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**Academic development and student support:
Significance, challenges and costs of expansion**

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Outline

- The context and significance of systemic academic development and student support
- Academic Development and Academic Support: Purposes, forms and key challenges
- Extent of need: What proportion of the students require systemic interventions to enable them to complete undergraduate education?
- The costs of maintaining and expanding extended provision
- Psychosocial and general support services: Nature and funding
- In summary: Key considerations and recommendations

Section A

The context and significance of systemic academic development and student support

Key high-level data on student participation and performance patterns

- Participation low in relation to comparator countries (20% GER in 2013) and racially skewed (CHE 2015)
 - only about 12% of African and coloured youth gaining access
 - small, select intake should collectively have strong potential to succeed
- Yet performance has stayed stubbornly poor over time (DHET 2016, CHE 2015)
 - <30% of *contact* students graduating in regulation time (n years)
 - about 55% of contact students graduating within $n+2$ years
 - nearly half of the *total* intake not graduating within 10 years
 - only 7% of African and coloured youth succeeding in higher education
 - thus improvement in *equity of access* is largely neutralised
- A 'low-participation, high-attrition system' (Fisher and Scott 2011)
 - affecting the majority of the current and future intake

Relationship between performance patterns and current student protests

Demands of the Fall movements can be interpreted as relating to two key forms of access:

- 'Free HE' as demand for **financial access**: but access to what?
 - access is currently to not much more than a 50/50 probability of graduating, and for NSFAS-supported students a 30% - 40% probability (Hall 2015; Business Day 2016)
- 'Decolonising the curriculum' as a demand for removing inequalities in ***epistemic access***?
 - i.e. the accessibility of the knowledge needed for attaining a HE qualification
 - Are there such inequalities?
- Role of low and skewed performance in creating disaffection with the higher education sector and individual institutions?
 - documented in research, especially identity studies (Bangeni and Kapp 2017)
 - performance affects responsible admission policies as well as success
 - If barriers to access are removed, will a focus on 'equity of outcomes' be far behind?

Why is performance so poor?

- No group doing well but still abundant evidence of racial and class inequalities in successful engagement with the undergraduate educational process in SA
- Obstacles to substantial improvement are not insurmountable
 - highly selected intake, combined with 'educability' being randomly distributed across populations, points to strong potential to succeed
- Poverty, poor schooling and affective factors undoubtedly major influences, but...
- The extent of the under-performance of such a small and select intake clearly indicates systemic obstacles within the universities' educational structures and processes themselves
 - pointing to a mismatch between the assumptions on which SA's undergraduate education is based and the realities of the educational backgrounds of the majority of the student body (CHE 2013, pp 52-53)

Role of educational development and support services

- Virtually all academic and general student support services exist to try to meet the student performance challenge
 - by directly or indirectly improving student learning and probability of success
- General student support services – academic and psychosocial – grew alongside the expansion of higher education after World War 2
 - broad purpose of understanding what constrains student performance, and developing and implementing means of improving it
- Key change in SA in the 1980s: establishment of Academic Support (AS) programmes, and later Academic Development (AD), with the explicit purpose of redressing racial inequalities in higher education
 - triggered by the gradual relaxation of racial admissions restrictions
 - aimed at advancing ‘equity of access’ and ‘equity of outcomes’
 - AD focused increasingly on institutional and systemic development

Significance of improving student performance in SA

- Substantially improving success and completion rates should be recognised as essential for SA's wellbeing through, inter alia:
 - individual advancement
 - economic and social development
 - social justice and stability
 - ensuring the viability of HE funding
- Academic Development and student support should in turn be recognised as essential for improving student performance and equity in this context
 - fostering conditions for learning to flourish across the diverse student body
 - increasing the return on the major resources invested in higher education
- Academic Development and academic, psychosocial and material support services are inherently complementary
 - effectiveness diluted if offered in isolation

Notes

Terminology used in this presentation:

- Academic Development (AD): focused primarily on institutional and systemic development
 - including direct teaching and professional development for this purpose
- Academic Support (AS): 'concurrent' educational support for the regular teaching and learning process
 - aimed at all students or at specific groups for redress purposes
- Student Support Services: including psychosocial, career, material and enrichment support
 - available to all students

Limitations of this submission:

