Towards a funding formula for the 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 hav 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 CETcolleges: 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:

<table>
<tr><td colspan="6">100%</td></tr>
<tr><td colspan="4">75% STAFF</td><td colspan="2">25% OTHER</td></tr>
<tr><td colspan="2">60% Academic (80%) (i.e. professional staff)</td><td colspan="2" rowspan="4">15%
Support (20%) (i.e. other management and support)</td><td rowspan="4">10%
Goods and services</td><td rowspan="4">15%
Other other</td></tr>
<tr><td colspan="2">76% Post level 3</td></tr>
<tr><td colspan="2">20% Post level 2</td></tr>
<tr><td colspan="2">4% Post level 1</td></tr>
<tr><td>45% Community Learning Centres (CLCs)</td><td>15%
Admin. & Mgt Centres</td><td>11.25 %
CLCs</td><td>3.75 %
Adm. hub</td><td colspan="2"></td></tr>
</table>

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 is 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.

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[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.

Or:
Until the Community College sector is more developed, separate allocations (and funding formulae) are developed for:

- 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.

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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

Approved enrolment plan for Community Colleges according to programme for a period of 3 years linked to the MTEF budget. Review enrolment plans annually based on the actual enrolments of year n-1.

Each year the Department of Higher Education and Training (DHET) obtains the enrolled FTEs, headcount enrolments and certificates obtained for each ministerial approved and funded programme for year n-1 from the Education Management Information System (EMIS) to calculate the subsidy for year n+1.

Portion of MTEF budget allocated to Community Colleges

Programme funding subsidy to Community Colleges

The subsidy calculations are done per college (which in the interim means per Administrative hub per province). The calculations are first done based on the actual programme cost (or funding grid). The disadvantage factor as well as the rural/distance factor are included in the calculations. A portion of the allocation is based on the performance/ outputs of the colleges (long term 20% but phased in over time). All Community Colleges should be funded on the same equitable basis.

Earmarked grants for specific purposes

- Infrastructure development
- Materials development
- Staff development
- Student support services
- Programme diversification
- Funding of specialised, scarce skills, and community-based programmes in Private Colleges, NGOs and CBOs to fill training gaps
- Setup funding of new pilot 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.

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[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 sizes[5], 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.

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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 1!

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 *Draft policy* 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 FTEs[7] 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 sites[8], the unpreparedness of disadvantaged learners, etc.)
- a means of prioritising provision of programmes that specifically target the disadvantaged

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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 FTs.

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 km^2). 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.

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[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:

Programme funding =	(Number of FTEs × Baseline funding rate per student × Output factor × Programme cost weighting × College area disadvantage factor)
	+ ([average of amongst all FTEs of] Individual Disadvantage weighting × Number of FTEs × Individual Disadvantage rate per student)
	+ ([average of amongst all FTEs of] Special Needs weighting × Number of FTEs × Special Needs rate per student)

A **curren**t interim formula could look something like this:

Programme funding =	(Number of FTEs × Baseline funding rate per student × Programme cost weighting × Province area disadvantage factor)
	+ ([average of amongst all FTEs of] Individual Disadvantage weighting × Number of FTEs × Individual Disadvantage rate per student)
	+ ([average of amongst all FTEs of] Special Needs weighting × Number of FTEs × Special Needs rate per student

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.

References

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

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