction of Curriculum 2005 for school-going learners and the growing status of the National Qualifications Framework (NQF) led to a period of confusion, uncertainty, lack of direction, underfunding, low motivation and poor quality in many Public Adult Learning Centres (PALCs). Since 1994 numbers did not significantly increase in the formal state ABET system and adults and out-of-school youth had been losing ground in obtaining Senior Certificate qualifications. It is unlikely that attendees (including both genuine ABET learners and those studying at a grade 12 (Senior Certificate level)) have ever reached much more than 400,000 per annum and output has generally been poor. Also, post 1994, literacy and ABET learners in the business sector (once the largest) have declined in number, though the business sector still has some good programmes and materials. Further, non-governmental provision of literacy, once marked by innovation, participatory methods and excellent materials, has experienced a drastic decline as donor funding dried up and government and SETA contracts proved too episodic and arbitrary for sustainability.

In 1999, partly in recognition of the inadequate performance of the ABET system in eradicating illiteracy, a South African National Literacy Initiative was started but was

hampered by organisational problems. Subsequently the well planned Kha Ri Gude literacy campaign started in 2008 and has been a signal success and reached over 4 million learners (Aitchison and McKay, 2013, Aitchison, 2016). Its budget for 2015/2016 is R504.7 million. However it only provides the very basic elements of literacy and numeracy and the take up of its successful learners into the unpopular PALC system has been dismal.

Though South Africa engaged in substantial adult education policy development (Aitchison, 2013) its implementation of adult basic education and second chance learning has been weak (apart from the Kha Ri Gude literacy campaign). South Africa, has, however, produced innovative and excellent literacy, post-literacy and adult basic education materials. Many have been produced by NGOs, university adult education departments, some commercial providers and latterly by the state's Kha Ri Gude literacy campaign and are available in the major languages (though with the decline in the ABET system most are now out of print). Unfortunately, the general lacklustre provision has inhibited the effective use of these material resources up till now. Tragically, the resource that higher education sector could be to adult education has also deteriorated in the last 15 years with the effective closure of a most university adult education departments, many of which had been influential in literacy and adult basic education policy, materials and practitioner development.

Overall, it is the very failure of the public adult education system that led to the recent policy decision to reorganise the Public Adult Learning Centres into clusters, as satellites of new community colleges.

Community Colleges and Community Learning Centres

An essential historical resource on developments in the early 1990s is Silas Zuma's 1996 paper (Zuma, 1996) *A review of Community College development in South Africa* which outlines the attempt, finally abortive in spite of all the effort that went into it, to set up a community college system in South Africa in the mid-1990s during the transition to a post-apartheid society. The National Institute for Community Education (NICE), a major influence on these efforts, developed coherent and detailed proposals for a system of community colleges (with open access, democratic governance, partnerships and cooperation, comprehensive curriculum and flexible scheduling and delivery) linked to satellite single- or multi-purpose community learning centres and workers learning centres (NICE, 1994, 1995, 1996). Various regions developed a number of innovative models (Reddy, 2001). By 1998 the National Department of Education had identified 30 of the 61 technical colleges as pilot sites for community colleges and the Human Sciences Research Council undertook a study of nine of these sites (Odora Hoppers, 2001b). Hoppers noted weaknesses in current policy developments and institutional practice (Odora Hoppers, 2001a, pp. 10-12):

- too long a period between policy formation and effective policy implementation
- little understanding of the substance and opportunities in existing policy
- Department of Education ignoring of ongoing innovations in pilot sites
- lack of linkages between Departments of Labour and Education at provincial level
- lack of security of tenure for senior education leadership
- weak academic support programmes
- lack of a centre for curriculum development
- volatile and incomprehensible funding decisions.

Eventually, these models and proposals were ignored. In 2012 a Ministerial Task Team on Community Education and Training Centres (DHET 2012c, 2012d) report proposed a new institutional set up including Community Colleges as district hubs for Community Learning Centres.

The actual proposals were as follows:

- A network rather than a single ‘new’ institution
- The network would be an integral part of the post-school system
- It would have two major components:
 - **Community Learning Centres (and their smaller satellites):**
(with the Kha Ri Gude literacy campaign infrastructure, matured into a national learning network (with some similarities to the Scandinavian study circles), linked to them
 - **Community Colleges** (within a differentiated college sector) as support hubs for the Community Learning Centres clustered around them)
- Support from an Institute for Adult, Youth and Community Learning (not merely a sub-section of a TVET Institute)
- Open, distance and e-learning components in all of these institutions
- There would be strong links to the TVET college system
- There might be a pilot phase in which the model was tested but the aim was for a community college in every district of the country.

The Task team saw the work of these Community College/Community Learning Centres as focussing on the following:

NQF level	Institution	Mission	Programmes
1 to 3	Community Learning Centres	First and second chance literacy and vocational	ABET, soft vocational skills, GETC, NASCA, some CLCs focus on hard vocational skills and NCV, community and non-formal education, <i>Kha Ri Gude</i> learning network programmes
1 to 5	<i>Kha Ri Gude</i> Learning Network	Literacy and public education	Literacy, public and community education [Multi-ministry delivery]
4 to 5	Community colleges	First, second chance Senior Certificate. Vocational and occupational programmes	NASCA, NC(V), soft vocational skills, social learnerships, para-professional programmes, university bridging

The decision to not recommend having “community colleges” as sub-sections of existing TVET colleges was based on the rationale that when adult education is tagged onto another system it is invariably neglected and that expecting weak and overloaded TVET colleges to take on the task of mothering a weak, understaffed and dysfunctional PALC system that served thoroughly under-prepared learners was too much to expect. However they would be expected to articulate with the TVET colleges.

In 2012 the *Green Paper for Post-School Education and Training* (DHET, 2012b) had a small section on Community Education and Training Centres which it proposed as a replacement for the Public Adult Learning Centres. The green paper noted the inadequacy of provision for people who had failed to complete their schooling.

The *White Paper* that followed (DHET, 2013) also included a brief section (pp. 20-24) proposing core-funded and well-staffed Community Colleges (which would cluster the Public Adult Learning Centres) and expand provision nearly 400%. They would offer education and training, formal and non-formal, for community needs, literacy and citizenship education, not only income generation.

Before the Task Team report was finalised or the White Paper published, the DHET legal advisor appraised the Task Team of a plan to rename all the 3 000 or so PALCs as Community colleges, then immediately merge them into 9 (provincial/regional) ones. This was to give effect to the “function shift” of the PALCs from provincial to national control. This all came to be and the function shift took place on 1 April 2015. Predictably there were administrative problems, particularly with payments to PALC staff, and it generally seemed that there was great lack of clarity as to who was actually responsible for ongoing support to the PALCs, given that there were in fact no new community colleges (only nine nominal community colleges to act as ‘Community College Administrative Centres’).

Currently the whole PALC/Community College system receives about 2% of Post Secondary Education system expenditure (about R1.7 billion) ((DNA Economics, 2016, p. 4).

Technical and Vocational Education and Training Colleges

Prior to the 1980s, **South Africa** had a state system of technical schools and **technical colleges**. The technical colleges provided post-school vocational and occupational courses (and provided the theory aspects of apprenticeship education and training). Some were also legally empowered to provide higher education. Over time some also began to offer community courses (Raju, 2006, p. 4). In 1967 an intermediate institutional type was legislated for which changed some technical colleges into **colleges for advanced technical education** (CATE) that could provide higher education sector training and help lessen the shortage of skilled high level employees.

In the 1979 the CATEs were renamed **technikons** and firmly placed within the higher education sector. It was recognised that there was a set of higher education qualifications provided by them that differed from those of universities and were more practically orientated. The development of polytechnics in the United Kingdom also influenced these South African changes.

The post-apartheid 1997 Higher Education Act recognised three types of institutions: universities, technikons and colleges as part of a differentiated higher education system. All the qualifications would be aligned to a new National Qualifications Framework (NQF) and the Ministry of Education would approve the particular qualification programme mix at particular institutions. Though the Ministry of Education regarded the technikons as providing career-orientated diploma qualifications they were subsequently renamed Universities of Technology and they edged towards being “comprehensive universities” (Mentz, Kotze and van der Merwe, 2008, p. 36).

The Further Education and Training *White Paper* of 1998 (Ministry of Education, 1998) heralded a nationally driven merger that by 2002 saw 150 colleges into 50 larger, multi-campus institutions which had more autonomy and delegated budgetary authority. The merger certainly addressed the historical legacy of the same districts having four or more parallel institutions that previously served the apartheid era “race” groups, and of the distinction between state and state-aided institutions, but it also led to the closure of smaller institutions that had operated (though sometimes not very well) in rural areas. The capacity to manage these larger merged colleges was, however, often lacking (Gewer and Morojele, 2014).

Subsequent reforms included the recapitalisation of the declining Further Education and Training college sector from 2005 to 2008 that sought to address infrastructural, resource and capacity challenges, legislation in 2006 that transferred the staff of FET colleges to employment by college councils, and the provision of bursaries for college students through the National Student Financial Aid Scheme (NSFAS), and a new National Certificate (Vocational). Enrolments in the colleges expanded significantly and there were gradual signs of improved academic performance (though from a very low base). However, DNA Economics (2016, p. iv) argued that:

Throughput rates in TVET colleges are also low because students in the system do not receive sufficient academic and financial support, given that TVET students come from highly disadvantaged backgrounds. This suggests that substantial additional funding per student might be required to improve throughput rates and efficiency in the system, and drives up total expenditure in the sector.

Most recently control of these colleges has been transferred from being a provincial competence to a national one, with the process completed in the first quarter of 2015.

In 2011 the colleges were considered to be operating at only 75% of their student capacity with 300 000 students. In 2014 there were 349 580 FTEs (based on 702 000 enrolments). They are generally considered to be underperforming and to be burdened by under-prepared students, though current policy envisages their massive expansion to serve 1 250 000 students by 2030 (National Planning Commission, 2012a, p. 321) or even more according to DHET targets for 2030 (DHET, 2012d, p. 12).

As part of the DHET’s attempt to create a more coordinated post-school sector, the FET colleges were renamed Technical and Vocational Education and Training Colleges in 2014. There are plans to increase the number with new colleges in particularly disadvantaged areas.

They currently focus on three types of programme offerings:

- The National Certificate: Vocational (NCV) introduced in 2007 with a wide range of variants to choose from. Grade 9 is a minimum qualification to enter into the NCV, although a growing proportion of students have Grade 12. A certificate can be obtained for each year of three years of technical/vocation orientated study – at NQF levels 2, 3 and 4. The National Certificate: Vocational is offered in parallel to the school-based National Senior Certificate (NSC) which has a more “academic” focus. NCV 2 to 4 are equivalent to grades 10 to 12 respectively and correspond to NQF levels 2, 3 and 4. The NCV curriculum is structured to include 60% theory and 40% practical components in a particular vocational field. The practical experience may be offered in the workplace or in a simulated workplace environment. This feature has the advantage of giving students the opportunity to gain experience in the workplace

during their studies. However, this qualification does not prepare students for immediate entry into the work place. After completing the NCV, students are required to do approximately two years of work experience. They may then sit the national trade test skills in their field of specialisation.

- ▶ The NATED Report 191 lists national programmes N1 - N6 which are largely theoretical in nature and require candidates to complete an extended apprenticeship before sitting the national trade test to become a qualified artisan. Artisan qualifications include plumbing, welding, carpentry, boiler-making and many others. Grade 9 is a minimum qualification to enter into the NCV or N1-N6 programmes, although a growing proportion of students have Grade 12. The N1 – N3 programmes have never been directly aligned with the NQF, but N3 broadly equates to grade 12.. N4 – N6 programmes correspond to the first year of study post grade 12 and are ranked at NQF level 5, while the National Diploma corresponds to three years study post grade 12 at NQF level 6.
- ▶ Occupational programmes have been offered by the Sector Education and Training Authorities (SETAs). These are typically skills based programmes with structured work integration.

The 2012 DHET Statistics show that the majority of College students (about 60%) are registered on the N1-N6 programmes and 40% on the NCV programmes.

One of the key challenges of the South African TVET sub-system is the fact that currently there is no articulation between the TVET and any other education sector.

Currently TVET colleges receive 11% of Post Secondary Education and Training system expenditure (about R8.5 billion) (DNA Economics, 2016, p. 4).

The Higher Education system

A *National Plan for Higher Education* (Department of Education 2001c) was issued in 2001. There are now 26 public universities in South Africa, some of them traditional (Cape Town, Fort Hare, Free State, KwaZulu-Natal, Limpopo, North-West, Pretoria, Rhodes, Sefako Makgatho Health Sciences, Stellenbosch, Western Cape, and Witwatersrand), six comprehensive (Johannesburg, Nelson Mandela, South Africa, Venda, Walter Sisulu and Zululand), six universities of technology (Cape Peninsula, Central, Durban, Mangosuthu, Tshwane and Vaal) as well as two new universities (Mpumalanga and Sol Plaatje).

There are also 119 private higher education institution.

Total enrolments were 1 050 851 in 2012 and the National Development Plan of 2012 envisages an expansion in enrolment to 1 620 000 by 2030.

Universities are currently under considerably strain from the huge growth in student numbers, the unpreparedness of many students for higher education study, managerialist changes to the culture of the universities allied to shrinking funding (in real terms), and most recently by pressure from students to have free, no fees, university education. Currently universities receive 71% of Post School Education and Training system expenditure (DNA Economics, 2016, p. 4-5) (about R53 billion, including about R33 billion coming through

direct transfers from the DHET and NSFAS transfers). In the period 2000 to 2013 direct state subsidy dropped from 49% to 40% but NSFAS transfers rose from 2% to 11% during the same period and generally fees rose at a higher rate than inflation (DNA Economics, 2016, p. 9)

The state funding of university education more generously than other PSET is controversial “because of the private benefits that accrue to university graduates in the form of higher earnings over their lifetime.” and the growing decline in the rate of repayment of student loans.

Goals for the post-school sector and policy imperatives

A number of planning documents have envisaged dramatic growth in post-school enrolments in the next 5 to 15 years.

The 2030 targets can be summarised thus:

Table 19
Targets for 2030 enrolment in the Post-school sector (public and private)

Institutions (public and private)	2013 enrolment	DHET target: 2030	National Planning Commission target: 2030
Universities	1,103,639	1,500,000	1,620,000
TVET colleges	654,240	4,000,000	1,250,000
PALCs/Community Colleges	266,139		1,000,000

Sources: DHET, 2015i, and National Planning Commission, 2012a, pp. 319, 321-322

More immediately, the *Expected System Performance Outcomes/Targets for 2019/2020* of the DHET (DHET, 2015j, p. 20) propose a headcount of 1 238 000 in TVET colleges by 2019.

Economically it is clear that manufacturing, which requires skilled workers, is inadequately served by the relatively small (compared to the huge university sector) TVET college capacity.

Equally clearly, massive funding would be required to provide the infrastructure, staff, student support (academic and financial), and education and training materials for such an increase in the scale of provision in TVET and Community Colleges (see the 2016 DNA Economics *Financing options* report).

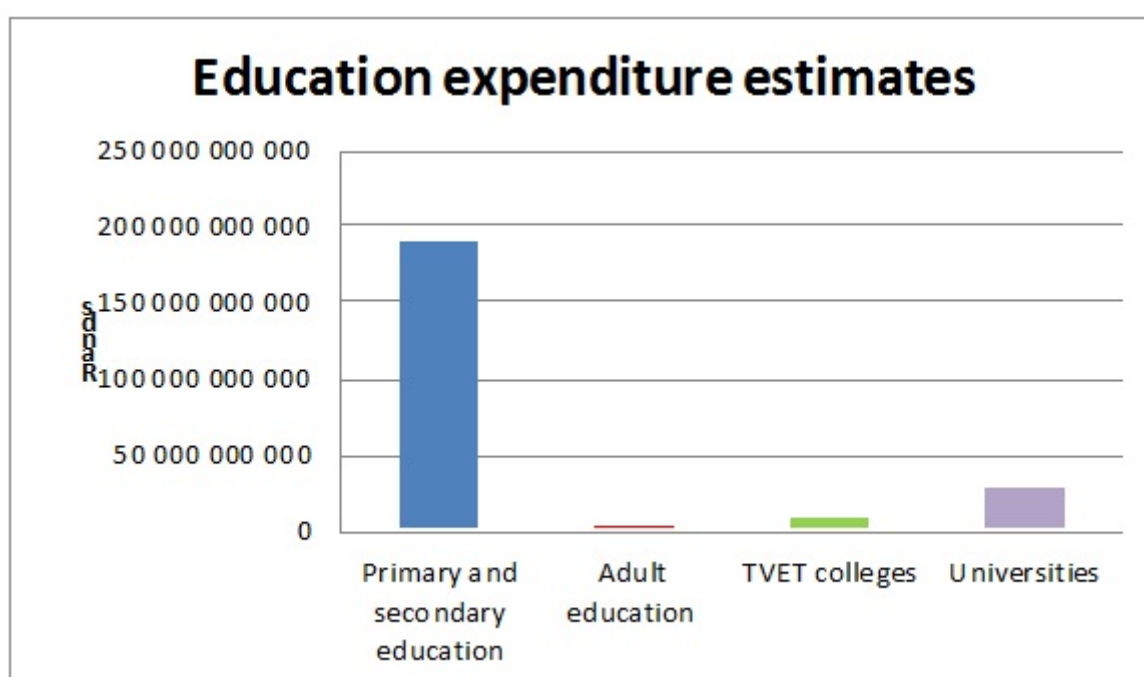
In 2014/2015 the government spend on Post School Education and Training (PSET), including the SETAs, was R74 billion, with about 1.9 million enrolments in universities, TVET colleges and the public community colleges/adult learning centres (DNA Economics, 2016, p. 4). There are huge imbalances in the state funding distribution between these three main post-school sectors as shown below for 2014 (DNA Economics, 2016, pp. 4, 8, 12, 14).

Table 20
State Post-School Education and Training expenditure estimates: 2014/2015

Government Source	Amount (R'000)	Percentage
NSFAS	8 961 429	22%
DHET Transfers to TVET colleges	5 827 173	14%
DHET Transfers to Universities	24 155 093	59%
Community Colleges	1 731 890	4%
PSET Institutions (incl. DHET)	426 536	1%
Total	41 102 121	
State PSET expenditure as % of total PSET expenditures	55.56%	
% of total of tax revenue	4.17%	

Source: DNA Economics (2016, p. 5) based on various sources of information

Figure 3
Overall expenditure on education and training in South Africa



The envisaged shape and differentiation of the system

Clearly the envisaged shape of the post school education and training system includes the following features:

- much higher enrolments overall
- redistribution of the ratios of enrolments at universities, TVET colleges and Community colleges/Community Learning Centres from the current ratio of approximately 5:3:1 to 4:3:2.6 [although arguably over time TVET colleges should have higher enrolments than universities].
- greater differentiation between institutions according to need
- more effective output of graduates
- considerable infrastructure expansion.

Predictable problems and challenges facing the post-school education and training sector

The education and training legacy and the NEETs

The problems of South Africa's education and training legacy is common cause. Currently only about 45% of the learners exit from the schooling system having completed Grade 12. An intolerably high percentage of schoolchildren complete their primary education barely literate (Spaull, 2016).

Young people (people aged 15 to 34 years) constitute 36% of the total population. About 59% live in urban areas and 49% in rural ones. About 7.4% are disabled. The majority (73%) do not have a Senior Certificate qualification and some 57% of these were unemployed (and a minority of these had ever worked). Overall youth unemployment is about 70% of total unemployment.

Youth are more likely than older adults to be victims or perpetrators of crimes of violence or theft. There are a significant number of youth headed households – 26.1% in 2014 (with 5.6% of households headed by youth aged 24 or younger).

There is evidence of the migration of youth from poorer to provinces with larger metropolitan areas: Eastern Cape lost 32.4%, Limpopo 32%, Northern Cape 27.6%, Free State 22.4%, North West 21.1%, and Mpumalanga 20.5%. [This evidence raises questions about the siting of education and training facilities for youth of different ages.](Statistics South Africa, 2016a, pp. viii, 1, 10, 13-14, 18).

One of the most disturbing findings in the Statistics South Africa 2016 report is the continuing decline in the percentage of youth who are employed (including those classified as entrepreneurs or self-employed).

Some 83.5% of youth live in households with a monthly income less than R15 000 and 58.7% in ones with a monthly income less than R6 000. About 54.4 % of youth live below the poverty line (Statistics South Africa, 2016a, pp.70-73).

One of the most dire outcomes of the continuing under-education and under-skilling and lack of employment is the number of young people who are Not in Education, Employment or Training, the so-called NEETs.

People Not in Education, Employment or Training (NEETs)

The cumulative number of young people without a Senior Certificate, or with only a low pass one, has been growing over the years, and constitutes approximately 41% of the NEETs group (who themselves constitute about 42% of young people aged 18 to 24 (Cloete, 2009a).

Table 21
Young people 18-24 not in education or employment (and not severely disabled)

Education level	Age							Total
	18	19	20	21	22	23	24	
Unspecified	2 595	2 457	3 786	4 762	4 998	4 054	4 699	27 351
Primary or less	61 056	64 285	70 496	78 564	73 575	75 261	77 425	500 662
Secondary education less than Grade 10	51 192	59 643	73 194	79 050	83 367	81 502	80 649	508 597
Grade 10 or 11	65 228	94 608	132 158	164 596	176 733	174 325	183 146	990 794
Grade 12/NTCIII (no matric exemption)	47 447	65 190	89 292	99 797	100 711	96 139	100 080	598 657
Grade 12 (with matric exemption)	10 226	13 526	14 778	14 259	16 910	13 869	14 766	98 335
Certificate with Grade 12	2 732	4 025	6 229	8 157	9 672	8 340	7 811	47 035

Source: Adapted from the Cloete, 2009b, p. 10)

Given the low productivity of the South African schooling system, in spite of the large percentage of the education budget dedicated to it, it is alarming that such a small percentage of the education budget goes on technical and vocational training and adult education (even though access to adult basic education is a constitutional right).

The economy and the destination of students

Chapter 2 of this report has shown that South Africa's growing population requires concomitant economic growth and that this has consistently been less than that planned for and required. The manufacturing sector has shrunk because of the importing of cheaper products from the East and the general financial and economic crises of the last decade have taken their toll. The high levels of poverty also reduce the demand for products adding another impetus to a vicious cycle of problems.

Generally the inadequate levels of general education and the lack of full provision of skills training for artisans and skilled workers have exacerbated the problems in an economy that increasingly requires high skill levels. The very high levels of unemployment predominantly effect the less well educated, those who have not successfully completed twelve years of schooling. Of course, if unemployment is rife because of the structure of the economy and there are no jobs, or there are inflexible and counter productive employment regulations, raising education levels will not be a panacea.

In 2006 the Joint Initiative on Priority Skills Acquisition (JIPSA) was established to deal with the supply of priority skills to the economy and identified the following five priority skills areas for immediate attention (DHET, 2014e, p. 12), :

- High-level, world-class engineering and planning skills for the “network industries”, namely transport, communications, water and energy
- City, urban and regional planning and engineering skills
- Artisanal and technical skills, with priority attention to infrastructure development, housing and energy, and in other areas identified as being in strong demand in the labour market;
- Management and planning skills in education and health
- Mathematics, science and language competence in public schooling.

In addition, JIPSA made proposals to prioritise skills initiatives in the fields of tourism, information and communication technology, business process outsourcing and bio-fuels.

Clearly TVET colleges could address many of these training needs and adult education attempt to remediate the failures in public schooling.

The importance of Vocational Education and Training for the development of the economy, particularly the manufacturing sector is self-evident. What is less evident is the job opportunities awaiting learners after obtaining qualifications from colleges and the extent to which their practical work experience during their training has been sufficient.

There is scope for much more innovation with respect to apprenticeships, learnerships and placements as well as for better articulation with Higher Education and Training.

Similarly, the importance of second chance education is also self evident. Even if school education rapidly became more effective, the backlog of its failures would take a generation to eliminate. It is also clear that much of this second chance learning must be of a foundational nature (given that one of the top skill needs is in fact this basic competence in language, mathematics and science. Recently approved new qualifications, the General Education and Training Certificate for Adults (GETCA) and the National Senior Certificate for Adults (NASCA), certainly aim to address this. However, a pressing need in adult education is for “on demand” assessment and certification (to fit in with the rhythms of the workplace. Currently the DHET lacks the capacity (and perhaps the will) to make this more possible, though the Independent Examination Board has piloted ways of doing this.

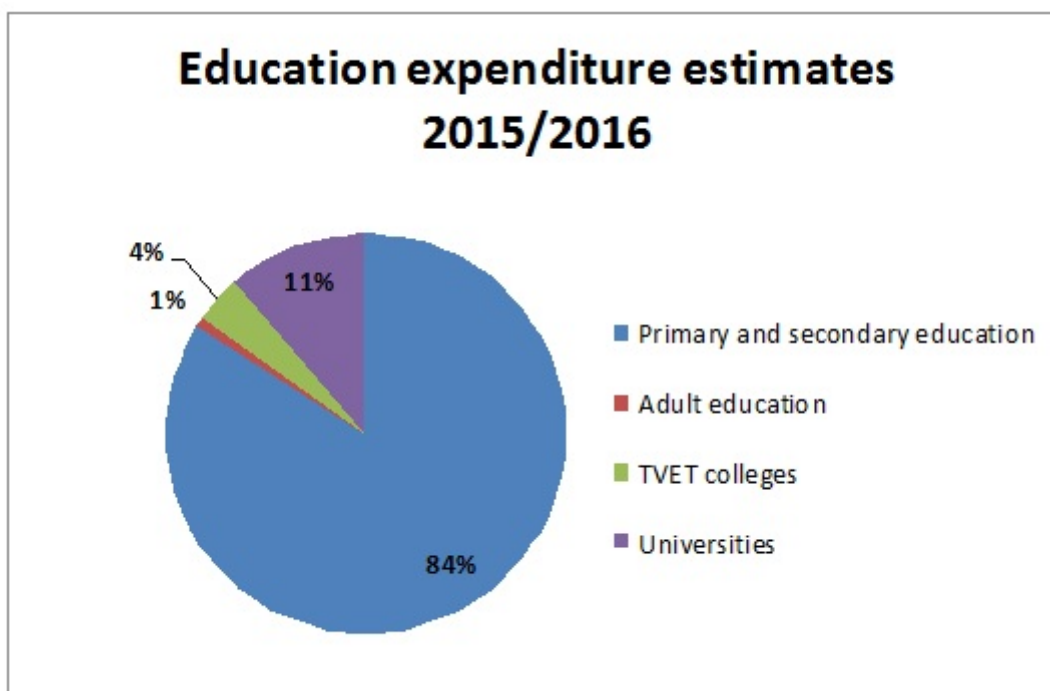
Huge institutional challenges remain with both TVET colleges and Community Colleges/Community Learning Centres, with regard to:

- Instructional and management capacity
- The spatial distribution of institutions
- Connection with labour markets
- Connections and articulation with higher education

In addition the issue of realistic growth (student enrolment) targets is complicated and fraught with challenges and pitfalls (as will be discussed later in this report). The cost of not investing in education and training is, however, possibly even greater (For example Gustaffson *et al* (2010, p.4) estimate that “ if the quality of schooling in South Africa were where it should be (at a level befitting a middle income country), GDP would be R550 billion higher than it currently is, or 23% above the current level. ... poor quality schooling at the primary level, which increases adult illiteracy in future decades, is undoubtedly a large, and arguably the largest, inhibitor of South Africa’s growth and development.”

The proportions of the education budget allocated to the various components of post-school education and training

Figure 4
Education expenditure estimates 2015/2016



A major factor influencing what resources devoted to the various components of post-school education and training are the (often historic traditions of past) political decisions on how the national education and training budget is to be proportioned out to, respectively, Early Childhood Education, the public school system, TVET colleges, universities and the community colleges/adult education system. Until recently TVET colleges and adult education were provincial competencies subject to significant variances in provincial funding. What is currently very clear is that the TVET college and the community colleges/adult education systems are underfunded – given the proposals in the *Post-School Education and Training White Paper* and in the *National Development Plan 2030* and, in respect of adult basic education, constitutional imperatives.

In simple language, the education budget cake may need to be divided up differently. Currently, compared with many other developed and developing countries, it can be

considered to be “out of shape” with the budget division very roughly: Schools 84%, universities 11%, TVET colleges 4% and adult education 1%.

There is also a “out of shape” factor in the current allocations to TVET and Community College/Community Learning Centres based on the legacy effect of past provincial allocations.

Changing all this would probably mean a major escalation in the size of the education and training budget and could not be done overnight but would need to be well planned and phased in over several years. Such a process might well be compromised by short term political responsiveness to such things as the current *#Fees must fall* turmoil which already indicates the extent to which university funding is prioritised to the neglect of other sectors because of the powerful interests in the university sector and the lobbying power of those interests.

It must also be recognised that at some stage expansion of provision will require large scale capital expenditure on infrastructure.

Chapter 5. The Technical and Vocation Education and Training Colleges

Introduction

Both government and business organisations recognise that South Africa suffers from a shortage of skills, including artisans, technicians and engineers. The *World Competitiveness Yearbook* published by the International Institute for Management Development (2010) ranked South Africa last out of the 58 countries profiled for availability of skilled labour. The gap between labour force entry and the ability of the economy to create jobs for young unemployed people is also growing.

Governments are increasingly recognising the importance of technical vocational education and training (TVET) systems for economic development because of their focus on skills for the labour market. Real productive gains can result from a workforce with the necessary skills and knowledge to adopt innovative approaches in their work practices, and by addressing skills shortages in sectors such as information technology and telecommunications. TVET systems are also seen as instruments of social policy, assisting (for example) those from particular social groups, such as those in poverty or lacking marketable skills (Basu, 1997). The *African Economic Outlook* (2012) also points out that VET contributes to social inclusion and poverty reduction, and provides a solution to the problem of youth unemployment in many developed and developing countries. Youth unemployment exists almost everywhere and has become a structural problem in many countries. Millions of youth are denied the opportunity to make their creative contributions to society. The weak labour-market integration of youth is not only a threat to social cohesion, but also a loss to overall development. Therefore, a persistent challenge for TVET is to assist youth in learning skills for successful transitions between education and work.

To address the shortage of skills, the South African government is investing in TVET colleges and increasing the overall enrolments in the sector. However, despite significant government investment in these colleges, challenges in skills development remain. The lack of enough post-school opportunities has resulted in approximately three million ‘not in employment, education and training’ youth between the ages of 18 and 24 years. Other challenges are poor student pass and throughput rates. The concern is that the poor development of skills training affects South Africa’s competitiveness in the global economy.

An effective Technical and Vocational Education (TVET) college system is a critical component of a well-established, good quality, post-school education system. As the *National Development Plan 2030* (NDP) recognises, TVET can extend access to the labour market, increase labour productivity and improve other labour market outcomes, such as wages and labour employability. In particular, developing human capital improves a country’s competitiveness, innovation and economic growth (National Planning Commission, 2012). TVET is an important investment lever for economic development through its focus on developing skills for the labour market. Skills development is critical for absorbing the economically marginalised into a vibrant and internationally competitive economy. However, the *National Development Plan 2030* also recognises the weaknesses and need for enhancement of the current system (National Planning Commission, 2012a, p. 50):

The FET system is not effective. It is too small and the output quality is poor. Continuous quality improvement is needed as the system expands. The quality and relevance of courses needs urgent attention. When quality starts to improve and the employability of graduates begins to increase, demand for FET services will rise automatically. Simply growing the sector without focusing on quality is likely to be expensive and demoralising for young people, further stigmatising the system. By 2030, the FET sector should cover about 25 percent of the age relevant cohort, implying an increase from about 300 000 today to 1.25 million by 2030.

Historically, FET colleges had low throughput rates, inadequately qualified lecturers, insufficient industry-linked experience, and a limited programme qualification mix, with a lack of programmes relevant to local communities and industry. In many instances, examinations, assessment and financial management were also below average in quality

In line with the mandate of the national Department of Higher Education and Training (DHET), TVET colleges have migrating from the provincial to national sphere in 2009. The rationale for this shift was to develop an integrated post-school education and training sector. Various the fiscal and financial issues have arisen related to financing the TVET function and the resolution of these issues are key to the maximising the potential benefits and mitigating financial and fiscal risks.

The existing data and its inadequacy

The DNA Economics report (2015, p. 20) notes that:

While the quality and quantity of data available centrally has improved – due to the standardisation and centralisation initiatives driven by the DHET, as well as by a multi-year DHET contract with SAICA to ensure that colleges have sufficient financial management and reporting skills – has improved, data is still lacking in accuracy and/or consistency.

A 2015 study on *Differentiation of TVET colleges in the Western Cape* found that:

- data on individual colleges and particularly on performance is very difficult to find
- the DHET data gathered from annual surveys on lecturer qualifications has a very problematic irrational structure which makes is unusable
- headcount enrolments in the TVET sector are often misleading
- certification rates based solely on those who wrote examination and not on those who roiginally enrolled can be misleading.

The limitations of the PERSAL system for staffing data

Because not all employees in TVET and Community College systems are on PERSAL (the state salary payment system) there are likely to be ongoing problems gaining accurate tallies of post-school sector staffing numbers.

Demographics and distribution of TVET College provisioning

The national and provincial pictures

South Africa has 51 public TVET colleges and a large number of private colleges.

The highest number of public TVET colleges is in KwaZulu-Natal (9), followed by Gauteng (8) and the Eastern Cape (8). The largest number of students in public TVET colleges found in the most populous provinces, Gauteng and KwaZulu-Natal, and in the Western Cape. Two other heavily populated provinces, the Eastern Cape and Limpopo, by comparison have relatively low participation.

The DHET states (DHET, 2015a, p. 40) that “In 2013, 627 private FET Colleges were registered with the Department.” However the DHET’s list of Registered Private Colleges (updated on 20 November 2015) only lists 295 private colleges (down from a previous list of 10 September 2014 which had a total of 366) (DHET 2014b, 2015b).

Table 22
Number of registered Public TVET Colleges and Private Colleges

Province	No. of Public TVET Colleges	No. of Registered Private Colleges	Number participants	
			Public TVET Colleges	Private Colleges
Gauteng	8		173 027	69 363
KwaZulu-Natal	9		122 518	17 621
Western Cape	6		72 171	32 738
Limpopo	7		69 382	3 830
Eastern Cape	8		54 513	10 619
Free State	4		53 730	1 524
North West	3		48 304	1 974
Mpumalanga	3		32 785	5 944
Northern Cape	2		13 188	200
Unspecified				10 819
Totals	50	295	639 618	10 819

Sources: DHET, 2015a, pp. 23, 25, 27, DHET 2015b

An indicator of equitable access to TVET colleges across provinces is the proportion of TVET college enrolments relative to the cohort population in the province. The majority of TVET college students fall into the age category of 19–24 years. Table XX shows the number and proportion of 19–24 year olds enrolled in TVET colleges in 2011 out of the total population of the same age. Nationally only 4.2% of youth aged 19–24 years enrolled and of

these youth, the highest participation rate (between 5.2 and 6.6%) was in the Free State, followed by Gauteng and the Western Cape. The lowest percentages (below four per cent) were in Mpumalanga, the Eastern Cape, North West and KwaZulu-Natal.

Table 23
Enrolment by province and sex of 19-24 year-olds in TVET Colleges: 2011

Province	2011 19-24 year olds in population			2011 19-24 year olds enrolled in TVET Colleges			2011 As % of 19-24 year olds in the population enrolled		
	Male	Female	Grand Total	Male	Female	Grand Total	Male	Female	Grand Total
Eastern	448 738	448 018	896 756	12 081	12 919	25 000	2.7%	2.9%	2.8%
Free State	167 704	164 129	331 833	10 613	11 379	21 992	6.3%	6.9%	6.6%
Gauteng	567 634	550 238	1 117 872	39 697	28 587	68 284	7.0%	5.2%	6.1%
KwaZulu-	665 025	664 075	1 329 100	22 824	22 334	45 158	3.4%	3.4%	3.4%
Limpopo	362 416	367 273	729 689	15 847	16 608	32 455	4.4%	4.5%	4.4%
Mpumalanga	234 891	230 591	4 65 482	4 940	5 130	10 070	2.1%	2.2%	2.2%
Northern	63 034	61 508	124 542	2 254	2 400	4 654	3.6%	3.9%	3.7%
North West	187 319	184 296	371 615	6 352	5 532	11 884	3.4%	3.0%	3.2%
Western	276 712	272 694	549 406	14 560	13 964	28 524	5.3%	5.1%	5.2%
All provinces	2 973 473	2 942 822	5 916 295	129 168	118 853	248 021	4.3%	4.0%	4.2%

In terms of enrolment growth, overall these grew substantially from 2011 to 2013. In 2011 there were 248 021 aged 19 to 24 and in 2013 there were 293 616 aged 20 to 24 (there were 140 590 aged 15 to 19).

The key data on TVET Colleges

Programmes offered

Vocational Education and Training (VET) takes a variety of forms both within and among different countries. It can be pre-vocational training, to prepare young people for transition to a VET programme at upper secondary level (initial VET normally leads to a certificate at upper secondary level). It can be school-based or company-based, or a combination of both (as in a dual system). At post-secondary level, VET provides access to higher skilled jobs (e.g. master or technician) and can open the way to higher education (Tessaring and Wannan, 2004).

In South Africa, the Further Education and Training (FET) band on the National Qualifications Framework (NQF) includes all education and training programmes that lead to a qualification from levels 2 to 4 of the NQF. These levels are above general education grades 1 to 9 of school and Levels 1 to 4 of Adult Basic Education and Training, but below higher

education. FET includes the post-compulsory phase of career-oriented education and the senior secondary component of schooling. FET provision therefore comprises three different paths: academic, vocationally orientated and occupation specific. In the White Paper on FET (Department of Education, 1998), VET specifically refers to those aspects of the education process that involve the study of technologies and related sciences, the acquisition of practical skills, and understanding and knowledge relating to occupations in various sectors of economic and social life (a view consistent with the definitions of VET provided by the International Labour Organisation and UNESCO).

The usual programmes offered at the TVET colleges are:

The NATED programmes

For many years, the six-level NATED Report 190 and 191 (usually abbreviated to N1, N2, N3, N4, N5, and N6) courses have been the base theoretical qualification for the training of apprentice artisans employed by private sector firms. However, with the growing difficulty in obtaining apprentice positions, increasingly students enrol in these courses without first being apprentice or sponsored. The courses are primarily theoretical.

The NATED programmes were meant to be phased out between 2009 and 2012 and replaced by the NC(V) programmes. But in reality they have continued alongside of the NC(V) and in many cases have experienced more rapid growth in enrolments.

The National Certificate (Vocational) programmes

In 2007, the Department of Education and Training introduced the National Certificate (Vocational) (NC(V)) at public TVET colleges to solve the problem of poor quality and low relevance of the NATED programmes and the chronically short supply of work placements available to private students, as well as the low technical and cognitive skills of TVET graduates (DHET, 2010). The NC(V) offers a broad range of knowledge and practical skills in a variety of vocational fields mainly targeted at technical skills development. The practical component of the study is mainly offered in a work place or in a stimulated environment.

National Higher Certificate Programmes

These are NQF Level 5 higher education programmes (that have a minimum of 120 credits and could take at least a year of full-time study in a higher education institution) and prepare learners for entry in Diploma or degree studies at universities.

Occupational qualifications

In addition to 191 and NC(V) programmes, TVET colleges offer occupational qualifications (Occ Qual). These are usually short (three to six month) courses based on a cluster of unit standards.

Senior Certificate

Some colleges still offer the Senior Certificate (NSC) (Report 191 NSC programme).

Table 24
Enrolments by sex and programme: 2010–2011

Year	Programme					
	Report 191 (N1-N6)	NC(V) 2-4	Occupational	Senior Certificate	Other	Total
2010	169 774	130 039	23 160	3 916	31 504	356
Male	90 186	66 959	11 690	1 454	19 197	187
Female	79 588	63 081	11 470	2 462	12 307	167
2011	222 754	124 658	20 799	1 128	30 934	397
Male	119 933	60 398	7 355	449	18 044	653
Female	102 821	64 260	13 444	679	12 890	870
2012	359 624	140 575	62 359	1 715	93 417	657 690
Male						
Female						
2013	442 287	154 960	19 000	1 693	21 678	637
Male	223 596	67 882	7 922	639	12 488	948
Female	218 691	87 078	11 078	1 054	9 190	326

Sources: DHET, 2011; 2012a; 2014a, p. 20; 2015a, p. 29

Figure 5
TVET College enrolments by programme: 2010 to 2013

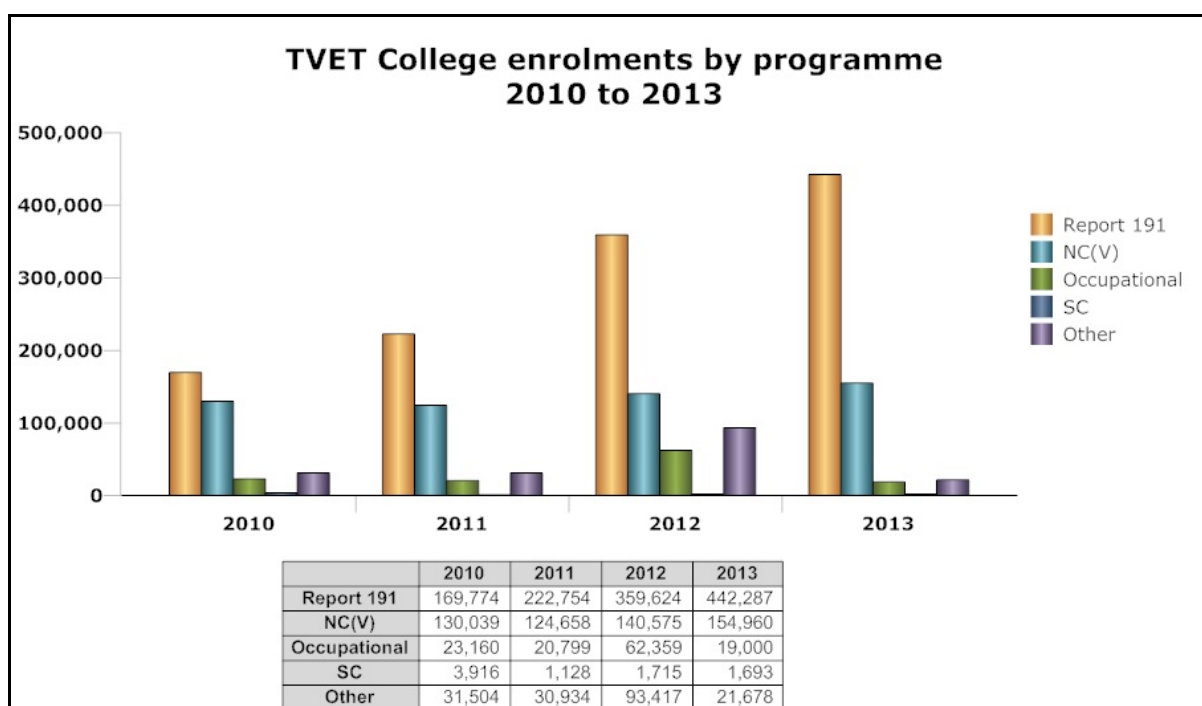
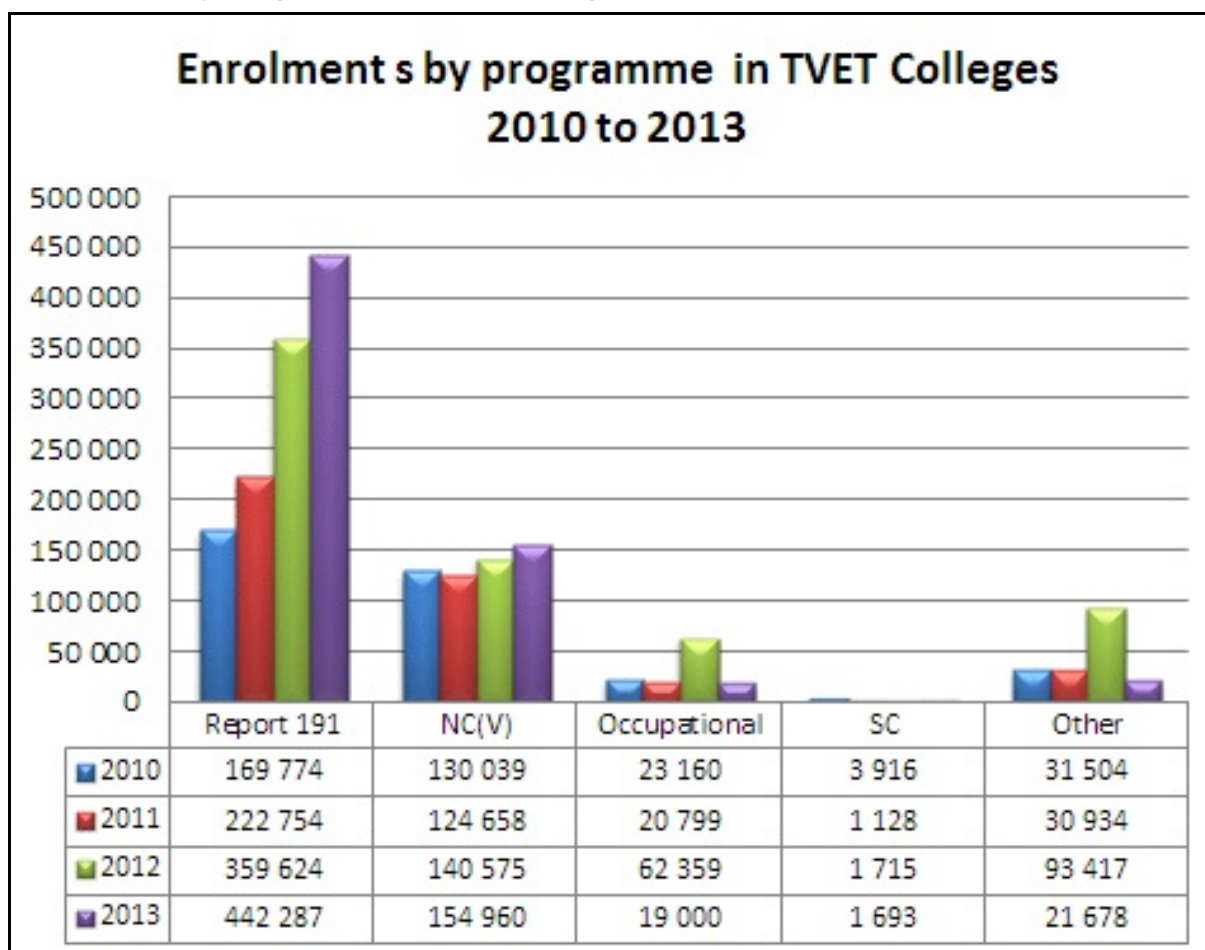


Figure 6
Enrolments by programme in TVET Colleges: 2010 to 2013



Figures 6 and 7 show the participation in public TVET colleges by programme and shows that participation rates are high in Report 191 programmes, followed by National Certificate (Vocational) (NC(V)) and then much lower in occupational programmes and the Senior Certificate programmes. Between 2010 and 2013 participation in all programmes other than the Report 191 and NC(V) declined, which is of concern because broadening access and participation is one of the 1998 National Plan's goals, against which the performance of the TVET college sector is to be measured. Of interest is that participation in Report 191 programmes increased hugely compared to NC(V), in spite of the original intention of the DHET to phase out the Report 191 programmes.

Another interest phenomenon is that female students have overtaken the number of male students in the NC(V), as shown in Table 26 above.

Table 25
Enrolments by age and programme: 2013

Programme	Age group						Total
	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 >	
Report 191	95 638	209 713	61 779	23 402	11 582	7 493	406
NC(V)	40 215	77 894	17 328	3 819	1 259	339	477
Occupational	2 733	5 200	3 244	1 952	1 449	1 583	13
Senior Certificate	2 004	809	174	53	31	25	1 094
Total	140 590	293 616	82 525	29 226	14 321	9 440	569 718
As %	25%	52%	14%	5%	3%	2%	100%

Source: DHET, 2015a, p. 29

Throughputs

Using certification rates as the main, but necessarily rough, indicator of successful student performance, the 2013 examination results present the following picture:

Table 26
Certification of NATED Report 191 Engineering Studies programme: 2013

Certificate (Pass) Rate			Drop out rate			Throughput rate (within minimum time)			
N1	N2	N3	N1	N2	N3	N1	N2	N3	N1-N3
50%	47%	45%	4%	2%	2%	48%	46%	44%	9.7%

Source: DNA Economics, 2015, p. 15, based on DHET, 2013 Examination results

About half the FTEs of NATED students are enrolled in Engineering Studies.

Table 27
Certification of NATED Report 191 Business programmes: 2013

Certificate (Pass) Rate			Drop out rate			Throughput rate (within minimum time)			
N4	N5	N6	N4	N5	N6	N4	N5	N6	N4-N6
34%	33%	27%	5%	4%	4%	32%	32%	26%	2.7%

Source: DNA Economics, 2015, pp. 15-16, based on DHET, 2013 Examination results

Table 28
Certification of NC(V) programmes: 2013

Certificate (Pass) Rate			Drop out rate			Throughput rate (within minimum time)			
L2	L3	L4	L2	L3	L4	L2	L3	L4	L2-L4
33%	30%	37%	28%	13%	10%	23%	26%	33%	2.0%

Source: DNA Economics, 2015, pp. 15-16, based on DHET, 2013 Examination results

All these throughput rates are shockingly low (and even more so if the certification rate is calculated on enrolments and not on those who got to write the examinations). There is also much variation between certification rates in the various provinces (which may be partly influenced by funding levels in each province).

The DNA Economics report (2015, pp. 14-15) argues that is that the low success rate in Mathematics (compulsory in the NC(V) Engineering courses) is a major factor in the low NC(V) throughput rate. It notes that attempting to overcome this problem by more stringent entrance requirements and/or by not accepting entrants with only a grade 9 or 10, somewhat defeats the original vision of the NC(V) as a parallel stream to the last three years of secondary school. This, as well as the adding on of bridging programmes or extra mathematics tuition time, increases costs.

More broadly DNA Economics (2016, p. iv) state:

Throughput rates in TVET colleges are also low because students in the system do not receive sufficient academic and financial support, given that TVET students come from highly disadvantaged backgrounds. This suggests that substantial additional funding per student might be required to improve throughput rates and efficiency in the system, and drives up total expenditure in the sector.

Staffing and lecturer:student ratios

Table 31 reflects the percentage distribution of lecturing staff at public TVET colleges by province.

Table 29
Public TVET Colleges, lecturers and students by province: 2013

Province	Colleges	Lecturers	Students	Lecturer:student ratio
Gauteng	8	2,086	173,027	1:83
KwaZulu-Natal	9	2,299	122,518	1:53
Western Cape	6	1,535	72,171	1:47
Limpopo	7	1,040	69,382	1:67
Eastern Cape	8	1,151	54,513	1:47
Free State	4	605	53,730	1:89
North West	3	610	48,304	1:79
Mpumalanga	3	600	32,785	1:55
Northern Cape	2	180	13,188	1:73
National	50	10,106	639,618	1:63

Source: *Public FET Annual Survey 2011* (DHET, 2015a, p. 25)

The large diversity in the lecturer:student ratio, ranging from 1:47 (Eastern Cape and Western Cape) to 1:89 (Free State) is disturbing. The largest number of staff are, predictably, in the most populous provinces, Gauteng and KwaZulu-Natal.

Table 30
Percentage distribution of TVET College staff by category by province

Province	Lecturing Staff		Management Staff		Support Staff	
	2010	2011	2010	2011	2010	2011
Eastern Cape	58.9%	57.0%	3.3%	3.6%	37.9%	39.4%
Free State	52.9%	51.3%	6.2%	5.1%	40.9%	43.6%
Gauteng	59.2%	59.5%	2.5%	2.2%	38.4%	38.2%
KwaZulu-Natal	55.3%	58.8%	3.1%	2.7%	41.6%	38.6%
Limpopo	54.3%	53.6%	2.0%	1.9%	43.7%	44.5%
Mpumalanga	52.8%	52.1%	2.8%	4.4%	44.5%	43.5%
North West	47.5%	47.3%	3.9%	1.0%	48.6%	51.7%
Northern Cape	50.9%	55.3%	5.9%	1.5%	43.1%	43.2%
Western Cape	58.5%	50.5%	2.6%	4.3%	38.9%	45.2%
National	56.2%	55.3%	3.1%	3.0%	40.8%	41.7%

Source: Own calculations from the Department of Higher Education and Training (DHET, 2012a).

Of the total number of staff employed, the majority (55.3%) were lecturing staff, followed by support staff (41.7%) and management staff (three per cent). The percentage of lecturing staff declined from 56.2% in 2010 to 55.3% in 2011, but the distribution of lecturers differs from province to province. For instance, Gauteng has the highest number of lecturing staff (59.2% in 2010 and 59.5% in 2011), while the North West has the lowest number of lecturing staff (47.5% in 2010 and 47.3% in 2011). The decline and provincial disparities in lecturing staff at TVET colleges is of concern, as lecturers are the key players in providing the intermediate-level education and training necessary to meet South Africa's national development challenges.

Management and administrative capacity

The governance of public TVET colleges takes place within a national framework that is made up of policy documents, legislation, regulations and guidelines. The Further Education and Training Colleges Act (South Africa, 2006), amended in 2010, 2012 and 2013, and now titled the Continuing Education and Training Act, provides for the public college governance structures and recommends any other relevant committees to be formed. Since the transfer of TVET colleges from provincial to national control, the governance of public TVET colleges is now shaped by policy developments and legislative arrangements at two levels i.e., national and institutional.

- At national level, the Minister of Higher Education and Training determines the policies, goals, norms and standards of the sector. Until replaced by an advisory body, the National Board for Further Education and Training advises the minister on TVET
- At institutional level, every TVET institution must have a governing body that steers its future growth and development, creates an environment conducive to college growth, supports management and monitors college performance in line with the legislation and needs. Councillors at the institutions are appointed on the basis of their knowledge and experience in areas relevant to the institution.

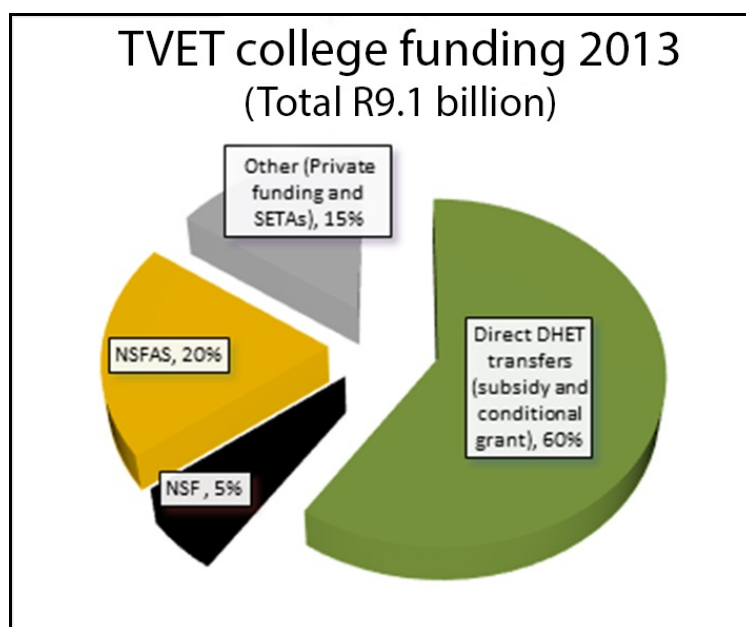
Previously, the TVET Colleges Audit (HSRC, 2011) and the TVET Colleges Turnaround Strategy (MHET, 2012) highlight the following challenges related to governance and management of the TVET colleges sector:

- With regard to governance, the TVET sector had performed poorly. Councillors did not have the breadth of competence envisaged by the Act. Compliance with the Act has been inadequate, particularly in terms of policies, plans and procedures and the establishment of governance structures. In some instances, the oversight of college management and governance was limited.
- College management needed to be improved, especially with regard to the management of information, submission of reports to councils, management of the IT platform, and the establishment and implementation of student graduate and non-completer tracking devices.

The current funding system

Currently, TVET colleges receive the bulk of their funding (more than 85%) from Department of Higher Education and training transfers (about 60%), from bursary and loan funding from NSFAS (about 20%), and for specific projects from the National Skills Fund (about 5%) and SETAs (DNA Economics, 2015, p. 18).

Figure 7
TVET College funding 2013



Source: *DNA Economics*, 2015, p. 11 from National Treasury, 2015

Prior to 1994, the bulk of government funding of colleges occurred through the post-provisioning model, which distributed educator posts from a central pool in each province to individual colleges on the basis of the number of full-time equivalent (FTE) students.

In the period 1994 to 2010, provinces, which received an equitable share of the education budget for school and vocational education, had some flexibility in how they allocated budgets to TVET colleges. However, this flexibility was lost following the move of TVET to the DHET. Funding for TVET colleges is now allocated in the form of a programme subsidies and conditional grants, which during the period of the function shift to national control, was still channelled through provinces. This function shift was finalised in 2015.

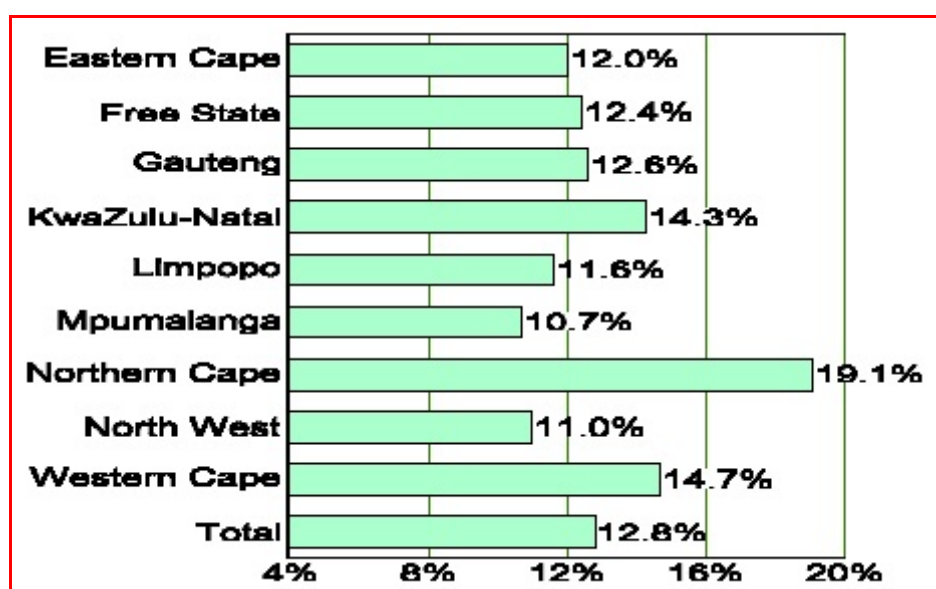
The DHET commissioned the development of sophisticated costing models to calculate the annual cost per TVET programme. Historically, the funds were allocated to the provinces and based on reported student enrolments and related programme costs. Provinces then determined allocations to the colleges, and these allocations were adjusted annually by the consumer price index (CPI). The DHET had submitted various requests for additional funding to cover the growth in student enrolments and infrastructure, but with little success.

The long-term advantage of migrating TVET colleges to national government is that they would be equally funded, based on their programme enrolments, and no longer depend on what funds provinces allocate to them. The research shows that provinces did not prioritise TVET education equally in their budget allocations, which led to unequal participation rates in TVET colleges and in provinces.

The Division of Revenue Bill (National Treasury, 2013) specifies that the funding of some of the outputs of the grants to the colleges depends on the priority set for each college within available funding. The national enrolment plan linked to funding norms is used as a guideline for allocating the grant to each college. Any upward deviation from these enrolments must be funded by the college or entity causing such deviation.

The budget for the public TVET colleges has indeed grown considerably in recent years. Direct support for the colleges grew from R3.8 billion in 2010 to R5.45 billion in 2013/14 – an increase of 43%. For that period the Northern Cape recorded the highest average annual increase in MTEF allocations (19.1%), followed by the Western Cape (14.7%) and KwaZulu-Natal (14.3%). Mpumalanga had the lowest average annual increases (10.7%), followed by Limpopo (11.6%).

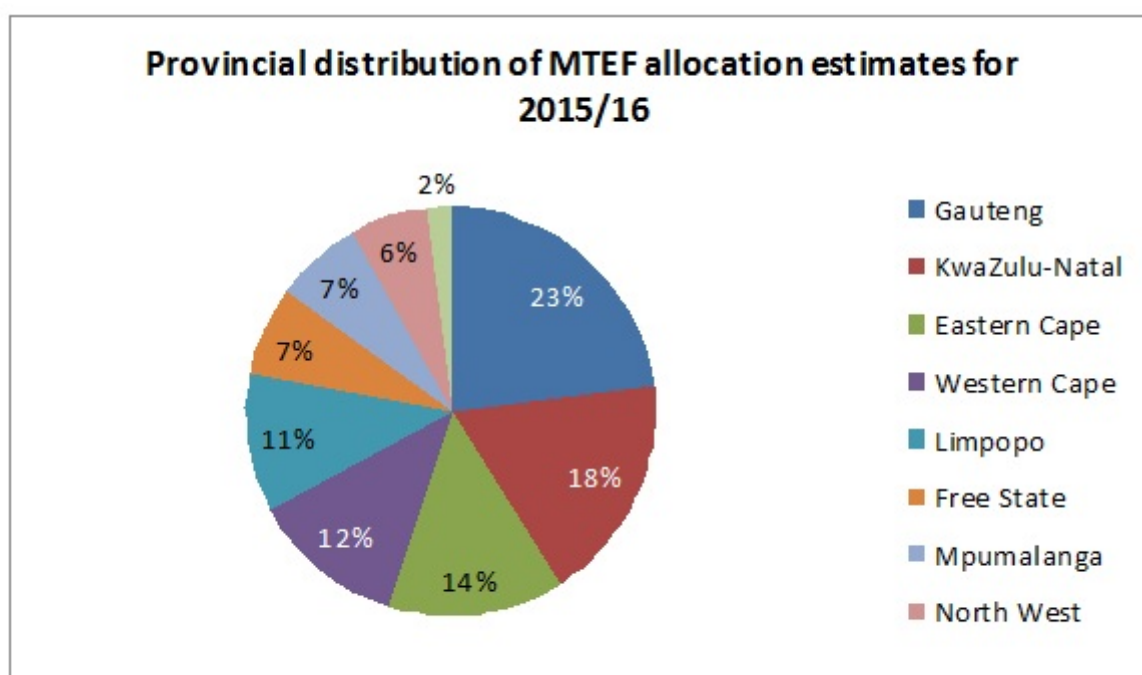
Figure 8
Average annual growth rate of MTEF allocations (2010/11 – 2013/14)



Source: Financial and Fiscal Commission, 2013, p. 41

As Figure 9 below shows, by 2015/16 the provinces projected to receive the highest portions of total MTEF allocations are Gauteng (23 %), KwaZulu-Natal (18%), the Eastern Cape (14%) and the Western Cape (12%). These MTEF allocations and other financial allocation trends for TVET college education include financial assistance to poor students, which has increased fourfold (from R318 million in 2010 to R1.7 billion in 2012).

Figure 9
Provincial distribution of MTEF allocation estimates for 2015/16



Source: Financial and Fiscal Commission, 2013, p. 41

The basic logic of the process by which funding is allocated is as follows:

1. The “required” funding is calculated by multiplying the number of students in each programme by the scheduled cost of that programme.
2. Then 20% of this required amount is deducted (as it is assumed this 20% will come from tuition fees paid by students and from other sources).
3. Then, nationally, the full required amount is adjusted by provincial weightings.
4. Lastly, nationally, further deductions are made because of the overall budget for TVET colleges not being adequate.

Provincial equity issues in TVET College funding

To evaluate whether funding across provinces is equitable and fair, a comparative basis is needed. This is done by calculating an allocation per weighted FTE, which is the result of dividing the 2013/14 funding allocation per province by the total weighted funded FTE enrolments. A funding weight was assigned to each programme, based on the subsidy component cost (R23 191) of the least expensive programme, which is the NC(V) programme in Office Administration (for which the weight of the total subsidy compared to the total programme cost less fee is 1.000). (Oddly, the actual expenditure costs of the different programmes within each college do **not** differ much, though some receive higher funding (usually on the basis of supposedly having more costly practical elements) (DNA Economics, 2015, p. ix) .

The distribution of enrolments in the various programmes that have different costs should determine the MTEF allocations for TVET college education in the provinces. The DHET funds the NC(V) programmes according to the subsidy component of the cost of the specific programme. The Report 191 programmes are funded according to three groups: engineering programmes, non-engineering programmes and service programmes, with one rate for each group.

Table 31 below shows weighted FTE costs per programme.

Table 31
Indicative Funding Weights based on the subsidy component of the programme costs for 2013, NV(V) and Report 191 Programmes

Programme	Total programme Cost	College fee (20%)	Subsidy (80%)	Weight of total subsidy compared to base cost
Civil engineering construction	R 45 990	R 9 200	R 36 790	1.586
Drawing office practice	R 34 124	R 6 820	R 27 304	1.177
Electrical infrastructure construction	R 45 348	R 9 070	R 36 278	1.564
Engineering and related design	R 59 978	R 12 000	R 47 978	2.069
Mechatronics	R 60 808	R 12 160	R 48 648	2.098
Process instrumentation	R 43 672	R 8 730	R 34 942	1.507
Process plant operations	R 46 074	R 9 210	R 36 864	1.59
Finance, economics and accounting	R 32 426	R 6 490	R 25 936	1.118
Generic management	R 33 918	R 6 780	R 27 138	1.17
Hospitality	R 55 485	R 11 100	R 44 385	1.914
IT and computer science	R 44 446	R 8 890	R 35 556	1.533
Education and development	R 31 682	R 6 340	R 25 342	1.093
Marketing	R 29 091	R 5 820	R 23 271	1.003
Office administration	R 28 991	R 5 800	R 23 191	1
Primary agriculture	R 77 894	R 15 580	R 62 314	2.687
Tourism	R 42 111	R 8 420	R 33 691	1.453
Safety and society	R 29 765	R 5 950	R 23 815	1.027
Transport and logistics	R 28 923	R 5 780	R 23 143	0.998
Primary health	R 31 834	R 6 370	R 25 464	1.098
National Average for Total NC(V) Programme Cost	R 42 240	R 8 450	R 33 790	1.457

Source: DHET, 2013e: *Final Budget Allocation – FET Colleges – 11 March 2013*. Weighted FTEs calculated.

Table 32 below shows the (in)equity of the provincial allocations in 2013/14 as assessed by weighting the funded FTE enrolments, based on the subsidy component of the cost of the NC(V) and Report 191 programmes, as modelled by the DHET (DHET, 2013c), regardless of the certification or throughput rates at the colleges. However, “Once this ‘enrolment-based allocation’ of funding was determined, TVET colleges did not receive the full formula determined allocation, but rather received *a percentage of the allocation as based on previous provincial allocations.*”(DNA Economics, 2015, p. viii, our *italics*).

Clearly shown are the huge differences for the various provinces in 2013/14, between the highest (R26,857 in the Eastern Cape) (nearly the full amount according to the funding formulae) and the lowest allocation (R16,050 in Limpopo)(about 65% of it) – a difference of R10,809. The huge inequities in the allocations across provinces can be explained by the fact that the conditional grant was based on historical allocations to the provinces, adjusted only by CPI increases. It is also the case that in 2009/2010 the Recapitalization Project Equivalence Value was **not** adjusted to the baseline in each province as was the directive from the National Treasury

Table 32
Summary of calculated weighted funded FTEs for NC(V) and Report 191 funded FTE enrolments as at February 2013 per province and programme

Province	Weighted FTEs NC(V)	Weighted FTEs Report 191 N1 - N3	Weighted FTEs Report 191 N4 - N6	Total Weighted FTEs	2013/14 Funding allocation	Allocation per Weighted FTE	Deviation from Average
Eastern Cape	24 865	817	3 579	29 261	R 785 866 000	R 26 857	R 6 074
Free State	9 174	1 173	4 876	15 223	R 364 705 000	R 23 958	R 3 174
Gauteng	41 670	3 355	10 031	55 056	R 1 276 429 000	R 23 184	R 2 400
KwaZulu-Natal	45 667	2 005	9 485	57 156	R 969 192 000	R 16 957	-R 3 827
Limpopo	32 573	817	4 894	38 284	R 614 458 000	R 16 050	-R 4 734
Mpumalanga	14 533	989	1 436	16 958	R 387 950 000	R 22 877	R 2 094
Northern Cape	3 981	211	1 086	5 278	R 88 392 000	R 16 747	-R 4 036
North West	13 467	1 239	1 926	16 633	R 295 004 000	R 17 736	-R 3 047
Western Cape	23 162	1 001	4 497	28 659	R 673 872 000	R 23 513	R 2 730
Total	209 092	11 607	41 810	262 508	R 5 455 868 000	R 20 784	R0

Source: DHET, 2013c, weighted FTEs calculated

The financial implications would be huge if all the provinces were funded on the basis of the average rand value per weighted FTE. The result could be financial instability of TVET colleges in provinces where they were funded above the average value (Eastern Cape, Free State, Gauteng, Mpumalanga and the Western Cape). The only way to avoid this is to ensure that the conditional grant is increased adequately to prevent any college losing funding. In a stringent fiscal environment, a funding convergence strategy might be needed to achieve more equitable funding across provinces. This would entail higher increases for the provinces at the lowest levels – to “catch-up” with the provinces, which in the past receives higher levels of funding – and should be funded from additional allocations.

The TVET Colleges are required to project budget income and costs based on the funding norms supplied by the DHET. The funding norms include all costs associated with running a College and providing courses at the required delivery levels. The budget income should therefore be a product of the funding norms and number of students, not of historical provincial funding allocation ratios.

The issue of budget shortfalls

Funding shortfalls need to be analysed both in terms of their general impact and in terms of their impact on certain provinces (already disadvantaged because of the previous funding allocation baselines per province being retained).

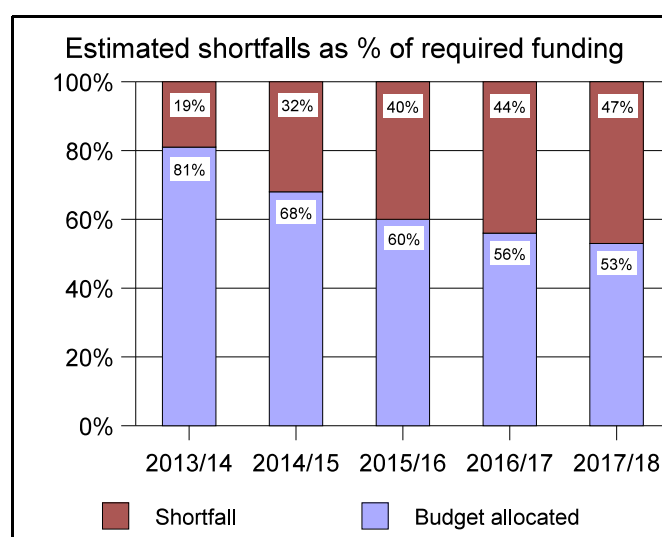
For 2012/2013, according to the DHET's enrolment plan (DHET, 2013b), the total MTEF budget for FET college education should have been R5.989 billion. However, the actual allocation budget was R4.845 billion, made available through conditional grants, which is based on historical provincial allocations for FET college education, plus annual CPI adjustments. The projections for subsequent years show a worsening trend.

Table 33
Estimated shortfall in TVET College budgets: 2015

	2013/14	2014/15	2015/16	2016/17	1017/18
	R'000	R'000	R'000	R'000	R'000
Total budget required	5 989 000	8 569 656	10 218 558	11 580,733	12 885 164
Total budget available	4 845 000	5 827 173	6 179 574	6 513 122	6 838 778
Total shortfall	-1 144 000	-2 742 483	-4 038 984	-5 067 611	-6 046 386

Source: Ministerial committee on the funding framework (Presentation 12 February 2016)

Figure 10
Estimated shortfalls in TVET College budgets as a percentage of required funding



These shortfalls, added to the provincial disparities, cause huge levels of underfunding for certain provinces. In 2013/14 the R1.144 billion (19%) shortfall was reflected thus in these provinces: the Northern Cape (35%), KwaZulu-Natal (34%), Limpopo (28%) and the Free State (27%).

Table 34
Shortfalls in provincial MTEF budgets to fully fund programme enrolments
(Funded FTEs) and the percentage of unfunded FTE Students: 2012/13

Province	Actual MTEF budget for 2012/13	Funded NC(V) FTE students 2012	Funded Report 191 FTE students 2012	Total funded FTE students 2012	Total indicative budget required 2012/13	Shortfall	Shortfall as a % of total budget	Unfunded NC(V) students	Unfunded Report 191 students	Total unfunded FTE students	% unfunded
Eastern Cape	R 699 923 000	16118	7844	23963	R 767 498 306	-R 67 575 306	-9%	-1304	-768	-2072	9%
Free State	R 323 804 000	4895	14995	19890	R 440 719 024	-R 116 915 024	-27%	-1090	-3658	-4748	24%
Gauteng	R 1 133 245 000	26194	25824	52018	R 1 180 033 316	-R 46 788 316	-4%	-1180	-1177	-2357	5%
KwaZulu-Natal	R 858 862 000	28769	29209	57978	R 1 299 044 247	-R 440 182 247	-34%	-8071	-8313	-16384	28%
Limpopo	R 545 768 000	19	10	30	R 761 528 701	-R 215 760 701	-28%	-4	-2607	-7185	24%
Mpumalanga	R 345 285 000	8	6891	15	R 373 363 379	-R 28 078 379	-8%	-579	-462	-1041	7%
Northern Cape	R 78 342 000	2	2773	5	R 120 300 902	-R 41 958 902	-35%	-765	-799	-1564	30%
North West	R 261 789 000	8	3260	11	R 303 224 625	-R 41 435 625	-14%	-995	-394	-1390	12%
Western Cape	R 597 589 000	15	10	26	R 743 278 236	-R 145 689 236	-20%	-2	-2391	-5386	21%
Total	R 4 844 607 000	130484	112489	242972	R 5 988 990 737	-R 1 144 383 737	-19%	-17403	-14505	-31908	13%

Source: DHET (2013b) Final Budget Allocation 2012–13

The case of KwaZulu-Natal is instructive (KwaZulu-Natal FET Colleges, 2013):

The total budget calculated for 2013/14 is shown in Table 35 and the actual deficit shown in Table 36.

Table 35
KwaZulu-Natal TVET Colleges: budget required 2013/14

College	FTEs		Costs (Rands)		Total required (Rands)
	NCV 2-4	NATED Report 191	NCV 2-4	NATED Report 191	
Coastal	6 487	4 675	219 208 704	92 873 550	312 082 254
Elangeni	4 892	2 669	165 310 464	53 022 354	218 332 818
Esayidi	3 136	5 470	105 971 712	108 667 020	214 638 732
Majuba	5 670	8 461	191 600 640	168 086 226	359 686 866
Mnambithi	2 474	2 925	83 601 408	58 108 050	141 709 458
Mthashana	1 967	2 446	66 468 864	48 592 236	115 061 100
Thekwini	1 763	4 431	59 575 296	88 026 246	147 601 542
Umfolozi	4 389	4 668	148 313 088	92 734 488	241 047 576
Umgungundlovu	1 378	4 324	46 565 376	85 900 584	132 465 960
Province	32 156	40 069	1 086 615 552	796 010 754	1 882 626 306
NCV average cost per programme: R33 792					
Report 191 average cost per programme: R19 866					

Table 36
KwaZulu-Natal TVET Colleges: budget available 2013/14

College	Budget required (Rands)	Budget available (Rands)	Deficit (Rands)
Coastal	312 082 254	180 898 000	(131 184 254)
Elangeni	218 332 818	121 174 000	(97 158 818)
Esayidi	214 638 732	95 363 000	(119 275 732)
Majuba	359 686 866	186 934 000	(172 752 866)
Mnambithi	141 709 458	62 920 000	(78 789 458)
Mthashana	115 061 100	49 223 000	(65 838 100)
Thekwini	147 601 542	72 744 000	(74 857 542)
Umfolozi	241 047 576	105 709 000	(135 338 576)
Umgungundlovu	132 465 960	63 809 000	(68 656 960)
Province	1 882 626 306	938 774 000	(943 852 306)

This KwaZulu-Natal deficit has in fact been growing, it was R201 528 971 in 2011/12, R459 207 247 in 2012/13 and then R943 852 306 in 2013/14. The KwaZulu-Natal document (KwaZulu-Natal FET Colleges, 2013) describes the impact of this as follows:

Currently the KZN FET Colleges have to reduce, or not spend on essential items. These include investment in adequate staffing levels, student support, teaching materials and equipment, repairs and maintenance etc. The consequence of this has been, and will be, poor pass rates, demotivated staff and students, deteriorating facilities and general under performance. A further consequence will be the Colleges' inability to further increase the number of enrolments and, therefore, not achieve the national growth targets as set in the Minister's performance agreement. There may also be an overall decrease in total student numbers as the facilities continue to deteriorate.

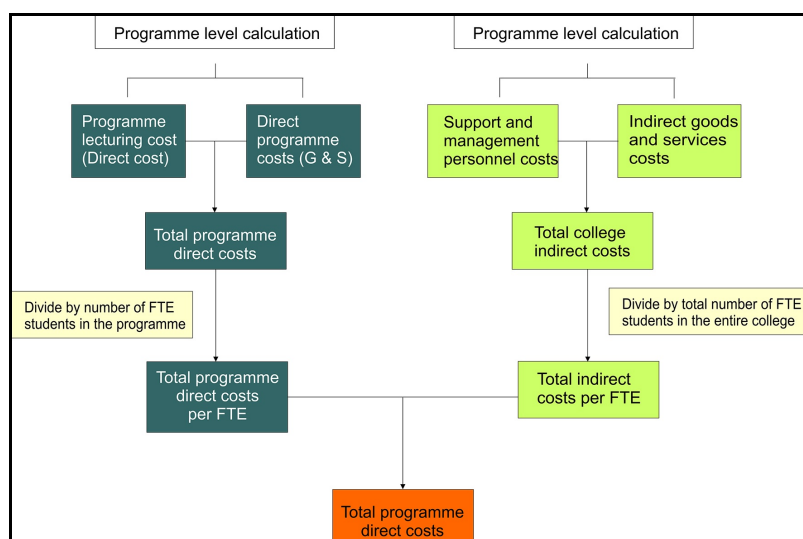
Clearly, funding of TVET colleges has been inequitable and insufficient. A fair distribution of funding would mean colleges receive equal rand values per weighted FTEs. Currently, the baseline used for the conditional grant reflects historical allocations to TVET college education, which were clearly too low in the Northern Cape, KwaZulu-Natal, Limpopo, Free State and North West provinces. However, redistributing the pool of available funding equitably to all provinces would disadvantage colleges in provinces where in the past more appropriate budgets were allocated to TVET colleges. A more acceptable way to rectify these imbalances would be to secure additional top-up funding, which could be channelled to the colleges in the provinces that were severely underfunded. When channelling additional funding to the sector, it is critical to ensure that the funds are spent effectively and efficiently. To this end, the fiscal governance and financial health of individual TVET colleges are absolutely essential.

Another issue that suggests changes to the funding formulae is that no allowance is made for whether colleges are urban or rural, large or small, or for the effectiveness of their throughput.

Expenditure issues

DNA Economics (2015, p. 21) provide a useful model for the analysis of TVET college expenditure:

Figure 11
DNA Economics model for analysis of TVET College funding



Their own study of a sample of 12 colleges found (pp. 22-37):

- substantial differences in expenditure per FTE per programme per college (DNA Economics (2015, p. ix) reported that expenditure analysis of data from a small subset of 12 colleges revealed substantial differences between average spending per FTE ranging from R20 063 to R39 925 for NC(V) and from R15 462 to R36 763 for NATED.)
- that the differences appeared to be related to funding
- better funded colleges seem more able to attract other sources of funding
- unit costs do not differ greatly between NC(V) and NATED programmes within each college
- it likely that NC(V) programmes subsidise NATED ones (as “average expenditure on NC(V) programmes is typically only about 60% of funding norm costs, whereas NATED average costs in some cases even exceed the norm costs” (p. 24)
- there is much less practical work in the NC(V) than was envisaged (probably because of cost cutting and attempts to improve low pass rates in theory components))
- erratic policies in textbook retention
- lack of funding for bridging programmes, study centres and libraries

In relation to the impact of expenditure on performance they found (pp. 27-28) that:

- NC(V) certification rates increase by 0.8% for a R1 000 increase in expenditure per FTE
- NC(V) certification rates increase by 2.1% for every 100 additional students enrolled (and this is probably due to colleges being able to offer greater student support and teaching for larger groups of students)
- certification rates are higher in colleges that spend a higher proportion of their funding on staff development

In terms of reducing costs they note that (pp. 30-35):

- increasing the class size lowers costs but with diminishing returns. The increase in size is most cost-effective between 5 and 40.
- increasing the number of class groups taught by each lecturer lowers costs but also with diminishing effect. The increase is most cost effective between 1 to 4.
- increasing the certification rate is the most important cost reducer (and increasing enrolments without greatly increasing certification rates is pointless).

Table 37
Shortfalls in provincial MTEF budgets to fully fund programme enrolments
(Funded FTEs) and the percentage of unfunded FTE Students: 2012/13

Province	Actual MTEF budget for 2012/13	Funded NC(V) FTE students 2012	Funded Report 191 FTE students 2012	Total funded FTE students 2012	Total indicative budget required 2012/13	Shortfall	Shortfall as a % of total budget	Unfunded NC(V) students	Unfunded Report 191 students	Total unfunded FTE students	% unfunded
Eastern Cape	R 699 923 000	16 118	7 844	23 963	R 767 498 306	-R 67 575 306	-9%	-1 304	-768	-2 072	9%
Free State	R 323 804 000	4 895	14 995	19 890	R 440 719 024	-R 116 915 024	-27%	-1 090	-3 658	-4 748	24%
Gauteng	R 1 133 245 000	26 194	25 824	52 018	R 1 180 033 316	-R 46 788 316	-4%	-1 180	-1 177	-2 357	5%
KwaZulu-Natal	R 858 862 000	28 769	29 209	57 978	R 1 299 044 247	-R 440 182 247	-34%	-8 071	-8 313	-16 384	28%
Limpopo	R 545 768 000	19	10	30	R 761 528 701	-R 215 760 701	-28%	-4	-2 607	-7 185	24%
Mpumalanga	R 345 285 000	8	6 891	15	R 373 363 379	-R 28 078 379	-8%	-579	-462	-1 041	7%
Northern Cape	R 78 342 000	2	2 773	5	R 120 300 902	-R 41 958 902	-35%	-765	-799	-1 564	30%
North West	R 261 789 000	8	3 260	11	R 303 224 625	-R 41 435 625	-14%	-995	-394	-1 390	12%
Western Cape	R 597 589 000	15	10	26	R 743 278 236	-R 145 689 236	-20%	-2	-2 391	-5 386	21%
Total	R 4 844 607 000	130 484	112 489	242 972	R 5 988 990 737	-R 1 144 383 737	-19%	-17 403	-14 505	-31 908	13%

Source: DHET (2013b) Final Budget Allocation 2012–13

Having an overall picture of the financial health of the colleges is important when evaluating the effectiveness of the current framework and funding of the FET college sector. Sheppard and Ntenga (2013, pp. 263 and 266) using information from the annual financial statements (DHET, 2013a) analysed the financial health of the TVET colleges on the basis of the following criteria:

- Unqualified auditor's opinions
- Change in the value of assets
- Change in the value of equity
- Liquidity ratio (current assets/current liabilities)
- Percentage change in total income
- Surplus in income over expenditure

Their analysis found that :

- Annual financial statements were provided for 48 out of 50 TVET colleges. No annual financial statements were provided for two colleges in KwaZulu-Natal (Mthashana and Thekwini).
- Eleven colleges had qualified audits (that is 22%).
- Thirteen colleges (27%) were not in a sound financial position, including four colleges in the Free State. The financial health of three other colleges could not be determined.
- Of the colleges that were not in a sound financial position, 12 had a surplus below or equal to ten per cent. The Sekhukhune TVET College displayed a surplus of 29%, but was still found to be in a financially unsound position.
- Staff costs, as a percentage of government subsidies, tuition and examination fees, varied among the colleges: three colleges had staff costs of over 60% – Vuselela TVET College (62%) in North West, Northern Cape Urban TVET College (62%) and Esayidi FET College (60%) in KwaZulu-Natal. A matter of concern was the high percentage of staff costs at two colleges: Motheo in the Free State (70%) and Tshwane South in Gauteng (75%).
- The majority of TVET colleges depend heavily on government subsidies, and tuition and examination fees. Information concerning the fee-for-service income and other private income as a percentage of total income was available for 47 colleges. The figure was found to be below or equal to ten per cent for 33 colleges, 11–20% for eight colleges and 21–30% for three colleges. Only three colleges received more than 30% of their total income from fees and other private income: Port Elizabeth TVET College (39 %) in the Eastern Cape, Motheo (44%) in the Free State and the Tshwane North (33%) in Gauteng.

In 2013 nine TVET colleges were under administration, and more are expected to follow (DHET, 2013d):

Eastern Cape - Ikhalala; Ingwe; King Hintsa; King Sibata; Lovedale

Free State - Motheo

Gauteng - Tshwane North

KwaZulu-Natal - Coastal; Mthashana

The outputs of the TVET Colleges

The real tests of success in technical and vocational education and training are the employability of the graduates, personal development, opportunities for further education and career development, public acceptance and image. Ultimately, the effectiveness and responsiveness of a TVET system is measured by its impact on the social and economic development of the nation (Seng, 2007).

What then is the performance and the responsiveness of TVET colleges in relation to national policy goals what are the barriers to good performance?

The performance goals

In 2008 the Department of Education outlined a set of goals and measurable objectives for the public TVET sector:

Table 38
Goals and measurable objectives for the Public FET College sector: 2008

Goals	Measurable output
Creating a national coordinated FET college system with a unique identity	• Improved public perception of the FET sector • Quality programme offerings • Improved quality of students and staff
Broadening access and participation and improving achievement	• Availability of adequate infrastructure and equipment to support the delivery of vocational programmes • A million students in the sector by 2014. • An average student pass rate of between 60 and 80%. • Expansion and use of ICT in all FET colleges. • Implementation of the funding norms and standards for the public FET colleges. • Availability of earmarked funding for national priorities. • Implementation of the Department of Education college bursary scheme. • Establishment of student support services. • Number of FET graduates who progress to higher education, employment or entrepreneurship. • Increase in the number of artisans.

Entrenching quality and excellence	• Development and implementation of the National Professional Lecturer Development Framework • High quality FET qualifications, programmes and supporting curriculum • High quality centralised assessment, national examination and quality assurance systems • All private education institutions that offer FET qualifications are regulated • Availability of suitably qualified FET college lecturers • High quality FET qualifications, programmes and supporting curriculum • High quality centralised assessment, national examination and quality assurance systems • All private education institutions that offer FET qualifications are regulated
Promoting institutional autonomy, responsiveness and relevance	• Quality partnerships between industry and FET colleges • FET college students get placements for practical work experience • FET college graduates get job placement at the end of the programme • Industry inputs into the curriculum improvement and update • Placement of lecturers to gain real work place exposure
• Encouraging diversity	• Diversity of institutional and campus types • Centres of Excellence are established in each province • Diversity of programme offerings • Strong public and private FET college system • Different modes of programme delivery • Criteria for providing distance education by FET colleges
Monitoring systematic and institutional performance and fostering public accountability	• Management Information systems in all colleges

Source: Department of Education, 2008

The *Strategic Plan for 2015/16 - 2019/20* (DHET, 2015, p. 39) has the following output expectations:

Table 39

Sub-outcome 2: Increase access and success in programmes leading to intermediate and high level learning

No.	Outcome Indicator	2019/20 Target	Time frame for reporting progress
1	Headcount enrolments in TVET colleges (n)	1238000	Annually (4 th Quarter)
2	Certification rates in TVET qualifications (%)	NC(V) L4: 65% N3: 65% N6: 65%	Annually (4 th Quarter)
3	Certificates issued to qualifying candidates within 3 months (n of months)	3 months	Annually (4 th Quarter)
4	Percentage of public TVET college examination centres conducting national examinations and assessments in compliance with national policy	100%	Annually (3 rd Quarter)
5	TVET throughput rate (%)	Throughput report on student cohort for the academic period 2016 – 2018	2019
6	Students accommodated in public TVET colleges (n)	5000	Annually
7	Qualifying TVET students obtaining financial assistance (n)	1000000	Annually
8	Funded NC (V) L4 students obtaining qualification within stipulated time (%)	60%	Annually
9	TVET institutions compliant to governance standards by 2017 and increasing every year thereafter (%)	60%	Annually
10	TVET lectures undergoing specified hours of work in their industry for specified periods every two years from 2019 (%)	30%	Annually
11	TVET student enrolled in foundation programmes (n)	5000	2017
12	Success rate in foundation programme (%)	50%	2019

Outputs – success rates and graduation rates

The public TVET colleges system's target is an average student pass rate of 60 to 80%.

Table 42 shows the national certification rate for public TVET colleges by province for 2010 and 2011. Overall, of the 404 679 who wrote examinations in 2010, only 90 252 (or 22.3%) successfully completed a full qualification. In 2011, of the 126 491 who wrote examinations, only 51 790 (or 40.9%) successfully completed a full qualification. Despite increased overall participation at TVET colleges, the student completion rates are low and below the targeted range of 60 to 80%.

In terms of the distribution of certification rate by province, the lowest percentage in 2010 was in the Northern Cape (16.7%) and the highest in the Western Cape (27.6%). In 2011, the highest percentage was again found in the Western Cape (51.7%), with the lowest percentage in Free State (29.3%). Worth noting is that most of the provinces were below the national average of 40.9%, except for the Western Cape (51.7%), Mpumalanga (51.3%) and North West (48.4%).