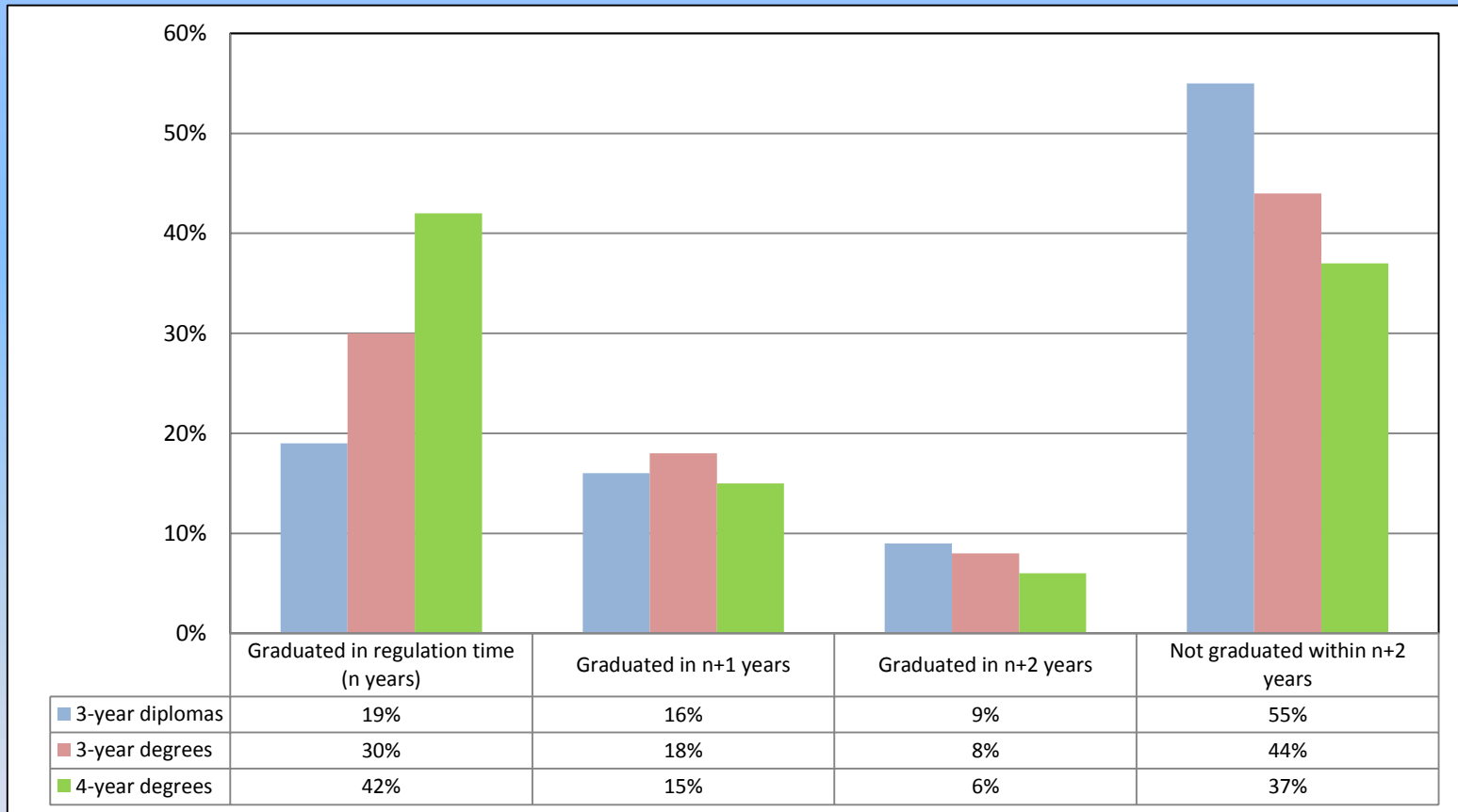
- Author professionally employed in Academic Development for a long period
 - member of the Ministerial Reference Group on Foundation Provisioning since its inception
 - led research and report-writing for the CHE's proposal for a flexible undergraduate curriculum (CHE 2013)
 - no professional expertise in psychosocial or general student support

Section B

Academic Development and Academic Support:
Purposes, forms and key challenges

The challenge graphically

Time to graduate (2008 cohort excluding UNISA)



