Presentation to the Fees Commission, October-November 2016

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

Additional slides:
Recap of argument, and financial projections

Ian Scott

Emeritus Professor, Centre for Higher Education Development

University of Cape Town

Section A

Recap of the argument

Psychosocial and ‘concurrent’ academic support

- Designed to promote student success, these services can benefit large numbers and a wide range of students
- Adequate funding of these services depends primarily on reversing the decline in per-capita block grant subsidy
  - as they are best funded from standard recurrent funding
- Possible justification for national guidelines on the provision of such services
  - perhaps managed by the CHE as a key element of quality assurance and enhancement

Significance of extended provision

- As a systemic response to fundamental systemic obstacles in the teaching and learning process

- Necessary for:
  - long-term redress and equity
  - economic and social development, which calls for utilising the intellectual talent in all communities
  - breaking the vicious circle of underperformance of the education system as a whole
  - promoting social stability, which calls for equitable distribution of the scarce resource of higher education

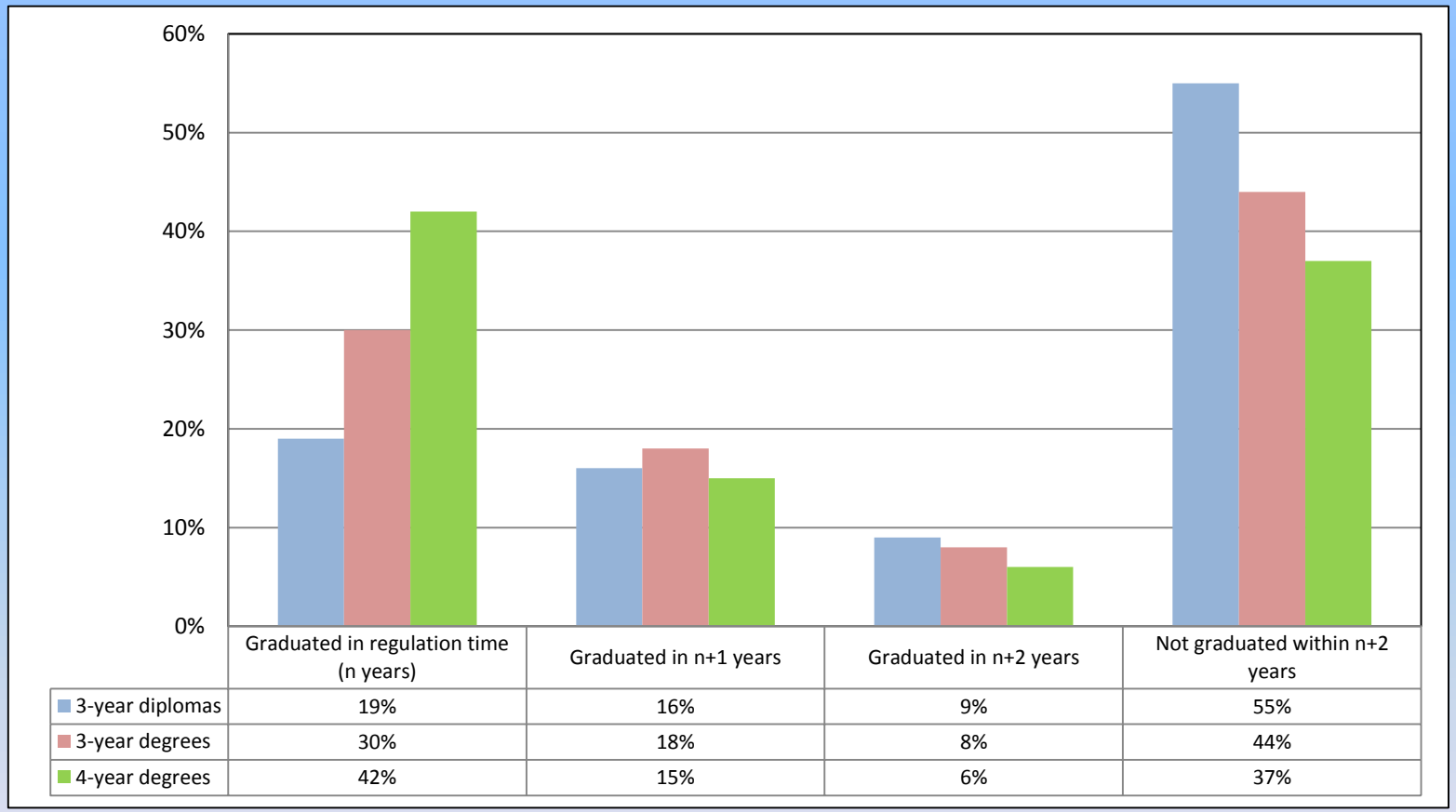
Key requirements of systemic intervention