Table 40
National Certification Rate for Public TVET Colleges by Province, 2010–2011

Province	2010			2011		
	Wrote	Passed	Cert %	Wrote	Passed	Cert %
Eastern Cape	32 680	5 887	18.0%	11 952	4 862	40.7%
Free State	27 941	5 098	18.2%	6 312	1 852	29.3%
Gauteng	128 815	27 754	21.5%	8 728	11 003	38.3%
KwaZulu-Natal	78 485	18 466	23.5%	28 942	11 042	38.2%
Limpopo	51 926	11 930	23.0%	20 503	8 038	39.2%
Mpumalanga	30 166	7 394	24.5%	8 837	4 533	51.3%
Northern Cape	7 860	1 314	16.7%	2 018	732	36.3%
North West	14 698	3 534	24.0%	5 792	2 801	48.4%
Western Cape	32 108	8 875	27.6%	13 407	6927	51.7%
All provinces	404 679	90252	22.3%	126491	51 790	40.9%

Source: DHET, 2012a

Table 41
Report 191 and NC(V) 4 examination results in public TVET Colleges: 2013

Qualification	Number registered	Number wrote	Number completed	As % of registered	As % of wrote
Report191 (N3)	42 028	41 201	18 383	44%	45%
Report 191 (N6)	44 132	42 841	15 268	35%	36%
NC(V) Level 4	24 420	21 930	8 114	33%	37%
Total	110 580	105 972	41 765	38%	39%

Source: DHET (2015, p. 33). The numbers include only students who were eligible to complete the qualification if they were successful in the 2013 examinations.

Table 43 shows the certification rate by programme. In public FET/TVET Colleges in 2013, more than 110 000 students registered for examinations for the Report 191 (N3 and N6) part-qualifications and NC(V) Level 4 qualifications. The highest proportion of students registered for the Report 191 (N6) part-qualification followed by the Report 191 (N3) part-qualification. The table also shows that a significantly large number of students who wrote and were eligible to complete a part-qualification or full qualification during the 2013 academic year did not complete the relevant part-qualification or full qualification in relation to the number that wrote.

Table 44 provides a breakdown of the number of NC(V) Level 4 graduates by province that registered, wrote and passed:

Table 42
NC(V) Level 4 examination results in public TVET Colleges by province: 2013

Province	Number registered	Number wrote	Number completed	As % of registered	As % of wrote
Eastern Cape	3 200	2 856	1 143	36%	40%
Free State	557	461	146	26%	32%
Gauteng	4 399	4 022	1 318	30%	33%
KwaZulu-Natal	5 094	4 500	1 501	29%	31%
Limpopo	4 282	3 969	1 246	29%	31%
Mpumalanga	1 901	1 771	791	42%	45%
Northern Cape	242	219	73	30%	33%
North West	1 619	1 449	598	37%	41%
Western Cape	3 126	2 683	1 298	42%	48%
National	24 420	21 930	8 114	33%	37%

Source: DHET (2015a, p. 34). The numbers include only those students who were eligible to complete the NC(V) qualification if they were successful in the examinations in 2013.

The completion rates in 2013 for NC(V) levels 2 and 3 were even lower, 33% and 30% respectively.

Table 43
N3 examination results in public TVET Colleges for Engineering Studies: 2013

Province	Number registered	Number wrote	Number completed	As % of registered	As % of wrote
Eastern Cape	2 961	2 863	1 113	38%	39%
Free State	2 939	2 895	1 094	37%	38%
Gauteng	14 309	14 071	6 277	44%	45%
KwaZulu-Natal	7 437	7 326	3 719	50%	51%
Limpopo	4 592	4 526	2 008	44%	44%
Mpumalanga	4 263	4 170	2 117	50%	51%
Northern Cape	337	330	113	34%	34%
North West	2 787	2 682	1 148	41%	43%
Western Cape	2 403	2 338	794	33%	34%
National	42 028	41 201	18 383	44%	45%

The numbers include only those students who were eligible to complete the N3 qualification if they were successful in the examinations in 2013.

The completion rates in 2013 for N1 and N2 in Engineering Studies were slightly higher, at 49% and 47% respectively.

Table 44
N6 examination results in public TVET Colleges for Engineering Studies: 2013

Province	Number registered	Number wrote	Number completed	As % of registered	As % of wrote
Eastern Cape	1 460	1 419	619	42%	44%
Free State	1 093	1 078	479	44%	44%
Gauteng	6 965	6 847	3 153	45%	46%
KwaZulu-Natal	3 472	3 407	1 689	49%	50%
Limpopo	3 105	3 073	1 394	45%	45%
Mpumalanga	1 044	1 007	469	45%	47%
Northern Cape	118	116	65	55%	56%
North West	693	675	270	39%	40%
Western Cape	1 040	1 020	473	45%	46%
National	18 990	18 642	18 611	45%	46%

The numbers include only those students who were eligible to complete the N6 qualification if they were successful in the examinations in 2013.

The completion rates in 2013 for N4 and N5 in Engineering Studies were slightly higher, at 54% and 52% respectively.

The results for Business Studies were much weaker as shown in Table 83:

Table 45
N6 examination results in public TVET Colleges for Business Studies: 2013

Province	Number registered	Number wrote	Number completed	As % of registered	As % of wrote
Eastern Cape	2 439	2 316	561	23%	24%
Free State	2 799	2 697	782	28%	29%
Gauteng	6 239	6 023	1 758	28%	29%
KwaZulu-Natal	5 938	5 765	1 545	26%	27%
Limpopo	2 586	2 467	477	18%	19%
Mpumalanga	905	866	175	9%	20%
Northern Cape	625	600	138	22%	23%
North West	1 191	1 112	361	30%	32%
Western Cape	2 420	2 353	860	36%	37%
National	25 142	24 199	6 657	26%	28%

The numbers include only those students who were eligible to complete the N6 qualification if they were successful in the examinations in 2013.

Source: DHET, 2015a, p. 37

The completion rates in 2013 for N4 and N5 in Business Studies were higher, at 34% and 42% respectively.

Access to Higher Education

In terms of TVET programme graduates being able to gain access to higher education qualifications (by gaining a high enough percentage in their NC(V)4 examinations), Table 46 shows the outcomes:

Table 46
NC(V) Level 4 graduates who met minimum-entry requirements for entry into higher education study programmes: 2011

Province	Number passed NC(V) 4	Higher Certificate	Diploma	Degree
Eastern Cape	607	512 (84%)	83 (14%)	12 (2%)
Free State	91	74 (81%)	17 (19%)	0 (0%)
Gauteng	1 159	964 (83%)	173 (15%)	22 (2%)
KwaZulu-Natal	801	696 (87%)	99 (12%)	6 (1%)
Limpopo	1 450	1 234 (85%)	198 (14%)	18 (1%)
Mpumalanga	821	618 (75%)	175 (21%)	28 (3%)
Northern Cape	54	39 (72%)	13 (24%)	2 (4%)
North West	488	389 (80%)	90 (18%)	9 (2%)
Western Cape	798	593 (74.%)	174 (22%)	31 (4%)
National	6 269	5 119 (82%)	1 022 (16%)	128 (2%)

Source: *Public FET Annual Survey 2011*. (DHET, 2012a)

In 2011, at public TVET colleges, 82% who completed the NC(V) Level 4 met the minimum requirements for entry into higher certificates, 16% for diplomas and 2% for degrees. The Western Cape produced the highest number of actual students (31) who were eligible for degree studies, followed by Mpumalanga (28) and Gauteng (22). Of concern is that the Free State failed to produce any degree study graduates on NC (V) Level 4 at all.

The function shift and its consequences

The FET Colleges Act (South Africa, 2006) was amended in 2012 (South Africa, 2012), shifting the administrative function of adult learning centres and TVET colleges from the provincial education departments to the national Department of Higher Education and Training education department (MHET, 2012). Through this change, staff from the TVET college sections in provincial education departments and TVET college staff have been transferred to the DHET.

For colleges, the transfer of the TVET function to the DHET has a number of potential advantages, not least the development of a uniform TVET sector with a single vision that can be presented to the public. The national focus could uplift the image, marketing and quality of colleges and improve cooperation between colleges, SETAs and universities. Enhancing

institutional coordination with the SETAs would assist TVET colleges to unlock funding and support from industry. The location of the post-school sector under one umbrella could also lead to greater portability of qualifications in the sector. Finally, college funding would be equitable and consistent across provinces, and employment contracts and programme offerings would be standardised.

An interim process of managing the college sector was implemented via a set of Provincial Implementation Protocols, and the following supporting activities initiated (DHET, 2013e):

- the development of a business plan and costs to cover the support of National Treasury's Technical Assistance Unit, and a process to secure funding for this support and the transfer process
- the establishment of a Technical Task Team in the DHET to provide oversight and direction to the transfer process
- the establishment of Provincial Technical Task Teams to steer the transfer process at provincial level.
- the development of a macro plan and a micro plan to direct the processes of transfer and related costing.

The Migration Strategy Micro Plan developed by the DHET had six management areas: Human Resources, Finance, Governance and Management, Legal, Information Technology and Infrastructure, and Assets and Liabilities (DHET, 2013e). Its purpose was also to ensure that the TVET colleges could continue with their daily operations during the migration process.

Table 47
Management Areas of the Migration Strategy Micro Plan

Management areas					
Human Resource	Finance	Governance and Management	Legal	IT and Infrastructure	Assets and Liabilities
Management staff	Funding sources and distribution	College Councils	Drafting and signing of Protocols	Survey of IT management and Infrastructure	Identification of assets (including leased assets) and title deeds for land and buildings to be transferred
Non-management staff	Financial commitments	Strategic planning, coordination and annual reporting		Setting up local area network in each province	
Secondment of provincial staff	Funding norms and standards	Operational planning for FET colleges enrolment and funding thereof		Data management	Transfer of assets (including leased assets)
Transfer of provincial staff	Financial management and reporting systems				Register of title deeds for land and buildings
Appointment of administrators		Monitoring and evaluation			
Post-provisioning model					

Source: DHET, 2013e

The function shift process was completed in 2015. However, there is still the need to reformulate the funding and delivery of the FET function. Simply transferring the function

without addressing the pre-existing financing challenges could prevent the potential benefits of the function shift from being realised. The financial model must therefore be optimised, including baselines.

The Ministerial Committee field visits

A number of field visits to TVET colleges were made in late 2015 and 2016 by Ministerial Committee members and DHET staff. Nineteen institutions were visited and usually meetings held with the Principal and a variable number of senior management (usually the CFO, the Academic head, the HRD head, and sometimes the Student Support head). All the meetings were very cordial and seem to have been appreciated.

Below is a brief summary of the issues and concerns discussed:

Mergers

Few commented on the mergers. Those that did thought the move on the whole a good thing. The Northern Cape colleges with their huge distances raises questions about the soundness of mergers. Distance places a huge strain on the IT systems to hold the merged institutions together.

Catchment areas and student travel

Many students travel substantial distances with taxis and buses to the colleges. Some rural colleges have to cross-subsidise the transport of their students. Rural Colleges indicate the need for a multi-campus factor in the subsidy allocation to provide funding for the subsidisation of the transport of the staff and students.

Colleges under administration

One college visited had been under a period of administration. At a couple of other colleges it seemed that they had relatively recently emerged from a period of dysfunctional management and technical bankruptcy (the result largely of irresponsible appointments and appointments at the wrong level), and now had new managers (or at least financial managers).

Finding experienced Chief Finance Officers is difficult (because of the huge salaries demanded) according to one college.

Infrastructure

Because it was mainly head or corporate offices that were visited, little comment can be made of the state of the buildings. In many cases there are campuses within the college that were described as requiring significant capital expenditure. Some colleges had infrastructural projects begun with recapitalisation funds which were incomplete because of funding shortages. At Vuselela (Kerksdorp) one campus (originally the Matlosana Centre for Artisans and Learnerships at a mine) had to be abandoned as it was being systematically pillaged by armed gangs of illegal miners and scrap metal thieves, rendering it impossible for students or staff to work there in acceptable conditions.

Security

Generally this seemed to be good. Several of the colleges had recently had student strikes or protests.

Councils

The importance of having a Council that understood local issues was highlighted and several noted that it was difficult to find Councillors of high quality and competence. One college even argued that there should be regional councils as governing bodies.

Attitude to the DHET

Many colleges expressed in some form the problem that the TVET colleges were seen as a place for inferior students to go to, a negative perception made worse by schools ejecting the weak students (who they anticipate failing matric and embarrassing the school's standing [*in the matric school league tables*]) and sending them off to TVET College. Others said that the DHET does not take the colleges seriously and simply does not understand the sector.

Enrolments and capacity for expansion

In all except two of the colleges, there were modest increases in overall enrolments over the last three years, the possible increases constrained by funding and infrastructure. Indeed the message from all the colleges was essentially the same: with the current revenue (particularly as it affects the number of staff) and infrastructure they are already serving too many students – **they cannot expand without more staff and classrooms**. Some colleges are already running a platoon system. The need for more IT and engineering related infrastructure is particularly critical here. For many colleges hostel accommodation is also a constraint.

However, for all colleges, provided the resources and infrastructure and the payment of fees for poor students were expanded, there was a huge potential demand, which could well double enrolments, except perhaps in the Northern Cape.

Programmes

Generally there was growth in the NATED (Report 191) programmes and a (corresponding) decline in the NCV ones. The explanations given for this situation were similar in all colleges. The NATED programme is quicker and cheaper, the NCV more rigorous, longer and more costly (though in the long term a better grounding – “a better qualification if done right”).

Ongoing problems with the NCV include:

- lack of intelligent streaming in the school system
- unrealism in expecting students coming out of a school system with a 30% pass minimum to adapt to a 50% minimum pass regime
- learners with a Senior certificate not wanting to “go back to grade 10”
- need for bridging courses
- requires mathematics readiness and computer literacy
- learners unable to cope with NCV2
- capacity problems with lecturers

- lecturers having to teach both NATED and NCV
- mechanical insistence by Umalusi on total observance of what are meant only to be guidelines creating a huge, unnecessary administrative burden on staff (e.g. copying IDs three times instead of once)
- the huge burden of compiling portfolios.

A couple of colleges were implementing more rigorous entrance requirements for the NCV, such as a 50% maths pass for entrance into engineering.

Most colleges run some learnerships funded by SETAs.

Very few colleges run short courses or non-formal courses – indeed they had been discouraged from doing so by the Department.

Senior Certificate and ABET courses are not run by any college.

Programmes that could be expanded notably included ones related to solar energy engineering, Early Childhood Development, entrepreneurial training, and Travel and Tourism.

Overall there is a need to expand the offering of professional programmes. The current programme mix of colleges is not based on community needs but what the college can offer based on available infrastructure and trained teachers. There is a lack of networking between campuses and the sharing of best practices.

Under-prepared students

This was a problem in all the colleges and several of the colleges try to identify under-prepared students (particularly those weak in English and Mathematics) by placement tests and closely monitoring their progress. Student support programmes or centres provide mentoring and suchlike as well as bridging programmes. However bridging programmes are not funded and one college said that, regretfully, it could no longer sustain such. The failure of the schools system to adequately prepare learner's basic communication and mathematics skills is the real problem.

The disabled

Very few colleges seem to give much attention to this (also perhaps dissuaded by cost factors).

Staffing

The DHET norm for the ratio of academic to administrative staff is 4:3. Most colleges were close to this though some had a higher percentage of administrative staff (many of them involved in such things as hostel running). However, there was some dispute as to what the term “administrative staff” meant – did it mean only those non-academic staff who directly supported the academic programme of the college or did it also include other support staff as well – cleaners, maintenance, hostel staff, security staff, etc.). Colleges also had to ensure that they get their staff expenditure down to 63% of total expenditure. It appears that almost all colleges are over the 63% threshold. This threshold has strained employment relations and restricted conditions of service. This limits the appointment of additional staff. Enrolling

more students also does not necessarily translate to more funding which would have assisted in expanding the staff complement.

Some colleges have large numbers of Council appointees.

Many colleges are short of management posts and need more management training.

Recruiting engineering staff is very difficult because of salary issues.

One college complained that they have a number of vacant (difficult to fill) posts but get no money for these posts (which is needed to procure temporary staff) – thereby “losing millions of rand”.

Once college said that there is staff unhappiness at the Conditions of Service and the lecturing seven hours a day.

A couple of colleges noted that their staff compensation was over the 63% of expenditure norm.

Staff qualifications

There are a fair number of underqualified staff. Colleges found it difficult to recruit artisans with teaching qualifications. Qualified educators generally had school teaching qualifications rather than vocational ones and no skills training experience. At most colleges some staff had completed the National Professional Diploma in Education (though this qualification is to be discontinued by universities). Some colleges subsidise the NPDE training. Currently there is no specific qualification specifically for TVET college lecturers (although this will change in the near future).

Some colleges had in-house staff development and teacher development.

A couple of colleges noted that once staff get better qualifications they often leave for better opportunities.

Many colleges have introduced interventions to assist in improving academic results and provide better career guidance.

Enrolment and completion

All the colleges had improved completion rates, albeit from a very low base.

The compulsory 80% attendance as a condition for writing examinations has helped. Goldfields was the first College in the country to introduce this, which is now national policy,

NSFAS and student fees

The expected 20% income from student fees is partly covered by funding recovered from NSFAS through the NSFAS Bursary Scheme for which the students are required to apply and assessed in terms of the Means Test. The biggest challenge is the recovery of student fees

from privately paying students as most students do not pay their fees. Currently none of the colleges are able to recover much student debt including for residence accommodation. Substantial percentages of student fees are written off as bad debt even after various attempts of recovering the debt. Colleges found it basically impossible to collect student debt as a result of political factors. With the implementation of the recommended Credit Management Policy, this situation might improve but most colleges were “waiting for an explosion” given the current university students protests demanding no fees university education.

Mentioned by most colleges was the slow turnaround of examination results from Umalusi and communication from NSFAS in relation to the continuing funding of students in the second or later years. Umalusi’s slowness in releasing results and then of NSFAS releasing the information that the student will continue to get funding, causes great difficulties and distress to students.

Funding - general issues

All the colleges were unanimous that the real crisis they face is that the grant they get is inadequate and it is inadequate **because the subsidy is not paid in full according to formula.**

The colleges in general ask: “Why have the formula if you do not abide by it?”

In effect all the colleges had too high a percentage of unfunded students.

They also suspect that the amount actually granted is based not really on the formula (reduced by a certain percentage) but on the historical funding. The DHET does not respond on why they get such a reduced grant and there are odd discrepancies between the amounts different colleges get.

Various estimates were given by colleges of the actual portion they get of the 80% of revenue that comes from the government grant (the other 20% supposedly coming from fees). It seems to be about 50% to 66% of total revenue/grant revenue according to their claims.

All colleges had a fees shortfall because of student non-payment of about R2 million per annum.

This all leads to a continuing financial crisis.

Typical comments were:

“The College is in survival mode with its limited reserves gone. We could survive by reducing student numbers but are forbidden from doing this – we are told we have to reach the enrolment targets.”

“If we carry on this way, we will go bankrupt!”

“We are technically bankrupt.”

“We are heading towards a R7 million deficit.”

“We are really in deficit.”

“If the College was getting the proper subsidy it could survive – otherwise it cannot.”

“There is prospect of a precipitous decline. Already the lack of maintenance and facilities is making the College unattractive to students and we have commercial competitors who have attractive sites and excellent marketing. The real answer to a question to parents: “Would you send your child here?” is “No!”.”

Alternative sources of revenue

Colleges were generally sceptical of the idea that the private sector would fund equipment and infrastructure and the maintenance thereof.

“We have no funding from business and never got anything from the mining houses.”

On refining the funding formulae

Generally the colleges would like elegant refinements to the funding formulae (taking into account all sort of advantage and disadvantage and cost factors (as for example in England), and of the rates for part-time educators, etc.).

The Northern Cape thought that the way in which College funding is apportioned to each province on the basis of numbers of people in each province is unfair to the Northern Cape because of its small population, vast distances, rural character, etc., though its fixed costs remaining the same, if not higher, because of huge transport costs. There is a need for some kind of extra rural subsidy.

There are also multi-campus cost drivers that need to be taken into account.

But all the colleges would happily forgo refinements if only the current full subsidy would be paid according to the current formulae.

Colleges in the Free State, Northern Cape and North West are all very conscious that money is very tight in these provinces because of the downturn in mining.

The use of FTEs in calculating the grant

Colleges claim that the differentiation between the subsidy for part-time classes (80% of full-time) is unrealistic as the fixed costs are the same (and ironically enough part-time lecturers, paid at a hourly rate are more expensive when aggregated as FTEs). One college noted that the average number of courses being done per student was 4 not the 7. Yet the fixed costs for each student, full-time or part-time are the same as are many of the infrastructural costs. The decline in the number of students doing the NCV also hits subsidy.

Two budgets or fudging the budget

The colleges all have to contemplate rising deficits, using up dwindling reserves, and “fudging” budgets to survive.

Devising a realistic budget that does not plan for a large deficit is a nightmare. In reality there are two budgets:

- the plan one (which is an aspirational one because the DHET does not pay to formula)
- the real (and de facto) deficit one which is fudged because they cannot show a deficit.

Capital funding

Most colleges needed substantial capital expenditure but had not been granted any for some years. Although the recapitalisation enabled some infrastructure developments (classrooms, workshops, sports centre, student support centre) to be built at various colleges, there is an ongoing need for capital expenditure and nothing is being received.

Expanding IT infrastructure (and particularly computer laboratories) were desperately needed.

One college asked why they were told that SETA did not fund capital expenditure but that Motheo in Bloemfontein had been given R250 million by the Services SETA for infrastructure.

Third stream funding

For some colleges third stream funding is critical, for other less so. Some colleges have active business units.

Most colleges referred to SETA funded learnerships which are often problematic because of:

- very poor economies of scale (e.g. the SETA will ask for 100 learners to be trained but they are spread out all over the province in little groups and the travel costs to support them are ludicrous)
- very slow payment (one college had a severe cash flow crisis because of this).
- where they do not have accredited instructors they have to outsource the delivery and they keep only a very small portion of the stipends
- SETAs only wanting to fund colleges on a direct cost recovery basis which does not take into account the colleges' indirect costs (and this might mean some sort of standardised pricing for SETA funded programmes and courses).

One college said that there were certain Treasury rules that restrict their ability to make a profit. They also asked whether getting a set of students sponsored (on full costs) and keeping that as Third Stream income was “double dipping”.

They were all aghast at the possibility that the DHET would take Third Stream funding ‘profits’ as it was this that helped them to survive under the current straits, not that they were actually making much by way of profits, third stream revenue was merely expanding their provision.

Private sector funding for infrastructure and maintenance

These colleges did not see much promise here. Most of them received nothing from the private sector.

Textbooks

These are provided free to students and are a heavy cost. Some colleges have examined the idea of e-books and tablets but not much progress made here.

Audit

Although a couple of colleges pointed out that the audit now being done by the Auditor-General vastly increased the cost, others pointed out that the audit process was now much more extensive, rigorous and well worth it.

One college noted the problem of post vacancies and resulting problems where responsibilities cannot be separated as they should be (e.g. between finance and audit) from a control perspective.

Tenders

Taletso note that though their student administration on the various campuses is decentralized, expenditure is centralized (and this often means that the quanta of expenditure requires going to time delaying tenders).

The 2015 function shift

Some colleges had initial PERSAL problems – the transfer to PERSAL did not seem ready.

The location of the regional office that deals with the colleges in the Free State and Northern Cape are Johannesburg and Cape Town respectively. This is far from ideal and they never see the regional staff.

Previously all the Free State colleges had bimonthly meeting with the province where budgets could be discussed and there was also a really useful provincial academic forum. This has all collapsed.

The possibility of having the Community College as a division of the TVET College

When asked most colleges said it would be impossible unless fully funded, but if it was fully funding they could accommodate such, though some were still sceptical and thought the College would then have to look after the baby with no maintenance. They did see some possibilities for bridging courses to be placed in the Community College and there should be a proper migration process from Community College to TVET College.

It was noted that the some TVET Colleges have been mandated recently to do procurement for the Community College Administrative Centres.

The challenges

The TVET college sector plays a vital role in the development of middle-level skills that are crucial for economic development and building an inclusive economy. As part of moving the TVET functions from the provincial to the national sphere, a new funding framework for TVET colleges has been introduced. The sector needs to be adequately funded in order to increase the country's skills base. The provision of TVET college education has been very uneven across provinces, and so future expansions need to ensure a more equitable spread across provinces. The sector is facing governance and management problems, especially with regard to financial management. Financial accountability in the sector needs serious attention to ensure that any additional funding to the sector will be used effectively and efficiently .

More generally the post-function shift funding model for the TVET sector must ensure that:

- Baseline funding does not perpetuate past underfunding of the colleges in certain provinces
- Additional allocations are used to achieve a more equitable funding regime across the provinces
- Ongoing infrastructure development and maintenance are provided for
- Sound funding systems and uniform templates for financial reporting, designed in a manner that ensures the DHET can proactively monitor the financial health of TVET colleges, must be developed
- Intervention should be made to improve fiscal governance in TVET colleges including recruitment of appropriate skills, ongoing training, and credible financial systems and processes
- “In a system where funding is determined by enrolments, rather than performance, there is a risk that colleges will prioritise increases in enrolments over increases in graduations. If the ambitious targets to increase in enrolments in the TVET sector reduce the focus on performance, and increased enrolments are not accompanied by increases in graduations, the policy aim of increasing the contribution of the TVET sector to the economy will not be achieved. Ensuring that funding and performance measurement correctly aligns the incentives of colleges to the country's long term policy goals should therefore be a key focus area.” (DNA Economics, 2015, p. ix)

What are realistic targets and goals?

The National Development Plan 2030 (National Planning Commission, 2012a, pp. 320-321) has four quantifiable TVET targets to be reached by 2030:

- increase the throughput rate to 75%
- produce 30 000 artisans per year (subject to demand)
- a participation rate of 25% of young people of 20 to 24 year olds (equating to about 1.25 million enrolments)
- significantly decrease the number of young people who are not in employment, education or training

There are also some unquantifiable targets:

- promote lifelong learning to complement post-school education
- provide funding certainty to ensure that colleges employ staff and give them job security (so that colleges can attract and retain skilled staff)
- build the capacity of colleges
- expand the geographical spread of colleges
- expand the college system with a focus on improving quality
- build a strong relationship between the college sector and industry

The National treasury commissioned performance and expenditure review of the TVET colleges (DNA Economics, 2015, p. 8) listed these final outputs expected:

1. Appropriate curricula are developed
2. Applications are received and processed
3. Learners are enrolled and registered
4. Learners receive training (both theoretical and technical) that enables them to pass programmes in sufficient numbers
5. Qualified staff are employed and further capacitated
6. Infrastructure and equipment in place that meets requirements
7. Journal Articles and other publications
8. Product and process developments completed
9. External projects delivered
10. A well-managed TVET college
11. A financially sustainable TVET college

In addition certain enabling activities might be required to achieve these outputs, including bridging programmes and enhanced student support facilities.

The DNA Economics report (2015, p. 12) also notes that many of the indicators of success used by the DHET are “insufficiently integrated and internally inconsistent” and “not

specified at sufficiently achievable and/or granular levels to allow useful analysis of performance” and there was a lack of tracking of student progress after they leave college. However, the main problem is the financial implications of growing the TVET sector on the proposed scale. Another DNA Economics report (2016, p. i-iii) estimates that the expenditure in real terms would rise from R8.5 billion (in 2014) to R77.5 billion in 2030, about a ninefold increase and considers this unrealistic (made worse by the estimates of another R754 billion needed for additional PSET infrastructure to cope with the growing enrolments).

Chapter 6. The Community Learning Centres

Introduction

On 11 January 2013 South Africa's Department of Higher Education and Training issued a White paper on post school education and training that outlined future policy for higher education, technical and vocational education and adult education in the context of various political and economic imperatives (DHET, 2013). The document attempted to conceptualise a new institutional form, the community college, to replace the dysfunctional and poorly funded and managed system of Public Adult Learning Centres (PALCs) that had operated since 1977. A Constitutional amendment placed TVET colleges and Public Adult Learning Centres firmly under national not provincial control.

The Public Adult Learner Centre system

State run night schools, called Adult Education Centres or Adult Learning Centres or most recently Public Adult Learning Centres, have been operating in South Africa since 1977 (after their forced closure in the 1950s by the apartheid state), through 13 of the various late apartheid era education departments, then through the nine post-apartheid provincial education departments, until finally they became the responsibility of the Department of Higher Education in 2009. They gained some measure of legal identity with the Adult Basic Education and Training Act of 2000, but with the abolition of the Act in 2013 and in terms of the Further Education and Training College Amendment Act of 2013, they were (by legal fiat on 1 April 2015) nominally merged into nine Community Colleges (geographically one per province) and remain as substructures of those new bodies.

PALC staff are now administered from the Department of Higher Education and Training (DHET) and what support they will immediate future will now come from the new staff of the Community College Administrative Centre in each region (though in practice it currently comes from members of the previous provincial Adult Education directorates who, though they had in 2009 been transferred to the DHET, will still be housed in the provincial education departments, probably until 2017).

Over the last two decades the PALC system had come under much criticism from academics and others that it was underfunded, mismanaged and lacklustre with educators who are poorly trained, an absence of learning materials and general confusion around the curriculum. Indeed in April 2005 the Minister of Education held a roundtable discussion in which she openly acknowledged that the ABET system had failed and that she would take action (Department of Education, 2005) – which led to the initiation of the highly successful Kha Ri Gude adult literacy campaign (Aitchison and McKay, 2013).

The data on PALCs and its inadequacy

It is common cause that the existing data on Public Adult Learning Centres is unreliable, in spite of various attempts over the years to improve its collection and analysis, latterly with annual surveys. Data collection and reporting problems were exacerbated by the prevailing policy from 1995 till recently that valorised ABET provision and led to a discounting of, or disguising of the fact, that in many cases there were as many FET level students as ABET ones at PALCs.¹ These inadequacies have led in the past to severe criticisms of the Department of Education, particularly when it made misleading use of faulty data (see Aitchison and Harley's 2006 critique).

For most of the last two decades the departments of education had nothing remotely approaching an Education Management and Information System (EMIS) for adult learners and there was no accurate data on the number of PALCs, the number of qualified and unqualified staff, the number and demographic characteristics of the learners, the learning resources supplied (if any), the quality of the educational outcomes, or on the quantities of state expenditure used in running the system.

Making sense of the existing data

Since 1994 a number of official documents containing statistics on PALCs have been issued as well as publication of some surveys or audits. Notable among these are two University of Natal surveys published in 1996 and 1999/2000 (Harley *et al.*, 1996, Aitchison *et al.*, 1999a,b,c,d; 2000, Houghton *et al.*, 1999a,b,c,d,e) a Human Sciences Research Council survey (2000), two Department of Education reports, the ***Draft ABET Sectoral report*** (2000) and ***Building an ABET system: the first five years 1995 - 2000*** (2001d),² an audit of one province in 2012 (South African Institute of Distance Education, 2013) and an Auditor-General Report for 2014 (Auditor-General, 2014, 2015). But even with these resources, making sense of the situation and changes over two decades is not however easy. The information presented below is at best approximate (and see Appendix 1 for a more detailed analysis).

¹ From the mid 1990s onwards, adult education policies prioritised “Adult Basic Education and Training (ABET)” (which was understandable given that the right to basic adult education was now entrenched in the new constitution of 1996). However, considerable confusion was caused when the national and provincial education departments routinely referred in documents and statistics to ABET only, even though it was clear that what was being described also included adult further education (Senior certificate or “matric” studies). The word ABET was used in a bureaucratic rather than educationally descriptive sense.

² These two Department of Education reports are unfortunately replete with contradictory statistics, misleading and fanciful claims based upon unsubstantiated and unreferenced data, and a severe confusion between, and conflation of statistics on, ABET and AFET provision by PALCs.

The key data on PALCs

Centre numbers

One of the main reasons that policy makers in the early 1990s saw the future of adult basic education and training (ABET) as within the Ministry of Education was the existence of a functioning night school system using the existing infrastructure of the schooling system (National Education Policy Investigation (1992, 1993). This is still very much the case and school buildings and school teachers (working part-time after school hours) are the major state resource for ABET.

Most centres, whether main or satellite, operate from school premises and share facilities with the school. Most centres have follow the school term and tend to be open in the afternoons/early evenings, Monday to Thursday, and very few are open on a Friday or Saturday.

In the majority of cases, where facilities are being shared, there is no document governing the relationship between the school and the PALC. This creates difficulties where Centres are expected to use school facilities and services. In many instances, there is disagreement about using toilet facilities, paying for cleaning and maintenance services.

In 1994 there were estimated to be 1 440 public adult education centres in South Africa. Centres were categorised as public, state-aided, private and satellite (the latter not being recognised as exam centres) (Harley *et al.*, 1996, pp. 252-253). Subsequent estimates of the number of PALCs (with or without their satellite centres) vary from the University of Natal figure for 1998/99 of about 3 073 (Aitchison *et al.*, 2000, p. 30)³ to the Human Sciences Research Council count in 1999 of 2 123 that catered for ABET (another 103 did not) (Human Sciences Research Council, 2000) to the Department's 2001 figure of 2 494 (Department of Education, 2003, p. 27) and the 2002 figure of 1 895 (which distinguished between ABET and FET centres) (Department of Education, 2004, p. 28-29).

Some declines in the number of centres in some provinces may well have been influenced by the temporary closures of PALCs in 1998 and 1999 (because of provinces running out of money for the conventional schooling system) or by the reduction of their number in a deliberate rationalisation or restructuring process or by a termination of FET provision (Senior certificate level), or by combinations of these (Aitchison *et al.*, 2000, pp. 38-40).

In 2010 there were 3 083 PALCs on master lists at the DHET. They were down to 2 457 centres in 2012 according to the 2012 Annual Survey of AET Centres (Department of Higher Education, 2014d, p. 33), though the Department claims that there are actually 3 150 centres as another 693 centres had not responded to the survey questionnaire sent to them.

³ There were 1 483 centres, which together with satellites and state-aided centres totalled 3 073 in eight provinces - there was no Limpopo data. The University of Natal's survey (Aitchison *et al.*, 2000, p. 29) found that it was extremely difficult to gain reliable figures of the number of centres, in spite of the fact that in most provinces there were senior personnel who were responsible for oversight and inspection of all the schools and public adult learning centres based in those schools in a particular district circuit or management area.

Learner numbers

Provincial data since the mid-1990s suggest that learner attendance has ranged from slightly over a quarter of a million in 1995 (258 967) (Department of Education, 1997b, p. 81), up to 386,098 for 1996/97 and then 361 385 for 1997/1998 (Aitchison *et al.*, 2000) and has declined to 306 378 in 2012 (DHET (2014d, p. 35) and 262 621 in 2014 (DHET, 2016, p. 86). The DHET's data for 2014 (DHET (2016, p. 86) shows the following:

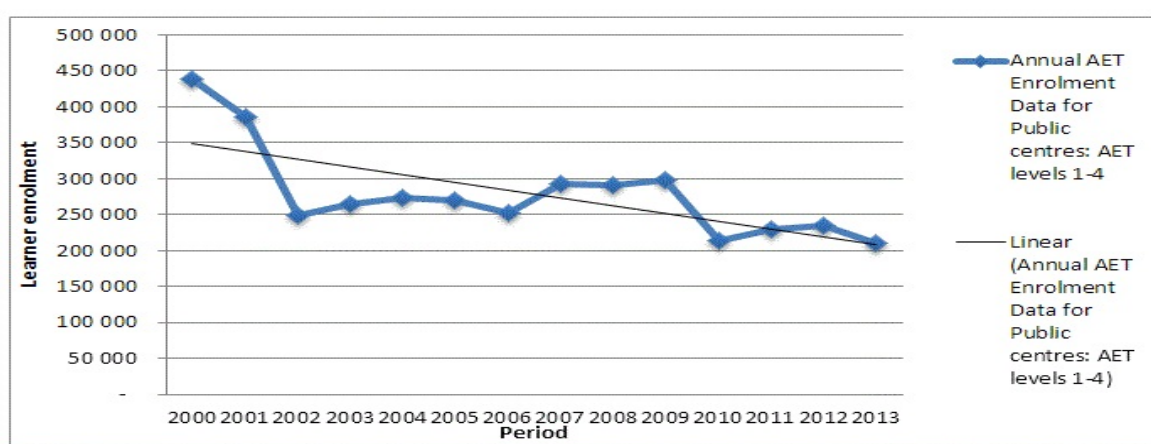
Table 48
Numbers of learners in public AET Centres by province and programme, 2014

Province	ABET level					FET level				Skills	Totals
	1	2	3	4	NQF 1 All	NQF 2 Grade 10	NQF 3 Grade 11	NQF 4 Grade 12	All		
Gauteng	2 130	2 249	3 896	22 397	30 672	0	687	62 150	62 837	2 773	96 282
Eastern Cape	2 518	4 578	4 953	20 931	32 980	78	20	7	105	559	33 644
Western Cape	2 471	1 731	2 004	10 631	16 837	45	64	11 218	11 327	749	28 913
KwaZulu-Natal	2 628	3 241	4 758	13 533	24 160	27	0	1 674	1 701	163	26 024
North West	1 800	2 756	3 513	11 668	19 737	0	0	1 507	1 507	1 042	22 286
Limpopo	711	1 527	1 179	18 093	21 510	0	0	0	0	0	21 510
Mpumalanga	1 464	4 192	4 188	10 700	20 544	24	83	367	474	0	21 018
Free State	255	709	1 522	6 090	8 576	2	1	3 291	3 294	14	11 884
Northern Cape	104	106	133	717	1 060	0	0	0	0	0	1 060
National	14 081	21 089	26 146	114 760	176 076	176	855	80 214	81 245	5 300	262 621
Percentage	5.4%	8.0%	10.0%	43.7%		0.1%	0.3%	30.5%		2.0%	100%

Many of the problems in the learner statistics since the mid-1990s have revolved around the failure to distinguish between ABET and FET level learners. For virtually the whole period it was difficult to establish how many learners were at ABET level or FET level and it is likely that for many years FET learners have either been seriously under enumerated or wrongly classified as ABET learners. Both the 'official' statistics and the research statistics concur in claiming around 200 000 ABET learners for the period.

For the years 2000 to 2013 the Auditor-General (2014, p. 11) provides an interesting graph for PALC enrolments showing a downwards trend line for ABET enrolments. Recent DHET statistics however claim increases in 2014 (to 257 927) and 2015 (to 293 248).

Figure 12
Annual ABET learner enrolment level 1 to 4, 2000 to 2013



Source: *Stats at a glance report 2000 to 2009* and EMIS data 2010 to 2013

Note: enrolment numbers reflected in the Stats at a Glance include grade 10-12 learners, AET level 1-4 enrolment could not be provided separate for 2000-2009

The following points can be added, based on the learner data:

- The PALC system did not grow to any great extent and indeed has been on a downwards trajectory.
- The two provinces with the most effective provincial management, Gauteng and the Western Cape, have not declined as much as other provinces and currently show large FET learner numbers.
- For virtually the whole period it was difficult to establish how many learners were at ABET level or FET level and it is likely that for many years FET learners have either been seriously under enumerated or misclassified as ABET learners.
- Although the *Kha Ri Gude* adult literacy campaign output over 3 million learners between 2008 and 2014 with an ABET level 1 equivalent certificate, there are no signs that this made any impact at all in increasing enrolment in ABET level 2 or higher level classes in PALCs – these Kha Ri Gude learners simply did not go on to the PALCs.

The educators

Harley *et al.* (1996, p. 437) estimated that there were 14 373 educators in 1994 and by 1998 there were an estimated 20 000 delivering ABET and FET (Aitchison *et al.*, 2000, p. 37). The Human Sciences Research Council (2000) found 16,089 in 1999 (and was able to determine the provincial breakdown for 13,628 of them) with a teacher:learner ratio of 1:18 (the range was from 1:15 in the Free State and the Northern Province to 1:24 in the Eastern Cape). The Department of Education claimed 18 381, 16 281 and 13 099 for the years 1999, 2001 and 2002 respectively (Aitchison and Harley, 2006, p. 105). Research done by the Human Sciences research Council for the Education, Training and Development Practices Sector Education and Training Authority and reported on in the ***ETDP SETA Annual Report 2002*** (p. 5) gives a total of only 10,848 staff employed in South Africa's public ABET system.

The educators are normally only employed on temporary, year by year contracts, and they are no eligible for the benefits school teachers have.

The Department of Higher Education and Training's 2012 statistics (DHET, 2014d, p. 34) are the source of data for this summary:

Table 49
Adult Education and Training learners, educators and centres: 2012

AET learners, educators and centres: 2012					
Province	Learners	Educators	Centres	Teacher: Learner ratio	Centre: Teacher ratio
Gauteng	115 137	2 408	47	1:48	1:51
KwaZulu-Natal	47 961	4 871	702	1:10	1:7
Eastern Cape	40 746	2 888	263	1:14	1:11
Limpopo	33 610	1 532	650	1:22	1:2
Western Cape	29 963	926	103	1:32	1:9
North West	24 349	1 373	260	1:18	1:5
Mpumalanga	27 126	1 593	257	1:17	1:6
Free State	12 774	616	71	1:21	1:9
Northern Cape	4 174	236	104	1:18	1:2
Totals	335 840	16 445	2 457	1:20	1:7

More detailed numbers are available for 2014 (DHET, 2014d, p. 86):

Table 50
Numbers of staff in Public AET Centres by province, category and sex: 2014

Province	Management staff			Educator staff			Support staff			Total staff		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
Eastern Cape	249	64	313	2 471	487	2 958	27	13	40	2 747	564	3 311
KwaZulu-Natal	310	77	387	1 930	694	2 624	18	8	26	2 258	779	3 037
Gauteng	14	32	46	1 432	860	2 292	126	113	239	1 572	1 005	2 577
Mpumalanga	178	31	209	1 256	185	1 441	7	2	9	1 441	218	1 659
Limpopo	401	75	476	851	184	1 035	20	4	24	1 272	263	1 535
North West	177	67	244	923	246	1 169	14	9	23	1 114	322	1 436
Western Cape	89	69	158	474	371	845	73	56	129	636	496	1 132
Free State	60	51	111	395	183	578	1	0	1	456	234	690
Northern Cape	14	1	15	45	10	55	0	0	0	59	11	70
National	1 492	467	1 959	9 777	3 220	12 997	286	205	491	11 555	3 892	15 447
Percentage	76.2%	23.8%	100%	75.2%	24.8%	100%	58.2%	41.8%	100%	74.8%	25.2%	100%

In terms of the Adult Basic Education and Training Act of 2000, later amended several times and renamed the Adult Education and Training Act (and then repealed in 2013) only South African Council for Educators (SACE) registered educators could be employed at a public centre. Although school teachers working after hours would generally have had such registration, many educators employed both by the province and by the centre itself would not have. Many educators would have had at the very least a qualification such as the Higher Certificate for Adult Basic Education and Training offered by the University of South Africa (More than 80 000 people gained this UNISA qualification and this pool of potential educators was one of the enabling things that led to the success of the Kha Ri Gude literacy campaign.)

The South African Institute of Distance Education survey of Gauteng PALCs (2013) found more educators employed part time than full time across the centres and big discrepancies between the number of educators employed at a centre and the number of hours for which they were employed. Some educators work for ten hours and less per week. Centres reported that their staffing was insufficient because of high demand for some learning areas, while some educators appear to have a very limited workload. It is clear that the various provinces had different caps on the maximum number of hours educators could work per week.

The Gauteng Department of Education was unusual in that most of its main centres had full-time administrators who typically worked a standard working day. These administrators are responsible for tasks such as, but not limited to, registration, student administration and any tasks related to Satellite Centres.

The Auditor General's (2014, p. 5) report on the country-wide audit of adult education and training centres conducted in 2011 and 2012 noted the lack of measures to track, monitor, correct and report on the extent and effect of the underqualified educators. The report relates the poor success rates of adult learners to poor quality of teaching and learning resulting from the number of underqualified educators who struggled to interpret the curriculum.

Programmes, qualifications, curriculum and materials

In the early 1990s the Department of Education and Training (DET) ran courses at literacy, primary and secondary levels and provided materials for these.

From 1995 onwards the prioritisation of ABET led to many provincial ABET sub-directorates not seeing Further Education and Training in the PALCs as their responsibility and plans were made to phase it out, though in reality many provinces had nearly as many FET students as ABET ones (Aitchison *et al.*, 2000, p. 25).

In spite of much rhetoric about Adult Basic Education (ABE) **and Training** there do not seem to be many examples of serious attempts to link ABE with Training, though there were plans in the late 1990s to develop ABET electives in Agriculture and Small business development (Aitchison *et al.*, 2000, pp. 25-26, 45). In many cases the actual curriculum was perceived by learners to be irrelevant to their needs, which may explain the recent popularity of two elective courses: Ancillary Health Care and Early Childhood Development because they are believed to offer some hope of employment as health workers or as assistants in early childhood centres and creches.

With the imposition of Outcomes-Based Education (OBE) on the education system in the late 1990s there was some attempt to provide training in this approach as well as the development of some materials (both usually designed by contracted NGOs). A curriculum vacuum was the inevitable consequence of the policy insistence that (in terms of OBE) (Department of Education 1997a, p. 24):

No core curriculum or syllabus will be provided by the Department of Education for the ABET learning areas or the broader organising fields. ... This is an important change from past practice where syllabi and national core curriculum guidelines laid down what should be taught and how it should be taught. In an outcomes-based approach the focus is on the outcomes of learning.

The obsession with OBE, aided by totally inadequate budgets, helped lead to the demise of any serious attempt to provide materials – it was blindly assumed that educators could interpret the meaning of the unit standards, develop their own curriculum and lesson plans and produce contextually relevant materials. Allied to the OBE approach was a tendency within the national directorate to have the ABET provision (although it was based on its own unit standards) conform to the schooling system’s Curriculum 2005, but with the gradual fading away of OBE little further development in curriculum happened.

Generally neither the provincial education departments nor now the Department of Higher Education and Training have demonstrated much energy in relation to adult education qualifications, programmes, the improvement of teaching approaches and methods, or the development and distribution of materials for educators and learners. It takes an inordinate amount of time to get approval for qualifications and curriculum proposals.

Programmes are generally confined to formal ABET and Senior Certificate qualifications, the General Education and Training Certificate and the now amended “old” Senior Certificate (NATED 550) (though there may be limited support too for the “new” National Senior Certificate). Learners can write individual subjects and receive certification for them. Currently there are three SAQA registered variants of the ABET level 4 (NQF 1, school grade 9 equivalent) qualification, the General Education and Training Certificate: Adult Basic Education and Training (GETC: ABET):

GETC: Adult Basic Education and Training - academic

GETC: Ancillary Health Care

GETC: Equine and Equestrian Practice.

On 18 September 2015 policy for a new General Education and Training Certificate for Adults (GETCA) was published in the Government Gazette (DHET, 2015c). It replaces the previous GETC qualification.

Secondary schooling qualification equivalents are the Senior Certificate (NATED 550) which was phased out in schools from 2008 and was supposed to be finally closed by 2014 but which has recently been revived and its regulations amended in 2014. It has a somewhat less rigorous subject combination rules than the new National Senior Certificate now written by schools. This amended Senior Certificate was offered for the first time in mid 2015. Its curriculum follows the same Curriculum Assessment Policy Statements (CAPS) guidelines as for the school National Senior Certificate.

A new qualification with a different set of subject combinations and meant to be designed expressly for adults, the National Senior Certificate for Adults (NASCA), was, after a long seven year gestation, gazetted in 2015 and will probably be first examined in 2017.

There are some vocational qualifications run in technical schools and Technical and Vocational Colleges such as the National Certificate (Vocational) and older equivalents but they have not been run in PALCs.

Government policy is likely to increasingly support secondary education equivalent programmes (the Senior Certificate and NASCA) being run at community colleges and their Community Learning Centres, as a way of partially addressing the problem of young people not in employment, education or training (the NEETs).

Currently materials are a disaster area for PALCs. In most of the country there are simply very few or none and learners are expected to study without anything to read or work with. It is a bizarre situation when there are classes of learners studying to develop reading, writing and numeracy skills and there are no books or materials of any sort in the classroom. Where some textbooks have been provided in the past they are usually somewhat dated and never in sufficient quantity. Materials for the lower ABET levels are particularly absent.

Assessment

In the mid to late 1990s there was some attempt to provide some guidance on assessment in the ABET field, much of it initially influenced by the Independent Examinations Board which developed competency-based approach ABET examinations and piloted the first of them in July 1994. Gradually the key position that the Independent Examinations Board had held was eroded by educational bureaucrats and the provincial departments started to run their own examinations until the centrally examined General Education and Training Certificate: Adult Basic Education and Training came into operation in 2001. A fair degree of documentation was developed for the running of this examination on the basis of national policy.

Well what happened in the new national ABET level 4 examinations run through the provincial education departments at public adult learning centres from 2001 to date? What kind of throughput was there?

The first 2001 examination results were not auspicious – some 33 025 candidates registered, of them only 18,438 wrote and a mere 78 qualified for the General Education and Training (GETC:ABET) certificate (though many did gain some credits for individual learning area courses passed). In 2010 only 24% passed. The numbers writing and their results have subsequently improved somewhat (DHET, 2016, p. 87):

Table 51
GETC-ABET examination results from Public AET Centres for 2011 to 2014

Year	Registered	Wrote	Completed	Completion as % of registered	Completion as % of wrote
2011	107 780	39 856	13 924	12.9	34.9
2012	109 883	55 735	23 325	21.2	41.8
2013	109 518	52 501	19 945	18.2	38
2014	133 363	102 534	38 592	28.9	37.6
The figures exclude students who only wrote individual subjects and would not be able to complete the GETC-ABET, but not those who only wrote the one or more subjects needed for them to complete the GETC.					

Umalusi (p.9) reported in 2013 that: “the GETC: ABET has been chronically troubled by relatively low uptake, poor throughput and low performance on the final assessment.” It also noted problems with the reliability and comparability of the compulsory Site-Based Assessment and noted (p. 25):

Provincial education departments report that neither teachers nor learners understand what is required in the Site Based Assessment, and that the teaching focus seems to lean towards the SBA due to the lack of a curriculum. ... This confirmed the response of DHET officials about how teachers seem to teach to the SBA, leading not only to inflated SBA marks but also a skewing learner performance.

It also imposes a heavy moderating duty on a limited number of district officials.

The Senior Certificate examination results have been derisory for so-called part-time candidates (not all of whom, of course, attend PALCs, some would study alone and some be enrolled in private colleges). In the 2013 mid-year examinations (when this examination is written) some 159 690 candidates entered (most of these probably carrying some previous credits and wanting to complete the qualification). Of these only 35 106 entered to write six subjects (and thus could be classified as “new” candidates). Only 58% of candidates wrote (93 006) with only 33% of those taking six subjects (11 592). Only 3 811 passed (4% of those who wrote and 2% of those entered) and only 236 passed with a matriculation exemption. There were very odd provincial variations in the pass rate among those writing six subjects variations, possibly suggesting irregularities.

An issue with both the GETC and Senior Certificate examinations is the cost of running them country wide, made worse by the printing of thousands of examination papers that are never written because up to only a third of the candidates actually turn up to write. The DHET has indicated that they may not have the capacity to run these examinations before 2017.

Management and governance

In the early 1990s management was essentially regional, even within the Department of Education and Training. The University of Natal report noted (Harley *et al.*, 1996, p. 254) that the adult education centre system in the early 1990s was a large one, widely geographically spread, with a hierarchically organised set of offerings that allowed for progression with formal assessment procedures and nationally recognised certificates but that the Department of Education conceded in 1995 (Department of Education 1995) that circuit inspectors took little responsibility for centres (Harley *et al.*, 1996, pp. 254-255).

A 1995 Department of Education (Department of Education, 1995b) discussion paper argued that these centres should be governed by Community Education Management Councils, District Adult Education and Training Governance Councils and Provincial ABET councils and that there should also be a national ABET Council. It also recommended that ABET should fall within the College sector, should have strong provincial offices, and that within each district, at least one main centre or campus office will coordinate adult education and training activities in the existing adult education centres (to be transformed into Community Learning Centres), and that the teacher:learner ratio should be between 15 and 30. [These recommendations are remarkably similar to the proposals made by the Task team on Community Education and Training Centres in 2012.]

Although there were various attempts to institute provincial ABET councils as prescribed by the 1997 *A National Multi-year implementation plan for Adult Education and Training: Provision and Accreditation* (Department of Education, 1997b) these soon failed due to lack of both funding and official enthusiasm.

Then the 2000 Adult Basic Education and Training Act was passed as a largely bureaucratic instrument to regulate ABET and to provide for the establishment, governance and funding of adult learning centres. The Act dealt with both public and private centres, the use of schools for use by public centres, the set up of public centre governing bodies and the role of a centre manager. Constituting of a governing body was mandatory and its members had to consist of members elected from the educator and non-educator staff and learners of the centre, co-opted community members (including the chair of the school governing body and the principal of the school (or representative of), the centre manager, any representative of a sponsoring body, any representative of an organisation for disabled people, and an expert in the field of adult education. The Act also dealt with quality assurance compliance.

The Act was never fully operationalised and was a failure. Few provinces developed the necessary regulations relating to the Act and though some PALCs did attempt to set up governing bodies in general very little was done to support this form of governance. It can be argued that the requirement to have PALC governing bodies and the onerous nature of the responsibilities imposed on such governing bodies was unrealistic when not even many schools had effective governing bodies.

The Auditor General's (2014, p. 5) report on the country-wide audit of adult education and training centres conducted in 2011 and 2012 provides new and detailed evidence of numerous weaknesses across the 110 sites that were visited. These include the lack of monitoring and evaluation of the performance of PALCs by the national Adult Education Directorate. Only two provinces had functioning Centre Governing Bodies.

Funding and funding sources

In the early 1990s the Department of Education and Training (DET) allocated 0.5% of its budget to adult education and 1.6% to vocational education in technical high schools/colleges

The second University of Natal survey (Aitchison *et al.*, 2000, pp. xii, xviii) noted about the funding of Public Adult Learning Centres that the high hopes for a rapid expansion of ABET provision after 1994 had been thoroughly undermined by the failure to increase significantly the funding. Although provincial education budgets given to adult education (including ABET) increased by about 30% a year in 1995/96 and 1996/97, as a percentage of education expenditure it remained minor, and data revealed a huge range in the calculated costs per learner – from R389 to R5 766 in the 1996/97 financial year, raising concerns about how accurate such figures can be and as to how varied the quality of provision must be.

In 2007 the Department of Education issued the *National norms and standards for funding Adult Learning Centres (NSF-ALC)* aiming at enhancing management, financial monitoring and EMIS systems. Certified centres would be funded on a programme enrolment formula (full-time equivalents) basis and include costing for rental, maintenance, materials and equipment, as well as the quality of the centre's annual performance-linked business plan, a fixed component (so that smaller centres would not be disadvantaged), a rural weighting factor, and its evaluation rating. This would be phased approach in after audits and certification of centres. FET programmes could be funded by provinces (but not with the funds for ABET) and these norms did not apply to such funding. The implementation of these norms was a fiasco and provincial directorates and centres simply lacked the competence (and the data necessary) to implement them.

From 2006/07 to 2012/13 the real average increase in adult education budgets was 6.8%, though between 2009/10 and 2012/13 it was a real average decrease of 1.1% per annum. The reason given for this lack of recent increases was that the PALC programme was being reviewed (Wildeman, R. and Hemmer-Vitti, R, 2010, pp. 25-26).

Recent data on the expenditures on adult education (in the form of funds transferred from provincial education departments to the PALCs) was R1 222 855 000 in 2010/11, R1 413 194 000 in 2011/12, R 1 545 932 000 in 2012/13 and 1 731 890 for 2014/15 (about 4% of the entire state education budget (DNA Economics, 2016, pp. 14-15). Despite some increase in funding the direct government transfer per learner decreased by 10% between 2010 and 2015 (DNA Economics, 2016, p. 14)

Funding for the state system has come virtually entirely from the state education budget. Private sponsorship has been minuscule and episodic. Some minor development monies have come to the national Directorate at various times (but mainly in the 1990s) as part of development aid, mainly from the United States of America and the European Union. Tuition fees, although garnered, have been a minor source of income and have, in any case been used only for incidental expenditures at PALCs.

The Auditor-General's conclusions

The *Management report of the Auditor-General of South Africa on the performance audit of the Adult Education and Training Programme at the Department of Higher Education and Training for 2014* (Auditor-general, 2014) has highly negative findings on the PALC system as it was in 2011 and 2012:

- the concurrent functions were not performed, partly because of budget inadequacies
- monitoring and evaluation visits were not done
- adult education and training operations in the provinces were not done
- the Department did not develop a strategy to deal with or track the extent of underqualified and unregistered educators (and in the years 2008 to 2011 audit checks on five provinces (which excluded Eastern Cape and Limpopo) that the percentages of unqualified educators in a province ranged from 4% to 47%.)
- only two provinces had functioning Centre Governing Bodies and the Department did not know how many Centre Governing Boards were in place
- relations between the School Governing Bodies, principals and adult education centre officials, were poor at some centres
- there were challenges relating to facilities, security and resources
- there was no monitoring of the registering of private centres and no checking of the standards at private centres was done
- adequate support was not given to provinces
- the National Advisory Board for Adult Basic Education and Training was not set up
- there was poor liaison with the Kha Ri Gude adult literacy campaign to ensure that Kha Ri Gude learners could progress further
- little curriculum development took place between 2008 and 2014
- little support on materials was provided

- provincial EMIS data on such things as learner enrolment and educators per centre were released too late to be useful for operations and planning for either the current or the following year and neither the provinces nor the national department verified the data to ensure accuracy (and there were differences between EMIS data on learner numbers and Adult Education and Training data)
- there was no crucial management information data on such things as pass rates for ABET levels 1 to 3, dropout rates, absenteeism rates, etc.
- teacher:learner ratios were below the 1:20 norm
- programme performance indicators could not be used because of lack of data
- an adult education and training framework was not developed
- educators conditions of service had not been standardised
- average costs per learner differed hugely between provinces (e.g. in 2010-2011 KwaZulu-Natal was R3 431 and Eastern Cape more than R8 500) and the costs, excluding educator payments, were even more diverse (Western Cape R5, Gauteng R1 152).

The place of PALCs in the reform and reconstitution of post-school education and training

In 2011 the national Department of Education split into two: the Department of Basic Education (DBE) (which now dealt only with schooling at General and Further Education levels) and the Department of Higher Education and Training (DHET) (which dealt with post-school education and training, which included formal adult education at General and Further Education levels). An anomaly was that the Kha Ri Gude adult literacy campaign remained in the Department of Basic Education.

It became clear that the responsibility for the FET Colleges would shift to the national government, to the DHET, and legislation, including a necessary constitutional amendment, led to the so-called function shift occurred on 1 April 2015 when the staff and assets and budgets of the 51 colleges, now renamed Technical and Vocational Education and Training (TVET) colleges, moved from the jurisdiction of the nine provinces to the DHET.

The changes to the FET colleges were just one component of a broader set of new policies and plans for the post-school education and training which included some attention being given to adult education as well.

In 2012 a ***Green Paper for Post-School Education and Training*** was published by the DHET. It had a small section on Community Education and Training Centres which it proposed as a replacement for the Public Adult Learning Centres. The Green paper noted the inadequacy of provision for people who had failed to complete their schooling. It noted that a task team was looking at a new institutional set up (see below).

The ***White Paper*** that followed (DHET, 2013) recommended energetic development planning for the expansion of post-school provision for youth and a large number of adults. It outlined the DHET's focus and strategies for post-school education and training in a set of institutions making up "a coherent but differentiated whole" that could expand to meet the needs of youth (there were 3.4 million young people not in employment, education or training (the so-called

NEETs)) but also a large number of adults”. There should be articulation between various qualifications and no dead-ends, and partnerships between educational institutions and employers. Though it saw national economic development as the priority it also aimed to develop “thinking citizens” – education had an the “intrinsic importance”.

The White Paper included a brief section (pp. 20-24) proposing core-funded and well-staffed Community Colleges (which would cluster the Public Adult Learning Centres) and expand provision nearly 400%. They would offer education and training, formal and non-formal, for community needs, literacy and citizenship education, not only income generation.

Community colleges “must therefore be designed to be flexible in meeting the needs of their own particular communities. The colleges must build on the experiences and traditions of community and people’s education developed by non-formal, community-based and non-governmental organisations over many decades.” They would be monitored and evaluated by a division within a new South African Institute for Vocational Education and Training.

The Task Team on Community Education and Training Centres

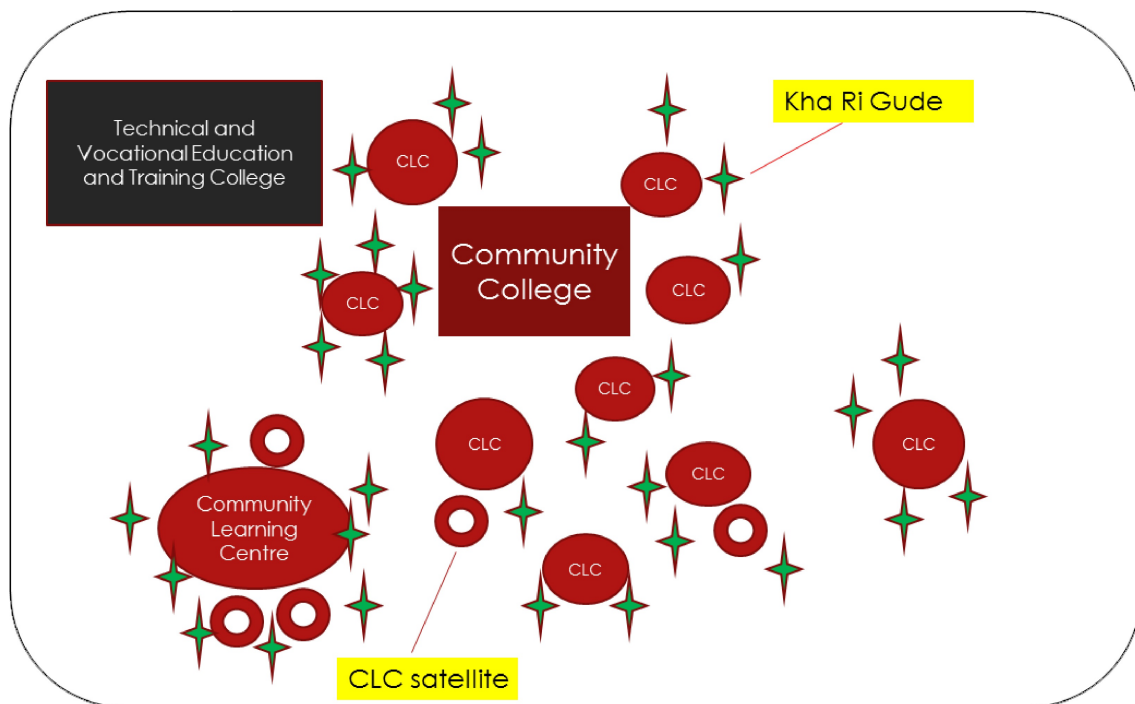
The White Paper's position on Community College development had been informed by (though in certain crucial respects it differed from) the report of a Task Team (DHET, 2012c, 2012d) set up by the Minister of Higher Education and Training in 2011 as part of the Green paper development process to look at the future of Community Education and Training Centres (that is, the old PALCs) and to conceptualise a workable institutional model of community education and training centres that is distinct and unique. It was also tasked with looking at the policy, legal, programme, funding, governance and broad implementation aspects of its proposals.

Its mid-2012 report's contextual analysis noted that despite some achievements the South African education system continued to reproduce inequalities in educational access and outcomes, that there was a huge mass of 12 million severely undereducated adults and 3 million NEETs between the ages of 18 and 24. State adult education had received a minuscule percentage of the education budget and little attention was given to the young NEETs. This situation had been exacerbated by a period of fiscal restraint until the mid 2000s.

The actual proposals were as follows:

- A network rather than a single 'new' institution
- The network would be an integral part of the post school system
- It would have two major components:
 - ▶ **Community Learning Centres (and their smaller satellites):**
(with the Kha Ri Gude literacy campaign infrastructure, matured into a national learning network (with some similarities to the Scandinavian study circles), linked to them
 - ▶ **Community Colleges** (within a differentiated college sector) as support hubs for the Community Learning Centres clustered around them)
- ▶ Support from an Institute for Adult, Youth and Community Learning (not merely a sub-section a TVET Institute)
- ▶ Open, distance and e-learning components in all of these institutions.
- ▶ There would be strong links to the TVET college system.
- ▶ There might be a pilot phase in which the model was tested but the aim was for a community college in every district of the country.

Figure 13
Representation of a Community College/ Community Learning Centres/
Kha Ri Gude network



The decision to not recommend having “community colleges” as sub-sections of existing TVET colleges was based on the rationale that when adult education is tagged onto another system it is invariably neglected and that expecting weak and overloaded TVET colleges to take on the task of mothering a weak, understaffed and dysfunctional PALC system that served thoroughly under-prepared learners was too much to expect. [In retrospect, financial exigencies may query the realism of this recommendation.]

The Task team saw the work of these Community College/Community Learning Centres as focusing on the following:

Table 52
The institution, mission and focus of a new Community College system

NQF level	Institution	Mission	Programmes
1 to 3	Community Learning Centres	First and second chance literacy and vocational	ABET, soft vocational skills, GETC, NASCA, some CLCs focus on hard vocational skills and NCV, community and non-formal education, <i>Kha Ri Gude</i> learning network programmes
1 to 5	<i>Kha Ri Gude</i> Learning Network	Literacy and public education	Literacy, public and community education [Multi-ministry delivery]
4 to 5	Community colleges	First, second chance Senior Certificate. Vocational and occupational programmes	NASCA, NC(V), soft vocational skills, social learnerships, para-professional programmes, university bridging
	Adult, Youth and Community Learning Institute	Develop and support literacy, adult education, community and public learning	Policy, Curriculum, virtual collaboration mechanism

The Task Team (DHET, 2012d, pp. 46-52) report urged urgent attention to:

- Phasing in the model(s) and sites of delivery
- Institutional development and capacity building
- Governance issues
- Legal and policy framework
- Funding
- Linkages and articulation

The White Paper take on Community Colleges

The White Paper certainly took the need for more flexible provision seriously. Community Colleges “must therefore be designed to be flexible in meeting the needs of their own particular communities. The colleges must build on the experiences and traditions of community and people’s education developed by non-formal, community-based and non-governmental organisations over many decades.” (DHET, 2013, p. 10) However, the main focus was on the new institutional type and there was little reference to what was to be done with the PALCs in the interim. The White Paper said that the PALCs, now that they were the DHET responsibility, would be clustered into the new community colleges. Community colleges would be provided with “adequate infrastructure and a critical mass of full-time staff” and could enter into partnerships with community-owned, private or church run

education and training centres. There would be a pilot phase. Learner support and career guidance services to be established, as would Youth Advisory centres. The DHET would develop funding formulae with core funding to be complemented by Sector Education and Training Authority (SETA), National Skills Fund and private monies. Colleges could charge fees but they should be kept to minimum. As far as possible students were to be “fully funded”. The Community Colleges would be monitored and evaluated by a division within a new South African Institute for Vocational Education and Training.

Colleges “must select suitable and qualified adult educators” and new ones trained and older ones retrained. There would be qualifications policy and guidelines for “the recognition of capacities and experience that exist within communities”.

And, echoing a strong recommendation from the Task team, “Universities – and TVET colleges where appropriate – will be supported to develop capacity to train adult educators. Many university-based adult-education units have unfortunately been closed in the past two decades. However, at least two universities have established centres for post-school studies. This is an important development which should be encouraged. Such centres could become hubs for training adult educators and promoting articulation in the post school sector, as well as becoming nuclei for research on the sector.” (p. 23).

On the initial implementation there would:

- Phased introduction after 9 pilots (one per province)
- Principals to be appointed by the DHET Councils will have: ministerial appointments, community, local government, local business, other post-school institutions
- Development of long term plan
- Phased expansion and improvement of infrastructure
- DHET to oversee clustering of PALCs

On programmes there was reference to a mix of the current formal PALC offerings (the General Education and Training Certificate and the Senior Certificate) and the new National Senior Certificate for Adults (NASCA) as well as to various occupational and non-formal programmes and courses. There would be community responsiveness and citizen and social education.

Much of the above is, perhaps predictably for a policy document, aspirational. What would happen in subsequent implementation in 2015 was far away from these aspirations.

The function shift decisions

Before the Task Team report was finalised or the White Paper published, the DHET legal advisor appraised the Task Team of a plan to rename all PALCs as Community colleges, then immediately merge them into 9 (provincial/regional) ones. This was to give effect to the “function shift” of the PALCs from provincial to national control.

The Task Team was aghast at this proposal for the PALCs as there was a clear need for the clustering, their rationalisation and linking to local community colleges to be phased in over time and at the same time to improve the effectiveness of their continuing provision. This

would be a difficult task given the lack of capacity endemic in the PALCs and their management. It was clear that there were no resources to immediately set up new community colleges and the Task Team saw this as a recipe for disaster, a legal sleight of hand, the only beneficiaries being the bureaucrats who could claim a successful “function shift”. Further, they thought it was wrong to mechanically apply the existing TVET college governance model. Their objections were totally ignored and the bureaucratically convenient but otherwise totally illogical process went ahead on 31 March/1 April in terms of Amendments to the Further Education and Training Colleges Act in late 2013.

Predictably there were enormous administrative problems, particularly with payments to PALC staf, and it general seemed that there was great lack of clarity as to who was actually responsible for ongoing support to the PALCs, given that there were in fact no new community colleges (see below).

The Community College Policy Design Evaluation

Bizarrely, while the planning for the “function shift” was going on and, actually on 1 April 2015 happening, another arm of government, in the form of the Department of Performance Monitoring and Evaluation (DPME) in the Presidency had, with the DHET, commissioned an evaluation of the design of the draft Policy on Community Colleges (which was in tardy internal process of development within the Adult Education Directorate within the DHET – exceptionally tardy in that it was now two years since the Task team Report) – it was only gazetted on 3 July 2015 (DHET, 2015b)! Such an evaluation was in the way a pilot of what would in future happen to all government policies in the course of their development. It was just happening rather late in the day with the function shift of the PALCs already steamrolling ahead.

In the process of the evaluation it was discovered, amongst other things, that there had been very little consultation with the PALCs about their to be overnight status as a full community college before waking up to find one was merged into a single regional college, which was not, actually a college (even a nascent one) at all, but simply an understaffed administrative centre for (continuing) to administer the PALCs (now renamed Community Learning Centres). Further, the staff of the previous provincial adult education directorates, now transferred to the national DHET, had not the slightest intention of now going to actually work in the new institutional model of the community college!

The evaluation (South African Institute of Distance Education, 2015) was finalised in August 2015.

Its conclusions were (pp. 4-6), first, in respect of the “function shift” that:

- Whilst it is acknowledged that the PALC system is largely dysfunctional there is little in the draft policy that indicates a detailed plan or process to improve the situation to ensure that these centres become functional. Indeed the plan to nominally consolidate PALCs into one community college may actually replicate all the problems of the past system, particularly in the larger provinces where little district or local support was given to these centres. The model may also disadvantage those PALCs that in certain provinces are functioning well and are supported by district or regional officials. The lack of budget estimates was alarming, suggesting a likelihood of funding shortages.

The lack of buy in from officials was also worrying and the danger of the concept of “community college” being associated in the public mind with what is in effect simply the old dysfunctional PALC model renamed will severely undermine the potential of an inspirational educational development.

- The evaluators recommended that there needs to be a differentiated conceptualization of how the merged PALCs are meant to operate in different provincial contexts. It is known for example that Gauteng was administratively more successful than other provinces and has a fairly large adult education staff. A more comprehensive policy and plan must be developed that deals with the ongoing (even if only interim) existence and support of youth and adult learners currently at the old PALC sites. Key outcome, performance indicators, and sectoral coordination structures must be detailed. This is not to be confused with the policy and plan for the new institutional form of community colleges.

On the new institutional form the evaluation noted:

- The lack of the necessary detailed plan on how to set up a community college system, and, where detail is given, it slavishly follows the TVET college model. The Task team notion of a more flexible network of community learning centres close to the learners has been entirely lost or inverted. There also appears to have been minimal consultation on the new policy and little attention given to how the new system would be funded. Given that new programmes, curriculum and materials development will be crucial to improve the provision, the absence of any proposal of an appropriate mechanism to facilitate the development of these crucial elements, is serious.
- The evaluators recommended a more substantive and imaginative policy be developed that deals with the creation and sustainable continuation of a new institutional form of provision of adult and youth education in decentralised community learning centres supported by community colleges, and with the requisite resources of programmes, curricula, materials and educators and trainers. This policy process should commence with the development of a set of guidelines for the pilot community colleges, including the notion that they should incorporate a number of local community learning centres (PALCs, satellites or NGO Centres). Then the current legislation should be reviewed and where necessary amended or replaced. This should in no way interfere with initiation of genuine pilots of community colleges. Further the DHET would need to establish significant internal capacity to do all this and also ensure that the crucial South African Institute for Vocational and Continuing Education and Training (SAIVCET) functions are made operational, especially in regard to programme and materials development. A detailed project plan should be developed with an accompanying monitoring and evaluation framework.

The ongoing process

As yet, there are no community colleges, though Acting Principals and some Council members have been appointed. At these Community College Administrative Centres (the “community colleges”) one, or in an exceptional case, two, people sit in an office.

A recent DHET presentation that summarises a report on the Recommendations of the 2015 Medium Term Expenditure Committee of the National Treasury stated (Department of Higher Education and Training, 2015d, p. 26) states that the DHET policy priority of having “regional office space for management of TVET colleges and AET centres” was supported but resources were not available but the “Construction and Operations of new TVET College campuses” was not supported and that the DHET had been advised from the beginning not to build these due to lack of funds and noted that a Community College model had not yet been developed.

Another presentation (DHET, 2015e, p. 2) states that “The CET College budget (including the CLC allocations) will only be transferred to the CET College once systems are in place”.

Although a number of high level documents have been produced by the DHET on strategic planning and funding for the community colleges (DHET, 2015f,g,h), they seem disconnected from the reality on the ground.

The Ministerial Committee visits

In September to November 2015, members of the Ministerial Committee visited a few CLC sites in each province. The sites were selected by regional DHET officials as examples of well functioning centres.

The centres visited were either housed in schools (functioning after hours) or in closed schools. Few of the CLCs hosted by schools had a formal agreement with the school (in terms of the old, now repealed, ABET Act of 2000). In most sites a bare minimum was provided by the school, use of a few classrooms after school hours. Very few had been given an office or place to store things.

From the staff at the centres it became clear that the function shift did not appear to have been handled well.

First, the initial briefing in late 2014, on what would happen (and the Amendment to the FET Colleges Act had laid down quite specific instruction on what should be done), seems to have been cursory at best (except perhaps in parts of the Free State). No real consultation was done and nothing was communicated in writing. Indeed at one centre they had yet to inform the Centre Governing Body about the function shift changes!

Second, subsequent to the actual function shift on 31 March/1 April 2015, centre managers had received no real information about the community college of which they were supposedly a sub-structure. Since April, the centres have been almost totally in the dark as to what was happening or when it was happening. There have been virtually no communications at all to centres from the new Acting Community College Principals, except in a couple of districts. Clearly the new Community College Administrative Centres (the nine “community colleges” gazetted on 16 March 2015 (DHET, 2015a)) are not functioning as they should be. [Indeed it is unclear exactly what the appointed Acting Principals of the community colleges have been doing since April 2015. Nothing operational has happened and on 10 October 2015 an agreement was signed between the new Councils and relevant TVET colleges that the TVET colleges would handle procurement for the new bodies. It was reported to Ministerial

Committee members that in two provinces the Acting Principals have left their posts and returned to the old provincial adult education offices several hundred kilometres away!]

Third, most centres had staff payment problems in April 2015 and at several for up to three months with salaries not being paid from Pretoria. In some case there are extended payment problem still to be rectified. The problems seem to apply particularly to educators at REQV 11 and 12. In some cases there were claims that their salaries had changed downwards (perhaps due to a different tax calculation).

Fourth, with the function shift in most cases the old system of support from provincial and district staff (usually a coordinator and a curriculum/ subject specialist(s)) who had provided workshops, advice, regular visits (ranging from twice a month to once a term), moderated site-based assessments, and done limited photocopying, seems to have collapsed or is collapsing. With the lapse of district support, most sites no longer file the old monthly or quarterly reports.

Fifth, the endemic problem of the PALCs not having a proper budget to pay for any materials, equipment and utilities, water, light, or cleaning and maintenance, seems to have continued (except at some Free State sites which had been told they would be allocated R20 900 for the 2015/2016 financial year). The problem is particularly acute as for the last couple of years a number of decisions relating to budgets, staffing and other matters had been put on hold because of the impending function shift. The situation with materials can only be described as scandalous. Some centres have no materials at all, neither textbooks for teacher use or textbooks or workbooks for the learners. At some centres there was one copy of a textbook provided for a few subjects. Where there are textbooks for learners they are totally insufficient and have to be shared between several learners (and hence are only used in class). Most of the textbooks are dated. No readers were ever provided. It is alarming that classes of learners are expected to learn to read but have literally nothing provided for them to read. There are no Senior Certificate materials at all. They have to get old out-of-date books from schools. Learners borrow prescribed literature from school children. There is no practical equipment for subjects such as Ancillary Health Care.

Lastly, there is no news on any change to the conditions of service of the educators, employed, as they always have been on temporary, year by year contracts, with no benefits (even after decades of service) and a cap on the number of hours work they can claim for each month. At all sites visited this was the sole employment of the adult educators. Because of the poor conditions of service and their perception that adult education was, as a government priority, neglected and “dying”, the educators generally wanted to get into mainstream school teaching. The situation for Centre Managers is also precarious because they are now only in acting positions and these posts will be advertised. Though adult educators are expected to invigilate, mark and moderate the GETC examinations and also invigilate the Senior Certificate examinations they are no longer being paid (as they were before by the provincial Department of Education).

It seemed to the Ministerial Committee visitors that out in the townships and rural communities PALCs still run, much as they always have, though perhaps more in the dark as to who is actually in charge.

The challenge of funding Community Learning Centres

It is clear that in terms of current policy and the realities of the function shift of state adult education provision from provinces to the national Department of Education and Training that for the foreseeable future there will be no major development of new community colleges that could coordinate, serve or replace the existing PALCs spread around the country. There is therefore a need for funding that will in the interim enable them to continue their provision (and improve their dire quality). Given the realities of the current inadequacies of the system it would seem to be necessary to gain for the CLCs an increased share of the national education budget. However, an increased budget would not be enough – the system demands new, visionary and effective management of provision – for without this there can be little hope of progress. Effective management teams are needed at both national and regional hubs with the capacity to ensure that the budget is deployed effectively).⁴

An enhanced budget would need to cover the following components:

- Salaries for educators and administrators (that would also take into account the need for more permanent, dedicated, adult education staff). There would have to be some allowance for considerable expansion of the FET component (Senior Certificate).
- Salaries for the coordinating and support staff based at both central (Community College Administrative Centres) as well as in the proto community college nodes at district level (possibly linked to local TVET colleges) that would each deal with a cluster of nearby Community Learning Centres.
- Serious curriculum and materials development (for at least a number of start up years)
- Materials production and distribution
- The GETCA and Amended Senior certificate/NASCA examination costs.⁵
- The setting up of an effective EMIS system and the procedures and regulations that would enable it to work.
- Support for the existing providers of adult educator training (currently some few universities) to gear up for larger output and various forms of continuing in-service education and support for educators and administrators.

⁴ This is not a counsel of perfection, the Kha Ri Gude literacy campaign was able to do this rapidly and effectively within a year (see Aitchison and McKay, 2013).

⁵ Some sort of partnership with the Independent Examinations Board would make sense here.

What are realistic funding targets and goals?

Currently the allocation of the national education budget to adult education is very small (in 2016 it is estimated at 1.7 billion) and it is almost entirely spent on salaries.

Probably the only approach that makes sense is that a benchmark be set for the proportion of the national education budget that is awarded to adult education and training.

Internationally there has been advocacy for adult education to gain at least 5% of education budgets, though few reach a 3% benchmark and it is generally below 1% in Africa with mid-2000s exceptions such as Nigeria (2.43%), Mozambique (3.5%) and Cap Verde (8.7%) (Aitchison and Alidou, 2009, pp 14-15).

It is recommended that the overall budget be increased as fast as possible to at least 3% of the national education budget as an interim measure and that certain percentages of the budget be ring fenced for personnel costs (including coordination), curriculum and materials, maintenance and monitoring and evaluation. Given the dearth of materials, materials development should be a priority in the initial year or two. This recommendation is subject to the caveat that, unless the leadership of adult education in the DHET is awakened, budget increases will be pointless.

In the longer term a benchmark that adult education's budget should be 35% of the one for TVET colleges could be contemplated.

An addendum on the Kha Ri Gude mass literacy campaign

In April 2005 the Minister of Education, Naledi Pandor, held a roundtable discussion in which she openly acknowledged that the ABET system had failed and that she would take action. That action led to the design and implementation of the Kha Ri Gude mass adult literacy campaign that has reached over three and a half million learners in its seven years of successful operation. It provides a fascinating model of operation (and certainly a superiority in success) in comparison to the PALC ABET system that Pandor had condemned.

Appendix 4 has a paper describing in detail the structure of the Kha Ri Gude campaign with a particular focus on its data collection and processing methods. Another useful description is to be found in McKay's *Measuring and monitoring in the South African Kha Ri Gude mass literacy campaign* (McKay, 2015).

A serious question is whether its basic structures should not be incorporated into the developing Community College/Community Learning Centres system.

In early 2006, a Ministerial Committee on Literacy, appointed by Pandor, was sent to visit Cuba and Venezuela and by mid-year had handed in a comprehensive *Final report* and plan for a mass literacy campaign. A summary of the report was published in May 2007. In November 2006 the *Final report* was approved by the Cabinet, which requested a more detailed *Operational plan*, which was prepared in early 2007. Then began a tortuous set-up process which most members of the Ministerial Committee perceived as being deliberately hindered by Departmental officials.

A considerably scaled down pilot of the campaign was run in 2008, doubled in scale in 2009 and increased again in scale in 2010 and continued each subsequent year on that scale until 2015 which was meant to be a scaling down towards closure or pre-closure year.

The original design for the running of the campaign was not dissimilar from many other literacy campaigns where there is a central management/oversight unit which is also responsible for the development of instructional plans and materials and a cascaded training of personnel from national to provincial to district and then to local level. As with all such cascades the problematic elements include:

- the logistics of delivery of training and materials to the lowest level – that of the volunteer educator who teaches a group of learners
- the methods and effectiveness of the reporting back to the headquarters on the running of the classes and the assessed achievements of the learners
- the financial system for paying salaries and stipends to the personnel and volunteers at the various levels.

The campaign **design** was robust and scalable so that it could be relatively rapidly adjusted to the number of participants. The *Operational plan* dealt with the governance, coordination, educational and research structures of the campaign. However, because of significant changes made by the Department of Education to the set up process and plan, particularly in relation to the precipitous outsourcing of the personnel, data handling and logistics, and to the much reduced budget (R850 million for the years 2007 to 2009 compared to the planned for R3 170

million), some elements of the original plan were necessarily postponed, down scaled, or dropped, including somewhat cumbersome provincial and district infrastructures.

Coordination was managed at the national level by a campaign unit housed within the national Department of Education in Pretoria (from mid 2009 in the Department of Basic Education) with outsourced functions of staffing, payroll, logistics and data processing handled by SAB&T in Centurion near Pretoria. The next level was of Coordinators (more or less one in each district in the areas where the campaign operated who each managed twenty Supervisors), the next of Supervisors (one for every ten Volunteer Educators), and finally the Volunteer Educators.

Curriculum, Teaching and Training had a very small national staff base, the CEO played a significant role here aided by a Training Officer. However, most of the major curriculum decisions had already been made in 2006 and 2007 and the materials developed. The major assessment instrument was a Learning Assessment Portfolio (LAP) (essentially a battery of exercises/tests linked to the various stages in the reading, writing and numeracy curriculum). The Training Officer coordinated a cascade of training of Coordinators, Supervisors and Volunteer Educators. At the higher level of the Coordinators and Supervisors, there was also an implicit (and correct) assumption that many of them would have had some form of adult basic educator training. They also had a far stronger training role than had been originally envisaged which compensated for the lack of large training budget.

The original plan argued for a substantial, specialised and semi-autonomous **monitoring, evaluation and research** component. The reduced 2008 and 2009 budgets simply did not allow for this though built into the whole coordination system was a quite systematic collection of data that was to be used for monitoring, reporting and research purposes. In 2009 the CEO appointed a subset of Coordinator level staff as Monitors with a task equivalent to that of an inspectorate.

The implementation of a literacy campaign with this organisational structure required accurate up to date **data**, collected and used efficiently and effectively. Except for the few officers in the Department of Education in Pretoria and the data capture, call centre and warehousing staff and facilities at the SAB&T offices in Pretoria, the campaign had no institutional bases or facilities or formally employed staff. Deliveries of materials to sites all over the country, including in rural areas, required accurate information on learner numbers, what languages they would study in, etc. Shortages or other problems had to be reported via the call centre for immediate redress. Payrolls and the authorisation of electronic payments into bank accounts were reliant on accurate and timeous rendition of registers and other reports from educators, Supervisors and coordinators. Assessment portfolios had to be collected and stored centrally and there verified by the South African Qualifications Authority (SAQA). Learner data was captured in a number of forms: registration data, registers of attendance and the Learner Assessment Portfolio (LAP) – marks and biographical data.

Financial data was of signal importance in the operations of the Campaign. Clearly the Campaign as designed could not run without materials being printed and delivered, and then used in classes whose part-time teachers would be paid a stipend. Yet the history of South African educational interventions is replete with disaster stories about corruption in textbook procurement and delivery and about part-time educators who are either not paid, or who don't teach but are paid, or who don't exist or are dead but someone receives the payment (the so-

called “ghost teachers”). Because of the announcement in November 2006 that Cabinet had approved the budget of R 6.4 billion for the new literacy initiative, it was also likely that the Campaign could well be the target of the entrepreneurs of educational procurement and delivery malfeasance. A really robust financial system that was able to speedily interact with the other data flows was necessary not only to ensure the success of the Campaign but also to see that it was not derailed. In addition, the Campaign had direct financial accountability to the National Treasury

With the payroll, payment to a registered volunteer Educator was dependent on submission of the monthly class register (via Supervisor and the Coordinator). Those who had not submitted their registers, or, at the end of the programme, the LAPs, were not paid. The payroll program would generate a list of Educators who had submitted the required documents, had them approved, and who fulfilled the criteria of having at least 14 class members. There would be a separate list of those with lesser classes numbers and who received a *pro rata* payment. The Kha Ri Gude Unit would then do a check on the lists received from SAB&T to ensure that there were no duplicate payments to people with the same Identity Number, etc. The SAB&T data systems were gradually fine tuned to routinely do these controls.

The impact of this rigorous financial management allied to a functioning and up to the minute data system led to dramatic cost savings. In the 2008 year, at the beginning of which much of the procurement was done by Department of Education officials, the average cost per learner was R 1 269. In 2009 with the Kha Ri Gude/SAB&T systems fully in place, the cost was reduced to R 680 per learner.

Because the Kha Ri Gude database has data on the numbers of learners per class, submission of LAPs from the class, etc., poorly performing educators could be identified and their services dispensed with or remedial action taken. It also enabled reports, replete with accurate statistics to be issued on a regular basis for accountability and advocacy purpose.

South Africa, and many other countries, are hosts to many failed educational management information systems. How is it that the Kha Ri Gude information system actually worked? One has to firstly discount the idea that it is because the Campaign headquarters staff (in the Kha Ri Gude unit and at SAB&T) were professional, zealous and worked particularly hard (though they may well have been so). Many information systems have excellent hard-working experts and professionals running them at the central level. The explanation has rather to be seen in the particular design of the system and what its main driver is. One can identify that the core driver of the Kha Ri Gude information system is that of payments of the personnel. Every aspect of the data collection is linked to the data required to enable payments to be authorised. Human self-interest (in being paid a stipend) therefore almost guarantees that data will be fed into the system – no data (in the form of registers, reports and assessment portfolios) means no money. This is a huge incentive to everybody at each level (people want to be paid and people do not want to be seen as not having done the data submission work that enables people to be paid). Further, the data submission is timeous because no stipends are paid in advance of the data submission for the particular month.

The second design feature that is significant is that though there are authorisation steps for payment (steps at which data has to be available for the decision to be made) there are not too many (in effect four – Supervisor endorses, Coordinator endorses, SAB&T processes and generates list, Kha Ri Gude Unit authorises payment). By comparison many other

bureaucratic chains or authorisation are many and cumbersome. With Kha Ri Gude the connection between providing the raw data (registers, monthly reports, learner assessment portfolios) and being paid is straightforwardly direct, obvious, and, in time, relatively short.

The third design feature (and one which severely limits the likelihood of fraud within the system) is that who authorises at the first two steps is known and closely monitored. The design of data fields also requires data that can be easily correlated with other data (such as ID numbers, registration numbers, etc.).

Lastly, the Kha Ri Gude system was designed more or less as a new integrated system. It was not attached to some other existing system (and in particular, not welded onto some already dysfunctional system that was failing).

The Kha Ri Gude adult literacy campaign has shown, in a very short space of time, that it is possible to run a successful data system if there has been a good design process and that, once implementation starts, it is well managed. Elements of professional design and management resources have been important in this success but perhaps the most telling finding is that it works because it is in the direct interests of the personnel in the campaign that it works. So good, accurate, really useful data can be collected, processed and used in an educational system or programme. That this success took place in the often marginal and derided field of adult literacy and basic education is particularly good news. If it can be done there it can be done anywhere.

Two failures have to be admitted in relation to the campaign. The first, the expectation that learners, who had completed the six month programme (which was equivalent to ABET level 1, would then move into the ABET level 2 programme at the nearest PALC was a false one. It is impossible to judge whether this was a failure of the Kha Ri Gude instructors to push or the PALC staff to pull or that the learners simply were not attracted to the PALCs. The other failure was to plan to use the Kha Ri Gude structure to deliver ABET level 2 (and at a cost far less per learner than the PALCs) or other useful programmes (in association with other ministries) – a failure undoubtedly of the current management of the campaign.

Section 3: International post-school systems

Chapter 7. Post-school systems in other countries - a literature review

Introduction

The brief of the review was to examine some international literature on post school systems – their shape, functioning and funding – with special consideration of information from the United Kingdom, Germany, the United States of America and India for the purpose of making comparisons with policy options in South Africa for the funding of Technical and Vocational Colleges and Community Colleges (and their Community Learning Centres). A full review was conducted (attached as Appendix 2) and supplemented by a special study of Brasil (attached as Appendix 3).

The reviews, apart from their own examination of original sources, also made use of literature reviews done for the Ministerial Task Team on Community Education and Training Centres (Department of Higher Education and Training, 2012c, 2012d) and for the Design Evaluation of the Draft Policy on Community Colleges (South African Institute of Distance Education, 2015). Both these literature reviews focussed mainly on the appropriate institutional forms for lifelong learning (adult and continuing) rather than funding, but obviously institutional form has a direct impact on the scope of funding for such institutions and their programmes.