Source: CHE 2015

Structural obstacles to improving learning and completion

- Failure and dropout on this scale, within a small and selected intake, must be attributable predominantly to systemic faults
 - requiring systemic solutions
- AD and curriculum research and experience have over time identified key structural elements of our traditional provision that present substantial and unnecessary obstacles to learning,
 - particularly among students from disadvantaging educational backgrounds and whose home language is not the language of instruction
- Strong indicators that minimising these obstacles is an essential though not sufficient condition for substantial improvement in student learning and graduate production

Key structural obstacles to student success that affect different groups differently

1. The articulation gap between school and university
 - ‘underpreparedness’ a relative concept; a gap can be closed from either side
2. Lack of opportunity to explore subject and curriculum choice
3. Lack of sustained development of academic literacies that are essential for successful higher learning
 - especially the academic use of the language of instruction, usually English
4. Key intellectual transitions within curricula for which students are differently prepared
 - manifestation of aspects of the articulation gap

These obstacles (and others) place an additional burden on many students that is both counter-productive and unfair, affecting most black African students (because of language, inter alia) as well as students with ‘non-traditional’ backgrounds from all groups

Why do these structural obstacles exist?

- SA's curriculum structure inherited from the Scottish system a century ago
 - little fundamental change made, despite major change in the student intake and the broad education system
- The inherited structure was designed for a relatively homogeneous and advantaged student body, but the intake now is highly heterogeneous in educational and linguistic background as well as socio-economic status
 - the structure represents one-size-fits-all, with very limited room for successfully accommodating this substantial diversity in background
- There is virtually no curriculum space in the inherited structure for successfully addressing the structural obstacles that negatively affect a large (and growing) proportion of the student body
 - the curriculum structure may be the most problematic element of our colonial inheritance in higher education

The role of Academic Development

- The founding mission of Academic Support and Academic Development in SA was, and remains, the redress of historical racial inequalities in HE
 - aiming for equity of access and equity of outcomes
- Early in the history of AD, in the mid-1980s, there was recognition of the need for systemic reform, including the provision of alternative curriculum structures designed to enable the potential of historically excluded students to be realised
 - this was the origin of 'extended (curriculum) programmes', which have expanded greatly since the advent of state funding in 2004.
- Extended programmes utilise additional funded curriculum space to address the major structural obstacles identified, as well as employing a range of other educational interventions
 - recognised by DHET as a key vehicle for fostering student success and equity
 - extended programmes thus carry a major transformational responsibility

Effects of extended programmes

- Constraints on the effectiveness of extended programmes have long been recognised
 - arising mainly from their being a minority, supplemental intervention, difficult to articulate with a rigid mainstream curriculum
- Extended programmes have nevertheless had a unique redress role in (a) widening access, especially in historically advantaged universities, and (b) fostering success for thousands of graduates from disadvantaged backgrounds, many of whom would not otherwise have been at university
- Extended programmes have also, most importantly, provided a laboratory for research and development related to South Africa's educational challenges, with potential for system-wide application
- An account of extended programme performance is given in CHE 2013, chapter 5.

Concurrent academic support

- ‘Concurrent’ academic support, offered in the context of regular curricula, also has a major role to play in improving student success
- Some types are beneficial for all students, especially in their junior undergraduate years: curriculum advising, approaches to tertiary study, using data analytics as a basis for individual student support, time management, information management, methods of inquiry, career development ...
- Other types are necessary for students who need less fundamental support, in areas such as academic language development and writing, other academic literacies such as numeracy and information literacy, supplemental tutoring in specific subjects ...
- These forms of academic support should be regarded as essential services supporting the educational process in all universities, and should be funded accordingly, primarily within the block grant (see section F)

Section C

Extent of need:

What proportion of the students require systemic intervention – particularly extended provision – to enable them to complete undergraduate education?

Is extended provision viable?