- Focusing on outcomes rather than inputs
  - in undergraduate education, the quantity, quality, attributes and mix of graduates
  - as a measure of the value of public investment in higher education (and PSE)

- Responding to the inequalities and diversity of background in the student intake
  - determining what extent of diversity is inevitable
  - 'planning back' from determining (in broad terms) how many graduates the country needs
  - determining what proportion of students are not well served by the status quo, and assessing the implications for growth
  - establishing structures and approaches that are flexible enough to match the learning needs of the full range of the intake

The challenge graphically

Time to graduate (2008 cohort excluding UNISA)



	Graduated in regulation time (n years)	Graduated in n+1 years	Graduated in n+2 years	Not graduated within n+2 years
3-year diplomas	19%	16%	9%	55%
3-year degrees	30%	18%	8%	44%
4-year degrees	42%	15%	6%	37%

Source: CHE 2015

In what areas is systemic change needed?

- Material support
- Psychosocial support – particularly in terms of scale
- Institutional culture
- Pedagogy
- Curriculum
  - inclusive orientation
  - providing epistemic access for the diverse intake – through flexibility in entry points and pathways but not in learning outcomes and exit standards
  - no room for essential interventions in current mainstream curricula – need for structure that provides an enabling framework for such interventions
- Justifiable for educational interventions to receive adequate funding
  - fraction of the cost of material support but essential for turning access into success

Implications for enrolment growth

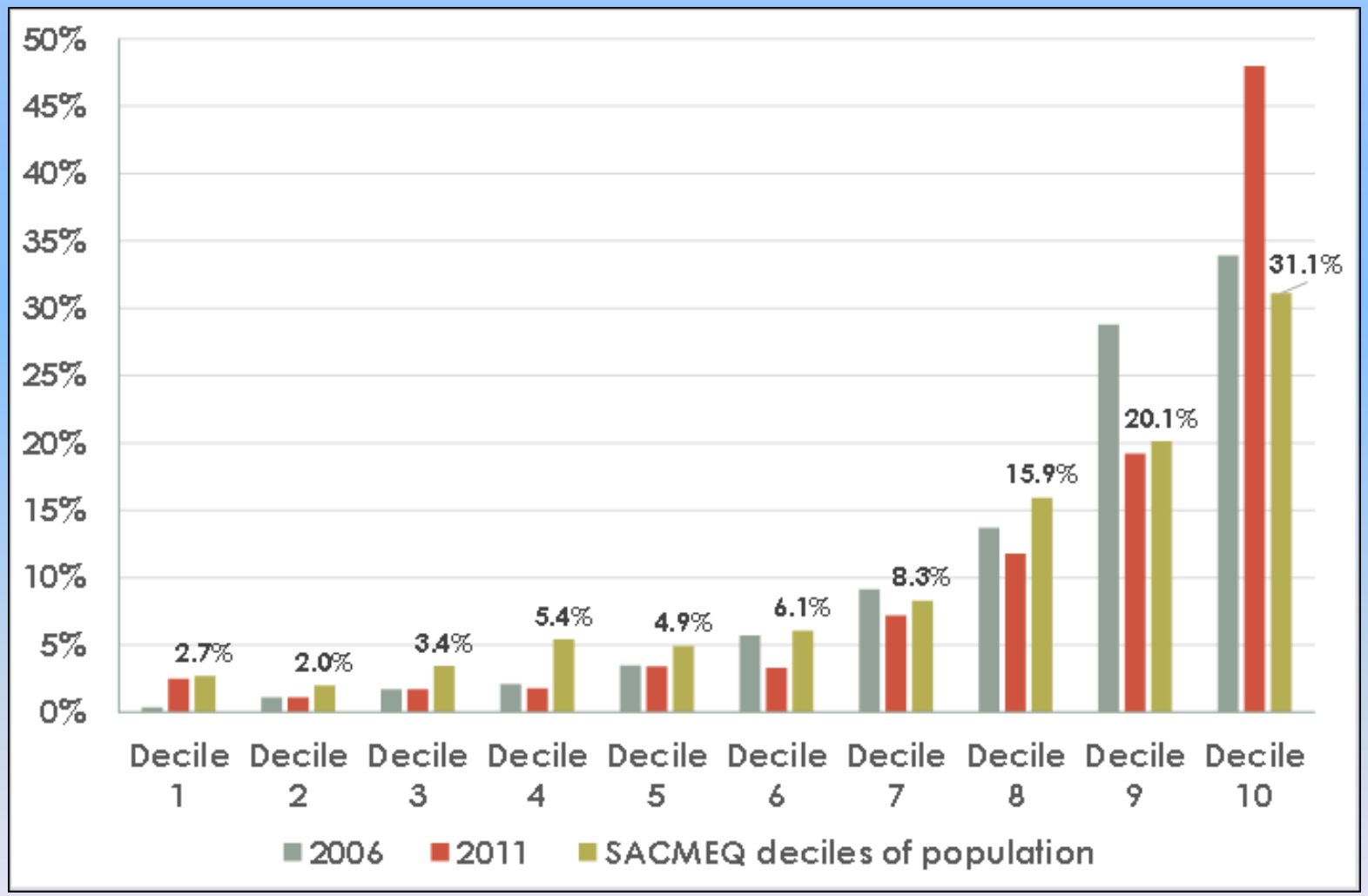
- A range of studies (e.g. Van Broekhuizen et al. 2016) have shown a clear positive association between NSC grades and university performance
  - growth without substantial improvement of the current performance patterns will thus exacerbate the mismatch between the preparedness of the intake and the assumptions underlying current mainstream curricula