This chapter includes highlights from these two reviews those aspects of Technical and Vocational Education and non-vocational and community education that are of application or interest to the developing South African situation.

The *shape and functioning* of post-school systems

The main review took into account the goals envisaged for the sector (given current policy imperatives, the potential shape of the South Africa system and its differentiation, including in roles, management and quality control, linkages, access and openness, format of provision, and qualifications to be offered).

The need for education and training

It is common cause that South Africa's economy requires more skilled people and that under education and illiteracy are a burden dragging down productivity and active citizenship. The international evidence backs the importance of educational interventions.

The need for comprehensive policies for adult and community education

We do not have what is seen in the international literature as essential, **comprehensive adult education policies**. The current Community Colleges policy is makeshift, not at all comprehensive, and essentially tags them onto a TVET college model.

Importance of adult and community education

The *White Paper on Post-School Education and Training* signals an intention to move beyond the aspirational notion of the right to lifelong learning, laid down in constitutional and other documents, towards the acceptance of a comprehensive system of lifelong learning that recognises the fundamental importance of ensuring that all citizens need to be empowered to participate fully in social and economic life of the country.

The international evidence is clear that adult and community education, including non-formal education is valued and supported, though with the caveat that its funding tends to be variable and subject to cuts during austerity periods. Although South Africa has a constitutional right to adult basic education this right has been only weakly secured with inadequate funding and provision. Though there has been some funding of civil society delivery of adult education (though nothing like on the scale of other countries) it has been sporadic and unsustainable (so much so that the NGO adult literacy and basic education sector has been virtually destroyed since 1994). In contrast to South Africa, in the United States and Brazil community colleges and universities are expected to have community learning programmes, indeed Brazilian universities are constitutionally obliged to have extension programmes and in North America community colleges have adult and community education divisions, often their most dynamic divisions. Whatever the future of community college development in South Africa, there is a strong case to relook at the need for universities and TVET colleges to have community education divisions.

Literacy programmes

There have been large scale literacy campaigns or programmes in both India and Brazil. South Africa has had the very successful Kha Ri Gude literacy campaign (though run as a state programme rather than the outsourced models in Brazil and India) but there seems to be a lack of thinking about how the excellent (though now fraying) organisational infrastructure of the Kha Ri Gude campaign could be utilized as the lowest tier of a new South African adult and community education system.

Importance of post school education

Though post-school education is universally recognised as important, the international evidence is that it is difficult to strike the balance between concentrating on young people (in school) and post-school provision in further education and adult and community education. In many countries there is preferential weighting in favour of vocational education as against academic higher education – this is not the situation in South Africa.

Post-school provision differentiation

Clear strong differentiation or at the very least a clear understanding of the different roles within comprehensive institution seems the norm in the international literature.

Current South African community college policy does not sufficiently differentiate them from TVET colleges (except perhaps in its cap on the level of formal qualifications they can offer).

A stronger institutional framework for co-ordination in a diverse system

In many countries the post-secondary system involves many agencies, several ministries public and private providers, relatively autonomous post-secondary institutions, and employer and union stakeholders. This diversity is partly the result of a recognition that of the need for decentralised governance of education provision – central governance is impractical. However, though this complexity and decentralised governance can encourage diversity and innovation, it can also confuse students and employers, hampers transitions and duplicate curricula and quality assurance.

Therefore it is important to ensure that there is an institutional framework to co-ordinate professional education and training, engaging employers and organised labour, so that programmes and qualifications are comprehensible and accessible to key stakeholders and that policy development can be steered and linked to wider economic and education policies (OECD, 2014a, p. 46).

There are a wide variety of funding mechanisms for post school education and training, but invariably for vocational and adult education there are mixes of funding sources that share the costs between government, employers and individual students.

The Task team *Report on Community Education and Training centres* (Department of Higher Education and Training, 2012c, 2012d) found that in most of the surveyed countries public funding for vocational and adult education was distributed via central or federal government, states/provinces/regions or municipalities and, where civil society providers are funded by the state, there are often legal criteria of non-profit and effective accountability and reporting. Provinces or states may have to provide matching or supplementary funding. Several countries now have a skills levy system for vocational and technical training. Several countries have means of adjusting funding so that disadvantaged and poor regions or groups of people receive preferential support. It seems common adult education practice for no tuition fees to be charged for basic adult education and with vocational education for grants or loans for tuition to be freely available.

Use of private providers funded by the state

In most of the countries surveyed there is substantial use of private providers who receive state funding, usually on a competitive basis, to provide education and training services. The contractual relationship include strict data and output compliance and transparency (for example in the United Kingdom they must publish fees, charges and success rates online). In the United States of America 82.5% of federal funds for the adult basic education sector are distributed competitively to eligible **non-profit** providers, using 12 quality criteria identified in the law. These include demonstrated improvements in literacy levels and English language acquisition, gaining of a secondary school diploma or equivalent and movement into and retention in post-secondary education and training or employment or advancement in employment. Similarly, the professional development of adult educators is supported by funding through multi-year contracts. In Germany virtually all adult education is provided by state funded civil society organisations, institutions and associations.

Though in South Africa there has been use of contracted private sector providers, profit and non-profit (as for example in the Kha Ri Gude literacy campaign and in SETA ABET projects) the funding has been so episodic and short term that it has often been destructive, particularly at NGOs. A rational use of such providers needs to be examined.

Private sector

In many countries it is the private sector who pay a substantial part of skills training in the workplace whether through apprentice training or for the workplace component of vocational education and training. In many cases the private sector funding is done by means of a skills levy (as in South Africa).

Data requirements

The international literature is replete with assertions that flows of accurate, up-to-date data are essential for planning of funding and accountability. Generally data management in most of the countries surveyed is sophisticated. Also, in most, no data means no funding. Points that are made are that one must have adequate structures to collect data and that substantial effort is required to develop new management information systems or to adapt old one. In addition accountability measures (which are often themselves not funded) place an increased data collection burden on participating institutions.

Data system and their management will be a major challenge in South Africa, particularly for community colleges and community learning centres and will require adequate funding.

Expenditure ratios

Some countries have norms for the percentages of expenditure on teaching, administration and other costs. Norms here would also be useful in South Africa.

There are a wide variety of funding mechanisms for post school education and training, but invariably for vocational and adult education there are mixes of funding sources that share the costs between government, employers and individual students.

The Task team *Report on Community Education and Training centres* (Department of Higher Education and Training, 2012c, 2012d) found that in most of the surveyed countries public funding for vocational and adult education was distributed via central or federal government, states/provinces/regions or municipalities and, where civil society providers are funded by the state, there are often legal criteria of non-profit and effective accountability and reporting. Provinces or states may have to provide matching or supplementary funding. Several countries now have a skills levy system for vocational and technical training. Several countries have means of adjusting funding so that disadvantaged and poor regions or groups of people receive preferential support. It seems common adult education practice for no tuition fees to be charged for basic adult education and with vocational education for grants or loans for tuition to be freely available.

The mix and context of funding arrangements

In all the countries looked at in this literature review there was a mix of funding sources, state (at various levels of government), the private sector and civil society, and tuition fees. Three of the countries looked at, Germany, the United States of America and Brazil, are federal states so the funding regimes are more complicated than in the United Kingdom and South Africa which are both unions.

In all countries there are some familiar tendencies: declines in real state funding yet at the same time pressure to increase access to post school education and training, increased tuition fees, increased funding for politically driven special initiatives and targets (recently this has often been improving the quality of technical and vocational education and remedial basic

language and mathematical instruction for underprepared students), and a reduction to funding for adult and community education funding in times of austerity. There is no reason not to assume that these same trends will operate in South Africa for the foreseeable future.

State funding a major source

The literature review shows that state funding remains a major source for vocational and community education. In most of the federal countries most state funding comes from the individual states with federal funding more used for top-up or specialised targets. In South Africa with all vocational education and training and state adult education now a national competence this is not a policy option but the issue of to what extent local government (and particularly that in major metropolitan areas) should have an input into funding should be considered. State funding is particularly needed in this sector because its institutions, unlike the university sector does not have much by way of endowments and large research contracts (and also little capacity at this stage to generate other forms of income).

A noticeable tendency is for the state to pay (most) for initial education and training (and especially for young people) rather than continuing education. For vocational programmes beyond secondary level, costs are frequently shared between government, employers and individual students according to the benefits obtained.

Growing centralization of state funding decisions

In recent decades the funding by the state reflects both a centralisation of funding decisions to central government allied to a more contractual relationship by government with the increasingly independent privatised providers.

State funding via specialised funding agencies

The United Kingdom has an interesting use of two specialised funding agencies (one for academic education for children and young people) and one for post school vocational education and skills development for adults.

Sales tax

In the United States of America colleges do not pay sales tax.

Use of private providers funded by the state

In most of the countries surveyed there is substantial use of private providers who receive state funding, usually on a competitive basis, to provide education and training services. The contractual relationship include strict data and output compliance and transparency (for example in the United Kingdom they must publish fees, charges and success rates online). In the United States of America 82.5% of federal funds for the adult basic education sector are distributed competitively to eligible **non-profit** providers, using 12 quality criteria identified in the law. These include demonstrated improvements in literacy levels and English language acquisition, gaining of a secondary school diploma or equivalent and movement into and retention in post-secondary education and training or employment or advancement in employment. Similarly, the professional development of adult educators is supported by funding through multi-year contracts. In Germany virtually all adult education is provided by state funded civil society organisations, institutions and associations. Though in South Africa there has been use of contracted private sector providers, profit and non-profit (as for example

in the Kha Ri Gude literacy campaign and in SETA ABET projects) the funding has been so episodic and short term that it has often been destructive, particularly for NGOs. A rational use of such providers in a longer term scenario needs to be examined.

Private sector

In many countries it is the private sector who pay a substantial part of skills training in the workplace whether through apprentice training or for the workplace component of vocational education and training. In many cases the private sector funding is done by means of a skills levy (as in South Africa).

Tuition fees

The portion of what can be expected to be paid by **tuition fees** has tended to increase in recent times (in an example from England it was now 12% of revenue, for United States of America community colleges overall it is 30%). Recommending a benchmark figure on what percentage of revenue should come from fees is legitimate. Currently in South Africa it is about 20%.

Some central and state governments regulate the fee structures (taking into account the funding, budgets and track records of the institutions).

For public literacy and adult basic education programmes in many countries there are no fees (in Brazil there are no fees for any public education). In the United States of America though in 1998 a previous restriction on states charging fees for adult education services was abolished, most programmes remain free.

In South Africa the correlation between poverty and illiteracy and under education is so clear that charging fees should be discouraged.

Data requirements

The international literature insists on the vital importance of strengthening the collection and accuracy of technical and vocational education and training data (both on academic and vocational programmes). It is replete with assertions that flows of accurate, up-to-date data are essential for planning of funding and accountability. Generally data management in most of the countries surveyed is sophisticated. Also, in most, no data means no funding. Points that are made are that one must have adequate structures to collect data and that substantial effort is required to develop new management information systems or to adapt old one. In addition accountability measures (which are often themselves not funded) place an increased data collection burden on participating institutions.

Some countries have sophisticated data networks for the sector which enables accurate budgeting and planning. In South Africa the current dire failures (catastrophically so with the PALCs) in monitoring, evaluation and research because of the absence or inadequacy of good data flows is noted. Data system and their management will be a major challenge in South Africa, particularly for community colleges and community learning centres and will require adequate funding.

A new institutional type – the community college

The *White Paper on Post-School Education and Training* places unprecedented emphasis on the importance of a **new institutional type** to cater for the needs of an ever growing NEETs group as well as those who were systematically denied all but the most basic education opportunities under the apartheid system.

However, institutional models surveyed in this international literature survey do not particularly support the idea of two clearly separate institutional types, one for technical and vocational education and training and one for adult and community education and training. Either post school further education and training institutions offer a comprehensive range of provision or there is a wide range of differentiated institutions.

Indeed, the United States of America presents a powerful model of a comprehensive institution, the community college, which blends in many ways technical and vocational education, basic education remediation and community adult education funded by a variety of sources, federal government, states, local government, and tuition fees. In India there is a quite wide range of different institutions public and private at the tertiary level and a clear distinction between technical and vocational education.

One of the possibilities that would need to be considered, particularly if the funding for a large number of local community colleges was not available would be to expand the scope of TVET colleges to include adult and community education divisions.

Governance of TVET and Community colleges

The *White Paper* takes into account the relatively recent constitutional decision to make all post school education a national competence. By contrast the international trend in **governance** is for the devolution of powers and decentralisation, including autonomous statutory corporations and outright privatisation, though it is accompanied at the same time by a growing centralization of regulation of qualifications, quality control and state funding. In South Africa there has been the opposite tendency in relation to the management of institutions, with growing central government control, alongside the same centralization of the regulation of qualifications, assessment and accountability. In many of the countries surveyed substantial parts of technical and vocational education and most of adult and community education are not run by federal or central government but decentralized with the participation of states/provinces, local government, trade unions and civil society associations through contractual relationships. Another congruent finding relating to adult education systems is that they need to have **governance and planning nodes of some substance at both national and regional** levels. This is clearly not now the case in South Africa.

The total impracticality of a centralized national bureaucracy being able to govern a huge range of institutions needs to be examined and lessons taken from international developments.

Governance of adult education

Germany has a high commitment to adult education and there is generally a secure basis for adult education through institutional support and legal recognition. State support is given to adult education through the sponsoring of a variety of civil society organisations (trade unions, employer's association, churches and adult education associations) which have organisational autonomy in curriculum and staffing. Much non-formal non-vocational adult

education provision is done at community adult education centres and in study circles (as in the Scandinavian model). It is similar in Brazil where major literacy campaigns have been run by universities and NGOS with state funding.

South Africa's Public Adult Learning Centres system, originally provincially and now nationally controlled, has been lacklustre. The models from other countries deserve serious consideration.

Central certification and quality control

Central **certification and quality control regulation and monitoring** by central government bodies are evident in South Africa and are congruent with international trends., though usually the actual quality control bodies are semi-autonomous.

Qualifications bodies have in a number of countries endeavoured to simplify the often cumbersome processes and regulations.

In South Africa the capacity of bodies such as Umalusi to take on board adult education qualifications has been questioned.

Partnerships

The international literature argues strongly for better links to labour market and social partners. Germany provides a good example of a true working partnership model for vocational education and training and the substantial investment in both vocational and more general and often non-formal adult education. Brazil has a decentralised system of education with partnerships with local government, civil society organisations and social movements.

Employers and trade unions need to be close to the development of qualifications, so that they have full currency in the labour market. In particular, upper secondary curricula need to be sufficiently driven by fast-changing industry requirements.

Though nominally South Africa has a complicated system of stakeholder representation, making it real at a practical level so that it impacts on TVET and adult education provision is another matter.

Work based learning

Work-based learning is highlighted in the international literature – it must be strong and systematically integrated into all vocational programmes. Indeed, arguments are made that public funding should be limited to training institutions willing to develop the partnerships with employers that support work placements.

More part-time and flexible modes of study

More part-time and genuinely flexible modular forms of study is regularly recommended in the literature. South Africa has seen a decline in such modes in public institutions, something that should be reversed..

Assessment

Effective, reliable, consistent and demanding assessment encouraged by incentives to avoid a drift to lower standards and increased pass rates is universally recommended. The current

state in assessment in many South African TVET institutions is known to be dire and needs urgent renewal.

Manageable set of qualifications

There are several recommendations in the literature for having a neat manageable set of qualifications with clear nomenclature and known institutional basis. This also links to the need to avoid an over complexity of programme choices often with little guidance (especially for older adults).

Career guidance

The European Union literature places a great emphasis on the need for effective, independent career guidance. In South Africa the network of independent career guidance NGOs that existed in the late 1980s and early 1990s all succumbed to funding withdrawal. This support needs to be revived.

Articulation and transfer

Articulation with higher level programmes, including higher education and training is essential. The need for **simple to understand and articulate post school qualifications paths** is necessary. The international literature notes the difficulties with credit recognition for articulation that was previously mainly done on an inter-institution basis though there is increasing state regulation of this. In some countries there are a variety of transfer and articulation structures to ease the transfer process.

It is recognised that transitions into higher education become problematic if learners do not have sound basic academic skills.

In South Africa, in spite of a National Qualifications Framework that in theory allows for easy transfer it is clear that there are a variety of stumbling blocks and that there are huge vested interests (particularly in higher education) inhibiting easy access and the rational accumulation and transfer of credits. This has a particularly harmful impact on poorer students starting their higher education career with Higher Certificates and Diplomas. Similarly, it is clear that recognition of prior learning is not functioning well.

Underprepared students

It is common cause in South Africa that any system for developing an educated and skilled workforce through TVET colleges and other forms of youth and adult education will, certainly initially, have to cope with underpreparedness of learners because of the past and current failures in the output of formal schooling. Basic literacy and numeracy skills are critical both for labour market success and to support further learning. Much of the rationale for community colleges as a new institution in South Africa is that it would function to remediate the lack of such key skills amongst disadvantaged learners. It is also widely recognised that a huge number of enrollees in South Africa's TVET colleges are underprepared (as are a large number of students are in universities). For some time South African youth and adult education will have to have a dual focus – on both basic education and further education.

Teaching adequate core academic skills, particularly literacy and numeracy, must be built into vocational programmes as many students leave compulsory school with weak core academic

skills and that the current vocational education system is not organised in a way to identify such learners and address their problems. All students entering should have their literacy and numeracy skills assessed and those who require it should have basic skills instruction.

This resonates with the growing concern in the international literature about the problem of underprepared students and a recognition that a solid traditional grounding in language and mathematics is essential. Recommendations have been made in Germany, the United Kingdom and the United States on ways to deal better with this problem, including screening of all new post-school students, reconsidering (in the United States) the idea of open access (and recognising that attempts to broaden access into post-secondary education exacerbates the problem), insisting that all students are truly competent in basic language and mathematical skills before they can graduate, and only using rigorous academic language and mathematical courses and abandoning language and maths “lite” courses that are easy to pass ‘soft options’.

Bitter experience in the countries surveyed has shown that the idea that community or further education colleges can easily “fix” underpreparedness is false. The real costs of developing the capacity in TVET colleges and community colleges to handle underpreparedness will be heavy (and it is instructive that the heavy investment in the formal school system (particularly in teacher salaries) has signally failed to prepare the majority of young people for post-school education and training). Finding the right courses and course materials will also be difficult and expensive, as evidence suggests that there is little evidence that the more popular programmes and strategies for improving student success actually work and are cost-effective. Where the expert remedial educators will come from is also a conundrum. In time a further concern will grow, that this is a problem that the school system should address, not college, and that taxpayers should not have to pay for the same basic education tuition twice (once in schools and then again in college).

The debate of whether such remedial correction of underpreparedness should be run through a separate organisational unit or rather embedded in the different subjects and course offerings is debated (as it was in South Africa when academic support programmes were in their heyday in the late 1980s and early 1990s). The United Kingdom’s Wolf Commission report suggests that basic education and remedial programmes need to be independent and rigorous.

Another issue is whether universities should redirect their underprepared students to community colleges (and an interesting idea was floated in the late 1990s of an “Intermediate Tertiary College” without being taken up).

Practitioners

The lack of trained practitioners is universal in youth and adult education. Some countries have tried to redress this problem, as in India where adult education university departments in about 70 universities in India have a mandate to design and present training programmes for adult educators. Better qualified teachers with both teaching skills and up-to-date industry knowledge and experience are needed in technical and vocational education. In South Africa the destruction of adult education departments in higher education must be rapidly reversed.

Research and development

Germany has a national network of research centres and the Federal Institute for Vocational Education and Training (BIBB). This institutional base supporting research supports a high degree of innovation and improvement in the system. Brazil also has a substantial National Institute for Educational Studies and Research (*Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira* (INEP)), the independent agency linked to the Ministry of Education which is responsible for evaluation systems in basic and superior education). Other countries have a range of such research institutes. One recommendation in the literature is that a set percentage of annual budgets in the sector should be ring-fenced for a coordinated plan for research and evaluation (and that all grant receivers have to participate in).

Dual system

The German dual (upper secondary school level) system which blends academic and vocational training is clearly a successful model but is probably, at this stage of South African development, an unrealistic one to consider, because of the high degree of efficient management it requires, which is clearly absent in South Africa's dysfunctional schooling system. The dual system requires a sophisticated and well organised collaboration between schools and places of work. In addition, many South African schools are not near places of work. However these very points suggest that South African schools do need a more vital connection to workplaces (and this also relates to better career guidance). Even workplace visits during the year would be valuable.

Local provision

Those countries that have community colleges find that they primarily attract and accept students from the local community, and are often supported by local tax revenue. They serve students in the local area who seek low-cost post school education.

In the South African context, where transport systems are problematic and many people still live in rural areas, ensuring local access will be a big challenge.

The funding of post school systems

There are a wide variety of funding mechanisms for post school education and training (see Chapter 11), but invariably for vocational and adult education there are mixes of funding sources that share the costs between government, employers and individual students.

The Task team *Report on Community Education and Training Centres* (Department of Higher Education and Training, 2012c, 2012d) found that in most of the surveyed countries public funding for vocational and adult education was distributed via central or federal government, states/provinces/regions or municipalities and, where civil society providers are funded by the state, there are often legal criteria of non-profit and effective accountability and reporting. Provinces or states may have to provide matching or supplementary funding. Several countries now have a skills levy system for vocational and technical training. Several countries have means of adjusting funding so that disadvantaged and poor regions or groups of people receive preferential support. It seems common adult education practice for no tuition fees to be charged for basic adult education and with vocational education for grants or loans for tuition to be freely available.

The following were identified in the Ministerial Committee literature survey (Appendix 2).

The mix and context of funding arrangements

In all the countries looked at in this literature review there was a mix of funding sources, state (at various levels of government), the private sector and civil society, and tuition fees. Three of the countries looked at, Germany, the United States of America and Brazil, are federal states so the funding regimes are more complicated than in the United Kingdom and South Africa which are both unions.

In all countries there are some familiar tendencies: declines in real state funding yet at the same time pressure to increase access to post school education and training, increased tuition fees, increased funded for politically driven special initiatives and targets (recently this has often been improving the quality of technical and vocational education and remedial basic language and mathematical instruction for underprepared students), and a reduction to funding for adult and community education funding in times of austerity. There is no reason not to assume that these same trends will operate in South Africa for the foreseeable future.

State funding a major source

The literature review shows that state funding remains a major source for vocational and community education. In most of the federal countries most state funding comes from the individual states with federal funding more used for top-up or specialised targets. In South Africa with all vocational education and training and state adult education now a national competence this is not a policy option but the issue of to what extent local government (and particularly that in major metropolitan areas) should have an input into funding should be considered. State funding is particularly needed in this sector because its institutions, unlike the university sector does not have much by way of endowments and large research contracts (and also little capacity at this stage to generate other forms of income).

A noticeable tendency is for the state to pay (most) for initial education and training (and especially for young people) rather than continuing education. For vocational programmes beyond secondary level, costs are frequently shared between government, employers and individual students according to the benefits obtained.

Growing centralization of state funding decisions

In recent decades the funding by the state reflects both a centralisation of funding decisions to central government allied to a more contractual relationship by government with the increasingly independent privatised providers.

State funding via specialised funding agencies

The United Kingdom has an interesting use of two specialised funding agencies (one for academic education for children and young people) and one for post school vocational education and skills development for adults.

Sales tax

In the United States of America colleges do not pay sales tax.

Use of private providers funded by the state

In most of the countries surveyed there is substantial use of private providers who receive state funding, usually on a competitive basis, to provide education and training services. The

contractual relationship include strict data and output compliance and transparency (for example in the United Kingdom they must publish fees, charges and success rates online). In the United States of America 82.5% of federal funds for the adult basic education sector are distributed competitively to eligible **non-profit** providers, using 12 quality criteria identified in the law. These include demonstrated improvements in literacy levels and English language acquisition, gaining of a secondary school diploma or equivalent and movement into and retention in post-secondary education and training or employment or advancement in employment. Similarly, the professional development of adult educators is supported by funding through multi-year contracts. In Germany virtually all adult education is provided by state funded civil society organisations, institutions and associations.

Though in South Africa there has been use of contracted private sector providers, profit and non-profit (as for example in the Kha Ri Gude literacy campaign and in SETA ABET projects) the funding has been so episodic and short term that it has often been destructive, particularly at NGOs. A rational use of such providers in a longer term scenario needs to be examined.

Private sector

In many countries it is the private sector who pay a substantial part of skills training in the workplace whether through apprentice training or for the workplace component of vocational education and training. In many cases the private sector funding is done by means of a skills levy (as in South Africa).

Tuition fees

The portion of what can be expected to be paid by **tuition fees** has tended to increase in recent times (in an example from England it was now 12% of revenue, for United States of America community colleges overall it is 30%). Recommending a benchmark figure on what percentage of revenue should come from fees is legitimate. Currently in South Africa it is about 20%.

Some central and state governments regulate the fee structures (taking into account the funding, budgets and track records of the institutions).

For public literacy and adult basic education programmes in many countries there are no fees (in Brazil there are no fees for any public education). In the United States of America though in 1998 a previous restriction on states charging fees for adult education services was abolished, most programmes remain free.

In South Africa the correlation between poverty and illiteracy and under education is so clear that charging fees should be discouraged.

Funding formulae

The literature survey gain some detailed information on how the United Kingdom's funding formulae worked. For example the Education Funding Agency's formula was:

Student numbers X Retention factor x National funding rate per student x Programme cost weighting + Disadvantage funding) x Area cost uplift = Total programme funding

These allocations are supplemented by additional funding for high needs students, bursaries and other financial support awarded to individual students. There were also caps on funding per student.

The Skills Funding Agency had a similar but simpler formula:

Student numbers X Funding rate per student X Disadvantage uplift X Area cost uplift = Total programme funding

In the skills training eligible for public funding and loans are regulated qualifications and part qualifications (Credit Framework units) and apprenticeship frameworks, as well as non-regulated provision for particular groups of learners.

Generally funding criteria vary based on age and level and nature of qualification. English and maths qualifications are usually fully funded for all.

With apprenticeships employers are expected to contribute 50% or 33% of the weighted rate and large employers (1 000 employees or more) have funding reduced by 25%.

Funding follows the learner, is distributed over the entire programme period, is directly linked to the completing course, gaining the qualification (20% of the funding is held back until gained) and job, and funding is only earned on delivery.

The equalization mechanism (of more funding for disadvantaged students and institutions in poor area) operates in most of the countries surveyed.

Output based funding

There is an increasing trend towards funding on successful outcomes rather than enrolment. In the United States of America at least 25 states have adopted performance funding and reporting policies (for at least a small percentage of the funding) though there is apparently little evidence that it has had positive outcomes. The point is made that though funding formulae need to reward qualification completion by students they must also ensure that infrastructure and core operating capacity are enhanced too.

Expenditure ratios

Some countries have norms for the percentages of expenditure on teaching, administration and other costs. Norms here would also be useful in South Africa.

Financial Aid

Grants and loans to students for study are found in many systems so that they can pay for the tuition component. In addition in some places students who do not get grants are only required to pay the unweighted base rate for particular programmes (i.e. the learner does not have to pay more for the more costly to deliver provision) or only a percentage of the overall tuition fees.

The United States of America has a sophisticated federal student financial aid system that enable any potential student to apply at no charge via the Free Application for Federal Student Aid website and immediately ascertain the cost of tuition at the particular college selected and what financial aid is likely to be available. In spite of this the complexity of applying for and managing financial aid and student loans may deter many students.

There is a huge need in South Africa for an extremely simple and utterly transparent (including about the consequences of poor academic performance) form of financial aid. Serious attention also has to be given to the debt that students incur being too high relative to the income they earn after leaving college.

The proportion of the education and training budget

Generally adult and community education, whether adult basic education or non-formal provision gets very little of national education budgets.

Technical and Vocational education gets more but often little compared to Academic education in universities.

In India 1% goes to adult education and 18% to technical education. Brazil has a constitutional imperative to devote 18% of the federal budget and 25% of the state and municipal ones to education and legislation on the proportions spent on the various tiers of education. The percentage of the federal education budget spent on youth and adult education has risen to 3.5%. In South Africa, setting benchmarks, for technical and vocational education and community education would be desirable, even if initially mainly for aspirational purposes

Section 4: Programmes, Staffing, Monitoring and Evaluation and Research

Chapter 8. Programme offerings, differentiation and articulation

Introduction

In examining the programmes offered by TVET and Community Colleges there are several challenges and issues that have to be looked at.

First, there needs to be a **more rational system of funding** fully state funded and endorsed programmes that are fit for purpose. It is clear from our investigations that decisions in TVET colleges regarding the NC(V) and NATED programmes are often made, not in terms of their fitness for purpose but on the basis of cost, enrolment increases, etc. It is also clear that good professional and skills courses that deliver also need funding as appropriate.

Second, there is a need to clearly **differentiate between TVET college programmes and Community College programmes**. It would be pointless to duplicate programmes when they are likely to be better delivered in one of the institutions, although there is no obvious way, at this stage, to determine what would be better dealt with where. It may also well be the case that a process of organic growth of appropriate programmes will be best for the Community colleges as they develop.

Third, the issue of Higher Education qualifications being taught at TVET and Community Colleges needs to be more carefully looked at (particularly in relation to Higher Certificates and Diplomas) and most important, ensuring that Higher Certificates do articulate with further qualifications in Higher Education institutions and fair credit transfer is allowed for.

Fourth, the real costs of remediating the failures in the school system and not having the TVET colleges clogged with unprepared students, have to be faced up to. If the Community Colleges are expected to do this, their funding (and general capacity) will have to reach a much higher dimension.

Fifth, the possibility of having some specialised TVET colleges as a way of rationalising scarce resources also need to be examined (as will the cost of provide residential accommodation for students).

In this chapter the main focus is on three aspects of TVET College and Community Learning Centre programmes:

- the actual **programmes** currently, or soon to be, on offer at TVET Colleges and the Community Learning Centres of Community Colleges
- the **differentiation** between programmes in the post-school systems
- the **articulation**, such as it is, between programmes in the post-school sector

Programme offerings at TVET Colleges

National Certificate (Vocational) (NC(V))

Background

The NC(V) qualification was introduced for the first time in 2007. It was conceptualized following the merger of the 152 Technical Colleges into 50 multi-campus FET Colleges in 2002 and 2003. After the mergers, it was necessary to recapitalise the college sector in a major government intervention, the Recapitalisation Programme 2006/7 to 2008/9.

The Government's intention with the Recapitalisation Programme was to assist the FET Colleges to become vibrant and responsive institutions, developing middle to high end vocational skills among youth aged between 17 to 24 years.

A major challenge was the absence of a substantive qualification in the college sector to solve the problem of the poor quality and low relevance of the existing so-called NATED programmes and the chronically short supply of work placements available to students, as well as the low technical and cognitive skills of TVET graduates. Thus, the conceptualization of a new qualification was born out of the need for purpose-driven and targeted curriculum development for FET Colleges. In the absence of dedicated funding for curriculum development for college programmes, a portion (comparatively negligible) of the Recapitalisation fund was used for the development and implementation of the NC(V) qualifications and their new curricula.

The new curriculum for the NC(V) qualifications were developed internally by the Department of Education during 2005/6, approved by the Minister, and registered with SAQA at NQF levels 2 to 4, and introduced into the colleges in January 2007.

In 2008, the NC(V) Level 3 was introduced, and the Level 4 qualification was rolled-out in 2009 for the first time. It was the first fully fledged set of vocational qualification for young people ever offered in South Africa. The defining character of the three qualifications is that they are discipline-based as opposed to being an 'occupational' programme.

Purpose

Both the NC(V) and its counterpart, the National Senior Certificate (NSC), were designed to allow learners the possibility of entry into higher education. While the NSC allows learners to access a variety of qualifications and areas of interest in higher education, the NC(V) on the other hand directs learners towards higher education study in a field related to the vocational designation reflected on their certificate.

The two qualifications, the NSC and the NC(V), both provide for separate routes towards the achievement of an NQF Level 4 exit qualification, with the distinct priority of equipping learners to be responsible citizens in a democratic society. The strength of the NC(V) though is its compulsory practical requirement in the curricula. The NC(V) offers a broad range of knowledge and practical skills in a variety of vocational fields mainly targeted at technical skills development. The practical component of the study is mainly offered in a work place or in a simulated environment.

Successful NC(V) learners leave the TVET College either for higher education (if they have passed at a suitable level) or for employment in the workplace. It aims to equip learners adequately for entry into the world of work by providing them with practical knowledge and skills related to a particular socioeconomic or vocational sector. It also has as its objective to provide learners with ways to cope with the social, economic and cultural challenges they face in their daily lives.

Given that there are about 1 000 technical high schools a review of the place of the NC(V) at the post school level is required.

The Task Team for TVET Colleges working on the national plan indicates that the primary focus of TVET programmes should be to provide access to the labour market and therefore they envisage that NC(V) programmes will be phased out and will be replaced by occupational programmes.

Programme

The NC(V) offers programmes in the form of subjects that consist of academic knowledge and theory integrated with the practical skills and values specific to each vocational area.

The NC(V) qualification structure consists of courses in:

- a language (usually English),
- mathematics or mathematical literacy
- life orientation.
- four additional (vocational) subjects

The learners are also required to enrol for four additional subjects in accordance with policy or approved subjects. The rules of combination for the NC(V) direct learners into a vocational field.

The NC(V) has been defined as three distinct one-year qualifications associated with Learnerships where, if one had completed a certain amount of learning, there should be formal recognition given to it. The approach was intended to allow greater ease of access as well as more than one opportunity to leave the system with acknowledgement of a meaningful amount of learning achieved. The main challenge, however, in the 3 by 1 year model of the NC(V) is that the quality assurance for each of the exit level qualifications needs to be addressed properly to ensure the ongoing credibility of each of these qualifications, so that their weight and meaning in industry and commerce becomes apparent.

The Theory and Academic component is expected to be 50% while the Technical Training (workshop based) is 40% and Work Exposure/Simulations is expected to be 10% of the programme.

The proposed NC(V) Level 5

At present, there are plans for the introduction of an NC(V) Level 5 on to the Higher Education Qualifications Framework. The proposal emanates from the notion that many students who completed NC(V) Level 4 attempt to go into the world of work but instead join the growing mass of unemployed youth as they have been not completely equipped for employment and still require additional training through either higher education institutions or industry programmes. The NC(V) Level 5 is, therefore, aimed at bridging the skills gap and providing the appropriate/relevant *skills* for the selected vocation.

NATED Report 191 programmes

Background

The original National Education (NATED) technical education programmes were designed to support the artisan development system in the Department of Labour, as required by the Manpower Training Act of 1981.

Institutional memory (rather than documented records) reflects that the NATED programmes were developed by industry partners. The approval process for the offering of these programmes in colleges, as well as the funding of the programmes, remains unclear as the offerings were provincially determined and consequently highly variable.

Further, given that at the time the colleges generally operated on the fringes of mainstream education, and coupled with the fact that this period preceded the implementation of the national qualifications framework, the routes leading to the registration of the NATED programmes and their implementation were confined to internal Department of Education processes, based on Ministerial approval.

For more than three decades, these six-level NATED Report 190 and 191 (usually abbreviated to N1, N2, N3, N4, N5, and N6) courses have been the base theoretical qualification for the training of apprentice artisans employed by private sector firms. However, with the growing difficulty in obtaining apprentice positions, increasingly students enrol in these courses without first being apprentice or sponsored. The courses are primarily theoretical.

They continue to be offered at TVET colleges in spite of the development of the newer NC(V) which was supposed to replace them. The NATED programmes were meant to be phased out between 2009 and 2012 and replaced by the NC(V) programmes. But in reality they have continued alongside of the NC(V) and in many cases have experienced more rapid growth in enrolments.

The Theory and Academic component is expected to be 40% while the Technical Training (workshop based) is 30% and Work Based Training is expected to be 30% of the programme.

Report 191 (N1 – N3)

The minimum requirement for entry into an N programme is the completion of Grade 9 at school or an equivalent qualification. Their duration ranges from a Trimester programmes (third of a year); Semester programmes (half a year); and Year programmes (full year).

These qualifications lead to a National N Certificates and/or National Senior Certificate provided the learner has met the requirements of an N3 qualification plus two approved languages (see National Senior Certificate below).

Report 191 (N4 – N6)

The minimum requirement for entry into an N 4 programmes would be one of the following: a Senior Certificate, or a National Certificate (N3), or a National Senior Certificate without an occupational instructional offering and a portfolio in some cases. The duration of the programmes could be a Semester (0,5) and/or a Year 1,0. These qualifications lead to a National N Diploma.

The credit value allocated to each instructional offering is also indicated. In the context of these instructional programmes the total credit value is linked to the duration of the instructional programme.

Occupational qualifications (Artisan development)

In addition to 191 and NC(V) programmes, TVET colleges offer occupational qualifications (Occ Qual). These are usually short (three to six month) courses based on a cluster of SAQA unit standards. The qualifications are associated with a trade, occupation or profession resulting from work-based learning, and consisting of knowledge unit standards, practical unit standards and work experience unit standards. These may be regarded as artisan training or vocational training through apprenticeship training offered within the context of the Department of Higher Education and Training's Artisan Development Programme.

Entry and Selection

The South African Qualifications Authority (SAQA) is the coordinating agency for the national artisan advisory and career guidance services, utilizing the TVET Colleges and other partners' infrastructure on a national basis to ensure effective reach and accessibility to all citizens.

In order to improve learner access to careers in trade occupations, a career guidance and management system has been put in place that is meant to ensure that learners are informed of career choices and career management that facilitates progression to artisan status and beyond

into technician and engineering related occupations. The career guidance and management system for trade occupations is also meant to ensure that persons wishing to become artisans, especially young people, fully understand the possibilities, scope and activities of artisans within industry. Effective career guidance ensures that entrants will have made informed career choices and career management will facilitate progression to artisan status and beyond into technician and engineering related occupations.

Career guidance includes applicability, aptitude and sustainability which is amongst other things medical examinations since many artisan trades are physically demanding.

General or Vocational or Fundamental Knowledge Learning

Artisan occupations are known to be primarily on hand skills and practical ability, but they are supported by general or vocational or fundamental knowledge learnt through the basic schooling system or at a TVET College. These includes subjects like Mathematics, Science, Drawing and the Language used in the technical working environment. These will prepare the learners for effective learning and mastering of the three occupational learning components which forms part of artisan trade training, occupational knowledge, practical and workplace training.

Furthermore, occupational knowledge must include entrepreneurial and business management skills to enable qualified artisans to be able to start up their own small businesses that could positively impact on unemployment reduction and job creation.

Learner Agreement Registration and Contracting

The learner hoping to become a qualified artisan must find a workplace approved employer that will enter into a learning programme agreement and contract with the learner after successfully completing generic or vocational or fundamental knowledge component.

The conditions of the learning programme agreement and contract are prescribed in the relevant regulations issued by the minister of Higher Education and Training and will include the agreement duration, completions and termination.

The learning programme agreement and contract is a tripartite agreement between the employer, the learner and accredited training provider. A relevant SETA facilitates and registers the agreement and contract for the duration of the artisan learning programme. In addition, funding is allocated for artisan through Grant Payments from SETAs, which forms an integral part of the Learner Agreement and Contract.

Occupational Knowledge and Practical Learning

Once the learning programme agreement is registered with a relevant SETA and a contract of learning including funding arrangements are in place, the artisan learner enters an accredited artisan training centre.

At the training centre, the learner commences with the occupational knowledge and practical learning that is specific to the artisan trade. This specific trade occupational knowledge and practical component may be offered by the same or different providers that offered the generic or vocational or fundamental knowledge.

The specific trade occupational knowledge is contextualized within the learning process to specific tasks required such as fault finding, manufacturing, repair, services etc. The occupational trade knowledge may also have components of mathematics, science, drawing and technical language specific to the trade.

The practical learning that accompanies the occupational knowledge learning contextualizes and applies the trade knowledge component to stimulated situations in practical setting in a training centre. This ensures that learners are effectively prepared for workplace learning which follows after the occupational knowledge and practical learning process. The bulk of the occupational knowledge and practical learning are simulations of the type of work that the learner will actually engage in once he or she is finally a qualified artisan.

Workplace Learning

Real competence in any occupation whether a person can apply and transfer learning at the workplace or across a variety of workplaces. Therefore the most critical component of learning in artisan development is workplace learning.

The workplace learning process provides the artisan learner with the opportunity to apply the occupational knowledge and practical learning assimilated at the training centre. The artisan learner is exposed to real life situations within the workplace including all aspects of the artisan occupation such as work ethics, safety, responsibilities and quality performance of work required by industry.

During the workplace learning, the learner must be exposed to the entire scope of the trade as predetermined by the curriculum of the occupational trade qualification to ensure that once qualified he or she will fully be competent to become a productive worker in the industry and will only need further specific industry training.

To assist and provide support to the artisan learner in the workplace, a qualified workplace mentor or what used to be called journeyman is provided. These workplace mentors are qualified and experienced artisans in the same trade the artisan learner is registered for.

Trade Testing and Recognition of Prior Learning

Once the artisan learner has successfully completed the occupational knowledge, practical and workplace learning, the Skills Development Act requires a learner to undergo an external final summative assessment also known as a Trade Test before he or she can be certified as a qualified artisan, irrespective of the route or pathway of learning the learner utilized.

Trade Testing in South Africa is regulated by national Trade Test Regulations issued under Section 26D(5) of the Skills Development Act that are applicable to all Trade Test Centres

whether they are operated by private, government or state owned companies. These national, decentralized trade test centres are accredited by the new Quality Council for Trades and Occupations (QCTO) before they are allowed to conduct national trade tests.

The national trade test includes practical tasks that the artisan learner must complete within specified periods of time as determined by the National Artisan Moderation Body (NAMB). In addition all trade testing processes are monitored and moderated by the National Artisan Moderation Body (NAMB) as required by Section 26A(2) of the Skills Development Act.

The system also includes a customized artisan development aligned Recognition of Prior Learning (RPL) sub-system that offers learners who have assimilated knowledge and skills related to an artisan trade through workplace activities to also enter a well-supported process that result in access to a national trade test.

To ensure that trade testing is always relevant to the needs of the industry and to ensure that learners achieve competent artisan status, all artisan trade testing or assessment practitioners including assessors, assessment tool designers and moderators are registered by the NAMB and be subject to continuous and regular capacity building through re-skilling processes.

All accredited trade test centres report to the NAMB as per pre-determined requirements to enable the NAMB to monitor their performance. In this sense the NAMB acts as an “ombudsman” for artisan development and any concern with regards to the quality of artisan development may be reported to the NAMB.

Senior Certificate

National Senior Certificate (Report 191 NSC programme)

In some cases, learners may opt for a National Senior Certificate in a specific occupation such as Hair Care and Cosmetics. For this certificate to be issued, the learner must study six subjects and:

- satisfy the requirements for the National Certificate: N3 in a specific occupations
- pass two languages (at least one as First Language and as a second as First Additional Language)
- pass three occupation specific instructional offerings

Rejoining theory and practice

The fact that the “theory” and “workplace” are still not truly connected in current TVET College offerings has in practice often led to the learners wanting to acquire trade qualifications of having to undergo nine years of publicly funded learning to train as an artisan (which used to take only three years). These nine years consisted of the following route for artisans:

First, learners frequently completed their Senior Certificate before proceeding to college (i.e. 3 years of funded schooling for Grades 10, 11 and 12 whereas historically it was Grade 9).

Second, they then they completed 3 years NC(V) at a college (whereas historically it would have been two three-month blocks for NATED N1 and N2).

Last, they then sought, and if they were lucky they got, an apprenticeship which was another three years (sometimes requiring them to return to college to acquire the trade theory and other subjects of the NATED programme for trade as well).

This is a highly expensive route to a trade and is clearly sub-optimal for a system that wants to massify.

In order to bring ‘theory’ and ‘workplace’ back together again, it is necessary to look for ways to get the fiscus and the levy to work together. In order to do this the disbursement of the one should be conditional on the disbursement of the other for those programmes that require a workplace learning component for completion. This includes all the QCTO qualifications (and hence all the trades) but can also equally apply to shorter programmes or even skills programmes that require workplace learning. The key constraint for most learners and colleges remains that of access to workplaces.

Programme offerings at Community Learning Centres

All programme offerings at the Community Learning Centres of the Community Colleges still in formation are effectively open access.

Adult Basic Education and Training (ABET 1, 2, 3 and 4)

Candidates can write examinations at four levels within NQF Level 1. These ABET programmes (that have been confusingly renamed Adult Education and Training 1 to 4 in recent DHET documents) are roughly equivalent to school grades 3, 5, 7 and 9).

Learners can also write individual subjects and receive certification for them.

The General Education and Training Certificate for Adults (GETCA)

Currently there are three SAQA registered variants of the ABET level 4 (NQF 1, school grade 9 equivalent) qualification, the General Education and Training Certificate: Adult Basic Education and Training (GETC: ABET):

GETC: Adult Basic Education and Training - academic

GETC: Ancillary Health Care

GETC: Equine and Equestrian Practice.

Generally the throughput for this qualification has been very weak though it is improving.

On 18 September 2015 policy for a new General Education and Training Certificate for Adults (GETCA) was published in the Government Gazette (DHET, 2015c). It replaces the previous GETC qualification.

In this curriculum there are two compulsory subjects: basically the medium of instruction which is usually English or Afrikaans and Mathematics or Mathematical Literacy. Then there is a choice of two other subjects drawn from official languages, natural sciences, general and social sciences, economic and management sciences, and life and learning skills. The reduction of the number of subjects allows more time to go more deeply into each subject.

Adult Further Education and Training (NQF 2, 3 and 4)

Senior Certificates

Government policy is likely to increasingly support secondary education equivalent programmes (the Senior Certificate and NASCA) being run at community colleges and their Community Learning Centres, as a way of partially addressing the problem of young people not in employment, education or training (the NEETs) or who have failed their National Senior certificate at school and who wish to complete a Senior Certificate either as a so-called “private candidate” or at a Public Adult Learning Centre

The “Amended” Senior Certificate

This secondary schooling qualification equivalent is an amended version of the Senior Certificate (NATED 550). It was phased out in schools from 2008 and was supposed to be finally closed to out-of school candidates by 2014. Its throughput during this period was disastrous – for example in 2013 only 3 811 candidates gained the qualification of the 159 690 who entered the examination. But instead of being closed the it has recently been revived and its regulations amended in 2014. It has somewhat less rigorous subject combination rules (e.g. Mathematics or Mathematical Literacy is not compulsory) than the new National Senior Certificate(NSC) written by schools since 2008. The amended Senior Certificate was offered for the first time in mid 2015. Its curriculum follows the same Curriculum Assessment Policy Statements (CAPS) guidelines as for the school National Senior Certificate.

This qualification signifies the Department of Basic Education’s intention is to reach young people who have been extruded from the public school system. These are pupils who have failed the National Senior Certificate (NSC) or failed the senior certificate (SC) before 2008, dropped out of school for financial or other reasons, or have been encouraged to enrol at PALCs, rather than stay in school as weak candidates – on the grounds that they would thereby compromise the quest for ever-rising percentages of “matric passes”.

The National Senior Certificate for Adults (NASCA)

A new qualification with a different set of subject combinations and meant to be designed expressly for adults, the National Senior Certificate for Adults (NASCA), was, after a long seven year gestation, gazetted in 2015 and was to be first examined in 2017 though in all probability only in 2018 or 2019

Subject statements have been drafted by the DHET.

NASCA students will be expected to do four subjects: Language, Mathematics or Mathematical Literacy and choice of two other subjects – official languages, natural sciences, general and social sciences, economic and management sciences, life and learning skills. Students must pass all four subjects with at least 50% and the pass is based entirely on the examination.

Potential Foundational Learning Competence certificates

Foundational Learning Competence (FLC) is a part qualification that consists of two learning areas: Communication and Mathematical literacy. It outlines the minimum level of competence required for optimal functioning in the world of work and for occupational learning at NQF Levels 2 to 4. It is a compulsory component for all new qualifications developed by the Quality Council for Trades and Occupations (QCTO) at NQF levels 3 and 4. The skills developed in the two learning areas, Communication and Mathematical Literacy, have been identified as foundational for learners wanting to progress in their occupation and skills development. Thus the QCTO considers it advisable to do the FLC before embarking on an occupational learning programme or qualification (QCTO, 2015).

Other Skills development

A very few PALCs (usually those physically situated within church or NGO training facilities) ran various forms of non-formal skills programmes.

Various forms of technical and occupational training are clearly open to development in Community Colleges, though there would need to be sound argument on what kinds should be provided, given the mandate of TVET Colleges to provide such training. Certainly some of the Occupational Certificates accredited by the QCTO might well be suitable and even simpler so-called Employable Skills Packages. Also currently TVET Colleges do not have programmes in the Performance Arts, Dressmaking and Design, Cooking, Landscaping and gardening, Cosmetology, etc.

There is an expectation that Community Colleges will also ensure the provision of various types of non-formal education desired by local communities.

Differentiation in post-school provision

More differentiation and diversity of provision and institutions is clearly needed for both TVET colleges and Community colleges (with their Community Learning Centres). This would require more legislative and governance adjustments.

For Community Colleges there are the laudable ideas of “curriculum development from below”, encouragement of non-formal courses responding to local community needs, and entrepreneurial building partnerships at the local level. These will be impossible unless there is some budgetary allowance to support these at the college Community College level.

Although genuine diversity of programmes is needed, only a manageable set of key qualifications should receive major state funding. They need to be manageable both in terms of funding and conceptually so that student understanding and choice of the appropriate qualification for a particular career path is made easy.

There also needs to be some provision for bridging programmes for underprepared students in both types of colleges. The task teams involved in the development of the national plan for post-school education are considering recommending the offering of foundation programmes with compulsory elements on work readiness, ICT skills, life orientation as well as fundamental foundations for mathematics, science and language. These programmes should be coordinated across the colleges. The same issues emerge in looking at which institutions should serve the failures and dropouts from the other institutions.

Both the TVET and Community colleges need the ability to change their institutional trajectory and, where appropriate, also offer NQF level 5 programmes (Higher Certificates) and level 6 programmes (Diplomas). In due course the concept of two year degrees (as in the North American community college system) should be explored.

Discussions on the challenges for TVET Colleges to offer higher certificates are still ongoing between the QCTO and the DHET. There are large numbers of students who could be categorized into the post-senior certificate pre-university level 5 and level 6 and the debate is whether to provide higher education certificates for this group that is focussed on work placement or whether their main function should be to articulate into higher education.

In relation to differentiation is the issue of the delivery mechanisms of the programmes.

Virtually all state provision of TVET and adult education is by contact delivery although private sector providers do provide some distance and eLearning. The possibilities of part-time studies need to be more aggressively encouraged, possibly by some funding incentives.

Distance education is not an ideal mode for underprepared students. Distance education and in particular that supported by advanced eLearning technology should be explored cautiously.

Linkages and articulation in post-school provision

There is clearly a need for a framework that enhances the possibility of genuine and easy articulation and transfer of students between colleges and higher education institutions. There should be a seamless process for Community College learners moving into both TVET Colleges and Higher Education and from TVET Colleges into Higher Education. Community College students must have access to Higher Certificates in particular.

One of the strengths evident in the TVET or Community College systems in other countries is precisely this ease of transfer between one type of institution to another. One of the great ironies is that the National Qualification Framework which promised so much in terms of rational articulation has not led to genuine articulation in practice (particularly with respect to universities).

Chapter 9. Staffing

Introduction

The TVET Colleges have undergone major staff related shifts with the transfer of TVET Colleges from provincial to national control and it is to be expected that it will take some time for this shift, with all its complications of some staff being state employees and others remaining College Council employees, to settle down into some kind of stability.

In the case of the Community Colleges, provincially controlled Public Adult Learning Centres, rather poorly managed and supported by district and provincial headquarter staff in the Departments of Education, were summarily transferred, without any evidence of a plan, to the nominal oversight of nine Community Colleges (one in each province) which as of yet have no real presence and are (at best) administrative hubs but without the current capacity to do any administration. In many respects the whole system is in an even more parlous state than it was before. Clearly here developing staff capacity is at crisis level.

Management and staff development needs

The development of strong management capacity in both TVET and Community Colleges is a necessity. Currently it is common cause that management is weak in the Community College/Community Learning Centres system and many TVET colleges have been hampered by management failures, so much so that several have been put under administration or threatened so.

A plan for developing management capacity both in the short term and in longer term training programmes will need to be costed and linked to a much clearer specification of the funding principles for the adequate staffing of these institutions. Part of developing management will be that of ensuring a mindshift so that both management and teaching staff are genuinely able to interact with local communities and be more entrepreneurial in expanding the influence of the colleges outside of its teaching campuses.

The development of educators and trainers for future expansion

The role of universities in training TVET and Community College staff

One of the ironies of South African education is that during the struggles of the 1980s South Africa had a unique resource in the adult education departments and centres at universities that were highly respected internationally. They pioneered the development of adult educator qualifications as well as ones for upgrading educationally unqualified TVET College staff – in addition to their sterling role in the university's engagement with the broader community. They pioneered Higher Certificate programmes in community development that also served as access mechanisms.

Post 1994, misguided university managements oversaw the almost total demolition of this resource on the feeble grounds that adult basic education was not the business of the university and was not profitable.

Now, with the expansion of both the TVET and adult and community education this training capacity will have to be rebuilt. But there will be a cost for restoring the once excellent capacity of adult education departments and centres at universities so that they can again be active in the formation of adult and community educators and youth workers.

Developing Community College staff

It is common cause that in the Public Adult Learning Centre system its majority of contract temporary staff were underqualified and poorly trained. Better qualified staff invariably left for permanent positions in the school system. New regulations from the Department of Higher Education (DHET, 2015k) raised the bar for employment as an educator and effectively rendered unqualified a huge number of its staff who only had a Higher Certificate in Adult Basic Education. The minimum requirement is now a three year Diploma.

Management and coordination in the Community College system will also be a major problem as there are as yet no actual community colleges in each district to coordinate the Community Learning Centres (the PALCs) without the previous support of the Provincial Department of Education district offices. This will be a major undertaking, particularly as the new community college system will demand accurate statistics on learners and throughput to justify funding and for the allocation of educator posts on the basis of enrolments.

An enhanced posts and staff development budget for the Community Learning Centres would include:

- Salaries for educators and administrators (that would also take into account the need for more permanent, dedicated, adult education staff). There would have to be some allowance for considerable expansion of the AFET component (Senior Certificate) which is expected to grow exponentially.
- Salaries for the coordinating and support staff based at both central (Community College Administrative Centres) as well as in the proto community college nodes at district level (possibly linked to local TVET colleges) that would each deal with a cluster of nearby Community Learning Centres.
- Serious curriculum and materials development (for at least a number of start up years)
- Training in the use of an effective EMIS system and the procedures and regulations that would enable it to work
- Support for the existing providers of adult educator training (currently some few universities) to gear up for larger output and various forms of continuing in-service education and support for educators and administrators.

The development of Community College Councils

Currently the nine Community College Administrative Hubs have new councils, modelled mechanically on the TVET model.

Given that they Council have the awesome responsibility of actually overseeing the creation of a new institution the issue of adequate training and preparation for this role would suggest the need for serious developmental support.

Funding principles for adequate staffing

College budgeting of necessity should provide for all the necessary components in an effective education and training systems such as academic and support staffing; educational materials; examination costs; information systems; career guidance; evaluation and research; as well as capital equipment and broader infrastructure.

It would therefore be sensible to argue for benchmarks for both TVET and CET college budgets, such that staff costs should not exceed 65% of the total budget, and that within the staffing budget, the ratio between teaching and support staff should not exceed 4:2 (we believe that the current norm of 4:3 provides an incentive for a bloated bureaucracy).

Given the need for more permanent, dedicated, adult education staff (and the consequences of having non-permanent with no benefits who are insecure and prone to leave the system as soon as more secure employment is available) rapid moves towards having at least a core of permanent Community College and Community Learning Centre staff are indicated. A staff provisioning model and policy must be developed based on full-time equivalent enrolments and ensuring a hybrid of permanent and contract employees for both sectors.

Chapter 10. Monitoring, evaluation and research

It is common cause that monitoring, evaluation and research have not been prioritised or capacitated within the TVET college or state adult education system. Clearly this has to change, without diminishing the role that universities have to play in researching the sector.

Monitoring, evaluation and research structures and their funding

Autonomy of monitoring, evaluation and research component

There should be a relatively autonomous monitoring, evaluation and research component at both college and national levels that, separated in function and control, would ensure the collection, analysis and interpretation of accurate data on the implementation, learning outputs and impacts of the TVET colleges and the Community colleges.

Accessibility of all products (subject to normal research ethics)

All monitoring data, evaluations and research output should be available for public scrutiny, subject to the reasonable constraints of time and internationally accepted research ethics.

Time deadlines

The sector requires the rigorous adherence to deadlines so that monitoring, evaluation and research data will be available when most needed.

Funding

There should be a separate ringfenced budget component for the monitoring, evaluation and research component.

Monitoring

The colleges will of necessity be generating monitoring data on a regular basis in the form of staff registration data, student enrolments, attendance registers, drop-out numbers, assessment data, certification data, etc. The gathering and compilation of such data are essential for the quality assurance of the colleges.

Data collection and storage

Raw monitoring data needs to be captured on the college's system and checked with some independent "checkback" system. Adjusted data will then be stored in locally and transmitted to the DHET and used for analysis and regular outputting in reports on a monthly and

cumulative basis that include summary statistics and interpretation of the data and trends. These reports should be automatically available on an accessible website.

Recruitment, training and deployment of monitoring staff

Monitoring staff need to be recruited and trained to check the effectiveness of the educational and operational systems and processes of the colleges.

Evaluation

Functions of evaluation

It is recognised that evaluation could have several functions within the college sector, notably the following:

- to improve what is being evaluated and help decision making about it while the programme is still in progress (usually called *formative* evaluation)
- for selection, certification and accountability at the end of the programme (usually called *summative* evaluation)
- to motivate participants or supporters of a programme, to make them aware, and to gain public support (often called *sociopolitical* or *psychological* evaluation)
- to exercise (administrative) authority (often called *administrative* evaluation)

Evaluation principles

The evaluation work undertaken should adopt best evaluation as currently understood internationally. All evaluations should adhere to the following principles of evaluation practice:

- Have a clear feasible purpose
- Acknowledge all participants' positions
- Establish clear criteria (which should normally include relevance, efficiency, effectiveness, impact and sustainability)
- Have a clear focus
- Be as collaborative as possible
- Be creative in the methods used
- Allow for unpredictable outcomes

The evaluations should be learning activities in themselves, in which participants *critically reflect* on their experiences, the strengths and weaknesses of the college(s) and the significance of the sector on the participants as well as in the community.

Research

The rapid development and expansion of the TVET college and Community Education and Training (CET) sectors is both an amazing opportunity for research and a demand for it. To maintain the integrity of what is intended to be a massive education and training intervention it is important that its processes and output are subjected to rigorous research.

In both TVET colleges and in Community colleges (when they become operational in a genuine sense) internal research capacity needs to be built and this needs to be provided for by way of a percentage of the overall funding.

Role of universities

Historically it has been South African universities that have played a role in researching TVET and CET and providing for the training of practitioners in recognised teaching qualifications.

In the case of adult education virtually all research and practitioners development has been done by universities. Regrettably in the last fifteen years that capacity has largely been dismantled as a result of crass misjudgements by university managements because of various other trends impacting on universities – resource constraints, organisational rearrangements of a more corporatist nature, mergers, etc. This harmed one of the disciplines that was most dedicated to serving the poor and disadvantaged in South Africa. That capacity that remains needs to be revitalised and rebuilt, particularly in certain provinces. The Committee believes that those universities in South Africa that still have some adult education research capacity should play a significant role in researching adult and community education and training, in materials development and in the preparation of educators.

Building of research capacity

A programme of recruitment (of both full-time and part-time researchers) should be undertaken in both the TVET college and CET sectors. Universities collaborating in support of these sectors will also be asked to steer promising research students into undertaking research studies on TVET and ACET. It is also assumed that the South African Institute for Vocational and Continuing Education and Training (SAIVCET) will play a pivotal role here.

Processes to ensure that research in these sectors is digitised and made generally available so that the scholarly community (and the general public and the media) has access to it from the start.

Categories of research

The categories of research that will be handled can be categorised thus:

Statistics

The college sector must know, on a regularly updated basis, what the numbers are and what they mean. The sector cannot afford to have acrimonious debates and controversies about faulty statistics (see Aitchison and Harley, 2006). The monitoring, evaluation and research capacity built within the sector will be responsible for ensuring the accuracy and meaningfulness of these statistics.

Learning and pedagogy studies

TVET college and adult education pedagogy is a generally under-researched area in South Africa. Given that the college sector is meant to provide education and training to several million people, serious studies here are vital.

Materials

The sector needs effective materials. How they work (or don't work) is vital to the development of the sector. With adult education, luckily South Africa has (or maybe we should say, had) some of the best expertise in the world in adult education materials development and this expertise should be used not only to develop the materials for the future but to research their use.

Impact studies

The actual impact of learning in college has been poorly researched in South Africa as also with adult education and particularly with literacy and adult basic education. After a period during which literacy and adult basic education was not seen as having much direct impact on development, there is increasing support for the view that literacy and basic education does have a more direct influence on such things as poverty reduction, in reducing vulnerability to HIV/AIDS, increasing gender equality, improving health and livelihoods of the poor, and encouraging active citizenship). Impact studies and evaluations are required that examine the broad impact of the TVET and Community Learning Centre provision.

ICT requirements

The ICT requirements for the monitoring, evaluation and research component need to be carefully considered. Of utmost importance is the compatibility, the "being able to talk to each other" of the various database and record-keeping systems of the sectors.

Section 5: Towards recommendations for the funding of TVET and Community Colleges

Chapter 11. Funding models

Globally, the funding of education and training is underpinned by several important considerations, including:

- **The purpose and aims, or social and economic relevance**
Why should the government, industry or individuals invest in education? In South Africa, the *National Development Plan 2030* (National Planning Commission, 2012a) and the *White Paper for Post-School Education and Training* (DHET, 2013) recognise the importance of technical, vocational and adult education for enhancing equality of opportunity for all citizens by equipping them for a world in which their education makes a critical difference to their future lives, enhancing the economic advancement of the country by producing high level technical skills and promoting youth employment. The challenge of inadequate skilled labour and youth unemployment in South Africa is significant (Gewer, 2010; Sheppard and Cloete 2009; Statistics South Africa, 2016). At the same time, post-school education and training remains elusive for many young people. The large numbers of youth that exit the education system and do not enrol in some form of post-school education and training is a significant challenge for the state as it has the potential to further entrench long-term unemployment for youth (Gewer, 2010). As various analyses have pointed out, the challenge of youth unemployment in South Africa has been compounded by the lack of responsiveness and relevance in the country's education and training system ((National Planning Commission, 2012a). Accordingly, in the South African context, there is a need for funding mechanisms and levels of spending to be underpinned by the need to address the challenge of skills development (provision of post-school access to education and training), youth unemployment and responsiveness and relevance of the education and training system.
- **Levels of spending**
While it is difficult to say exactly how much money is sufficient, levels of investment need to reflect the value attached to social and economic benefits that certain types and levels of education and training bring, as well as what the country and its people are able and willing to afford (Asian Development Bank, 2009). In this regard, the *National Norms and Standards for Funding Technical and Vocational Education and Training Colleges* (DHET, 2015l, p.9) make the following important point: "The relative sizes of budgets destined for TVET colleges, and university education needs closer scrutiny. The various budget options need to be weighed up carefully, and, where necessary, budgetary shifts should be phased in. Alignment between public funding and private funding in the interests of equity and redress is important."

- **Levels of funding**
Levels of funding must also take into consideration the costs of delivering various programmes. It is recognised that Technical and vocational education and training are more costly to deliver than general FET in schools (DHET, 2015/). This is mainly because of the smaller class sizes and the higher capital costs of equipping and supplying classrooms.
- **Who should pay**
It is important to consider and decide who should pay for education and training, or who should pay more, or less, than they do already. The funding share of government, the level of tuition and other fees that students pay, and the financial contribution of enterprises employing skilled workers, may be reviewed in terms of fairness and affordability (Asian Development Bank, 2009). Considering the higher costs involved in providing TVET, funding from public sources alone may not be sufficient to ensure high quality and expand provision to meet the existing demand.
- **What funding mechanisms**
For the sake of efficiency and transparency, policy makers need to consider which among multiple channels and mechanisms are most suitable to transfer the necessary funds from the source to the destinations and how financial flows are best managed.(Asian Development Bank, 2009).

Overall, considering that state funding (and funding approaches) of education and training has an impact on the outcomes, it is important that there is alignment between the model of funding chosen and public policy imperatives.

Funding frameworks and mechanisms for TVET

The financing of technical and vocational education (TVET) comes in various forms, namely, from public funding through, for example, the provision of grants to institutions and payment of teacher salaries, from students through the payment of tuition fees, from sectoral training funds, from private entities and donations, and from the so-called third stream income.

Various frameworks and mechanisms are utilised to provide public funding to technical and vocational institutions. The rationales for the various funding mechanisms vary across countries according to, *inter alia*, historical practices, policy objectives and national priorities (for example, equity and economic competitiveness), the development and sustainability of quality, scale of the TVET enterprise, and the breadth and scope of vocational programmes (Palmer, 2015; Klein, 2001; Marsden and Dickinson, 2013).

There are three main activities that inform the various funding mechanisms for TVET. These are (Felstead, 1998, p. 12):

- Enrolments
- The duration and nature of programmes (that is, course length, attendance requirements and infrastructure needs)
- The outputs produced (usually measured in terms of qualifications achievement for school-based training and/or job attainment with regard to labour market training).

Accordingly, depending on the key consideration for funding, funding mechanisms for TVET could be described as input driven (based on enrolments and duration and nature of programmes), output driven or performance-based (based on the outputs produced) or could encompass elements of both input and performance-based funding. Many countries use a mix of funding options as a result of historical and political developments.

UNESCO (2014) advocates financing mechanisms that can increase efficiency, stimulate the demand for TVET, and promote better outcomes by shifting from input-based models to more performance-based ones. Overall, a key consideration for any funding system should be the efficiency of funding in terms of the ability to meet policy goals in a cost-effective manner.

Input-based funding

In input-based funding systems, public funds are allocated on the basis of input criteria such as personnel costs, equipment, stationary, library resources and buildings. This approach to funding can take various forms, one of them being line-item budgeting which is based on a catalogue of authorised expenses for specific purposes. Funding is restricted to the approved purposes. While line-item budgeting may be regarded as transparent, the system is inflexible and inhibits institutions' capacity to manage their own resources because the budget is tied to specific types of expenditure (for example, stationary or library resources) and not to specific areas of activity.

In-input based funding can also take the form of lump sum allocations to institutions based on approved criteria, such as full-time equivalent (FTE) units or unit costs. Where funding is based on FTEs, institutions receive an allocation according to the number of students they enrol and have some level of flexibility in how to spend this money. The use of unit costs to determine funding levels takes into account FTE student enrolment but also incorporate aspects such as programme area and duration, teacher salaries, physical plant, professional development and equipment and supplies. Others also consider local characteristics.

Performance-based funding

Performance-based funding is linked to pre-defined 'successful' and 'measurable' outputs of the TVET system. This funding approach places emphasis on institutional performance (programme outcomes) rather than enrolment or attendance. It is premised on the need to incentivise the achievement of pre-defined outputs that are linked to policy goals, enhancement of efficiency and accountability (Bennetot Pruvot, Claeys-Kulik and Estermann, 2015, Felstead 1998).

Performance-based funding is also perceived as competitive funding. This is due to the fact that it is generally based on the principle of a closed envelope, where the amount available for distribution is prefixed and limited by public budgets. Consequently money is distributed based on relative performance with regard to certain indicators, but the overall amount of money to be distributed remains stable which makes the allocation a zero-sum-game (Bennetot Pruvot, Claeys-Kulik and Estermann, 2015).

There are various variants of performance-based funding, namely, indicator-based funding, project-based funding, or mission-based funding. Each of these models is characterised by a different steering approach, a different definition of performance and a different degree of competition (Orr *et al*, 2007).

In indicator-based funding, institutional allocations are based on performance as measured by fixed indicators in a formula. The allocations are therefore automatically generated and may rise or fall in accordance with the values of the indicators. Indicators are defined on the basis of the activities that the government wants to stimulate.

Project-based funding refers to the competitive allocation of earmarked grants. As Orr *et al.* (2007, p. 9) explain, in this funding approach, “either the funding unit develops a programme initiative or the institutional units apply to the funding unit for financial support on the basis of proposals, which are then evaluated, and following an affirmative judgement, funded.” This model can be used to encourage institutions to provide specific services or programmes.

Mission-based funding is based on a consensus between the government or the responsible ministry and individual institutions on future policy and institutional goals. Funding for the achievement of these goals is normally laid down in a contract-like agreement made up of both qualitative and quantitative criteria and valid for a given number of years. Overall, “indicator-based allocation models entail the most direct form of competition between institutions and a high transparency, whilst discretionary incremental funding entails the least” (Orr *et al.*, 2007 p.10).

Performance based funding is rarely utilised in its pure form, i.e. funding for outputs only. It is normally used in combination with enrolment and other input-based considerations, which results in the funding being split into two parts, an input part (for example, enrolments, duration of programmes and costs of programmes), and an output part (for example, attainment of qualifications and employment of trainees). The key challenge is to attain an optimal balance between input and output considerations.

Formula funding

Formula funding refers to the use of an algorithm based on standard criteria to calculate the size of public grants to education institutions for teaching and/or ongoing operational activity and, in certain cases, research (Estermann and Bennetot Pruvet 2011, p. 14). Funding formulas generally include input criteria such as student enrolments, staff numbers and programme cost weighting and/or performance indicators such as credits accumulated by students. They may also provide for factors such as the socio-economic circumstances of students (disadvantage factor) or the location of TVET colleges (rural or urban). An example of a funding formula for technical and vocational education is the one used in the United Kingdom whose elements include (Cuddy and Leney, 2005):

- programme core costs, reflecting the length of the learning and the basic cost of delivery
- achievement
- programme weighting, reflecting that some learning aims of similar length or leading to an equivalent qualification are more costly to deliver than others
- disadvantage weighting, reflecting extra cost due to widening participation and the fact that some learners come from disadvantaged backgrounds
- area costs, a weighting factor reflecting the significantly higher costs of delivering provision in London and related areas

Formula funding has several advantages, namely, fairness (the same set of rules applies to all institutions) and transparency. They are also administratively easier to apply. Once established, the application of the formula is straightforward.

Overall, funding mechanisms and models are not just instruments for allocating resources for given ends; more importantly, they are used as governance tools to steer the realisation of important policy imperatives, for example, the production of skills that address the needs of the economy and that address the challenge of youth employability.

Funding sources

Globally, the funding of TVET is undertaken through various approaches, namely, cost-sharing, state funding, third stream income, funding from non-governmental organisations and training funds. Cost sharing entails the sharing of training costs mainly between government and parents or trainees (in countries such as Germany and Japan, cost sharing in TVET is mainly between government and companies), through payment of tuition fees. A negative consequence of cost-sharing is that the fees charged tend to be unaffordable for students from poor families, which in turn leads to poor access and retention for this group of students. To address the challenges related to training fees, some governments have established bursary schemes. Complementing a cost-sharing regime with a robust financial aid scheme ensures equitable participation in TVET by students from working class backgrounds as well as those from privileged backgrounds. Some studies, for example CEDEFOP (2008), suggest that private spending (tuition fees and investment in TVET by companies) on TVET was an important factor in increasing participation. The most important rationale for cost-sharing is probably the sheer need for additional funding to complement state funding, which is often inadequate.

State funding of technical and vocational education comes in various forms, for example, subsidy for development and recurrent expenditure and also financial incentives to employers who employ apprentices and trainees, as for example in Australia and England (Misko, 2006, Skills Funding Agency, 2015). In many countries, state funding is not available to private providers of technical or vocational education. However, in countries like Australia, although private providers of vocational education and training do not receive public funding, they are able to bid for government-funded training programmes (Misko, 2006).

In many countries the costs are shared mainly between government and parents or trainees, through payment of tuition fees. A negative consequence of such cost-sharing is that the fees charged tend to not be affordable for students from poor families, which in turn leads to poor access and retention for this group of students. To address the challenges related to tuition fees, some governments have established loan and bursary schemes.

In addition to state funding and tuition fees, some TVET colleges also generate third stream income, but generally on a limited scale. In Kenya, some TVET colleges have generated income through integrating training with production, whereby the colleges are able to recover some of the training costs through the sale of students' projects (Ngerechi, 2003). Industry participation in the development, delivery and funding of education and training is a major platform of education and training systems in Australia, England and Germany (Misko 2006).

Non-governmental organisations (NGOs), the private sector and international agencies are also important sources of funding for TVET colleges in some countries. In many sub-Saharan African countries, funding from these entities has contributed to the development of infrastructure and facilities, staff training, bursaries for trainees, among others. England's

controversial Private Finance Initiative (PFI) is an example of the participation of the private sector in financing technical and vocational education. This initiative was used by the British government to public–private partnerships (PPPs) for funding public infrastructure projects with private capital. The private sector provided funds for capital expenditure and received rentals for 25 years after which the infrastructure is returned to the state or the institution’s ownership.

Training funds also constitute an important source of income for TVET colleges.

Johanson (2009, p. i) describes a ‘training fund’ as a “stock or flow of financing outside normal government budgetary channels dedicated to developing productive work skills.” Their main purpose is to raise the productivity, competitiveness and incomes of enterprises and individuals by providing them with needed skills. Most training funds are financed by levies on enterprises, but may also be based on public subsidies or donor financing. Training funds may be single purpose, but most have multiple objectives. These may include pooling of income from various sources, mobilising resources, building training capacities, expanding the volume of enterprise training, providing access to training by disadvantaged populations, improving the relevance and quality of training, using resources efficiently and developing competitive training markets.

Payroll training levies are the principal sources of financing for training funds. Levies can provide a steady and protected source of funding for training, particularly in the context of unstable public budgets. Sectoral, or industry-specific, training funds are an alternative to national (centralized) funding models. Sectoral levies are limited to a defined sector of the economy, such as industry or transport. A national system of sectoral funds offers the advantages of flexibility and the ability to focus more directly on sectoral training needs. They may be more palatable to employers because of a sense of greater industry-specific orientation, less bureaucracy and greater sense of ownership. However, they do not facilitate redistributing funds across sectors or financing non-sector related skill priorities. Sectoral funds may duplicate efforts and fail to develop common core skills, transferable across industries.

Training funds can be grouped into three categories of target beneficiaries:

- **Pre-employment training funds.** These are designed mainly to reduce shortages of skilled workers by increasing the supply of well-trained individuals in the labour market. Their objectives typically are to create an adequate training supply for the needs of employers and create the necessary training capacity to do so.
- **Enterprise training funds.** The rationale of enterprise training funds, or enterprise incentive schemes, is to increase the productivity and competitiveness of firms by raising the skills of workers. Their objective is to increase the incidence of training within firms. The source of financing is often enterprise levies, usually on payroll.
- **Equity training funds.** Equity-oriented training funds aim at raising the incomes of disadvantaged groups by providing opportunities to acquire productive skills. They seek to reach people not covered by enterprise training schemes, i.e. those outside employment in the formal sector who do not have the opportunity for in-service upgrading of skills. The objectives of such funds are to train specified target beneficiaries, e.g. unemployed, women, youth, those in the informal sector, etc.

Funding mechanisms of TVET Colleges in South Africa

Prior to 2010, provinces allocated budgets to TVET colleges through the provincial equitable share. In this system, the DHET allocated funds to the provinces and colleges based on the reported student enrolment and the related programme costs. Provinces then determined allocations to TVET colleges, and these allocations were adjusted annually by the consumer price index (CPIX). The main challenge with this system is that it was inequitable. The funding of TVET colleges depended on provincial allocations as opposed to standard criteria applied to all the colleges. In addition, provinces did not prioritise TVET equally in their budget allocations, which led to unequal participation rates in TVET colleges and in provinces (Financial and Fiscal Commission, 2013).

According to the *National Norms and Standards for Funding Further Education and Training Colleges* (DHET, 2009), the current public funding mechanisms of TVET colleges consist of **formula funding** of programmes, **earmarked capital funding** and **earmarked recurrent funding**. Overall, the state is to fund 80% of the costs of college programmes, while learners are liable for the remaining 20% (some of which they can gain by applying for financial aid (bursaries) from the National Student Financial Aid Scheme (NSFAS).

Formula funding is used to fund ministerially approved programmes and is designed to promote transparency and comparability between provinces, predictability, and equity (the latter being aided through the provision of bursary funding to colleges for students who are academically capable but cannot afford to pay college fees and quality and efficiency) (DHET, 2015/).

Formula funding of programmes is intended to cover the recurrent costs of delivering the TVET programmes, but also certain capital costs associated with those programmes, such as costs related to the replacement of the facilities and equipment used. The formula funding system is designed to work as follows (DHET, 2015/, p.16):

- ▶ DHET sets a **funding base rate**, in rand terms, describing the cost of delivering a basic TVET college programme that is eligible for funding.
- ▶ DHET also sets a **funding weight** for each programme eligible for formula funding, where this weight indicates how much more than the funding base rate it costs to deliver a particular programme.
- ▶ Each programme is also assigned an assumed **student fee level** representing the cost that tuition fees can be expected to cover.
- ▶ For each programme within a college, individual students are multiplied by the programme duration in order to obtain the number of **full-time equivalent** students.
- ▶ An **applied total funding weight** is then calculated for each programme in each college, representing public funding to be received for each full-time equivalent student. This weight takes into account expected income from tuition fees.
- ▶ The weight is multiplied by the full-time equivalent students to obtain the **programme weight** of each programme.
- ▶ The sum of all programme weights, the **college programme weight**, is multiplied by

the funding base rate in order to obtain a **college allocation**. To this allocation is added an **output bonus**, giving the final amount to be transferred to the college.

Earmarked capital funding is designed to cover items not covered by the capital infrastructure portion of the funding base rate, mainly expansion of existing infrastructure or development of new infrastructure (new campuses) and infrastructure backlogs. This funding may take a variety of forms, for example, conditional grants in terms of the Division of Revenue Act, or matching grants involving joint investment with private sector. Earmarked recurrent funding is targeted at projects of a developmental nature such as staff development and development and implementation of computerised systems. The earmarked recurrent funding stream also covers inputs that are considered part of a basic minimum package of recurrent inputs required more or less equally by all colleges (Department of Higher Education and Training, 2015/).

Review of the current funding mechanism

A Performance and Expenditure Review: Technical and Vocational Education and Training (DNA Economics, 2015, p. 31) makes the following important findings regarding the public funding of TVET colleges in South Africa:

Funding for TVET colleges was based on the number of enrolments in each programme, regardless of the certification or throughput rates achieved by colleges. This finding shows that an input-based funding system is utilised to fund TVET colleges. Essentially, the funding mechanism, as applied, does not seek to steer the TVET college sector towards realising particular goals or outputs, such as ensuring quality and the realisation of higher throughput rates. This is inconsistent with the policy objective of using the funding policy to address the various challenges that still persist in the TVET college system such as increasing participation rates in the TVET college sector, enhancing quality and efficiency (Department of Higher Education and Training 2015). According to an analysis by Cloete (2016) the internal efficiency of the TVET college sector is sub-optimal as attested to by very low completion (certification rates). In 2014, the completion rates for the various programmes were as follows: NC(V) 4 = 34.5%, NATED N3 = 47.9%, NATED N6 = 42.3%. In addition to the low completion rates, a tracer study by JET (2015) showed that only about 50% of NC(V) graduates were employed, and often in temporary positions. Overall, the current funding mechanism has the potential of creating a perverse incentive whereby colleges enrol more students even if dropout rates are high, as funding is allocated regardless of how the college is performing.

According to the National Norms and Standards for Funding Further Education and Training Colleges (Department of Higher Education and Training, 2015), the state is expected to cover 80% of programme costs. However, the review by DNA Economics (2015) revealed that TVET colleges did not receive the full formula determined allocation, but rather received a percentage of the allocation as based on previous provincial allocations. TVET colleges received only a proportion of this 80% from the DHET based on the total funds made available for the TVET sector (relative to requirements) and which province they are based in. Provincial funding in 2014 ranged from 52% for Limpopo colleges (i.e. 52% of 80% of the required amount) to 79% in the Eastern Cape (DNA Economics, 2015).

Despite the TVET sector, including its funding and administration, having been migrated to being a national function, provinces still received inequitable amounts of funding. Even though a programme-level costing formula was used to determine the funding requirement based on Full-Time Equivalent students, the degree of under-funding relative to this requirement differs substantially by province (DNA Economics 2015, p. 31). This, according

to DNA Economics (2015), reflects the use of the provincial allocations that were in place before the function shift, when different provinces prioritised TVET training to different degrees.

The table below (DNA Economics, 2015, p. 31) illustrates the wide variations in the percentage of “required” (i.e. funding formula based) funding received by each of a sample of colleges in seven of the provinces.

Table 53
Percentage of required funding received by province

College	Provinces	Percentage of “required” funding received
Buffalo City	Eastern Cape	79%
East Cape Midlands		
Cape Town	Western Cape	77%
Boland		
South Cape		
Nkangala	Mpumalanga	73%
Flavius Mareka	Free State	64%
Orbit	North West	62%
Esayidi	KwaZulu-Natal	58%
Umgungundlovu		
Thekwini		
Lepalale	Limpopo	52%

Source: DNA Economics calculations and DHET data

Points (b) and (c) above suggest that many TVET colleges are currently underfunded whereby public funding generally falls short of the prescribed 80% share of the cost of programmes. The two points also indicate that the application of the funding mechanism is inconsistent with several of the elements that underpin it, inter alia, transparency and comparability between provinces and predictability.

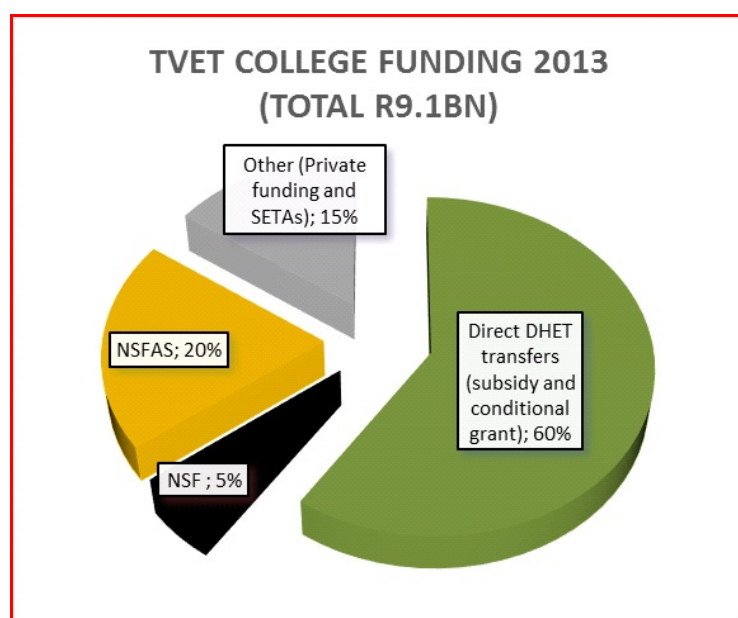
The review by DNA Economics also reveals that the formula does not appear to incorporate any college specific factors, other than the province the college is based in and its enrolments. The formula assumes that the programme level funding model is equally appropriate for all colleges, regardless of whether they are urban or rural, large or small.

From the foregoing, it is clear that the current funding model has several shortcomings. There is therefore a need to align the funding model with the policy objectives for the sector.

Sources of income for TVET Colleges

As indicated in Figure below, TVET colleges in 2013 received a total of R9.1bn in funding, with the largest portion of their funding from government sources. A key change in college funding in recent times, is the substantial increase in the amount of student bursaries and loans provided by NSFAS; increasing from R0.3bn in 2009 to R1.83bn in 2013 in an attempt to increase access to the TVET sector. This has made TVET colleges even more reliant on public funding by reducing the proportion of funds received from privately-funded students for tuition, transport and accommodation.

Figure 14
Overall TVET funding by source



(Note that the "Other" funding category includes SETA funding – i.e., not exclusively non-government funds – as it was not possible to isolate funding from SETAs from other project funding received by colleges from private entities.)

Funding frameworks and mechanisms for adult education and training

An analysis conducted by Falch and Oosterbeek (2011) provides a useful overview of funding mechanisms for adult learning across various countries. They identify subsidies, vouchers, individual learning accounts and tax instruments as the main mechanisms used to fund adult learning across various countries. The various funding mechanisms could be linked with the source of demand for adult learning, namely (Schuetze, 2007, p. 8):

- an increasing number of better educated adults who require continuous learning opportunities
- a still large population of people who lack minimal qualifications needed for qualified work and for participation in civic and cultural life
- the economy, i.e. the private sector which operate in environments where markets, technology, work organization and hence skill requirements are frequently changing.

Given the diverse nature of adult learning (for example, regarding its purpose and where it takes place), it is not possible to have a single financing system for all adult learning activities. There is therefore a need for multiple funding systems for adult learning geared at the various adult learning groups and activities, for example, adults who did not attend formal education or dropped out before attaining adequate levels of literacy (seeking basic literacy and numeracy skills) and those who need to further their skills in order to enhance their employability and efficiency at work. This means that, while some forms of adult education need to be state funded, some might require employer funding, while others might require both state and employer funding.

Subsidies

Several countries use direct subsidies to stimulate participation in adult learning by reducing the private costs of such training. In countries such as England, the subsidies are targeted at low skilled workers and consist of four elements (Falch and Oosterbeek, 2011):

- Free or subsidised training to a basic skill or NVQ (National Vocational Qualification) level 2 qualification
- Paid time off for training (funded for either 35 or 70 hours in total)
- Wage compensation (paid to the employers for a total of 35 or 70 hours time off)
- Information, advice, and guidance to employers and employees.

Vouchers

In voucher funding systems, participants receive the entitlements and funding follows their choices. Training vouchers are thus a form of direct subsidy, and can be exchanged for a certain amount or a certain value of training. The most well-known voucher system is perhaps the GI Bill voucher delivery system of the United States of America (USA). Under the GI Bill, veterans of war are entitled to attend up to 45 months of education during a 10-year period after their active duty. They are entitled to receive an allowance if they attend an accredited schooling or training programme. The allowance may be used either to meet the direct schooling costs or to cover costs of living (Falch and Oosterbeek, 2011).

Individual learning accounts

An individual learning account is an instrument that provides individual workers with an amount of money, into which the worker (employee), employer and third parties (for example, government) can pay a contribution in either time or money. It is a base amount of resources set aside for an individual to use for his or her learning (Renkena , 2006). The main objective of the individual learning account is to give the individuals more personal choice and ownership of their learning, to stimulate individual motivation to engage in learning activities that would enhance workers' knowledge, skills and abilities that increase their human capital and employability. They can also be used to implement worker-centred methods to connect company needs to individual development needs and are an instrument of shifting choice and responsibility of institutions to the potential learner (from a supply to a demand approach) (Falch and Osterbeek, 2011; Schuetzee, 2007; Renkena, 2006).

This funding mechanism has been applied in the Netherlands, England, Canada and Switzerland (Falch and Oosterbeek 2011, Schuetzee 2007).

Tax instruments

Some countries subsidise training participation through tax instruments. This can be done either by allowing firms to deduct training expenditures from the tax bill, or to allow individuals (workers) to deduct their training expenditures from their income tax. As firms' training expenditures are part of their normal operation costs, firms will normally be allowed to deduct such costs from their tax bill. Countries such as the Netherlands, Japan, Chile and Canada have used this funding system (Falch and Oosterbeek 2011).

Chapter 12. Towards a funding framework for colleges

A Proposed Funding Framework for Colleges

The Committee's recommendations arise out of its members' common judgement that the current funding frameworks are not optimum and are in many respects an obstacle to the implementation of constitutional and current government post school education and training policy imperatives.

For effective implementation a much more appropriate, diversified funding framework is required for Post-School Education and Training (PSET) including legislative, regulatory, policy and administrative changes. Our general and specific recommendations on these are outlined below.

The funding framework for PSET must encompass a broad range of provision including technical and vocational education, adult literacy, adult basic education, adult secondary education, and continuing education as well as various forms of non-formal education and training for youth and adults.

The purpose of the funding framework must be to increase access to an articulated, diverse and differentiated system of post-school education and training, quantitatively, qualitatively and geographically. It is a system that must be efficient, effective and accountable, taking into account the need for equity and development – that is, for social justice redress in society as well as to meet the skills needs and shortages. The growth of PSET must be related to the kind of society we desire and the associated institutions for such a society.

The funding framework must be such that funding is provided via a transparent process and with predictable outcomes.

The Committee recognises that its proposals and recommendations will require future work by technical task teams with much modelling and piloting for them to be successfully implemented (or where compelled by the evidence, discarded).

Increasing the national allocation for TVET and Community Colleges

It is evident that, in terms of both a proportion of the national education budget and as a percentage of GDP, that TVET and Community Colleges are grossly underfunded, especially in the light of the proposals in the *White Paper on Post-School Education and Training* and the *National Development Plan 2030*. At the present time the education budget is divided as follows: Schooling – 84%; Universities – 11%; TVET colleges – 4%; and Adult Education – 1%. Adult Basic Education is a constitutional right and demands urgent attention.

The correct balance between TVET College and University funding needs to be addressed incrementally over an agreed upon time frame.

Recommendation 1: We propose that urgent attention be given to substantially increasing the funding for TVET and Community Colleges in the light of the serious underfunding at the present time and current shortfalls, given the value of these sub-sectors for economic and social development. The Committee does not want to prescribe a specific numerical increase in funding in either absolute or percentage terms but would like to stress the importance of paying urgent attention to the overall funding issue. Investment in the PSET sector needs to improve.

Whilst we understand that overall this might mean a major escalation in the size of the PSET budget, we hold strongly to the view that unless such a review is undertaken, most of our other recommendations are largely pointless. We do recognise, however, that the increases would need to be phased in over several years. However, it is imperative that a start be made in this direction as a matter of urgency.

The Committee notes that the urgent response to the current *#Fees must fall* campaign is an indication of the extent to which university funding is prioritised politically at the expense of other sub-sectors such as TVET and Community Colleges because of the powerful lobbying power and interests in the university sector.

Funding components

Budgeting of necessity should provide for all the necessary components in an effective education and training systems such as academic and support (including academic support) staffing, educational materials, examination costs, information systems, career guidance, evaluation and research as well as capital equipment and broader infrastructure.