- Extended curriculum programmes may be thought to be expensive to the state or a burden on the affected students because they require additional curriculum time
 - However, the categories of students for whom extended programmes are intended are by definition already taking at least one additional year to graduate, and most are not graduating at all
- The poor performance patterns of the status quo result in major inefficiencies in the utilisation of state subsidy
 - The direct cost of subsidy that does not result in graduates was calculated in 2013 as about **R4.5 billion per annum** (CHE 2013 pp 136-137)
 - This ‘wastage’ arises primarily from students’ failing and repeating courses
- If there is nevertheless some additional cost attached to extended programmes, it has to be weighed against the benefits of increased graduate production (CHE 2013 pp 70-90)

What categories of students require or would benefit from extended provision? (drawing on CHE 2013: 98-99)

Caveat

- There are clearly a range of factors that contribute to students' failing or dropping out, but there are at present no reliable national data to quantify the extent to which the various factors (or clusters of factors) are significant.
- The figures shown below for candidates for extended provision include students whose under-performance or dropping out has nothing to do with learning-related factors; the figures would be reduced if the latter category could be quantified.
- However, data and experience indicate that disadvantaging material, affective and educational-background factors commonly coincide, so the prevalence of learning-related obstacles should not be underestimated.
 - 'mitigating the learning-related obstacles ... is an essential if not sufficient condition for [substantial] improvement [in student performance]' (CHE 2013: 57)

What categories of students are candidates for extended provision?

- Category 1: All students who are academically excluded or drop out for learning-related reasons
 - 10-year cut-off; assumes these students will never graduate
 - such students could only benefit from additional support of the kind made possible by extended provision
- Category 2: Students taking longer than regulation time (n years) to graduate
 - such students would in any event take at least one additional year to graduate; especially as most failure occurs in first year, they are likely to benefit from the strengthening of academic foundations facilitated by extended provision
- Category 3: as alternative to Category 2: Students taking longer than $n+1$ years to graduate
 - to allow for minor failure or change in curriculum path

What categories of students are candidates for extended provision?

- The following tables provide:
 - (a) indicative gross proportions of the student intake whose probability of graduating is likely to be increased through participation in extended provision
 - (b) proportions of the student intake graduating in n and $n+1$ years, by qualification type, to indicate variation across qualifications and population groups

Note: Except where indicated, the tables in this section show the performance of the 2008 intake cohort, the latest for which sufficient longitudinal data are available.

Approx* % of students that require or would benefit from extended provision (cumulative):
Contact students in all 3- and 4-year qualifications

<i>Category</i>	<i>All</i>	<i>African</i>	<i>White</i>
Dropped out by end of 10 th year (assume will never graduate)	30	n/a	n/a
Not graduated within 10 years (est)	35	n/a	n/a
Not graduated within $n+1$ years	55	60	40
Not graduated in regulation time (n years)	70	75	55

Approx* % of students that require or would benefit from extended provision (cumulative):
Contact and distance students in all 3- and 4-year qualifications

<i>Category</i>	<i>All</i>	<i>African</i>	<i>White</i>
Dropped out by end of 10 th year (assume will never graduate)	38	n/a	n/a
Not graduated within 10 years (est)	45	n/a	n/a
Not graduated within $n+1$ years	65	70	45
Not graduated in regulation time (n years)	80	85	65

*Where data from different sources (CHE, DHET) are not directly comparable, figures have been rounded.

% graduating in regulation time (n years) and n+1 years (cumulative):
Contact students

<i>Qualification</i>	<i>n years</i>	<i>n+1 years</i>
3-year diploma	19	36
3-year degree	30	48
All 3-year qualifications (est)	25	42
4-year degree	42	57
All 3- and 4-year qualifications	29	45

*% graduating in regulation time (n years) and n+1 years (cumulative):
Contact students, by population group*

<i>Qualification</i>	<i>n years</i>		<i>n+1 years</i>	
	<i>African</i>	<i>White</i>	<i>African</i>	<i>White</i>
3-year diploma	17	34	33	49
3-year degree	23	43	41	59
All 3-year qualifications (est)	19	40	36	56
4-year degree	38	51	54	64
All 3- and 4-year qualifications (est)	23	44	39	58

Implications for enrolment growth

- Both the NDP and the DHET Post-School White Paper call for a 50% growth in higher education enrolment by 2030, to around 1.5 million
- A range of studies (e.g. Van Broekhuizen et al. 2016) have shown a clear positive association between NSC grades and university performance
- Since current university intakes generally comprise the highest bands of NSC achievers, the next 500,000 students in higher education will have a significantly lower level of NSC performance on average, and hence can be expected to lower the average level of preparedness for mainstream undergraduate curricula
- This will mean significant growth in the proportion of the intake likely to be dependent on extended provision for success in their studies
- At what level of participation do systemic interventions like extended programmes have to be accepted and funded as mainstream provision?