- Feasibility of meeting the DHET and NDP growth targets successfully within current forms of provision is highly questionable, with risks including:
  - declining proportion of the intake graduating
  - unproductive use of subsidy increasing

- Need for growth decisions to be informed by rigorous analyses of the likely profile of the additional student intake, and the educational and financial implications

- At what level of participation do systemic interventions like extended programmes have to be accepted and funded as mainstream provision?

Estimated university subsidy shares by decile (Van der Berg 2016: 178)



Section B

Financial projections relevant to the provision and expansion of structural curriculum reform

Implications for higher education funding

- Major risk: underfunding student support and systemic teaching-and-learning interventions (including extended provision) will impact negatively on student success and equity of outcomes
  - defeating the object of widening access
- This risk arises from high, possibly unsustainable systemic costs that are not justified by the system's outcomes
- Estimates of the cost to the state of free higher (and/or post-school) education are high (e.g. Jammine 2016; Davis 2016; Stats SA 2016)
  - how much would be 'wasted' if the status quo continued?
- Need to interrogate cost scenarios relating to system size and internal efficiency
  - drawing here on two studies done prior to 2015 but relevant to topic: Simkins in CHE 2016; Sheppard in CHE 2013

Simkins projections (CHE 2016)

- Key assumptions:
  - economic growth rate used: 3.5% (p 323)
  - no change from current performance patterns (p 345)
- Scenario 1: continuation of current patterns
  - but with some improvement in secondary school throughput
- Scenario 2: fitting growth patterns to the projected funding envelope
  - projections of **state grants** to higher education from 2013 base
- Scenario 3: a 'middle path', using the enrolment growth rate necessary to achieve the PSE White Paper's 2030 enrolment target
  - requiring, *inter alia*, increase in GDP % allocated to higher education, as well as increase in institutions' third-stream income

Simkins projections: Comparison of scenarios

- Comparison of projections for 2023, for illustrative purposes

	Scenario 1	Scenario 2	Scenario 3
Enrolment (millions)	1.71	1.05	1.29
Total income required (all sources, billions)	117	72	90
Graduates (thousands)	311	195	231

- Note: Graduate production likely to be overstated here
  - realistically, given current patterns, the proportion of the intake that graduates will decrease as the intake increases

Simkins projections: Conclusions

Simkins's conclusions:

- Scenario 1: Not affordable
  - 'disastrous financial consequences for universities'
  - 'concomitant fallout with regard to academic standards and services'
- Scenario 2: Affordable but not acceptable
  - growth 'inadequate to meet the anticipated demand for higher education'
- Scenario 3: Projected state funding achievable under specified conditions:
  - increase in GDP % allocated to public higher education
  - DHET 'stimulates' private higher education
  - universities undertake to increase third-stream income
  - universities 'adopt teaching and learning productivity improvement measures, for example … a flexible and extended undergraduate qualification structure'
  - potential students accept that university access 'will become more competitive'

CHE/Sheppard projections (CHE 2013)

- Different approach from that of the Simkins study
  - focusing on the effects of different levels of internal efficiency on the state funding required for growth in graduate production

- Scenario 1: implementation of the 'extended but flexible curriculum'
  - with assumptions re improvement in throughput rates arising from greater capacity to accommodate educational inequalities

- Scenario 2: assumes no systemic change or improvement in internal efficiency; graduate growth achieved through intake growth

  Scenario 2a: applying current performance patterns to additional intake
  - best possible case; unrealistic

  Scenario 2b: assuming lower average level of preparedness, and hence performance, in the additional intake (Van Broekhuizen et al. 2016)

CHE/Sheppard projections: Approach

3-year degrees	*Status quo*	*Scenario 1*	*Scenario 2a*	*Scenario 2b*
Intake	42,277	42,277	53,762	58,114
Graduates	21,606	27,448	27,448	27,448
Not graduated within 6 years	20,671	14,829	26,314	30,666
Number not graduated in 6 years per 100 graduates	95	54	95	112

- Scenario 1: based on the same intake as the actual 2010 intake
- Scenarios 2a and 2b: showing the costs of producing the same number of graduates as projected for Scenario 1

CHE/Sheppard projections: Comparison of scenarios

Comparative per-cohort inputs and outputs of different models for increasing graduate production: NSFAS excluded (2012 rands)

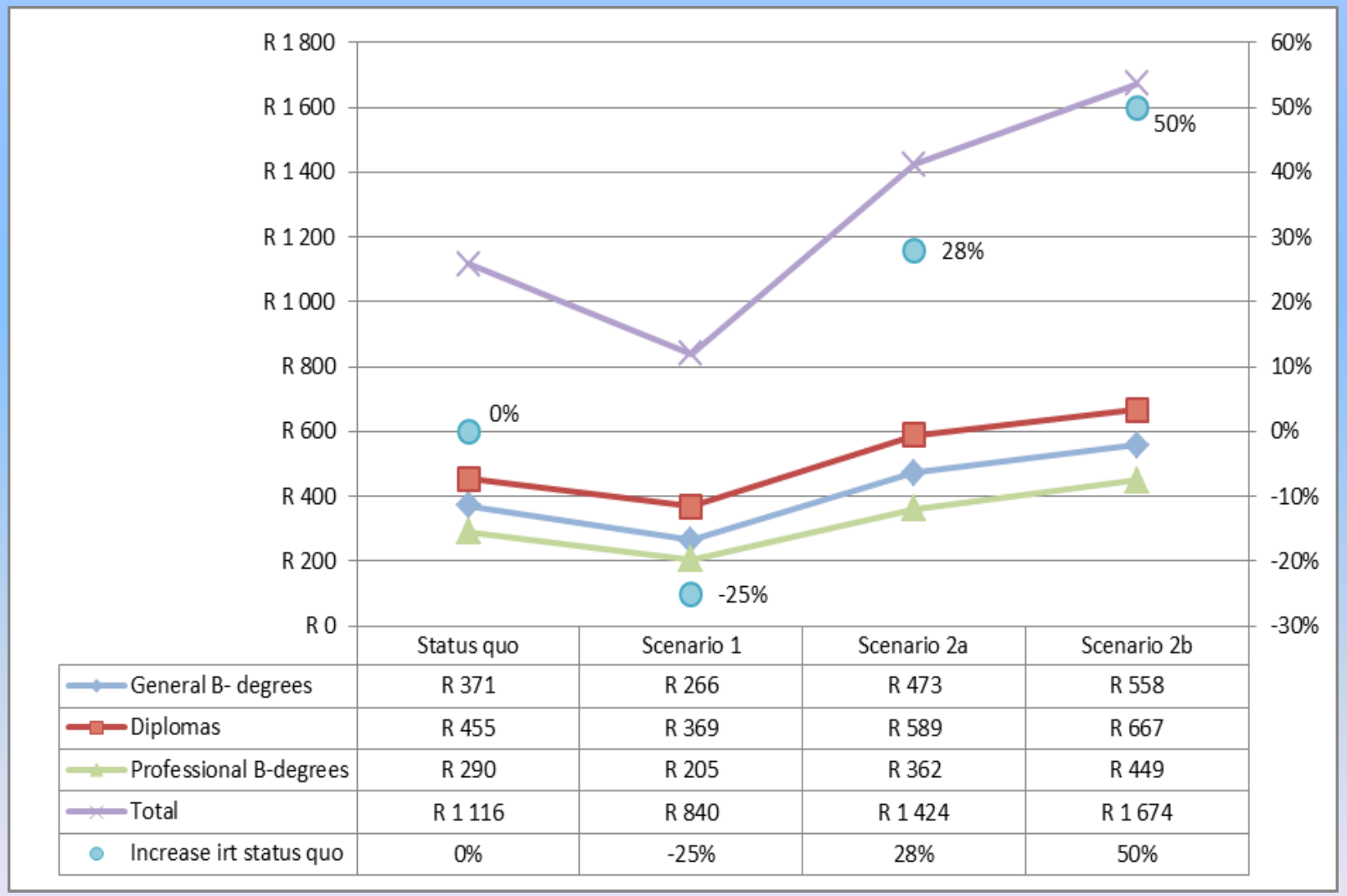
3-year degrees	*Status quo*	*Scenario 1*	*Scenario 2a*	*Scenario 2b*
Intake	42,277	42,277	53,762	58,114
Graduates	21,606	27,448	27,448	27,448
Total cost (millions)	R2,583 m	R2,929 m	R3,289 m	R3,600 m
Cost per graduate	**R119,572**	**R106,700**	**R119,817**	**R131,147**
Intake growth required (%)	-	0	27	37
Graduate growth (%)	-	27	27	27
Cost growth (%)	-	13	27	39
Additional funds per cohort	**-**	**R345 m**	**R706 m**	**R1,016 m**