Recommendation 2: We would therefore argue for benchmarks for both TVET and Community College programme-based budgets, such that staff costs should not exceed approximately 65% to 70% of the total budget, and that within the staffing budget, the ratio between teaching and support staff should generally not exceed 3:1.

TVET College specific recommendations

Quantity or quality – rewarding outputs

All education and training institutions have to find a happy medium between quantitative growth (students enrolment) and quality (low repetition and drop-out rates, and the output of competent graduates). Because of the immense pressure to massify the TVET college sector there is a danger that quantity will be valued above quality.

The Committee is of the opinion that in recent years TVET college quality has been compromised because of the pressure to increase enrolments without compensatory increases in staff and other resources. Provision must therefore be made to ensure qualitative improvements to meet labour market needs, even if it has to be at the expense of further increasing quantitative growth in enrolment. Indeed, as the reviewed literature indicates, current certification rates are abysmal. Currently learners in the TVET system graduate at an

exorbitant per capita cost which is unsustainable. Moreover, the absorption rate of TVET graduates in the economy is also a cause of serious concern.

The performance-based funding framework works well in the university sector in South Africa and elsewhere. In the South African university sector there has been a significant improvement in success rates, throughputs and research outputs.

Recommendation 3: We recommend changing the funding mechanism for TVET colleges from the current system of “input-funding” to one based on both inputs and outputs. Initially we would argue for an 80:20 input-output mix. We suggest that up to 20% of the programme subsidy for year $n + 1$ be based on the throughput of year $n - 1$ (to allow for data collection).

Recommendation 4: The existing costing formulae needs updating both for programmes, courses and staff post provision. The current model based on the original KPMG report and a later PWC remodelling needs substantial revision, particularly with respect to the weighting for the NC(V) as compared to the occupational programmes. Programme costs should include the cost of examinations.

Recommendation 5: A technical team should be appointed to determine the details of future funding formulae that take into account all the possible variables, including: Funding based on FTE enrolment, funding based on differential programme costs, performance-based funding for student success, weighting for rural and disadvantaged areas, weighting for disability, infrastructure development and maintenance (including residences), staff development and academic support.

Recommendation 6: An enrolment plan for TVET colleges needs to be developed and linked to available funding provided in the Medium Term Expenditure Framework (MTEF). Such a plan would have to be in line with the new landscape for TVET and Community Colleges.

Recommendation 7: The DHET should also develop a long term plan for the college (say 5-7 years) to ensure the financial sustainability of colleges informed by agreed-upon enrolment plans.

Recommendation 8: Enrolments should be based on a five-year rolling plan and should include the projected growth in the number of graduates. The DHET should agree on the funded enrolments with each college for a period of at least three years. Should a college deviate significantly (say 5% or more) from the agreed-upon enrolment targets, the funded enrolments for the outer years of the rolling plan should be adjusted. The claw-back procedure should be abolished.

Recommendation 9: SETAs should develop a three year plan of programmes that they want the colleges to offer and this should inform the enrolment planning process of the colleges. This needs to form the basis of guaranteed funding from the SETAs to the colleges. The cost of repeating students that take longer than the normal time to complete, should be taken into account.

Recommendation 10: The National Skills Fund was established to provide training for the unemployed. The NSF should be used to fund such programmes in a set of colleges (say one or two per province) for a three year trial period.

Variable course costs

Recommendation 11: As in many other countries, funding formulae should take into account the variable costs of programmes and courses and the factors that disadvantage certain institutions and the students that populate them. A good example is the formulae used in the United Kingdom by the Education Funding Agency for Further Education Colleges, that takes these into account, as well as the variable cost factor scales used by the Skills Funding Agency.

Rural colleges clearly need a funding adjustment through an additional weighting on the formula.

Capital expenditure, infrastructure refurbishment and ongoing maintenance

Recommendation 12: Given the expansion in the college system, serious attention needs to be given to new capital expenditure and refurbishment as student numbers rise, as well as the increased maintenance costs consequent on rising numbers. The maintenance situation (including the repair and updating of equipment) needs to be carefully monitored and funds for it specifically earmarked.

Inequality of funding between provinces

Currently TVET colleges in the different provinces are not funded equally according to the funding formulae. This is an historical anomaly carried over from the differential support given to the TVET colleges in each province in the past. This inequity must end but not at the cost of those provinces where the funding allocated is close to that predicted by the funding norms. The colleges that are underfunded must be brought up to the norm, without lowering the norm for all.

Recommendation 13: The post-function shift funding model for the TVET sector must ensure that baseline funding does not perpetuate past underfunding of the colleges in certain provinces. Additional allocations must be used to achieve a more equitable funding regime across the provinces.

Bridging and foundation programmes for under-prepared students

In a perfect system no underprepared students enter TVET colleges. As South Africa is nowhere near such a state it is still necessary to remediate some of the failures of the school system. However unfortunate this cost is (and taxpayers will eventually balk at having to pay twice for the same service) it is a cost that must be carried for the foreseeable future

The task teams involved in the development of the national plan for post-school education is considering recommending the offering of foundation programmes with compulsory elements on work readiness, ICT skills, life orientation as well as fundamental foundations for mathematics, science and language. These programmes should be coordinated across the colleges.

Recommendation 14: Bridging and Foundation programmes must be developed to assist underprepared students who enter TVET colleges. These programmes must be fully government-funded. The cost of these offerings will be offset by the savings made through improved efficiency as a result of better throughput rates and fewer repeaters in the system.

Student support services

Student support, including career guidance, services are weak at TVET Colleges and the function is performed by the lecturers. There is a big need to strengthen the student support services to improve the quality of education and training. The functions that can be expected to be performed by student support units must be determined. The DHET Youth Development Support Directorate is currently looking at transforming the whole of student support services. There is a need to attend to both the academic and social needs of students.

Recommendation 15: Adequate student support services must be established in the colleges and earmarked recurrent funding needs to be allocated for this function.

Ensuring alignment between enrolment planning and funded workplace learning places

Currently the two TVET College programmes, NATED and NC(V), and Learnerships continue to be seen as alternatives to one another and not complementary components of a single learning pathway from school to work (as had been the case historically). The connection between “theory” and “workplace” remains disconnected. TVET funding is only allocated to the ministerial approved programmes (NATED and NC(V)) without any funds allocated to the theory component of learnerships. Levy flows via the SETAs (for learnerships, internships, etc.) take the form of grants to an employer who is then required to secure the theoretical learning from a provider of their choice (which may be a private provider or done in-house in the case of large employers).

The fact that the “theory” and “workplace” were not connected often led to the practical consequence for learners wanting to acquire trade qualifications of having to undergo nine years of publicly funded learning to train as an artisan (which used to take only three years) if the full route of Senior Certificate (3 years), NC(V) (three years) and an apprenticeship (3 years). This is a highly expensive route to a trade and is clearly sub-optimal for a system that wants to massify.

In order to bring ‘theory’ and ‘workplace’ back together again, it is necessary to look for ways to get the fiscus (which funds the theory) and the levy (which funds the workplace training) to work together. In order to do this the disbursement of the one should be conditional on the disbursement of the other for those programmes that require a workplace learning component for completion. This includes all the QCTO qualifications (and hence all the trades) but can also equally apply to shorter programmes or even skills programmes that require workplace learning. The key constraint for most learners and colleges is the access to workplaces.

Recommendation 16: “Theory” and “workplace” need to be linked again. The long-term (5 years) and short term (1 year) planning cycles of SETAs must be sequenced. SETAs should start the initiative by inviting employers to apply for grants and these applications must be approved before college enrolment planning begins. The employer responses must be based on occupational categories (trades) that permit aggregation across sectors. Aggregated data of all employers in a geographical area willing to take learners for workplace learning for a given trade(s) must be provided to the colleges in that area. This will set the broad quantum of learners that can be enrolled by that college in that programme. In time employers should enter into contracts with learners before they enrol.

Recommendation 17: Enrolments at colleges for those programmes that require workplace learning should be premised on the colleges having access to workplaces for the learners based on the consolidated information provided by the SETAs for that area. The SETA offices in colleges should therefore be primarily centres of data management derived from data consolidated centrally.

Recommendation 18: The allocation of the levy grant is a condition for the allocation of the fiscal allocation to the college.

Community College specific recommendations

Historically, the state adult education and training system has been of very low quality with very weak output. This is unacceptable and it is pointless expanding such a system. Given the current mode of operation and with the available funding, it is simply not amenable to performance improvement. Whatever the political imperative for the expansion of provision, rapid expansion should be curtailed until overall quality has improved, and such expansion is capable of sustaining quality. That said, it is also recognised that adult education and training provision is less capable of a linear massive expansion and improvement in qualitative excellence compared to schooling because of the vagaries of voluntary adult participation. What is required is a steady process of reform and incremental growth. Because of inadequate planning for the function shift of the PALCs to the national government and the absence of actual community colleges, a proper holding operation and a new community college implementation plan is in any case needed before significant expansion can take place.

Legislation

It is clear from the international literature and from the current problems of applying essentially TVET college legislation to a different type of institutional model – namely, the community college and community learning centres – that separate and comprehensive legislation is necessary for adult and community education and training.

The drafting of such legislation would only be possible if effective conceptualisation has taken place on the nature and characteristics of Community Colleges and their governance, functions, and potential activities (including performance, accountability, staff development, use of posts, payment of Community Learning Centre personnel, compensation of Council members, growth potential and viable size(s)).

Recommendation 19: Once a sound conceptual model of the Community College is developed it should be piloted and then a comprehensive Adult and Community Education and Training Act developed (which is not simply a clone of the legislation relating to Technical and Vocational Education and Training Colleges.)

Structural reform and funding

The Committee is of the view that the transition from the Public Adult Learning Centres run by provincial education departments to being clustered into groups of satellite Community Learning Centres around a Community College support hub in each district of the country has not happened, was poorly planned, and is actually incapable of implementation in the short term, mainly, but not only, because of the low level of funding.

The Committee believes that the funding of the Community College system needs to be disaggregated into first, a holding operation with some modest reforms for the ex-PALCs linked to the regional Community College Administrative Hubs, and second, the realistic costing and funding of a set of community college pilot projects (also making use of private sector and not-for-profit facilities and support as well as donor funding) in specially targeted districts with appropriate demographics, with targeting to be done along similar lines to the 2013 Gauteng Department of Education audit of PALCs.

Establishing “a new institutional form”, the community college, requires a dedicated high level support team which can develop and monitor an implementation plan and simultaneously undertake the necessary demographic and demand analyses to justify investment in community colleges, which are expected to serve two distinct groups, namely adult learners and youth.

Current state provision invests almost exclusively on two formal qualifications, the GETC and the Grade 12 “Amended” Senior Certificate. It is not clear that this focus is of much use to older learners. There is also as yet no investment in high quality English and Mathematics foundation or bridging courses.

Recommendation 20: Community Colleges should move towards a much more community oriented rather than school-based approach. There should be no admission criteria ensuring access to all who want to attend.

Recommendation 21: There needs to be a framework for institutional growth with due attention being paid to the need for considerable funding for the effective development of this sector, as well as attention being paid to more effective use of existing infrastructure and to its expansion.

Recommendation 22: Communities, local government bodies, and local civil society bodies must be involved in the conceptualization and development of the local colleges, including enrolment planning and the qualifications and programmes that should be offered, all within the context of the development of the regions where the college is based.

Recommendation 23: A dedicated high level Community College development support team should be set up to develop and monitor the implementation plans for each new Community College and simultaneously undertake the necessary demographic and demand analyses to justify investment in community colleges in those particular localities.

Setting the level of funding

Recommendation 24: It is recommended that the overall budget be increased as fast as possible to at least 3% of the national education budget as an interim measure and that certain percentages of the budget be ring fenced for a minimum set of resources: personnel costs (including coordination), curriculum and materials, maintenance and monitoring and evaluation. Given the dearth of materials, materials development should be a priority in the initial year or two. Building the capacity of the institutions to handle an increase in funding needs to be factored in.

Use of public and private facilities

Recommendation 25: Given the low likelihood of massive funding for new infrastructure in the near future, it should be incumbent on the state to encourage optimum use of spare capacity in all public college and university facilities that can be made available for reasonable regulated use by the adult and community education system and that private non-profit facilities also be used on fair contractual terms. In addition, DHET should commence a process of negotiations with municipalities across the country to identify available facilities for this purpose. The South African Local Government Association could be a useful ally in this regard. There is also considerable scope for the use of schools that have closed down.

Linkage to and incorporation of the *Kha Ri Gude* adult literacy network

The *Kha Ri Gude* adult literacy campaign's network was a clear success and its simple but elegant structure was a most cost-effective means of delivery. Whilst it is understandable that the campaign would necessarily have an end point, it would be sensible to make use of this structure and system and database as part of the community college/community learning centre system.

Recommendation 26: The *Kha Ri Gude* structure should be incorporated into the Community College system and a plan for this should be developed.

Common recommendations for both TVET and Community College

Funding predictability

It is clear that a major source of instability in the TVET and Community College sectors is the unpredictability of funding. Such unpredictability was emphasised in much of the evidence presented to the Committee that TVET colleges were not receiving the full quantum of what they calculated they were supposed to receive in terms of the current funding norms. The result was that Colleges were forced to have in effect two budget processes, the one based on the existing programme funding norms and the other based on the approved budgets which over the period 2013 to 2017 had shortfalls that rose from 19% to 47% per annum.

With regard to the PALCs, it is also evident from the recent past that provinces arbitrarily changed annual budgets, and in some cases, prior to the function shift, put operational budgets on hold.

Recommendation 27: Whilst we recognise that the national education and training budget, like other departmental or provincial budgets, is subject to a number of factors, such as economic growth and tax revenues, it is nevertheless critical for spending agencies to have a degree of certainty or predictability with respect to their budgets based on a long term enrolment plan (and the associated staff compensation budget).

Increased funding for programme differentiation and diversity

More differentiation and diversity of provision and institutions is needed both within and between TVET colleges and Community colleges (with their Community Learning Centres and satellites). This would require more legislative and governance adjustments. However, to be avoided, in multi-campus colleges, is unwarranted over-specialisation by campus that has the effect of raising travelling obstacles for students. This is needed to forge a more diverse college system including TVET colleges, community colleges, and other institutional forms. Such a framework must enhance the possibility of genuine and easy articulation and transfer of students between colleges and higher education institutions.

For Community colleges there is the laudable idea of “curriculum development from below”, encouragement of non-formal courses responding to local community needs, and entrepreneurial building partnerships at the local level. This will however, be impossible unless there is some budgetary allowance to support these at the college level.

Recommendation 28: Funding for programme diversification is necessary, both for the so-called ministerial approved programmes (currently two in TVET and the two (or potentially three) in Community colleges) and via a generic “other vocational, occupational and non-formal programmes” funding category.

A better overall institutional framework of coordination and articulation

There is a clear need for a more diverse college system including TVET colleges, community colleges and other institutional forms. Such a framework must enhance the possibility of genuine and easy articulation and transfer of students between colleges and higher education institutions.

Recommendation 29: A better overall institutional framework for coordination and for the easy articulation and transfer of students between TVET and Community Colleges and higher education institutions should be developed.

Programme offerings at TVET and Community Colleges

There are several types of programme differentiation that will need to be looked at.

Recommendation 30: Although a genuine diversity of programmes is needed, only a manageable set of key qualifications should receive major state funding. Programmes need to be manageable both in terms of funding and conceptually so that student understanding and choice of the appropriate qualification for a particular career path is made easy.

Recommendation 31: The extent to which Colleges may cross-subsidise so-called “non-ministerial” programmes needs to be regulated. The crucial factor here is whether the cross-subsidised programmes complement the subsidised programmes.

Recommendation 32: There is a need over time to differentiate between TVET college programmes and Community College programmes. It would be pointless to duplicate programmes when they are likely to be better delivered in one of the institutions, although there is no obvious way, at this stage, to determine what would be better dealt with where. It may also well be the case that a process of organic growth will be best for the Community colleges as they develop.

Recommendation 33: There needs to be a more rational system of funding fully state funded and endorsed programmes that are fit for purpose. It is clear from our investigations that decisions in TVET colleges regarding the NC(V) and NATED programmes are often made, not in terms of their fitness for labour market purpose (whether national, regional or local) but on the basis of cost, enrolment increases, available staff, etc. It is also clear that good professional and skills courses that deliver also need funding as appropriate.

Both the TVET and Community colleges need the ability to change their institutional trajectory and, where appropriate, also offer NQF level 5 programmes (Higher Certificates) and level 6 programmes (Diplomas). We note the policy change that will see the re-entry of technical training at schools which will have the effect of moving provision in TVET Colleges up the NQF levels. In due course the concept of two year (Associate) degrees (as in the North American community college system) should be explored. At the same time, issues of developing a really workable credit transfer system to universities would need to be expeditiously resolved.

Recommendation 34: The issue of Higher Education qualifications being taught at TVET and Community Colleges needs to be more carefully looked at (particularly in relation to Higher Certificates and Diplomas) and most important, ensuring that Higher Certificates do articulate with further qualifications in Higher Education institutions and fair credit transfer is allowed for. A workable credit system to universities needs to be expeditiously resolved.

Recommendation 35: The real costs of remediating the failures in the school system and not having the TVET colleges clogged with unprepared students, have to be faced up to. If the Community Colleges are expected to do this their funding (and general capacity) will have to reach a much higher dimension. [See also Recommendations 14 and 15.]

Recommendation 36: The possibility of having some specialised TVET colleges (as shaped by the South African national and regional contexts) as a way of rationalising scarce resources also needs to be examined (as will the cost of providing residential accommodation for students).

Recommendation 37: The National Senior Certificate for Adults (NASCA) is registered as a qualification and will be implemented in 2018/2019. NASCA should be delivered in flexible modes to ensure that adults can participate in them, including those already working. Subject to the necessary constraints of costs and the integrity of the examinations, flexible assessment should be made available so that an individual can enter and write these examinations throughout the year to ensure that the system becomes much more efficient and effective.

Course materials development

For both the TVET and ACET sectors, it is clear that there is a dire lack of well designed instructional materials for learners and manuals for staff (whether in print, delivered via in-house ICT services or online). In the PALCs this lack was catastrophic. In the case of the Kha Ri Gude literacy campaign, the well designed materials were crucial to its success. Without appropriate study materials much of the other investment is simply wasted.

Recommendation 38: For the next five years there should be a substantial budget for the research and development of first class study materials, including those delivered via ICT means, especially for the community colleges.

Distance Education

Distance education in its traditional form is not an ideal mode for underprepared students. Nor is it an ideal mode for TVET College students because of the large practical component in their studies. However modern distance education and in particular that supported by advanced eLearning technology and open access materials should be explored cautiously. It must never be considered as a cheap quick fix option. Distance education needs heightened student support. These cautions do not mean that there is not a need for very carefully designed self-study materials, both print and electronic. Courses delivered by distance education and flexible modes of study should be funded according to an appropriately adjusted but fair formula. Subsidy of distance education students is normally between 40% and 50% of that for contact mode students.

Recommendation 39: The Committee is of the opinion that open and distance education for the TVET and ACET sectors should only be explored with some caution at this time due to the under-preparedness of the majority of students and the current poor levels of performance in the sector.

Tuition fees

The portion of what can be expected to be paid by tuition fees has tended to increase in recent times (an example from England it was now 12% of revenue, for United States of America community colleges overall it is 30%). Recommending a benchmark figure on what percentage of revenue should come from fees is legitimate. Currently in South Africa it is about 20%. Some central and state governments regulate the fee structures (taking into account the funding, budgets and track records of the institutions). For public literacy and adult basic education programmes in many countries there are no fees (such as in Brazil where there are no fees for any public education). In the United States of America though in 1998 a previous restriction on states charging fees for adult education services was abolished, most programmes remain free. In South Africa the correlation between poverty and illiteracy and under education is so clear that charging fees should be discouraged. At the same time it must be recognised that better qualifications are a powerful engine for social mobility (and particularly in the case of university degrees, give a tremendous ‘cash value’ return to the holder).

In our consultations with institutions and students it became clear that there are major dysfunctionalities in the disbursement of both tuition and accommodation, travel and subsistence grants. Unless this situation is rectified, the expected efficiency and equity gains envisaged will not come to fruition.

Recommendation 40: The Committee considers that fees are an important income stream for TVET Colleges. Students that can afford tuition should pay fees. Students with academic potential should not be excluded because they cannot afford fees (therefore there is a need for an ongoing student fees support mechanism).

Recommendation 41: The Committee is of the opinion that the Community Colleges which will serve the poor and disadvantaged should not charge fees for formal programmes. These should be fully funded by the state with possible contributions by local authorities and the private sector.

Recommendation 42: In the event in a national move to a fees free situation, as the NSFAS allocations to TVET colleges are grants and not loans, it is recommended that the share of NSFAS earmarked for these colleges should become part of the baseline funding of TVET colleges with provisioning made in the subsidy for transport and accommodation allowances under the same conditions currently in the regulations for the bursaries. The funding for transport and accommodation allowances should be earmarked and the size of the allocation should be based on the criteria for eligibility and the availability of funds.

Special needs

Recommendation 43: Special education needs in TVET and Community Colleges should be catered for and funded by adding an additional weight to the FTE calculations. The current weightings for special needs students are regarded as acceptable although the criteria for what counts as “special needs” requires refining and rigorous application.

Addressing the needs of indigent students

Recommendation 44: The provision of living allowances for indigent students should be introduced with a sense of urgency, but be linked to performance. Poor students need more financial support particularly in the case of those from rural areas.

Student hostels

In principle, TVET and Community Colleges should enable access to students within reasonable travel distances, though in some cases, local travel support may be needed. Expenditure on residences would therefore not be a priority. However, there may be a need for hostels in rural areas, especially where transport services cannot be provided. Hostels may be needed for centres of specialisation or where various forms of artisan training attracts students from a wider geographical area. This may therefore require some TVET Colleges to consider making available hostel accommodation for their students to ensure that their success and graduation rates improves substantially.

Recommendation 45: Student residences may not be a high priority at this stage but, if deemed essential, should be funded through separate earmarked capital grant (as is the case currently with universities) on a project basis. Development finance institutions and the banking sector should be encouraged to partner with institutions to provide loans matching the funding from the Ministry. Local government sponsorship may be needed here also.

Accurate data for a functional EMIS

Accurate data in a functional EMIS (that addresses planning, funding, monitoring and research needs) is an essential requirement for an effective system. The fair and accurate division of funding needs to be based on accurate, reliable and timeous data. The inadequate as well as unreliable data for the existing Public Adult Learning Centre system are a huge problem both for the review as well as the future planning of the new Community College system and need to be addressed as a matter of urgency. Although there are data available for TVET colleges, there are a number of shortcomings. It is also important that SETA databases be linked to TVET College ones. This EMIS development work needs to involve all the necessary stakeholders to ensure the real functionality of the developed system.

It would be useful to have a learner record database available at national level.

Recommendation 46: An improved EMIS needs to be developed and maintained for both the TVET and Community Colleges which should preferably be unit record databases with the functionality of calculating accurate full-time equivalent enrolments. Funding will have to be allocated for the development of proper management information systems.

Subsidizing private colleges

Recommendation 47: A set of strict criteria should be set for the granting of student grants for study in private colleges where, in cases of national needs and priorities, particularly in specialised areas and to address the provision of scarce skills, the public TVET or Community colleges lack the capacity to enable potential learners to access these forms of PSET.

Staffing and conditions of service

The staffing conditions in TVET and Community Colleges are characterised by inconsistencies in the conditions of service, lack of policy on the appointment of educators and a large proportion of contract appointments, a limited pool of qualified candidates, and few incentives for working in isolated areas (including a lack of staff accommodation in rural Colleges).

Recommendation 48: A staff provisioning model and policy must be developed based on full-time equivalent enrolments and ensures a hybrid of permanent and contract employees for both sectors. This model must take into account incentives to attract and retain qualified personnel, particularly in rural areas, and the need for ongoing staff capacity development.

Compensation of college council members

Recommendation 49: The payments to Council members, apart from those who are already in state employ, for meeting attendance, should be set at the standard hourly or daily rates and should be capped at an annual maximum amount (to prevent an unnecessary proliferation of Council meetings and site visits as a way of gaining income). The rates set by DHET for TVET colleges on the basis of Treasury regulations on an annual basis are reasonable and appropriate.

Educator, trainer and researcher development

It is common knowledge that the development of adult educators, trainers and researchers has been sorely neglected, particularly since the closure of many previously excellent university centres and non-governmental organisations that had specialised in this field.

Recommendation 50: Universities and other roleplayers need to be encouraged to restore the capacity for the training of adult educators and the updating of curriculums as well to increase their capacity to develop TVET college lecturers and researchers.

Management and staff development needs

The development of strong management capacity in both TVET and Community Colleges is a necessity. Currently it is common cause that management is weak in the Community College/Community Learning Centres system and many TVET colleges have been hampered by management failures and in matters of fiscal governance, so much so that several have been put under administration or threatened so. Colleges also need to budget for internal staff development, given its known positive effects, and to plan for lecturer replacement while they are attending training.

Recommendation 51: A plan for developing management capacity both in the short term and in longer term training programmes will need to be costed and linked to a much clearer specification of the funding principles for the adequate staffing of these institutions.

Recommendation 52: Intervention should be made to improve fiscal governance in TVET Colleges and to prepare for it in Community Colleges, including recruitment of appropriate skills, ongoing training, and credible financial systems and processes.

College reserves and surpluses

Recommendation 53: Colleges should retain surpluses generated from programmes for use by the institution. Surrendering such funds to the DHET would represent a disincentive to efficiency and effectiveness and for developing and implementing new programmes and courses. College reserves should therefore not be tampered with. Large educational institutions need reserves – however, they should be accountable to the DHET to how they use such funds.

Monitoring the financial health of colleges

Recommendation 54: Sound funding systems and uniform templates for financial reporting, designed in a manner that ensures that the DHET can proactively monitor the financial health of TVET and CET colleges, must be developed in the interests of the institutions themselves.

Monitoring, evaluation and research

It is common cause that monitoring, evaluation and research have not been prioritised or capacitated within the TVET college or state adult education system. All colleges need to have a “knowledge project” related to the regional, district and municipal situational demands. Clearly the lack of research capacity has to change, without diminishing the role that universities have to play in researching the sector.

Recommendation 55: There should be a relatively autonomous monitoring, evaluation and research component at both college and national levels that, separated in function and control, would ensure the collection, analysis and interpretation of accurate data on the implementation, learning outputs and impacts of the TVET colleges, SETAs and the Community colleges.

Role of universities in training and research

Historically it has been South African universities that have played a role in researching TVET and adult and community education and providing for the training of practitioners in recognised teaching qualifications. Universities should assist in the setting up of Community Colleges and co-operate with TVET Colleges to strengthen them too.

In the case of adult education virtually all research and practitioners development has been done by universities. That capacity that remains needs to be revitalised and rebuilt , particularly in certain provinces after decades of decline.

The rapid development and expansion of the TVET and the Adult and Community Education and Training sectors is both an opportunity for research and a demand for it. To maintain the integrity of what is intended to be a massive education and training intervention it is important that its processes and output are subjected to rigorous research.

Recommendation 56: The Committee believes that those universities in South Africa that still have some adult education research capacity should play a significant role in researching adult and community education and training, in materials development and in the preparation of educators (in collaboration with the South African Institute for Vocational and Continuing Education and Training (SAIVCET)). (See also Recommendation 50)

Recommendation 57: A programme of recruitment (of both full-time and part-time researchers) should be undertaken in both the TVET and CET sectors. Universities collaborating in support of these sectors will also be asked to steer promising research students into undertaking research studies on TVET and ACET. It is also assumed that the SAIVCET will play a pivotal role here.

Recommendation 58: In both TVET colleges and Community colleges, internal research capacity needs to be built in the long term, and this needs to be provided for by way of a percentage of the overall funding.

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Appendix 1: The Community Learning Centres

Introduction

The need to transform the existing system of Public Adult Learning Centres (PALCs) was one of the major incentives for the development of the new *National policy on community colleges* of 3 July 2015 (Department of Education and Training, 2015b). Growth of this new institutional form, the community college, would naturally require development of a totally new funding regime. However, during the transformation period, the current funding of the provision by PALCs, even though they no longer exist as legal entities but only as sub-structures (and now officially renamed Community Learning Centres (CLCs)) of the yet to be set up community colleges, would need to continue. so that their education and training provision can be continued and made more The Ministerial Committee had therefore to make recommendations relating to the funding of effective and efficient provision by CLCs

State run night schools, called Adult Education Centres or Adult Learning Centres or most recently Public Adult Learning Centres (PALCs), have been operating in South Africa since 1977 (after their forced closure in the 1950s by the apartheid state), through 13 of the various late apartheid era education departments, then through the nine post-apartheid provincial education departments, until finally they became the responsibility of the Department of Higher Education in 2009. They gained some measure of legal identity with the Adult Basic Education and Training Act of 2000, but with the abolition of the Act in 2013 and in terms of the Further Education and Training College Amendment Act of 2013, they were (by legal fiat on 1 April 2015) nominally merged into nine Community Colleges (geographically one per province) and remain as substructures of those new bodies.

PALC staff are now administered from the Department of Higher Education and Training (DHET) and what support they will immediate future will now come from the new staff of the Community College Administrative Centre in each region (though in practice it currently comes from members of the previous provincial Adult Education directorates who, though they had in 2009 been transferred to the DHET, will still be housed in the provincial education departments, probably until 2017).

Over the last two decades the PALC system had come under much criticism from academics and others that it was underfunded, mismanaged and lacklustre, with educators who are poorly trained, an absence of learning materials and general confusion around the curriculum. Indeed, in April 2005 the Minister of Education at roundtable discussion openly acknowledged that the ABET system had failed and that she would take action (Department of Education, 2005) – which led to the initiation of the highly successful Kha Ri Gude adult literacy campaign (Aitchison and McKay, 2013).

The data on PALCs and its inadequacy

It is common cause that the existing data on Public Adult Learning Centres is unreliable, in spite of various attempts over the years to improve its collection and analysis, latterly with annual surveys. Data collection and reporting problems were exacerbated by the prevailing

policy from 1995 till recently that valorised ABET provision and led to a discounting of, or disguising of the fact, that in many cases there were as many FET level students as ABET ones at PALCs.¹ These inadequacies have led in the past to severe criticisms of the Department of Education, particularly when it made misleading use of faulty data (see Aitchison and Harley's 2006 critique).

The departments of education had nothing remotely approaching an Education Management and Information System (EMIS) for adult learners and there was no accurate data on the number of PALCs, the number of qualified and unqualified staff, the number and demographic characteristics of the learners, the learning resources supplied (if any), the quality of the educational outcomes, or on the quantities of state expenditure directly used.

Making sense of the existing data

Since 1994 a number of official documents containing statistics on PALCs have been issued as well as publication of some surveys or audits. Notable among these are two University of Natal surveys published in 1996 and 1999/2000 (Harley *et al*, 1996, Aitchison *et al*, 1999a,b,c,d; 2000, Houghton *et al*, 1999a,b,c,d,e) a Human Sciences Research Council survey (2000), two Department of Education reports, the ***Draft ABET Sectoral report*** (2000) and ***Building an ABET system: the first five years 1995 - 2000*** (2001),² an audit of one province in 2012 (South African Institute of Distance Education, 2013) and an Auditor-General Report for 2014 (Auditor-General, 2014, 2015). But even with these resources, making sense of the situation and changes over two decades is not easy. The information presented below is at best approximate.

The key data on PALCs

Centre numbers

One of the main reasons that policy makers in the early 1990s saw the future of adult basic education and training (ABET) as within the Ministry of Education was the existence of a functioning night school system using the existing infrastructure of the schooling system (National Education Policy Investigation (1992, 1993). This is still very much the case and school buildings and school teachers (working part-time after school hours) are the major state resource for ABET.

¹ From the mid 1990s onwards, adult education policies prioritised “Adult Basic Education and Training (ABET)” (which was understandable given that the right to basic adult education was now entrenched in the new constitution of 1996). However, considerable confusion was caused when the national and provincial education departments routinely referred in documents and statistics to ABET only, even though it was clear that what was being described, either also included adult further education (Senior certificate or “matric” studies). The word ABET was used in a bureaucratic rather than educationally descriptive sense.

² These two Department of Education reports are unfortunately replete with contradictory statistics, misleading and fanciful claims based upon unsubstantiated and unreferenced data, and a severe confusion between, and conflation of statistics on, ABET and FET provision by PALCs.

Most centres, whether main or satellite, operate from school premises and share facilities with the school. Most centres have follow the school term and tend to be open in the afternoons/early evenings, Monday to Thursday, and very few are open on a Friday or Saturday.

In the majority of cases, where facilities are being shared, there is no document governing the relationship between the school and the PALC. This creates difficulties where Centres are expected to use school facilities and services. In many instances, there is disagreement about using toilet facilities, paying for cleaning and maintenance services.

In 1994 there were estimated to be 1 440 public adult education centres in South Africa. Centres were categorised as public, state-aided, private and satellite (the latter not being recognised as exam centres) (Harley *et al*, 1996, pp. 252-253). Subsequent estimates of the number of PALCs (with or without their satellite centres) vary from the University of Natal figure for 1998/99 of about 3 073 (Aitchison *et al*, 2000, p. 30)³ to the Human Sciences Research Council count in 1999 of 2 123 that catered for ABET (another 103 did not) (Human Sciences Research Council, 2000) to the Department's 2001 figure of 2 494 (Department of Education, 2003, p. 27) and the 2002 figure of 1 895 (which distinguished between ABET and FET centres) (Department of Education, 2004, p. 28-29).⁴

Some declines in the number of centres in some provinces may well have been influenced by the temporary closures of PALCs in 1998 and 1999 (because of provinces running out of money for the conventional schooling system) or by the reduction of their number in a deliberate rationalisation or restructuring process or by a termination of FET provision

³ There were 1 483 centres, which together with satellites and state-aided centres totalled 3 073 in eight provinces - there was no Limpopo data. The University of Natal's survey (Aitchison *et al*, 2000, p. 29) found that it was extremely difficult to gain reliable figures of the number of centres, in spite of the fact that in most provinces there were senior personnel who were responsible for oversight and inspection of all the schools and public adult learning centres based in those schools in a particular district circuit or management area.

⁴ The HSRC figures for 1999 were probably the most reliable. What needs explaining is the big drop from 3073 (Aitchison *et al*. estimate for 1997/1998) to 2123 (the HSRC estimate for 1999) followed by an immediate increase of some 27% to 2705 (in the *Building an ABET system* figures for 2000) and then a drop again in 2001 and further drop in 2002. The large Aitchison *et al*. estimate maybe partially but not completely explained by their including a number of so-called satellite centres not included in other later enumerations. But the most plausible explanation is that both the Aitchison *et al*. and the *Building an ABET system* figures for most of the provinces appear to be essentially **claimed** figures from the provincial departments of education and it is likely that they are inflated. Research done by the HSRC for the Education, Training and Development Practices Sector Education and Training Authority reported 1 720 PALCs (ETDP SETA, 2002, p. 5) confirming a lower (and declining) figure.

(Senior certificate level), or by combinations of these (Aitchison *et al.*, 2000, pp. 38-40).⁵

In 2010 there were 3 083 PALCs on master lists at the DHET. They were down to 2 457 centres in 2012 according to the 2012 Annual Survey of AET Centres (Department of Higher Education, 2014, p. 33), though the Department claims that there are actually 3 150 centres as another 693 centres had not responded to the survey questionnaire sent to them.

PALCs: 2010 and 2012			
Province	2010 lists	2012 Snap Survey	2012 Annual Survey
KwaZulu-Natal	725	901	702
Limpopo	799	429 +	650
Eastern Cape	297	281	263
North West	274	271	260
Mpumalanga	268	261	257
Western Cape	339	123	103
Northern Cape	119	116	104
Free State	208	197	71
Gauteng	54	57	47
Totals	3 083	2 636 +	2 457

⁵ Several provinces had, as part of their attempts to overhaul the night school system, deliberately reduced the number of PALCs (with the intention of having fewer, but higher quality centres).

A good example of this was when in 1995, the North West, faced with the reality of no records and no statistics and the probability of widespread corruption, closed down all its PALCs and attempted to restructure the system and then advertise posts and re-employ only qualified, appropriate people in a union monitored process. However, there was no political support forthcoming and the provincial education department wanted to absorb 890 retrenched school teachers into the PALCs.

In the Eastern Cape there was a plan for a rationalisation process to reduce and cluster centres down to a desired 432 centres (72 in each of the six regions).

In KwaZulu-Natal there was a reduction in the number of PALCs from an estimated 336 in 1994 and 360 in 1996 to between 250 to 270 in 1998/99 with plans to reduce down to about 200 (in spite of there being numerous applications for the registration of new PALCs that had not been processed because of the impossibility, given the current budget, of financing them). The downscaling had been complicated by the increase in learners and a consequent burgeoning of centres in some districts despite the reduced budget.

Learner numbers

Provincial data since the mid-1990s suggest that learner attendance has ranged from slightly over a quarter of a million in 1995 (258 967) (Department of Education, 1997b, p. 81), up to 386,098 for 1996/97 and then 361 385 for 1997/1998 (Aitchison *et al.*, 2000).

Harley and Aitchison (2006, p. 105) summarise the often discordant statistics for the next three years in this table:

Number of learners at PALCs: 1999, 2001 and 2002					
Province	1999			2001	2002
	HSRC (ABET only)	HSRC (ABET and FET)	<i>Building an ABET system</i>	Department of Education	Department of Education (ABET only)
Eastern Cape	37 119	54 281	69 426	55 517	52 460
Free State	10 499	25 586	9 737	47 284	29 520
Gauteng	22 991	58 381	60 307	165 074	57 811
KwaZulu-Natal	12 814	20 671	30 000	27 394	12 002
Limpopo	27 943	28 807	32 364	17 381	22 842
Mpumalanga	22 424	25 207	22 424	18 411	4 519
North West	17 348	45 940	50 872	32 679	39 078
Northern Cape	3 593	5 763	6 951	3 981	5 277
Western Cape	8 169	23 044	23 000	18 614	26 069
Totals	162 900	287 680	305 081	386 335	249 578

Many of the differences relate to the issue of the recording of FET (Senior Certificate) learners.⁶

For 1997/98 Aitchison *et al.* (2000, p. 36) estimated a breakdown of learners into 173 015 (59%) ABET learners and 148 587 (41%) FET (Senior Certificate) learners.

The official statistics in the *Draft ABET Sectoral Report* (Department of Education, 2000, pp. 20-23, 47), presumably for 1998/1999, claimed 190 822 ABET learners in PALCs with the following breakdown by level:

⁶ From this table it appears that in the 2001 report at least six of the provinces had included FET learners in their supposed ABET statistics, in two others it is unclear, and in only one province, the Northern Cape, are the statistics unmistakably only for ABET. But what is particularly remarkable is that the 2001 statistics show, using the Department's **own** figures, a **decline** in numbers of learners in seven provinces. Only two provinces show growth and their expansion is somewhat unbelievable – Free State 386% increase; Gauteng 174% increase (the latter particularly so as in the other provinces the educator:learner ratio ranges from 10 to 22 whereas in Gauteng in 2001 it was 1:51, double what the Department itself recorded for Gauteng the previous year)! The statistics for 2002 record a further overall decline (Department of Education, 2004, pp. 28-29).

Enrolments by ABET level: 1998					
	1	2	3	4	All
Totals	117 768	42 151	14 752	16 151	190 822
<i>Totals as %</i>	<i>62</i>	<i>22</i>	<i>8</i>	<i>8</i>	<i>100</i>

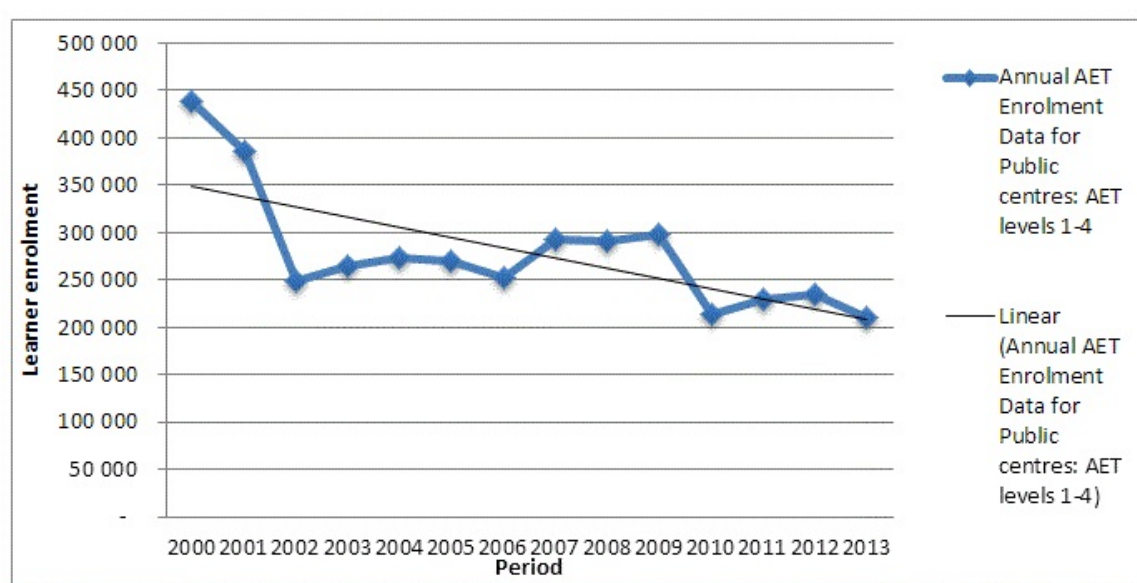
What 1998 and 1997 data was made available to the University of Natal Survey (Aitchison *et al.*, 2000, p. 37) resulted in a different breakdown (but for six provinces only):

Departments of education ABET statistics for 1998 (or 1997 if 1998 not available) by ABET level					
Province	1	2	3	4	All
Eastern Cape	22 456	12 879	13 710	19 121	68 166
Free State	1 862	1 638	2 580	791	6 871
KwaZulu-Natal	7 106	5 171	3 194		15 471
Northern Cape	1 721	832	558	201	3 312
Northern Province	2 002	5 616	1 970	929	10 517
Western Cape	5 463	3 344	3 528	2 853	15 188
Totals	40 610	29 480	25 540	23 895	119 525
<i>Totals as %</i>	<i>34</i>	<i>25</i>	<i>21</i>	<i>20</i>	<i>100</i>

Both the ‘official’ statistics and the research statistics concur in claiming something under or around 200 000 ABET learners. The research data differs in providing more specific estimates for FET learners whose numbers are nearly as great as those of the ABET learners. However, this data needs to be treated with the utmost caution both with respect to the actual numbers (undoubtedly inflated) and the tendency amongst the provinces with poorer quality data to suggest that there are many more ABET learners than FET ones.

Many of the problems in the learner statistics since the mid-1990s have revolved around the failure to distinguish between ABET and FET level learners. For virtually the whole period it was difficult to establish how many learners were at ABET level or FET level and it is likely that for many years FET learners have either been seriously under enumerated or wrongly classified as ABET learners. Both the ‘official’ statistics and the research statistics concur in claiming around 200 000 ABET learners for the period.

For the period 2000 to 2013 the Auditor-General (2014, p. 11) provides an interesting graph for PALC enrolments showing a downwards trend line.



Annual ABET learner enrolment level 1 to 4, 2000 to 2013

Source: Stats at a glance report 2000 to 2009 and EMIS data 2010 to 2013

Note: enrolment numbers reflected in the Stats at a Glance include grade 10-12 learners, AET level 1-4 enrolment could not be provided separate for 2000-2009

The DHET's data for 2012 (Department of Higher Education and Training (2014, p. 35) shows the following:

Numbers of learners in public AET Centres by province and programme, 2012

Province	ABET level					FET level				Skills	Totals
	1	2	3	4	NQF 1 All	NQF 2 Grade 10	NQF 3 Grade 11	NQF 4 Grade 12	All		
Gauteng	2 288	2 609	3 810	20 806	29 513	130	0	52 740	52 870	3 241	85 624
KwaZulu-Natal	6 435	7 530	8 571	21 651	44 187	45	125	3 364	3 534	240	47 961
Eastern Cape	4 144	6 682	6 920	22 777	40 523	0	0	0	0	223	40 746
Limpopo	1 270	3 609	3 320	25 349	33 548	0	0	0	0	62	33 610
Western Cape	3 307	2 249	2 235	9 884	17 675	66	66	10 229	10 361	1 927	29 963
North West	3 268	4 060	4 252	11 156	22 736	0	0	828	828	785	24 349
Mpumalanga	2 725	5 294	5 152	13 825	26 996	17	0	108	125	5	27 126
Free State	199	854	1 423	6 380	8 856	0	22	3 768	3 790	128	12 774
Northern Cape	577	574	556	2 420	4 127	0	0	0	0	47	4 174
Unspecified		9	14	28	51						51
National	24 213	33 470	36 253	134 276	228 212	258	213	71 037	71 508	6 658	306 378
Percentage	7.9%	10.9%	11.8%	43.8%		0.1%	0.1%	23.2%		2.2%	100%

Sources: 2012 Annual Survey of AET Centres and 2012 Snap survey of AET Centres (for Mpumalanga data).

Of interest is the clear undercount of FET level learners and the change from the early ABET level breakdown (in 1998) where the enrolments were biggest at level 1 and declined down to level 4 with exactly the opposite profile in 2012 where most ABET learners are at level 4.

The DHET's data for 2014 (DHET (2016, p. 86) shows tendencies: a decline in ABET level 1 learners, a growth in the number of FET level learners, but overall a further decline in numbers.

Numbers of learners in public AET Centres by province and programme, 2014

Province	ABET level					FET level				Skills	Totals
	1	2	3	4	NQF 1 All	NQF 2 Grade 10	NQF 3 Grade 11	NQF 4 Grade 12	All		
Gauteng	2 130	2 249	3 896	22 397	30 672	0	687	62 150	62 837	2 773	96 282
Eastern Cape	2 518	4 578	4 953	20 931	32 980	78	20	7	105	559	33 644
Western Cape	2 471	1 731	2 004	10 631	16 837	45	64	11 218	11 327	749	28 913
KwaZulu-Natal	2 628	3 241	4 758	13 533	24 160	27	0	1 674	1 701	163	26 024
North West	1 800	2 756	3 513	11 668	19 737	0	0	1 507	1 507	1 042	22 286
Limpopo	711	1 527	1 179	18 093	21 510	0	0	0	0	0	21 510
Mpumalanga	1 464	4 192	4 188	10 700	20 544	24	83	367	474	0	21 018
Free State	255	709	1 522	6 090	8 576	2	1	3 291	3 294	14	11 884
Northern Cape	104	106	133	717	1 060	0	0	0	0	0	1 060
National	14 081	21 089	26 146	114 760	176 076	176	855	80 214	81 245	5 300	262 621
Percentage	5.4%	8.0%	10.0%	43.7%		0.1%	0.3%	30.5%		2.0%	100%

The following points can be added, based on the learner data:

- The PALC system did not grow to any great extent and indeed has been on a downwards trajectory.
- The two provinces with the most effective provincial management, Gauteng and the Western Cape, have not declined as much as other provinces and currently show large FET learner numbers.
- For virtually the whole period it was difficult to establish how many learners were at ABET level or FET level and it is likely that for many years FET learners have either been seriously under enumerated or misclassified as ABET learners.
- Although the *Kha Ri Gude* adult literacy campaign output over 3 million learners between 2008 and 2014 with an ABET level 1 equivalent certificate, there are no signs that this made any impact at all in increasing enrolment in ABET level 2 or higher level classes in PALCs – these learners simply did not go on to the PALCs.⁷

⁷

The Ministerial Committee on literacy (2007, p. 14) had already warned in 2007 about this:
 “The Committee believes that even the best literacy grounding is unlikely to be sustained unless followed by further exercise of these newly gained competencies. This requires that some form of post-literacy/adult basic education be available and the Committee concurs with the Minister of Education’s call for a revamping of the ABET system to make it more useful to adult learners. Evidence from Latin America strongly supports this need to have an effective post-literacy programme in place as soon as possible.”

The educators

Harley *et al.* (1996, p. 437) estimated that there were 14 373 educators in 1994 and by 1998 there were an estimated 20 000 delivering ABET and FET (Aitchison *et al.*, 2000, p. 37). The Human Sciences Research Council (2000) found 16,089 in 1999 (and was able to determine the provincial breakdown for 13,628 of them) with a teacher:learner ratio of 1:18 (the range was from 1:15 in the Free State and the Northern Province to 1:24 in the Eastern Cape). In the late 1990s many provincial departments (as the consequence of a redeployment and rightsizing process) made decisions to employ retrenched or unemployed school teachers in adult centres and in some provinces there were reductions in the numbers of educators, for e.g. in Kwa Zulu-Natal from 4,029 to 1,894. Some of these declines are partly explained by the financial constraints being experienced by the provincial departments that led to the suspension of payment of educators in classes at state and state-aided centres. Many provinces claimed to be moving towards dedicated adult education teachers.

The educators are normally only employed on temporary, year by year contracts, and they are not eligible for the benefits school teachers have.

Aitchison and Harley (2006, p. 105) provide this summary for 1991, 2001 and 2002:

Educators numbers in PALCs – 1999, 2001 and 2002					
Province	1999			2001	2002
	HSRC	HSRC adjusted	<i>Building an ABET system</i>	Department of Education	Department of Education
Eastern Cape	2 245	2 651	3 370	2 917	2 928
Free State	1 310	1 547	735	2 088	2 042
Gauteng	2 336	2 758	2 984	3 211	2 789
KwaZulu-Natal	1 263	1 491	3 000	1 517	943
Mpumalanga	776	916	1 121	1 789	33
North West	2 466	2 911	3 494	2 750	1 712
Northern Cape	303	358	240	198	240
Limpopo	1 729	2 041	1 922	724	1 040
Western Cape	1 054	1 244	1 515	1 087	1 372
Not known	146	172			
Totals	13 628	16 089	18 381	16 281	13 099

Research done by the HSRC for the Education, Training and Development Practices Sector Education and Training Authority and reported on in the *ETDP SETA Annual Report 2002* (p. 5) gives a total of only 10,848 staff employed in South Africa's public ABET system.

The Department of Higher Education and Training's 2012 statistics (Department of Higher Education and Training, 2014, p. 34) are the source of data for this summary:

AET learners, educators and centres: 2012					
Province	Learners	Educators	Centres	Teacher: Learner ratio	Centre: Teacher ratio
Gauteng	115 137	2 408	47	1:48	1:51
KwaZulu-Natal	47 961	4 871	702	1:10	1:7
Eastern Cape	40 746	2 888	263	1:14	1:11
Limpopo	33 610	1 532	650	1:22	1:2
Western Cape	29 963	926	103	1:32	1:9
North West	24 349	1 373	260	1:18	1:5
Mpumalanga	27 126	1 593	257	1:17	1:6
Free State	12 774	616	71	1:21	1:9
Northern Cape	4 174	236	104	1:18	1:2
Totals	335 840	16 445	2 457	1:20	1:7

It is notable that the two provinces with the best managed systems, Gauteng and the Western Cape had the highest teacher:learner ratios.

More detailed numbers are available for 2014 (DHET, 2014, p. 86):

Numbers of staff in Public AET Centres by province, category and sex: 2014

Province	Management staff			Educator staff			Support staff			Total staff		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
Eastern Cape	249	64	313	2 471	487	2 958	27	13	40	2 747	564	3 311
KwaZulu-Natal	310	77	387	1 930	694	2 624	18	8	26	2 258	779	3 037
Gauteng	14	32	46	1 432	860	2 292	126	113	239	1 572	1 005	2 577
Mpumalanga	178	31	209	1 256	185	1 441	7	2	9	1 441	218	1 659
Limpopo	401	75	476	851	184	1 035	20	4	24	1 272	263	1 535
North West	177	67	244	923	246	1 169	14	9	23	1 114	322	1 436
Western Cape	89	69	158	474	371	845	73	56	129	636	496	1 132
Free State	60	51	111	395	183	578	1	0	1	456	234	690
Northern Cape	14	1	15	45	10	55	0	0	0	59	11	70
National	1 492	467	1 959	9 777	3 220	12 997	286	205	491	11 555	3 892	15 447
Percentage	76.2%	23.8%	100%	75.2%	24.8%	100%	58.2%	41.8%	100%	74.8%	25.2%	100%

In terms of the Adult Basic Education and Training Act of 2000, later amended several times and renamed the Adult Education and Training Act (and then repealed in 2013) only South African Council for Educators (SACE) registered educators could be employed at a public centre. Although school teachers working after hours would generally have had such registration, many educators employed both by the province and by the centre itself would not have. Many educators would have had at the very least a qualification such as the Higher Certificate for Adult Basic Education and Training offered by the University of South

Africa.⁸

The South African Institute of Distance Education survey of Gauteng PALCs (2013) found more educators employed part time than full time across the centres and big discrepancies between the number of educators employed at a centre and the number of hours for which they were employed. Some educators work for ten hours and less per week. Centres reported that their staffing was insufficient because of high demand for some learning areas, while some educators appear to have a very limited workload. It is clear that the various provinces had different caps on the maximum number of hours educators could work per week.

The Gauteng Department of Education was unusual in that most of its main centres had full-time administrators who typically worked a standard working day. These administrators are responsible for tasks such as, but not limited to, registration, student administration and any tasks related to Satellite Centres.

The Auditor General's (2014, p. 5) report on the country-wide audit of adult education and training centres conducted in 2011 and 2012 noted the lack of measures to track, monitor, correct and report on the extent and effect of the underqualified educators. The report relates the poor success rates of adult learners to poor quality of teaching and learning resulting from the number of underqualified educators who struggled to interpret the curriculum.⁹

Programmes, qualifications, curriculum and materials

In the early 1990s the Department of Education and Training (DET) ran courses at literacy, primary and secondary levels and provided materials for these.

From 1995 onwards the prioritisation of ABET led to many provincial ABET sub-directorates not seeing Further Education and Training in the PALCs as their responsibility and plans were made to phase it out, though in reality many provinces had nearly as many

⁸ More than 80 000 people gained this qualification and this pool of potential educators was one of the enabling things that led to the success of the Kha Ri Gude literacy campaign.

⁹ The issue of unqualified educators is important as a key preliminary finding of the current Umalusi/ University of KwaZulu-Natal study "Investigating efficacy in adult learning centres: a multi-case study" is that effective teaching was related to the commitment of teachers and in their ethos of care for the learners as well as their attempts to make the curriculum relevant to the learners' lives. Effective teaching was helped by continuing education support for them by the Centre manager.

FET students as ABET ones (Aitchison *et al.*, 2000, p. 25).¹⁰

In spite of much rhetoric about Adult Basic Education (ABE) **and Training** there do not seem to be many examples of serious attempts to link ABE with Training, though there were plans in the late 1990s to develop ABET electives in Agriculture and Small business development (Aitchison *et al.*, 2000, pp. 25-26, 45). In many cases the actual curriculum was perceived by learners to be irrelevant to their needs, which may explain the recent popularity of two electives courses: Ancillary Health Care and Early Childhood Development because they are believed to offer some hope of employment as health workers or as assistants in early childhood centres and creches.

With the imposition of Outcomes-based education (OBE) on the education system in the late 1990s there was some attempt to provide training in this approach as well as the development of some materials (both usually designed by contracted NGOs). A curriculum vacuum was the inevitable consequence of the policy insistence that (in terms of OBE) (Department of Education 1997a, p. 24):

No core curriculum or syllabus will be provided by the Department of Education for the ABET learning areas or the broader organising fields. ... This is an important change from past practice where syllabi and national core curriculum guidelines laid down what should be taught and how it should be taught. In an outcomes-based approach the focus is on the outcomes of learning.

The obsession with OBE, aided by totally inadequate budgets, helped lead to the demise of any serious attempt to provide materials – it was blindly assumed that educators could interpret the meaning of the unit standards, develop their own curriculum and lesson plans and produce contextually relevant materials.

Allied to the OBE approach was a tendency within the national directorate to have the ABET provision (although it was based on its own unit standards) conform to the schooling system's Curriculum 2005, but with the gradual fading away of OBE few further developments in curriculum happened.

Generally neither the provincial education departments nor now the Department of Higher Education and Training have demonstrated much energy in relation to adult education qualifications, programmes, the improvement of teaching approaches and methods, or the development and distribution of materials for educators and learners. It takes an inordinate amount of time to get approval for qualifications and curriculum proposals.

¹⁰ In the late 1990s and early 2000s many provinces decided to phase out NQF level 2 to 4 (Further Education and Training (FET)) instruction (in practice largely for people who have previously failed to complete their Senior Certificate sitting for it again as private candidates). This was most clearly so in the Eastern Cape which planned to phase it out by 2001, in spite of the large demand. In Mpumalanga FET band learners demonstrated their dissatisfaction at the sudden suspension of the state FET subsidy with sit-ins. In the past, close to 50% of the PALC budget was consumed by FET programmes. Under the new system, the Sub-directorate insisted that the total budget be spent on ABET. In the North West the Sub-directorate argued that the PALCs were not responding to the crying needs of communities and that most of the PALC resources had been commandeered by para-professionals such as nurses, police and other employed people upgrading their qualifications (i.e., getting their “matric”). The Department decided to scale down the enormous range of 140 Senior Certificate subjects to 40 and urged people after higher level qualifications to register at relevant colleges. The Sub-Directorate planned to cut down on NQF level 2 and 3 enrolments (roughly equivalent to school grade levels 10 and 11) by 50% and 75% respectively.

Generally neither the provincial education departments nor now the Department of Higher Education and Training have demonstrated much energy in relation to adult education qualifications, programmes, the improvement of teaching approaches and methods, or the development and distribution of materials for educators and learners. It takes an inordinate amount of time to get approval for qualifications and curriculum proposals.

Programmes are generally confined to formal ABET and Senior Certificate qualifications, the General Education and Training Certificate and the now amended “old” Senior Certificate (NATED 550) (though there may be limited support too for the “new” National Senior Certificate). Learners can write individual subjects and receive certification for them.

Currently there are three SAQA registered variants of the ABET level 4 (NQF 1, school grade 9 equivalent) qualification, the General Education and Training Certificate: Adult Basic Education and Training (GETC: ABET); the GETC: Adult Basic Education and Training - academic; the GETC: Ancillary Health Care, and the GETC: Equine and Equestrian Practice.

On 18 September 2015 policy for a new General Education and Training Certificate for Adults (GETCA) was published in the Government Gazette (Department of Higher Education and Training, 2015c). It replaces the previous GETC qualification.

Secondary schooling qualification equivalents are the Senior Certificate (NATED 550) which was phased out in schools from 2008 and was supposed to be finally closed by 2014 but which has recently been revived and its regulations amended in 2014. It has a somewhat less rigorous subject combination rules than the new National Senior Certificate now written by schools. This amended Senior Certificate was offered for the first time in mid 2015. Its curriculum follows the same Curriculum Assessment Policy Statements (CAPS) guidelines as for the school National Senior Certificate.

A new qualification with a different set of subject combinations and meant to be designed expressly for adults, the National Senior Certificate for Adults (NASCA), was, after a long seven year gestation, gazetted in 2015, and will probably be examined for the first time in 2017.

There are some vocational qualifications run in technical schools and Technical and Vocational Colleges such as the National Certificate (Vocational) and older equivalents but they have not been run in PALCs.

Government policy is likely to increasingly support secondary education equivalent programmes (the Senior Certificate and NASCA) being run at community colleges and their Community Learning Centres, as a way of partially addressing the problem of young people not in employment, education or training (the NEETs).

Currently materials are a disaster area for PALCs. In most of the country there are simply none and learners are expected to study without anything to read or work with. It is a bizarre situation when there are classes of learners studying to develop reading, writing and numeracy skills and there are no books or materials of any sort in the classroom. Where some textbooks have been provided in the past they are usually somewhat dated and never in sufficient quantity. Materials for the lower ABET levels are particularly absent.

Assessment

In the mid to late 1990s there was some attempt to provide some guidance on assessment in the ABET field, much of it initially influenced by the Independent Examinations Board which developed competency-based approach ABET examinations and piloted the first of them in July 1994. In 1997 the national Directorate for Adult Education and Training initiated the writing of A national *Multi-year Implementation plan for Adult Education and Training: Provision and Accreditation* (Department of Education, 1997e, p. 115) which states the following on assessment:

The focus for assessments should be on formative and summative judgements and methods and, given the outcomes-based system, will be criterion referenced. Formative assessments will be used by the learner and the adult education and training practitioner to identify learning progress. At ABET sub-levels 1 to 3 there will be no central assessment. Assessments performed by providers will be moderated by an accredited assessment agency or the ABET Education and Training Quality Assurance Body (ETQA) to ensure that credits obtained below the General Education and Training Certificate (GETC) level have national recognition and status within other national qualifications. At the General Education and Training Certificate level there will be centralised assessment and moderation. That is, there will have to be summative, exit assessments which will have to be moderated by the ABET ETQA.

Gradually the key position that the Independent Examinations Board had held was eroded by educational bureaucrats and the provincial departments started to run their own examinations until the centrally examined General Education and Training Certificate: Adult Basic Education and Training came into operation in 2001. A fair degree of documentation was developed for the running of this examination on the basis of national policy.

Well what happened in the new national ABET level 4 examinations run through the provincial education departments at public adult learning centres from 2001 to date? What kind of throughput was there? The first 2001 examination results were not auspicious – some 33 025 candidates entered, of them only 18,438 wrote and a mere 78 qualified for the General Education and Training (GETC:ABET) certificate (though many did gain some credits for individual learning area courses passed). In 2010 only 24% passed. The numbers writing and their results have subsequently improved somewhat (DHET, 2016, p. 87):

GETC-ABET examination results from Public AET Centres for 2011 to 2014

Year	Registered	Wrote	Completed	Completion as % of registered	Completion as % of wrote
2011	107 780	39 856	13 924	12.9	34.9
2012	109 883	55 735	23 325	21.2	41.8
2013	109 518	52 501	19 945	18.2	38.0
2014	133 363	102 534	38 592	28.9	37.6

The figures exclude students who only wrote individual subjects and would not be able to complete the GETC-ABET, but not those who only wrote one or more subjects needed to complete the GETC.

However, estimating the real PALC throughput is difficult unless one has accurate figures on the number of learners at ABET level 4. Thus, for example, the Department's 2012 statistics indicate 134 276 learners of whom only 109 883 registered for the examinations.

Umalusi (p.9) reported in 2013 that: “the GETC: ABET has been chronically troubled by relatively low uptake, poor throughput and low performance on the final assessment.” It also noted problems with the reliability and comparability of the compulsory Site-Based Assessment and noted (p. 25):

Provincial education departments report that neither teachers nor learners understand what is required in the Site Based Assessment, and that the teaching focus seems to lean towards the SBA due to the lack of a curriculum. ... This confirmed the response of DHET officials about how teachers seem to teach to the SBA, leading to not to only inflated SBA marks but also a skewing learner performance.

It also imposes a heavy moderating duty on a limited number of district officials.

The Senior Certificate examination results have been derisory for so-called part-time candidates (not all of whom, of course, attend PALCs, some would study alone and some be enrolled in private colleges). In the 2013 mid-year examinations (when this examination is written) some 159 690 candidates entered (most of these probably carrying some previous credits and wanting to complete the qualification). Of these only 35 106 entered to write six subjects (and thus could be classified as “new” candidates). Only 58% of candidates wrote (93 006) with only 33% of those taking six subjects (11 592). Only 3 811 passed (4% of those who wrote and 2% of those entered) and only 236 passed with a matriculation exemption. There were very odd provincial variations in the pass rate among those writing six subjects variations, possibly suggesting irregularities:

Province	Entered 6 subjects	Wrote 6 subjects	Passed SC	As % of wrote
KwaZulu-Natal	10422	3 798	2 042	54%
Western Cape	8926	2 494	787	32%
Gauteng	5442	2148	600	28%
Limpopo	2859	1 123	103	9%
Free State	2483	795	106	13%
Mpumalanga	1855	493	62	13%
North West	1484	402	63	16%
Northern Cape	1300	333	48	14%
Eastern Cape	335	6	1	17%
Totals	35106	11592	3812	33%

An issue with both the GETC and Senior Certificate examinations is the cost of running them country wide, made worse by the printing of thousands of examination papers that are never written because up to only a third of the candidates actually turn up to write. The DHET has indicated that they may not have the capacity to run these examinations before 2017.

Management and governance

In the early 1990s management was essentially regional, even within the Department of Education and Training. The University of Natal report noted (Harley *et al.*, 1996, p. 254) that the adult education centre system in the early 1990s was large, widely geographically spread, with a hierarchically organised set of courses that allowed for progression with

formal assessment procedures and nationally recognised certificates but that the Department of Education (Department of Education 1995) conceded that (Harley *et al.*, 1996, pp. 254-255):

- Circuit inspectors take little responsibility for centres
- Running centres only in the evenings is not flexible enough
- The system of running different types of centre does not work
- There is a shortage of facilities
- Students do not see the centres as teaching marketable skills
- Using full-time day-school teachers as part-time teachers is problematic
- Poor quality of teaching

A 1995 Department of Education (Department of Education, 1995b) discussion paper argued that these centres should be governed by Community Education Management Councils, District Adult Education and Training Governance Councils and Provincial ABET councils and that there should also be a national ABET Council. It also recommended that ABET should fall within the College sector, should have strong provincial offices, and that within each district, at least one main centre or campus office will coordinate adult education and training activities in the existing adult education centres (to be transformed into Community Learning Centres), and that the teacher:learner ratio should be between 15 and 30. [These recommendations are remarkably similar to the proposals made by the Task team on Community Education and Training Centres in 2012.]

Although there were various attempts to institute provincial ABET councils as prescribed by the 1997 *A National Multi-year implementation plan for Adult Education and Training: Provision and Accreditation* (Department of Education, 1997b) these soon failed due to lack of both funding and official enthusiasm.

Then the 2000 Adult Basic Education and Training Act was passed as a largely bureaucratic instrument to regulate ABET and to provide for the establishment, governance and funding of adult learning centres. The Act dealt with both public and private centres, the use of schools for use by public centres, the set up of public centre governing bodies and the role of a centre manager. Constituting of a governing body was mandatory and its members had to consist of members elected from the educator and non-educator staff and learners of the centre, co-opted community members (including the chair of the school governing body and the principal of the school (or representative of), the centre manager, any representative of a sponsoring body, any representative of an organisation for disabled people, and an expert in the field of adult education. The Act also dealt with quality assurance compliance.

The Act was never fully operationalised and was a failure. Few provinces developed the necessary regulations relating to the Act and though some PALCs did attempt to set up governing bodies in general very little was done to support this form of governance. It can be argued that the requirement to have PALC governing bodies and the onerous nature of the responsibilities imposed on such governing bodies was unrealistic when not even many schools had effective governing bodies.

The Auditor-General's (2014, p. 5) report on the country-wide audit of adult education and training centres conducted in 2011 and 2012 provides new and detailed evidence of

numerous weaknesses across the 110 sites that were visited. These include the lack of monitoring and evaluation of the performance of PALCs by the national Adult Education Directorate. Only two provinces had functioning Centre Governing Bodies.

A finding of the current Umalusi/ University of KwaZulu-Natal study “Investigating efficacy in adult learning centres: a multi-case study” is that good governance was shown by good record keeping, time keeping and a functioning centre governing body, but above all in enthusiastic, flexible and proactive leadership. This leadership was exhibited in definite signs of outreach including door to door visits to the community to announcements at community meetings and suchlike.

Funding and funding sources

In the early 1990s the Department of Education and Training (DET)¹¹ had the following allocations:

Financial year	Total DET budget	Adult Education	Vocational Education
1991/2	R 3.4 billion	R 19.3 million (0.5%)	R 53 million (1.6%)
1992/3	R 4.6 billion	R 22.7 million (0.5%)	R 84 million (1.8%)

The adult education money was mainly for the night school system (offering all levels of adult education, basic and secondary) and for the upgrading of teachers’ qualifications. Some technical training for adults was provided by the Vocational Educational division of the DET to full-time and part-time young adult and adult learners through the technical college system. The technical colleges was mainly involved in the education of students of secondary school age, and therefore not strictly out-of-school adult education.

The second University of Natal survey (Aitchison *et al.*, 2000, pp. xii, xviii) noted about the funding¹² of Public Adult Learning Centres that the high hopes for a rapid expansion of ABET provision after 1994 had been thoroughly undermined by the failure to increase significantly the funding for ABET. Although provincial education budgets given to adult education (including ABET) increased by about 30% a year in 1995/96 and 1996/97, as a percentage of education expenditure by 1997/98 it was still, in 1998/9, only 0.83% of the

¹¹ The Department of Education and Training was responsible for the education of black South African living in what was then categorised as “white” South Africa as distinct from the so called homelands which had their separate education departments.

¹² The data on the budgets allocated to ABET by provincial education departments and on the actual expenditure presents several problems. Until recently most departments did not actually provide separate budgets or statements of expenditure for adult education and they all continued to use the post 1981 apartheid era terminology of Non-formal education (NFE) for such expenditures (although, in fact virtually all adult education provision by these departments was fully formal and certificated!). The actual expenditures related to genuine ABET (i.e. NQF level 1 education and training for adults), continuation classes (aimed at the Senior Certificate (“matric”)), some genuine non-formal education (sewing, carpentry, welding, computer skills, etc.) and Early Childhood Development. So, in reality, only a portion of these budgets were actually allocated to genuine ABET. A further complication was that different departments may or may not have included their senior or even full-time adult education staff in the NFE budget.

overall education budget. One has to compare the Non Formal Education (NFE) increase with the normal increase each year in education expenditure as a whole (in 1996/97 it averaged 24%) and with the rate of inflation.

Analysis of this NFE expenditure data revealed a huge range in the calculated costs per learner – from R389 to R5 766 in the 1996/97 financial year, raising concerns about how accurate such figures can be and as to how varied the quality of provision must be.

In 2007 the Department of Education issued the *National norms and standards for funding Adult Learning Centres (NSF-ALC)* aiming at enhancing management, financial monitoring and EMIS systems. The actual norms were that in future certified centres would be funded on a programme enrolment formula basis and include costing for rental, maintenance costs and for materials and equipment. This would happen through a phased approach including audits and certification of centres. The actual formula would be based upon enrolments (on a full-time equivalent basis), “prices” for credits, the quality of the centre’s annual performance linked business plan, a fixed component (so that smaller centres would not be disadvantaged), a rural weighting factor, and its evaluation rating. FET programmes could be funded by provinces (but not with the funds for ABET) and these norms did not apply to such funding. The implementation of these norms was a fiasco and provincial directorates and centres simply lacked the competence (and the data necessary) to implement them.

From 2006/07 to 2012/13 the real average increase in adult education budgets was 6.8%, though between 2009/10 and 2012/13 it was a real average decrease of 1.1% per annum. The reason given for this lack of recent increases was that the PALC programme was being reviewed (Wildeman and Hemmer-Vitti, 2010, pp. 25-26). Recent data on the expenditures on adult education (in the form of funds transferred from provincial education departments to the PALCs and also the amounts spent on the Kha Ri Gude literacy campaign (equivalent to about 34% of the funding of the PALCs) was R1 222 855 000 in 2010/11, R1 413 194 000 in 2011/12 and R 1 464 756 000 was budgeted for in 2012/13 (5% of that year’s DHET budget and 0.7% of the entire education budget (DHET, 2014, p. 50). So the proportion of the budget dedicated to adult education shows little change since 1991.

Funding for the state system has come virtually entirely from the state education budget. Private sponsorship has been minuscule and episodic. Some minor development monies have come to the national Directorate at various times (but mainly in the 1990s) as part of development aid, mainly from the United States of America and the European Union. Tuition fees, although garnered, have been a minor source of income and have, in any case been used only for incidental expenditures at PALCs.

The Auditor-General's conclusions

The *Management report of the Auditor-General of South Africa on the performance audit of the Adult Education and Training Programme at the Department of Higher Education and Training for 2014* (Auditor-general, 2014) has highly negative findings on the PALC system as it was in 2011 and 2012:

- the concurrent functions were not performed, partly because of budget inadequacies
- monitoring and evaluation visits were not done
- adult education and training operations in the provinces were not done
- the Department did not develop a strategy to deal with or track the extent of underqualified and unregistered educators (and in the years 2008 to 2011 audit checks on five provinces (which excluded Eastern Cape and Limpopo) that the percentages of unqualified educators in a province ranged from 4% to 47%.)
- only two provinces had functioning Centre Governing Bodies and the Department did not know how many Centre Governing Boards were in place
- relations between the School Governing Bodies, principals and adult education centre officials, were poor at some centres
- there were challenges relating to facilities, security and resources
- there was no monitoring of the registering of private centres and no checking of the standards at private centres was done
- adequate support was not given to provinces
- the National Advisory Board for Adult Basic Education and Training was not set up
- there was poor liaison with the Kha Ri Gude adult literacy campaign to ensure that Kha Ri Gude learners could progress further
- little curriculum development took place between 2008 and 2014
- little support on materials was provided
- provincial EMIS data on such things as learner enrolment and educators per centre were released too late to be useful for operations and planning for either the current or the following year and neither the provinces nor the national department verified the data to ensure accuracy (and there were differences between EMIS data on learner numbers and Adult Education and Training data)
- there was no crucial management information data on such things as pass rates for ABET levels 1 to 3, dropout rates, absenteeism rates, etc.
- teacher:learner ratios were below the 1:20 norm
- programme performance indicators could not be used because of lack of data
- an adult education and training framework was not developed
- educators conditions of service had not been standardised
- average costs per learners differed between provinces (e.g. in 2010-2011 KwaZulu-Natal was R3 431 and Eastern Cape more than R8 500) and the costs excluding educator payments were even more diverse (Western Cape R5, Gauteng R1 152).

The place of PALCs in the reform and reconstitution of post-school education and training

In 2011 the national Department of Education split into two: the Department of Basic Education (DBE) (which now dealt only with schooling at General and Further Education levels) and the Department of Higher Education and Training (DHET) (which dealt with post-school education and training, which included formal adult education at General and Further Education levels). An anomaly was that the Kha Ri Gude adult literacy campaign remained in the Department of Basic Education.

The new Department of Higher Education and Training took further the process of change that had seen, by 2002, a nationally driven merger of 151 Further Education and Training colleges into 51 larger, multi-campus institutions, a recapitalisation of the this declining sector from 2005 to 2008 that sought to address infrastructural, resource and capacity challenges, and legislation in 2006 that transferred the staff of FET colleges to employment by college councils. It became clear that the responsibility for the FET Colleges would shift to the national government, to the DHET, and legislation, including a necessary constitutional amendment, led to the so-called function shift that occurred on 1 April 2015 when the staff and assets and budgets of the 51 colleges, now renamed Technical and Vocational Education and Training (TVET) colleges, moved from the jurisdiction of the nine provinces to DHET.

These changes to the FET colleges were just one component of a broader set of new policies and plans for the post-school education and training which included some attention being given to adult education as well.

In 2012, a *Green Paper for Post-School Education and Training* was published by the DHET. It had a small section on Community Education and Training Centres which it proposed as a replacement for the Public Adult Learning Centres. The green paper noted the inadequacy of provision for people who had failed to complete their schooling. It noted that a task team was looking at a new institutional set up (see below).

The *White Paper* that followed (Department of Higher Education and Training, 2013) recommended energetic development planning for the expansion of post-school provision for youth and a large number of adults. It outlined the DHET's focus and strategies for post-school education and training in a set of institutions making up "a coherent but differentiated whole" that could expand to meet the needs of youth (there were 3.4 million young people not in employment, education or training (the so-called NEETs)) but also a large number of adults". There should be articulation between various qualifications and no dead-ends, and partnerships between educational institutions and employers. Though it saw national economic development as the priority it also aimed to develop "thinking citizens" –education had an the "intrinsic importance".

The White Paper included a brief section (pp. 20-24) proposing core-funded and well-staffed Community Colleges (which would cluster the Public Adult Learning Centres) and expand provision nearly 400% by 2030. They would offer education and training, formal and non-formal, for community needs, literacy and citizenship education, not only income generation.

Community colleges "must therefore be designed to be flexible in meeting the needs of their own particular communities. The colleges must build on the experiences and traditions of

community and people's education developed by non-formal, community-based and non-governmental organisations over many decades.” (Department of Higher Education and Training, 2013, p. 10). They would be monitored and evaluated by a division within a new South African Institute for Vocational Education and Training.

The Task Team on Community Education and Training Centres

The White Paper's position on Community College development had been informed by (though in certain crucial respects it differed from) the report of a Task Team set up by the Minister of Higher Education and Training in 2011 as part of the Green paper development process to look at the future of Community Education and Training Centres (that is, the old PALCs) and to conceptualise a workable institutional model of community education and training centres that is distinct and unique. It was also tasked with looking at the policy, legal, programme, funding, governance and broad implementation aspects of its proposals.

Its mid-2012 report's contextual analysis noted that despite some achievements the South African education system continued to reproduce inequalities in educational access and outcomes, that there was a huge mass of 12 million severely undereducated adults and 3 million NEETs between the ages of 18 and 24. State adult education had received a minuscule percentage of the education budget and little attention was given to the young NEETs. This situation was exacerbated by a period of fiscal restraint until the mid 2000s.

The actual proposals were as follows:

- A network rather than a single 'new' institution
- The network would be an integral part of the post school system
- It would have two major components:
 - ▶ **Community Learning Centres (and their smaller satellites):**
(with the Kha Ri Gude literacy campaign infrastructure, matured into a national learning network (with some similarities to the Scandinavian study circles), linked to them
 - ▶ **Community Colleges** (within a differentiated college sector) as support hubs for the Community Learning Centres clustered around them
- ▶ Support from an Institute for Adult, Youth and Community Learning (not merely a sub-section a TVET Institute)
- ▶ Open, distance and e-learning components in all of these institutions.
- ▶ There would be strong links to the TVET college system.
- ▶ There might be a pilot phase in which the model was tested but the aim was for a community college in every district of the country.

The decision to not recommend having “community colleges” as sub-sections of existing TVET colleges was based on the rationale that when adult education is tagged onto another system it is invariably neglected and that to expect weak and overloaded TVET colleges to take on the task of mothering an even weaker, understaffed and dysfunctional PALC system that served under-prepared learners was too much to expect. [In retrospect, financial exigencies may query the realism of this recommendation.]

The Task team saw the work of these Community College/Community Learning Centres as focussing on the following:

NQF level	Institution	Mission	Programmes
1 to 3	Community Learning Centres	First and second chance literacy and vocational	ABET, soft vocational skills, GETC, NASCA, some CLCs focus on hard vocational skills and NCV, community and non-formal education, <i>Kha Ri Gude</i> learning network programmes
1 to 5	<i>Kha Ri Gude</i> Learning Network	Literacy and public education	Literacy, public and community education [Multi-ministry delivery]
4 to 5	Community colleges	First, second chance Senior Certificate. Vocational and occupational programmes	NASCA, NC(V), soft vocational skills, social learnerships, para-professional programmes, university bridging
	Adult, Youth and Community Learning Institute	Develop and support literacy, adult education, community and public learning	Policy, Curriculum, virtual collaboration mechanism

The White Paper take on Community Colleges

The White Paper stated that Community Colleges must be “be designed to be flexible in meeting the needs of their own particular communities. The colleges must build on the experiences and traditions of community and people’s education developed by non-formal, community-based and non-governmental organisations over many decades.” However, the main focus was on the new institutional type and there was little reference to what was to be done with the PALCs in the interim. The White Paper said that the PALCs, now that they were the DHET responsibility, would be clustered into the new community colleges.

Community colleges would be provided with “adequate infrastructure and a critical mass of full-time staff” and could enter into partnerships with community-owned, private or church run education and training centres. There would be a pilot phase. Learner support and career guidance services to be established, as would Youth Advisory centres. The DHET would develop funding formulae with core funding to be complemented by Sector Education and Training Authority (SETA), National Skills Fund and private monies. Colleges could charge fees but they should be kept to minimum. As far as possible students were to be “fully funded”. The Community Colleges would be monitored and evaluated by a division within a new South African Institute for Vocational Education and Training.

Colleges “must select suitable and qualified adult educators” and new ones trained and older ones retrained. There would be qualifications policy and guidelines for “the recognition of capacities and experience that exist within communities”.

On the initial implementation there would:

- Phased introduction after 9 pilots (one per province)
- Principals to be appointed by the DHET Councils will have: ministerial appointments, community, local government, local business, other post-school institutions
- Development of long term plan
- Phased expansion and improvement of infrastructure
- DHET to oversee clustering of PALCs

On programmes there was reference to a mix of the current formal PALC offerings (the General Education and Training Certificate and the Senior Certificate) and the new National Senior Certificate for Adults (NASCA) as well as to various occupational and non-formal programmes and courses. There would be community responsiveness and citizen and social education.

The function shift decisions

Before the Task Team report was finalised or the White Paper published, the DHET legal advisor appraised the Task Team of a plan to rename all PALCs as Community colleges, then immediately merge them into 9 (provincial/regional) ones. This was to give effect to the “function shift” of the PALCs from provincial to national control.

The Task Team was aghast at this proposal for the PALCs as there was a clear need for the clustering, their rationalisation and linking to local community colleges to be phased in over time and at the same time to improve their effectiveness of the continuing provision. This would be a difficult task given the lack of capacity endemic in the PALCs and their management. It was clear that there were no resources to immediately set up new community colleges and the Task Team saw this as a recipe for disaster, a legal sleight of hand, the only beneficiaries being the bureaucrats who could claim a successful “function shift”. Further, they thought it was wrong to mechanically apply the existing TVET college governance model. Their objections were totally ignored and the bureaucratically convenient but otherwise totally illogical process went ahead on 31 March/1 April in terms of Amendments to the Further Education and Training Colleges Act in late 2013.

Predictably there were enormous administrative problems, particularly with payments to PALC staff, and general there seemed to be a great lack of clarity as to who was actually responsible for ongoing support to the PALCs, given that there were in fact no new community colleges (see below).

The Community College Policy Design Evaluation

Bizarrely, while the planning for the “function shift” was going on, and, on 1 April 2015 happening, another arm of government, in the form of the Department of Performance Monitoring and Evaluation (DPME) in the Presidency had, with the DHET, commissioned an evaluation of the design of the draft Policy on Community Colleges (which was in tardy internal process of development by the Adult Education Directorate within the DHET –

exceptionally tardy in that it was now two years since the Task team Report) – it was only gazetted on 3 July 2015 (DHET, 2015b)! Such an evaluation was in the way a pilot of what would in future happen to all government policies in the course of their development. It was just happening rather late in the day with the function shift of the PALCs already steamrolling ahead.

In the process of the evaluation it was discovered, amongst other things, that there had been very little consultation with the PALCs about their to be overnight status as a full community college before waking up to find one was merged into a single regional college, which was not, actually a college at all, but simply an Community college administrative centre for (continuing) to administer the PALCs (now renamed Community Learning Centres). Further, the staff of the previous provincial adult education directorates, now transferred to the national DHET had not the slightest intention of now going to work in the new institution of the community college but wanted to remain in the regional offices of the DHET!

The evaluation (South African Institute of Distance Education, 2015) was finalised in August 2015.

Its conclusions were (pp. 4-6), first, in respect of the “function shift” that:

- Whilst it is acknowledged that the PALC system is largely dysfunctional there is little in the draft policy that indicates a detailed plan or process to improve the situation to ensure that these centres become functional. Indeed the plan to nominally consolidate PALCs into one community college may actually replicate all the problems of the past system, particularly in the larger provinces where little district or local support was given to these centres. The model may also disadvantage those PALCs that in certain provinces are functioning well and are supported by district or regional officials. The lack of budget estimates was alarming, suggesting a likelihood of funding shortages. The lack of buy in from officials was also worrying and the danger of the concept of “community college” being associated in the public mind with what is in effect simply the old dysfunctional PALC model renamed will severely undermine the potential of an inspirational educational development.
- The evaluators recommended that there needs to be a differentiated conceptualization of how the merged PALCs are meant to operate in different provincial contexts. It is known for example that Gauteng was administratively more successful than other provinces and has a fairly large adult education staff. A more comprehensive policy and plan must be developed that deals with the ongoing (even if only interim) existence and support of youth and adult learners currently at the old PALC sites. Key outcome, performance indicators, and sectoral coordination structures must be detailed. This is not to be confused with the policy and plan for the new institutional form of community colleges.

On the new institutional form the evaluation noted:

- The lack of the necessary detailed plan on how to set up a community college system, and, where detail is given, it slavishly follows the TVET college model. The Task team notion of a more flexible network of community learning centres close to the learners has been entirely lost or inverted. There also appears to have been minimal consultation on the new policy and little attention given to how the new system would

be funded. Given that new programmes, curriculum and materials development will be crucial to improve the provision, the absence of any proposal of an appropriate mechanism to facilitate the development of these crucial elements, is extremely serious.

- The evaluators recommended a more substantive and imaginative policy be developed that deals with the creation and sustainable continuation of a new institutional form of provision of adult and youth education in decentralised community learning centres supported by community colleges, and with the requisite resources of programmes, curricula, materials and educators and trainers. This policy process should commence with the development of a set of guidelines for the pilot community colleges, including the notion that they should incorporate a number of local community learning centres (PALCs, satellites or NGO Centres). Then the current legislation should be reviewed and where necessary amended or replaced. This should in no way interfere with initiation of genuine pilots of community colleges. Further the DHET would need to establish significant internal capacity to do all this and also ensure that the crucial South African Institute for Vocational and Continuing Education and Training (SAIVCET) functions are made operational, especially in regard to programme and materials development. A detailed project plan should be developed with an accompanying monitoring and evaluation framework.

The ongoing process

A recent DHET presentation summarises a report on the Recommendations of the 2015 Medium Term Expenditure Committee of the National Treasury stated (Department of Higher Education and Training, 2015d, p. 26) that the DHET policy priority of having “regional office space for management of TVET colleges and AET centres” was supported but resources were not available and the policy priority of the “Construction and Operations of new TVET College campuses” was not supported and that the DHET had been advised from the beginning not to build these due to lack of funds and noted that a Community College model had not yet been developed.

Another presentation (DHET, 2015e, p. 2) states that “The CET College budget (including the CLC allocations) will only be transferred to the CET College once systems are in place”.

As yet, there are no community colleges, though Acting Principals and some Council members have been appointed. At these Community College Administrative Centres (the “community colleges”) one, or in an exceptional case, two, people sit in an office.

In September to November 2015 members of the Ministerial Committee visited a few PALC sites in each province. These sites were selected by regional DHET officials as examples of well functioning centres.

The findings are instructive in showing that out in the townships and rural communities PALCs still run, much as they always have, though perhaps more in the dark as to who is actually in charge.

The challenge of funding Community Learning Centres

It is clear that in terms of current policy and the realities of the function shift of state adult education provision from provinces to the national Department of Education and Training that for the foreseeable future there will be no major development of new community colleges that could replace the existing PALCs spread around the country. There is therefore a need for funding that will in the interim enable them to continue their provision. Given the realities of the current inadequacies of the system it would seem to be necessary to gain for the CLCs an increased share of the national education budget (as well as new, visionary and effective management of this provision – without this there can be little hope of progress).

To meet these challenges would require a greatly increased budget, but at the same time a management team (at both national and regional hubs with the capacity to ensure that it was deployed effectively).¹³

Such an enhanced budget would need to cover the following components:

- Salaries for educators and administrators (that would also take into account the need for more permanent, dedicated, adult education staff). There would have to be some allowance for considerable expansion of the FET component (Senior Certificate).
- Salaries for the coordinating and support staff based at both central (Community College Administrative Centres) as well as in the proto community college nodes at district level (possibly linked to local TVET colleges) that would each deal with a cluster of nearby Community Learning Centres.
- Serious curriculum and materials development (for at least a number of start up years)
- Materials production and distribution
- The GETCA and Amended Senior certificate/NASCA examination costs.¹⁴
- The setting up of an effective EMIS system and the procedures and regulations that would enable it to work.
- Support for the existing providers of adult educator training (currently some few universities) to gear up for larger output and various forms of continuing in-service education for educators and administrators.

¹³ This is not a counsel of perfection, the Kha Ri Gude literacy campaign was able to do this rapidly and effectively (see Aitchison and McKay, 2013).

¹⁴ Some sort of partnership with the Independent Examinations Board would make sense here.

What are realistic funding targets and goals?

Probably the only approach that makes sense is that there is a benchmark set for the proportion of the national education budget that is awarded to adult education and training. Currently the 0.7% allocation is derisory.¹⁵ Internationally there has been advocacy for adult education to gain at least 5% of education budgets, though few reach a 3% benchmark and it is generally below 1% in Africa with mid-2000s exceptions such as Nigeria (2.43%), Mozambique (3.5%) and Cap Verde (8.7%) (Aitchison and Alidou, 2009, pp 14-15).

It is recommended that the overall budget is increased to 1.5% of the national education budget as an interim measures (a longer term goal would be from 2.5% to 5%) and that certain percentages of the budget be ring fenced for personnel costs (including coordination), curriculum and materials, maintenance and monitoring and evaluation. Given the dearth of materials, materials development should be a priority in the initial year or two.

¹⁵ This percentage includes the cost of the PALCs and the Kha Ri Gude campaign. The available budget is stated to be R1.5 billion.

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Appendix 2: Post school systems in other countries – a literature review

Introduction

The brief of the review was to examine some international literature on post school systems – their shape, functioning and funding – with special consideration of information from the United Kingdom, Germany, the United States of America and India for the purpose of making comparisons with policy options in South Africa for the funding of Technical and Vocational Colleges and Community Colleges (and their Community Learning Centres).

Technical and Vocational Education and non-vocational and community education are encompassed within the wider field of post-school adult and community education, as outlined in this table:

Types of post school adult and community education

	Vocational education	Non-vocational education
Formal education and training	Technical and Vocational education providing formal qualifications at various of levels (general, secondary, and tertiary)	General and secondary (school-equivalency) education for formal qualifications
Non-formal education and training	Work-related courses organized by employers or training organizations not for a qualification but often with some certification	Adult and community education courses based on voluntary participants' own learning interest and needs for personal and social growth and with no certification and often organised by non-governmental and community-based organisations

Even in the highly developed world many professional and technical jobs require no more than one or two years of career preparation beyond upper secondary school level, and in many countries as much as one-quarter of the adult workforce have this type of qualification and most employment growth in the next decade is expected to be of such qualified people (OECD, 2014, p. 11).

This technical and vocational education and training includes programmes providing specific training for young school leavers, skill upgrading of mid-career working adults and those returning to the workforce or shifting careers, as well as a second chance for working or unemployed adults who dropped out of earlier education.