Conclusions

- Notwithstanding the absence of data on the relative significance of different factors affecting under-performance and drop-out, analysis indicates that substantial proportions of each student intake require or would benefit from extended provision in progressing through their studies to graduation
- The student category that would make up the great majority of any additional enrolment in higher education – i.e. African students from under-performing schools – will significantly increase the proportion of the intake needing the kinds of support facilitated by extended provision
 - the consequences of not providing such support will be increased failure and attrition rates or reduced standards, and will act against equity of outcomes

Section D

The costs of maintaining and expanding extended provision

Extended programmes: Current state funding

- Extended programmes are funded primarily by the DHET ‘foundation grant’, which was introduced in 2004. The method of funding has evolved much since its inception, and is now tied into HEMIS.
- It is the additional provision in an extended programme (what is over and above the provision in the corresponding regular programme) that requires special funding because it is only partly funded through the Teaching Input subsidy. The funded additional provision takes the form of formal ‘foundation’ courses
- The Foundation Grant provides earmarked funds for Ministerially-approved extended programmes to make up this ‘subsidy gap’ so that the programmes are not a drain on an institution’s finances.
- The funding allocated to each institution is derived from FTE student enrolment in approved extended programmes – as agreed in the enrolment management process – and paid retrospectively as per standard HEMIS practice.

Extended programmes: Current and projected earmarked funding amounts

- Because of a high level of variation in extended programme staffing and costs across the universities, the most appropriate funding benchmark is the current value of the foundation grant, and an assessment of its adequacy.
- In the present funding system, foundation courses receive state funding from two sources: each course generates **regular teaching input subsidy** in accordance with its HEMIS credit value and its FTE enrolment, as well as **earmarked foundation grant funding** of about the same value, to make up the 'subsidy gap'
- Extended programmes have grown markedly in recent years in number and in FTE enrolments, and the Minister has increased the value of the foundation grant accordingly.
- The allocation for the foundation grant for 2015/16 is about R304 million.
(DHET 2016)

Extended programmes: Current and projected earmarked funding amounts (cont.)

- Details of the 2015/16 foundation grant include:

Allocation total	R304,470,000
% of first-time entering intake provided for	12.7%
Headcount first-time entering enrolment in contact ECPs	18,000
Rand value per weighted FTE ECP student (approx)	R14,360

Source: DHET 2016; Cilliers 2016

- In rejecting the CHE's 2013 proposal for a flexible undergraduate curriculum structure, the Minister recommended that extended programme enrolment be increased 'to reach **at least 30%** of students entering first year'
 - **At 2015/16 rates, this would increase the allocation to about R719 million**
- The contribution from the regular Teaching Input subsidy (which would be approximately the same) does not need to be provided for separately as it would be built into the subsidy via the Enrolment Planning process

Is the foundation grant funding fair and adequate?

- It is fair in its design, which ensures that it fills the 'subsidy gap' between the actual teaching input subsidy generated by foundation courses, and what they would generate if they were 'mainstream' courses
- However, the funding made available for foundation courses in a number of institutions is not adequate, because only the foundation-grant portion is provided. This is contrary to the spirit of the funding policy, which intends that a fair portion of the regular subsidy generated by a foundation course should also be provided, especially to allow for sufficient and sufficiently-qualified academic staff to be employed.
 - suitable staff and staff-student ratios are particularly important for the effectiveness of foundational provision
- It is hoped that DHET will request institutions to allocate a fair portion of the regular teaching input subsidy generated by foundation courses to be allocated to extended programme staffing and operating costs

What if the need for and provision of extended programmes continues to grow?

- It is predictable that, as higher education enrolment continues to grow – under pressure to meet the demands of the 21st century world – so the proportion of the student body needing extended provision will grow too.
- It must then be asked: At what level of participation in extended programmes would they have to be accepted as integral to mainstream provision? At what point does a supplementary form of provision become substantive?
 - this matter has major implications for curriculum design, academic planning and funding approaches
- Taking the view that it was already the majority of the student intake that would benefit from extended provision, and that this majority would grow as enrolment increased, the CHE in 2014 endorsed a task team's research-based proposal for a flexible and extended curriculum (CHE 2013), and recommended that DHET adopt the proposal
 - 'as the guiding vision for reform of the structural parameters of the undergraduate curriculum in higher education'