CHE/Sheppard projections: Comparison of scenarios

- In summary, in terms of subsidy costs alone, if the three qualification types are aggregated, each scenario would produce **28% more graduates** (15,085) than the status quo, but **the additional costs would vary** significantly:
  - 16% in Scenario 1
  - 27% in Scenario 2a
  - 38% in Scenario 2b
- The projections indicate that Scenario 1 produces the best utilisation of human and material resources and the best return on investment

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%

Some conclusions from the projections

- Importance of focusing on graduates rather than enrolments
  - investment rather than outlay
- Improving internal efficiency in teaching and learning is critical
  - '… relatively modest efficiency gains, of the order expected to be achieved by the proposed [curriculum] reforms, would result in significantly lower average costs per graduate … [and] make a substantial difference to the capacity of the higher education sector to respond to the pressures on it in an economically feasible way.' (Simkins 2016: 374)
- Flexible structures designed to counteract inequalities may improve efficiency as well as equity
- The outcomes of the status quo do not reflect effective use of resources
  - the status quo does not provide a sound basis for effective and cost-efficient growth in higher education
  - danger of erosion of investment in measures that improve student success

References

- CHE 2013. A proposal for undergraduate curriculum reform in South Africa: The case for a flexible curriculum structure. Pretoria: Council on Higher Education http://www.che.ac.za/sites/default/files/publications/Full_Report.pdf
- Jammine, A. 2016. “Neo-colonisation” – an unintended consequence of FMF-driven varsity unrest. BizNews.com 07 Oct 2016
- Simkins, C. 2016. Funding. In CHE 2016, *South African higher education reviewed: Two decades of democracy*. Pretoria: Council on Higher Education. Davis, D. 2016. Academics and the Fallist movement. GroundUp 4 November
- Stats SA 2016. How important are student fees? Posted 25 October
- Van Broekhuizen, H., Van der Berg, S. and Heleen Hofmeyr, H. 2016. Higher Education Access and Outcomes for the 2008 National Matric Cohort. Stellenbosch Economic Working Papers: 16/16
- Van der Berg, S. Funding university studies: Who benefits? In Kagisano 10: *Student Funding*. Pretoria: Council on Higher Education