The review took into account the goals envisaged for the sector (given current policy imperatives, the potential shape of the South Africa system and its differentiation, including in roles, management and quality control, linkages, access and openness, format of provision, and qualifications to be offered).

This review, apart from its own examination of sources, also made use of literature reviews done for the Ministerial Task Team on Community Education and Training Centres (Department of Higher Education and Training, 2012a, 2012b) and for the Design Evaluation of the Draft Policy on Community Colleges (South African Institute of Distance Education, 2015). Both these literature reviews focussed mainly on the appropriate institutional forms for lifelong learning (adult and continuing) rather than funding, but obviously institutional form has a direct impact on the scope of funding for such institutions and their programmes.

The Task Team report (which lead to the proposals about community colleges in the *White Paper for Post-Schooling Education and Training* (Department of Higher Education and Training, 2013)) had summaries of two literature reviews, South African and international, focussing on the different institutional forms of provision for youth and adult education that might be appropriate for, or have a bearing on, the establishment of Community Education and Training Centres (CETCs) (also called Community Learning Centres (CLCs) or Adult learning centres (ALCs)) in South Africa. The international literature review also looked broadly at the policy and contextual frameworks and environments that inform and impact on adult and youth education and their institutional settings, with a special focus on the United States of America, the Scandinavian countries and South Korea (among the highly developed countries), Brazil, Russia, India, and China (the so-called BRIC countries) and on Botswana, Cuba and Venezuela as developing countries.

This literature review is particularly useful at the macro level in that it examined what made for successful **systems of adult education/lifelong learning** which had the characteristics of having the necessary **flexibility, multiple access points, dedicated institutions** and **strong differentiation** to meet the multiple needs of adults and youth (including, of course the youth who are “Not Employed or in Education and Training” (the **NEETs**) who are the subject of growing international concern.

Although the goals of adult education are often influenced by rights and redress discourses, an important economic point made in much recent literature on adult education policies is that they are **being justified by the evidence** that literate and better educated youth and adults of all ages can improve their life chances, standards of living, and occupationally-based social status and are more able to protect their health, avoid sexually-transmitted diseases and to take care of their own children (and improve their educational prospects). Estimates of the costs of illiteracy and under-education (in terms of lost productivity) to countries as a whole have generated astounding figures for the annual loss to the GDP: Ecuador and the Dominican Republic (US\$25 billion), the State of São Paulo in Brazil (US\$209 billion) (UNESCO Institute for Lifelong Learning, 2010, p. 102), and South Africa (US\$68 billion) (Gustafsson *et al*, 2010, p.4). The 2013 OECD Survey of Adult Skills reports that many adults with basic skill deficits risk losing existing jobs because of the rapidly changing global labour market, yet many receive no training whatsoever in the workplace and older, poorer, lower level job workers are less likely to be able to learn further (OECD, 2013a; UK Commission for Employment and Skills, 2014; National Institute of Adult Continuing Education, 2014).

Generally, and understandably, adult education policies in poorer countries tend to **focus on literacy and adult basic education**, as their schooling systems do not encompass compulsory secondary schooling, or in some cases even compulsory primary education. Developed and rapidly developing countries have moved into a **broader lifelong learning**

framework, such as in South Korea and the BRIC countries where there has been the development of **comprehensive adult education policies** (as adult education is seen as the necessary condition for the development of modern society and economy) and **more varied institutional forms (and governance models)** associated with continuing education in a complex society.

Although a number of countries have some kind of **constitutional reference to youth and adult education as a right**, the international literature examined suggests that it must be backed by having **well articulated, officially ratified, comprehensive adult education policies** (allied to strategic plans of some substance) if a country is to have a successful adult education system, as is **comprehensive legislation** (and not just *ad hoc* funding legislation with short term goals).

The international literature provides **little evidence of unique institutional forms** for youth and adult education provision (except perhaps for the Scandinavian study circles system). What was different about the institutional forms was how easy it was to **access** them and how well they **articulated** with the conventional education and training systems.

Where adult education is governed by multiple ministries, **inter-ministerial committees** of real substance seem to be a feature of successful adult education systems.

Many countries have multiple institutional forms of both **formal and non-formal adult education** all fully funded or subsidised by the state. There is a wide range of sub-systems or modes of adult education provision that have **well-managed articulation**.

There were three main international trends on **governance**:

- greater **devolution and decentralisation** both organisational and financial, and even autonomy,¹⁶ accompanied by public consultation, consiliar arrangements and the partnership with civil society (in the highly developed world adult education provision tends to be done by civil society organisations funded by government);
- more **certification and quality control regulation and monitoring** by central government administrations;
- as developing countries (notable the BRIC ones) strive to become modern middle-income countries, their adult education provision **moves away from an original focus on basic literacy towards continuing and lifelong learning** and there is consequently a need for the **more varied institutional forms (and governance models)** associated with continuing education in a complex society.

¹⁶ There is a need to make a distinction between “substantive” autonomy (by which an institution determines its own academic policies including what to teach and who to admit as students and to employ as staff) and “procedural” autonomy (by which an institution manages its own administration and finances). Generally there is an increasing international trend to leave the management of complex academic institutions that need to be flexible and responsive to the institutions themselves (World Bank 2010, p. 13)

The main state governance bodies are either a **substantial department or departments within an education ministry** (or equivalent) or a **relatively independent authority or agency** (though often under the formal control of a ministry) or **delegation of responsibility to local agencies** (either of government or civil society). In many cases there are inter-ministerial and stakeholder representative councils.

A striking commonality in the literature is that the big and successful delivery systems have **governance and planning nodes** of some substance **at both national and state/regional level** and that they have a **good degree of autonomy from the more conventional schooling bureaucracy**. They have a wide range of programme types and modes of delivery and, because of the complexity of the field, various degrees of devolution. What is crucial is that there are **bodies or nodes of governance for whom adult education provision is their sole concern**, adequate funding, and rigorous assessment, monitoring, and evaluation.

Generally, there is an **insufficient supply of trained practitioners** (partly because of insufficient practitioner development institutions), **poor career prospects** (partly because of the way formal schooling bureaucracies manage staffing of adult education), and, particularly for the lower level practitioners, **poor conditions of service**. In many countries adult education is going through a process of professionalisation as the only sure way that the adult and continuing education can claim its rightful place as a respectable sector in the education field.

In relation to qualifications and the qualifications authorities the pre-CONFINTEA VI sub-Saharan Africa report, *The state and development of adult learning and education in Africa: regional synthesis report* (Aitchison and Alidou, 2009). has expressed certain cautions about **national qualification frameworks** as being over complicated and often mystifying and it takes an inordinate amount of training to equip an educator or trainer to understand what the standards require and how to apply them in the learning environment. In addition the effort required to develop standards and courses and qualifications based upon them and to be registered as a provider is incredibly resource intensive. Those resources go inevitably towards the formal, mainstream and profitable sections of the education and training enterprise. Also, the process of implementing the **recognition of prior learning** (RPL) is proving to be complicated and cumbersome and more work must be done to render it “operational”, particularly on any meaningful scale. Problems with regard to the RPL relate to inaccessibility (and the self-interested refusal of educational providers to engage with it) though there are interesting developments in Asian countries on credit recognition, and open access examination systems for certain diplomas and degrees.

The evidence is clear that healthy youth and adult education systems have **good monitoring, evaluation and research and that all of these require excellent flows of accurate data**. Universities, and departments of adult education in them, play a particularly important part such work [The 2008 *African Statement on the Power of Youth and Adult Learning and Education for Africa's Development* (UNESCO, 2009) expresses concern at the lack of recognition of the role of universities here.]

The *shape* and *functioning* of post school systems

Introduction – two key OECD studies

Two Organisation for Economic Co-operation and Development (OECD) studies, *Learning for Jobs* (OECD, 2010a) (which dealt with vocational programmes at the upper secondary level) and *Skills beyond School* (2014) (which reported on the post-secondary level), list key characteristics of strong and effective vocational education and training delivery systems. These are (OECD, 2014, pp. 19-20):

Deciding on provision and meeting needs: How the mix and content of vocational programmes are determined

- Mechanisms to ensure that the mix of vocational provision corresponds to the needs of the labour market.
- Adequate core academic skills, particularly literacy and numeracy built into vocational programmes.
- A range of programmes that offer opportunities for all and minimise dropout.
- Flexible modes of study suitable to adults with working and home commitments.
- Higher-level vocational qualifications, and avenues of progression from initial vocational programmes to both higher-level vocational and academic programmes.

Delivering quality: How vocational skills are imparted to learners

- High-quality apprenticeship systems, covering a wide range of professional domains and including higher-level apprenticeships.
- Work-based learning systematically integrated into all vocational programmes.
- A vocational teaching workforce that offers a balance of teaching skills and up-to-date industry knowledge and experience.

Using learning outcomes: How skills are assessed, certified and exploited

- Qualifications developed with labour market actors.
- Qualifications reflecting labour market needs that are nationally consistent but flexible enough to allow for a locally negotiated element.
- Qualifications systems and frameworks that keep qualification numbers manageable.
- High-quality assessments of vocational skills built into qualifications.
- Effective competence-based approaches, including both professional examinations and recognition of prior learning.

Supporting conditions: The policies, practices and institutions that underpin vocational education and training

- Vocational programmes developed in partnership and involving government, employers and trade unions.
- Effective, accessible, independent, proactive career guidance, backed by solid career information.
- Strong data on vocational programmes, including information on vocational programmes in international categorisations and labour market outcomes.
- Consistent funding arrangements so that choices are not distorted by the availability of funds.

Other important findings and recommendations in these studies relate to the following:

Social partners and the labour market

These two reports are clear that there is a need to need to **work with social partners** to ensure training provision matches the needs of the labour market. Employers and trade unions need to be close to the development of qualifications, so that they have full currency in the labour market. In particular, upper secondary curricula need to be sufficiently driven by fast-changing industry requirements.

Vocational qualifications need to be well understood with **clear nomenclature**¹⁷ and a known institutional basis.

Strengthening the institutional and funding base

Professional education and training needs an institutional base that:

- a) offers short-cycle professional programmes in a tier of institutions separate from conventional universities;
- b) makes use where relevant of the successful model of universities of applied science;
- c) consolidates training providers into institutions of adequate size; and
- d) provides a consistent framework of public funding for professional education and training (often involving a mix of funding streams), avoiding distortions and backed by quality assurance (OECD, 2014, p. 41).

Short-cycle (less than bachelors' degree level) professional education and training programmes have been most successful in institutions separate from conventional universities and with a separate funding stream (OECD, 2014, p. 13).

A stronger institutional framework for co-ordination in a diverse system

In many countries the post-secondary system involves many agencies, several ministries public and private providers, relatively autonomous post-secondary institutions, and employer and union stakeholders. Though this complexity and decentralised governance can encourage diversity and innovation, it can also confuse students and employers, hampers transitions and duplicate curricula and quality assurance.

Therefore it is important to ensure that there is an institutional framework to co-ordinate professional education and training, engaging employers and organised labour, so that programmes and qualifications are comprehensible and accessible to key stakeholders and that policy development can be steered and linked to wider economic and education policies (OECD, 2014, p. 46).

¹⁷ The OECD (2014) recommended that “Professional education and training” should become the internationally accepted description for substantial post-secondary vocational programmes (equivalent to more than six months full-time) (OECD, 2014, p. 39).

Strengthening the collection and accuracy of technical and vocational education and training data

Programmes must be accurately categorised (and academic and vocational programmes distinguished)¹⁸ and new indicators developed to evaluate the effectiveness of professional education and training. The collection of data on industry-led professional examinations must be improved (OECD, 2014, p. 49).

Key elements of high quality programmes

The OECD Skills beyond school synthesis report (OECD, 2014, pp. 15-16) notes three key elements of high quality post-secondary programmes, namely:

Work-based learning must be strong and systematic.

All programmes should involve some work-based learning as a condition of receiving government funding. The work-based learning should be systematic, quality assured and credit-bearing. (OECD, 2014, pp. 58-59). Where work-based learning is mandatory, public funding should be limited to training institutions willing to develop the partnerships with employers that support work placements, giving employers valuable influence over training provision. Use should be made of other provision (such as training workshops in schools) where the environment works better or where workplace training is not available (OECD, 2011a, p. 6)

Vocational teachers need both teaching skills and up-to-date industry knowledge and experience

The teachers in training institutions benefit from a strong blend of pedagogical skills, industry experience and academic knowledge. Vocational teachers need both pedagogical skills and practical professional expertise and keeping practical knowledge of the workplace up-to date is also a major challenge. Directly recruiting practitioners from industry in mid-career can be allied with part-time working arrangements that allow teacher-practitioners to continue to work in their field. These strategies require a flexible framework of pedagogical preparation and strong leadership in the provider institutions to make the best use of a mixed teaching team (OECD, 2014, pp. 60-66). Trainers in industry need to spend some time in VET institutions to enhance their teaching skills (OECD, 2011a, p.5).

Basic literacy and numeracy skills are critical both for labour market success and to support further learning

Basic skills of literacy and numeracy are of increasing importance, both as a support for further lifelong learning and career development and because of growing technical requirements in the workplace (OECD, 2010b, 2011a, p. 5; 2013b; 2014, pp. 64-68). The results from the *OECD Survey of Adult Skills* (OECD, 2013a) reiterate the importance of high levels of proficiency in literacy and numeracy (OECD, 2013a, p. 96):

High levels of proficiency in literacy and numeracy go hand in hand with high levels of proficiency in problem solving in digital environments. On the other hand, low levels of proficiency in literacy and particularly in numeracy may be significant barriers to using ICT applications effectively to manage information. The fact that adults who fail the ICT core have generally low proficiency in literacy and numeracy suggests that low literacy may hinder the acquisition of basic ICT skills. In addition, even if adults have some computer skills, it is difficult for those with low levels of proficiency in literacy and

¹⁸ Use can of course be made of the latest International standard classification of education (ISCED) (UNESCO, 2011; Eurostat, 2015)..

numeracy to handle many of the information management and information processing tasks that they are likely to encounter in a society where the use of online applications – for shopping, interaction with public authorities and service providers, and accessing information – is common, if not the norm. Given that text-based information occupies a considerable portion of the online world, access to that world should be seen in terms of proficiency in literacy as well as in technology. The digital divide may also thus reflect a literacy divide.

The OECD (2010) recognised that many students leave compulsory school with weak core academic skills and that the current vocational education system is not organised in a way to identify such learners and address their problems.

It made a number of recommendations including that:

- All students entering the transition system and those entering apprenticeships without school leaving certificate from a *Realschule* or *Gymnasium* should have their literacy and numeracy skills assessed.
- Those who required it should have basic skills instruction.
- There should be mandatory inclusion of the school mark in the final certificate and an explicit assessment of literacy and numeracy skills included in the final school exam.
- There should also be a greater priority given to general education and broad academic and skills development in part-time vocational schools.

In addition many adults – even some with post-secondary qualifications – have weak basic skills.¹⁹ Teaching basic skills within vocational programmes presents many challenges, particularly when students have not pursued academic styles of classroom learning for some years, or when they have a negative past experience of such learning.

The United Kingdom's *Review of Vocational Education* (Wolf, 2011) also saw the lack of basic fundamental language and mathematical skills as a crucial negative factor. In the United Kingdom, although English and Mathematics at GCSE level were fundamental to young people's future employment and further and higher education prospects, less than 50% of students had attained these by the age of 18. They are a necessary precondition for access to the most desirable courses and in most European countries genuine skills shortages mainly

¹⁹ The OECD (2014, p. 68) reports estimates that at least two-thirds of United States of America community college entrants have weak academic skills that lead to nearly half of them having to take remedial courses that use up scarce resources to limited effect and the increase of student debt.

apply to jobs requiring quantitative and especially mathematical skills.²⁰ General literacy and numeracy also have important economic consequences.²¹

Therefore technical and vocational education programmes should ensure adequate literacy and numeracy skills among their students alongside occupation-specific competencies. This means assessing basic skills at the outset of programmes, addressing weaknesses, and integrating basic skills development into professional programmes (OECD, 2014, p. 66).

Building strong qualification systems

Strong qualifications need employer engagement, limitations on their number, and effective assessment. Qualifications must be built that are meaningful to employers and useful to students by fully involving labour market actors in their design, updating and delivery.²²

The qualification system must deliver a manageable number of qualifications, avoiding proliferation and overlaps and their content should be, so far as possible, nationally consistent yet flexible enough to adapt to local needs. An over-complex set of qualifications (as happened in England until recent reforms) is too confusing.

Institutional pass rates or assessment grades for national qualifications should indicate the quality of teaching (allowance being made for the initial skills of learners) (OECD, 2014, pp. 74-76). “In order to be credible, qualifications need transparent and consistent assessment, which guarantee that qualification holders have the intended skills.” (OECD, 2014, p. 78) Effective, reliable, consistent and demanding assessment “of a complex package of soft and hard skills” is both difficult and costly and needs encouragement and incentives to avoid a drift to lower standards and increased pass rates (OECD, 2014, pp. 16-17).

²⁰ The Wolf Report (Wolf, 2011) found that efforts to remedy basic skills weaknesses via so called ‘key skills’ courses (intended to provide generic skills related to communication, application of number, information technology, working with others, improving own learning and performance and problem solving) and ‘functional skills’ courses (which supposedly ‘embed’ English and mathematics (and information technology) in real life examples) to be “conceptually incoherent” and “valueless” in progression terms (p. 170). They are liked by providers because they are ‘easy to pass’ options. Teaching English and maths in particular contexts is actually very difficult to do, because it demands that the teacher of the subject knows a great deal about a wide range of contexts, and can develop high quality materials for each. In practice “they embed to the point of vanishing” (p. 170). The government response to the Wolf Report (Department of Education, 2011) agreed that key skills courses are not suitable qualifications and will be phased out and only the GCSE and Functional skills courses (practical skills in English, mathematics and ICT) will be retained as recognised pathways to achieving the compulsory English and Maths elements of an apprenticeship. All young people must leave school or college with good English and maths skills. This has left colleges with the difficult challenge of bringing everyone up to GCSE A-C or equivalent in maths and English by age 18, fixing in a couple of years what school failed to do in eleven, before they can exit college and to repeat courses until they make the grade.

²¹ A Statistics Canada study of 14 advanced countries (Coulombe *et al*, 2004) estimated that a country with 1 % higher-than-average literacy and numeracy skills would achieve labour productivity 2.5 % higher than other countries, and GDP per capita 1.5 % higher on average. The study also estimated that long-term investment in human capital, such as education and skills, was three times as important to economic growth as investment in physical capital.

²² When labour market regulation makes it difficult to dismiss employees, the signalling value of a reputable qualification for recruitment becomes more important.

Adult learners need flexible modes of study

To meet the needs of adult learners, who include both school leavers and older students who include those who want to upgrade their qualifications, change careers or return to work after an absence from choice or from unemployment, flexible modes of study are needed. These include part-time and modular arrangements as well as distance learning.

Effective transitions and articulation with other sectors of education and training, including academic higher education, must be available

It must be made easier for students to transfer from short-cycle vocational education and training into higher education studies and, where applicable, their existing knowledge and skills be recognised through level and course exemptions.²³ This requires more transparency in course content so that overlaps are visible and can be addressed by course exemptions as well as effectively coordinated articulation arrangements. It must also be recognised that transitions become problematic if learners do not have sound basic academic skills (OECD, 2014, pp. 17-18). VET systems should “provide generic, transferable skills to support occupational mobility and lifelong learning” (OECD, 2011a, p. 5).

Effective career guidance is needed

Whilst there is expanding access and opportunities there is also bewildering complexity of choices that learners have to make. Good career guidance and information is needed both before entering and during vocational education programmes (OECD, 2014, pp. 18-19). A detailed set of *Pointers for policy development* in career guidance were developed (OECD, 2011a, pp. 11-12). The recommendations are summed up thus (OECD, 2011a, p. 5):

- Develop a coherent career guidance profession, independent from psychological counselling and well-informed by labour market information.
- Provide adequate resources for career guidance and its pro-active delivery.
- Ensure an independent base to support objective career guidance.
- Provide good sources of information about careers and courses.
- Build a comprehensive framework of guidance through partnership with employers.
- Ensure that career guidance initiatives are properly evaluated.

Funding policy recommendations

The OECD report (OECD, 2011a, p. 5), *Learning for Jobs. Pointers for policy development* argued that “For vocational programmes beyond secondary level, share the costs between government, employers and individual students according to the benefits obtained.”

²³ Education and training institutions are often hostile to the recognition of prior learning and need incentives (including financial ones) to do it.

Reviews of individual countries

In looking at the post-schooling systems in a range of countries one must express the caveat that any distinctions to be drawn between “Technical and Vocational College” institutions and “Community College” institutions (as made implicitly in the *White Paper on Post-School Education and Training*) are made with some difficulty in the international literature. In many cases the terms are interchangeable, in others, the institutional landscape is very diverse and complex with unclear or subtle differentiation between the various types of institution.

United Kingdom

The main institutional forms of further education in the United Kingdom (excluding Scotland) include further education colleges and tertiary colleges, specialist colleges (mainly colleges of agriculture and horticulture and of drama and dance), adult education institutes and private training companies which work with colleges and employers to provide practical training and qualifications in subjects such as engineering, construction, ICT and health and social care.²⁴ Some colleges are more specialised in a particular industry field such as art and design, catering, engineering or finance. They usually have strong links with companies and potential employers. They are autonomous statutory corporations invariably governed by independent boards of governors. Colleges are externally regulated and quality assured and must demonstrate accountability externally to learners, employers and communities.

Further education colleges are akin to the North American community college in that they provide post-compulsory further education distinct from the higher education offered in universities. It includes post-compulsory school education, basic skills training and higher vocational qualifications such as Post Graduate Certificate in Education, National Vocational Qualifications, City and Guilds qualifications, Higher National Certificate, Higher National Diploma, and Foundation Degrees. Further education may be used as a means to gain an intermediate or follow up qualification necessary to attend university, or begin a specific career path, e.g. Quantity Surveyor, Town Planner or Veterinary Surgeon.

[Confusingly, in England the term ‘community college’ is applied to a secondary school which also provides some additional services and adult education to the local community.]²⁵

Adult Education institutes and centres, often running mainly non-formal courses, though originally they served far more learners than further education colleges and institutions, were overtaken by FET colleges in the 1950s and have been in major decline since the 1970s largely because of severe funding cuts (Bolton, 2012, p. 13).

Courses and qualifications in vocational and academic subjects are offered at many levels. There are also Sixth form colleges offering A-levels, the International Baccalaureate as well as ordinary schools that offer these and further education National Vocational Qualifications.

From 2001 to 2010, further education in England was governed by the Learning and Skills Council (LSC), the then largest quasi-autonomous non-governmental organisation (‘quango’)

²⁴ Useful reviews of vocational education and training from the European Centre for the Development of Vocational Training are the country reports on Vocational Education and Training in the United Kingdom (Abusland, T, 2013, 2014)

²⁵ Some of these former ‘community colleges’ are now termed ‘academies’ since 2000 when a form of “independent state schools” was introduced in England. Academies are directly funded from central government rather than through local councils, and were initially partly privately sponsored. Often the sponsors are from business, but some are sponsored by universities and charities. The schools have greater autonomy than schools run by the local council and are usually at secondary level, though some cover all grades. Since 2010, existing state schools graded as outstanding by Ofsted are allowed to become academies without requiring capital funding from sponsors. After 2012 the government began forcing schools which had been graded only satisfactory or lower into becoming academies.

which distributed funds through 47 local councils.²⁶ It was replaced in 2010 by a Skills Funding Agency as an executive agency of the Department for Business Innovation and Skills. It manages a budget for skills based training which is commissioned from a two tier of network of prime contractors.

As with other forms of education, there is a high degree of external quality control by the Office for Standards in Education, Children's Services and Skills (Ofsted) which is a government agency that inspects and regulates services that care for children and young people, and services providing education and skills for learners of all ages (Ofsted, 2015a). It reports directly to Parliament and is independent and impartial. Reports of inspections and regulatory visits are published online.

It inspects maintained schools and academies, some independent schools, and many other educational institutions and programmes outside of higher education, childcare, adoption and fostering agencies and initial teacher training. It publishes detailed guidelines for the inspections of Further Education institutions. (Ofsted, 2015b). It has about 1,270 employees in its London headquarters and its regional offices as well as about 2,700 contracted inspectors available from inspection service providers (though from September 2015 it will contract directly with school and further education inspectors rather than through a third party supplier (helping us ensure that inspectors are effectively sourced, trained and deployed)).

Another non-ministerial department is the Office of Qualifications and Examinations Regulation (Ofqual) which regulates all qualifications, examinations and assessment in England and vocational qualifications in Northern Ireland (Ofqual, 2014a, 2014b).

Current government policy is to increasingly privatise education and training institutions (seen most obviously in the growth of academies and free schools) and reduce state funding of education and training, particularly for those aged 18 and over (Nash 2015a, 2015b). Nash (2015b) describes the policy thus:

A single-minded focus on apprenticeships and the sacrifice of many interests of all other sectors in order to ring-fence school funding for five to 16-year-olds resulted in wholesale reductions in FE and in particular a 40% cut in adult education. The result, highlighted in the 2015 survey has left the sector teetering on the brink of crisis, with rock-bottom morale and uncertainties in funding that have paralysed sensible organisational planning, provision and delivery.

²⁶ The Learning and Skills Council had a subsidiary Learning and Skills Improvement Service supporting the development of excellent and sustainable further education provision across the learning and skills sector but was closed in 2013. Many of its resources remain on a website: www.excellencegateway.org.uk/

Germany

Germany has a substantial investment in both vocational and more general and often non-formal adult education.

The Vocational Education and Training system is large, well-resourced, supported by public and private funding and has a high degree of engagement by employers and unions. It places a heavy emphasis on apprentice type preparation for skilled positions and is “characterised by an intricate web of checks and balances at the national, state, municipal, and company levels that ensures that the short-term needs of employers do not distort broader educational and economic goals” (Hoekel and Schwartz, 2010, p. 5). The system is based on the *Berufsausbildungsgesetz* law passed in 1969 which regulated and unified the vocational training system and codified the shared responsibility of the state, the unions, associations and chambers of trade and industry. It has stable political support and there are strong links between the so-called dual vocational education and training system and higher education.

The system is administered by the Federal Institute for Vocational Training and Education.

Vocational training is required for a large number of occupations and, compared with other Western countries, Germany has a much lower percentage of university students and a much lower percentage of persons entering the workforce for initial on-the-job training. In 2001, about half of young people had successfully completed an apprenticeship. One in three companies offered apprenticeships in 2003 and in 2004 the government signed a pledge with industrial unions that all companies except very small ones must take on apprentices.

The Education and Training system

Within the general education system vocational education and training is a very strong and flexible component, and indeed a significant portion of the system integrates school-based and work-based learning in the so-called **dual system** during the Upper Secondary stage (Level 3) of schooling.

The education and training system has seven levels that correspond to those used in the *International Standard Classification of Education (ISCED)* (Eurostat, 2015, UNESCO, 2011).

Level 0 is Pre-school, Level 1 is six years of primary school, Level 2 is Lower Secondary school, the last part of full-time compulsory education which may include a year of basic vocational training. When learners reach the age of 16 they have three main options within Level 3 Upper Secondary education (which is compulsory education up to the age of 18)²⁷:

- continue the second stage of secondary education of an academic type
- study full time in a **Vocational School** (*Berufsfachschulen*) in preparation for an occupation (especially in the services sector) or transfer (after one year) to the dual system

²⁷ Technically the compulsory part is only two-years of part-time continuing of their general academic education.

- study full or part time in the **dual system** which is a mix of academic and vocational education and training to become a skilled employee.

The **dual system** educational programmes combine school or college tuition with work-based instruction (at a company or in a vocational school). Both components are substantial (i.e. go beyond a single internship or occasional class) and the work-based part usually occupies 50 % of the programme time or more.

Post secondary education continues at Level 4 which is non-tertiary level study preparing students either for further study at Level 5 or for programmes at Vocational Academies designed to prepare learners for direct entry into the Labour market. Some **Senior Technical Schools** (*Fachoberschulen*) and **Senior Vocational Schools** (*Berufsoberschulen*) confer university certification.

At Level 5 Tertiary education Stage 1 there are again either general (university) education or specialised vocational training including that at specialised schools within the health care sector. Level 6 Tertiary 3education at Stage 2 is doctoral studies.

The Dual System

This well-developed and resourced system combines theory and practice, integrating work-based and school-based learning to prepare apprentices for a successful transition to full-time skilled employment in a recognised occupation. The dual system tends to prioritise industrial and technical skills. [Variations on such a dual system also operate in Austria, Hungary, Bosnia and Herzegovina, Croatia, Serbia, Slovenia, Macedonia, Montenegro and Switzerland, but also Portugal, Denmark, the Netherlands, France and Egypt, and for some years now in China and other countries in Asia.] It is argued that the dual system enables a much smoother transition from school to work, low NEET rates and youth unemployment, and below average repeated unemployment spells than other countries (Eichhorst, 2012, p. 22).

The dual system is the largest component of Upper Secondary schooling. There are no legal admission prerequisites (though in practice there are). About two thirds of entrants into the dual system have a school-leaving certificate (equivalent to Grade 9 or 10). Under certain conditions they can also acquire a university entrance certificate by doing one year of full time academic schooling. About a sixth of the learners have transferred in from full-time vocational schools. About 20% of university entrants come out of the dual system.

The curriculum is orientated towards occupations and employability and specialisations are taught within the occupational context. But vocational training must also prepare students for further learning in terms of personal motivation, persistence and the capacity to plan, carry out and check their own work independently. The curriculum is designed in co-operation with employers and employees' representatives.

The theory is taught for two days a week in the vocational school (*Berufsschule*) and these schools establish specialised classes for specific occupations. The responsibility for this part of the course lies with the school authorities in every German state. Both general lessons (for example German, politics, economics, religion or even sport) and trade-specific theory are

taught. Lessons may be taught part-time (one or two days a week) or in blocks of several weeks. The latter is preferred for trades learned by only a small number of students, where students may have to travel long distances to get to the nearest vocational school which teaches their subject. There are examinations to demonstrate that learners have acquired the necessary skills and theoretical and practical knowledge. In Germany, for most trades, the first examination takes place about half-way through the vocational training and is only to test how well the student is doing so far: the marks do not go towards the final exam. Both exams are organised by the small business trade group and chamber of commerce and industry. Examinations for trained artisans are traditionally known as journeyman's tests (*Gesellenprüfung*). Examinations for trades which have been recognised more recently are organised slightly differently. Here, the first examination counts as 40% of the total result, with the final examination making up the other 60%. Those who fail the exam can apply to have their training extended until the following year when they can retake it. Only one extension is allowed.

The practice is done in companies for three or four days a week, all in terms of state framework regulations. During this period, trainees receive about one-third of the salary of a trained skilled worker. The time spent at vocational school is approximately 60 days a year, in blocks of one or two weeks at a time spread out over the year. The company is responsible for ensuring that students get the standard quantity and quality of training set down in the training descriptions for each trade. This practical training may be complemented by more practical lessons at workshops run by the guilds and chambers of commerce, in order to compensate for the bias caused by training at only one company. These extra courses usually take three or four weeks a year. The duration of training varies between 2 to 3½ years.

[In France, the same amount of time is spent in practical training and theory, with the following possible systems:

2.5 days in a company, 2.5 days at school,
one week in a company, one week at school,
six months in a company, six months at school.

French companies must provide a tutor or other person responsible for the students, or a human resources officer to deal with them. Their duties may involve daily tutoring and/or targeted training. French apprentices on the dual education course are paid a certain percentage of the minimum wage for the job they are learning.]

Companies like the dual system because it can develop new employees with 'real-life' training to fit the companies' requirements, reduces company orientation costs, is a better means of recruitment than on the job market, reduces fluctuations in personnel, and they can recruit the best trainees. The student is an employee of the company from the beginning and receives tasks according to his or developing abilities, knows the company's workflow and fellow workers. The company can see if the potential employee is able or willing to do this job quite early and not after exams. Furthermore the student earns money from the beginning. Companies that offer training (about a quarter of the total and nearly all large ones) are also considered by the public to produce better quality products.

Trainers must have the necessary vocational and teaching qualifications and must be at least 24 years old and have passed the final examination in a relevant occupation requiring formal training.

There are some problems and challenges to the dual system. One of them is the difficulty in finding enough training places in companies (whether from companies' lack of capacity or willingness)²⁸ which has led to an increasing number of young people are taking vocational education and training courses at training sites and schools rather than in real companies. Attempts to make it compulsory for companies to take on apprentices have so far been dropped by trade associations agreeing to voluntary training pacts. Two other attempted solutions involve "contractual education" (*Auftragsausbildung*) where companies train apprentices which they do not plan to employ and state run practical training courses run outside of companies, in schools and colleges.

The transition system

The transition system is one where, after students have studied full-time for a year full time in a **Vocational School** (*Berufsfachschulen*) transfer to the dual system.

There have been criticisms (OECD, 2011a, p. 33) that the transition system is unduly fragmented, has weaknesses in co-operation between stakeholders, lacks transparency, and, in spite of being well resourced, does not lead to many successful transitions into the regular dual system.

Core academic skills - literacy and numeracy

The OECD (2011a, p. 34) recognised that many students leave compulsory school with weak core academic skills and that the current vocational education system in Germany is not organised in a way to identify such learners and address their problems.

It made recommendations that:

- All students entering the transition system and those entering apprenticeships without school leaving certificate from a *Realschule* or *Gymnasium* should have their literacy and numeracy skills assessed.
- Those who required it should have basic skills instruction.
- Make inclusion of the school mark in the final certificate mandatory and include an explicit assessment of literacy and numeracy skills in the final school exam.
- In the longer run, merge the Chamber exam and the school exam into a single final assessment.
- There should also be a greater priority given to general education and broad academic and skills development in part-time vocational schools.

²⁸ Incapacity and unwillingness may be the result of the burden of the large number of regulations governing apprenticeships, the expense of training, trainees not having an adequate level of education for complex training, and very specialised companies not being able to provide more generic training.

Research and Development

Research into VET is done through a national network of research centres and the Federal Institute for Vocational Education and Training (BIBB). This institutional base supporting research supports a high degree of innovation and improvement in the system (OECD, 2011a, p. 33).

Career guidance

The OECD (2011a, p. 34) has identified career guidance as being of a variable standard and recommended that there should be a single government agency responsible for career guidance as well as a structural reform of the dual system to facilitate career choice.

Adult education

Most of the states (*länder*) include a commitment to adult education/continuing education in their constitutions and many have Continuing Education Acts which generally establish a secure basis for adult education through institutional support and legal recognition. State support is given through the sponsoring of a variety of civil society organisations (trade unions, employer's association, churches and adult education associations) which have organisational autonomy in curriculum and staffing. Such provision is open access to everybody (BeLL-project, 2014, p. 89).

Typical institutional provider forms are (BeLL-project, 2014, Eurydice, 2007):

- Community adult education centres (*Volkshochschulen*)
- Protestant and Catholic adult education institutions
- Trade union adult education programmes
- German Adult Education Association (*Deutscher Volkshochschul-Verband*), a cooperative group of community adult education centres and trade unions (See their policy document "The Adult Education Centre - education as a public responsibility" (German Adult Education Association, 2011)
- Residential adult education centres offering mainly one- or two-week courses plus accommodation (*Heimvolkshochschule*)
- Voluntary associations and alternative groups (*Verein*)
- Political party foundations' education centres

Estimates from 2012 are that 49 percent of the adult German population participated in some non-formal adult education (including non-formal continuing vocational education) (BeLL-project, 2014, p. 92).

Much non-formal non-vocational adult education provision is done at community adult education centres and in study circles (as in the Scandinavian model).

United States of America

In the United States of America responsibility for education and adult education is placed at state or provincial level and federal government intervention is mainly at level of funding and regulations.²⁹ The highly decentralized system of education means that there is no national framework laws that prescribe curricula or control most aspects of education. The federal government, although playing an important role in education, does not govern, establish, or license schools or educational institutions at any level. Federal legislation and funding is usually directed at special groups, situations and purposes (and often tends to be motivated by relatively short term goals). States require the licensing of all institutions, whether public or private though they have high degrees of substantive autonomy and their accountability requirements are low and equivalent to those applying to private corporations (World Bank, 2010, pp. 69-70).

The United States is a very adult learning intensive society – over 40% of the adults in the country over 16 years old participate in some form of lifelong learning during the year (United States Department of Education, 2007). Some of this is owing to the pressure, because of the decline in population growth, to replace retiring skilled workers and professionals, and from the huge demand for all to have access to post-secondary education (particularly via community colleges).

The term “community college” is particularly associated with the North American institutions with that name though they are similar in many respects to what are called **Technical Colleges** or **Further Education Colleges** or just Colleges in other countries. They are usually state regulated institutions although there are a growing number of private (including non-profit) ones.

Community colleges (also sometimes called **junior colleges**, **technical colleges**, **technical institutes**, **two-year colleges**, or **city colleges**) are post-secondary school institutions for **adults** founded on an earlier tradition of evening classes in numeracy and literacy for adults. Originally their two-year curriculum was a response to financial difficulties – they required fewer teachers, resources and students to operate. A distinction grew between these two-year colleges and the more rigorous **four-year universities** or **four-year colleges** (including **universities of technology** or **institutes of technology**) which did also do research.

Community colleges are primarily open access two-year public institutions providing tertiary education and limited higher education,³⁰ granting certificates, diplomas, advanced diplomas and two-year associate's degrees (as distinct from the full degrees of universities), occupational and technical career education, adult and continuing education and community services, remedial and preparatory programmes, non-formal education and often e-learning or distance education. The actual level ranges from secondary education equivalent, through

²⁹ The Federal government does define basic accountability requirements in relation to taxation, accounting standards, equal opportunity legislation, accreditation (to be eligible for federal funding), data collection and reporting requirements, and accountability in relation to grants and contracts (World Bank, 2010, pp. 69-70)

³⁰ Officially they are defined as any institution accredited to award the associate degree as its highest degree (Cohen, 2000, p. 4).

basic skills training to higher vocational qualifications and associate degrees (two-year degrees). After graduating from a community college, some students transfer to a four-year liberal arts college or university for two to three years to complete a bachelor's degree and most community colleges provide articulation pathways to (and partial credits for) later degree study at universities.

Currently the term “junior college” is mainly used to describe private two-year institutions which provide a **general and liberal education** leading to transfer to a four year college to complete a Bachelor's degree (they may also provide some applied science instruction and adult and continuing education), whereas the term “community college” is mainly used to describe publicly funded two-year institutions that provide a **comprehensive** set of offerings. These offerings include: **occupational and technical career education** – a two year Associate degree for students who will directly enter the workforce; **transfer education** – for students who aim, after gaining the Associate degree to transfer to a four-year institution to pursue a Bachelor of Arts or Science degree; **developmental – compensatory and remedial education** for high school graduates who are not academically ready to enrol in college-level courses; **adult and continuing/community services** – non-credit courses (including skills training) offered to the community for personal development and interest; **industry training** – contracted training and education paid for by a local company for their employees; **distance learning** – occurs online using one's computer and proctored (i.e. invigilated) exams; and **support services** (learning resource centres; academic, personal, and career counselling; information on financial aid and transfer programmes; and writing programmes). “Technical colleges” often offer degrees in applied sciences and in adult and continuing education.

Current educational programmes are usually employment related vocational and technical training, computer and IT training, and courses for personal development. They are a major provider of job training and retraining and the primary post-school education provider for the least advantaged. In particular they are a major supplier of workers for middle level or semi-professional occupations such as nursing, computer operations and car mechanics. These institutions grow in importance given the trajectory that in developed economies a large majority of new job openings will require at least some post-secondary education. Courses are often timetabled for evening or weekends.

Usually the cost to learners attending community colleges is far lower than other forms of post-school education and training. Community colleges **primarily attract and accept students from the local community**, and are often supported by local tax revenue.

In the United States of America some 40% of all undergraduate students attend 1 123 community colleges, some 88% of which are public institutions. There are over 7.4 million students studying for a qualification and an estimated 5 million non-credit students (including workforce training). They are a major provider of job training and retraining and the primary education provider for the least advantaged. In particular they are a major supplier of workers for middle level or semi-professional occupations such as nursing, computer operations and car mechanics. There are 300 000 faculty members (104 000 full time) whose primary responsibility is teaching. These community colleges comprise a quarter of all higher education institutions and serve about half of all post-secondary vocational training. They are the fastest growing sector of post-school education and training and growing twice as fast as four-year colleges (a growth increasingly made up of adults).

Community colleges enroll the greatest proportion of adult students in post-secondary education institutions (Van Noy and Heidkamp, 2013). There has also been a relative increase in adults choosing private, for profit institutions because their programmes are more demand-driven, flexible and shorter than semester-based community colleges. Fast growing for-profit institutions enrol a disproportionate share of low-income students and those who are under-prepared for college.

Because in many cases the first community colleges and universities were instituted before there was major provision of secondary education there is a much stronger tradition than in other countries of **open access** for individuals with the capacity for but not the formal education prerequisite (and the corollary that the institution itself determines the capabilities of students admitted and provides preparatory programmes (remedial and developmental, including English language instruction for immigrants (currently as much as one-third of humanities instruction at community colleges)).³¹ In recent decades the federal government has often funded such developmental support.

Community colleges often have extensive collaboration with local high schools. In addition **adult and continuing education and community services** have always been strongly supported by community colleges.

Because of the comprehensive nature of community colleges they have been able to respond effectively and flexibly to the increasing demand for higher education as well as changes in funding support (as in the 1980s and 1990s when personal development courses were reduced and work related courses expanded. They were also able to adapt much faster than traditional universities to changing social and economic conditions. They are an adaptable institutional form that bridges the gap between secondary and higher education and

³¹ One of the most common initial routes to demonstrating capability is through the General Education Development (GED) examinations which are a widely recognised and extremely popular open entry high school diploma equivalency assessment using norm-referenced tests in reading, writing, mathematics, science and social studies. Those who attain it are considered to outperform at least one-third of high school seniors. It is almost universally recognised by employers as equivalent to a high school diploma and successful candidates generally improve their earning capacity.

The GED Testing Service sets minimum scoring requirements, but states may choose to adopt higher passing scores. A handful of states require candidates to take a pretest that screens for whether or not someone is ready for the exams. States that don't screen candidates often have lower passing rates.

The tests were revised in 2002 to include more essay type questions as well as ones that stressed analytical ability and problem-solving skills.

There are critics of the GED. Some worry that the schools intent on raising their grade 12 pass rates may be tempted to recommend struggling students drop out of high school and pursue a GED certificate instead. Other critics see the examinations as easier than conventional ones.

Clearly it is important that any open access second chance adult examination system must not dysfunctionally provide an incentive for high schools to extrude students as drop-outs. Two ways of preventing this are to make sure that the standard is not easier but more rigorous than that of the equivalent level of schooling and to set a minimum entrance age.

provides access to people who would not otherwise been likely to enrol in higher education.³² They serve students in the local area who seek low-cost post school education.

The Governance of community colleges

Most community colleges have policies and regulations for governing the college and the employment of faculty (regular, full-time personnel at institutions whose regular assignments include instruction, research, and/or public service as a principle activity, and who hold academic rank as professor, associate professor, assistant professor or instructor, senior instructor, or master instructor, and as senior vocational teacher, intermediate vocational teacher, vocational teacher) and academic tenure.

In some cases there are statewide Boards which regulate community colleges (and other higher education institutions) such as the Tennessee Board of Regents (2014a) (which has policies and detailed guidelines (which generally describe the process of policy implementation) (Tennessee Board of Regents, 2014b).

Another example is the Alabama State Board of Education which is the governing board for the Alabama Community College System. The State Board of Education, upon the recommendation of the Chancellor of the Alabama Community College System, is authorized to (Alabama Community College System, 2014b):

1. Make rules and regulations for governing the Alabama Community College System;
2. Prescribe the courses of study and the requirements for granting certificates, diplomas, and/or degrees;
3. Appoint the President of each institution with each President to serve at the pleasure of the State Board of Education;
4. Direct and supervise the expenditure of appropriations for the Alabama Community College System;
5. Prescribe qualifications and establish a salary schedule and tenure requirements for faculty;
6. Accept gifts, donations, and devises and bequests of money and real and personal property for the benefit of the Alabama Community College System;
7. Promote interest in the Alabama Community College System among the citizens of Alabama.

[Its website (Alabama Community College System, 2014a) lists a full range of policies for running community colleges.

Other states have associations which provide similar regulation and policy development (e.g. Texas Association of Community Colleges (2013) and the Community College League of California (2014a)). The Community College League of California's Policy and Procedure Subscription Service provides "template language" for over 370 board policies and administrative procedures for California community colleges. Subscribing districts receive legal updates annually that alert them to changes in laws, regulations, or practice (Community College League of California, 2014b, 2012).

³² The student fees for students in community colleges range from 15% to 73% of those in universities (Baum and Kurose, 2013, p. 80).

Richardson and Santos (2000) argue that states basing higher education governance on federal principles (i.e. having a central coordinating board or agency that works with a range of institutional governing boards) enjoy advantage over other governance structures.” (Wombly and Townsend, 2000, p. 290).

There are also national statements and resources on community college governance such as that of the National Education Association’s 1989 *Statement on community college governance* (National Education Association, 2014).

Programmes, qualifications, transfer and articulation

Most community colleges offer a comprehensive curriculum that focuses mainly on liberal arts and sciences, plus vocational and technical training for direct entry into the workforce. There are also developmental (i.e. compensatory or remedial) education courses and adult and community education or community service programmes.

The two year associate degree can be completed in two years of full-time study, certificate programmes in one year.

As the four-year Bachelor’s degree is becoming the entry point to the workforce for the majority of postsecondary students, community college students are able to transfer to a four-year college to complete the degree (Wellman, 2002, p. v). At least 25% of community college students aim to complete a Bachelor’s degree and about 39% of them do. Of the 54% who only aimed for an associate (two-year) degree some 23% of them transferred. Overall about 22% of community college students do transfer to universities.

Thus, a reasonable estimate is that somewhere between one-quarter and one-half of beginning community college students who have plans for some type of degree eventually transfer to a four-year school. Full-time prospective transfer students (students working toward a bachelor’s degree) were twice as likely as part-time potential transfer students to transfer. (Coley, 2000, p. 22)

Transfer students persist in universities as well as students who began there. Generally full-time students transfer twice as much as part-time students. But students wanting to do a degree are less likely to succeed if they enter a community college rather than a university. Dougherty (2010, p. 96) states:

A now sizeable number of studies find that starting at a community college rather than a four-year college or university significantly lowers the probability that a baccalaureate aspirant will attain that degree. Clearly, part of this gap in baccalaureate attainment is simply due to the fact that community college students on average tend to be less privileged economically, less prepared academically, and less ambitious educationally and occupationally than four-year college entrants.

However there are varying views on this finding. Baker and Veléz (1996) argue that students who were able to attend a university but instead studied at a community college do as well and at a lower cost. Community college students who do subsequently transfer to university do equally well as those who entered university directly from school.

There are ongoing problems with credit recognition for articulation. This was previously mainly done on an inter-institution basis though there is now increasing state regulation.

There are a variety of transfer and articulation structures to ease the transfer process.

A 2009 study by Gross and Goldhaber found that the mere presence of a state articulation and transfer policy (over 30 states had such policies) does not increase the transfer rate of community college students to four-year institutions, though specific policy components (such as the automatic acceptance of an associate's degree for transfer to a four-year college, standardized credit requirements but without subject specifications, standardized credit requirements in specific subjects, common requirements for programme majors, and common course numbering for courses of similar content or common general education core requirements) had a slight influence on different groups of students (notably Hispanics). They report (p. 24) that transfers tend to increase the more tenured faculty there are, the smaller the classes, and the more per student spent:

First, students at schools with higher shares of tenured faculty are more likely to transfer. In fact, the model estimates that for every 10 percent increase in the percent of tenured faculty in the two-year college, holding all else equal, the odds that a student will transfer to a four-year college increases by 8 percent. In addition, the model estimates that the odds of transferring decreases as the number of students per faculty member increases. A student's odds of transferring decline by one percent for every additional student per faculty member in the two-year college they attend. Spending on student services is also associated with increased odds of transferring: each \$100 in per-student spending is associated with a five percent increase in a student's odds of transferring.

In terms of general effects across students, institutional factors regarding faculty tenure at community colleges and the student-to-faculty ratio seem to be more correlated to the propensity of students to transfer between community colleges and four-year institutions and ultimately to earn bachelor's degrees.

Four-year colleges whose performance is measured in degree completion throughput may be discouraged from encouraging transfers in as community college students rarely complete the baccalaureate degree in five years. Incentive funding might help this situation (Welman, 2002, p. vii)

Adult Basic Education and Remedial ("developmental") courses

Only 3 percent of students who have to start college in adult basic education classes earn a credential (Gonzalez, 2011). In other words, the idea that community colleges can easily "fix" under preparedness is false., though there are a number of projects aiming to improve this situation (Mwase, 2012; Jobs for the Future, 2014; Washington State Board for Community and Technical Colleges, 2014; Jenkins, Zeidenberg, and Kienzl, 2009; Wachen, Jenkins and Van Noy, 2010; Zeidenberg, Cho. and Jenkins, 2010; Van Noy and Heidkamp, 2013; Gonzalez, 2011)).

Remedial or "developmental" courses are also no panacea. Mostly, students who need to take several remedial courses fail to complete a degree programme, which suggests that such students should rather revert to an ABE programme (Rao, D. 2004, p. 11). Remedial education programmes that accelerate the instructional pace and those combining basic skills acquisition with college-level course work may be the most effective (Barrow, Brock and Rouse, 2013, p. 9). Remedial courses are also seen as often having a low level of academic demand thus not genuinely preparing students for later transfer to a four-year college.

Traditionally measures of the readiness of students for college level study rely on testing reading, writing and mathematics but recent research notes the importance of non-cognitive skills such as resilience and persistence (Barrow, Brock and Rouse, 2013, p. 9). There are a number of computer-based placement tests.

According to Dougherty (2010, p. 100):

A difficult organisational issue that community colleges face is whether developmental education should be centralised in one organisational unit or distributed throughout the college. Centralisation better allows for creating a cohesive, well trained staff of developmental educators. However a distributed structure is more conducive to contextualising developmental education for different disciplines ...

Adult and community education

These divisions of community colleges are often their most dynamic because they are less encumbered by restrictions (Dougherty, 2010, p. 100). Community colleges can more easily develop new course offerings (vocational improvement and retraining for those already working, high school completion and adult literacy improvement, personal development and recreational courses, and community services such as arts events) because the courses usually do not carry credit and therefore are less subject to regulation by state education agencies. Community colleges can use non-credit offerings to learn more about the demands of the labour market, particularly in fast changing technology fields. If new needs and ready demand are found, this may lead to similar courses being developed that are credit bearing and articulated into complete certificate or degree programmes.

Dougherty (2010, p. 100) raises the issue of adult, continuing and community education:

should be integrated with regular academic instruction or be kept separate from it, in a centralised ACCE division. Integration causes friction with the credit-bearing academic side of community college and carries the danger that ACCE will become overly academicised. On the other hand, separation of ACCE from the regular academic education wing of a community college means that the academic side of the community college less often benefits from information about labour market demands that the non-credit side discovers in the process of fielding new courses and programmes and students who begin in non-credit courses are less able to move towards credit-bearing programmes

Other Issues with community colleges

Community college students have a much **higher set of risk factors** negatively associated with persistence and attainment compared to university students. The seven key risk factors are: delayed entry, enrolled part-time, worked full-time, financially independent, have dependents, single parent, no high school diploma. Nearly half of community college students fail to complete a credential of any kind within six years of starting college (Goldrick-Rab, Harris, Mazzeo and Kienzl, 2009a, p. 3).

Underprepared students are a major problem. Venezia and Jaeger (2013, p. 117) say that:

Students are unprepared for postsecondary coursework for many reasons, the authors write, including differences between what high schools teach and what colleges expect, as well as large disparities between the instruction offered by high schools with high concentrations of students in poverty and that offered by high schools with more advantaged students.

Students are more likely than university students “to exhibit a range of characteristics that place them at risk of not meeting their education goals” (Coley, 2000, p. 3), namely, the basic content knowledge, skills (including the application of such content knowledge to real-life situations and analytical skills), and habits of mind (including critical thinking, curiosity, acceptance of critical assessment, and toleration of frustration, ambiguity and occasional failure) (Venezia and Jaeger, 2013, pp. 119-120). Many of the students who enter community college do not appreciate that they will struggle with college work unless they had achieved a certain level at high school (Bueschel, 2003, p. 30).

Coley (2000, p. 4) notes that:

Community colleges are also facing increased pressure to educate students who come to them unprepared academically. In addition to having “open” admissions policies, community colleges may be increasingly burdened with providing remedial programs that once were provided by four-year institutions.

Universities are increasingly abandoning such remedial activities and redirecting students to community colleges.

Unfortunately, many graduating high school students come to the community college door unprepared for college. On one hand, community colleges allow students a “second chance.” As a result, much community college curriculum is remedial in nature. On the other hand, the availability of such a “second chance” sends the wrong message to students — many believe that they can attain their goals for higher education without doing any work in high school. It is clear that our educational system needs better alignment and articulation, kindergarten through college. Each part of the system needs to do a better job of informing students of what is required and expected of them. Efforts like “tech-prep” and “2+2” programs that blend high school and college are examples of approaches that allow students to see the relevance of their studies to the world of work. (Coley, 2000, p. 30)

The question is whether community colleges really succeed in teaching the basic skills that schools failed to do. Twombly and Townsend (2000, p. 296) also pose the question:

Community college leaders must decide what their reasonable role and mission in providing remedial education will be. Do they take all comers? Do they more clearly define their role in adult basic education as separate from remedial education? Or do they and policy makers put some pressure on high schools to be held accountable for the competencies of students who graduate? Remediating students who lack some college level skills seems to be a very different function than providing (for a second time) the equivalent of middle school or high school education to millions of comers. If community colleges and policy makers fail to delineate the community college role in this, taxpayers will continue to “pay twice” for basic education. Furthermore, state and institutional policies may unintentionally convey the message that high school performance is unimportant.

Current evidence shows that various standardised readiness tests are poor predictors and there is also no clear evidence that the most popular programmes and strategies for improving student success actually work and are cost-effective (Barrow, Brock and Rouse, 2013, p. 12, Venezia and Jaeger, 2013, pp. 117, 120).

The problem of under-prepared students is exacerbated by the efforts to broaden access into post-secondary education (Barrow, Brock and Rouse, 2013, p. 5; Fain, 2014).

Kirst and Venezia (2006) argue that efforts must be made to improve linkages between schools and colleges (and to track students progress across educational levels and institutions) and colleges and universities must be involved in developing high-school

standards and helping high schools align their courses and assessments to improve college readiness. There must also be incentives to encourage college readiness programmes.

Allied to the problem of underprepared students is the reality that **open access policies** may have negative unintended consequences. Scherer and Anson, (2014) (also see Fain, 2014) argue that the open access admissions policies of community colleges allow in unprepared students (and particularly the already socio-economically disadvantaged) who have minimal hope of gaining a degree and who end up accumulating debt.

The open access policies may also lead to high school students not studying effectively as they know they will get into community college anyway. They further argue that the pressure on institutions to raise completion rates may threaten academic standards.

Other risk factors include the **over complexity of programme choices** often with **little guidance** (especially for older adults), the failure of colleges to keep up with **rapid changes in Information and Communication Technology**.

The very popularity and growth of community colleges because of low cost tuition, easy access and as a perceived path to economic security has the perverse consequences of diluting the resources and instruction devoted to students which leads to **lower completion rates**. Goldrick-Rab, Harris, Mazzeo and Kienzl (2009a, pp. 3-4; 2009b, pp. 10-11).

Impact of community colleges

Evidence suggests that community colleges may have cognitive and developmental effects on their students similar to the effects that four-year colleges have on their students.

Community college attendance can give some students a chance to transfer into institutions that are more selective than the institutions they could have enrolled in directly from high school. This is particularly true for low income students who did not perform well in high school.

Community college degrees or credentials, in and of themselves, provide substantial economic advantages over a high school diploma..

Since community colleges are considerably less expensive than four-year colleges, they can provide a more affordable way for substantial numbers of students to obtain the first two years of postsecondary education, with little differential effect on their intellectual development or competitiveness in the market place.

Policies

There are a variety of policy developments and proposals in the United States of America. Some of the main foci of policies include to:

- Establish national postsecondary goals that reflect the multiple missions of community colleges
- Create a performance measurement system with greater focus on completion and quality, not enrolment
- Greater federal funding for community colleges roughly split between capital and instructional enhancement
- Financial aid should encourage full-time attendance
- Stimulation of instructional innovations and practices
- Support the improvement of (real-time) student data systems
- States must assure, a reliable, robust college transfer system
- Common course numbering system so that all institutions recognize credits from courses that cover the same material.
- Better preparation for college course work and the need for a consensus on what is “college-ready” (and the role of secondary schools in building it)
- Some 2% of the annual budget should be devoted to a coordinated plan for research and evaluation (and that all grant receivers have to participate in the research programme).

India

In India the large population engaged in the informal sector of the economy has very low levels of education and training and over 300 million non-literates (Shah, 2004, p. 31). National skills development policy states that (Ministry of Labour and Employment, 2009):

Skills and knowledge are the driving forces of economic growth and social development for any country. Countries with higher and better levels of skills adjust more effectively to the challenges and opportunities of world of work. ...

Major challenge of skill development initiatives is also to address the needs of huge population by providing skills in order to make them employable and help them secure “decent work.” Skill development for persons working in the unorganized sector is a key strategy in that direction. This will also inculcate dignity of labour and create greater awareness towards environmental, safety and health concerns.

India is a federal state with 35 constituent states and territories. Education under Indian Constitution is a concurrent power and both the union and state governments have the right and obligation to promote both formal education (from the pre-primary to higher education, including all branches and specializations) and non-formal education.

National and state five year plan spell out education strategies, approaches and priorities. In addition to formulating training policy, the federal government also develops training curricula through a series of national level consultations and workshops and takes the initiative in organising all-India programmes to orient key personnel from different states.

There are 642 universities (which can award degrees), 34 908 colleges (which cannot provide degrees in their own name but are affiliated with central or state universities) and 11 356 other higher education institutions in India (Department of Higher Education, 2013, p. 1.). Nearly three-quarters of the colleges are privately managed and most are small (average enrolment is about 700).

Vocational and technical education

There is a distinction between vocational education and technical education. Vocational education is overseen by the Ministry of Human Resources Development and refers particularly to vocational education given in school grades 11 and 12. Technical education is overseen by the All India Council for Technical Education (AICTE) although many of its powers it delegates to state governments.

There are approximately 2 400 technical/engineering institutions in India (World Bank, 2010, p. xi) including 30 National Institutes of Technology and 16 autonomous Indian Institutes of Technology (IIT). In addition many universities offer higher technical courses. There are over 1 600 Technical Institutes which offer first degrees. There are 65 centrally funded institutions of technical and science education.

There is a National Vocational Education Qualification Framework (NVEQF) (All India Council for Technical Education, No date, p. [4]) for polytechnics and engineering colleges that allows for “cross mobility of standards and their absorption in Industry with certain skill gained over a fixed period of time or their seamless integration into higher learning that

enable them to acquire formal degree and higher skill so that they perform higher level jobs in Industry.”

The rationale for the NVEQF includes coverage of all sectors, short, modular and longer programmes on full day, half-day and weekend basis, delivery in local languages through a network of centres and training sites.

The shape of the NVEQF is as follows (All India Council for Technical Education, No date, pp. [5-6]) :

Certification level	Normal qualification	Contact hours		Examples of vocational qualifications			
		Academic	Vocational	Qualification	Certifying body	Qualification	Certifying body
7	3 rd year Bachelors	700-800	200-300	Advanced Diploma	Board of Technical Education	Degree	University
6	2 nd year Bachelors	700-800	200-300				
5	1 st year Bachelors	600-700	300-400	Diploma		Grade 12	School Board
4	Higher secondary School Grade 12	600-700	300-400				
3	Higher secondary School Grade 9	500-600	400-500				
2	Secondary School Grade 10	400-500	500-600	Grade 10	School Board	Grade 10	
1	Secondary School Grade 9	300-400	600-700	Grade 9		Grade 9	

There are eleven skills sectors:

- Automobiles
- Entertainment
- Information Technology
- Communications
- Economics and Finance
- Agriculture
- Construction
- Applied Arts
- Travel and Tourism
- Printing and Publishing
- Paramedical and Healthcare

There are five categories of vocationally orientated institutions (which are not degree granting higher education institutions):

- Industrial Training Institutes (ITIs) and Centres (ITCs),
- Polytechnics
- Community Polytechnics
- Community Colleges
- Jan Shikshan Sansthan (JSS).

There are 12 748 institutions offering diplomas.

The **Industrial Training Institutes** (ITIs) (state owned) and **Industrial Training Centres** (ITCs) (private) provide technically trained craftsmen and operators to industry. They are open to people who have completed 10 years of schooling and have a Secondary School Leaving Certificate. Courses range from one to three years and successful students take All India Trade Tests to gain a National Trade Certificate in the relevant trade. After two years of practical training in the industry and further testing a National Apprenticeship Certificate can be awarded. A 2003 World Bank report found that the ITIs were producing too many graduates with skills that were becoming obsolete and too few in emerging and informal areas of the economy. Mohankumar and Sanjay (2011) note criticisms of “rigid training structure, inefficiently trained vocational instructors, lack of state of the art infrastructure and weak linkage with industry.” A number of ITI have been upgraded in recent years.

The 2012-2013 Annual Report of the Ministry of Labour and Employment recorded 2271 government ITCs and 8073 private ITCs.

Candidates aged 14 to 40 are admitted twice a year. At government ITIs in some cases stipends are paid. Information Technology literacy is a compulsory course.

Polytechnics offer professional technical and vocational courses leading to Diplomas. They train at the middle level and award diplomas. They are heavily funded by the state and were receiving 50 to 70% of capital costs and 80 to 90% of recurrent costs in the 2000s.

There are over 3 200 polytechnics and equivalent technical institutions, many of them with extension centres (see below on Community Polytechnics). In 2009 there were 1419 polytechnics and equivalent technical institutions (Department of Higher Education, 2009, p. 1). It was reported in July 2014 that the central government was planning to set up 200 new polytechnics.

Community polytechnics are specifically devoted to community rural development and technology transfer.

A 2009 policy document, *Scheme of Community Development through Polytechnics. Norms and Guidelines* (Department of Higher Education, 2009) laid out detailed guidelines for polytechnics to engage in community and rural development work. The main objectives of this scheme were to (p. 3):

- To Carry out Need Assessment Surveys to assess the technology and training needs;
- To Impart Skill Development Training to the intended target groups;
- To disseminate Appropriate Technologies for productivity enhancement;
- To provide Technical and Support Services to rural masses and slums dwellers;
- To create Awareness among the target groups about technological advancement and contemporary issues of importance.

It also stated that (p. 5):

All training programs should be well-designed through graded exercises, keeping in view the market requirements for various trades. Short term non-formal, modular courses of 3-6 months duration, depending on the local needs and commensurate with the available local resources with proper structures, yet having the desired flexibility to pave the way for self-paced open learning mode (OLM), should be offered. Depending upon local circumstances in some cases Multi-skill training may be offered to make self-employment viable in the rural economy. In some of the trades, advance skill

course for 3 to 6 months duration may be designed and offered as per the interest of trainees or as per the demands of local companies/industries/market. Preferences may be given to the training courses with technical bias.

Each of the envisaged 1 000 identified polytechnic should establish five to ten extension centres in rural villages. Local NGOs, Industrial Training Institutes and Vocational Secondary Schools should be involved in the establishment of these extension centres (Department of Higher Education, 2009, p. 11) . The whole implementation would be implemented on the basis of an Annual Operational Plan from each of these polytechnics (p. 16).

Funding norms are provided in the document (pp. 19-24) as well as rules for the set up of various monitoring and evaluation committees (pp. 25-29).

In 2011 there are 617 community polytechnics run by the Ministry of Human Resource Development and about 60 others. Many of them are in fact entities within ordinary polytechnics with small staff complements and little integration with the main polytechnic and poor costing of the initiative and documentation thereof. The open access courses they provide are usually of 3 to 9 months duration and the content is often similar to that provided through vocational education in schools but much compressed and they result in no credit or qualification (hence there is no easy articulation with conventional polytechnics). Some free trade training is given and training courses are also run in collaboration with government departments and agencies. Direct community services and youth clubs are also provided.

Community colleges, as an alternative system of education, are a relatively recent development in India aimed particularly at the disadvantaged. They are partly a response to the need to rapidly increase the number of skilled industrial workers in India. They are most prominent in South India and have been largely driven by NGOs. They are meant to provide appropriate skills development courses leading to employment (or self-employment) in collaboration and partnership with local industry. The industrial partners help (Mohankumar and Sanjay, 2011):

in designing the curriculum, providing part time instructors, serving as members of the advisory board and the governing board, taking students for internship and helping them to find job placement. ... The Community College tries to respond to the deficiencies of the Vocational system through industry-institutional linkage, competence assessment, proper certification, training on site, life skills training and job oriented programmes decided on the basis of the local needs.”

Community colleges are easy to access and open to students from 16 to 47 years of age. They have flexible curriculums with courses in the areas of life skills, work skills, internship and preparation for employment and focus particularly on disadvantaged people (Jacqueline, 2012). Most of the early community colleges were established by non-profit and community based bodies and universities. Community colleges offer (Mohankumar and Sanjay, 2011):

diploma courses in health assistance/nursing assistance; pre-primary teacher training; DTP operation/computer application; fashion designing and garment manufacture; house electrical/electrical work; air-conditioning and refrigeration; four-wheeler/automobile mechanism; catering; plumbing technology; tailoring and embroidery; Tally accounting; medical lab technology; computer hardware; sales and marketing management; travel management; bakery and confectionery; cargo management; printing technology; hotel management, rural marketing; community enterprises; Information Technology; business accountancy and chartered accountancy, house keeping, and so on.

Post-secondary qualifications include Associate degrees in Arts Science and Commerce (which allow for transfer into three-year degree programmes, particularly through the Indira Ghandi National Open University).

Lack of recognition of community college qualifications has been a major problem as well as financial viability ((Mohankumar and Sanjay, 2011).

Jan Shikshan Sansthas (and previously **Shramik Vidyapeeths**) are adult education Centres which were initially set up in the late 1960s with aid from UNESCO as non-formal adult education institutions to provide literacy and early education and locally needed life skills³³ and vocational training³⁴ run by registered non-governmental organisations with lump sum annual recurring grants (with prescribed ceilings for various budget components) from the central government. They are supported by State Resource Centres and the National Literacy Mission Authority and also make use of the facilities of other agencies. Although the centres prepare courses and materials themselves there has been a move towards having standardised curricula.. There is a strong emphasis on practice in the courses. In 2008 there were 271 centres.

Adult and continuing education and literacy

India, since independence, has tended to prioritise literacy instruction as the main form of adult education, often merged with agricultural development campaigns (as in the Farmer's Functional Literacy Programme and the Rural Functional Literacy Programme of the 1960s and 1970s respectively) and often involving more than one ministry.

A broader vision of adult education was outlined in 1978 with the National Adult Education Programme (NAEP) which defined adult education as literacy, functionality and conscientisation. Literacy campaigns became the core output. The NAEP “consciously tried to move away from being identified as a government programme, and provided for greater participation of voluntary agencies (VAs), in a host of activities ranging from running the centers, developing learning materials, providing training and taking up research and evaluation.” (National Literacy Mission, 2008, p. 7). A critical review in 1980 found that administrative and training components had worked well but that the actual mass mobilisation in the field had not. The multiplicity of participating NGOs and voluntary associations (many of them of little substance) had further complicated matters.

³³ Entrepreneurship development, Work culture and ethics, Public relation skills and customer service, Environmental education, Human values, Eye care, Population and development education , Nutrition and health, Legal awareness, Public relations, Responsible parenthood, First aid and safety measures, Health education, nutrition and personal hygiene, Small savings and self help groups, Women empowerment, Nutrition and hygiene (Mohankumar and Sanjay, 2011).

³⁴ Cutting, Tailoring, Dress making & designing, Knitting and embroidery, Beauty culture & Health care, Cottage industry courses, Handicrafts, Cookery, Bakery, Confectionery & food processing, Art, Drawing and Painting, Agriculture & allied technology, Carpentry & furniture making, Leather technology, Building technology, Printing technology, Automobile, Refrigeration & Air Conditioning, Health & para medical, Maintenance and repair of electronic items, Electrical, Mechanical, Textile technology, Secretarial practice, Teacher training, Miscellaneous and Computer courses (Mohankumar and Sanjay, 2011).

The revised Adult Education Programme (AEP) of 1984 retained many elements of the NAEP but the duration of the learner programme was lengthened. It still did not come anywhere near reaching the literacy targets.

A new National Education Policy of 1986 re-energised commitment to eradicate illiteracy and the National Literacy Mission (NLM) was launched in 1988 with a mass campaign approach known as the Total Literacy Campaign (TLC) with a stress on “participative delivery through voluntarism, cost-effective and outcome-orientated character” (National Literacy Mission, 2008, p. 10).

The National Literacy Mission Authority (NMLA) was set up in 1988 as an independent and autonomous wing of the Department of Elementary Education and Literacy in the Ministry for Human Resource Development, vested with executive and financial powers to approve literacy projects.

An Adult Education Bureau is the secretariat of the NLMA and a Directorate of Adult Education provides technical and academic resource support. It is governed by a General Council which includes members from several ministries and representatives of political parties and NGOs. These structures are replicated at state level with the State General Council being chaired by the Chief or Education Minister. These State structures are funded by the NMLA, the quantum determined in proportion to the level of illiteracy and under-education in the state. The structures are further replicated at District level. District Resource Units located in the District Institute of Education and Training provide technical and academic resource support.

Total Literacy Campaigns (TLCs) under the broad National Literacy Mission (NLM) are indicative of the decentralised mode of operation via State Literacy Mission Authorities (SLMAs), which are registered societies, in the interest of fast-moving and flexible operations. The NLM’s TLC strategy evolved from the centre-based approach since it was recognised at national level that there can be no format or strategy which would be uniformly applicable throughout the country. This decentralisation meant that even within a state, the different districts may adopt variations based on the context of the district, the achievement levels of learners in the literacy phase, learners’ needs and aspirations and their social and living conditions, and the needs for continuing education. At the district level practically every development department or programme is involved.

Over the years India has utilised a range of ICT, including interactive interactive satellite instruction, for reaching learners in the literacy campaign, schools and open universities.³⁵ Some of the initiatives have shown, however, the importance of well-trained facilitators since the media cannot be expected to mediate the learning.

These literacy campaigns were **combined** with post-literacy and continuing education to (National Literacy Mission, 2008, p. 10) :

³⁵ In 1975 India became the first country in the world to broadcast mass television from space when it launched a Satellite Instructional Television Experiment (SITE) using the American Satellite ATS-6. Satellite broadcast education programmes target both young and adult viewers.

consolidate literacy and improve the neo-literates' functional (literacy application) ability, keeping pace with changing requirements, to solve day-to-day problems and improve their well being. The Post-Literacy Campaigns (PLCs) had three specific learning objectives to address, viz., remediation, continuation and application. The Post Literacy Campaign was also expected to address the skill development of neo-literates – skills relating to life, survival, communication and occupation. And, skill development for women became the major agenda of PLCs. The community was to be fully involved in planning and implementation the Post Literacy programmes.

The State Literacy Mission Authorities have funding powers to support continuing education projects among new literates.

In 1997 the Scheme of Continuing Education was launched as a **separate** programme with a more life long learning agenda and much flexibility in operation. The main delivery point is at Continuing Education Centres (CECs) that are manned by a Animator and function as a “library, reading room, training, information, development (coordination and convergence), culture, sports, communication and discussion forum. The Continuing Education centre is seen as a permanent institution, located in a public place and open to all.” (p. 12) A major role is played by NGOs and many NGOs offer adult basic education programmes with support from these centres (though such support is in some cases restricted to narrowly defined adult basic education). The implementing agency at district level is usually a registered society, the District Literacy Society (**Zila Saksharta Samiti**), which acts as the coordinator and funder of the collective efforts of youth clubs, women's organisations, voluntary agencies, cooperative and small industries. Currently the bulk (about 66%) of federal adult education funding goes towards continuing education.

Tertiary education institutions are also used by the state to deliver adult education services. The National Institute of Open Schooling and a few state Institutes of Open Schooling have started offering equivalency programmes for neo literates and other client groups of the NLM.

The adult education university departments in about 70 universities in India all have a mandate to design and present training programmes for educators. Because of the high numbers of functionaries needing training, some of the open and distance learning institutions, especially the Indira Gandhi National Open University (IGNOU), the BR Ambedkar Open University and the National Open School (NOS), have needed to “go to scale” in offering innovative courses for grassroots level functionaries. This has required a ‘cascade’ approach.

However, adult education as a profession has not been well established and there are few adult education posts *per se* in educational systems. There is a tendency for the actual senior adult education post to be taken by personnel from the formal school education system.

Over the years India has utilised a range of ICT for reaching learners in the literacy campaign. Some of the experiments referred to below show, however, the importance of well-trained facilitators since the media cannot be expected to mediate the learning.

Monitoring, evaluation and research in adult and continuing education

Benchmarks, tests and examinations have been determined for literacy and continuing education programmes in relation to participation and drop out of learners, attainment of learning outcomes, gender and other factors, economic impacts, target achievement, etc. Monitoring Information Systems have been developed and applied to the large programmes. The NLM, in particular, gathers data from every centre on monthly basis. Many programmes have prescribed monitoring formats.

The NLM also has a highly developed professional system of evaluation for each component of its adult education programmes. Standardised evaluation guidelines have been developed through several rounds of regional workshops, meetings and consultations with adult education experts, selected representatives of concerned stakeholders and premier research and evaluation organizations and institutions.

The process the NLM uses when it receives an evaluation request to evaluate a district programme of literacy, post-literacy or continuing education is to forward the names of three empanelled agencies, having familiarity with the language of the district, to the National Adult Education Bureau. The three agencies bid for the contract and one is chosen by the State Literacy Mission Authority. Financial provision to meet the costs of evaluations is an in-built component of the approved district project.

The Directorate of Adult Education (DAE) under the Department of School Education and Literacy, as part of its regular activities, commissions research on and evaluations of adult education programmes.

The Indian Adult Education Association (IAEA), New Delhi brings out the quarterly Indian Journal of Adult Education containing research based and scholarly articles on adult education. The Departments/Centres of Adult and Continuing Education and Extensions of some of the Universities also undertake research studies as part of the degree or diploma courses. Research initiative by IAEA and universities are not funded by the National Literacy Mission though one of three documentation centres set up by the Mission is housed with the Association.

Brasil

Brazil, which has a decentralised system of education with partnerships with local government, civil society organisations and social movements, provides an interesting example of a modernising country where attempts have been made to provide elementary education as a right in night schools and through campaigns for those who did not have access to it at the usual age. This provision has been on a large scale and during the late 1980s night schools contained a majority of the country's secondary education students. However, in Brazil the low rates of completion of fundamental education (9 years) and middle education (3 years) together with dropping out of school create an ongoing demand for youth and adult Education. However such provision have been hampered by a lack of concomitant funding provision for classroom-based youth and adult education until recently with steady increases in expenditure, particularly since 2000.

The Brazilian education and training system

Brazil has two parallel education systems, General (*educação básica e superior*, i.e. basic and higher) and vocational (*sistema de educação profissional*). Brazil does not have a national qualifications framework.

A minimum percentage of tax revenues – 18% from the Federal government and 25% from the states and municipalities – is to be used towards education through a distribution process set out in law (Constitution article 212).

There is a National Education Council and each state also has a council which supervises basic and vocational level. Universities that are funded and managed by the states are accredited by these councils; however, their study programmes are evaluated at a federal level.

The Ministry of Education is in charge of higher education and it also provides funding and technical support for basic education to states and municipalities, supports federal education institutions, and supervises private education (whose institutions have to be approved by the Ministry of Education).

Among the secretariats are those for Continuing Education, Literacy and Diversity, Distance education, and Technical and Vocational Education.

The Ministry of Education has an Education Development Plan (EDP) . States or municipalities can receive voluntary grants and technical assistance from the Ministry on the basis of a Articulated Action Plan (PAR) in addition to the compulsory transfers for the Maintenance and Development of Basic Education Fund (FUNDEB), school meals, and the Direct Money in School Programme.

The National Education Guidelines and Framework Law

The right to free primary education for both children and adults is enshrined in the 1996 Law of Guidelines and Foundations of National Education (*Lei de Diretrizes e Bases da Educação* – LDB, Federal Law No. 9394/96), which regulates constitutional matters concerning education. The law states that “states and municipalities, through collaboration and with the help of the Union, should carry out a census of the school-age population eligible for primary education and of the young people and adults who have not had access to it” (Principles and Aims, Article 5, §1) and also states that education systems must provide courses and examinations that offer educational opportunities appropriate to the interests and living and working conditions of young people and adults. (Section V of Chapter II, “Basic Education”³).

Vocational education should also be offered to youth and adults either linked to fundamental and middle education or by continuing education for young and adult workers. Article 37 states that “ways for workers to have access to and to remain in school should be made possible and stimulated by integrated actions on the part of public powers”.

No fees may be charged for public provision. A number of federally funded institutions now have to reserve a percentage of their places for youth and adult learners.

General education

Basic education

Some 93% of Basic education funding comes from states and municipalities (EP-NUFFIC, 2015, p. 5).

Fundamental education with a core curriculum of nine “years” is now compulsory for children and is free for adults. It culminates in a *Certificate of Fundamental Education*. Fundamental schooling is are funded by states and municipalities.

Middle education of three “years” is free and ends with a *Certificate of completion of the second degree* or a *Certificate of completion of Middle education*. There is also an adult education *Certificate of completion of Middle Education Supplementary*. It is funded by states.

Superior education

Higher education at public universities is funded federally or by states. Admission to higher education is on the basis of completion of secondary school and entrance examinations, either those of the particular university or the National Secondary Education Examination (ENEM). A 2012 law requires that half of the intake at federal universities come from ordinary public secondary schools.

Though universities are autonomous they are required to comply with the non-dissociation of teaching, research and extension (Constitution article 207).

Technical and Vocational Education

Vocational education and training in Brazil has mainly been under the control of and funded by employers (though some of these funds are via state collected levies on payrolls). About 55% of all vocational training is done by the private sector. New decrees have increased worker representation on the various private vocational education and training bodies and there is now greater public control and involvement in them.

In the early 1990s a new phase of *Jóvenes* vocational programmes targeted particularly disadvantaged low-income youths, the poorly educated, the unemployed or underemployed, and micro-entrepreneurs. First launched in 2005, the National Inclusion Programme for Young People (*Programa Nacional de Inclusão de Jovens* - PROJOVEM) assists young people aged between 18 and 29 with low levels of education and without formal jobs who were living in state capitals and a number of urban regions, offering them the chance to finish their fundamental education integrated with vocational training and community action in an 18 month programme that includes finishing their fundamental education, computer literacy, and qualifications in three jobs within a range of similar occupations. They can also develop a community action project and formulate a plan for their further vocational training. There is a similar, though smaller project, Rural PROJOVEM, that works with rural youth.

Unlike Vocational Training Institutions, the *Jóvenes* programmes were not run by the government, though they regulated them though they did not set the curriculum contents. There was decentralization with greater participation by states, municipalities and trade unions. Training was offered through diverse private and public firms via a bidding system and was more demand driven.

Similar to the middle school dual system, a classroom-training phase was followed by an internship. There was greater interest in the certification of skills and the recognition of informal learning. There was also a shift from one-time training to continuous training for key personnel. There were also programmes to assist in the reintegration of the unemployed and special schemes for groups with particular employability problems (youth and women with low education levels). These programmes seem to have increased employability and higher earnings upon graduation. However, the original *Jóvenes* programmes have now become particularly expensive because of long programme duration (Eichhorst *et al*, 2012, pp. 21-22).

Other ministries involved include Labour (which has a 2003 National Qualification Plan for vocational education which increased the length of courses) and Justice (when runs a prisoner education programme). Universities are also actively involved in agrarian development.

There is a range of corporate and non-governmental organisation bodies that contribute to vocational training and literacy programmes and have agreements with the Ministry of Education such as Social Service for Industry (*Serviço Social da Indústria* - SESI), the Association for Social Development (*Associação de Desenvolvimento Social* - ADS, linked to the Workers' Trade Union Council), the *National Association for Agricultural Corporation* (*Associação Nacional de Cooperação Agrícola* - ANCA), Alfasol (created on the basis of the Solidarity Literacy Programme - *Programa Alfabetização Solidária*) and Alfalit (an international body linked to Protestant churches).

An important non-governmental body providing vocational training is the ‘System S’ which involves a number of sectoral bodies: the National Service for Industrial Apprenticeship (Senai - *Serviço Nacional de Aprendizagem Industrial*), the Social Service for Industry (Sesi - *Serviço Social da Indústria*), the National Service for Commercial Apprenticeship (Senac - *Serviço Nacional de Aprendizagem do Comércio*), the Social Service for Commerce (Sesc - *Serviço Social do Comércio*), the National Service for Rural Apprenticeship (Senar - *Serviço Nacional de Aprendizagem Rural*), the National Service for Apprenticeship in Transport (Senat - *Serviço Nacional de Aprendizagem do Transporte*), the Social Service for Transport (Sest - *Serviço Social de Transporte*), the Brazilian Support Service for Small and Medium Businesses (SebrYAE - *Serviço Brasileiro de Apoio às Pequenas e Médias Empresas*) and the National Service for Apprenticeship in Corporative Enterprises (Sescoop - *Serviço Nacional de Aprendizagem do Cooperativismo*). This private sector system is however guided by legislation on how its funds are applied and since 2006 workers’ representatives have been included in decision making committees of the cooperating bodies.

There are about 80 youth and adult education forums that are alliances at state or regional level of secretariats of education, universities, social movements, non-government organisations and System S and collectively hold an annual meeting on adult education. They have a representative on the National Committee for Literacy and Youth and Adult Education.

Since 1996 there have been three levels of vocational education.

The **basic** level has no entrance requirements but is usually done by those who have completed their primary education and culminates in a *Technical Certificate basic* at Fundamental level.

The second level is at the **middle** level. The entrance requirement is the final examination at the end of Fundamental education. It can last from 1 to 4 years and can either be only vocational education or a combination (or dual system) of vocational and general education³⁶. Students can gain a *Technician Middle* qualification or *Middle Education Diploma with specialisation*.

Vocational “professional” training can be done alongside ordinary Middle level education in the second and third years of Middle education. Some schools provide professional training in agriculture which lasts three or four years.

³⁶ The beginnings of this dual system was influenced in the late 1940s by the German dual system but did not take off because of a lack of master craftsmen.

Subsequently vocational training institutions were largely supply driven, state financed (via payroll levies), and independent from general education. They did however respond to industry’s needs and had representation from government, employers and workers. Curricula were developed centrally.

An important development post 1996 has been the federal government’s formalisation of the move away from separating academic and technical education programmes because the technical education programme did not actually prepare students for the workplace but were simply working as a dumping ground for those not ready for the academic programme. States were now required to create comprehensive middle schools for all students and provide options for short technical courses during or after middle school for students and adults (OECD, 2011b, p. 183).

Higher technical education takes place at undergraduate (*Technologist*) and postgraduate (*Professional Master*) levels offered at higher professional education institutions and universities. There are a large number of these programmes, over 4 500 due to the growth of the Brazilian economy and , overall, they make up 16% of undergraduate programmes..

Adult education

In 2000 the National Education Council approved the *National Curricular Directives for Adult Education*, which regulated aspects of the *Law of Guidelines and Foundations of National Education*, setting out general rules for provision which allowed high degree of flexibility in terms of the length and curricular structure of courses, approval of which is the responsibility of state and municipal education councils.

Directives distinguish between the remedial, equalising and qualifying functions of adult education. **Remedial programmes** serve those who were denied their right to fundamental education at the appropriate age (and enable them to get equivalent qualifications– there is now an adult education **middle** education level *Certificate of completion of supplementary Middle education* which allows them to take the entrance examination for higher education (Stanek, 2013, p. 4)). **Equalisation programmes** seek to generate equal opportunities for all citizens who, at the end of the period of compulsory schooling, wish to carry on learning and raise their level of education to match the demands of the labour market or for individual or social reasons. The qualifying function aims at providing everyone with opportunities for updating knowledge and developing their human potential in the all areas.

In 2001 federal law No. 10,172 instituted a National Education Plan which defined 26 priority targets for Youth and Adult Education, including the eradication of illiteracy; targets for the provision of fundamental education for youth and adults; censuses to map demand; provision of teaching material and the training of teachers; and a tripling of basic vocational courses for the unemployed every five years and an expansion of regular vocational training courses. Unfortunately, partly because of funding issues, these aims have not been reached.

Actual public provision and regulation of youth and adult education courses at fundamental and middle levels is almost completely in the hands of state and municipal education councils. The Federal government, however, plays a role policy formation, the defining of curricular requirements, evaluations, materials development and provision, and the financing of projects planned by states and municipalities. It also regulates private education provision and sets up agreements with large national civil society organisations, which may receive state subsidies (particularly for apprenticeships). In recent years municipalities have increased their share of total Brazilian education expenditure on basic education.

During the period 1995 to 2002 the main adult education initiative was the Solidarity Literacy Programme (*Programa Alfabetização Solidária* - PAS), launched by the Community Solidarity Council (*Conselho da Comunidade Solidária*), an organ of the Presidency of the Republic that coordinated emergency actions to combat poverty. In 1998, two years after its creation, a non-government organisation, Alfasol (*Alfabetização Solidária* – Solidarity in Literacy) took over the running of the PAS which, as well as collecting money from private enterprise, eventually came to be the channel through which almost all Ministry of Education

resources adult literacy work were directed.³⁷

In 2001 a new Support Programme for States and Municipalities for the Primary Education of Young People and Adults, the Restart Programme, offered financial support to municipal and state governments in poorer municipalities in the poorer states. In 2004 its remit was expanded in scope and geographical coverage (it now covers all states and municipalities though there is some differentiation in per capita financial support in favour of states and municipalities with high illiteracy rates) and re-titled as the *Programa de Apoio aos Sistemas de Ensino para Atendimento à Educação de Jovens e Adultos - Fazendo Escola* (Support Programme for Educational Systems Serving Youth and Adult Education - Making a School).

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AlfaSol was started in 1997 and by 2009 had reached 5.5 million youth and adults.

AlfaSol is noted for this partnership model and the way in which it employs, trains, monitors and supports literacy teachers in this work. AlfaSol partners fund learners individually or in groups in about 2 270 municipalities provide implementation locations, and 76 higher education institutions select and train educators, coordinate the teaching content of the literacy courses and monitor and evaluate the students' learning process. These higher education institutions are free to choose whatever theories and literacy methods they wish to use provided they remain within the broad philosophical framework provided by AlfaSol.

AlfaSol has a six-month programme cycle with two "semesters" a year. Each semester begins with the selection of literacy teachers from the communities targeted and they are trained for a month. The classes for learners take place four times a week for three hours per day and each learner receives approximately 240 hours of instruction. Learners are arranged in classes of between 25 and 30 learners. AlfaSol regards this literacy course as only the first step and on its completion at the end of the five-month period, learners receive counselling on possible learning paths and on entering formal adult education programmes in their municipalities.

AlfaSol does not reuse educators and each semester new groups of teachers are trained. This, AlfaSol argues, provides the opportunity for more people to participate and to receive training as well as for the programme to multiply and spread in the communities. Some 257 000 educators have been trained. This also encourages those who have already gone through the training process to become part of the official school system by enrolling for formal teacher training and entering the mainstream system of teaching.

The following strengths of the AlfaSol model are important:

- The model of teacher training offers extensive pre-service and in-service support and has proved to be successful and well monitored and evaluated.
- The transfer of teacher capacity from the campaign to mainstream/formal teaching situations can be regarded as a way of capitalising on the training and experience of the teachers.
- The ongoing and integrated model of continuous evaluation provides important formative input into the programme while also offering a way of assessing impact.
- The sustained teaching process of 240 hours can be seen to go some way towards ensuring sustained learning.
- The programme offers a way of encouraging learners to proceed to further learning opportunities and offers counselling to direct them to further learning opportunities.
- The dual semester model allows teachers to be trained at two stages in the year and also enables learners to enrol for the programme at six-monthly intervals.
- The use of radio as a support for in-service teachers is a model which could be usefully replicated in other contexts.

The AlfaSol model was a significant influence on the design of the Kha Ri Gude literacy campaign which started in South Africa in 2008.

In 2003, a new administration had the Ministry of Education reassume responsibility for supporting adult literacy, which launched the Literate Brazil Programme (*Programa Brasil Alfabetizado* – PBA)³⁸ and set up the Extraordinary Secretariat for Eradicating Illiteracy (*Secretaria Extraordinária de Erradicação do Analfabetismo* - SEEA). It created the National Literacy Committee (*Comissão Nacional de Alfabetização* - CNA), which in 2004 became the National Commission on Literacy and Youth and Adult Education (*Comissão Nacional de Alfabetização e Educação de Jovens e Adultos* - CNAEJA), with consultative representation from various sectors involved in the area, inaugurating a method of participative inter-sectoral management of youth and adult education.

In 2004 the Extraordinary Secretariat for Eradicating Illiteracy was incorporated into the Secretariat for Continuing Education, Literacy and Diversity (*Secretaria de Educação Continuada, Alfabetização e Diversidade* - SECAD) which, as well as managing the Literate Brazil Programme, also took responsibility for youth and adult education in general. SECAD has played a particularly important role in the funding and production of textbooks, materials, and the training of literacy teachers. It also monitors the application of funds and the linkage of literacy programmes with the supply of post-literacy programmes for those who wish to continue studying.

Recent years have seen the redirection of more funds to state and municipalities to the detriment of NGOs which were previously responsible for most literacy provision.

SECAD has also done much work in including partners in the development of a complex programme of evaluation (including looking at investment, management, efficacy and programme impact). The evaluation of learning results is now based on standardised cognitive tests developed by university experts that provide a more rigorous comparative

³⁸ The Literate Brazil Programme (PBA) (Programa Brasil Alfabetizado, 2015) was developed by the Ministry of Education in 2003 and focussed on literacy for youth, adults and seniors and the training of literacy teachers, with the ultimate goal of universal access to education. It is closely integrated with the Brazil Without Poverty initiative.

It provides financial resources, links to other federal initiatives and pays grants/benefits to volunteer literacy teachers, class coordinators and sign language translators.