Possible alternative approach to funding extended provision

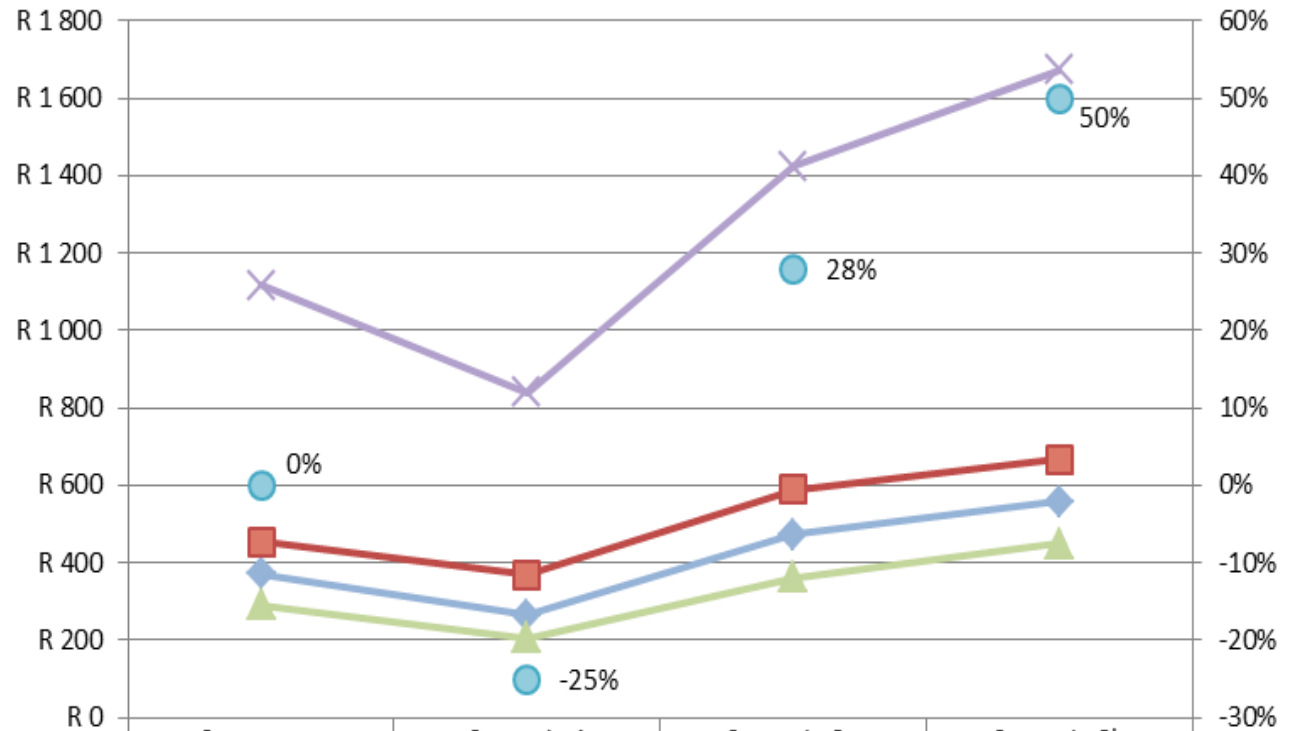
- While the Minister did not accept the CHE proposal, the 2013 report's research and projections relating to state funding may be of value in the current consideration of options for funding undergraduate education that can improve success and graduation rates.
- The report's comprehensive financial projections were based on scenarios to be compared with the status quo. Two of these are relevant here:
 - Scenario 1: A flexible curriculum structure allowing for different entry levels designed to accommodate the diverse backgrounds of a growing student intake; incorporating modest assumptions of improved performance arising from addressing the main structural obstacles identified [as outlined earlier]
 - Scenario 2b: Retaining existing structures while growing the intake in order to achieve the same graduate output as projected in Scenario 1; with the assumption that enrolment growth would mean some lowering of the average level of preparation of the intake

Findings of the funding projections (CHE 2013:123-149)

- Critical to shift focus to graduate production as key measure of effectiveness and efficiency
- Increasing graduate output by simply increasing the intake is shown to be extremely costly
 - over a full cohort period, total **additional cost** of Scenario 2b (increasing intake) over Scenario 1 (curriculum reform) **for each cohort** was found to be approximately R1.8 billion in 2013 rands
- In contrast, achievable improvement in efficiency can make a major difference in cost per graduate
 - Scenario 1: 10% less than status quo
 - Scenario 2b: 20% more than Scenario 1
- Outlay needed to improve graduate production with same student intake is reasonable
 - Scenario 1: additional 16% outlay to yield 28% more graduates

Unproductive use of subsidy per cohort (in 2013 R millions)

(CHE 2013: 137)



	Status quo	Scenario 1	Scenario 2a	Scenario 2b
General B-degrees	R 371	R 266	R 473	R 558
Diplomas	R 455	R 369	R 589	R 667
Professional B-degrees	R 290	R 205	R 362	R 449
Total	R 1 116	R 840	R 1 424	R 1 674
Increase irt status quo	0%	-25%	28%	50%

Section E

Psychosocial and general support services:
Nature and funding

Psychosocial and other key services related to student success in and beyond university

- It is common cause that, in addition to material resources, a wide range of factors in students' lives can have a major influence on their participation in the classroom and in their academic performance overall
 - being at university is a period of major personal change and maturation for most students, and increasingly one of stress
 - key services in areas such as physical health, mental and emotional health, recreation, sexuality and living with diversity can be the difference between success and failure, persistence and dropping out
- Moreover, university years are also critical for preparing for successful transition to the world of work
 - so career development services and opportunities for internships and voluntary work of all kinds are no longer a luxury

Psychosocial and other key services related to student success in and beyond university

- Such services should therefore be readily available at all universities
- However, SA's legacy of inequalities persists in the highly uneven provision of such services across the higher education sector
 - in particular, the scale of the service offered is commonly out of all proportion to the number of students to be served, with just a handful of professionals available to assist many thousands of students
 - for example, a recent survey by SAGEA indicated that many universities' careers services have six or fewer staff (Sims 2016)
- A key contributory factor has been the decline in per capita subsidy, which has diverted funding from student services or forestalled their development
 - raising the value of the subsidy is thus critical for the provision of services that should be seen as essential for supporting the educational process and fostering success in all institutions (see Section F)

Section F

In summary:

Key considerations and recommendations

Key considerations and recommendations

1. System-focused academic development is critical to substantially improving the current poor and skewed performance patterns.
 - Interventions that are limited to peripheral academic assistance and psychosocial and material support, important though these are, fail to take full account of the effects of the major inequalities in prior learning that characterise the South African student intake, and will thus have limited effectiveness
2. Academic Development (AD) must address the prevailing systemic obstacles to learning by focusing on systemic change, designed to create conditions in which the full range of the required student intake can thrive
 - including ensuring that the curriculum structure provides a framework that allows fairly for a diverse student body
 - as opposed to an emphasis on 'fixing the students' which is critiqued as a 'deficit model'

Key considerations and recommendations

3. A high proportion of the student intake are disadvantaged by the current mainstream teaching-and-learning process, including the inherited curriculum structures and the assumptions on which they are based.
 - In these circumstances, there are grounds for reconsidering what constitutes the mainstream
4. The funding of AD interventions must be recurrent since they facilitate an integral part of the higher education sector's educational mission
 - important to promote professionalisation in the AD field
 - earmarked funding suitable until AD interventions are firmly rooted
 - in the longer term, depending on the extent of growth and accountability, the block grant may become the appropriate funding vehicle
5. The funding required for systemic interventions such as extended provision is a fraction of the amounts required for student financial support but is essential for improving the effectiveness of that support

Key considerations and recommendations

6. Academic Development, concurrent academic support, psychosocial and career support must work in a complementary, co-ordinated way in order to optimise their effectiveness.
7. The funding required for mainstream academic support and general support services should preferably be provided for in the block grant as these services are intended to benefit all students, though earmarked grants may be valuable for seeding or special purposes.
 - This constitutes an additional reason for improving the per-capita subsidy. The Teaching Input subsidy should be at a level that can sustain not only the standard teaching-and-learning process but also the range of academic and general support services necessary for optimising the effectiveness of this process
8. The current reconsideration of higher education funding may provide a valuable and rare opportunity to reconsider the effectiveness and inclusiveness of the teaching-and-learning process, the fitness-for-purpose of its structures, and the adequacy of its student support services.

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