Literacy teachers are preferably public school teachers, though any citizen with middle level education can be trained. Volunteers register with the state, municipality or board of education. They receive training. The stipend paid ranges from R\$ 250 a month (double for two classes) and R\$500 for a coordinator. All payments are made electronically. Public officials can not be paid for any work done.

Grants are made to states and municipalities for literacy training, food for lunches, materials and teacher support. The National Textbook Programme for Youth And Adult Education (PNLD-EJA) provides materials to partner institutions.

To train the literacy teachers the Ministry of Education funds higher education institutions, community institutions of higher education and vocational and technological education institutions (with higher education) that offer continuing education courses in Youth and Adult Education.

Funds are also available for the training of professional youth and adult educators and to train teachers, aiming to offer continuing education courses in the Youth and Adult Education through extension, improvement and specialization courses.

It works in 1928 municipalities and has reached 12 million people.

measurement than the opinions of trainers concerning their students. Evaluation data have been systematically used to redirect programme policies. It was a much more participatory and inter-sectoral initiative. It also produced textbooks and easy readers for youth and adult education.

Assessment and certification

In 2002, National Institute for Educational Studies and Research (*Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira* (INEP)), the independent agency linked to the Ministry of Education which is responsible for evaluation systems in basic and superior education), launched the National Examination for Certification of Youth and Adults (ENCCEJA). This voluntary assessment instrument is offered free to people who have not had the opportunity to finish their studies at the proper age. It measures competences and provides educational qualifications at primary and secondary levels. This was a controversial move (as previously municipal, state and district education secretariats had handled examinations and tests) and some youth and adult education committees felt that “it favoured the proliferation of low quality private preparatory courses and threatened the development of classroom-based teaching which included assessment as part of the process, as well as the educational autonomy of states and municipalities.” (Ministry of Education, 2008, p. 12).

Research, monitoring and evaluation

Surveys have been done by universities and non-governmental organisations. A good example of this is the National Indicator of Functional Literacy (Indicador Nacional de Alfabetismo Funcional - INAF), an initiative of two non-government organisations which, since 2001, have surveyed the literacy situation among Brazilians aged between 15 and 64.

The Solidarity Literacy Programme has a monitoring system to record the number of enrolments and the progress of learners. It has also carried out impact studies. The Literate Brazil Programme has introduced a register of learners, trainers and partner bodies which has been gradually improved to provide accurate information.

The Ministry of Education’s directorate for evaluation, SECAD, has developed a complex programme of evaluation involving several studies on investment, management, efficacy and programme impact. The evaluation of learning results is now based on standardised cognitive tests developed by university experts that provide a more rigorous comparative measurement than the opinions of trainers about their students. Evaluation data is systematically used to redirect the programmes.

The National Inclusion Programme for Young People (PROJOVEM) evaluates both teachers and learners as well using standardised examinations (that have shown that the results from PROJOVEM are equivalent to the attainments of learners in the ordinary school system. Teams from six federal universities assist. Some providers are, however, fearful of this process believing that unsatisfactory results might result in closing programmes and not improving them.

The *National report* notes that university extension activities can be extremely productive when they are properly integrated with teaching and research.

Adult educators

There are more than a quarter of a million teaching posts in youth and adult education. About 75% of these educators have higher education qualifications, though most of them are not found in rural areas. Literacy programmes still tend to have unqualified instructors.

There are concerns about the lack of specific adult education educator training programmes at Higher Education institutions – in 2003, only 16 of 1,306 educator training courses were specifically in adult education.

Implications for South Africa

The need for education and training

It is common cause that South Africa's economy requires more skilled people and that under education and illiteracy are a burden dragging down productivity and active citizenship. The international evidence backs the importance of educational interventions.

The need for comprehensive policies for adult and community education

We do not have what is seen in the international literature as essential, **comprehensive adult education policies**. The current Community Colleges policy is makeshift, not at all comprehensive, and essentially tags them onto a TVET college model.

Importance of adult and community education

The *White Paper on Post-School Education and Training* signals an intention to move beyond the aspirational notion of the right to lifelong learning, laid down in constitutional and other documents, towards the acceptance of a comprehensive system of lifelong learning that recognises the fundamental importance of ensuring that all citizens need to be empowered to participate fully in social and economic life of the country.

The international evidence is clear that adult and community education, including non-formal education is valued and supported, though with the caveat that its funding tends to be variable and subject to cuts during austerity periods. Although South Africa has a constitutional right to adult basic education this right has been only weakly secured with inadequate funding and provision. Though there has been some funding of civil society delivery of adult education (though nothing like on the scale of other countries) it has been sporadic and unsustainable (so much so that the NGO adult literacy and basic education sector has been virtually destroyed since 1994). In contrast to South Africa, in the United States and Brazil community colleges and universities are expected to have community learning programmes, indeed Brazilian universities are constitutionally obliged to have extension programmes and in North America community colleges have adult and community education divisions, often their most dynamic divisions. Whatever the future of community college development in South Africa, there is a strong case to relook at the need for universities and TVET colleges to have community education divisions.

Literacy programmes

There have been large scale literacy campaigns or programmes in both India and Brazil. South Africa has had the very successful Kha Ri Gude literacy campaign (though run as a state programme rather than the outsourced models in Brazil and India) but there seems to be a lack of thinking about how the excellent (though now fraying) organisational infrastructure of the Kha Ri Gude campaign could be utilized as the lowest tier of a new system.

Importance of post school education

Though post-school education is universally recognised as important, the international evidence is that it is difficult to strike the balance between concentrating on young people (in school) and post-school provision in further education and adult and community education. In many countries there is preferential weighting in favour of vocational education as against academic higher education.

Post-school provision differentiation

Clear strong differentiation or at the very least a clear understanding of the different roles within comprehensive institution seems the norm in the international literature. The current South African policy on community colleges does not sufficiently differentiate them from TVET colleges (except perhaps in its cap on the level of qualification they can rise up to).

A new institutional type – the community college

The *White Paper on Post-School Education and Training* places unprecedented emphasis on the importance of a **new institutional type** to cater for the needs of an ever growing NEETs group as well as those who were systematically denied all but the most basic education opportunities under the apartheid system.

However, institutional models surveyed in this international literature survey do not particularly support the idea of two clearly separate institutional types, one for technical and vocational education and training and one for adult and community education and training. Either post school further education and training institutions offer a comprehensive range of provision or there is a range of differentiated institutions.

Indeed, the United States of America presents a powerful model of a comprehensive institution, the community college, which blends in many ways technical and vocational education, basic education remediation and community adult education funded by a variety of sources, federal government, states, local government, and tuition fees. In India there is a quite wide range of different institutions public and private at the tertiary level and a clear distinction between technical and vocational education.

One of the possibilities that would need to be considered, particularly if the funding for a large number of local community colleges was not available would be to expand the scope of TVET colleges to include adult and community education divisions.

Governance of TVET and Community colleges

The *White Paper* takes into account the relatively recent constitutional decision to make all post school education a national competence. By contrast the international trend in **governance** is for the devolution of powers and decentralisation, including autonomous statutory corporations and outright privatisation, though it is accompanied at the same time by a growing centralization of regulation of qualifications, quality control and state funding. In South Africa there has been the opposite tendency in relation to the management of institutions, with growing central government control, alongside the same centralization of the regulation of qualifications, assessment and accountability. In many of the countries surveyed substantial parts of technical and vocational education and most of adult and community education are not run by federal or central government but decentralized with the participation of states/provinces, local government, trade unions and civil society associations through contractual relationships. Another congruent finding relating to adult education systems is that they need to have **governance and planning nodes of some substance at both national and regional levels**. This is clearly not now the case in South Africa.

The impracticality of a centralized national bureaucracy being able to effectively govern a huge range of institutions needs to be examined and lessons learned from international developments.

Governance of adult education

Germany has a high commitment to adult education and there is generally a secure basis for adult education through institutional support and legal recognition. State support is given to adult education through the sponsoring of a variety of civil society organisations (trade unions, employer's association, churches and adult education associations) which have organisational autonomy in curriculum and staffing. Much non-formal non-vocational adult education provision is done at community adult education centres and in study circles (as in the Scandinavian model). It is similar in Brazil where major literacy campaigns have been run by universities and NGOS with state funding.

Central certification and quality control

Central **certification and quality control regulation and monitoring** by central government bodies are evident in South Africa and are congruent with international trends., though usually the actual quality control bodies are semi-autonomous.

Qualifications bodies have in a number of countries endeavoured to simplify the often cumbersome processes and regulations.

In South Africa the capacity of bodies such as Umalusi to take on board adult education qualifications has been questioned.

Partnerships

The international literature argues strongly for better links to labour market and social partners. Germany provides a good example of a true working partnership model for vocational education and training and the substantial investment in both vocational and more general and often non-formal adult education. Brazil has a decentralised system of education with partnerships with local government, civil society organisations and social movements.

Though nominally South Africa has a complicated system of stakeholder representation, making it real at a practical level so that it impacts on TVET and adult education provision is another matter.

Work based learning

Work-based learning is highlighted in the international literature – it must be strong and systematically integrated into all vocational programmes. Indeed, arguments are made that public funding should be limited to training institutions willing to develop the partnerships with employers that support work placements.

More part-time and flexible modes of study

More part-time and genuinely flexible modular forms of study is regularly recommended in the literature. South Africa has seen a decline in such modes in public institutions, something that should be reversed..

Assessment

Effective, reliable, consistent and demanding assessment encouraged by incentives to avoid a drift to lower standards and increased pass rates is universally recommended. The current state in assessment in many South African TVET institutions is known to be dire and needs urgent renewal.

Manageable set of qualifications

There are several recommendations in the literature for having a neat manageable set of qualifications with clear nomenclature and known institutional basis. This also links to the need to avoid an over complexity of programme choices often with little guidance (especially for older adults).

Career guidance

The European Union literature places a great emphasis on the need for effective, independent career guidance. In South Africa the network of independent career guidance NGOs that existed in the late 1980s and early 1990s all succumbed to funding withdrawal. This support needs to be revived.

Articulation and transfer

Articulation with higher level programmes, including higher education and training is essential. The need for **simple to understand and articulate post school qualifications paths** is necessary. The international literature notes the difficulties with credit recognition for articulation that was previously mainly done on an inter-institution basis though there is increasing state regulation of this. In some countries there are a variety of transfer and articulation structures to ease the transfer process.

It is recognised that transitions into higher education become problematic if learners do not have sound basic academic skills.

In South Africa, in spite of a National Qualifications Framework that in theory allows for easy transfer it is clear that there are a variety of stumbling blocks and that there are huge vested interests (particularly in higher education) inhibiting easy access and the rational accumulation and transfer of credits. This has a particularly harmful impact on poorer students starting their higher education career with Higher Certificates and Diplomas. Similarly, it is clear that recognition of prior learning is not functioning well (indeed hardly at all).

Underprepared students

It is common cause in South Africa that any system for developing an educated and skilled workforce through TVET colleges and other forms of youth and adult education will, certainly initially, have to cope with under-preparedness of learners because of the past and current failures in the output of formal schooling. Basic literacy and numeracy skills are critical both for labour market success and to support further learning.

Much of the rationale for community colleges as a new institution in South Africa is that it would function to remediate the lack of such key skills amongst disadvantaged learners. It is also widely recognised that a huge number of enrollees in South Africa's TVET colleges are under-prepared (as are a large number of students are in universities). For some time South African youth and adult education will have to have a dual focus – on both basic education and further education.

Teaching adequate core academic skills, particularly literacy and numeracy, must be built into vocational programmes as many students leave compulsory school with weak core academic skills and that the current vocational education system is not organised in a way to identify such learners and address their problems. All students entering should have their

literacy and numeracy skills assessed and those who require it should have basic skills instruction.

This resonates with the growing concern in the international literature about the problem of underprepared students and a recognition that a solid traditional grounding in language and mathematics is essential. Recommendations have been made in Germany, the United Kingdom and the United States on ways to deal better with this problem, including screening of all new post-school students, reconsidering (in the United States) the idea of open access (and recognising that attempts to broaden access into post-secondary education exacerbates the problem), insisting that all students are truly competent in basic language and mathematical skills before they can graduate, and only using rigorous academic language and mathematical courses and abandoning language and maths “lite” courses that are easy to pass ‘soft options’.

Bitter experience in the countries surveyed has shown that the idea that community or further education colleges can easily “fix” underpreparedness is false. The real costs of developing the capacity in TVET colleges and community colleges to handle under-preparedness will be heavy (and it is instructive that the heavy investment in the formal school system (particularly in teacher salaries) has signally failed to prepare the majority of young people for post-school education and training). Finding the right courses and course materials will also be difficult and expensive, as evidence suggests that there is little evidence that the more popular programmes and strategies for improving student success actually work and are cost-effective. Where the expert remedial educators will come from is also a conundrum. In time a further concern will grow, that this is a problem that the school system should address, not college, and that taxpayers should not have to pay for the same basic education tuition twice (once in schools and then again in college).

The debate of whether such remedial correction of under-preparedness should be run through a separate organisational unit or rather embedded in the different subjects and course offerings is debated (as it was in South Africa when academic support programmes were in their heyday in the late 1980s and early 1990s). The United Kingdom’s Wolf Commission report suggests that basic education and remedial programmes need to be independent and rigorous.

Another issue is whether universities should redirect their underprepared students to community colleges (and an interesting idea was floated in the late 1990s of an “Intermediate Tertiary College” without being taken up).

Practitioners

The lack of trained practitioners is universal in youth and adult education. Some countries have tried to redress this problem, as in India where adult education university departments in about 70 universities in India have a mandate to design and present training programmes for adult educators. Better qualified teachers with both teaching skills and up-to-date industry knowledge and experience are needed in technical and vocational education. In South Africa the destruction of adult education departments in higher education must be rapidly reversed.

Data

The international literature insists on the vital importance of strengthening the collection and accuracy of technical and vocational education and training data (both on academic and vocational programmes). Some countries have sophisticated data networks for the sector which enables accurate budgeting and planning.

In South Africa the current dire failures in monitoring, evaluation and research because of the absence or inadequacy of good data flows is noted. In the case of Public Adult Learning Centres this data lack was catastrophic.

Research and development

Germany has a national network of research centres and the Federal Institute for Vocational Education and Training (BIBB). This institutional base supporting research supports a high degree of innovation and improvement in the system. Brazil also has a substantial National Institute for Educational Studies and Research (*Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira* (INEP)), the independent agency linked to the Ministry of Education which is responsible for evaluation systems in basic and superior education). Other countries have a range of such research institutes. One recommendation in the literature is that a set percentage of annual budgets in the sector should be ring-fenced for a coordinated plan for research and evaluation (and that all grant receivers have to participate in the research programme).

Dual system

The German dual (upper secondary school level) system is clearly a successful model but is probably, at this stage of South African development, an unrealistic one to consider, because of the high degree of efficient management it requires, which is clearly absent in South Africa's dysfunctional schooling system. The dual system requires a sophisticated and well organised collaboration between schools and places of work. In addition, many South African schools are not near places of work. However these very points suggest that South African schools do need a more vital connection to workplaces (and this also relates to better career guidance). Even workplace visits during the year would be valuable.

Local provision

Those countries that have community colleges find that they primarily attract and accept students from the local community, and are often supported by local tax revenue. They serve students in the local area who seek low-cost post school education.

In the South African context, where transport systems are problematic and many people still live in rural areas, ensuring local access will be a big challenge.

The *funding* of post school systems

Introduction

There are a wide variety of funding mechanisms for post school education and training, but invariably for vocational and adult education there are mixes of funding sources that share the costs between government, employers and individual students.

The Task team *Report on Community Education and Training centres* (Department of Higher Education and Training, 2012a, 2012b) found that in most of the surveyed countries public funding for vocational and adult education was distributed via central or federal government, states/provinces/regions or municipalities and, where civil society providers are funded by the state, there are often legal criteria of non-profit and effective accountability and reporting. Provinces or states may have to provide matching or supplementary funding. Several countries now have a skills levy system for vocational and technical training. Several countries have means of adjusting funding so that disadvantaged and poor regions or groups of people receive preferential support. It seems common adult education practice for no tuition fees to be charged for basic adult education and with vocational education for grants or loans for tuition to be freely available.

Considerations in the funding of TVET colleges and Adult Education and Training

Globally, the funding of education and training is underpinned by several important considerations, including:

- **The purpose and aims, or social and economic relevance**
Why should the government, industry or individuals invest in education? In South Africa, the *National Development Plan 2030* (National Planning Commission, 2012a) and the *White Paper for Post-School Education and Training* (DHET, 2013) recognise the importance of technical, vocational and adult education for enhancing equality of opportunity for all citizens by equipping them for a world in which their education makes a critical difference to their future lives, enhancing the economic advancement of the country by producing high level technical skills and promoting youth employment. The challenge of inadequate skilled labour and youth unemployment in South Africa is significant (Gewer, 2010; Sheppard and Cloete 2009; Statistics South Africa, 2016). At the same time, post-school education and training remains elusive for many young people. The large numbers of youth that exit the education system and do not enrol in some form of post-school education and training is a significant challenge for the state as it has the potential to further entrench long-term unemployment for youth (Gewer, 2010). As various analyses have pointed out, the challenge of youth unemployment in South Africa has been compounded by the lack of responsiveness and relevance in the country's education and training system ((National Planning Commission, 2012a). Accordingly, in the South African context, there is a need for funding mechanisms and levels of spending

to be underpinned by the need to address the challenge of skills development (provision of post-school access to education and training), youth unemployment and responsiveness and relevance of the education and training system.

- **Levels of spending**

While it is difficult to say exactly how much money is sufficient, levels of investment need to reflect the value attached to social and economic benefits that certain types and levels of education and training bring, as well as what the country and its people are able and willing to afford (Asian Development Bank, 2009). In this regard, the *National Norms and Standards for Funding Technical and Vocational Education and Training Colleges* (DHET, 2015, p.9) make the following important point: “The relative sizes of budgets destined for TVET colleges, and university education needs closer scrutiny. The various budget options need to be weighed up carefully, and, where necessary, budgetary shifts should be phased in. Alignment between public funding and private funding in the interests of equity and redress is important.”

- **Levels of funding**

Levels of funding must also take into consideration the costs of delivering various programmes. It is recognised that Technical and vocational education and training are more costly to deliver than general FET in schools (DHET, 2015). This is mainly because of the smaller class sizes and the higher capital costs of equipping and supplying classrooms.

- **Who should pay**

It is important to consider and decide who should pay for education and training, or who should pay more, or less, than they do already. The funding share of government, the level of tuition and other fees that students pay, and the financial contribution of enterprises employing skilled workers, may be reviewed in terms of fairness and affordability (Asian Development Bank, 2009). Considering the higher costs involved in providing TVET, funding from public sources alone may not be sufficient to ensure high quality and expand provision to meet the existing demand.

- **What funding mechanisms**

For the sake of efficiency and transparency, policy makers need to consider which among multiple channels and mechanisms are most suitable to transfer the necessary funds from the source to the destinations and how financial flows are best managed. (Asian Development Bank, 2009).

Overall, considering that state funding (and funding approaches) of education and training has an impact on the outcomes, it is important that there is alignment between funding approaches and public policy imperatives.

Funding frameworks and mechanisms for TVET

The financing of technical and vocational education (TVET) comes in various forms, namely, from public funding through, for example, the provision of grants to institutions and payment of teacher salaries, from students through the payment of tuition fees, from sectoral training funds, from private entities and donations, and from the so-called third stream income.

Various frameworks and mechanisms are utilised to provide public funding to technical and vocational institutions. The rationales for the various funding mechanisms vary across countries according to, *inter alia*, historical practices, policy objectives and national priorities (for example, equity and economic competitiveness), the development and sustainability of quality, scale of the TVET enterprise, and the breadth and scope of vocational programmes (Palmer, 2015; Klein, 2001; Marsden and Dickinson, 2013).

There are three main activities that inform the various funding mechanisms for TVET. These are (Felstead 1998, p. 12):

- Enrolments
- The duration and nature of programmes (that is, course length, attendance requirements and infrastructure needs)
- The outputs produced (usually measured in terms of qualifications achievement for school-based training and/or job attainment with regard to labour market training).

Accordingly, depending on the key consideration for funding, funding mechanisms for TVET could be described as input driven (based on enrolments and duration and nature of programmes), output driven or performance-based (based on the outputs produced) or could encompass elements of both input and performance-based funding. Many countries use a mix of funding options as a result of historical and political developments.

UNESCO (2014) advocates financing mechanisms that can increase efficiency, stimulate the demand for TVET, and promote better outcomes by shifting from input-based models to more performance-based ones. Overall, a key consideration for any funding system should be the efficiency of funding in terms of the ability to meet policy goals in a cost-effective manner.

Input-based funding

In input-based funding systems, public funds are allocated on the basis of input criteria such as personnel costs, equipment, stationary, library resources and buildings. This approach to funding can take various forms, one of them being line-item budgeting which is based on a catalogue of authorised expenses for specific purposes. Funding is restricted to the approved purposes. While line-item budgeting may be regarded as transparent, the system is inflexible and inhibits institutions' capacity to manage their own resources because the budget is tied to specific types of expenditure (for example, stationary or library resources) and not to specific areas of activity.

In-input based funding can also take the form of lump sum allocations to institutions based on approved criteria, such as full-time equivalent (FTE) units or unit costs. Where funding is based on FTEs, institutions receive an allocation according to the number of students they

enrol and have some level of flexibility in how to spend this money. The use of unit costs to determine funding levels takes into account FTE student enrolment but also incorporate aspects such as programme area and duration, teacher salaries, physical plant, professional development and equipment and supplies. Others also consider local characteristics.

Performance-based funding

Performance-based funding is linked to pre-defined ‘successful’ and ‘measurable’ outputs of the TVET system. This funding approach places emphasis on institutional performance (programme outcomes) rather than enrolment or attendance. It is premised on the need to incentivise the achievement of pre-defined outputs that are linked to policy goals, enhancement of efficiency and accountability (Bennetot Pruvot, Claeys-Kulik and Estermann, 2015, Felstead 1998).

Performance-based funding is also perceived as competitive funding. This is due to the fact that it is generally based on the principle of a closed envelope, where the amount available for distribution is prefixed and limited by public budgets. Consequently money is distributed based on relative performance with regard to certain indicators, but the overall amount of money to be distributed remains stable which makes the allocation a zero-sum-game (Bennetot Pruvot, Claeys-Kulik and Estermann, 2015).

There are various variants of performance-based funding, namely, indicator-based funding, project-based funding, or mission-based funding. Each of these models is characterised by a different steering approach, a different definition of performance and a different degree of competition (Orr *et al*, 2007).

In indicator-based funding, institutional allocations are based on performance as measured by fixed indicators in a formula. The allocations are therefore automatically generated and may rise or fall in accordance with the values of the indicators. Indicators are defined on the basis of the activities that the government wants to stimulate.

Project-based funding refers to the competitive allocation of earmarked grants. As Orr *et al*. (2007, p. 9) explain, in this funding approach, “either the funding unit develops a programme initiative or the institutional units apply to the funding unit for financial support on the basis of proposals, which are then evaluated, and following an affirmative judgement, funded.” This model can be used to encourage institutions to provide specific services or programmes.

Mission-based funding is based on a consensus between the government or the responsible ministry and individual institutions on future policy and institutional goals. Funding for the achievement of these goals is normally laid down in a contract-like agreement made up of both qualitative and quantitative criteria and valid for a given number of years. Overall, “indicator-based allocation models entail the most direct form of competition between institutions and a high transparency, whilst discretionary incremental funding entails the least” (Orr *et al* 2007, p.10).

Performance based funding is rarely utilised in its pure form, i.e. funding for outputs only. It is normally used in combination with enrolment and other input-based considerations, which results in the funding being split into two parts, an input part (for example, enrolments, duration of programmes and costs of programmes), and an output part (for example,

attainment of qualifications and employment of trainees). The key challenge is to attain an optimal balance between input and output considerations.

Formula funding

Formula funding refers to the use of an algorithm based on standard criteria to calculate the size of public grants to education institutions for teaching and/or ongoing operational activity and, in certain cases, research (Estermann and Bennetot Pruvot, E. 2011. 2011, p. 14).

Funding formulas generally include input criteria such as student enrolments, staff numbers and programme cost weighting and/or performance indicators such as credits accumulated by students. They may also provide for factors such as the socio-economic circumstances of students (disadvantage factor) or the location of TVET colleges (rural or urban). An example of a funding formula for technical and vocational education is the one used in the United Kingdom whose elements include (Cuddy and Leney, 2005):

- programme core costs, reflecting the length of the learning and the basic cost of delivery
- achievement
- programme weighting, reflecting that some learning aims of similar length or leading to an equivalent qualification are more costly to deliver than others
- disadvantage weighting, reflecting extra cost due to widening participation and the fact that some learners come from disadvantaged backgrounds
- area costs, a weighting factor reflecting the significantly higher costs of delivering provision in London and related areas

Formula funding has several advantages, namely, fairness (the same set of rules applies to all institutions) and transparency. They are also administratively easier to apply. Once established, the application of the formula is straightforward.

Overall, funding mechanisms and models are not just instruments for allocating resources for given ends; more importantly, they are used as governance tools to steer the realisation of important policy imperatives, for example, the production of skills that address the needs of the economy and that address the challenge of youth employability.

Funding sources

Globally, the funding of TVET is undertaken through various approaches, namely, cost-sharing, state funding, third stream income, funding from non-governmental organisations and training funds. Cost sharing entails the sharing of training costs mainly between government and parents or trainees (in countries such as Germany and Japan, cost sharing in TVET is mainly between government and companies), through payment of tuition fees. A negative consequence of cost-sharing is that the fees charged tend to be unaffordable for students from poor families, which in turn leads to poor access and retention for this group of students. To address the challenges related to training fees, some governments have established bursary schemes. Complementing a cost-sharing regime with a robust financial aid scheme ensures equitable participation in TVET by students from working class backgrounds as well as those from privileged backgrounds. Some studies, for example CEDEFOP (2008), suggest that private spending (tuition fees and investment in TVET by

companies) on TVET was an important factor in increasing TVET participation. The most important rationale for cost-sharing is probably the sheer need for additional funding to complement state funding, which is often inadequate.

State funding of technical and vocational education comes in various forms, for example, subsidy for development and recurrent expenditure and also financial incentives to employers who employ apprentices and trainees, as for example in Australia and England (Misko 2006, Skills Funding Agency, 2015h). In many countries, state funding is not available to private providers of technical or vocational education. However, in countries like Australia, although private providers of vocational education and training do not receive public funding, they are able to bid for government-funded training programmes (Misko, 2006).

In many countries the costs are shared mainly between government and parents or trainees, through payment of tuition fees. A negative consequence of such cost-sharing is that the fees charged tend to not be affordable for students from poor families, which in turn leads to poor access and retention for this group of students. To address the challenges related to tuition fees, some governments have established loan and bursary schemes.

In addition to state funding and tuition fees, some TVET colleges also generate third stream income, but generally on a limited scale. In Kenya, some TVET colleges have generated income through integrating training with production, whereby the colleges are able to recover some of the training costs through the sale of students' projects (Ngerechi, 2003). Industry participation in the development, delivery and funding of education and training is a major platform of education and training systems in Australia, England and Germany (Misko 2006).

Non-governmental organisations (NGOs), the private sector and international agencies are also important sources of funding for TVET colleges in some countries. In many sub-Saharan African countries, funding from these entities has contributed to the development of infrastructure and facilities, staff training, bursaries for trainees, among others. England's controversial Private Finance Initiative (PFI) is an example of the participation of the private sector in financing technical and vocational education. This initiative was used by the British government to public-private partnerships (PPPs) for funding public infrastructure projects with private capital. The private sector provided funds for capital expenditure and received rentals for 25 years after which the infrastructure is returned to the state or the institution's ownership.

Training funds also constitute an important source of income for TVET colleges.

Johanson (2009, p. i) describes a 'training fund' as a "stock or flow of financing outside normal government budgetary channels dedicated to developing productive work skills." Their main purpose is to raise the productivity, competitiveness and incomes of enterprises and individuals by providing them with needed skills. Most training funds are financed by levies on enterprises, but may also be based on public subsidies or donor financing. Training funds may be single purpose, but most have multiple objectives. These may include pooling of income from various sources, mobilising resources, building training capacities, expanding the volume of enterprise training, providing access to training by disadvantaged populations, improving the relevance and quality of training, using resources efficiently and developing competitive training markets.

Payroll training levies are the principal sources of financing for training funds. Levies can provide a steady and protected source of funding for training, particularly in the context of unstable public budgets. Sectoral, or industry-specific, training funds are an alternative to national (centralized) funding models. Sectoral levies are limited to a defined sector of the economy, such as industry or transport. A national system of sectoral funds offers the advantages of flexibility and the ability to focus more directly on sectoral training needs. They may be more palatable to employers because of a sense of greater industry-specific orientation, less bureaucracy and greater sense of ownership. However, they do not facilitate redistributing funds across sectors or financing non-sector related skill priorities. Sectoral funds may duplicate efforts and fail to develop common core skills, transferable across industries.

Training funds can be grouped into three categories of target beneficiaries:

- **Pre-employment training funds.** These are designed mainly to reduce shortages of skilled workers by increasing the supply of well-trained individuals in the labour market. Their objectives typically are to create an adequate training supply for the needs of employers and create the necessary training capacity to do so.
- **Enterprise training funds.** The rationale of enterprise training funds, or enterprise incentive schemes, is to increase the productivity and competitiveness of firms by raising the skills of workers. Their objective is to increase the incidence of training within firms. The source of financing is often enterprise levies, usually on payroll.
- **Equity training funds.** Equity-oriented training funds aim at raising the incomes of disadvantaged groups by providing opportunities to acquire productive skills. They seek to reach people not covered by enterprise training schemes, i.e. those outside employment in the formal sector who do not have the opportunity for in-service upgrading of skills. The objectives of such funds are to train specified target beneficiaries, e.g. unemployed, women, youth, those in the informal sector, etc.

Funding mechanisms of TVET Colleges in South Africa

Prior to 2010, provinces allocated budgets to TVET colleges through the provincial equitable share. In this system, the DHET allocated funds to the provinces and colleges based on the reported student enrolment and the related programme costs. Provinces then determined allocations to TVET colleges, and these allocations were adjusted annually by the consumer price index (CPIX). The main challenge with this system is that it was inequitable. The funding of TVET colleges depended on provincial allocations as opposed to standard criteria applied to all the colleges. In addition, provinces did not prioritise TVET equally in their budget allocations, which led to unequal participation rates in TVET colleges and in provinces (Finance and Fiscal Commission, 2013).

According to the *National Norms and Standards for Funding Further Education and Training Colleges* (DHET, 2009), the current public funding mechanisms of TVET colleges consist of **formula funding** of programmes, **earmarked capital funding** and **earmarked recurrent funding**. Overall, the state is to fund 80% of the costs of college programmes,

while learners are liable for the remaining 20% (some of which they can gain by applying for financial aid (bursaries) from the National Student Financial Aid Scheme (NSFAS).

Formula funding is used to fund ministerially approved programmes and is designed to promote transparency and comparability between provinces, predictability, and equity (the latter being aided through the provision of bursary funding to colleges for students who are academically capable but cannot afford to pay college fees and quality and efficiency) (DHET, 2015).

Formula funding of programmes is intended to cover the recurrent costs of delivering the TVET programmes, but also certain capital costs associated with those programmes, such as costs related to the replacement of the facilities and equipment used. The formula funding system is designed to work as follows (DHET, 2015, p.16):

- ▶ DHET sets a **funding base rate**, in rand terms, describing the cost of delivering a basic TVET college programme that is eligible for funding.
- ▶ DHET also sets a **funding weight** for each programme eligible for formula funding, where this weight indicates how much more than the funding base rate it costs to deliver a particular programme.
- ▶ Each programme is also assigned an assumed **student fee level** representing the cost that tuition fees can be expected to cover.
- ▶ For each programme within a college, individual students are multiplied by the programme duration in order to obtain the number of **full-time equivalent** students.
- ▶ An **applied total funding weight** is then calculated for each programme in each college, representing public funding to be received for each full-time equivalent student. This weight takes into account expected income from tuition fees.
- ▶ The weight is multiplied by the full-time equivalent students to obtain the **programme weight** of each programme.
- ▶ The sum of all programme weights, the **college programme weight**, is multiplied by the funding base rate in order to obtain a **college allocation**. To this allocation is added an **output bonus**, giving the final amount to be transferred to the college.

Earmarked capital funding is designed to cover items not covered by the capital infrastructure portion of the funding base rate, mainly expansion of existing infrastructure or development of new infrastructure (new campuses) and infrastructure backlogs. This funding may take a variety of forms, for example, conditional grants in terms of the Division of Revenue Act, or matching grants involving joint investment with private sector. Earmarked recurrent funding is targeted at projects of a developmental nature such as staff development and development and implementation of computerised systems. The earmarked recurrent funding stream also covers inputs that are considered part of a basic minimum package of recurrent inputs required more or less equally by all colleges (DHET, 2015).

Review of the current funding mechanism

A Performance and Expenditure Review: Technical and Vocational Education and Training (DNA Economics, 2015, p. 31) makes the following important findings regarding the public funding of TVET colleges in South Africa:

Funding for TVET colleges was based on the number of enrolments in each programme, regardless of the certification or throughput rates achieved by colleges. This finding shows that an input-based funding system is utilised to fund TVET colleges. Essentially, the funding mechanism, as applied, does not seek to steer the TVET college sector towards realising particular goals or outputs, such as ensuring quality and the realisation of higher throughput rates. This is inconsistent with the policy objective of using the funding policy to address the various challenges that still persist in the TVET college system such as increasing participation rates in the TVET college sector, enhancing quality and efficiency (Department of Higher Education and Training 2015). According to an analysis by Cloete (2016) the internal efficiency of the TVET college sector is sub-optimal as attested to by very low completion (certification rates). In 2014, the completion rates for the various programmes were as follows: NC(V) 4 = 34.5%, NATED N3 = 47.9%, NATED N6 = 42.3%. In addition to the low completion rates, a tracer study by JET (2015) showed that only about 50% of NC(V) graduates were employed, and often in temporary positions. Overall, the current funding mechanism has the potential of creating a perverse incentive whereby colleges enrol more students even if dropout rates are high, as funding is allocated regardless of how the college is performing.

According to the National Norms and Standards for Funding Further Education and Training Colleges (Department of Higher Education and Training 2015), the state is expected to cover 80% of programme costs. However, the review by DNA Economics (2015) revealed that TVET colleges did not receive the full formula determined allocation, but rather received a percentage of the allocation as based on previous provincial allocations. TVET colleges received only a proportion of this 80% from the DHET based on the total funds made available for the TVET sector (relative to requirements) and which province they are based in. Provincial funding in 2014 ranged from 52% for Limpopo colleges (i.e. 52% of 80% of the required amount) to 79% in the Eastern Cape (DNA Economics 2015).

Despite the TVET sector, including its funding and administration, having been migrated to being a national function, provinces still received inequitable amounts of funding. Even though a programme-level costing formula was used to determine the funding requirement based on Full-Time Equivalent students, the degree of under-funding relative to this requirement differs substantially by province (DNA Economics 2015, p. 31). This, according to DNA Economics (2015), reflects the use of the provincial allocations that were in place before the function shift, when different provinces prioritised TVET training to different degrees.

The table below (DNA Economics, 2015, p. 31) illustrates the wide variations in the percentage of “required” (i.e. funding formula based) funding received by each of a sample of colleges in seven of the provinces.

Percentage of required funding received by province

College	Provinces	Percentage of “required” funding received
Buffalo City	Eastern Cape	79%
East Cape Midlands		
Cape Town	Western Cape	77%
Boland		
South Cape		
Nkangala	Mpumalanga	73%
Flavius Mareka	Free State	64%
Orbit	North West	62%
Esayidi	KwaZulu-Natal	58%
Umgungundlovu		
Thekwini		
Lepalale	Limpopo	52%

Source: DNA Economics calculations and DHET data

Points (b) and (c) above suggest that many TVET colleges are currently underfunded whereby public funding generally falls short of the prescribed 80% share of the cost of programmes. The two points also indicate that the application of the funding mechanism is inconsistent with several of the elements that underpin it, inter alia, transparency and comparability between provinces and predictability.

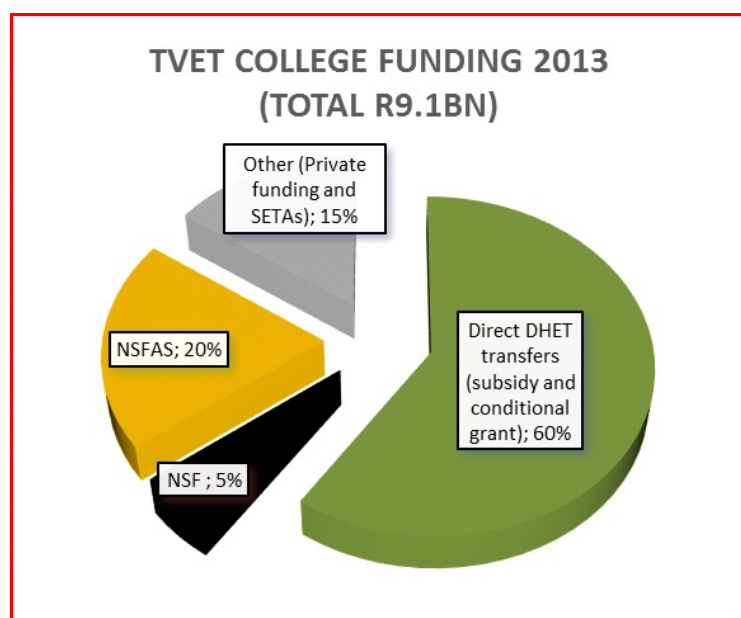
The review by DNA Economics also reveals that the formula does not appear to incorporate any college specific factors, other than the province the college is based in and its enrolments. The formula assumes that the programme level funding model is equally appropriate for all colleges, regardless of whether they are urban or rural, large or small.

From the foregoing, it is clear that the current funding model has several shortcomings. There is therefore a need to align the funding model with the policy objectives for the sector.

Sources of income for TVET colleges

As indicated in Figure below, TVET colleges in 2013 received a total of R9.1bn in funding, with the largest portion of their funding from government sources³⁹. A key change in college funding in recent times, is the substantial increase in the amount of student bursaries and loans provided by NSFAS; increasing from R0.3bn in 2009 to R1.83bn in 2013 in an attempt to increase access to the TVET sector. This has made TVET colleges even more reliant on public funding by reducing the proportion of funds received from privately-funded students for tuition, transport and accommodation.

Overall TVET funding by source



Funding frameworks and mechanisms for adult education and training

An analysis conducted by Falch and Oosterbeek (2011) provides a useful overview of funding mechanisms for adult learning across various countries. They identify subsidies, vouchers, individual learning accounts and tax instruments as the main mechanisms used to fund adult learning across various countries. The various funding mechanisms could be linked with the source of demand for adult learning, namely (Schuetze, 2007, p. 8):

- an increasing number of better educated adults who require continuous learning opportunities
- a still large population of people who lack minimal qualifications needed for qualified work and for participation in civic and cultural life

³⁹ Note that the "Other" funding category includes SETA funding – i.e., not exclusively non-government funds – as it was not possible to isolate funding from SETAs from other project funding received by colleges from private entities.

- the economy, i.e. the private sector which operate in environments where markets, technology, work organization and hence skill requirements are frequently changing.

Given the diverse nature of adult learning (for example, regarding its purpose and where it takes place), it is not possible to have a single financing system for all adult learning activities. There is therefore a need for multiple funding systems for adult learning geared at the various adult learning groups and activities, for example, adults who did not attend formal education or dropped out before attaining adequate levels of literacy (seeking basic literacy and numeracy skills) and those who need to further their skills in order to enhance their employability and efficiency at work. This means that, while some forms of adult education need to be state funded, some might require employer funding, while others might require both state and employer funding.

Subsidies

Several countries use direct subsidies to stimulate participation in adult learning by reducing the private costs of such training. In countries such as England, the subsidies are targeted at low skilled workers and consist of four elements (Falch and Oosterbeek, 2011):

- Free or subsidised training to a basic skill or NVQ (National Vocational Qualification) level 2 qualification
- Paid time off for training (funded for either 35 or 70 hours in total)
- Wage compensation (paid to the employers for a total of 35 or 70 hours time off)
- Information, advice, and guidance to employers and employees.

Vouchers

In voucher funding systems, participants receive the entitlements and funding follows their choices. Training vouchers are thus a form of direct subsidy, and can be exchanged for a certain amount or a certain value of training. The most well-known voucher system is perhaps the GI Bill voucher delivery system of the United States of America (USA). Under the GI Bill, veterans of war are entitled to attend up to 45 months of education during a 10-year period after their active duty. They are entitled to receive an allowance if they attend an accredited schooling or training programme. The allowance may be used either to meet the direct schooling costs or to cover costs of living (Falch and Oosterbeek, 2011).

Individual learning accounts

An individual learning account is an instrument that provides individual workers with an amount of money, into which the worker (employee), employer and third parties (for example, government) can pay a contribution in either time or money. It is a base amount of resources set aside for an individual to use for his or her learning (Renkena , 2006). The main objective of the individual learning account is to give the individuals more personal choice and ownership of their learning, to stimulate individual motivation to engage in learning activities that would enhance workers' knowledge, skills and abilities that increase their human capital and employability. They can also be used to implement worker-centred methods to connect company needs to individual development needs and are an instrument of shifting choice and responsibility of institutions to the potential learner (from a supply to a demand approach) (Falch and Osterbeek, 2011; Schuetzee, 2007; Renkena, 2006).

This funding mechanism has been applied in the Netherlands, England, Canada and Switzerland (Falch and Oosterbeek 2011, Schuetzee 2007).

Tax instruments

Some countries subsidise training participation through tax instruments. This can be done either by allowing firms to deduct training expenditures from the tax bill, or to allow individuals (workers) to deduct their training expenditures from their income tax. As firms' training expenditures are part of their normal operation costs, firms will normally be allowed to deduct such costs from their tax bill. Countries such as the Netherlands, Japan, Chile and Canada have used this funding system (Falch and Oosterbeek 2011).

Reviews of individual countries

In looking at information on systems for funding technical, vocational and adult education in a range of countries one must express the caveat that one has some difficulty in disaggregating and distinguishing the commonly available data on “Technical and Vocational College” institutions and “Community College” institutions and also between them and “Higher Education” (in universities).

United Kingdom

Although funding for technical, vocational and adult or community education comes from diverse sources, state funding remains a major revenue component. In recent decades the funding by the state reflects both a centralisation of funding decisions to central government allied to a more contractual relationship by government with the increasingly independent or privatised providers.

State funding of further education comes via two agencies, the **Education Funding Agency** and the **Skills Funding Agency**.

Education Funding Agency

The Education Funding Agency (EFA) is an executive agency of the Department of Education with over 730 staff based in London and six other centres (Education Funding Agency, 2015a). Currently it manage £54 billion of funding a year to support all state-provided education for 8 million children aged 3 to 16, and 1.6 million young people aged 16 to 19. Some £2.9 billion goes directly to further education institutions (Education Funding Agency, 2015b). It funds education for learners between the ages of 3 and 19, and for those with learning difficulties and disabilities between the ages of 3 and 25. Its tasks include allocating funds annually to 152 local authorities for maintained schools, and 4,000 voluntary-aided schools and it also funds and monitors academies, university technical colleges, studio schools, and free schools, and building maintenance programmes for schools and sixth-form colleges.⁴⁰

16 to 19 education funding allocations

Funding for 16 to 19 year olds is provided to further education colleges, private providers, schools and academies annually. Institutions are required to supply data returns to EFA in order that their allocation for the following year can be calculated. (Education Funding Agency, 2015c). The allocations are calculated based on the providers' data returns from the previous year (via the individualised learner records from further education institutions and the annual school census for schools and academies) using a funding formula that incorporates factors including student numbers, student retention, higher cost subjects, disadvantaged students and area costs (Education Funding Agency, 2013, 2014a, 2014b, 2014c, 2014d, 2015c). These allocations are supplemented by additional funding for high needs students, bursaries and other financial support awarded to individual students.

⁴⁰ A 'free school' is a new academy established since 2011, a 'studio school' is a small free school using project-based learning and a 'university technical college' is a (university, employer or further education college sponsored) free technical school for the 14-18 age group.

The 16 to 19 funding formula

(Student numbers × Retention factor × National funding rate per student × Programme cost weighting + Disadvantage funding) × Area cost uplift = Total programme funding

It comprises the following elements:

Eligible programmes	Programmes must be longer than 2 weeks and students must be over 15. Eligible ages include 16 to 19, 19 to 24 high needs, and 19+ continuing students in sixth form colleges			
Student numbers	A head count of valid students at the end of the qualifying period (about a quarter into the academic year)			
×				
Retention factor	The % of students retained at the end of previous academic year			
×				
National funding rate per students	The baseline rate for a Full Time Equivalent student (600 planned (i.e. timetabled) hours) in 2015 was £4 000. There are five bands for varying annual hours (and some student age restrictions) with corresponding rates.			
×				
Programme cost weighting	There is a base rate and three higher rates:	Medium (Base + 20%) (construction, performing arts and catering)	High (Base + 30%) (agriculture, engineering, animal care)	Specialist (Base + 60%) (agriculture, engineering, animal care)
+				
Disadvantage funding	Funding based on the deprivation status of the home area (based on the local postcode in the official Index of Multiple Deprivation (itself based on official education, crime, health, employment, and income statistics)) <i>multiplied by</i> base weighting value based on the general funding band of the institution (based on total planned hours)			
<i>Sub-total</i>				
×				
Area cost uplift	A percentage based on compensation for higher costs of living in certain areas. The factor varies from 1.01 to 1.2. Most areas are left at 1.0 (i.e. no change).			
<i>Total programme funding</i>				

[See *16-19 Further Education Funding Factors Allocation Toolkit (ACT) For Academic Year 2015 to 2016*.
Date of Issue: December 2014 (Education Funding Agency, 2014b) for a spreadsheet example.]

16 to 19 capital expenditure funding

The Education Funding Agency also has some capital programmes for 16 to 19 year olds:

- sixth-form colleges Building Condition Improvement Fund
- sixth-form colleges Devolved Formula Capital
- independent specialist providers Building Improvement Fund

Skills Funding Agency

The Skills Funding Agency (SFA) is an executive agency of the Department of Business, Innovation and Skills (BIS) which funds or provides loans for skills training for further education in England with a budget of £3.7 billion and reviews qualifications. It has offices in 14 cities and supports over 1 000 colleges, private training organisations, local authorities and employers, to deliver education and training (Skills Funding Agency, 2015a)..

Eligible for public funding and loans are regulated qualifications, and Credit Framework units⁴¹ and apprenticeship frameworks, as well as non-regulated provision for particular groups of learners (Skills Funding Agency, 2015b, 2015c, 2015g, 2013). For the 2015 to 2016 financial year it has prioritised more high-quality apprenticeship and traineeship opportunities, the reviewing of qualifications and the raising of standards across vocational training, with a particular focus on English and maths (Skills Funding Agency, 2015b, 2015c)⁴². There were press reports in June 2015 that the adult education budget will be cut by 24%, with an estimate from the Association of Colleges of a loss of 190 000 places and a threat of skills shortages in health and social care (See FE Week, 2015).

Contractual basis of funding

Funds are only given to organisations that have a current funding agreement with the SFA and all providers and subcontractors must also be on the Register of Learning Providers (UKRLP). Funds are given either through a grant, a contract for services and/or a loan facility conditions agreement.

Contracts cannot be transferred to other organisations. There are strict rules about subcontracting and the contracting organisation must have the capacity to manage and monitor the subcontractors and remains responsible for the learners served through the subcontract. All organisations receiving direct grant funding from the SFA must publish information on their fees and charges policy online (Skills Funding Agency, 2015d).

⁴¹ The Qualifications and Credit Framework (QCF) (due to be replaced by something simpler) values 10 hours of learning time as one credit. There are three different sizes of qualifications – awards (1 to 12 credits, certificates (13 to 36 credits) and diplomas (37 credits or more). Each qualification has a level of difficulty from 1 to 8. The QCF is referenced to the European Qualifications Framework.

⁴² Generally only straight GCSE English and Maths courses are now funded after the 2011 Wolf report's scathing evaluation as "conceptually incoherent" and "valueless" the so-called Key Skills or Functional Skills courses with embedded English and Maths instruction.

There are several categories of funding (Skills Funding Agency, 2015f, p. 4): adult skills budget, 16 to 18 apprenticeships (including traineeships), Offender Learning and Skills Service, 24+ Advanced Learning Loans from the Student Loans Company (SLC) and loans. Funding allocations are made in March of the year and paid on a monthly basis from the start of the financial year in August. Strict data compliance is required.

Adult entitlement to learning (19- to 23-years old)

Learners aged 19 to 23 are entitled to full funding for their first ‘full’ Level 2 qualification (provided it is of 15 credits or more) or first ‘full’ Level 3 or 4 qualification (provided it is of 30 credits or more) and for a number of other specified qualifications (Skills Funding Agency, 2015g pp. 18-23). A number of English and Maths qualifications are fully funded for all eligible learners (pp. 19-20).

24+ Advanced Learning Loans

The 24+ Advanced Learning Loans (Loans) are available for eligible learners aged 24 and above studying approved qualifications at Level 3 or higher and include A levels, Access to Higher Education Diploma and Level 3 and 4 Certificates and Diplomas. These loans do not cover Advanced and Higher Apprenticeships.

The funding formula

Student numbers × Funding rate per student × Disadvantage uplift × Area cost uplift = Total programme funding

There is a single set of rates for all adult skills provision outside of apprenticeships (Skills Funding Agency, 2015g p. 11):

Funding Rates Matrix					
Funding band (credits)	Programme weighting (PW)				
	A – Base (un-weighted)	B – Low	C – Medium	D – High	E or F (specialist)
Small provision (1)	£50	£56	£65	£80	£86
Small provision (2)	£100	£112	£130	£160	£172
Small provision (3 to 5)	£150	£168	£195	£240	£258
Small provision (6 to 8)	£300	£336	£390	£480	£516
Small provision (9 to 11)	£450	£504	£585	£720	£774
Small provision (12)	£600	£672	£780	£960	£1 032
Certificate (13 to 24)	£724	£811	£941	£1 159	£1 246
Certificate (25 to 36)	£1 265	£1 417	£1 645	£2 025	£2 176
Diploma (37 to 48)	£1 987	£2 225	£2 583	£3 179	£3 417
Diploma (49 to 72)	£2 573	£2 882	£3 345	£4 117	£4 425
Diploma – Access to Higher Education	£3 022	£3 384	£3 928	£4 835	£5 197
Diploma (73 to 132)	£4 170	£4 670	£5 421	£6 671	£7 172
Diploma (133 or more)	£6 602	£7 395	£8 583	£10 564	£11 356

The Disadvantage uplift factor is normally 1 (i.e. no change) otherwise between 1.08 and 1.32. For prison provision the factor is 1.12 (Skills Funding Agency, 2015g p. 15). The Disadvantage uplift does not apply to provision funded with loan.

For loans the funding formulae has certain adjustments relating to the costs of delivery not related to the length of the programme and the subject.

For learners undergoing training that is not an apprenticeship and who are not fully funded, they are expected to contribute 50% of the un-weighted base rate only (i.e. the learner does not have to pay more for the more costly to deliver provision).

For all 19+ apprenticeships, employers are expected to contribute 50% of the weighted rate.

Large employers (1 000 employees or more) have funding reduced by 25%.

Funding follows the learner, is distributed over the entire programme period, is directly linked to the completing course, gaining the qualification (20% of the funding is held back until gained) and job, and funding is only earned on delivery.

Monthly installments are paid on the basis of 80% of the funding but with a double payment in the first month.

If a learner drops out the monthly payments stop, unless the learner enters a job, in which case a 10% job outcome payment is made.

There is an annual funding cap of £4 400 per learner per year (before application of any weighting).

Learning support funding

Learning Support of up to £150 per month is available.

Loans

Loans for people aged 24 or over at levels 3 and 4 are available up to a maximum of 2 or 3 years.

16 to 18 traineeships funding

These are funded using the Education Funding Agency formula.

19 to 25 traineeships funding

The rate here includes three components:

- A single work-placement and work-preparation rate (£970 in 2015/2016)
- English and Maths (funded in terms of the Funding Rates Matrix)
- A flexible element designed to help the learner move into or re-enter work (funded in terms of the Funding Rates Matrix).

Apprenticeships

Apprenticeships are only funded for a job (of at least 30 hours a week) with an accompanying skills development programme, and are designed by employers in the sector. The funding is not allowed to be used to pay the apprentice's wages. Apprenticeship delivered only by distance learning are not funded though online and other blended learning activity can be included in the delivery of an apprenticeship, if it contributes to the apprenticeship framework and is appropriate (Skills Funding Agency, 2015h). Only recognised Apprenticeship Training Agencies may be funded. Before they start apprentices must have Level 1 or 2 English and Maths or study these during the apprenticeship.

Some learners receive full funding (as per the Funding Rates Matrix). Learners aged 16 to 18 receive a 7.23% increase, learners 19 to 23 the base rate and have to co-fund 50%, and learners aged 24 or older receive a 20% decrease and have to co-fund 50% (Skills Funding Agency, 2015c, p. 30) .

Trailblazer apprenticeships funding

This new pilot apprenticeship model essentially has the state paying £2 for every £1 contributed by the employer (Skills Funding Agency, 2015i, 2015j) .

There are a set of caps on funding as shown below (Skills Funding Agency, 2015i, p. 13):

Trailblazer pilot funding model 2014 to 2016						
Maximum core government contribution		Cap 1	Cap 2	Cap 3	Cap 4	Cap 5
		£2 000	£3 000	£6 000	£8 000	£18 000
Employer contribution of the maximum cap is claimed		£1 000	£1 500	£3 000	£4 000	£9 000
Additional incentive payments	Recruiting a 16 to 18 year old	£600	£900	£1 800	£2 400	£5 400
	For a small business (<50)	£500	£500	£900	£1 200	£2 700
	For successful completion	£500	£500	£900	£1 200	£2 700
Maximum total government contribution		£3 600	£4 900	£9 600	£12 800	£28 800

Community Learning

This is the wide variety of formal and non-formal adult education and training in new skills, preparation for study of formal courses, interest courses and parents learning how to support their children better. It can be delivered by public, private or voluntary sector providers or organised by people for themselves through face to face groups, online communities or

of Business Innovation and Skills, 2011a, p.7). Learners under 19 can only be funded if they are a parent on a family learning programme (Skills Funding Agency, 2015b, p.97).

An example of how a new small further education college is funded

Newbury College is a good example of a new “out of the box” further education college that was opened in 2003 (Newbury College, 2015). It serves the principal town of Newbury in West Berkshire (population about 156 000). Together with the adjacent town of Thatcham it has a population of about 70 000 people. It has a number of high tech cellphone and software industries and a reasonably prosperous local economy.

The capital funding for the building of the college came via a Private Finance Initiative⁴³. The private sector provides the funds for the capital expenditure, receives rentals for 25 years (covering the capital cost and a return on the investment) and then returns the infrastructure to the state or the institution’s ownership at the end of the period. The Newbury College buildings are first class and well designed for purpose.

The operational funding of the College comes from the Education Funding Agency (EFA), the Skills Funding Agency (SFA) and the West Berkshire Local Education Authority⁴⁴ (and some support for disabled and adults in care from West Berkshire Safeguarding Adults Partnership Board (SAPB)). Overall the annual income is nearly £8 million including nearly £1 million from student paid tuition fees. Nearly £6 million comes from the EFA and SFA.

The table below (Newbury College, 2014, p. 15) gives an outline of the distribution of the income and expenditure:

⁴³ The Private Finance Initiative (PFI) was used by government at the time to create “public-private partnerships” (PPPs) for funding public infrastructure projects with private capital. Though ostensibly initiated as a means of privatisation and financialisation driven by an increased need for accountability and efficiency for public spending, its effect was to render a great amount of government debt ‘off-balance-sheet’ and invisible. The PFI has been controversial in the United Kingdom. In 2003 the National Audit Office felt that it provided good value for money overall but, later, a 2011 Parliamentary Treasury Select Committee found that “PFI should be brought on balance sheet. The Treasury should remove any perverse incentives unrelated to value for money by ensuring that PFI is not used to circumvent departmental budget limits.”

⁴⁴ Local education authorities (LEAs) are local councils responsible for education (and adult education) within their district or county. They distribute and monitor the use of funding for state schools, the co-ordination of admissions, and are the direct employers of all staff in community and voluntary controlled (usually church) schools and have attendance and advisory rights in relation to the employment of teachers, and in relation to the dismissal of any staff. They are the owners of school land and premises in community schools. Previously were also responsible for the funding of students in further and higher education (for example undergraduate courses and PGCE) whose permanent address is in their area, regardless of the place of study. Based on an assessment of individual circumstances they offer grants or access to student loans through the Student Loans Company.

Overview and Reports	Achievements	Events	Facts and Figures	15	Newbury College Annual Report 2012-2013	
	2010/11 £000s	2010/11 %	2011/12 £000s	2011/12 %	2012/13 £000s	2012/13 %
Where the money comes from						
Funding council	6,777	76	6,814	81	5,988	78
Education contracts	93	1	105	1	148	2
Tuition fees and charges	1,006	11	849	10	933	12
Other grant incomes	398	4	313	4	279	4
Other operating income	598	7	232	3	290	4
Investment income	35	1	58	1	62	1
Total Income	8,907	100	8,371	100	7,700	100
Where the money is spent						
Staffing costs	Teaching staff	3,353	2,900		2,442	
	Support services staff	601	600		590	
	Administration staff	1,740	1,587		1,699	
	Restructuring costs	33	47		69	
	Subtotal	5,727	5,134		4,800	
Other operating expenses	PFI unitary charge	874	863		840	
	Teaching and education	334	321		293	
	Administration	537	541		504	
	Other support services	353	277		195	
	Premises	247	254		267	
	Planned maintenance	2	0		0	
	Miscellaneous	0	0		0	
	Subtotal	2,347	2,256		2,099	
	Interest payments	363	348		349	
	Depreciation	347	504		449	
	Total expenditure	8,784	8,242		7,697	
Calculation of surplus / (deficit)						
	Operating income	8,907	8,371		7,700	
	Operating expenditure	8,784	8,242		7,697	
	Net historic cost surplus / (deficit)	123	129		3	
	Exception item - Surplus on disposal of assets	0	3		0	
	Total Surplus	123	132		3	

Community Learning takes place at the College, at its training centre at the newly refurbished Calcot Community Learning Centre near Reading, and at various community sites, including local schools. Applications are made to Local Education Authority for grants for free provision of certain courses (at £150 per learner or £50 partial subsidy).

Achievement level are high (short course completion rates are above 83% and long courses above 91%).

Additional student support comes in the form of a free bus service from the local railway station and bus terminus, the loan of laptops and in some cases textbooks.

All assignments have to be submitted electronically using the Moodle system.

Germany

Initial vocational education and training

In Germany the basic model of primary funding for initial vocational education and training (VET) is straightforward. The states (*länder*) fund the development, maintenance, and instruction given in, part-time vocational schools. Companies pay for the full costs of initial training in industry and businesses (either directly in-house or via a training provider) (partially offset, of course, by productive work done by the trainees) (Kath, 1998, pp. 38-39, Tessaring, 1998, p. 38) .

Secondary state funding, particularly in relation to raising the quality of training, is directed at such things as inter-firm vocational training centres that particularly serve small and medium sized businesses.

The federal government and the Federal Employment Services are involved in financing schemes for specific target groups (the disadvantaged, the unemployed, etc.)

Continuing vocational education and training

Funding for continuing VET is less systematised and is mainly paid for by companies. Some federal grants and loans may be budgeted for special targets, such as unemployed persons retraining.

Formal non-formal education

Training vouchers that may be cashed in for a course of training.

Non-formal non vocational education

Although Germany supports non-formal non-vocational learning it receives a much smaller proportion of funds compared to education and training supplying the labour market. It comes from a wide range of sources, federal government, states, churches, companies and non-government organisations. Federal or *länder* money is granted to the civil society providers to do the actual education and training).

United States of America

In the United States it is increasingly recognised that there is an economic case for post school education (as seen very obviously in increased earnings for its beneficiaries and in inter-generational income mobility).

Revenue for community colleges and similar institutions comes from the following:

- Local grants and contracts
- State grants and contracts
- Federal grants and contracts
- Tuition fees (which may be partially paid by financial aid from state and federal sources as well as from subsidised or unsubsidised loans from the same)
- Endowments and other income.

Currently (2012-2013) the revenue breakdown is (according to the American Association of Community Colleges (2015, p. 4) as follows:

Tuition fees	28.9%
State government	28.5%
Local government	17.8%
Federal government	15.1%
Endowments and other income	9.9%

Generally community colleges have very limited endowments and other sources of income, unlike universities which often have large endowments and research contracts. Hence community colleges do not greatly benefit from the tax exemptions that many universities with huge endowment investments benefit from. In most states public community colleges do not pay sales tax.

In the period 2001 to 2011 community colleges saw a decline in real funding (Kahlenberg, 2015). Bohn, Reyes, and Johnson (2013) report that the enormous post December 2007 budget cuts and volatility in community college funding in California (on average total funds per FTE student fell by about 24%) led to a near doubling of student fees and cuts in staff (and salary and benefit freezes) (and thereby increased class sizes), the number of courses, and in support services. The increase in tuition costs has outpaced median family income in the majority of states (National Center for Public Policy and Higher Education Policy, 2011, p. 1). This in turn has decreased college participation rates (particularly among first-time and part-time students) and the output of skilled workers for the economy. The most underserved populations are among the least able to afford steeply rising tuition, least likely to enroll in college, and least likely to complete degree and certificate programs if they do enroll

The contradiction is that there is increased federal and state reliance on community colleges and effective credit transfer mechanisms to improve degree completion rates (National Center for Public Policy and Higher Education Policy, 2011, p. 2).

Increasingly some states are basing their funding on successful outcomes rather than enrolment. At least 25 states have adopted performance funding and reporting policies (for at least a small percentage of the funding) though there is little evidence that it has had positive outcomes. Jenkins and Rodríguez (2013, p. 200-202) have outlined some of the difficulties of instituting predictable, sustainable and sufficient performance based funding that are aligned with the mission of community colleges. Goldrick-Rab et al (2009a, p. 4) note that though funding formulae need to reward qualification completion by students they must also ensure that infrastructure and core operating capacity are enhanced too.

Non-credit and community orientated courses aimed at older adults receive proportionally larger cuts during periods of overall budgets cuts leading to “taking the community out of the community college” (Bohn, Reyes, and Johnson, 2013, p. 15).

State and local government funding

Community colleges are highly dependent on state funding as they cannot rely on the endowments and large research grants that universities have. State funding per student has remained more or less static in the last fifteen years although enrolments have increased from 3 million Full-Time Equivalent (FTE) students in 2000 to over 4 million. Proportionally they receive less than a third of the direct federal funding that public four-year colleges and universities receive (per full-time equivalent student (FTE)).

At state level adult education programmes are located either in Departments of (Basic) Education or, less frequently, in whatever agency is responsible for the community college or higher education system. A very few states (about ten) link them to their workforce development agency.

Being very dependent of state funding community colleges have to battle more and more to gain further resources from state budgets (during the period 2002 to 2005 community colleges expenditure per student fell by 6% whereas in universities they rose by 3%) Budget-induced retrenchments of staff and hiring freezes exacerbate the situation and, as Wombly and Townsend (2000, p. 295) state, “Community colleges can not easily achieve economies of scale by forcing remedial students into large lecture sections.”

A common complaint is that in many cases state mandates (for example, to increase enrolments over a set period or to generate data for reporting or for a host of administrative actions) are not funded.

Another problem is the growing public (and especially taxpayers) concern that, by running remedial and adult basic education courses at community colleges, the education system are teaching the same individuals multiple times for the same skills at taxpayers expense and that the schooling system should not be allowed to pass its ill-educated learners off to the next layer without accountability.

Tuition fees

Some college boards set their own tuition fees and in other cases state boards or the legislature does.

As funding support from state and local governments has declined for post school education (from 60% of revenue in the late 1980s to slightly below 40% in 2012), so have tuition fees risen and tuition as a revenue source has risen from 20% in the late 1980s to over 40% in 2012 (United States Treasury, 2012a, p. 4).

However in terms of what community college students (as distinct from those at universities (“four-year colleges”) actually pay, net tuition fees after grants and tax benefits (but not loans) have been deducted have actually declined in the last fifteen years (United States Treasury, 2012a, p. 19). Financial aid from the Federal government has therefore been absolutely crucial in enabling many people to study at community colleges.

Federal funding

As already indicated, in the United States of America responsibility for education and adult education is placed at state or provincial level and federal government intervention is, in theory, mainly at the level of additional top-up or special case funding and regulations. However, as state budgets have faced austerity cuts, students rely increasingly on federal grants and loans (United States Treasury, 2012b, p. 3). Federal financial aid through the Federal Student Aid office of the Department of Education (Federal Student Aid, 2015a) is the supplier of the major part (72%) of all financial aid to students.

The Federal Department of Education establishes policy for, administers, and coordinates much of the federal financial assistance for education, in accordance with various laws⁴⁵. It needs to be noted that federal funding policy makes not distinction between public and private institutions which are eligible for funding. It has two offices that relate to post school education: the Office for Vocational and Adult Education (OVAE) and the Office for The Office of Post-secondary Education (OPE).

The Federal government has increasingly funded adult education programmes that address the concerns about the one-quarter of the population aged 25-64 that have limited English proficiency and have not completed high school, or have completed high school but earn less than a living wage. Hence much Federal funding support has related to getting greater, affordable access to adult and post-secondary education.

⁴⁵ Up until 1998 there was an Adult Education Act that had served, though frequently amended, since 1964. It was superseded by a number of new laws affecting adult education, notably the Higher Education Act of 1965, the Adult Education and Family Literacy Act (AEFLA) (Title II of the Workforce Investment Act of 1998) (though it appears to have lapsed in 2003 funds are still being allocated annually), and the Carl D. Perkins Career and Technical Education Acts of 1998 and of 2006 (Perkins IV). The Workforce Investment Act (WIA) made adult education part of a one-stop career centre (OSCC) system that includes many federally funded job training programmes. Other acts which related to funding were the Health Care and Education Act (HCERA) and the American Recovery and Reinvestment Act (ARRA) of 2010.

This access focus is found in three main programmes areas:

- adult literacy/English as a second language programmes
- adult vocational training
- post-secondary education.

Adult literacy and English as a second language

The Division of Adult Education and Literacy under the Office of Vocational and Adult Education administers the Adult Education and Family Literacy Act (AEFLA) and has overall responsibility for enabling adults to acquire the basic skills necessary to function in today's society so that they can benefit from the completion of secondary school, enhanced family life by giving parents the skills to become partners in their children's education, attaining citizenship and participating in job training and retraining programmes. The main AEFLA programmes are below the post-secondary level and include::

- **Adult Basic Education (ABE)** (with a mainly older clientele)
- **Adult Secondary Education (ASE)** for (mainly young) adults whose literacy skills are at approximately high school level and who are seeking to pass the General Educational Development (GED) examinations or obtain an adult high school credential (at a full-time adult high school) or pass the National External Diploma Programme. There are two levels, standardised initial placement and progress tests.
- **English Literacy (EL)** for adults (often immigrants) who lack proficiency in English and who seek to improve their literacy and competence in English. It is sometimes integrated with civics education (EL/Civics).

The grants to each state vary according to the ratio of adults with less than a high school diploma level of education. Individual states distribute 82.5 percent of these federal funds competitively to eligible **non-profit** providers, using 12 quality criteria identified in the law. These include demonstrated improvements in literacy levels and English language acquisition, gaining of a secondary school diploma or equivalent and movement into and retention in post-secondary education and training or employment or advancement in employment.

With AEFLA there are strict performance accountability requirements via a National Reporting System (NRS) for states and local programmes that measure program effectiveness on the basis of student academic achievement and employment related outcomes (entered employment and retained employment).

Professional development of adult educators is supported by funding through the National Leadership Activities (section 243) of Adult Education and Family Literacy Act (AEFLA) (Title II of the Workforce Investment Act of 1998) . Multi-year contracts are awarded to eligible providers on a competitive basis to improve instruction and teacher quality, develop new models of service delivery to learners, to improve accountability, and to further research. There is national dissemination of research findings into usable classroom strategies. There are also regulatory procedures to determine and approve the suitability of tests for measuring educational gain as defined in the National Reporting System. Generally there has been moves towards increased accountability and the use of research-based practices.

Adult Vocational training

The Division of Adult Education and Literacy under the Office of Vocational and Adult Education administers Title II of the Workforce Investment Act of 1998 (WIA) which provides grants to states based on a ratio of adults ages 16 and older who do not have a high school diploma and are not enrolled in secondary school. The state agencies designated to receive Title II funds are also required to provide a minimum 25 percent match in state or local funds for adult education and literacy. The state agency generally distributes these federal funds by formula to local educational agencies, community-based organizations, faith-based organisations, literacy organizations, community, junior or technical colleges, institutions of higher education, correctional institutions, libraries and other public or private nonprofit institutions that offer Adult Education and Literacy education programmes that meet the requirements of the law. Among them are institutions not eligible for Perkins funding that are the main providers of non-credit courses in adult and vocational education.

However, funding for adult vocational education comes primarily from the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) administered by the Division of Career and Technical Education under the Office of Vocational and Adult Education. Institutions eligible for Perkins funding provide credit-bearing courses and programmes in adult and vocational education that are aimed at aligning adult vocational education with workforce development priorities.⁴⁶ The law aims to utilize this training to contribute to high school completion, transition into post-secondary education and training, postsecondary degree completion, and the national employment security, earnings, and lifelong career enhancement. It also specifically targets economically and academically disadvantaged recipients. The programmes prepare students for work immediately following high school along with incorporating rigorous and challenging academic content standards and the providing of a non-duplicative sequence of courses leading to an industry-recognized credential or certificate, or an associate or baccalaureate degree.

Coordinating vocational programmes with workforce development efforts is a complex matter and there have been attempts to streamline the system as multiple job training programmes created an excessive administrative burden. One aspect of this was the setting up of One-Stop Career Centres (OSCCs) to provide information to job seekers and access to a broad range of employment and training services. So far community colleges and other post-secondary institutions have not participated fully in the infrastructure of the OSCCs except in a few states.

⁴⁶

The many post-secondary programmes that receive Perkins IV funding include:

- **Associate degree** programmes that provide degree programmes or transfer-up options that require two or more years to complete
- **Institutional certificate** programmes designed for job-related skills enhancement that usually take a year or less to complete
- **Industry skill certification** programmes developed and recognized by industry to build workforce skills assessed by an examination
- **Noncredit course work** that targets specific job-related skills or personal enrichment activities for vocational or avocation purposes.

Other problems have been:

- differences between the accountability measures of the main federal funding initiatives which place an increased data collection burden on participating institutions.
- extensive re-recognition certification requirements
- inadequate structures to collect data
- the substantial, effort required to develop new management information systems or to adapt old one.

The overall trends over the last three decades have been a reduction of Federal spending on community improvement programmes run by higher education institutions, increases in literacy and basic education support (sometimes there is a division between adult education acts (applying to literacy and basic education) and higher education acts (which inter alia deal with continuing education and post-secondary level adult education)). Though since 1998 a previous restriction on states charging fees for adult education services was abolished, most programmes remain free.

Post-secondary education

The Office of Post-secondary Education (OPE) administers Title II of the Higher Education Act (HEA) of 1965, as amended, and has overall responsibility for administering programmes that increase access to post-secondary education for disadvantaged students, strengthen the capacity of colleges and universities that serve a high percentage of disadvantaged students, and provide teacher and student development resources. High school graduates (of any age or timing of school completion) can continue their education at a variety of institutions: a technical or vocational institution, a 2-year community or junior college, or a 4-year college or university. OPE also administers international education and foreign language studies programmes.

Competitive grants are available to states to improve the affordability, quality and efficiency of colleges. States that achieve superior performance across Title I and Title II (AEFLA) of the Workforce Investment Act (WIA) and the Carl D. Perkins Vocational and Technical Education Act of 1998 are eligible for incentive awards.

Federal Student Aid

There is a sophisticated Federal student financial aid system that enable any potential student to apply at no charge via the Free Application for Federal Student Aid website (Federal Student Aid, 2015b) and immediately ascertain the cost of tuition at the particular college selected and what financial aid is likely to be available. Some 38% of community college students receive federal grants and another 19% get federal loans (American Association of Community Colleges, 2015, p. 4).

Some of the financial aid is distributed via the colleges (who allocate it to the students) and some is given directly to students.

Via the colleges

- Federal Supplemental Educational Opportunity Grants (FSEOGs)
- Work-Study programme funding of part-time work-study jobs. Students from participating colleges are paid at least the federal minimum wage and the jobs can be on campus or off campus.
- Perkins loans (Carl D. Perkins Career and Technical Education Act of 2006 provides federal support for career and technical education programmes).

Directly to the students

- Pell grants were created by the Higher Education Act of 1965 for tuition, fees, and (if the student lives on campus) room and board, any money left being paid to the student for other expenses: books, living expenses if the student does not live on campus, and transportation). The applicants are means tested (by the students Expected Family Contribution (EFC)) and some 9.3 million students benefited in the 2010/2011 academic year. In 2009 the American Recovery and Reinvestment Act (ARRA) increased the maximum amounts awarded by Pell grants. About half of federal Department of Education budget goes on the Pell Grant programme to finance low-and middle income students attend college.
- Stafford loans were also created by Higher Education Act of 1965 (with subsequent amendments) and provide broad access to low-interest loans. On a subsidized Stafford loan the federal government pays the interest while the student is studying and for grace or deferment periods. On unsubsidised loans interest is payable from the start. The rules for paying back these loans by “income-based repayment (IBR)” have become more generous as a result of the 2010 Health Care and Education Act (HCERA) and a new “Pay As You Earn” programme is even more generous
- American Opportunity Tax Credit (AOTC), which lowers the annual out-of-pocket cost of tuition by refunding a portion of educational expenses in the form of a lower tax liability.

The complexity of applying for and managing financial aid and student loans may deter many students. Barrow, Brock and Rouse (2013, p. 7) state that:

the complexity of predicting one’s own aid eligibility from federal, state, and institutional sources makes it difficult for students to know what they can afford or how much in loans they might need to attend any particular institution.

They also note (2013, pp. 4-5, 11) that debt students incur may be too high relative to the income they earn after leaving college and in particular the costs to students of attending for-profit institutions is likely to outweigh the benefits.

Transparency on affordability and value

Since 2012 the Federal Department of Education has implemented a “College Scorecard” (United States Department of Education, 2015a, 2015b) on its College Affordability and Transparency Center” website (United States Department of Education, 2015a) to display information about the institution’s net cost to student, graduation rate, student loan default rate, and student loan debt (See “Sample Shopping Sheet” (United States Department of Education, 2015c).

The costs of provision in community colleges

Because community colleges are not part of a national government run system, there is considerable variation in the costs of provision. Much of the cost variation comes from the different mixes of full- versus part-time, tenured versus non-tenured, and levels of academic staff together with different teaching loads and class sizes. The cost per FTE student in 2009 was estimated at \$9 348 per annum and has risen about 17% in real terms since 1989 though very little in the most recent decade (Baum and Kurose, 2013, pp. 83, 102).

Because the majority of students are local and attend part-time (part-time being defined as attending less than twelve contact hours per week) and, as few community colleges are geared for residential students, only about 20% live in college residences. This saves college capital costs and expenditure on residences.

The Board of Governors of the California Community Colleges now require open licensing on publicly funded materials resulting from all Chancellor's Office contracts and grants. Any college can both view the materials or reports and reuse, share, and improve upon it with updated information and data. This also saves taxpayers money by not funding duplicate work that may only be accessible on the local level. The tax-paying public shouldn't be required to pay twice or more to access and use educational materials, first via the funding of the research and development of educational resources and then again when they purchase materials like textbooks they helped fund.

India

India's funding of post school education is a combination of public, private and mixed revenue. Central and state governments regulate fee structures (that take into account the funding, budgets and track records of the institutions) (World Bank, 2010, pp. 42-).

Central state universities are fully funded by the University Grants Commission. Fee revenues and research consultancy revenues are retained by the institutions.

India Institutes of Technology are fully funded by the Ministry of Human Resource Development. Fee revenues and research consultancy revenues are retained by the institutions.

State public universities and their affiliated colleges have funding for capital investments and running expenses (salaries, maintenance and contingencies) and are expected to raise revenue from consultancy and research. In some fees are fully retained in others they are taken into account in the state funding (though the entire salary costs are always funded).

Deemed-to-be- universities and state private universities are self-financing. Some may get some central or state research funds. Fees are accordingly higher and somewhat uncontrolled.

Technical education

The central government funds 82 technical institutions. In addition a number of development schemes, programmes and projects are funded or partially funded (Ministry of Human Resource Development, 2015). It provides about 27% of the budgeted expenditure on technical education, the remaining 73% coming from the states (Ministry of Human Resource Development, 2014). The proportion of the central government budgets given to technical education was only 11.5% in 2010/11, 15.08% in 2011/12 and 17.63% in 2012/13.

Adult education

Central government expenditure on adult education is less than 1% of the whole central government education budget: 0.91% in 2010/11, 0.98% in 2011/12 and 0.96% in 2012/13. This is considered to be only about a fifth of what is considered a realistic benchmark.

The breakdown of the federal government funds for adult and continuing education is as follows, the bulk of it going towards continuing education (Ministry of Human Resource Development, 2014):

	2010/11	2011/12	2012/13
Adult education and skills development scheme	78.8%	81.0%	83.2%
Support to NGOs for adult education	19.7%	16.6%	14.8%
Jan Shikshan Sansthan Delhi	0.1%	0.1%	0.1%
National Literacy Mission	0.2%	0.2%	0.3%
Directorate of Adult Education	1.3%	2.1%	1.6%
Totals	100%	100%	100%

Continuing education instructors have generally received payment but literacy campaigns have heavily relied upon volunteer adult educators, though in recent years many state governments have started experimenting with paying a small stipend to literacy instructors.

The State Literacy Mission Authorities have funding powers to support Continuing Education Projects among new literates.

Brasil

The Constitution (article 212) prescribes that a minimum percentage of tax revenues – 18% from the Federal government and 25% from the states and municipalities – is to be used towards education through a distribution process set out in law.

Some 16.8% of public expenditure went on education in 2009. Some 25% of federal and states taxes are allocated to education and training.

Despite a general rise in spending on basic education, expenditure per tertiary student decreased by 2% between 2005 and 2009 as funding could not keep up with the huge 67% increase in the number of tertiary students between 2005 and 2009.

Vocational education is funded by federal and state governments. About 55% of vocational education is done by the private sector.

No fees may be charged for public provision.

The Federal government, however, plays a role in policy formation, the defining of curricular requirements, evaluations, materials development and provision, and the financing of projects planned by states and municipalities. It also regulates private education provision and sets up agreements with large national civil society organisations, which may receive state subsidies (particularly for apprenticeships).

Education funding equalization

FUNDEF

In 1996 the Fund for Maintenance and Development of the Fundamental Education and Valorization of Teaching (*Fundo para Manutenção e Desenvolvimento do Ensino Fundamental e Valorização do Magistério* (FUNDEF)) was established for a ten year period to ensure that the funding mandated by the Constitution was distributed fairly. This required the redistribution of funds within states across municipalities, so that all municipalities could reach the per student spending requirement.⁴⁷ FUNDEF moved from a formula based on population density, which rewarded big cities, towards a system based on minimum per learner allocations. The federal government supplemented spending in states and municipalities that could not afford the national spending norms.

FUNDEF also required that fundamental education spending in schools should be 60% towards teacher salaries and 40% for school operations.

⁴⁷ Ferraz et al (2012, p.6) note that, unfortunately, the local councils that were meant to be set up to monitor the use of this funding have been ineffective, having either not met frequently enough or being captured by mayors who diverted the resources to the benefit of corrupt elites. This corruption that reduces school inputs has quite severe consequences on educational outputs.

FUNDEB

In 2006 a new Fund for the Development of Basic Education and Appreciation of the Teaching Profession (*Fundo de Manutenção e Desenvolvimento da Educação Básica e de Valorização de Profissionais de Educação* (FUNDEB)) was started for a 14 year period to regularise and equalize the funding of basic education.

It allocates 20% of resources from state and federal taxes for distribution to states and municipalities on the basis of the number of students enrolled. The federal government takes into account the social and economic development of regions and provides supplementary funds where the investment per student is below the minimum value. This vastly increases federal funds given to basic education and programmes targeting youth and adults.

Federal

Higher education is federally funded, though there are also some states funded and private universities.

Universities that are funded and managed by the states are accredited by these councils; however, their study programmes are evaluated at a federal level.

A number of federally funded institutions now have to reserve a percentage of their places for youth and adult learners.

The Ministry of Education also provides funding and technical support for basic education to states and municipalities and funds certain projects planned by states and municipalities. It sets up agreements with large national civil society organisations, which may receive state subsidies (particularly for apprenticeships).

The Ministry of Education has an Education Development Plan (EDP). States or municipalities can receive voluntary grants and technical assistance from the Ministry on the basis of a Articulated Action Plan (PAR) in addition to the compulsory transfers for the Maintenance and Development of Basic Education Fund (Fundeb), school meals, and the Direct Money in School Programme.

The percentage of the federal education budget spent on youth and adult education has risen to 3.5%. Other significant investments come from other ministries.

Initially much literacy teacher training done by NGOs was funded by the federal state. Recent years have seen the redirection of more funds to state and municipalities to the detriment of NGOs which were previously responsible for most literacy provision. Now the grants go 60% to states and 40% to municipalities.

States and municipalities

Funding for youth and adult education comes from taxes and a 2.5% training levy. Adult education funding has been rising in municipal budgets and declining in federal and state budgets, though there are moves to increase federal funding. The federal government also regulates private education provision and sets up agreements with large national civil society organisations, which may receive state subsidies (particularly for apprenticeships). In recent years municipalities have increased their share of total Brazilian education expenditure on basic education.

Public adult education is not allowed to charge fees though it is allowed in the private sector.

Estimates have been made that twice the current funding for youth and adult education is needed to meet National Plan for Education objectives.

There are new tax incentives for the funding of training.

Implications for South Africa

The mix and context of funding arrangements

In all the countries looked at in this literature review there was a mix of funding sources, state (at various levels of government), the private sector and civil society, and tuition fees. Three of the countries looked at, Germany, the United States of America and Brazil, are federal states so the funding regimes are more complicated than in the United Kingdom and South Africa which are both unions.

In all countries there are some familiar tendencies: declines in real state funding yet at the same time pressure to increase access to post school education and training, increased tuition fees, increased funded for politically driven special initiatives and targets (recently this has often been improving the quality of technical and vocational education and remedial basic language and mathematical instruction for underprepared students), and a reduction to funding for adult and community education funding in times of austerity. There is no reason not to assume that these same trends will operate in South Africa for the foreseeable future.

State funding a major source

The literature review shows that state funding remains a major source for vocational and community education. In most of the federal countries most state funding comes from individual states with federal funding more used for top-up or specialised targets. In South Africa with all vocational education and training and state adult education now a national competence this is not a policy option but the issue of to what extent local government (and particularly that in major metropolitan areas) should have an input into funding should be considered. State funding is particularly needed in this sector because its institutions, unlike the university sector does not have much by way of endowments and large research contracts (and also little capacity at this stage to generate other forms of income).

A noticeable tendency is for the state to pay (most) for initial education and training (and especially for young people) rather than continuing education.

Growing centralization of state funding decisions

In recent decades the funding by the state reflects both a centralisation of funding decisions to central government allied to a more contractual relationship by government with the increasingly independent privatised providers.

State funding via specialised funding agencies

The United Kingdom has an interesting use of two specialised funding agencies (one for academic education for children and young people) and one for post school vocational education and skills development for adults.

Sales tax

In the United States of America colleges do not pay sales tax.

Use of private providers funded by the state

In most of the countries surveyed there is substantial use of private providers who receive state funding, usually on a competitive basis, to provide education and training services. The contractual relationship include strict data and output compliance and transparency (for example in the United Kingdom they must publish fees, charges and success rates online). In the United States of America 82.5% of federal funds for the adult basic education sector are distributed competitively to eligible **non-profit** providers, using 12 quality criteria identified in the law. These include demonstrated improvements in literacy levels and English language acquisition, gaining of a secondary school diploma or equivalent and movement into and retention in post-secondary education and training or employment or advancement in employment. Similarly, the professional development of adult educators is supported by funding through multi-year contracts. In Germany virtually all adult education is provided by state funded civil society organisations, institutions and associations.

Though in South Africa there has been use of contracted private sector providers, profit and non-profit (as for example in the Kha Ri Gude literacy campaign and in SETA ABET projects) the funding has been so episodic and short term that it has often been destructive, particularly at NGOs. A rational use of such providers in a longer term scenario needs to be examined.

Private sector

In many countries it is the private sector who pay a substantial part of skills training in the workplace whether through apprentice training or for the workplace component of vocational education and training. In many cases the private sector funding is done by means of a skills levy (as in South Africa).

Tuition fees

The portion of what can be expected to be paid by **tuition fees** has tended to increase in recent times (in an example from England it was now 12% of revenue, for United States of America community colleges overall it is 30%). Recommending a benchmark figure on what percentage of revenue should come from fees is legitimate. Currently in South Africa it is about 20%.

Some central and state governments regulate the fee structures (taking into account the funding, budgets and track records of the institutions).

For public literacy and adult basic education programmes in many countries there are no fees (in Brazil there are no fees for any public education). In the United States of America though in 1998 a previous restriction on states charging fees for adult education services was abolished, most programmes remain free.

In South Africa the correlation between poverty and illiteracy and under education is so clear that charging fees should be discouraged.

Data requirements

The international literature is replete with assertions that flows of accurate, up-to-date data are essential for planning of funding and accountability. Generally data management in most of the countries surveyed is sophisticated. Also in most, no data means no funding. Points that are made are that one must have adequate structures to collect data and that substantial

effort is required to development new management information systems or to adapt old one. In addition accountability measure (which are often themselves not funded) place an increased data collection burden on participating institutions. Data system and their management will be a major challenge in South Africa, particularly for community colleges and community learning centres and will require adequate funding.

Funding formulae

The literature survey gain some detailed information on how the United Kingdom's funding formulae worked. For example the Education Funding Agency's formula was:

Student numbers X Retention factor X National funding rate per student X Programme cost weighting + Disadvantage funding) X Area cost uplift = Total programme funding

These allocations are supplemented by additional funding for high needs students, bursaries and other financial support awarded to individual students. There were also caps on funding per student.

The Skills Funding Agency had a similar but simpler formula:

Student numbers X Funding rate per student X Disadvantage uplift X Area cost uplift = Total programme funding

In the skills training eligible for public funding and loans are regulated qualifications and part qualifications (Credit Framework units) and apprenticeship frameworks, as well as non-regulated provision for particular groups of learners.

Generally funding criteria vary based on age and level and nature of qualification. English and maths qualifications are usually fully funded for all.

With apprenticeships employers are expected to contribute 50% or 33% of the weighted rate and large employers (1 000 employees or more) have funding reduced by 25%.

Funding follows the learner, is distributed over the entire programme period, is directly linked to the completing course, gaining the qualification (20% of the funding is held back until gained) and job, and funding is only earned on delivery.

The equalization mechanism (of more funding for disadvantaged students and institutions in poor area) operates in most of the countries surveyed.

Presumably similar formulae will have to be developed in South Africa.

Output based funding

There is an increasing trend towards funding on successful outcomes rather than enrolment. In the United States of America at least 25 states have adopted performance funding and reporting policies (for at least a small percentage of the funding) though there is apparently little evidence that it has had positive outcomes. The point is made that though funding formulae need to reward qualification completion by students they must also ensure that infrastructure and core operating capacity are enhanced too.

Expenditure ratios

Some countries have norms for the percentages of expenditure on teaching, administration and other costs. Norms here would also be useful in South Africa.

Financial Aid

Grants and loans to students for study are found in many systems so that they can pay for the tuition component. In addition in some places students who do not get grants are only required to pay the unweighted base rate for particular programmes (i.e. the learner does not have to pay more for the more costly to deliver provision) or only a percentage of the overall tuition fees.

The United States of America has a sophisticated federal student financial aid system that enable any potential student to apply at no charge via the Free Application for Federal Student Aid website and immediately ascertain the cost of tuition at the particular college selected and what financial aid is likely to be available. In spite of this the complexity of applying for and managing financial aid and student loans may deter many students.

There is a huge need in South Africa for an extremely simple and utterly transparent (including about the consequences of poor academic performance) form of financial aid. Serious attention also has to be given to the debt that students incur being too high relative to the income they earn after leaving college.

The proportion of the education and training budget

Generally adult and community education, whether adult basic education or non-formal provision gets very little of national education budgets.

Technical and Vocational education gets more but often little compared to Academic education in universities.

In India 1% goes to adult education and 18% to technical education. Brazil has a constitutional imperative to devote 18% of the federal budget and 25% of the state and municipal ones to education and legislation on the proportions spent on the various tiers of education. The percentage of the federal education budget spent on youth and adult education has risen to 3.5%.

In South Africa, setting benchmarks, for technical and vocational education and community education would be desirable, even if initially mainly for aspirational purposes

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Introduction

It must be said right up front that Brazil is a very large country and very complex in its arrangements. As a Federal state, Brazil allows for the autonomous decision making of the individual states in its territory and therefore the findings outlined in this report may not necessarily represent a complete true picture of all the 27 Brazilian states. However, I was assured by many interviewees of the unanimity than differences and that the state systems have more common features than unique ones. This was further confirmed by the extent of the similarities between the private and public features of the system.

The S-system

The “S System” is a hybrid model of social responsibility that emerged in Brazil in 1942, within the context of the formation of the Estado Novo (1937–1945). It consists of nine institutions organised all over Brazil, which provide professional training, social and health services, and leisure and cultural activities mainly to workers and their dependents from the industrial, commercial, agricultural, and transport sectors, but also to a segment of the general public. It also provides consultancy and technical support to corporations.

The composition of the S-System

There are 9 organizations that compose the S-System:

1. Serviço Social do Comércio (SESC) *Commerce Social Services*,
2. Serviço Nacional de Aprendizagem do Comércio (SENAC) *National System for Commercial Training*,
3. Serviço Social da Indústria (SESI) *Industry Social Services*,
4. Serviço Nacional de Aprendizagem Industrial (SENAI) *National System for Industrial Training*,
5. Serviço Social do Transporte (SEST) *Transport Social Services*,
6. Serviço Nacional de Apoio ao Transporte (SENAT) *National Transport Support Service*,
7. Serviço de Aprendizagem Rural (SENAR) *Rural Training Service*,
8. Serviço Brasileiro de Apoio às Pequenas e Médias Empresas (SEBRAE) *Brazilian Small and Medium Size Businesses Support Service*,
9. Serviço Nacional de Aprendizagem do Cooperativismo (SESCOOP) *National Cooperativism Training Service*

These organisations are not typical public organizations, but they operate as such, since they survive on compulsory taxation collected from companies' payrolls by the INSS (Instituto Nacional de Segurança Social – *National Social Security Institute*) that automatically passes on the money to the different institutions. This contribution consists of 2.5 per cent of the total salaries paid by companies to their workers. Training organizations such as SENAI,

SENAT, SENAC and SENAR receive 1.5 per cent of this contribution and social institutions such as SESC and SESI receive 1 per cent. The management boards of these organizations control the finances of the System which are supposed to be monitored by the Tribunal de Contas da União (*National Audit Office*).

(http://www.terra.com.br/istoedinheiro/especiais/sistema_s/maquina_progresso.htm)

The S System has an annual budget of R\$ 13 billion. Of the R\$13 billion spent in 2006, 2.9 billion were used by SESI, 1.9 billion by SENAI, 2 billion by SESC and 1.5 billion by SENAC. S System services are available throughout the 27 states of the Federation and together they make up 4 774 service provision units, distributed around 3 000 municipalities, where 2 301 professional training courses are offered annually. Of these, 15.4 million enrolments are related solely to education – one of the cornerstones activities of these organizations. During its lifespan, they claim to have trained 50 million workers. Its social assistance sector makes 86.2 million medical and deontological referrals annually. 158 million referrals relate to social assistance. Social actions are carried out by 29 000 volunteers and the system works in partnership with 2 500 businesses. 9.2 million people participate in sport, leisure and cultural activities, while 74 million people visit its 220 libraries and 244 cultural centres, theatres and cinemas annually; 14 000 beds are made available in hotels and holiday camps for workers. Besides these services, the S System provides 463 000 consultancies and technical assessments to industry, 60 000 courses, seminars, and talks about entrepreneurship, as well as setting up 1 700 fairs for the promotion of businesses. Between 1970 and 2000, while the growth of the population in Brazil was 82.1 per cent, the S system seems to have expanded its activities at much higher percentages. As far as SESC is concerned, for instance membership grew 918.1 per cent, those of their dependants at 1 798.1 per cent, the total number of membership-holders (members and dependants) grew at 1 273.4 per cent and the number of service provisions grew at 3 943.7 per cent (Rego, 2002).

These data give a good idea of the scope, size, and impact of the S system organizations. One of the central concerns of the organizations that compose the Ssystem is to provide professional training to the population. This is intended as a means to produce a more qualified workforce that will help businesses in Brazil to compete on equal footing with their external counterparts in an ever more competitive global economy. In what is to follow will be a discussion of the industrial leg of the S system (SENAI) as well as its Social and welfare system (SESI) and the Social Welfare of the Commercial and Services systems (SESC). The three systems were visited during this trip and therefore the description is both from the read documents as well as the interviews conducted during the visits.

The Creation of SENAI

It was during 1937 that the re-organisation process of the Brazilian system of industrial professional training began to gain momentum, but in a contradictory fashion. An example of this is Article 129 of the 1937 Constitution that, at the same time that it stipulated that industries were forced to create “training schools” for the sons of their employees, it paradoxically asserted that professional education was “essentially the duty of the State”. However, the Law-Decree 1.238, 2 May 1939, formally established the outlines of the professional training that was to serve Brazilian Industry. This decree was formulated by

Ministry of Education and Ministry of Work Technicians, without the participation of either workers or businessmen.

The process of reorganizing industrial training continued for the next five years before the SENAI system would be established in 1942. The discussions that ensued concentrated on the following issues:

- Who should supervise and manage professional education?
- Should courses be restricted to factories with more than 500 workers?
- What part of the workforce would demand extensive and formal training?
- Who should fund these courses?

Most industrialists were not prepared to contribute voluntarily to an ambitious project that had little chance of bringing immediate returns. However, in the format in which it was established, SENAI no longer relied on the generosity of the average industrial chief. As it was created through a federal decree, contributions were compulsory, as were the actual number of apprentices contracted by each industry, which automatically guaranteed a certain amount of time left for their studies. In this way, it could be said that SENAI was organised by combining the State's capacity to coerce, with the tendency of the private sector to value its autonomy.

The 1930s, when the industrialization process in the country began, represent the starting point of professional training in the country. The constitution of 1937 defined the establishment of vocational schools as a duty of the State, to be set up with the contribution of the emerging companies. But the purpose of this education was merely instrumental, that is, its exclusive aim was to train the workforce to better serve the demands of the market. There was a dichotomy between what is considered to be the education of the elites and the professional training of the workforce. In this way, the idea of transforming Brazil into an industrial power, through the establishment of a growing number of industries in the country, led the military government (1964–1985) to regard professional training as indispensable for technological innovation. It was necessary to develop a duly qualified workforce, suited to the demands of global capitalism, so that the development aims, as defined by the government, would be met. Furthermore, growing demand for quality education and professional training led the regime to opt for the latter as a strategy to keep these demands in check. Professional training was added to the secondary education curriculum as a means to attain this objective.

But the limitations of this strategy were soon apparent. In practice, this experience meant that secondary education consisted of many disparate subjects. On the other hand, there was pressure from different agents to end this type of curricular system: students preferred a more wide-ranging education, more adequate in preparing them for university entrance examinations; private school owners saw this method as a way of charging more; businessmen were unwilling to indiscriminately offer work-placements; and finally, teachers at technical schools saw it as a way to degrade and devalue the serious and committed work they had been doing in specialised schools. Now professional training is no longer a compulsory part of secondary education in Brazil.

A demand for higher educational qualifications

Currently, low educational levels are a barrier to people's entry into the employment market. There are a growing number of companies in Brazil that demand a higher educational level from the workers they contract. The current phase of world economic development also points towards the need to have an increasingly able workforce. From November 2006 the Ministry of Education revoked law which imposed restrictions on the expansion of professional training, therefore allowing the Union to increase the number of federal technical colleges and decentralised units. Thus, the state initiated a new period focusing on professional education, and in this way, the supply of professional training in Brazil has increased.

Between 2008 and 2010, the Government planned to invest R\$ 700 million per year to build technical colleges, and R\$ 500 million per year to run them. The target to be reached, according to official planning, was 50 schools in 2008, and a further 50 in 2009, and the remainder in 2010. This plan is the second phase of an on-going process that has already established 64 (technical) schools. The idea is that the two phases together would add 274 000 extra places to the existing 160 000. This initiative is part of the Plano de Desenvolvimento da Educação (PDE) [*Education Development Plan*], as proposed by the Federal Government. The Confederação Nacional da Indústria (CNI) [*National Industry Confederation*], the entity which co-ordinates the activities of Sesi and Senai, aims to contribute to the process of the expansion of professional training in Brazil with its programme

“Educação para a Nova Indústria” (*Education for a New Industry*). This project aimed to invest R\$10.45bn and to offer technical training to 16.2 million Brazilians by 2010 (<http://www.senai.br/br/destaque/destaque.aspx?id=990>). As well as offering the skills that are needed by the employment market, the plan is that these schools will also offer students general knowledge and develop other skills

The creation of Sesi

In 1946 a law was promulgated, which created the Industry Social Services (Sesi). This decree also established a National Council to supervise its activities under the representatives of the state industry federations and the Ministry for Work. To finance Sesi, the Law obliged the industrial companies to contribute 2 per cent of their pay roll each month (double the amount of compulsory contribution collected by Senai). Like Senai, Sesi was established as an officially recognised body, with the legal prerogatives of a private company. The same decree which made contributions compulsory left Sesi's activities fully under the control of the industrialists, allowing it plenty of margin for extensive regional autonomy. Regional Boards have a similar composition: in São Paulo, for example, the Board includes the president of FIESP and a representative of the State Work Department.

Seeing that the major concern in the urban areas was the problem of poverty, a good part of Sesi's funding and activities were geared towards programmes of material assistance, especially the supply points. However, for the leaders of industry, the most serious problem was related to the re-emergence of working class militancy and the revitalisation of the

Brazilian Communist Party (PCB), whose candidate received 10 per cent of the votes in the post-war presidential elections. Thus, SESI tried to foster co-operation between classes and “social peace” as a way to combat communism (Weinstein, 1999).

Confronted with the extraordinary challenges of the post-war period, industrial leaders invested considerable financial and ideological resources in both organisations so as to deal with “labour problems” in its wider sense. In this way, SESI and SENAI served as moral and technical shields for industrialists, allowing them to face a new era of union mobilisation, democratisation and the populist politics that characterised the 1945–1964 period.

The creation of SESC

SESC is the counterpart of SESI, as it is the organization that looks after the wellbeing of Commercial and Services workers who get their professional training from the SENAC. In the middle of the 19th century, Brazil was a very rural and poor country. SESC was started as a civil engagement for people to live together as society did not have a way to live and act together. SESC started as a welfare programme. Between 1946 and 1968 there were many changes in Brazil – the country was becoming more urban and also becoming part of the world. It was in 1968 that the country crossed the line from a welfare state to a state where leisure was recognized as a way of living. Theorist Dumimazedier talked about how to deal with leisure, its importance and how it inspires people – how to use time constructively. After World War II free time was an important concept in the world. SESC started by focusing on building sports and Culture as essence of leisure (1968- 84). The current director, Mr. Danilo, has been in the position for the last 31 years and is the director for SENAC and SESC. SESC is the non-formal arm of SENAC.

The Public system

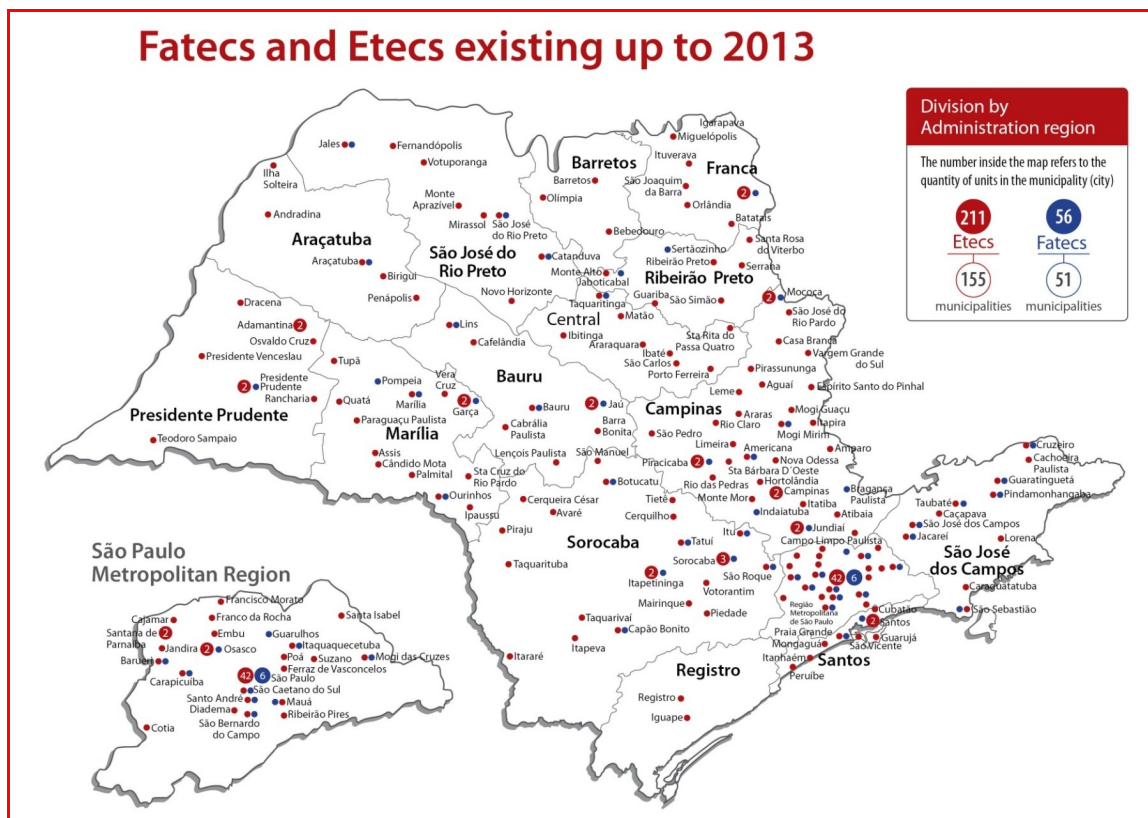
The public skills development system mirrors the private S system in almost every respect, with the exception that it is understood and expected that its programmes has a slant towards serving a social purpose, but not including the industries. The public system also has a greater responsibility to service the disadvantage students more than the private system.

A State system

The public TVET system in the state of São Paulo is called the Centro Paula Souza. It is affiliated with the Department of Economic Development Science and Technology, and plays a key role in economic development and social inclusion in the State of São Paulo by monitoring the labour market demands of the various regions of the state and qualifying the professionals to meet them. Aiming at encouraging professional qualifications and contributing to expanded employment rates in the State, this institution promotes ongoing dialogue with corporate representatives, governmental agencies, and labour organisations. The institution prides itself of being the largest Latin America's public professional education network and is actively implementing various approaches to promote social inclusion of the most disadvantaged youth in skills development and employment. These disadvantaged youth are mainly described as students coming from the public schooling system as well as youth of African descendant origins.

Most students attend in one of the two main programmes: (1) The Technical schools (Etecs) and (2) the public higher education institutions Technology colleges (Fatecs). The Etecs offer education where students have an option to choose some technical courses to combine with their general education towards the completion of the upper secondary diploma; or do an apprenticeship which is often pitched at the secondary level. The Fatecs graduates are known as technologists and enter the programme after completion of a high school diploma. Most of the instructors come from industry and hold high qualifications, mainly Ph.Ds. The coverage in the State of São Paulo is illustrated in the following diagramme.

Figure 1



A Federal system

A federal or national VET system in the Brazilian skills development, which was created by the Federal government to service the disadvantaged communities is called PRONATEC. It is not very clear how this system actually functions, but the little information gathered suggests that it is run by the Federal government, which in turns contracts the S system for part of the programmes, presumably the practical / workplace aspects. A figure of 6% was also mentioned as the percentage of its allocation from the Levy system. Nobody had anything good to say about this system. The perception given was that it is the poorest aspect of the system. The government gives diplomas and certificates but the graduates do not seem to be well connected with industries. It is reported that they contribute the highest percentage of the unemployed VET graduates. This system was introduced in 2010 for a period of 5 years and this period will come to an end at the end of 2016.

A Community College model

The following is a brief description of one Community College that has been established in the State of Bahia, and is called the Federal University of Southern Bahia (UFSB). This university is being established in the model of the United States of America's Community College model. Its aim is to expand access to education through the use of various public resources. The institution therefore uses many infrastructural units belonging to the public,

like schools, libraries, community centres, training centres, etc. It offers its students courses at different levels in general education and career focused programmes. The general education starts at secondary school completion and proceed to higher certificates, diplomas and degrees. Curriculum is therefore cascaded from certificates to associate degrees to degrees, varies from liberal arts programmes to career preparation. It mimics both the United States of America and Canadian Community College models as it differs from the Brazilian university offering where liberal arts are not known but only career focused degrees only are on offer. Curriculum architecture organised in cycles with progressive modularity towards Higher Education qualifications and mediated by technology. Programmes, admission procedures, and establishment of new institutions and campuses have a heavy input from local communities, and one cannot get more to be a community institution than in this model. USFB, whilst operating in the hinterland of Bahia state, it also sees itself as having a responsibility to improve the basic public schooling system in the State. To this end therefore, the college has a bias towards Education programmes and in particular the improvement of school teaching.

How does the Brazilian system work?

The S system, which is private, operates in a very similar fashion to the public system in Brazil. Therefore, gross generalisations will be made in describing how the system is understood to be operating.

The students

Brazil is said to have approximately 10% illiteracy rate and the majority of citizens have acquired 8 years of education. It is this group of learners who are likely to participate in the skills development system. Therefore, the minimum age for entering the training programmes is 14 years. Many young people do enter the training schemes whilst at the same time completing their high school requirements. The arrangements for doing this varies from training centre to training centre. In some schools (as these centres are called in Brazil), the young students attend general education somewhere else in the morning and come to the training system in the afternoon. In some schools, the high school provision is made in the same buildings but in separate classrooms and students have periods for high school education and periods for training. The students who have already completed their high school, are separated by the uniform they wear from the ones still in high school. The range of students is very wide – from high school completion, post-secondary education, workers who come in the evenings and community individuals. Active participation is said to be in the age range between 14 and 60 years. Most schools operate from 7am to 10pm. For example, SENAI is currently the largest professional training complex in Latin America. It is responsible for educating over 2 million workers per year. SENAI offers industrial and professional training courses for young people and adults at any educational level. As well as its courses, SENAI supports businesses by giving them human resources skills, and by providing support and other services to the productive sector such as laboratorial services, applied research and Information Technology.

Since its foundation, SENAI has made 37 million enrolments. Today, it has a network of 765 teaching units, involving schools, technical centres and training centres where courses are held. SENAI offers 1 800 courses starting at basic level going through to post-graduation, fulfilling a demand of approximately 2 million enrolments per year. It provides over 460 000 technical-technological and laboratorial consultancy services to businesses per year. Professional courses are offered both to workers, so as to meet companies' demands, and to the general population. Some of the courses offered to workers have a flexible timetable so as to allow them to combine work and learning.

The public system has also matching participating rates in its skills development system. For example, Centro Paula Souza has the following statistics:

Table 1: Centro Paula Souza educational units

Technical schools	Colleges of Technology	Decentralised classes
218 (176 urban and 35 agricultural)	64	461

These units are present in 285 cities and 43 Government Regions.

Table 2: Enrolled students 1st semester of 2013

Type of education	Number of students
Technical Education	176 635
Technological Higher Education	64 186
Secondary Education	50 021
Initial and Continued Education - vocational adult education [2012]	30 800
Total	321 642

Table 3: Students approved in the selection process – 1st semester 2013

Education	Coming from Public schools	Afro descendants
Etecs	78%	29%
Fatecs	76%	26%

Figure 2: Household income – Etec students in Technical Education

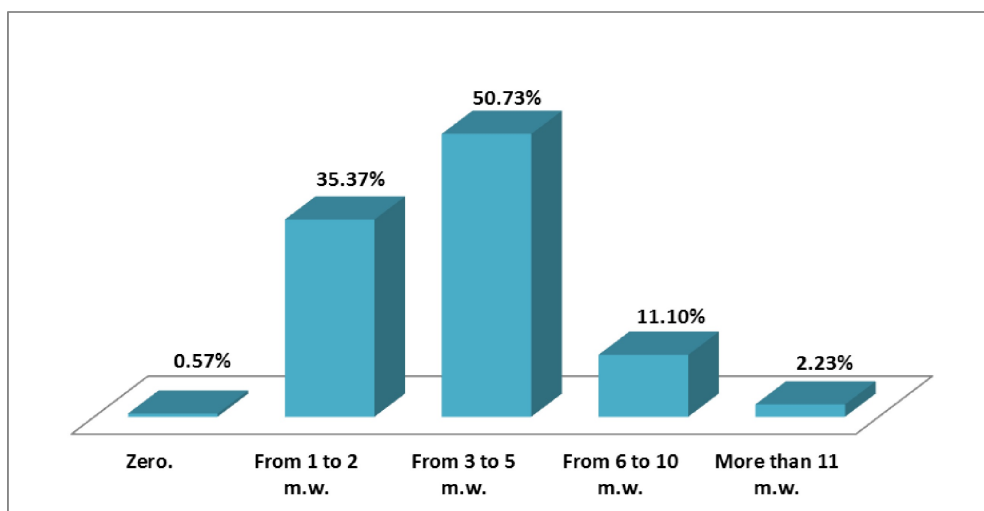


Figure 3: household income – Fatec students in the Technical Education

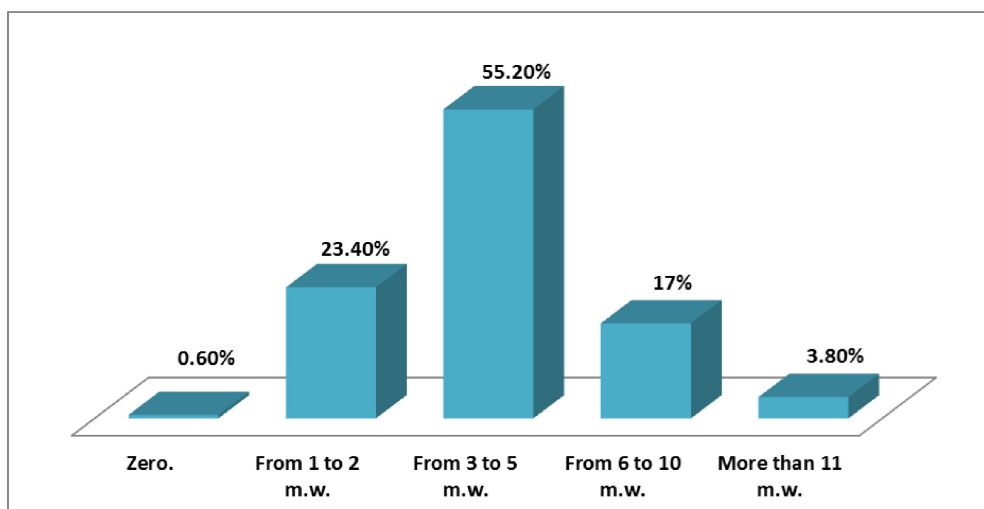


Figure 4: Age group - Etec students in Technical Education

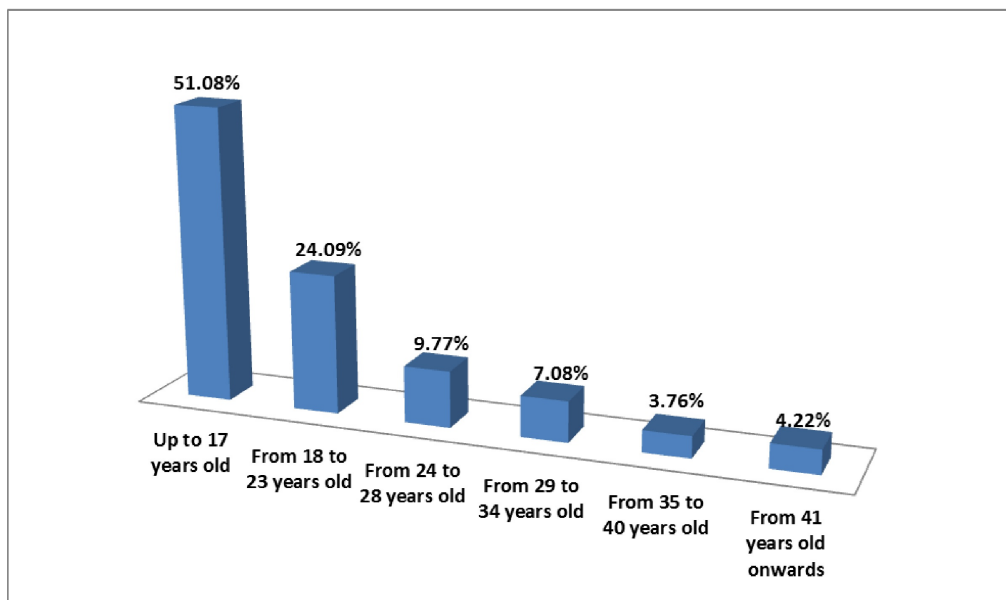
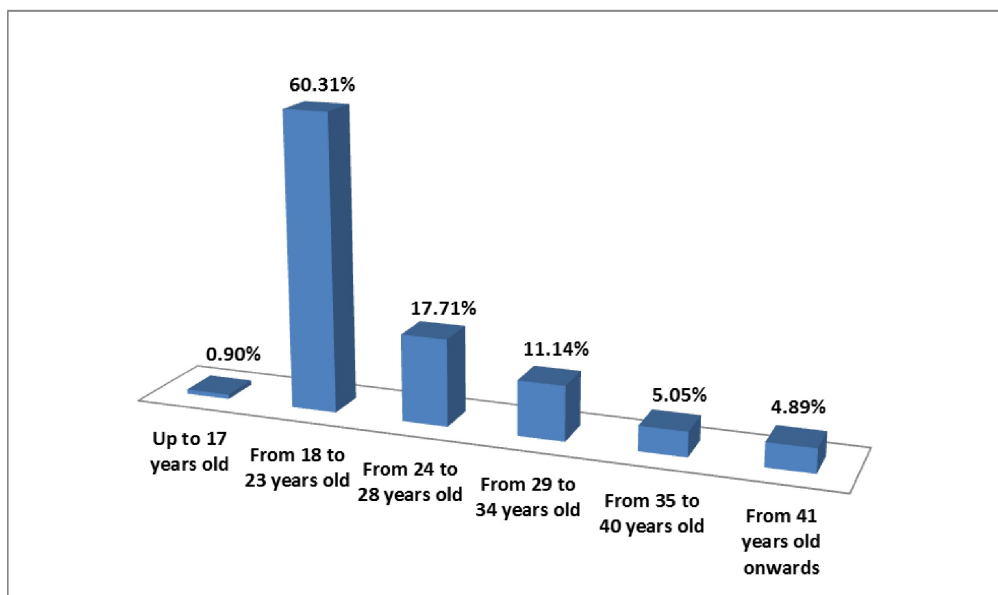


Figure 5: Age group - Fatec students in the Technical Education



The students in both the Etecs and Fatecs seem to be highly employable. It is reported that the employment rate, one year after the completion of the course is 92% for the Fatecs graduates and 79% for the Etecs. These figures are very impressive considering the low levels of external quality assurance invested in this system as the outputs are entirely managed and controlled by the schools.

Figure 6: Enrolment Evolution - Etecs Technical Education

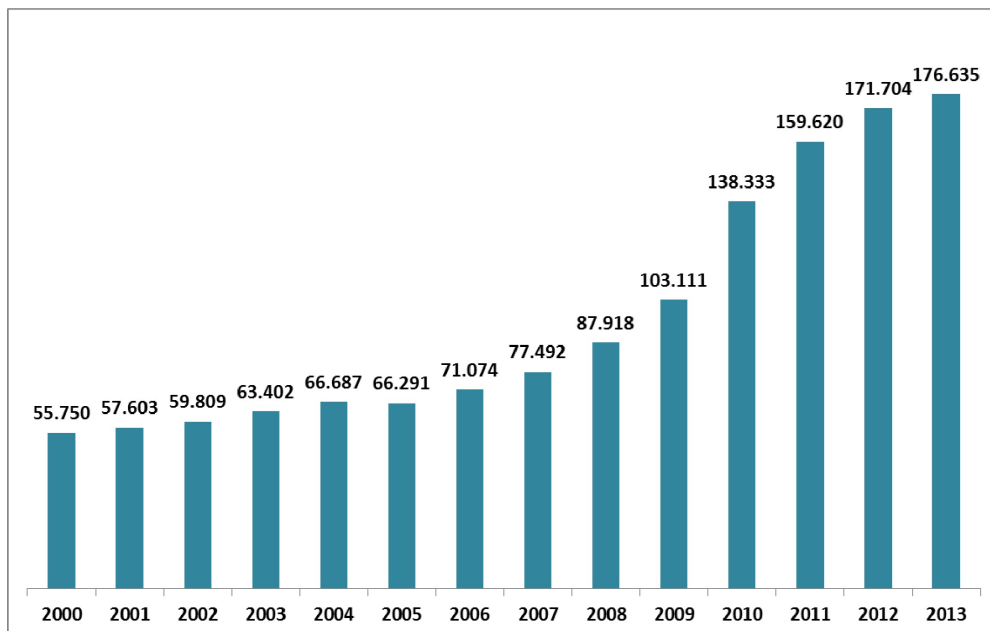
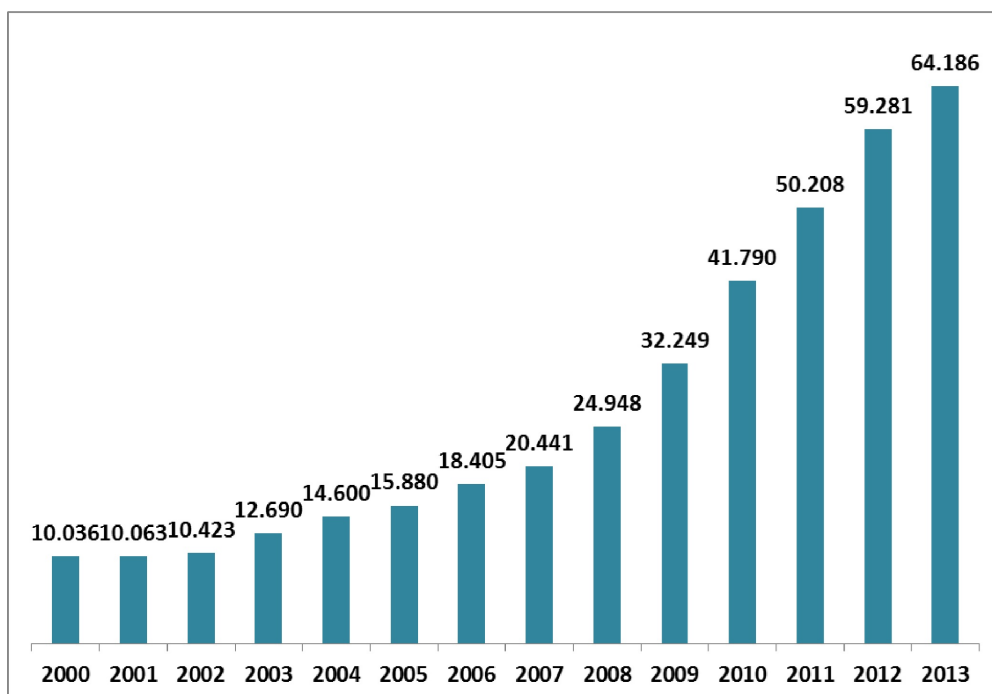


Figure 7: Enrolment Evolution - Fatecs Technological Higher Education



The Programmes

The skills development programmes for young people are offered in 3 levels:

- (i) *Basic level*, which is more of short term courses;
- (ii) *Secondary education* which contains high school completion as well as many formal apprenticeship programmes: For students coming from the general population the minimum entry age is 14 and the maximum is 18. Courses vary in duration. These courses offer students the opportunity to enter the employment market as apprentices while studying; and
- (iii) *Higher level* which is more post-secondary level than higher education. About 80% of training takes place at the basic level and this level has no formal certification. The rest (20%) is made up of the secondary and higher level training. Whilst this is a major concern for the researchers, the system takes on a large number of people in their training programmes.

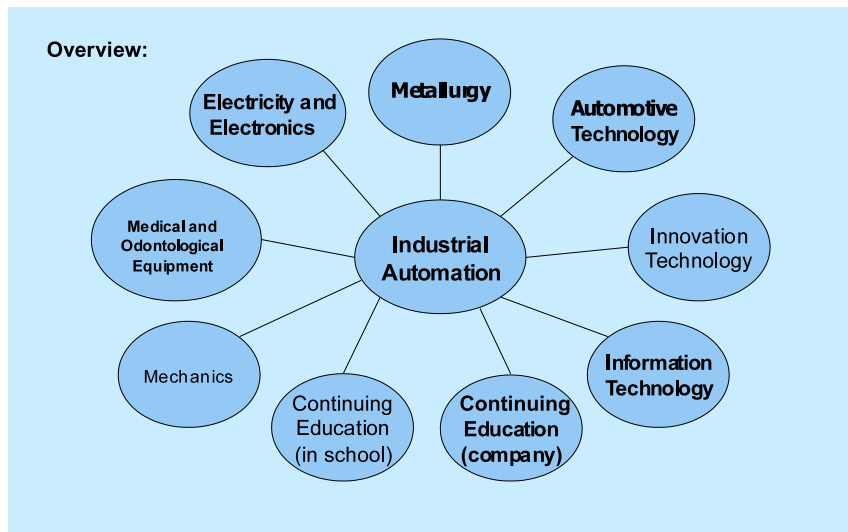
For workers, the programmes are also categorized into three groups:

- (i) *Industrial Training* composed of courses offered to people who have concluded their primary education. To be enrolled on one of these courses students must be working as apprentices for a company and be over 14 years of age. Students must complete their course before they are 24 years old;
- (ii) *Basic Professional Training* which was created for the more economically disadvantaged students, between 14 and 18 years of age, who have been in formal education up to the fifth year of primary school. Students are sent on the courses by SENAI's partner businesses and institutions. Courses are offered in the areas of Administrative Assistants and Industrial Production Assistants; and
- (iii) *In-company Professional Training* which is a programme that trains young people to enter the employment market as apprentices. Those benefiting are nominated by businesses that have a link with SENAI. All activities for this type of course are carried out in the associated or partnership companies. SENAI is responsible for monitoring and giving guidance to students; it provides teaching resources and is responsible for the academic administrative process, and for giving certificates and qualifying teachers for the courses.

As well as the regular courses offered, SENAI also specialises in long distance education in professional training and professional development.

In terms of areas covered in these programmes, the scope is very wide. For example, the two SENAI schools visited cover the following programmes:

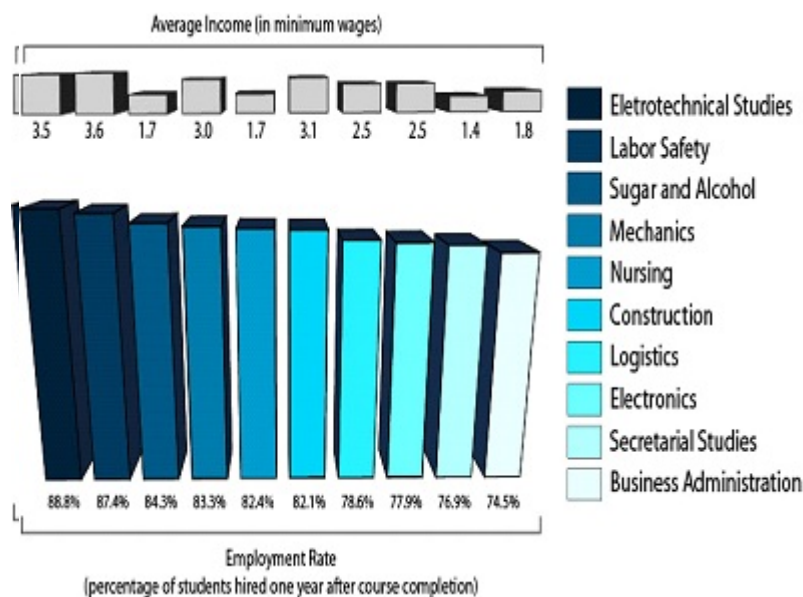
Figure 8: “Mariano Ferraz” SENAI school in São Paulo



SENAI provisioning is a highly centralized system that gets passed on to the State, which further coordinates the system tightly at the state level. At the local level there may be some further adaptations of programmes to suit the local needs but it is said that the variation between what is developed at the Federal level and what actually gets implemented at the local level cannot be more than 20%.

The public system like Centro Paula Souza also offer similar courses. For example, this institution reports the following statistics about its courses:

Figure 9: Etecs Top 10 Highest Employability Courses



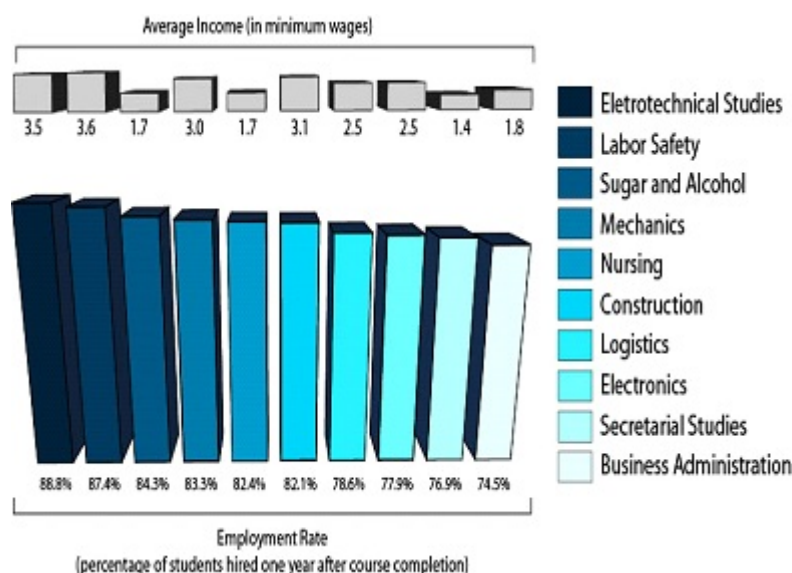
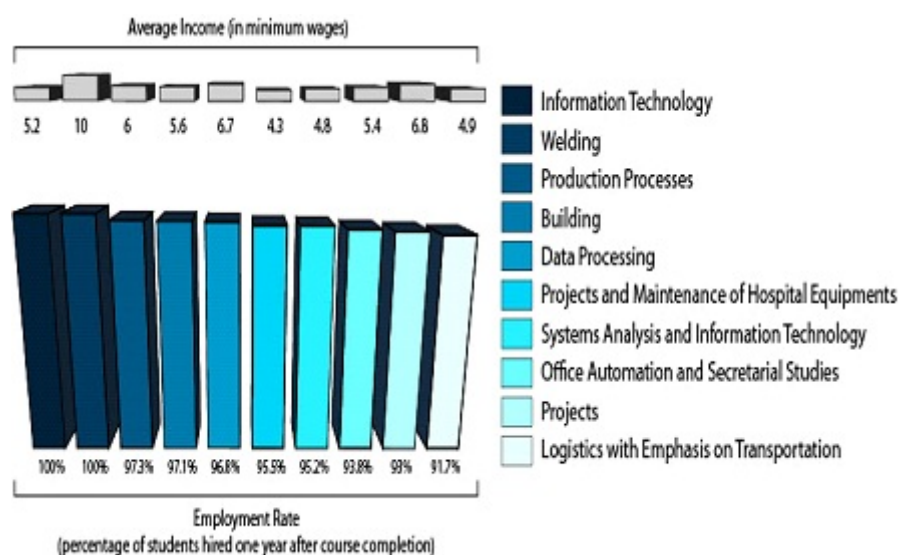


Figure 10: Fatecs Top 10 Highest Employability Courses



SESI and SESC programmes

SESI and SESC started as the welfare arms of the SENAI and SENAC respectively, and later grew to be the non-formal parts of their respective mother organisations. However, at this point the nature of programmes offered by the two organisations is distinctively different.

Education is one of SESI's main social contributions. Traditionally, the institution is known for its role within primary education – the first 9 years of education. In other words, providing second chance or compensatory education to those who exited schooling prematurely as well as providing for preschool education to the young. But recently, it has also been gaining recognition for other educational activities, some of them in partnership with the Federal Government, municipalities, NGOs, private institutions or even other S

System institutions, for example, with SENAI for the development of secondary school courses. The numbers serviced here are also very large, running into millions. In addition to the formal education provision the two organisations offer the following:

Lifelong Education

These are post-graduate and extension long-distance courses offered by SESI (and also SENAI) in the areas of education, leisure, social and health management. These courses are normally developed in partnership with universities, as for example, the Federal Universities of Bahia, Rio de Janeiro, Minas Gerais and the University of Brasilia.

Integrated Action

Among recent initiatives is an educational project, in partnership with SENAI, which aims to link primary education to professional training. This is a CNI initiative in partnership with the Federal Government, whose objective is to link SESI's experience in primary education with SENAI's experience in technical training, through the co-operation of these two organisations at a national and regional level so as to better understand the demands of industry and society. These courses are developed according to criteria set up in each regional department of the organisation.

Health and Welfare

According to SESI "quem vive melhor, dentro e fora da empresa, produz mais" (*those who live better, both in and outside the company, produce more*). For this reason, investing in the welfare of the worker is considered more than a good action 'é umbom negócio' [it is good business]. In 2006 SESI provided almost 500 000 medical and occupational consultations and over 1 million nursing appointments. SESI has programmes for Health and Safety Promotion, Health in the Workplace and Drug and Disease Prevention.

Doctors and Dentists in Companies

This programme has 442 mobile units throughout the country. It also has agreements with clinics for providing these services, as well as a network of laboratories, both their own, and contracted. In various Brazilian states SESI's clinics provide medical consultations in up to 25 specializations. Many of these, such as ophthalmology, gynaecology and speech therapy are offered within the business environment, in mobile units.

Health Promotion

According to SESI the majority of health investments in Brazil is applied to curative care, and there is little spent on disease prevention, thus the average lifespan of Brazilians is 68 years for men and 75 years for women. Therefore, SESI has an in-company health promotion programme using educative games, round talks, films and plays where it tries to educate workers about disease prevention and drug use. SESI states that to develop preventive health programmes represents a saving to businesses, as they cost less than curative treatments. According to the World Health Organization (WHO), Brazil could save US\$4 billion per year if it adopted effective measures for reducing just 2 per cent of chronic non-transmittable diseases; SESI is attempting to work in this direction. Also according to this organisation, health and safety practices at work significantly increase the revenue of businesses. "Studies have shown that for every dollar invested in actions to improve the work environment and health promotion, four dollars return to the company. These gains are reflected in the strengthening of the company's image in the eyes of the consumer public, in the increase of productivity and in the reduction in costs due to accidents, work related illnesses, absenteeism, and health care".

To assist industry to promote safety within the work environment, SESI offers consultancy and services in relation to health and safety practice at work by means of its own methodology that complies with legislation, monitoring the factory floor and the health of workers. It also provides courses such as the Comissão Interna de Prevenção de Acidentes (*Internal Commission for the Prevention of Accidents*), CIPA's First Aid and Fire Officer Training and preventive actions designed for different types of business. The SESI model for health and safety practice at work is based on Brazilian norms, but at the same time it tries to respect the international parameters relating to the health and safety of workers.

Disease Prevention (STD/AIDS)

The SESI in-company 'Sexually Transmitted Diseases and AIDS Prevention Programme' was developed to give information and guidance to workers so as to prevent these illnesses, encouraging the adoption of safe practices, avoiding prejudice and promoting solidarity in the workplace. This initiative allows industrial companies to outline and diagnose problems relating to employees, directing the educational- preventive intervention according to each situation. "Os ganhos estão refletidos no fortalecimento de imagem perante o público consumidor, no aumento da produtividade e na redução de gastos com acidentes, doenças do trabalho, absenteísmo, assistência à saúde" from site (www.sesi.org.br).

Non-transmittable diseases

Aiming to contribute to changes in the current health of workers, SESI, in partnership with the Pan-American Health Organization, the Ministry of Health, and the Blood Pressure Department of the Brazilian Cardiology Society, has developed the Programa de Prevenção de Doenças Não-Transmissíveis (*Non-transmittable Disease Prevention Programmes*) The programme foresees an assessment of risk factors followed by intervention in the health of workers to promote the development of healthy attitudes and behaviour, by means of individual and collective educational intervention, aiming to reduce the morbid-mortality of industry workers.

Social Projects

The 'Cozinha Brazil' (Brazilian Kitchen) is a SESI Programme, developed in partnership with the Ministry of Health, aims to educate the population about the nutritive value of certain foods, and about how to use and prepare them. This project is implemented in all regions of the country and, for example, it aims to make best use of foods in healthy, practical and economical recipes that add nutritional value and contribute to people's quality of life. This project is developed in kitchen schools that have been adapted in mobile units (lorries). This programme teaches people how to prepare food in an intelligent way without wastage. The positive feedback that this project has received, prompted SESI, through the Ministry of External Relations, to assist other Latin American countries to adopt it.

Mesa Brazil (*Table Brazil*) is a SESC programme and is a food security programme that distributes food to the poor population. This programme is run in partnership with the Federal Government's Fome Zero (*Zero Hunger*) programme. Mesa Brazil does not directly service individuals. SESC is responsible for collecting and distributing food to registered social institutions, from which people receive assistance. Apart from the food collection and distribution service, the programme aims to educate citizens in adopting new eating habits through courses, training and cooking classes, so as to promote food quality, its efficient use, balanced meals and the consumption of non-conventional foods. Results achieved by Mesa Brazil in 2006:

21 993 302 kilogrammes of food distributed –131 per cent of the initial target of 16 800 000 kg
978 695 people serviced on a daily basis, with 4 054 partners (regular donors)
5 372 entities assisted on a continuous basis
2 051 educational initiatives carried out
77 035 “multipliers” trained in educational initiatives
64 units in operation (10 new in 2006)
a total of 225 cities included.

Ação Global (Global Action)

Ação Global Nacional is a solidarity movement that happens simultaneously in all Brazilian states and the Federal District, in partnership with Rede Globo of TV. On the same day and in the same place this service issues personal documents and provides medical, dental and personal care etc., to its users. The events facilitate people’s access to their essential rights such as obtaining identity cards, birth and marriage certificates, voting papers, etc. It also makes weddings and separation through divorces possible. Ação Global is a day of festivity for a municipality. At the same time, leisure activities such as live music, games and sporting activities, etc. also take place.

Since 1995, when this initiative was created, Ação Global has benefited over 12.4 million people and provided 26 million services. According to the president of the SESC Council and the System S Forum, Jair Meneguelli, the wide range and the popularity of this initiative is useful to measure the level of deprivation of particular communities (Interview 05/10/2007).

Education

SESC promotes a set of educational actions for children, teenagers and adults. The programmes developed by SESC are the following:

Pre-school education: Children from 3 to 6 are cared for as part of a programme where they learn the social skills of reading and writing. SESC ler (*SESC Reading*): A literacy programme for young people and adults, operating in 67 municipalities in 18 states. The schools operate in buildings adapted to the characteristics of each region. Each centre has three classrooms, a sports field and a reading room with a wide range of literary and technical books important for the lifelong learning of teachers and equipped with television, satellite reception and video player.

Primary Education: SESC runs primary education programmes in 19 Brazilian states: Alagoas, Amapá, Ceará, Espírito Santo, Mato Grosso do Sul, Paraíba, Pará, Pernambuco, Piauí, Rondônia, Rio Grande do Norte, Sergipe, Santa Catarina and Tocantins. Teaching occurs from the 1st to the 5th year in the Federal District and in the states of Amazonas, Goiás, Mato Grosso and Roraima it continues to the 9th year.

Study Skills: Provides for students from the first years of primary education (1st to 5th year) who participate in educational activities integrated with a variety of programmes offered by SESC in sport, leisure, culture and health. This project takes place in 17 Brazilian states. Apart from these projects, SESC contributes to educational development at secondary level in 3 states, and offers university entrance examination courses in 13 states.

Articulation

The Brazilian skills development system was described by one interviewee as a “no-system” at all. The explanation given was that there were just too many institutions doing training in Brazil – there are small and medium size companies; religious groups, NGOs, Enterprise Foundations (e.g. Walmart Foundation; VW Foundation, etc.), language schools, Computer schools, etc. The fundamental issue is that there are few programmes that are nationally certified or recognized. Students are often stuck within the sectors they had initially trained in to move around in the labour market, but historically jobs have not been scarce. But the articulation between the S system, the Centro Paulo Souza and the Labour Market seems to be very strong because of the way training is organized and the involvement of the industry in training in these systems. The unemployment rate is 8% and the reported rising unemployment currently is attributed to the economic and financial crisis in the country than the lack of skills.

The articulation between the ETECs and Fatecs of the public system has also not been resolved yet. So, training in Brazil seems to be largely ‘dead-end’ or self-contained programmes in the view of some. Yet, there was a strong consensus that one problem that has emerged is that whilst the ETECs were meant to provide skills for the labour market, most students tend to transit to higher education after completing their ETEC qualification. The reason for this is because these schools seem to be producing a better academically qualified secondary school graduate than the general public education system, which is generally described as very poor. So, in the highly competitive Brazilian public education system, the technical students from the ETECs are sought after as universities are also required by the Federal and State government to admit a high percentage from the public school system.

Expansion and local responsiveness

During the period 2000-13 VET schools more than doubled in Brazil and many were quick to point out that president Lula had a lot to do with this expansion. He is said to have cared a lot for the bottom part of society and saw VET as a way of catalysing socio-economic mobility of the poor and working class through both the private and public systems. He incentivized many start-ups programmes that required technical expertise and supported the creation of jobs from the technical education industry.

The Levy is collected from various sources, as it will be described below, by a Federal Government Decree and distributed to the States. This money is utilized for different purposes but the biggest slices of funds go to the expansion projects and then programmes. The expansion demand comes from industries and local communities who put a claim for their own facilities for VET programmes. The industries have met this need through mobile vans which are well equipped and have a yearly schedule to reach isolated communities. The public sector also has mobile units but in addition to these they have a system of decentralized classes, whereby they work with Municipalities to coordinate provision. Sometimes these classes are in ordinary schools or other public facilities. Sometimes the municipality commits to providing transport to take students to the training venues and the State provides the teachers and programmes and sometimes the State provides both. When

facilities have to be built, there is an understanding that municipalities in rural and small town areas will provide the land for free (and sometimes services later) and either the industry or the state will provide for the buildings.

In this way, there has been rapid expansion of training facilities in Brazil that the estimation is that the Federal Government alone has about 5 000 schools, and then the State some more, Industries, Companies, religious sector; Free schools, etc. The point is that all communities are entitled to have easy and free access to training, irrespective of where they are, and the funding system supports these claims. However, VET seems to be strongest in the South East region of the country and in particular the São Paulo state seems to be punching far above the rest. It is said to have contributed significantly in Brazil's feat to obtain position 1 in the 2015 world Skills competition.

Governance and Administration

Although the Brazilian VET system is highly responsive to the local needs up to company levels, it is also a highly centralized system. The centralization starts with how the funds are collected and administered and this process dictates both the governance and administration of the system. The Federal government passes all the laws for the collection of funds, disbursements and administration of the training levy. At the federal level, the state's counterparts are the many private sector federal bodies, e.g. federation of industries; federation of commerce; federation of unions. These bodies are the recipients of the training levy in their remit and ensure that the States and companies in the various regions comply to the requirements. The administration of each system carries out all planning, coordination, financial management, monitoring, etc. in the system in order to leave the schools to do their work unencumbered.

Both the private S system and the Public system seem to be administered in a similar function at state and regional levels. Both systems at a state level see themselves as a single system composed of the administration and schools. Both the administration and schools plan and coordinate all the activities of training units as part of one system. There is no hierarchical relationship between the schools and administration and the schools are not autonomous. Senior positions exist in both and the levels are only ascribed to the roles in the whole system.

Another interesting aspect of the coordination in this system, is the forum concerned with training matters where both the private and public counterparts meet on a monthly basis to exchange views, innovative ideas and also identify needs whereby either the public or private system will intervene. There seems to be very little, if any, competition between the private and public systems.

Collection and disbursement of funds

In the Brazilian system, very few students pay for training and these include some Fatec students. This has been made possible through an effective system of collection and disbursement of funds. Funding starts with the collection of a Levy from a very complicated Brazilian Tax system. The 9 units of the S system have a different percentage in their fund

collection system. This fund collection involves, Federal taxes, State taxes, and other taxes. The fund is collected through a bank for Social Economic Development (BNZES) and two other banks have been created to fund public services infrastructure like housing. This fund is distributed differentially according to the State's needs, and the university sector also gets a slice. For example, in the state of São Paulo, universities get 9.5% of the fund, whilst Centro Paulo Souza gets 5%, which amounts to R\$ 6 billion of which R\$ 2.3 billion goes to the State headquarters for administration. In the private sector (S system), these funds are then passed on to the Federation that has the remit for specific training, who in turn will pass these to the regional (state) organisations. The smaller States, which do not collect big sums of monies are further supported by the Federal Government as well as the Federation with $\pm$ 15% of their budgets.

The States /regions have to submit proposals to lay claims to the levies. There are Federal dictates that govern these proposals, which should not vary drastically from year to year. In each state / region, there is an office of an integrated planner who integrates the budgets of the whole state. The state budgets in both the private and public systems are established on a yearly basis, starting with a very detailed budgeting process that involves the schools and administration for submission to the Federal entities. When the allocated budget is known, again the schools and administration meet to adjust the budgets to submit to the state/ regional management for approval. Once approved, the various financial management and procurement systems kick in. There is no money that goes to the schools. All parts of the system also have to agree on the providers to be used for various systems, in advance. What is critical in the budgeting process is that the system must meet the overall objectives of the state.

In general, the State / Regional entity pays for salaries of everyone including school staff. There is a director to oversee the disbursement, management and coordination of all activities in the state or region. This person manages the payment of salaries, the building of new infrastructure, the cost of maintaining facilities, conception and roll out of programmes, costs incurred by administration and schools. Since the budget is highly centralized, procurement is done mainly through a voucher system that has specific rules for its usage and authorization, but no unit handles cash except the financial section of the state/ region which makes payments against approved procurements. The centralized system at the state level is assisted by a regional decentralized system that helps the state to execute at local levels.

The procurement system operates in different levels. For example, operational costs are approved by the school directors against approved budget for the school and items are bought. But the school director has to submit purchases to the regional director who must consolidate these budgets for the State. The buying of large equipment used for training is done at the state level with companies that have been approved after bidding. In the S system of the commercially active states, there is also a lot of industry involvement in providing equipment to their schools so that students can always learn on the newest technology. Apparently, more and more controls and centralization of budgets and spending have been directed over a period when it was becoming clear that rampant corruption was happening in the system.

Ten lessons for South Africa

The Brazilian TVET system is by no means a perfect system and the Brazilians will be the first people to point that out. However, this system has managed to achieve a number of things that have been elusive for the South African system as it tries to address similar issues of inequality, access to opportunities and developing a highly responsive skills development system. There seems to be valuable lessons from the Brazilian system for South Africa and a few will be outlined below:

1. It starts with political commitment

Everyone talked to did not fail to mention the previous President Lula's commitment to the upliftment of the socially advantaged and this included the provision and accessibility of VET to all, but in particular to poor communities and their families. This was done through the marshalling of resources available to the state, but the bulk of which collected through private funds in the form of private taxes. There are two main things that are different in the Brazilian approach from the South African system. In the first place it is its use of both private and public resources in providing training. Secondly, it is its ability to establish laws that would govern the collection, disbursement, and administration of this funding in an equitable way for the public and private systems.

2. The Federal government manages the system with little resentment from the states

The federal government is definitely an active role player in the skills development system in Brazil. It makes the laws, monitors spending and constantly monitors the emerging needs in order to intervene. The surprising part is that at both the State and school level, there did not seem to be any resentment of this 'brotherly' control from the Federal capital, Brasilia. At the same time, it was clear that the federal nature of the country enforced cooperation of states with the Federal government and all felt that the system is not only established by Brasilia, but by all. It was also easily accepted that the Federal Government in particular has a bigger responsibility to ensure that inequality is reduced within the Brazilian society and therefore it is its job to continue looking after the less serviced communities and individuals.

3. Expansion is a must for accessibility and equalizing opportunities

The lifting of the bottom that was the main Lula agenda didn't lose sight of the fact that without expansion and getting the services to the less served communities and individuals, there very little chance to equalize the unequal society. It was clear that the current infrastructure was not suitable, adequate and sustainable for an equalizing Brazil. The expansion and reach out approach that Brazil has used over the last decade is very creative and instructive. By engaging with municipalities, using mobile trucks, decentralized classrooms and sometimes public spaces like libraries, the country has not only just stopped at thinking about putting brick and mortar in order to extend the services to poorly serviced communities. South Africa has not been able to build a single campus under the new

dispensation. The little expansion that has happened has been through the entrepreneurial spirits of the TVET colleges themselves but using expensive methods.

4. Funding that meets a vision makes more sense

The Brazilian vision about skills development is a dual one: that it must meet the needs of the industries serviced; and that it must be an opportunity available to all Brazilians, irrespective of their geographic location and socio-economic standing in society. To this end therefore, funding of the system has to meet the programmatic plan for its relevance. But the important part of the funding system is to build and expand the facilities and services to all areas of Brazil. This is an important lesson for the SA system as the current system does not seem to be meeting the enormous need, except perhaps the administration centres like SETAs. But the impact is minimal.

5. When the tide rises up, will all the boats be lifted?

The constant concern about the lower base is said to have been a special concern of the Lula moment. His government ensured that it ensured it paid particular attention to the lifting up of the lower base in all aspects of their lives, and in particular for health and education. This meant a strong coordination by the Federal government and interventions by the State in the general public education system as well as the VET system at secondary levels as if they were one system. Even though there is criticism that the system is not coherent and there should be more VET alternatives in the schooling system itself, funds and interventions meant to catch everyone at risk, seem to have paid dividends as the Brazilian Gini coefficient continued to be reduced. Therefore, in this instance it seems as though this focus on the lower base made the tide to rise and lifted all boats.

6. Centralisation means more workers, efficiency and less hierarchy in the system

Whilst the Brazilian system seems to work very well in a centralized manner, there are nuances that must be noted behind this system. The system is said to be highly efficient as training cannot wait for procurements that are delayed. But also the system works with many officials who manage the system so that it runs smoothly from year to year. There is a very high level of integrated planning whose important feature is consultation. In this respect therefore, there is less hierarchy between administration and schools – they are seen as doing different jobs of the same unitary system. They all possess more or less the same information about the system and therefore it is not a matter of schools versus administration. Here one of Lula's objectives of creating jobs out of education seems to have been achieved by the system as the system needs a lot of workers, not less, to make it work.

7. Good intentions, but bad interventions

It was stated over and over that PRONATEC, the Federal government's attempt to reach disadvantaged youth, was the poorest in the whole VET system. It did not seem to produce

useful results at all. This is a lesson by itself, that government can have good intentions but bad interventions. Fortunately, this programme was established to operate for 5 years only initially. Everyone seemed convinced that this programme was likely to be canned by the end of 2015 because of the economic and financial crisis in the country. Another lesson, is that it is okay for government to do away with programmes that do not yield results at some point.

8. Entitlements and responsibilities of local communities and companies

In spite of such a highly centralized system, it was clear that the entitlements and responsibilities role of local communities as well as industries were not in question at all. It was clear that local communities were entitled to have training brought to their doorstep, whilst companies were entitled to the training of their workers as they paid taxes to this end. It is therefore the government's responsibility and Federations to provide for these. At the same time, it is the responsibility of local communities to provide for land and sometimes facilities where training can take place, while government or federations will provide for teachers and programmes. It is also the responsibility to provide for internships or work exposure for the young people trained in both the public and private sectors.

9. Linking non-formal education to formal education

In addition to the private and public VET system it was abundantly clear that Brazil realizes that a different kind of education is also needed in this society. SESC and SESI play that role to varying degrees in the system. They promote the recreation of cultural life in society using different approaches. What is interesting is that what they do is legitimately funded from the same Levy pot that funds hard skills training. This is an important lesson as we start thinking about how to fund the community colleges as the prior question that has to be asked is what this institution will be doing and therefore be funding for what. But more importantly, there seemed to be a strong link between the provision of general education and skills formation. For example, SESI who operates in the commercial and services sectors, has been very innovative in developing the general education for individuals who go to SENAI schools but still need the general education to satisfied the requirements for high school diploma. These individuals have been driven out of the schooling system because of their inability to cope in learning subjects they need in VET such as mathematics, science, etc., and SESI has succeeded in developing approaches that 'get' this population. But as we think of funding both TVET and Community Colleges institutions, we cannot avoid thinking about how they link.

10. Is the concept of a community college one thing?

The example described earlier on that services post-school needs, with a bias towards higher education as well as liberal arts provision is something that we have to take note of. This institution services communities we can all relate to, who in a million years are not likely to have their own tertiary or post-school institutions. Knowing that a presence of a post-school institution encourages participation in such institution by mere visibility, we have to find ways of encouraging the remote areas to do just that. Also with the hindsight of how adult

education has progressed in this country, with adults being forced to study for the GETC for years, the country really need creative thinking and organization in this particular area to succeed.

Acknowledgements and list of Interviewees

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Name	Institution
Ms Elenice Leite	Independent Researcher
Ms Aurea Vieira	SESC – São Paulo's International office
Dr Oswald Massambani	Director of São Paulo State Network of Vocational Schools
Prof. Elizabeth Balbachevsky	University of São Paulo
Prof. Marta Maria Assumpção Rodrigues	University of São Paulo
Mr Mariano Ferraz.	SENAI school in São Paulo
Mr Jose Carlos Mendes Manzano Mrs Ana Luiza Kuller Mr Almerio Melquiades de Arajulo	Centro Paula Souza vocational school in São Paulo
Dr. Claudio Moura Castro	Independent Researcher
Prof Simon Schwartzman	Independent Researcher
Mr Luiz Antonio Cruz Caruso	SENAI- discussion and visit a school in in Rio de Janeiro
	SENAI Rio de Janeiro
	SENAI school of Printing, Design and Web development

Appendix 4. Greening the data desert – a case study of South Africa’s Kha Ri Gude mass literacy campaign

Introduction

In the January of most years South Africa goes through what has become an annual seasonal orgy of controversy and recriminations about the “crisis in the education system” with the release of the National Senior Certificate (the so-called matric examination) results. Adult Basic Education and Training results could occasion even more angst though they go unnoticed by the media. Comments from educationists, government ministers and education bureaucrats give the impression that South Africa interminable crisis continues. Similar recriminations occur with the Department of Basic Education’s publication of the Annual National Assessment tests for school grades. There is also ongoing dismay about the failed delivery of textbooks and workbooks in schools in a number of provinces, in spite of court injunctions. This is clearly an education system in severe operational disorder.

Yet in this article we want to show that it is indeed possible to ensure the successful operation of at least one element of an education system – its data subsystem – through a process of good design and good management of its implementation, even when the overall system resources are relatively limited. What is even better news is that such a success has occurred in the field of adult literacy and adult basic education, a domain that has born the brunt of severe criticism about its inability to generate sound data, both in South Africa and internationally.

The data desert in literacy and adult basic education and training (ABET)

It is virtually common cause amongst all stakeholders that there has been severe incapacity in South Africa’s generation of reliable statistical data on literacy and adult basic education and training (ABET) provision (Harley *et al*, 1996).

In 2000 Aitchison *et al* (pp. 131-132) noted that “the statistical data and other information obtained from the field is ... still unreliable, confused, and self-contradictory, but, more often, simply absent (the latter particularly the case from business and NGOs)” and that “it is used by senior officials at both provincial and national level without any seeming consideration being given to its reliability. Clearly there are no official comebacks for producing dud data for such presenters of data do not even seem to see a need to make even an elementary effort to “cook” or “prettify” obviously false data.” The authors suggested that independent monitoring and research might be required to get accurate data on ABET and expressed scepticism that the promise of Educational Management Information Systems (EMISs) being implemented in the adult education sections of each provincial education department would “necessarily lead to increased reliability in the short term. Even a state-of-

the-art EMIS is useless unless it receives reliable data. The problem remains of ensuring that district officials are trained and monitored in the efficient collection, processing and timely submission of data from the centres.” They also added that the field would also greatly benefit from studies of models of success.

In 2004 Aitchison and Harley (2006) wrote a blistering attack on the national Department of Education’s ABET and adult literacy statistics and its at times absurd claims of an almost magical growth in ABET provision.

This problem of the lack of data on adult education provision and outcomes is not only a South African one, it is endemic in Africa and also reflects the marginal status of adult education. Aitchison and Alidou (2009, p. 17) note that “most countries have difficulty generating straightforward statistics on provision – on the number and types of programmes, formal and non-formal, and on the number of learners involved, and on what their learning achievements are. ... National data are unable to show trends. Longitudinal data covering the last decade is rare, and background information is usually absent. It is therefore impossible to make informed judgements on whether provision has been expanding relative to need and demographic change.”

In specific relation to literacy statistics they state that (p. 29) “In most cases literacy counts take place during national censuses and surveys and make use of a ‘self-declaration’ method: respondents are asked whether they and the members of their household are literate and are not required to demonstrate their literacy capabilities. Other countries take completion of a certain level of education as a proxy for being literate. In spite of the growing interest in direct assessment of literacy skills, few countries have made use of the UNESCO Institute of Statistics developed data collection instrument, Literacy Assessment and Monitoring Programme (LAMP), or the International Adult Literacy Survey (IALS) instrument.”

Overall Aitchison and Alidou (p. 32-33) had great difficulty in extracting clear data from African country reports on the annual number of adults learning to read and write or on the cost per learner (and see also Aitchison, 2012, p. 7). Literacy did not seem to be governed by any standards, quality assurance mechanism or national assessments covering all programmes. There was also a lack of clear conceptualisation of what data is needed and few strategic plans seem to have accurate baseline data. Positively, several countries reported regular evaluations and in some cases wider impact studies of the literacy/non-formal education programmes, though few of these evaluations had been published.

African countries, however, had a view that a comprehensive, systematic database on adult education provision and practice is needed (p. 62) and the Aitchison and Alidou’s report recommended (p. 65) that there be a standardisation of the data required from countries to enable useful regional comparisons to be made and that member states should be encouraged to develop their own capacity to supply this information.

Responding to this report, the CONFINTEA VI African Preparatory Conference of November 2008 in its *Statement* said (p. 3): “There is a failure to generate reliable, relevant data and statistics on all youth and adult learning and education in its wide scope. This undermines the development of adequate policy, plans and programmes. A rapid pan-African clarification and standardisation of the terminology and concepts relating to youth and adult learning and education is required to enable comparability of data and to help regional

collaboration and the dissemination of information and research. Universities must be re-engaged and strengthened as vital research and practitioner development partners in youth and adult learning and education.”

One of its recommendations was that (p.6): “Governments should develop quality assessment, monitoring and evaluation mechanisms as well as ensure that research and data collection take place in order to formulate and regulate policies and programmes and to evaluate the impact of youth and adult learning and education. They should also develop frameworks for learning validation which are equivalent to systems of formal education, regardless of where and when the learning occurred and ensuring fair equivalence between formal and non-formal learning.”

At UNESCO’s CONFINTEA VI conference in Brazil in December 2009 the Conference’s declaration, *Harnessing the power and potential of adult learning and education for a viable future. Belém Framework for Action* (UNESCO, 2009) had recommendations for greater support for “knowledge management systems for the collection, analysis and dissemination of data and good practice” (p. 6) and stated:

“... We acknowledge the need for valid and reliable quantitative and qualitative data to inform our policy-making in adult learning and education. Working with our partners to design and implement regular recording and tracking mechanisms at national and international levels is paramount in realising the Belém Framework for Action.

To these ends, we commit ourselves to:

(a) investing in a process to develop a set of comparable data indicators for literacy as a continuum and for adult education;

(b) regularly collecting and analysing data and information on participation and progression in adult education programmes, disaggregated by gender and other factors, to evaluate change over time and to share good practice;

...

To support the follow-up and monitoring at the international level, we call upon UNESCO and its structures:

...

(i) to provide support to Member States by designing and developing an open access knowledge management system to compile data and case studies of good practice, to which Member States themselves will contribute;

...”

It is our contention that what has happened in the Kha Ri Gude Literacy Campaign South Africa is, indeed, an excellent example of good practice in the greening of the data desert in literacy and adult basic education in South Africa and needs to be examined in some detail.

The Kha Ri Gude literacy campaign: its origins and history

The genesis of South Africa's Kha Ri Gude¹ adult literacy campaign began in the period during which the Adult Basic Education and Training directorate in the national Department of Education was receiving increasing public criticism for its abysmal performance and its fiasco of an attempt to run Education Minister Kader Asmal's South African National Literacy Initiative (SANLI).² Dr Cassius Lubisi, then Deputy Director General in the Department tried to rectify things but was then transferred to become Superintendent General of the KwaZulu-Natal Department of Education. In early 2005 he and the new Minister of Education, Naledi Pandor, travelled to an International Literacy Conference in Cuba and were impressed by the enthusiasm displayed by the Venezuelan delegation about their Cuban designed mass literacy campaign. In April 2005 the Minister held a roundtable discussion in which she openly acknowledged that the ABET system had failed and that she would take action (Department of Education, 2005).

In January 2006 a Ministerial Committee on Literacy, chaired by Lubisi, started work. Professor John Aitchison, who had been an acerbic critic of the Department's ABET failings (though he had also written substantial parts of the Department's ABET policy and Multi-Year Implementation Plan in the mid-1990s) was included, as was Professor Veronica McKay from the University of South Africa's Institute for Adult Basic Education and Training. Other members included the Department of Education's Acting Director of ABET, an NGO Representative from Project Literacy, and representatives from the radio education and computer-based learning fields as well as from the disability sector and the National Youth Commission). There was also a Cuban literacy expert, Mercedes Zamora.

The Committee was sent to visit Cuba and Venezuela and by mid year had handed in a comprehensive *Final report* and plan for a mass literacy campaign (Ministerial Committee on Literacy, 2006).³ A summary of the report was only published in May 2007, eleven months later (Ministerial Committee on Literacy, 2007).

In November 2006 the *Final report* was approved by the Cabinet, which requested a more detailed *Operational plan*, which was prepared in early 2007 (Ministerial Advisory Committee on a mass literacy campaign for South Africa, 2007a). Thereafter, Aitchison, McKay and, later, Dr Obert Maguvhe (who had been the disability sector's representative on

¹ "Let us learn" in Venda, one of South Africa's eleven official languages.

² The South African National Literacy Initiative (SANLI) began when Minister of Education Kader Asmal promised to break the back of literacy and he appointed a previous Deputy Director General, John Samuel, to develop a plan. A team of experts and literacy practitioners was assembled and an imaginative plan developed. After the Plan was given to the Department to implement, Samuel was rapidly dumped, a lacklustre CEO appointed, and more than a year wasted with investigating a suitable governance structure. Eventually the Department's wishes won the day and it was housed in the Department and slowly festered into insignificance until there was a rescue attempt by the University of South Africa's Institute for Adult Basic Education and Training, which delivered to over 300,000 learners. But by then it was already too late, the international donors were losing interest, and the campaign ended.

³ For obscure reasons this report was never published and this eliminated the possibility of any public response to it.

the Ministerial Committee and who was himself blind) were seconded to the Department of Education to set up the campaign. This became a tortuous process and one that eventually led to Aitchison's resignation in protest in November 2007 at what he saw as deliberate obstruction and sabotage by Departmental officials at all levels that compromised the implementation of the *Operational Plan* as approved by Cabinet (Aitchison, 2008). A large portion of the campaign's planned operations were then outsourced by the Department without consultation with the seconded staff and, finally, in early 2008, a very small campaign management unit was set up in the Department and Professor McKay appointed as the first Chief Executive Officer. A considerably scaled down pilot of the campaign was run in 2008, doubled in scale in 2009 and increased again in scale in 2010 and continued each subsequent year on that scale. McKay returned to her university in late 2011 and, under a new Chief Executive Officer the campaign got off to a slow start in 2012 to 2015 though with similar enrolments to the previous years, except in 2015 when it was much reduced.

The design of the campaign

The original design for the running of the campaign was not dissimilar from many other literacy campaigns where there is a central management/oversight unit which is also responsible for the development of instructional plans and materials and a cascaded training of personnel from national to provincial to district and then to local level. As with all such cascades the problematic elements include:

- the logistics of delivery of training and materials to the lowest level – that of the volunteer educator who teaches a group of learners
- the methods and effectiveness of the reporting back to the headquarters on the running of the classes and the assessed achievements of the learners
- the financial system for paying salaries and stipends to the personnel and volunteers at the various levels.

The campaign design owed something to the organisational model of the Venezuelan campaign as well as to McKay's experience in running the one successful component of the SANLI campaign (McKay, 2004, pp. 128-136; Ministerial Committee on Literacy, 2006, pp. 19-22). The proposed model was robust and scalable so that it could be relatively rapidly adjusted to the number of participants.

The set up and planning was guided by a very detailed *Operational Plan 2007 to 2012* and accompanying schedules and budgets (Ministerial Advisory Committee on a mass literacy campaign for South Africa, 2007 a,b,c,d,e). The *Operational plan* dealt with the governance, coordination, educational and research structures of the campaign. However, because of significant changes made by the Department of Education to the set up process and plan, particularly in relation to the precipitous outsourcing of the personnel, data handling and logistics, and to the much reduced budget (R850 million for the years 2007 to 2009 compared to the planned for R3 170 million), some elements of the original plan were necessarily postponed, down scaled, or dropped. Thus, for example, the head secretariat was set up on nothing like the scale of what had been planned (even allowing for some of its functions being handled by the company, SAB&T, that ran the outsourced functions). There was no staffing *per se* for the research function (though of course various forms of

monitoring and research did take place) and organisationally there were no provincial or district secretariats/offices (though some administrative support, warehousing and data processing was done by provincially based SAB&T offices). Lastly, the ICT infrastructure that was to have supported and linked headquarters and provincial secretariats and district offices never happened. Negative though some of these developments may have been, it can be contended that the original operational plan had been something of a Rolls Royce model and that the less well resourced and more centralised structure that then had to evolve is one that resonates more easily with the contexts within which literacy campaigns are likely to happen in the developing world. The amount of money allocated to the campaign in 2008 and 2009 impacted on the numbers of learners and certainly reduced the need for a large structure. Indeed it can be argued that the way the campaign was forced to implement had an interesting synergy between more centralised control and more decentralisation down to the coordinator level without cumbersome provincial and district infrastructures.

The structure of the campaign

The planned for campaign had three main functional areas of activity:

- Coordination
- Curriculum, Teaching and Training
- Monitoring, Evaluation and Research.

Coordination was managed at the national level by a campaign unit housed within the national Department of Education in Pretoria (from mid 2009 in the Department of Basic Education) with outsourced functions of staffing, payroll, logistics and data processing handled by SAB&T in Centurion near Pretoria. The next level was of Coordinators (more of or less one in each district in the areas where the campaign operated who each managed twenty Supervisors), the next of Supervisors (one for every ten Volunteer Educators), and finally the Volunteer Educators (in the original plan called tutors, later facilitators, but now more commonly titled Volunteer Educators or just Educators).

At the national level the number of professional staff dealing with coordination was very small – the CEO and a Chief Operations Manager (though the latter only served in 2008 and early 2009).

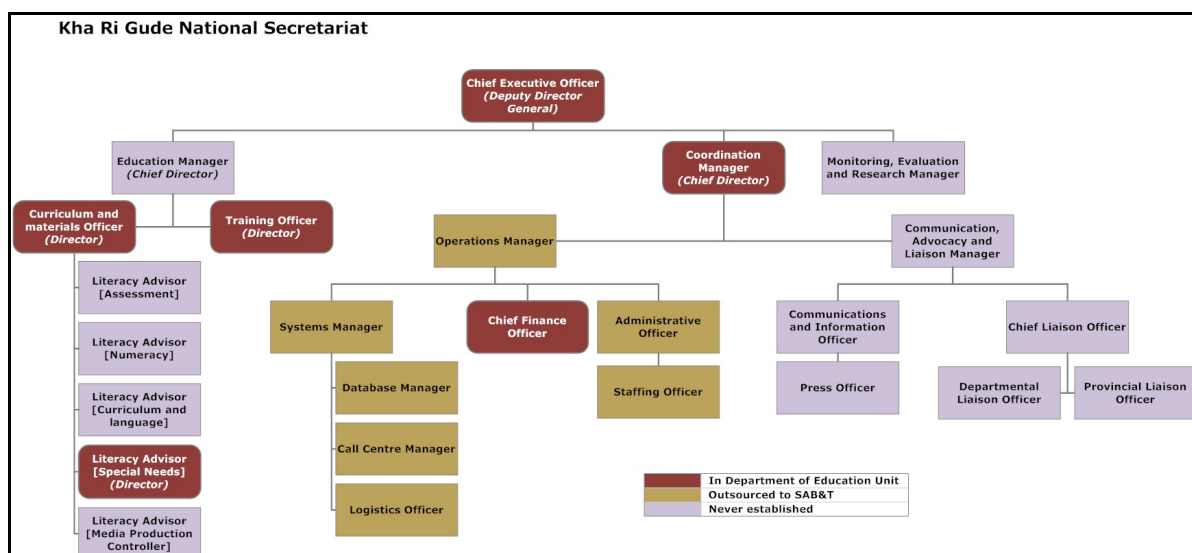
Curriculum, Teaching and Training also had a very small national staff base, the CEO played a significant role here and a Curriculum Officer served in 2009 and January 2010. There is also a Training Officer. However, most of the major curriculum decisions had already been made in 2006 and 2007 and the materials development, the foundation of the campaign's educational *modus operandi*, had been developed by a team led by McKay in 2007 and early 2008. The major assessment instrument was a Learning Assessment Portfolio (essentially a battery of exercises/tests linked to the various stages in the reading, writing and numeracy curriculum) that was designed in mid-2008). The Training Officer coordinated a cascade of training of Coordinators, Supervisors and Volunteer Educators. Though training was done, the financial resource limitations restricted the length of the training, and much reliance was put on the structured design of the course materials and the accompanying *Literacy facilitator's notes* and *English for everyone facilitator's notes* to support the

educators. At the higher level of the Coordinators and Supervisors, there was also an implicit (and correct) assumption that many of them would have had some form of adult basic educator training. They also had a far stronger training role than had been originally envisaged which compensated for the lack of large training budget.

An interesting curriculum, teaching and training innovation was in the provision to the disabled under the direction of Dr Maguvhe. The campaign plan had made a major commitment to the support of the disabled and this was followed through by Maguvhe, though it proceed at a somewhat slower pace than the rest of the campaign for understandable training, logistical, equipment and materials development reasons (including the campaign's need to adapt the materials and print its own Braille texts).

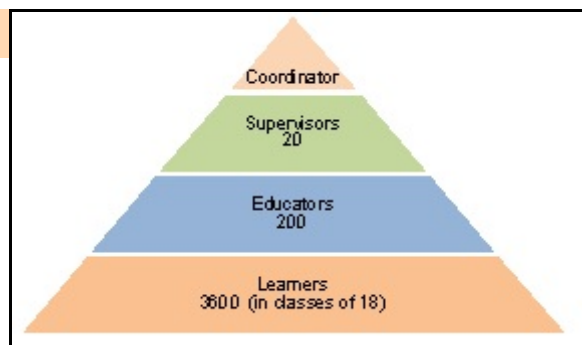
The original plan argued for a substantial, specialised and semi-autonomous **monitoring, evaluation and research** component. The reduced 2008 and 2009 budgets simply did not allow for this though built into the whole coordination system was a quite systematic collection of data that was to be used for monitoring, reporting and research purposes. In 2009 the CEO appointed a subset of Coordinator level staff as Monitors with a task equivalent to that of an inspectorate.

National Secretariat Organogram showing proposed and actual appointments



The campaign data

Though it may be repeating the obvious, the implementation of such a literacy campaign required accurate up to date data, collected and used efficiently and effectively. Except for the few officers in the Department of Education in Pretoria and the data capture, call centre and warehousing staff and facilities at the SAB&T offices in Pretoria, the campaign had no institutional bases or facilities or formally employed staff. Deliveries of materials to sites all over the country, including in rural areas, required accurate information on learner numbers, what languages they would study in, etc. Shortages or other problems had to be reported via the call centre for immediate redress. Payrolls and the authorisation of electronic payments into bank accounts⁴ were reliant on accurate and timeous rendition of registers and other reports from educators, Supervisors and coordinators. Assessment portfolios had to be collected and stored centrally and there verified by the South African Qualifications Authority (SAQA).



The personnel cascade for delivery (2009)

The data can be looked at in relation to the following categories: Personnel, Learners, Logistics, Assessment, Research, Finance and Risk Management.

Personnel

Kha Ri Gude has a simple cascade of educational personnel. A Coordinator oversees about twenty Supervisors each of whom in turn supervises and monitors ten volunteer Educators (who teach a class of fifteen (in 2008) or eighteen (from 2009) learners).

There is a general *Volunteer Registration Form* (Kha Ri Gude Literacy Campaign South Africa. 2009f) which requires the usual biographical, qualifications and employment status information. It includes a section that has to be endorsed by a bank showing that the volunteer has an operational bank account. The volunteer is assigned a registration number that immediately identifies whether the volunteer is a Coordinator, Supervisor or Educator (as well as who his or her supervisor and coordinator are) and what province the volunteer is in. There is an accompanying sheet of information summarising what work the volunteer will have to do and the criteria for receiving a stipend.⁵

The criteria for a volunteer to be paid are that:

- The volunteer has held at least twelve classes in the month
- At least 14 learners attended classes regularly
- There has been clear progress through the curriculum (as signified by the lesson number reached at the end of the month).

All the evidence for these is done via documented reporting.

⁴ For obvious security and anti-fraud reasons the campaign was not going to be transporting large sums of money round the country.

⁵ The volunteer, after registration, also has to sign a formal memorandum of agreement.

The payments of stipends⁶ for all levels of Campaign operatives are tied to the submission of regular monthly reports. The registers from the Educators, and the Supervisors' reports, are handed to the coordinators who must submit them to the Campaign for analysis before any stipend payments can be made.

In determining the rate of payments, each Educator's average attendance for the month, and the lesson number of last literacy and numeracy lesson taught that month⁷ is recorded and captured onto the data system. A program algorithm then calculates the payment (or *pro rata* payment) for each Educator according to the learner attendance rate. A similar procedure is used to calculate the Supervisors' payments which are based on the reports they submit, the numbers of Educators within their cluster who are eligible for payment, and on their coordinator's approval (as per the coordinator's report).

Apart from the more overtly statistical reporting, qualitative data is also generated via the internal monitoring processes that include both

- (a) monthly class visits by Supervisors who are meant to visit each volunteer Educator's class each month – monitoring each Educator according to predefined criteria and following this up in discussions with the Educators in a monthly meeting, and
- (b) occasional visits by the Coordinator, and
- (c) spot checks by a team of Monitors (since 2009).

The monitoring by the Supervisor is meant to be formative and action-oriented and requires the Supervisors to raise critical issues during their monthly meetings with Educators, and later with their respective Coordinators. The forms that the Supervisors complete during the monitoring process (including the information raised as “critical incidents”) are studied by the Coordinator and then submitted for analysis by the Kha Ri Gude Unit at head office.

The introduction of this “action-oriented” monitoring has progressively ironed out many of the problems encountered at the learning sites and has been an important part of the quality management and quality improvement processes. Coordinators have reported that this form of monitoring has been both interventionist and diagnostic.

Learners

The Campaign was piloted in 2008 and 357,195 learners were reached nationally. In 2009 it enrolled 613 638 learners, 609 199 in 2010, 660 924 in 2011, 676 323 in 2012, 562 926 in 2013, 379 508 in 2014/2015 and 348 228 in 2015/2016.

⁶ The terms stipend was used advisedly for legal reasons. It is basically a honorarium and does not constitute payment arising out of a contract of employment (which, because of South Africa's beneficent but cumbersome labour laws, could have created immense administrative problems).

⁷ In 2009, this requirement that the Educator's monthly report state the lesson number of the last literacy and numeracy lessons taught by the end of the month, enabled the Campaign to closely monitor the curriculum coverage by each educator.

Example: Campaign participants for 2009 by province

Province	Coordinators	Supervisors	Educators	Assistants (blind and deaf)	Learners
Eastern Cape	45	839	8 392	19	142 671
KwaZulu-Natal	42	785	7 852	24	133 486
Limpopo	31	593	6 108	12	103 828
Gauteng	25	445	4 452	11	75 678
Mpumalanga	17	329	3 292	12	55 971
Free State	16	300	2 999	0	50 984
North West	11	176	1 894	10	32 193
Western Cape	6	91	657	0	11 173
Northern Cape	2	45	450	0	7 654
Total	195	3 603	36 096	88	613 638

Learner data was captured in a number of forms:

- Registration data
- Registers of attendance
- Learner Assessment Portfolio (LAP) – marks and biographical data

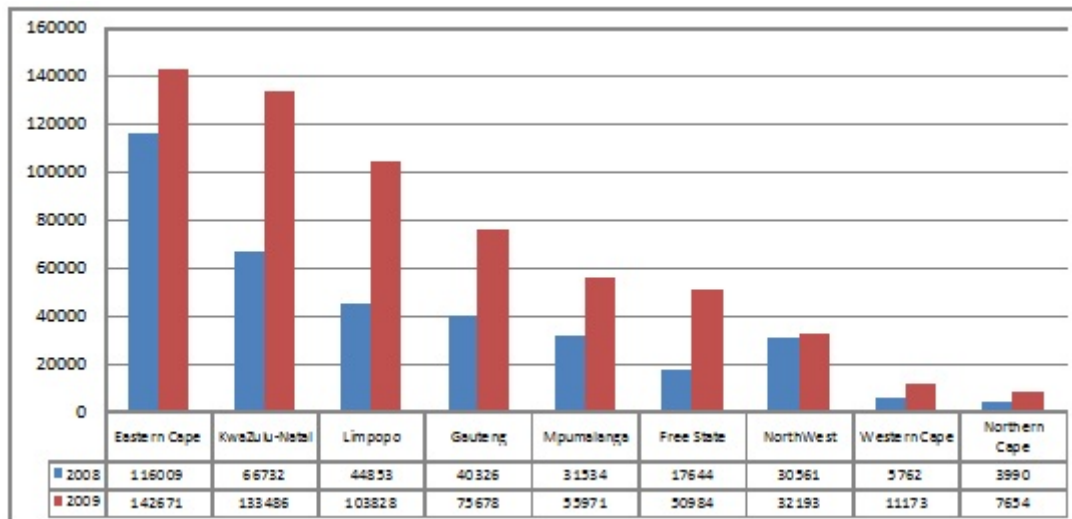
The registration data has the usual biographical data. Of note is the request for the language of preference (as this determines what materials will be issued to the learner) as well as the indication of whether the learner has had any previous schooling (Yes/No) and, if so, what was the highest grade passed and the number of years attended. The form also requires a commitment from the learner that they will do their best to attend three classes a week for six months.⁸ The learner is assigned a registration number that also identifies province, Coordinator, Supervisor and Educator.

From the registration data, once captured onto the central database at SAB&T, a range of statistical data can be generated. Though, in theory and according to the adverts from database software marketers, various tables and charts can now be generated at “a push of a button”, the actual process is somewhat more complicated – a request from the Kha Ri Gude unit for a data run, its output into a spreadsheet or datafile, its “data cleaning” by a contracted statistician, the running of statistical procedures using a suitable statistical software package such as SAS or SPSS, and then some intelligent communication via graphs and tables of this information. However, the campaign has the ability to generate statistical information on the learners with a thoroughness and speed that the current schooling and public adult learning centre system can only dream of.

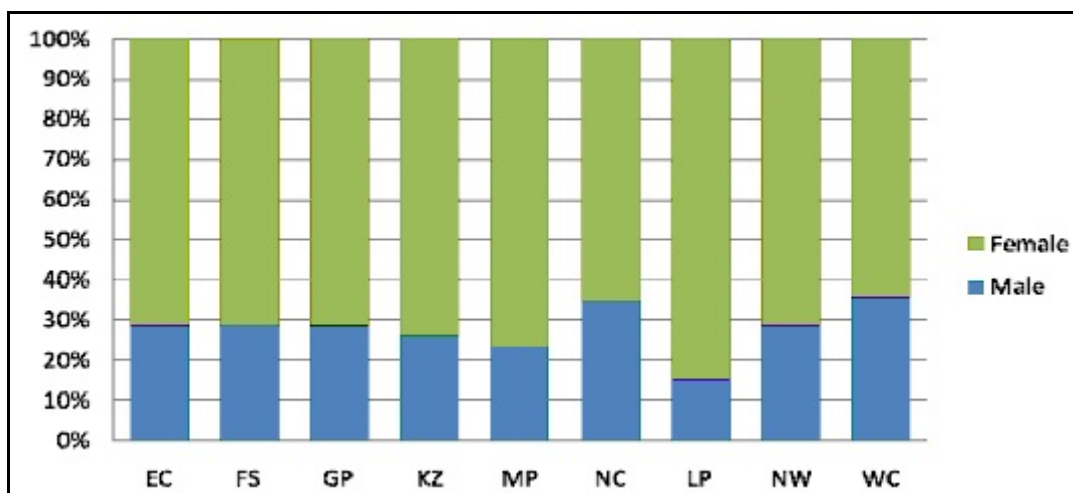
⁸ As the learner being registered may be totally illiterate the assumption is that the recruiting Educator will fill in the form for the learner.

Examples of typical statistical data generated are illustrated in the following graphs:

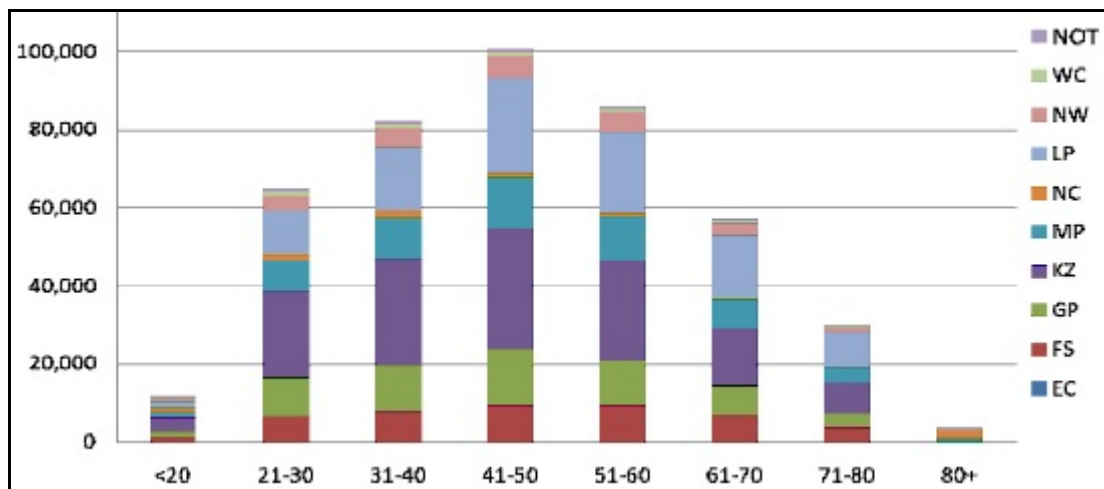
Learner enrolments 2008 and 2009



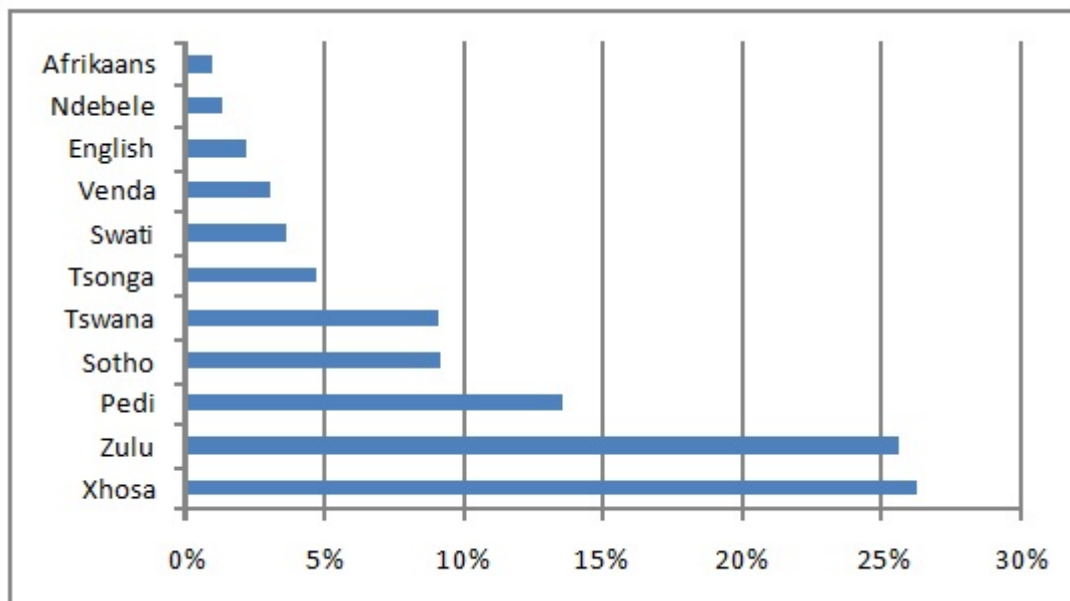
Breakdown (proportional) of learners by province by sex in 2009



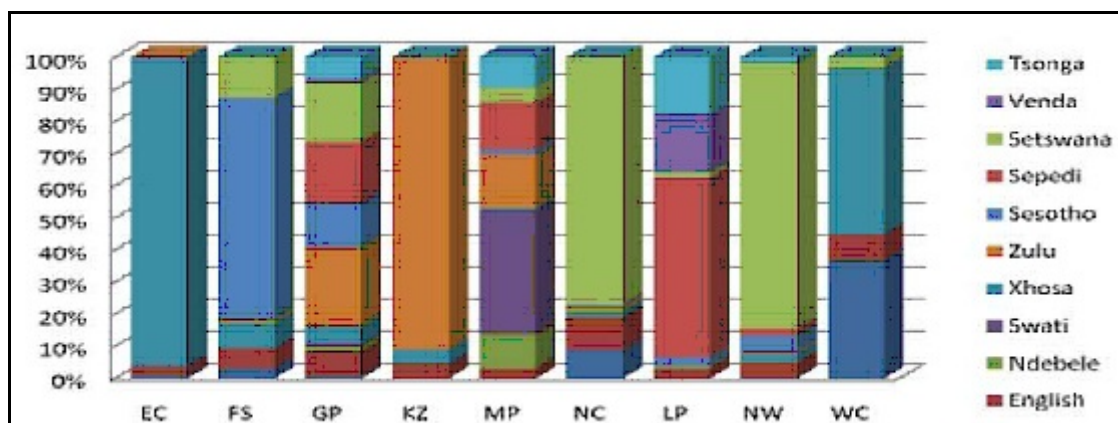
Age breakdown of learners disaggregated by province in 2009

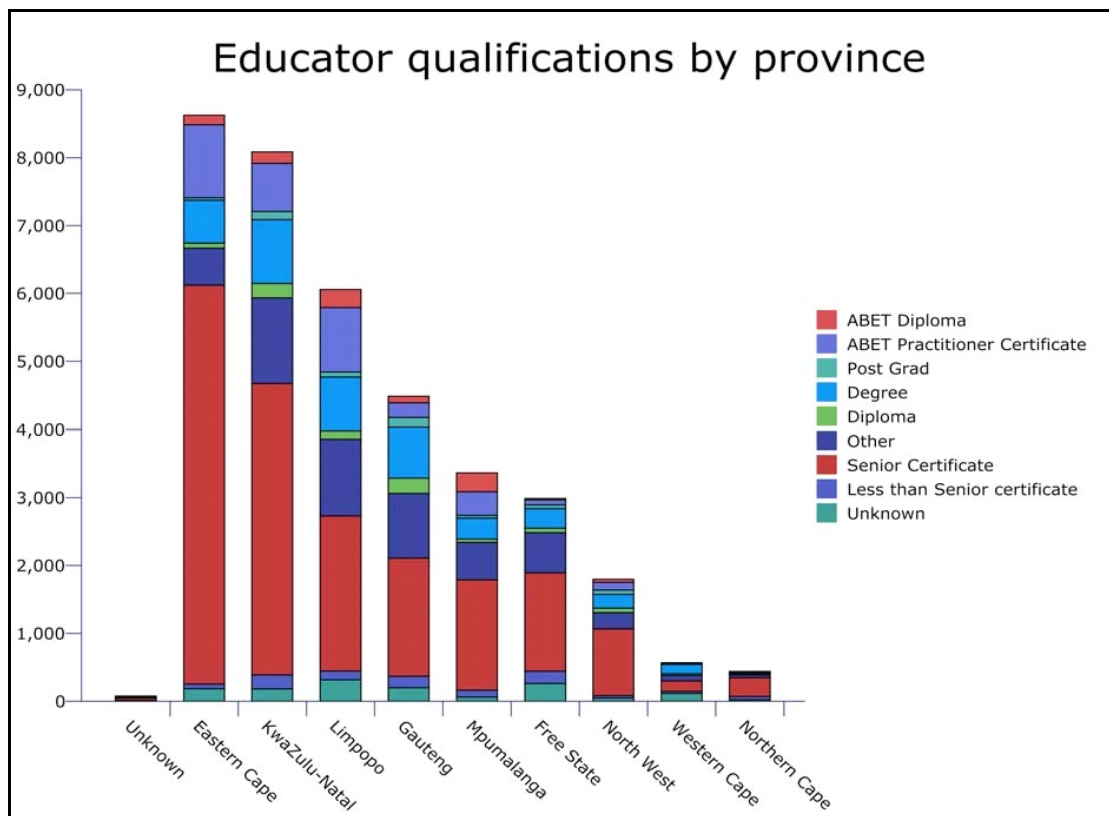


Language of the learners



Language distribution by province





Logistics

The original *Operational Plan* had recommended that the logistical element of the educational rollout be outsourced to a professional educational logistics firm with a proven track record of packing and delivery of educational materials across South Africa – including in remote areas. In addition, the company would need to ensure stock control management and maintain records of, and report on, stock availability. The logistics of educational delivery are particularly important where perhaps a majority of sites of educational activity do not have everyday access to a wide range of facilities and resources.



Boxes destined for the Eastern Cape. Each learner receives a bag containing a Xhosa literacy book, a Xhosa maths book, an English book, a Xhosa Learner Assessment Portfolio and stationary.

In the case of the Campaign, plans had to be made for the mass printing, packaging and delivery to every site of the learning materials and administrative forms and then the return of forms and reports and the completed Learning Assessment Portfolios to the centre. Clearly logistics was to be extremely taxing and burdensome (something that had been long evident in the South African educational system with annual reports of chronic delays and failures in the delivery of text books and other material to schools at the beginning of each year).

The Campaign was lucky in that the appointed CEO had experience with the University of South Africa, probably the world's largest distance higher education institution, of all these logistical issues and the ABET Institute component of the previous SANLI roll out had identified some of the requirements and suitable agents of such delivery.

Certainly one of the logistical requirements is to have a highly professional agent or agents and this was in due course done. No attempt will be made here to detail the specificities of such logistical excellence, ranging as it does from colour coding of boxes and materials to keeping exact records on databases of every package delivered to every site in the country, but the Campaign managed to achieve it with only minor difficulties.

Assessment

While the task of assessing more than 600 000 learners on the standardised instrument of a Learner Assessment Portfolio (LAP) at 40 000 different sites is an enormous task, the Campaign has constructed a model for assessment which makes it possible to conduct continuous *mass* assessments. In this sense, Kha Ri Gude differs from other campaigns in other countries which may have assessed only a sample of learners or taken attendance at classes as a proxy for attainment of the competencies and application of literacy or numeracy.

Two pages from a Learning Assessment Portfolio (2011 English language)

Activity 2

FILLING IN A FORM

Fill in your details on this form.

Let learners do this activity after they have completed theme 2.

Name: _____

Surname: _____

ID number: _____

Date of birth: Day / Month / Year _____

Age: _____ years

Male ☐ Female ☐

Today's date: Day / Month / Year _____

Signature _____

Total number of ticks _____

Mark	Criteria	Date
5	Learner correctly filled in all the information. Learner has 7-8 ticks.	
4	Almost all information given is correct. Learner has 5-6 ticks.	
3	Form is only partially completed. Learner has 3-4 ticks.	
2	Learner made lots of errors. Learner has 1-2 ticks.	
1	Learner was not ready to do this activity. Let learner redo this exercise at a later stage.	

Khe Ri Guide Assessment Portfolio

Activity 15

MULTIPLICATION AND DIVISION

Let learners do this activity after they have completed numeracy lesson 15.

Multiply the following: ✓

$3 \times 1 =$ _____

$4 \times 2 =$ _____

$5 \times 2 =$ _____

$6 \times 3 =$ _____

$4 \times 5 =$ _____

Divide the following: ✓

$4 \div 1 =$ _____

$4 \div 2 =$ _____

$8 \div 2 =$ _____

$6 \div 3 =$ _____

$70 \div 7 =$ _____

Khe Ri Guide Assessment Portfolio

This mass assessment process can be done because of:

firstly, the insistence that all the Educators conduct regular assessment activities (using the LAPs) and the supportive monthly monitoring by the Supervisors when they visit classes and check the learners' work in the LAPs, the marks awarded, the learners' progress, and the regularity and consistency of learners' handwriting (to determine possible irregularities);

secondly, the flow of assessment documentation (the completed LAP) from learner via Supervisors and Coordinators and on to SAB&T and then to verification by the South African Qualifications Authority (SAQA) (requiring courier, data capture and databasing capacity);

thirdly, a sound logistics system for collecting the LAPs and bringing them to a central bonded warehouse and then transporting a sample of these chosen by SAQA to the site of the SAQA verification; and

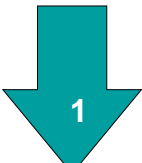
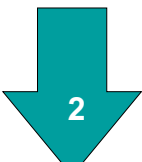
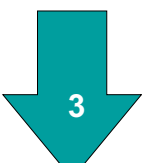
lastly, the verification process conducted by SAQA that, after having checked the course materials and LAPs for their alignment with ABET Level 1 on the National Qualifications Framework and the first three levels of UNESCO's Literacy Assessment and Monitoring Programme (LAMP), examines a large sample of the completed LAPs to ascertain the general integrity of the marking. SAQA also examines the Campaign databases of learner data to check that they satisfy the system requirements of the National Learners' Records

Database (NLRD).⁹ Also, since 2011, SAQA has conducted site visits to a sample of classes and conducted comparison tests which are correlated with the individual learner's LAP when completed (Adler *et al*, 2012).

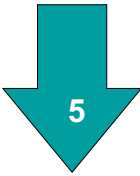
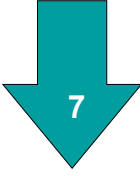
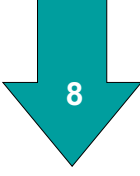
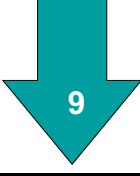


Boxes of Learner Assessment Portfolios from nearly 90% of registered learners are centrally warehoused prior to verification by SAQA moderators.

This whole assessment process is captured in this table below:

	Learners complete their Learner Assessment Portfolios (LAPs) The portfolios test Mother Tongue Literacy and Numeracy. Each activity has its own assessment criteria. They are competence-based and time-bound and are completed at prescribed times. They are calibrated against UNESCO LAMP levels 1 & 2 and ABET level 1.
	Learners finalise their LAPs Learners complete any unfinished activities. The LAP contains twenty assessment activities (10 for literacy and 10 for numeracy). During the programme, Supervisors and monitors are required to check their progress with their LAPs.
	Site based marking of LAPs by the Educators Volunteer Educators are required to mark the LAPs as learners complete the activities. Learners are given feedback on their work. Where a learner has not achieved a pass mark she or he is required to repeat the activity.
	District moderation of LAPs by Supervisors Supervisors are responsible for collecting the completed LAPs from the Educators and to moderate these under the control of the coordinator. Moderation is carried out in terms of the criteria used by SAQA in their national moderation of the LAPs.

⁹ The first verification exercise by SAQA was carried out in early 2009 on the 2008 cohort and the report (Adler, Aitchison and French, 2009) concluded that the it provided a solid basis for accepting the results as a whole and judged the large majority (85%) of marking as being good or acceptable. An interesting sub-finding arose from a check on whether there was a tendency by the educators to keep artificially high the number of portfolios submitted per class (thereby disguising any dropout of learners and requiring some portfolios being concocted). In fact, 70% of the classes examined were not a perfect 15, thereby suggesting that the portfolios do come from real authentic learners. Their second to eighth reports (Adler, Aitchison, and French, 2010, 2011, 2012, 2013, 2014, 2015, French, Aitchison and Adler, 2016) on verification of the 2009 to 2015 cohort results were based on the moderation of a much larger samples (except for 2014) with congruent results to the first verification and in 2014, 2015 and 2016 the reports also included data from site visits and comparison tests.

	Verification and oversight by coordinators Each coordinator is required to verify all the LAPs submitted. This process serves as a further moderation step and for quality assurance. Coordinators may require some activities to be re-marked (or even be redone). Irregularities are dealt with at this level.
	Transportation of the LAPs The LAPs are sealed in packaging provided by the Campaign. A Supervisor's report listing the number of LAPs submitted and the names of learners who have not completed LAPs, etc. Is attached to each pack. These are couriered to the Kha Ri Gude bonded warehouse.
	Data capturing All the marks and biographical details from each LAP are captured in time for the moderation and verification by SAQA conducted in the new year. They also trigger the final payment to the Educators. The data is analysed and forms part of the Campaign audit trail.
	SAQA verification The LAPs are verified by SAQA in the new year. Successful learners have their records uploaded onto SAQA's National Learners' Record Database (NLRD). This process helps assure governance and accountability and the monitoring of teaching and learning.
	Certification of learners Successful learners are certificated. They are issued with the Department of Basic Education's Statement of Results bearing the signature of the Minister of Basic Education. These are packaged per coordinator for distribution to the learners at the various sites.

An example of evidence of the effectiveness of the various systems involved in this process, on 23 December 2009 it was possible to determine that, for the 2009 cohort, by that date some 73.3% of the learners had already submitted their completed LAPs. Some classes had started later than others and were granted permission to hand in their LAPs at a later stage and therefore more were submitted in early 2010 and the percentage submitted by the end of January 2010 was 83.5%.¹⁰

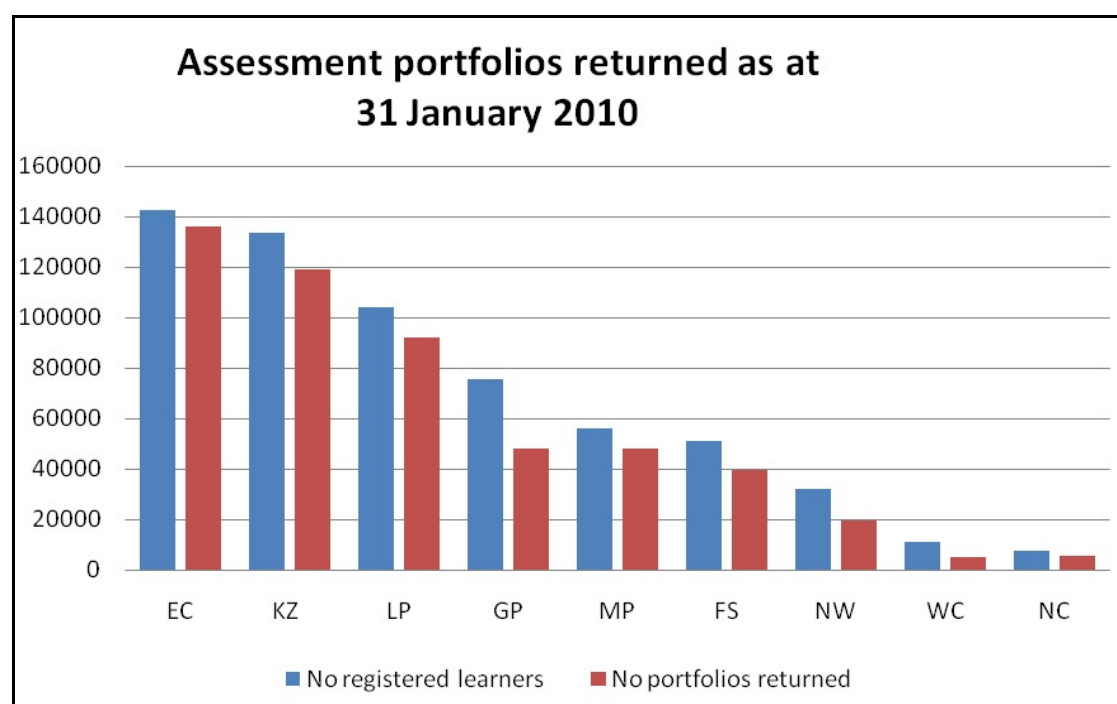
Using the Coordinator database and the collection forms coming in with the couriered packages of collected LAPs, it was possible to identify which Coordinators had submitted the LAPs from her or his area of control. Hence it was possible to follow this up and contact them to finalise the matter.

¹⁰ This high number of submissions indicates a very high learner survival rate compared to most literacy campaigns and adult basic education programmes (in South Africa ABET completers have seldom risen above 50% of those initially enrolled).

LAP return rates as at 31 January 2010, in relation to learner enrolment and numbers of coordinators per province

Province	Total learners registered	Total LAPs returned by province	% LAPs returned by province	Total number coordinators per province	Number coordinators who have returned LAPs	Number coordinators still to submit LAPs
Eastern Cape	142 671	136 007	95 %	42	42	0
KwaZulu-Natal	133 486	118 843	89 %	39	29	1
Limpopo	103 828	91 965	89 %	29	26	1
Gauteng	75 678	47 880	63 %	25	12	4
Mpumalanga	55 971	47 816	85 %	16	14	2
Free State	50 984	39 517	78 %	14	14	1
North West	32 193	19 687	61 %	9	7	1
Western Cape	11 173	4 801	43 %	5	2	1
Northern Cape	7 654	5 650	74 %	2	2	0
Deaf		367				
Total	613 638	512 533	83.5%	181	170	11

Note: Coordinators working with the blind are not included in this table since their assessments are handled separately due to the extended time given to blind learners and to the different format of their assessment. The four Deaf coordinators are also not included in this table. LAPS from deaf learners have not been disaggregated by province.



Finance

Financial data was of signal importance in the operations of the Campaign. Clearly the Campaign as designed could not run without materials being printed and delivered, and then used in classes whose part-time teachers would be paid a stipend. Yet the history of South African educational interventions is replete with disaster stories about corruption in textbook procurement and delivery and about part-time educators who are either not paid, or who don't teach but are paid, or who don't exist or are dead but someone receives the payment (the so-called "ghost teachers"). Because of the announcement in November 2006 that Cabinet had approved the budget of R 6.4 billion for the new literacy initiative, it was also likely that the Campaign could well be the target of the entrepreneurs of educational procurement and delivery malfeasance. A really robust financial system that was able to speedily interact with the other data flows was necessary not only to ensure the success of the Campaign but also to see that it was not derailed. In addition, the Campaign had direct financial accountability to the National Treasury

With the payroll, payment to a registered volunteer Educator was dependent on submission of the monthly class register (via Supervisor and the Coordinator). Those who had not submitted their registers, or, at the end of the programme, the LAPs, were not paid. The payroll program would generate a list of Educators who had submitted the required documents, had them approved, and who fulfilled the criteria of having at least 14 class members. There would be a separate list of those with lesser classes numbers and who received a *pro rata* payment.¹¹ The Kha Ri Gude Unit would then do a check on the lists received from SAB&T to ensure that there were no duplicate payments to people with the same Identity Number, etc. The SAB&T data systems were gradually fine tuned to routinely do these controls.

Full and pro rata payments to Educators by province: November 2009

	14-18	10-13	5-9	3-4	2	1	(1)
Province	R 1200	R 900	R 800	R 600	R 300	R 200	R 100
Eastern Cape	6 935	457	1	98	2	2	-
KwaZulu-Natal	6 626	231	-	42	-	1	-
Limpopo	4 508	188	-	42	2	1	-
Gauteng	3 415	172	1	16	1	-	1
Mpumalanga	2 521	338	-	59	1	4	-
Free State	1 939	196	56	1	215	25	-
North West	1 324	132	-	26	6	1	-
Western Cape	278	40	-	33	3	1	-
Northern Cape	294	16	-	1	-	-	-
Total	27 840	1 770	58	318	230	36	1

¹¹ Glitches in the payroll programming to effect the introduction of this pro rata payment system caused the one significant delay (of about two weeks) in the steady throughput of payments.

An ongoing problem was the closure of nil balance bank accounts by the banks concerned.¹² SAB&T contact the respective Coordinators so as to acquire the correct bank details of these individuals to enable the payments of the rejected amounts. In addition a mobile phone SMS-solution has been procured and is being used to notify affected volunteer Educators that their bank account is not operational and the electronic payment has been rejected.

However, though there are persistent problems with “rejected payments” from banks it needs to be stated that the percentage of rejected payments in the second year of the Campaign was much lower as the volunteer Educators become more “bank literate” and was less than 1% of all attempted payments. In subsequent years, with a maturing system, the problem became even less significant.

¹² South Africa has banking services that are extremely costly to and exploitative of ordinary people. Charges are levied for every transaction, even on “savings accounts”, and banks tend to swiftly and automatically close nil balance accounts. This is an obvious problem (in spite of some recent efforts to ameliorate the situation) where people have opened a bank account to receive their stipend and, being poor, spend it all or do not realise that the small balance is soon eliminated by bank charges.

Status of stipend payments as at 31 January 2010

2009/10 Stipend Payments as at 31 January 2010					
	Payments made to				
Description	Coordinators	Supervisors	Volunteer Educators	Helpers	Total
Payment attempt	8 483 638	40 205 715	197 585 781	432 400	246 707 533
Bank confirmed	6 845 690	35 600 620	177 054 155	371 200	219 871 664
Bank rejected	62 270	76 130	1 447 495	31 200	1 617 095
Bank pending	1 575 678	4 528 965	19 084 131	30 000	25 218 774
Payments by Months					
March 2009	902 550				902 550
April 2009	907 340				907 340
May 2009	916 920				916 920
June 2009	967 540	7 111 600	36 591 300	82 800	44 753 240
July 2009	1 271 250	7 458 900	36 851 800	72 800	45 654 750
August 2009	950 450	7 521 000	37 217 600	80 000	45 769 050
September 2009	827 500	7 210 500	36 674 400	63 200	44 775 600
October 2009	733 710	7 067 900	35 803 600	69 600	43 674 810
November 2009	1 006 378	3 835 815	14 447 081	64 000	19 353 273
Total by Months	8 483 638	40 205 715	197 585 781	432 400	246 707 533
Number of volunteers on payment report	196	3 586	35 280	102	39 164
Average amount per person	43 284	11 212	5 601	4 239	
Average number of payments per person	9	5	5	5	

Explanation of descriptions	
Bank confirmed	Amount paid into volunteers' bank accounts
Bank rejected	This is mainly because of wrong banking details submitted by the volunteers
Bank pending	It takes 5 working days to receive confirmation from all the commercial banks that deposits have been made into the indicated bank accounts

With the printing of materials and procurement of stationery and suchlike the Kha Ri Gude unit insisted on genuine tendering and quoting. Printing specifications were refined and further refined.

The impact of this rigorous financial management allied to a functioning and up to the minute data system led to dramatic cost savings. In the 2008 year, at the beginning of which much of the procurement was done by Department of Education officials, the average cost per learner was R 1 269. In 2009 with the Kha Ri Gude/SAB&T systems fully in place, the cost was reduced to R 680 per learner.

The Campaign has also been efficient in the spending of its annual budget as planned and on schedule. For example, by the end of the tenth month of the 2009/2010 financial year, the Campaign had spent 81.6% of its budget and finished the financial year with a mere six thousand rands unspent.

Risk management

Any project on the scale of the Campaign requires some attention to the assessment of risks, securing of assets, safety of staff and the prevention of any fraud (as already indicated in the section on finance above). Effective coordination and communication, backed up by effective monitoring will do much to reduce the dangers of fraud, corruption and theft. In addition there has to be some anticipation of the likelihood of unintended (or unforeseen) consequences of the intervention that may have negative results, including that of providing any “perverse incentives”.

The Campaign, because the processing of the monthly payroll is dependent on real data, has been able to develop simple procedures to identify ghost educators and fictitious learners, largely through Identity Number checking on payment lists (duplicate ID numbers indicate some kind of fraud or at least that an error has occurred). As from 2010 even before classes start all the Identity Numbers will be checked against the Department of Home Affairs database to ensure that they are real ID numbers and not (for example, from the deceased).

The State Information Technology Agency (SITA)/Home Affairs verification has proved extremely effective. As a result of this a number of attempts at fraud were picked up and dealt with. For example in 2009 Kha Ri Gude ran an Identity Number check of all volunteers and learners then on the system via the State Information Technology Agency (SITA) and the Department of Home Affairs.

Records read	617 142	100%
Records successful	526 831	85%
Persons absent from file	31 408	5%
Persons test digit incorrect	46 884	8%
Persons identity number not numeric	43	0.00007%
Persons deceased	11 976	2%
Persons emigrated	-	-

Although the level of accuracy of the *Kha Ri Gude* records maintained on the system was found to be high, all learners and educators for the 2010 implementation will nevertheless have their data verified before the commencement of classes.

Because the Kha Ri Gude database has data on the numbers of learners per class, submission of LAPs from the class, etc., poorly performing educators can be identified and their services dispensed with or remedial action taken.

Processing and analysing the data

The main source of data on the Campaign for analysis and reporting comes from the databases run by SAB&T. Data output ranging from the number of learners and classes through to the qualifications of personnel can be generated in various data formats (though usually in spreadsheets) for analysis by the Kha Ri Gude unit in the Department.

Because a specialised research component was never funded, in practice this means that most data has to be analysed by the CEO of the Campaign (herself a Professor of Sociology who used to teach research methods). Specifically financial data is analysed by the finance officer seconded by the Department to the unit, Ms Marita du Toit, replaced in 2012 by Ms Jenny Wakefield). Some statistical processing of learner and personnel data is done by a contracted statistician from a local university.

It may be argued that the capacity to do more detailed analysis and interpretation of the data is limited because of the lack of specialised research capacity (including a lack of any significant engagement by university researchers as yet in looking at the Campaign). The rich qualitative data accumulated in the reports sent in by Supervisors, Coordinators and Monitors, is also as yet largely untapped for research purposes.

Using the data for reporting and advocacy

One of the requirements arising from the housing of the Campaign in the Department of Education was that the Department had an established system of internal reporting. This necessitated the provision of fairly detailed monthly reports and other reports were required, though less frequently, by the National Treasury and the Education Portfolio Committee of Parliament. It was only in 2009 that these reports began to be made available to the public on the Kha Ri Gude website and first ***Progress reports*** for May, August, October and November 2009 made available (Kha Ri Gude Literacy Campaign South Africa. 2009a,b,c,d). These were models of accessible statistical information on the Campaign.

Despite the caveats about the limited capacity within the Campaign headquarters to devote significant time to communicating data from the Campaign to interested stakeholders or to more in depth research, the output from the Campaign of basic processed data on a regular basis is admirable and puts other education and training institutions and initiatives to shame.

Although the data has been used for internal advocacy – in the sense that the Campaign has to demonstrate to the host Department, to the Minister of Education, to the Education Portfolio Committee of Parliament, and to the National Treasury that the Campaign is real, has genuine and extremely positive outputs and is run efficiently, effectively and without wastage or corruption and deserves continued (and more funding), ironically enough external advocacy is hardly required. Because the scale of the Campaign is much less than originally envisaged there is literally no need to persuade more educators to volunteer or learners to

enrol or to solicit NGO or private sector partners – generally the Campaign is oversubscribed. If the Campaign was to expand to double its current capacity per year there might then be more need for advocacy in which the use of the data generated so far might be useful.

Why has the Campaign succeeded with its data collecting and analysis?

South Africa, and many other countries, are hosts to many failed educational management information systems. How is it that the Kha Ri Gude information system seems to work?

One has to firstly discount the idea that it is because the Campaign headquarters staff (in the Kha Ri Gude unit and at SAB&T) are professional, zealous and work particularly hard (though they may well do so). Many information systems have excellent hard-working experts and professionals running them at the central level. The explanation has rather to be seen in the particular design of the system and what its main driver is.

One can identify that the core driver of the Kha Ri Gude information system is that of payments of the personnel. Every aspect of the data collection is linked to the data required to enable payments to be authorised. Human self-interest (in being paid a stipend) therefore almost guarantees that data will be fed into the system – no data (in the form of registers, reports and assessment portfolios) means no money. This is a huge incentive to everybody at each level (people want to be paid and people do not want to be seen as not having done the data submission work that enables people to be paid). Further, the data submission is timeous because no stipends are paid in advance of the data submission for the particular month.

The second design feature that we believe is significant is that though there are authorisation steps for payment (steps at which data has to be available for the decision to be made) there are not too many (in effect four – Supervisor endorses, Coordinator endorses, SAB&T processes and generates list, Kha Ri Gude Unit authorises payment). By comparison many other bureaucratic chains or authorisation are many and cumbersome.¹³ With Kha Ri Gude the connection between providing the raw data (registers, monthly reports, learner assessment portfolios) and being paid is straightforwardly direct, obvious, and, in time, relatively short.

The third design feature (and one which severely limits the likelihood of fraud within the system) is that who authorises at the first two steps is known and closely monitored. The design of data fields also requires data that can be easily correlated with other data (such as ID numbers, registration numbers, etc.).

Lastly, the Kha Ri Gude system was designed more or less as a new integrated system. It was not attached to some other existing system (and in particular, not welded onto some already dysfunctional system that was failing).

¹³ In some of the provinces the procedures by which part-time educators in public adult basic education centres were paid have at times required as many as 17 authorisation steps.

It can be done!

The Kha Ri Gude adult literacy campaign has shown, in a very short space of time, that it is possible to run a successful data system if there has been a good design process and that, once implementation starts, it is well managed. Elements of professional design and management resources have been important in this success but perhaps the most telling finding is that it works because it is in the direct interests of the personnel in the Campaign that it works. So good, accurate, really useful data can be collected, processed and used in an educational system or programme. That this success took place in the often marginal and derided field of adult literacy and basic education is particularly good news. If it can be done there it can be done anywhere.

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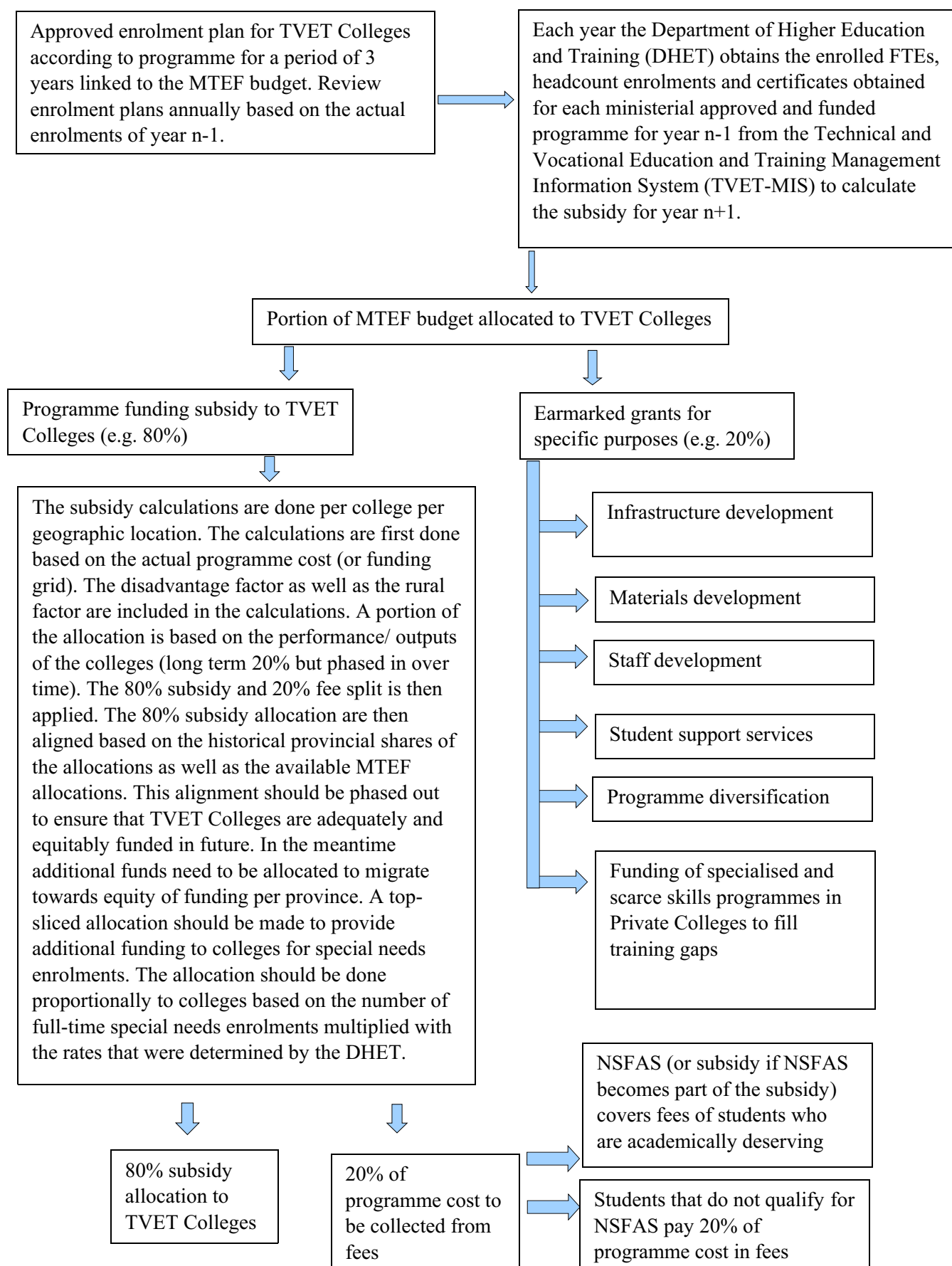
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Appendix 5: Towards a funding formula for the TVET Colleges

Introductory note

It is important to note that it is not feasible to develop a formula for allocation to TVET Colleges that will encompass all the components and principles embedded in the Ministerial Committee's recommendations. Certain components such as the programme subsidy can be allocated based on a formula, which has been illustrated in the following section by the principle of weighted FTEs. The funding allocations are rather presented as a framework in a flow diagramme format with an indication of principles for allocation. Decisions need to be made with regard to amounts allocated for performance/ outputs as well as amounts set aside for earmarked grants for specific purposes. It is advisable that a model of allocation be developed that will over time introduce those recommendations accepted by the Minister. The introduction of each component must be modelled to establish the impact on each TVET College and should be introduced stepwise to ensure that the system is not destabilised. It is important that additional funding will have to be allocated for the introduction of earmarked grants and the eradication of differences in provincial allocations per weighted full-time equivalents. Some of the recommendations such as the shift in provincial allocations based on the differences in growth in full-time equivalents as demonstrated below should however be introduced as a matter of urgency.

Funding for TVET Colleges



Enrolment planning

The colleges should stay within 5% of the enrolment plan targets to avoid the deflation of the rand value of the full-time equivalents (FTEs) per programme and or to avoid over-funding (under-enrolment) for a particular college. These enrolment targets could provide indicative subsidy allocations for colleges.

TVET Management Information System (TVET-MIS)

- a) It is vital that the DHET develop an appropriate EMIS to ensure that the DHET can make improved and enhanced subsidy calculations and that the DHET can monitor the efficiency and performance of the system.
- b) DHET must involve a wide range of role players in the design and development of a **unit record database system**. The design and development must include the strategic and enrolment planners, financial staff, curriculum developers, physical planners, internal and external researchers, TVET college staff as well as representative bodies to ensure that the DHET develop a comprehensive database that will serve the needs of all the role players in the sector. DHET must establish a process/ structure that revisit the database design on a regular basis to ensure that it remains relevant and serve the needs of the various role players.
- c) One of the recommendations is that performance/outputs must become the basis for a portion of the programme funding allocation and it is thus vital that the certification numbers and rates of colleges must be available.

Subsidy Calculations

- a) If a college did not deviate more than 5% from the planned **enrolment targets**, the DHET should fund the college based on all the enrolled FTEs.
- b) The **FTE calculations are based on subject enrolments**. Take the example of a student who must enrol in 7 subjects for the NC(V). If the student enrolls for only 4 of the 7 subjects the student enrolment is equal to 4/7 FTEs or 0.57 FTEs. It would be preferable if the TVET Colleges implement a credit system for programmes where each subject has a credit value depending on its weight in the curriculum. This would create a system for much more accurate calculations of FTE values and subsidy.
- c) If the **enrolments deviate** more than 5% from the target, the DHET must adjust the enrolment targets for year n+1.
- d) If the college's enrolments were more than 5% under the enrolment targets for the year n-1 the targets for year n+1 must be adjusted down. It does mean that a college could have received subsidy for a year for enrolments it did not achieve but this is rectified by adjusting the enrolment targets for the outer year on a continuous basis. The clawback mechanism should be abolished to provide more budget predictability for colleges.
- e) Depending on the totals for the system, as well as available funding, if a college enrolled more than a 5% deviation from the target the target could be increased for year n+1.
- f) If the system totals and funding do not allow it, the DHET must leave the target for year n+1 as is and the college must manage their enrolments for year n+1 within this target range.
- g) If there is not adequate additional funding, over enrolments should not be funded, since it affects the subsidy allocations of other Colleges that have managed their enrolments within the targets. This implies that the college will have to fund the over enrolment itself from its own coffers.
- h) The **subsidy allocation** for year n+1 is thus based on the enrolment target for year n+1, but the achievement of the enrolment target for year n-1 might affect the **enrolment target** for year n+1.
- i) The current (2017) relative **funding weights** of the NC(V) and NATED programmes are given in Tables 1 and 2 below.

Table 1 – Current funding weights of the NC(V) programmes based on the lowest cost NC(V) programme (Office Administration)

NC(V) Programme Name	Cost according to the TVET funding norms and standards	Funding Weight
Civil Engineering and Building Construction L2 - L4	60 833	1.5678
Drawing Office Practice L2 - L4	44 561	1.1484
Electrical Infrastructure Construction L2 - L4	60 025	1.5470
Engineering and Related Design L2 - L4	78 392	2.0204
Mechatronics L2 - L4	79 434	2.0472
Process Instrumentation L2 - L4	59 636	1.5370
Process Plant Operations L2 - L4	60 869	1.5687
Finance Economics and Accounting L2 - L4	43 417	1.1190
Management L2 - L4	45 454	1.1715
Hospitality L2 - L4	73 739	1.9004
IT and Computer Science L2 - L4	59 469	1.5327
Education and Development L2 - L4	42 179	1.0871
Marketing L2 - L4	38 926	1.0032
Office Administration L2 - L4	38 801	1.0000
Primary Agriculture L2 - L4	104 249	2.6868
Tourism L2 - L4	56 405	1.4537
Safety in Society L2 - L4	39 772	1.0250
Transport and Logistics L2 - L4	40 688	1.0486
Primary Health L2 - L4	48 987	1.2625

Table 2 – Current funding weights of the Report 191 (NATED) programmes based on the lowest cost NC(V) programme (Office Administration)

Report 191 (NATED) Programme Name	Cost according to the TVET funding norms and standards	Funding Weight
Engineering Studies N1 - N3	23 896	0.6159
Engineering Studies N4 - N6	27 877	0.7185
Business Management N4 - N6	23 603	0.6083
Financial Management N4 - N6	23 603	0.6083
Human Resource Management N4 - N6	23 603	0.6083
Introductory Business Studies N4	23 603	0.6083
Introductory Clothing Production N4	32 768	0.8445
Management Assistant N4 - N6	23 603	0.6083
Marketing Management N4 - N6	23 603	0.6083
Public Management N4 - N6	23 603	0.6083
Public Relations N4 - N6	23 603	0.6083
Popular Music: Performance N4 - N6	38 231	0.9853
Art and Design N4 - N6	38 231	0.9853
Clothing Production N4 - N6	32 768	0.8445
Educare N4 - N6	28 673	0.7390
Farming Management N4 - N6	38 231	0.9853
Hospitality and Catering Services N4 - N6	53 249	1.3724
Interior Decorating N4 - N6	38 231	0.9853
Introductory Art and Design N4	38 231	0.9853
Introductory Food Services N4	53 249	1.3724
Legal Secretary N4 - N6	32 768	0.8445
Medical Secretary N4	38 231	0.9853
Tourism N4 - N6	51 884	1.3372
Note: The NATED programmes are weighted against the lowest NC(V) programme cost (which is currently Office Administration) to be able to calculate comparable weighted full-time equivalents for each College independent of the mix of NC(V) and NATED enrolments.		

- j) The DHET should allocate a portion of the programme funding based on the **performance/outputs** of the colleges. In the longer term this should constitute approximately 20% of the allocation but to ensure financial stability it could be phased in over a period of time (perhaps ten years).
- k) A simple way of implementing such an output subsidy is to allocate output weights to various types of certificates and diplomas awarded by Colleges based on either the duration or credits of the programmes. One could for example allocate an output credit of 1 to one full year of study (1 full-time equivalent) and then allocate credits to other programmes in relation to a full year of study. This approach would allow for the determination of output weights for a variety of programmes as new programmes are introduced in TVET Colleges. Only certificates awarded for ministerial funded programmes should qualify for output subsidy. All certificates and diplomas obtained in year n-1 then gets an output credit weight. The total for the system is calculated and the portion obtained by each college is calculated. The total amount set aside for output funding is then allocated to each college based on their share of the total weighted outputs. As noted, the percentage of the programme funding set aside for this could be a small percentage in the beginning of implementation but it should be increased over time.
- l) The DHET should introduce an additional funding weight for **rural colleges**, e.g. a 10% additional weight or multiplying their unweighted full-time equivalents with 1.1. There is a need to identify the cost drivers and distance appear to be the most important factor. Rurality contributes to additional delivery and travel costs, accommodation costs, and need for rural allowances for travel and accommodation costs for staff, etc. The classification of colleges/campuses of colleges as urban and rural is needed to identify those that qualify for a rural funding weight. If only certain campuses of a TVET College are rural then the weighting should only be applied to the FTEs of those campuses. Rural costs need to be benchmark against urban cost. Rural colleges will also attract more disadvantaged students that will require more student support to be successful. The DHET has made the following classifications of the TVET Colleges based on the population density. There would probably have to be a weight for semi-rural (e.g. 5% additional unweighted FTEs) well as rural (e.g. 10% additional unweighted FTEs). The exact additional FTEs need to be determined by a technical exercise that will focus on determining the cost differentials for the three groupings of colleges.

Table 3 – Urban/Rural classification of TVET Colleges

Province	College Name	Classification
Eastern Cape	Buffalo City TVET College	Urban
	East Cape Midlands TVET College	Urban
	Ikhala TVET College	Rural
	Ingwe TVET College	Rural
	King Hintsa TVET College	Rural
	King Sabata Dalindyebo TVET College	Rural
	Lovedale TVET College	Rural
	Port Elizabeth TVET College	Urban
Free State	Flavius Mareka	Urban
	Goldfields TVET College	Urban
	Maluti TVET College	Semi-rural
	Motheo TVET College	Semi-rural
Gauteng	Central Johannesburg TVET College	Urban
	Ekurhuleni East TVET College	Urban
	Ekurhuleni West College	Urban
	Sedibeng TVET College	Urban
	South West TVET College	Urban
	Tshwane North TVET College	Urban
	Tshwane South TVET College	Urban
	Western College TVET	Semi-rural
KwaZulu-Natal	Coastal TVET College (Mobeni)	Urban
	Elangeni TVET College	Urban
	Esayidi TVET College	Rural
	Majuba TVET College	Urban
	Mnambithi TVET College	Semi-rural
	Mthashana TVET College	Rural
	Thekwini TVET College	Urban
	Umfolozu TVET College	Rural
	Umgungundlovu TVET College	Urban
Limpopo	Capricorn TVET College	Urban
	Lephalale TVET College	Rural
	Letaba TVET College	Rural
	Mopani South East TVET College	Rural
	Sekhukhune TVET College	Rural
	Vhembe TVET College	Rural
	Waterberg TVET College	Rural

Mpumalanga	Ehlanzeni TVET College	Rural
	Gert Sibande TVET College	Semi-rural
	Nkangala TVET College	Urban
Northern Cape	Northern Cape Rural TVET College	Rural
	Northern Cape Urban TVET College	Urban
North West	Orbit TVET College	Semi-rural
	Taletso TVET College	Rural
	Vuselela TVET College	Urban
Western Cape	Boland TVET College	Semi-rural
	College of Cape Town TVET College	Urban
	False Bay TVET College	Urban
	Northlink TVET College	Urban
	South Cape TVET College	Semi-rural
	West Coast TVET College	Rural

- m) A top slice grant should be allocated for additional funding for students with **special needs**. The amount needed could be calculated on the basis of the indicative additional cost per special needs education student for NC(V) and Report 191 programmes for the 2017 to 2019 MTEF period as given in Table 4. Once such a grant has been established it should be distributed to Colleges based on the number and mix of students with special education needs.

Table 4 – Indicative cost per year for Special Needs Education for NC(V) and Report 191 (NATED) programmes for the 2017 to 2019 MTEF

Category Code	Category of Special Needs Education (SNE)	Rating	MTEF SNE Cost per year additional to the Programme Cost		
			2 017	2 018	2 019
CPIX				1.059	1.056
NC(V) programmes					
3	Physical Disability	2.5	22 690	24 029	25 375
	Behavioural/conduct disorder (including severe behavioural problems)	2.5			
	Mild to moderate intellectual disability	2.5			
	Specific learning disability	2.5			
	Attention deficit disorder with/without	2.5			
2	Cerebral Palsy	4	36 305	38 447	40 600
	Autistic spectrum disorders	4			
	Psychiatric disorder	4			
	Epilepsy	4			
1	Blindness	5	45 381	48 058	50 750
	Deafness	5			
	Deaf-blindness	5			
	Partial sightedness/Low Vision	5			
	Hard of hearing	5			
Report 191 (NATED) programmes					
3	Physical Disability	2.5	15 993	16 937	17 886
	Behavioural/conduct disorder (including severe behavioural problems)	2.5			
	Mild to moderate intellectual disability	2.5			
	Specific learning disability	2.5			
	Attention deficit disorder with/without	2.5			
2	Cerebral Palsy	4	25 589	27 099	28 617
	Autistic spectrum disorders	4			
	Psychiatric disorder	4			
	Epilepsy	4			
1	Blindness	5	31 987	33 874	35 771
	Deafness	5			
	Deaf-blindness	5			
	Partial sightedness/Low Vision	5			
	Hard of hearing	5			
Note: Rating 5 is 80% of average programme cost as handicap is severe and requires an additional staff member .					

Table 5 – Total number of learners with special education needs - 2017

Disability	Headcounts	As % of total Special Needs learners
Communication(talk/listen)	5	0.1%
Disabled but unspecified	3 087	74.5%
Emotional (behavioural/psychological)	84	2.0%
Hearing (even with hearing aid)	127	3.1%
Intellectual (learn, etc.)	85	2.1%
Multiple	61	1.5%
None now - was Sight	2	0.0%
Physical (move/stand, etc.)	192	4.6%
Sight (even with glasses)	505	12.2%
Total reported SNE Students	4 148	100.0%
<i>Total reported SNE Students</i>	<i>4 148</i>	<i>1.3%</i>
<i>None</i>	<i>325 065</i>	<i>98.7%</i>
Grand Total	329 211	100.0%

- n) The practice for 2017/18 was that a calculation was made of the amount from the subsidy allocated should be earmarked for SNE students based on the total number of special needs students based on the maximum amount of R45,389.00. It was not an additional allocation but a guideline of how much money should be spent on SNE students from their budget based on the numbers provided. This is problematic since it is not additional funds (which is a result of the high levels of under funding currently) and it also does not distinguish between categories of special needs. Furthermore 74% of the special needs was unspecified which makes the exercise basically futile. Some of the variables are also to open for interpretation such as “Sight (even with glasses)”. This could not have meant all students wearing glasses but rather students that have severe problems with sight that impact on their ability to gain adequately from mainstream education. The statistics for some of the Colleges appear to have been any student wearing glasses. Before any additional grant for SNE students can be implemented these definitions will have to be sharpened and a data verification mechanism will have to be put in place.

- o) The need for addressing the **unequal funding of TVET Colleges in the provinces** is demonstrated in the analysis done in Tables 6.1 to 6.5. In order to arrive at comparable data there is a need to first ensure that the varying cost in offering the various Programme Qualification Mixes (PQMs) are taken into consideration. The specific government funded programmes a particular FET College offer as well as the full-time equivalent enrolments in each programme determine the cost to the College. This is done by calculating a funding weight for each programme in relation to the lowest cost NC(V) which is the NC(V) in Office Administration. The funding weight of this programme is taken as the base with a funding weight of 1.000. The funding weights of all the other NC(V) as well as Report 191 (NATED) programmes is determined in relation to the cost of this programme by dividing their cost by the cost of the NC(V) in Office Administration (See Tables 6.1 and 6.2). The full-time equivalent enrolments in each programme is then multiplied by this funding weight to calculate the weighted full-time equivalent (WFTE) enrolments (known as teaching input units in the university system) (See Tables 6.3 and 6.4). This weighting ensures that the PQM mix as well as the full-time equivalent enrolments in each programme with its different cost structure is taken into account.

Dividing the total provincial allocation by the total weighted FTEs for NC(V) and Report 191 (NATED) gives the allocation per weighted FTE for each province which then provides a comparison of the level of funding per province. Dividing the total allocation for all provinces by the total weighted FTEs for all provinces give the average allocation for the TVET sector per weighted FTE. The deviations from the average for both the financial years 2017/18 and 2013/14 are shown in Table 6.5.

The following trends can be observed:

- In 2013/14 the Eastern Cape had the highest allocation per WFTE (R6,073.76 above the average), but this has changed to the Western Cape in 2017/18 (R7,647.69 above the average).
- The Free State remained above the average for both years although the amount above the average became smaller (R1,585.90 above the average in 2017/18 compared to R3,174.17 in 2013/14).
- Allocations in Gauteng deteriorated from R2,400.94 above the average per weighted FTE in 2013/14 to –R199.33 below the average in 2017/18.
- The KwaZulu-Natal allocations improved considerably over this period. In 2013/14 the allocation per WFTE was –R3,826.69 below the average, which increased to R1,629.22 above the average in 2017/18.
- The Limpopo allocations remained the lowest in both these financial years (–R4,733.75 below average in 2013/14 and –R7,905.10 below the average in 2017/18). The Mpumalanga allocations deteriorated from R2,093.53 above the average in 2013/14 to –R1,619.28 below the average in 2017/18.
- Allocations per WFTE in the Northern Cape improved considerably from –R4,036.12 below the average in 2013/14 to R1,854.57 above the average in 2017/18.

- In North West the allocations stayed below the average but improved from (– R3,047.28 in 2013/14 to –R665.40 in 2017/18).
- The Western Cape allocations improved considerably from R2,729.60 above the average in 2013/14 to R7,647.69 above the average in 2017/18.

These variations reflect the historical levels of resourcing in provinces. Because the current allocations are based on historical allocations by provinces, the changes in the patterns shown over the period 2013/14 to 2017/18 must also be a reflection of variance in enrolment growth in the various programmes with different funding weights between provinces. This is shown in the changes in percentage shares of the total weighted FTEs over the period 2013/14 to 2017/18 by province in Table 6.6. Over time these differences need to be eradicated from additional funding allocations. When this has been achieved, colleges should be treated individually and not grouped per province. An immediate improvement in the fairness of allocations would be to start adjusting for the differences in growth in weighted FTEs per province per annum.

Table 6.1 – Full-time equivalent enrolments used for the 2017 subsidy allocations to TVET Colleges: NC(V) programmes

Programmes	Cost according to the TVET funding norms and standards	Funding Weight	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	Northern Cape	North West	Western Cape	Total
Civil Engineering and Building Construction L2 - L4	60 833	1.5678	1 580	473	1 637	2 213	2 322	667	96	571	295	9 854
Drawing Office Practice L2 - L4	44 561	1.1484	0	23	72	0	130	0	0	0	0	225
Electrical Infrastructure Construction L2 - L4	60 025	1.5470	1 989	625	3 655	2 815	2 744	1 785	185	1 368	1 427	16 593
Engineering and Related Design L2 - L4	78 392	2.0204	1 610	639	4 574	2 770	3 371	1 505	414	797	1 378	17 058
Mechatronics L2 - L4	79 434	2.0472	235	0	474	0	160	84	0	0	41	994
Process Instrumentation L2 - L4	59 636	1.5370	0	0	0	0	0	0	0	0	0	0
Process Plant Operations L2 - L4	60 869	1.5687	0	0	102	200	200	0	0	0	0	502
Finance Economics and Accounting L2 - L4	43 417	1.1190	1 831	469	1 797	1 099	1 594	917	130	562	524	8 923
Management L2 - L4	45 454	1.1715	782	260	1 686	150	1 284	1 004	69	758	533	6 526
Hospitality L2 - L4	73 739	1.9004	1 079	489	1 789	2 135	1 321	481	65	496	867	8 722
IT and Computer Science L2 - L4	59 469	1.5327	1 158	343	1 801	1 085	1 420	158	10	597	714	7 286
Education and Development L2 - L4	42 179	1.0871	512	295	276	879	430	90	1	0	377	2 860
Marketing L2 - L4	38 926	1.0032	1 222	463	2 184	209	1 479	527	0	35	321	6 440
Office Administration L2 - L4	38 801	1.0000	3 898	1 768	4 487	5 148	3 537	2 593	735	2 238	2 964	27 368
Primary Agriculture L2 - L4	104 249	2.6868	380	280	167	1 364	1 015	713	0	281	19	4 219
Tourism L2 - L4	56 405	1.4537	1 632	381	1 776	1 963	1 560	90	90	345	1 080	8 917
Safety in Society L2 - L4	39 772	1.0250	1 092	99	885	831	372	0	95	0	1 344	4 718
Transport and Logistics L2 - L4	40 688	1.0486	74	90	708	622	561	184	0	210	214	2 663
Primary Health L2 - L4	48 987	1.2625	120	245	689	85	452	225	90	249	431	2 586
Total NC(V)			19 194	6 942	28 759	23 569	23 952	11 023	1 980	8 507	12 529	136 455
Source: Calculations based on 2017 subsidy information for TVET Colleges provided by the DHET												

Table 6.2 – Full-time equivalent enrolments used for the 2017 subsidy allocations to TVET Colleges: Report 191 (NATED)

Programmes	Cost according to the TVET funding norms and standards	Funding Weight	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	Northern Cape	North West	Western Cape	Total
Engineering Studies N1 - N3	23 896	0.6159	3 818	3 042	13 397	5 881	6 587	3 478	979	2 059	4 104	43 345
Engineering Studies N4 - N6	27 877	0.7185	1 532	1 628	7 006	3 075	3 701	1 521	49	1 134	1 132	20 776
Business Management N4 - N6	23 603	0.6083	1 732	1 847	2 362	2 938	1 529	470	0	799	2 193	13 869
Financial Management N4 - N6	23 603	0.6083	1 052	695	2 979	2 611	1 154	930	205	418	764	10 805
Human Resource Management N4 - N6	23 603	0.6083	2 238	1 829	2 879	2 460	2 297	530	580	993	1 306	15 110
Introductory Business Studies N4	23 603	0.6083	176	275	1 268	65	270	249	35	0	90	2 428
Introductory Clothing Production N4	32 768	0.8445	0	8	94	18	0	0	0	0	92	212
Management Assistant N4 - N6	23 603	0.6083	1 357	1 734	4 359	1 563	1 690	1 128	802	2 001	2 004	16 637
Marketing Management N4 - N6	23 603	0.6083	776	881	2 351	338	1 162	123	158	329	705	6 820
Public Management N4 - N6	23 603	0.6083	1 820	188	1 524	2 223	1 143	516	597	0	688	8 697
Public Relations N4 - N6	23 603	0.6083	417	0	156	210	0	0	0	0	169	952
Popular Music: Performance N4 - N6	38 231	0.9853	0	0	45	0	0	0	0	18	0	63
Art and Design N4 - N6	38 231	0.9853	102	51	306	80	0	0	0	15	181	734
Clothing Production N4 - N6	32 768	0.8445	0	24	181	39	110	0	0	0	184	537
Educare N4 - N6	28 673	0.7390	232	1 750	1 465	783	355	0	0	123	1 324	6 030
Farming Management N4 - N6	38 231	0.9853	408	0	0	661	550	0	0	0	172	1 791
Hospitality and Catering Services N4 - N6	53 249	1.3724	198	196	1 252	607	233	120	0	70	710	3 385
Interior Decorating N4 - N6	38 231	0.9853	38	0	0	0	0	0	0	0	0	38
Introductory Art and Design N4	38 231	0.9853	45	36	32	85	0	0	0	0	75	273
Introductory Food Services N4	53 249	1.3724	0	0	20	0	0	0	0	0	0	20
Legal Secretary N4 - N6	32 768	0.8445	45	0	182	354	0	0	0	0	0	581
Medical Secretary N4	38 231	0.9853	0	0	0	24	0	24	24	0	0	72
Tourism N4 - N6	51 884	1.3372	255	209	1 184	1 199	278	200	0	213	757	4 294
Total Report 191 (NATED)			16 237	14 390	43 039	25 211	21 056	9 289	3 427	8 170	16 647	157 464
Source: Calculations based on 2017 subsidy information for TVET Colleges provided by the DHET												

Table 6.3 – Weighted full-time equivalent enrolments used for the 2017 subsidy allocations to TVET Colleges: NC(V) programmes

Programmes	Cost according to the TVET funding norms and standards	Funding Weight	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	Northern Cape	North West	Western Cape	Total
Civil Engineering and Building Construction L2 - L4	60 833	1.5678	2 477	742	2 567	3 469	3 640	1 046	151	895	463	15 449
Drawing Office Practice L2 - L4	44 561	1.1484	0	26	83	0	149	0	0	0	0	258
Electrical Infrastructure Construction L2 - L4	60 025	1.5470	3 077	967	5 654	4 355	4 245	2 761	286	2 116	2 208	25 670
Engineering and Related Design L2 - L4	78 392	2.0204	3 253	1 291	9 241	5 596	6 811	3 041	836	1 610	2 784	34 462
Mechatronics L2 - L4	79 434	2.0472	481	0	970	0	328	172	0	0	84	2 035
Process Instrumentation L2 - L4	59 636	1.5370	0	0	0	0	0	0	0	0	0	0
Process Plant Operations L2 - L4	60 869	1.5687	0	0	160	314	314	0	0	0	0	788
Finance Economics and Accounting L2 - L4	43 417	1.1190	2 049	525	2 011	1 230	1 784	1 026	145	629	586	9 985
Management L2 - L4	45 454	1.1715	916	305	1 975	176	1 504	1 176	81	888	624	7 645
Hospitality L2 - L4	73 739	1.9004	2 051	929	3 400	4 058	2 510	914	124	943	1 648	16 576
IT and Computer Science L2 - L4	59 469	1.5327	1 775	526	2 760	1 663	2 176	242	15	915	1 094	11 167
Education and Development L2 - L4	42 179	1.0871	557	321	300	956	467	98	1	0	410	3 109
Marketing L2 - L4	38 926	1.0032	1 226	464	2 191	210	1 484	529	0	35	322	6 461
Office Administration L2 - L4	38 801	1.0000	3 898	1 768	4 487	5 148	3 537	2 593	735	2 238	2 964	27 368
Primary Agriculture L2 - L4	104 249	2.6868	1 021	752	449	3 664	2 727	1 916	0	755	51	11 335
Tourism L2 - L4	56 405	1.4537	2 372	554	2 582	2 854	2 268	131	131	502	1 570	12 963
Safety in Society L2 - L4	39 772	1.0250	1 119	101	907	852	381	0	97	0	1 378	4 836
Transport and Logistics L2 - L4	40 688	1.0486	78	94	742	652	588	193	0	220	224	2 793
Primary Health L2 - L4	48 987	1.2625	152	309	870	107	571	284	114	314	544	3 265
Total NC(V)			26 501	9 675	41 349	35 303	35 485	16 121	2 716	12 060	16 954	196 164
Source: Calculations based on Table 6.1												

Table 6.4 – Weighted full-time equivalent enrolments used for the 2017 subsidy allocations to TVET Colleges: Report 191 (NATED)

Programmes	Cost according to the TVET funding norms and standards	Funding Weight	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	Northern Cape	North West	Western Cape	Total
Engineering Studies N1 - N3	23 896	0.6159	2 352	1 873	8 251	3 622	4 057	2 142	603	1 268	2 527	26 695
Engineering Studies N4 - N6	27 877	0.7185	1 100	1 169	5 033	2 209	2 659	1 093	35	814	814	14 927
Business Management N4 - N6	23 603	0.6083	1 054	1 123	1 437	1 787	930	286	0	486	1 334	8 436
Financial Management N4 - N6	23 603	0.6083	640	422	1 812	1 588	702	566	124	254	465	6 573
Human Resource Management N4 - N6	23 603	0.6083	1 361	1 113	1 751	1 496	1 397	322	353	604	794	9 192
Introductory Business Studies N4	23 603	0.6083	107	167	771	40	164	151	21	0	55	1 477
Introductory Clothing Production N4	32 768	0.8445	0	7	79	15	0	0	0	0	78	179
Management Assistant N4 - N6	23 603	0.6083	825	1 055	2 652	951	1 028	686	488	1 217	1 219	10 120
Marketing Management N4 - N6	23 603	0.6083	472	536	1 430	205	707	75	96	200	429	4 149
Public Management N4 - N6	23 603	0.6083	1 107	114	927	1 352	695	314	363	0	418	5 290
Public Relations N4 - N6	23 603	0.6083	254	0	95	128	0	0	0	0	103	579
Popular Music: Performance N4 - N6	38 231	0.9853	0	0	44	0	0	0	0	17	0	62
Art and Design N4 - N6	38 231	0.9853	100	50	302	78	0	0	0	15	178	723
Clothing Production N4 - N6	32 768	0.8445	0	20	153	33	92	0	0	0	155	454
Educare N4 - N6	28 673	0.7390	171	1 293	1 082	579	262	0	0	91	978	4 456
Farming Management N4 - N6	38 231	0.9853	402	0	0	651	542	0	0	0	169	1 765
Hospitality and Catering Services N4 - N6	53 249	1.3724	271	269	1 718	832	319	165	0	96	974	4 645
Interior Decorating N4 - N6	38 231	0.9853	37	0	0	0	0	0	0	0	0	37
Introductory Art and Design N4	38 231	0.9853	44	35	32	84	0	0	0	0	74	269
Introductory Food Services N4	53 249	1.3724	0	0	27	0	0	0	0	0	0	27
Legal Secretary N4 - N6	32 768	0.8445	38	0	153	299	0	0	0	0	0	490
Medical Secretary N4	38 231	0.9853	0	0	0	24	0	24	24	0	0	71
Tourism N4 - N6	51 884	1.3372	341	279	1 583	1 603	371	267	0	285	1 012	5 741
Total Report 191 (NATED)			10 675	9 527	29 332	17 576	13 925	6 091	2 107	5 347	11 776	106 355
Source: Source: Calculations based on Table 6.2.												

Table 6.5 – Differences in funding per weighted full-time equivalent by province for the 2017/18 funding year compared to the 2013/14 funding year

Province	80% Programme funds 2017/18	20% NSFAS Bursaries 2017/18	Total Allocation 2017/18	Total Weighted FTEs for NC(V) and Report 191 (NATED) 2017/18	Allocation per weighted FTE 2017/18	Deviation from average 2017/18	Deviation from Average in 2013/14
Eastern Cape	970 397 203.68	185 651 386.20	1 156 048 589.88	35 452	32 609.08	3 017.27	6 073.76
Free State	451 660 900.01	120 656 330.20	572 317 230.21	18 311	31 254.84	1 663.02	3 174.17
Gauteng	1 599 249 082.73	381 242 365.00	1 980 491 447.73	67 403	29 382.79	-209.02	2 400.49
KwaZulu-Natal	1 213 358 552.86	365 006 191.20	1 578 364 744.06	50 427	31 300.26	1 708.45	-3 826.69
Limpopo	773 894 218.17	229 834 841.60	1 003 729 059.77	47 118	21 302.27	-8 289.55	-4 733.75
Mpumalanga	485 442 387.91	105 398 489.00	590 840 876.91	21 182	27 893.78	-1 698.03	2 093.53
Northern Cape	109 791 910.46	35 246 635.20	145 038 545.66	4 599	31 536.57	1 944.76	-4 036.12
North West	369 128 421.98	110 515 294.40	479 643 716.38	16 600	28 894.05	-697.76	-3 047.28
Western Cape	844 637 824.18	185 807 652.80	1 030 445 476.98	27 397	37 611.43	8 019.61	2 729.60
Total	6 817 560 502.00	1 719 359 185.60	8 536 919 687.60	288 489	29 591.81	0.00	0.00
Sources: Calculations based on the 2017 subsidy information for TVET Colleges provided by the DHET. Sheppard, C. and Ntenga, L. (2014). <i>Funding of the South African Further Education and Training Sector for an Equitable Sharing of National Revenue</i> , In: Financial and Fiscal Commission (2014/2015). <i>Technical Report Submission for the Division of Revenue</i> , (p 261).							

Table 6.6 – Changes in percentage shares of the total weighted FTEs by province 2013/14 to 2017/18 financial years

Province	Total Weighted FTEs for NC(V) and Report 191 (NATED) 2017/18	% of Total WFTE in 2017/18	Total Weighted FTEs for NC(V) and Report 191 (NATED) 2013/14	% of Total WFTE in 2013/14	Change 2013/14 to 2017/18
Eastern Cape	37 176	12.3%	29 261	11.0%	1%
Free State	19 202	6.3%	15 223	6.0%	0%
Gauteng	70 681	23.4%	55 056	21.0%	2%
KwaZulu-Natal	52 879	17.5%	57 156	22.0%	-5%
Limpopo	49 410	16.3%	38 284	15.0%	1%
Mpumalanga	22 212	7.3%	16 958	7.0%	0%
Northern Cape	4 823	1.6%	5 278	2.0%	0%
North West	17 407	5.8%	16 633	6.0%	0%
Western Cape	28 730	9.5%	28 659	11.0%	-2%
Total	302 519	100%	262 508	100%	0%

- p) The **earmarked grants** should be allocated as follows:
- i. Infrastructure development should be allocated on a project basis addressing national priority areas as well as need.
 - ii. Materials development needs to be done at a national level on a project basis.
 - iii. Staff development funds must be allocated on the basis of number of staff that needs training as well as the cost of training.
 - iv. Student support services can be allocated on the basis of full-time equivalents of government funded programmes.
 - v. Programme diversification should be allocated on a project basis at Colleges earmarked for the establishment of centres of excellence and need to establish new programmes in certain colleges.
 - vi. Funding of specialised and scarce skills programmes in private colleges to fill training gaps will have to be done on the basis of need as well as full-time equivalent enrolments in the identified programmes offered at the identified colleges.

Appendix 6: Towards a funding formula for Community Colleges

A preliminary caution

It is acknowledged that there is a challenge in determining a funding formula options for Community Colleges when it is still not finalised what types of programmes will be offered other than the ABET levels 1-4 and actual Community Colleges have still to be developed.

The previous and current situation

Previously there were three budgets for the Community Colleges/Community Learning Centres:

- **Running the adult education and training system** (currently this is the old Public Adult Learning Centres, now renamed Community Learning Centres and administered by nine “Administrative and Management Centres” that took over (or are in the process of taking over) the role previously performed by the Directorates for Adult Education and Training in the Provincial Education Departments. These “Administrative and Management Centres” have had Principals appointed as if they were actual local Community Colleges):

In April 2014 the Minister of Higher Education and Training established the first nine (9) CETCs as Administrative and Management Centres for the 3 276 former Public Adult Learning Centres (PALCs)
(Department of Higher Education and Training, 2016, p. 227)
- **Piloting Community Colleges** (none as yet)
- **Earmarked grants** for materials development and MIS system development ((though in reality this was largely for conventional general school education).

Currently some 95% of funds are spent on staff.

Changing the funding allocation

There are three documents that give some guidance on future staffing and provisioning norms for the new Community College system:

Department of Higher Education and Training. 2016. *Draft policy on staffing norms for Community Education and Training (CET) Colleges*. **Government Gazette**, No. 40021, 27 May 2016, pp. 220-238

Department of Higher Education and Training. 2016. *Community education and training national roadshows. Mediation of the draft staffing norms for CET colleges. August 2016*. DHET presentation.

Department of Higher Education and Training. 2017. *Post provisioning norms for CET colleges: distribution model*. DHET presentation.

The *Draft policy* document of 2016 states (p. 229) that:

The Compensation of employees' budget shall be capped at 75% of the total budget; of which 80% is allocated for lecturing staff and 20% for support services. This translates to a ratio of 1: 0.75.”¹

Taking the proposals in this draft policy results in a percentage breakdown as follows:

100%				
75% STAFF			25% OTHER	
60% Academic (80%) (i.e. professional staff)		15% Support (20%) (i.e. other management and support)	10% Goods and services	15% Other other
76% Post level 3				
20% Post level 2				
4% Post level 1				
45% Community Learning Centres (CLCs)	15% Admin. & Mgt Centres	11.25 % CLCs	3.75 % Adm. hub	

What is immediately clear about the allocation breakdown shown in this table on the allocation breakdown is that, though it might be reasonable for a future situation when there are 50 or more actual local community colleges and where the majority of professional staff work on a central campus, for the present (and foreseeable future) when all the actual educational delivery is through the Community Learning Centres and satellites, spending only 45% of the total budget on professional staff operating in these latter delivery sites seems absurd.

There are two ways this problem can be rectified:

Either:

The staff of the Community College are staff of the Community College regardless of whether they are based at a central site or at a Community Learning Centre. An adjustment can be made to the weighting of total costs on the basis of the number of Community Learning Centres attached to each Community College/Administrative and Management Centre.

Or:

Until the Community College sector is more developed, separate allocations (and funding formulae) are developed for:

¹ If this means the ratio of staffing to other expenditure, the ratio of 1:0.75 is incorrect, it is 1:0.33 or 3:1. If it is the ratio within the staffing budget the ratio is not 1:0.75 but 1:0.25 or 4:1.

- the Administrative and Management Centres (the nine) (who currently have no learners at all)
- the nine sets of Community Learning Centres attached to these nine administrative hubs (which are effectively provincial hubs)
- future pilot Community Colleges with their attached Community Learning Centres.²

Some further cautions and suggestions

It is important to note that it is not feasible to develop a formula (or formulae) for funding allocations to Community Colleges that will encompass **all** the components and principles embedded in the Ministerial Committee's recommendations.

Certain components such as the programme subsidies can be allocated based on a formula, other components such as infrastructure development or materials development, cannot (and it is important that additional funding will have to be allocated for the introduction of earmarked grants and most crucially for the setup of the pilot community colleges and in due course a local community college in each district of the country).

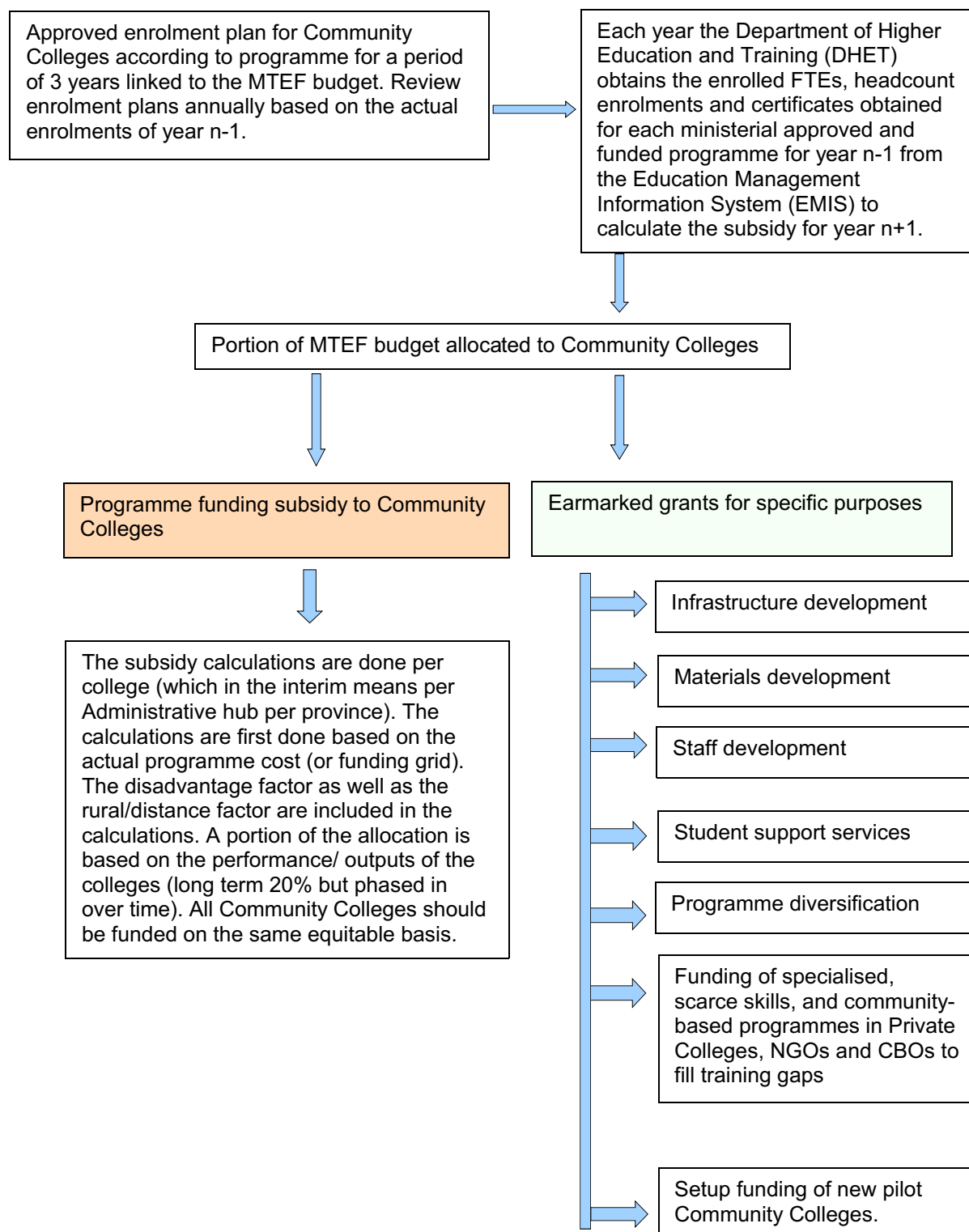
We recommend that from the start that funding to colleges be equitable with no differences based on historic provincial allocations (as has unfortunately been the case with the allocations to TVET Colleges).

It is advisable that a model of allocation be developed that will over time introduce the Ministerial Committee's recommendations accepted by the Minister. The introduction of each component must be modelled to establish the impact on each Community College and should be introduced stepwise to ensure that the developing system is not put under undue pressure or destabilised.

The funding allocations are rather presented on the next as a framework in a flow diagramme format with an indication of principles for allocation. Decisions need to be made with regard to amounts allocated for performance/ outputs as well as amounts set aside for earmarked grants for specific purposes.

² As an example, a Pietermaritzburg centred Community College would initially have attached to it 29 Community Learning Centres.

An outline of the funding process for Community Colleges



Various steps in the funding process of programmes through funding subsidies

Management Information System (MIS)

Historically the Adult Education and Training system run through Provincial Departments of Education in the Public Adult Learning Centres had a very poor information generation capacity.

In the current situation, unless accurate data is available on such things as enrolment and output it will be impossible to implement funding formulae.

It is therefore vital that the DHET develop an appropriate MIS to ensure that the DHET can make improved and enhanced subsidy calculations and that the DHET can monitor the efficiency and performance of the Community College system.³

The DHET must involve a wide range of role players in the design and development of a unit record database system. The design and development must include the strategic and enrolment planners, financial staff, curriculum developers, physical planners, internal and external researchers, Community College staff as well as representative bodies to ensure that the DHET develop a comprehensive database that will serve the needs of all the role players in the sector.

DHET must also establish a process and structure that revisits the database design on a regular basis to ensure that it remains relevant and serve the needs of the various role players.

Enrolment planning

The Community Colleges should stay within 5% of the enrolment plan targets to avoid the deflation of the rand value of the full-time equivalents (FTEs) per programme and or to avoid over-funding (under-enrolment) for a particular college. These enrolment targets could provide indicative subsidy allocations for Community Colleges.

It needs to be recognised that adult basic education is a constitutional right for both children and adults and enrolment planning must take this into account – it would be difficult, for instance, to justify any withdrawal or reduction of adult basic education provision (that is, ABET 1 to 4 programmes and the GETCA) or to fail to respond to obvious expressed need for expansion of such adult basic education provision.

³ It is unclear whether the data on Community Learning Centres is still on the EMIS system of the provincial education departments (if it was on) or now on the TVET MIS or on the HE MIS.

The number of staff posts available

A crucial determinant in deciding on the baseline monetary figure necessary to fund (subsidise) the average weighted FTE student is assessing what the portion of the average cost of each staff post is for servicing that individual FTE.⁴

The average cost of teaching and support staff is itself influenced by factors such as class sizes⁵, level of the teaching posts for particular programmes, whether the staff member is permanent, fixed-term or temporary.⁶ Years of service and the cost implications of that also come into the equation.

Currently the cost of staff is the major expense in the system and the current proposals are to reduce this from 95% to 75% of expenditure. This will be a difficult task, made worse by efforts to improve the qualifications and conditions of service of Community College educators at the same time, with the likelihood of reducing the scale of provision (which may be difficult given the constitutional right to adult basic education). It may be sensible to gradually reduce the percentage from 95% to 80% or 75% over a ten year period.

The *Draft policy* proposes that staff posts be distributed on basis of student FTEs though it recognises problems with this, even if particular programmes have their FTEs weighted differently (for example because of reasons of cost of delivery), because of different enrolment patterns in different geographical areas.

The *Post provisioning norms* document proposes core management and administration posts at the levels of College (22 posts), Community Learning Centres (8) and satellites (1). In the current context this is a top-heavy bureaucracy, given that as yet there are no pilot Colleges and most Community Learning Centre are in fact have quite small enrolments.

⁴ Until a functional MIS is in place, funding may need to be based on a simple headcount.

⁵ The DHET documents make much of the variation in class sizes, presumably on the basis that ABET classes need to be smaller because it requires more intensive individual work with the learners. The *Draft policy* proposals make a number of suggestions about weightings of FTEs on the basis of class size that do not explain themselves:

ABET 1 to 3 have a maximum class size of 30 and a weighting of 1.17.

ABET 4 and NQF 2 to 4 have a maximum class size of 35 and a weighting of 1.

The *Roadshows* document has weightings of 1.15 for ABET 1 to 3, 1.125 for ABET 4, 1.05 for the Senior Certificate, and 1.125 for certificated skills training. Oddly, there is no unweighted baseline !!

⁶ These types of posts are distinguished thus:

Permanent posts (some of which could be **Shared** posts such as two part-time employees sharing one full post and some of which would be **Part-time**). Core staff would need to be permanent.

Fixed-term posts (which again could be full or part-time)

Temporary posts (usually part-time)

The size of the institutional sites

Varying figures are given in different documents for the normative size of the Community College institutional components:

	Colleges	Community Learning Centres	Satellites
Small	700 to 1500 FTEs	200 to 350 FTEs	75 to 199 FTEs
Medium	1501 to 2500 FTEs	351 to 500 FTEs	
Large	2501 and above FTEs	551 to 699 FTEs	
Note: the glossary (p. 224) to the <i>Draft policy</i> has a maximum of 599 FTEs for Community Learning Centres.			

These size decisions seem to be based on, first, an attempt to force the Community Colleges into the mould of the current TVET College system where each major city has a set of campuses in close proximity to one another (a historical legacy of the physically separate institutions for the different so-called races now merged organisationally), so that the Community Learning Centres are, mistakenly seen as approximating to these campuses, and second, by a seeming lack of awareness that few of the existing Community Learning Centres (the ex PALCs) have large numbers of FTEs.

What is a plausible weighting option is that there should be a baseline figure for any college (say up to 1500 FTEs) and then a weighting (say from 0.95 to 0.9) on the FTEs greater than that number.

Weighting of FTEs in a subsidy formula

The arguments for weighting FTEs⁷ include the following:

- the variable costs of delivery (which may be caused by enrolment size, Community Learning Centre size, class size, levels of educators, special equipment or materials, travel to remote sites⁸, the unpreparedness of disadvantaged learners, etc.)
- a means of prioritising provision of programmes that specifically target the disadvantaged

⁷ Full Time Equivalent (FTE) calculations are usually based on the number of courses/modules/subject taken by an individual student in a year. For a full time student these courses taken should have a value of approximately 120 National Qualification Framework credits (where 120 credits is taken as being 1200 notional hours of study which is considered to be the normal workload of a full time student). Clearly, if Community Colleges do not have a credit system which allocates credits to each course, module or unit of study, then it is very difficult to calculate FTEs.

⁸ The *Post provisioning norms* document proposed a size of province weighting that adds a number of FTEs to a province's tally (2 FTEs per 500 km²). This supposedly is compensation for travel by staff. It is a very crude mechanism that should be replaced as soon as Community Colleges do actually exist in every district when they could be compensated for being in very large districts as well as on the socio-economic status of the district.

The *Draft Policy* has a formula for the allocation of professional posts (i.e. about 60% of the overall funding) but unfortunately, in the ***Government Gazette*** the formula has been cut off (but one can find it in the *Roadshows* document). The number of posts allocated to a particular college is calculated by dividing the number of students in a college (weighted FTEs) by the national number of students (weighted FTEs) divided by the number of posts available nationally. This part of the formula is fairly mechanical and assumes that the number of professional posts available nationally has been determined after a sound financial analysis and budgeting process.

Adjustments to the subsidy formula

The most obvious adjustments to the subsidy given per FTE after allowance for normal cost of delivery and prioritising programmes for the disadvantaged (such as ABE level programmes) are the following:

- Enrolment targets
- Performance/Output
- Special needs
- Disadvantaged geographical areas
- Size of the College
- Lowest reasonable cost (that is, supplies and services do not cost more than the *lowest reasonable cost* at which they could be procured on the open market/in the college system).

Enrolment targets

Some subsidy formulae penalise institutions if they deviate too much from the planned enrolment targets. In the future it might be good to penalise institutions who deviated more than 5% either way from their enrolment target.⁹ At present, where the accuracy of enrolment data is unreliable and the “colleges” are in fact whole provinces of Community Learning Centres administered from an Administrative hub, such a practice seems senseless.

⁹ The proposals suggested by Charles Sheppard to deal with enrolment deviation in TVET Colleges could be made use of in the future for Community Colleges as well:

- If the enrolments deviate more than 5% from the target, the DHET must adjust the enrolment targets for year n+1.
- If the college’s enrolments were more than 5% under the enrolment targets for year n-1 the targets for year n+1 must be adjusted down.
- Depending on the totals for the system, as well as available funding, if a college enrolled more than a 5% deviation from the target the target could be increased for year n+1.
- If the system totals and funding do not allow it, the DHET must leave the target for year n+1 as is and the college must manage their enrolments for year n+1 within this target range.
- If there is not adequate, additional funding, over enrolments should not be funded, since it affects the subsidy allocations of other colleges that have managed their enrolments within the targets.
- The ***subsidy allocation*** for year n+1 is thus based on the enrolment target for year n+1, but the achievement of the enrolment target for year n-1 might affect the ***enrolment target*** for year n+1.

Performance/Output

With due caution, the DHET could consider allocating a portion of the programme subsidy funding on the basis of the performance/outputs of the College. In the longer term this could constitute approximately 20% of the allocation, but to ensure financial stability it could be phased in over a period of time.

A simple way of implementing such an output subsidy is to allocate output weights to various types of certificates awarded by Colleges based on the programmes credits. All certificates obtained in year n-1 then gets an output credit weight. The total for the system is calculated and the portion obtained by each College is calculated. The total amount for output funding is then divided amongst the Colleges based on their share of the total weighted outputs.

As noted, the percentage of the programme funding set aside for rewarding output could be a small percentage in the beginning of implementation but it should be increased over time.

As this is a performance related subsidy it should normally form part of the normal subsidy allocations, as it is in other systems (such as Higher Education) and should not be an earmarked grant.

Special needs

Additional weights for special educational needs students should be added, as has been the practice in the TVET sector (where the weightings range from 2.5 to 5). This should mean extra funding for special needs students in a particular programme.

However, there are three conditions necessary, first, that the special needs are identified using rigorous criteria – the students must have some clear disability or difficulty that has a severe impact on their ability to gain adequately from mainstream education, second that the weighting must match the actual extra resources required, and, third, that evidence is provided that special assistance is actually provided to such special needs students and extra staff are employed.

Initially it might be necessary to fund special needs students from funds top-sliced from programme funding before allocations are made to colleges. This should only be a temporary measure until greater clarity is obtained on the proportion of students who have special needs.

Disadvantaged geographical areas

In many countries, there is some form of redress in subsidy formulae for either individual students who come from socio-economically and educationally disadvantaged areas (educationally disadvantaged students require more student support to be successful) or to institutions that are based in such disadvantaged areas. In many cases “rural” is the proxy descriptor of such disadvantage, in others a more nuanced compendium of socio-economic indicators is used (for example in the United Kingdom there is a Multiple Deprivation Index linked to each Postal Code in the country).

In the future the DHET should introduce an additional funding weight for rural community colleges e.g. a 10% additional weight or multiplying their unweighted full-time equivalents with 1.1. There would probably have to be a weight for semi-rural as well (e.g. 5% additional unweighted FTEs). There is a need to identify the cost drivers and distance appear to be the

most important factor. Rurality contributes to additional delivery and travel costs, accommodation costs, and need for rural allowances for travel and accommodation costs for staff, etc. The classification of colleges/ campuses of colleges as urban and rural is needed to identify those that qualify for a rural funding weight.

However, currently this is all academic, given that there are no Community Colleges, only Administrative Hubs serving a whole province of Community Learning Centres, and any disadvantage weighting would have to be done on the relative poverty and deprivation in each province as a whole.

Dedicating some of the subsidy to Community Colleges that serve particularly socio-economically or educationally disadvantaged students should not be affected by those institutions having students who have received funding (such as NSFAS) because they are disadvantaged. NSFAS grants pay for ordinary tuition and living/accommodation costs. Such grants do not cover the additional costs the institution incurs having to provide additional educational support to under-prepared students.

Size of the College

There could also be a grant of additional funding units to an institution based on its size (based upon evidence of variability in the core costs being affected by the size of the institution). Again, currently this cannot be implemented because there are no actual Community Colleges, only provincial sets of Community Learning Centres.

Lowest reasonable cost

Current funding baseline amounts for TVET programmes are based on the lowest cost per FTE amongst existing TVET College programmes. This kind of decision assumes that there is accurate expenditure data and that is no hidden cross subsidisation to or from other TVET College programmes.

Given, that currently there are only the Administrative hubs, the data on which such a decision could be made would be based on how much it costs to run a programme (such as the GETCA or the Senior Certificate) in each province. Presumably such a judgement will have to be made and then its realism monitored over a number of years. However, there is difficulty in ascertaining the real impact of such things as distance, disadvantage, etc. on the cost of running programmes.

A possible pilot subsidy formula for programmes

A future formula could look something like this:

$$\begin{aligned} \text{Programme funding} = & (\text{Number of FTEs} \times \text{Baseline funding rate per student} \times \text{Output factor} \\ & \times \text{Programme cost weighting} \times \text{College area disadvantage factor}) \\ & + ([\text{average of amongst all FTEs of}] \text{Individual Disadvantage} \\ & \text{weighting} \times \text{Number of FTEs} \times \text{Individual Disadvantage rate per} \\ & \text{student}) \\ & + ([\text{average of amongst all FTEs of}] \text{Special Needs weighting} \times \\ & \text{Number of FTEs} \times \text{Special Needs rate per student}) \end{aligned}$$

A **current** interim formula could look something like this:

$$\begin{aligned} \text{Programme funding} = & (\text{Number of FTEs} \times \text{Baseline funding rate per student} \times \text{Programme} \\ & \text{cost weighting} \times \text{Province area disadvantage factor}) \\ & + ([\text{average of amongst all FTEs of}] \text{Individual Disadvantage} \\ & \text{weighting} \times \text{Number of FTEs} \times \text{Individual Disadvantage rate per} \\ & \text{student}) \\ & + ([\text{average of amongst all FTEs of}] \text{Special Needs weighting} \times \\ & \text{Number of FTEs} \times \text{Special Needs rate per student}) \end{aligned}$$

Earmarked grants for special purposes

Earmarked grants should be allocated as follows:

Infrastructure development should be allocated on a project basis addressing national priority areas as well as need.

Materials development needs to be done at a national level on a project basis. Clearly there is an urgent need for quality materials for ABET levels 1 to 4 (leading to the GETCA) and for the existing Amended Senior Certificate (SC) and the new National Senior certificate for Adults (NASCA).

Staff development funds must be allocated on the basis of number of staff that needs training as well as the cost of training. The decision of the DHET that Higher Certificates are no longer accepted as a teaching qualification means that many people previously employed as educators in PALCs, particular in the ABET 1 to 4 classes, will need to have the qualifications rapidly upgraded to Diploma level.

Student support services can be allocated on the basis of full-time equivalents of government funded programmes.

Programme diversification should be allocated on a project basis to expand the existing school equivalency fare (that was previously provided by the PALCs) in partnership with state departments, NGOS, CBOs and skills training bodies.

Funding of **specialised and scarce skills programmes** in private colleges, NGOs and CBOs to fill training gaps will have to be done on the basis of need.

Setup funding of new pilot Community Colleges whether for totally new institutions with new infrastructure or housed in existing state or non-profit sector facilities will need rigorous costing and the preparation of various setup funding packages.

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