

Enhancing Research Excellence, Innovation and Knowledge Production

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CEO

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science
& technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA



National
Research
Foundation

PURPOSE OF HIGHER EDUCATION

- For the individual, it provides social mobility, develops a critical, tolerant and responsible citizenry.
- For society, it contributes to social, economic and cultural vitality; and determinants of health and well-being of nations through research and innovation,
- National Development Plan has identified Research and Innovation as one of the key components of building a knowledge economy
- Hence, universities are crucial national assets for addressing many national priorities.

SOCIAL VALUE OF HIGHER EDUCATION

- One of the goals of higher education is to help build a fairer, more just society
- The Higher Education Act 101 of 1997 emphasized some desirable core components to achieving transformation as follows:
 - ✓ programmes and institutions to respond better to the human resource, economic and development needs of South Africa,
 - ✓ redressing past discrimination in HE
 - ✓ ensuring representivity and equity of access and success
 - ✓ contributing to the advancement of excellence in all forms of knowledge and scholarship.

THE NRF MANDATE

Amended NRF Act: - The object of the Foundation is to contribute to national development by:

- (a) supporting and promoting research through funding, representative human capital development and the provision of the necessary research infrastructure in order to facilitate the creation of knowledge, innovation & development in all fields of science and technology, including humanities, social sciences and indigenous knowledge;
- (b) supporting and maintaining national facilities;
- (c) supporting and promoting public awareness of & engagement with science;
- (d) promoting the development and maintenance of the national science system and support of Government priorities.

In the context of our mandate, we support the researchers, increase postgraduate students especially those that come through NSFAS to become future researchers

THE NRF IN THE SCIENCE LANDSCAPE

Level 1: High-level policy

Government Advisory: CHE, NACI, ASSAF

Level 2: Ministry

DST	DHET	the dti	DE and DMR	NDA	DoH	DAFF	DWA	National Treasury
								Other Departments

Level 3: Agency

NRF	NSFAS	DC	SANERI		MRC	WRC
TIA/BRICs		SEDA				

Level 4: Research and Innovation Performers

NRF	HEIs	SABS	Mintek	ARC	MRC		Weather Service	Business Enterprises
HSRC			Council for Geoscience				MCM	
CSIR			NERSA				SANBI	
AISA								



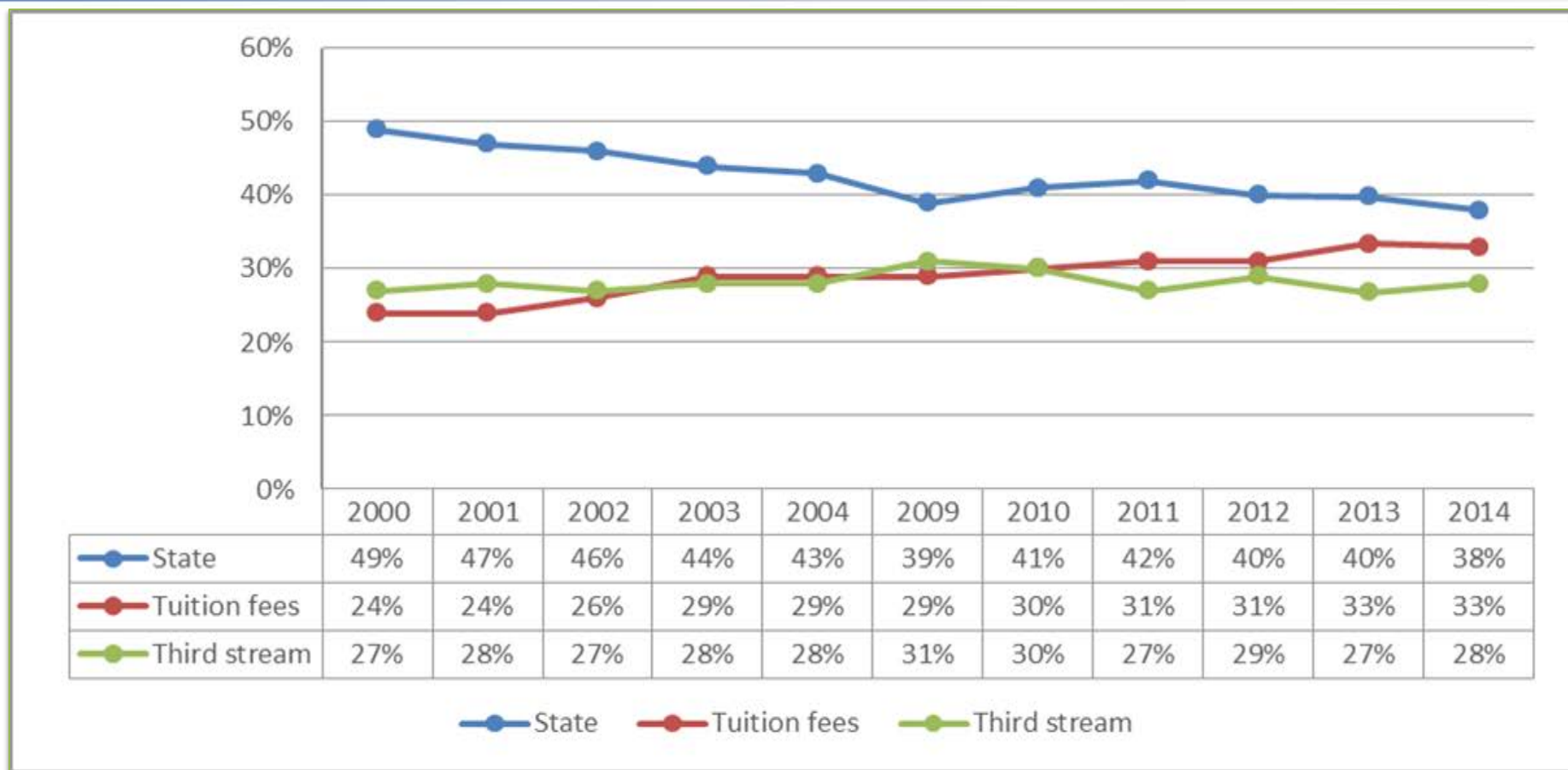
NRF funds 10% all postgraduate students

NSFAS funds 25% of all undergraduate students

A SUBSYSTEM WITHIN A BROADER SYSTEM

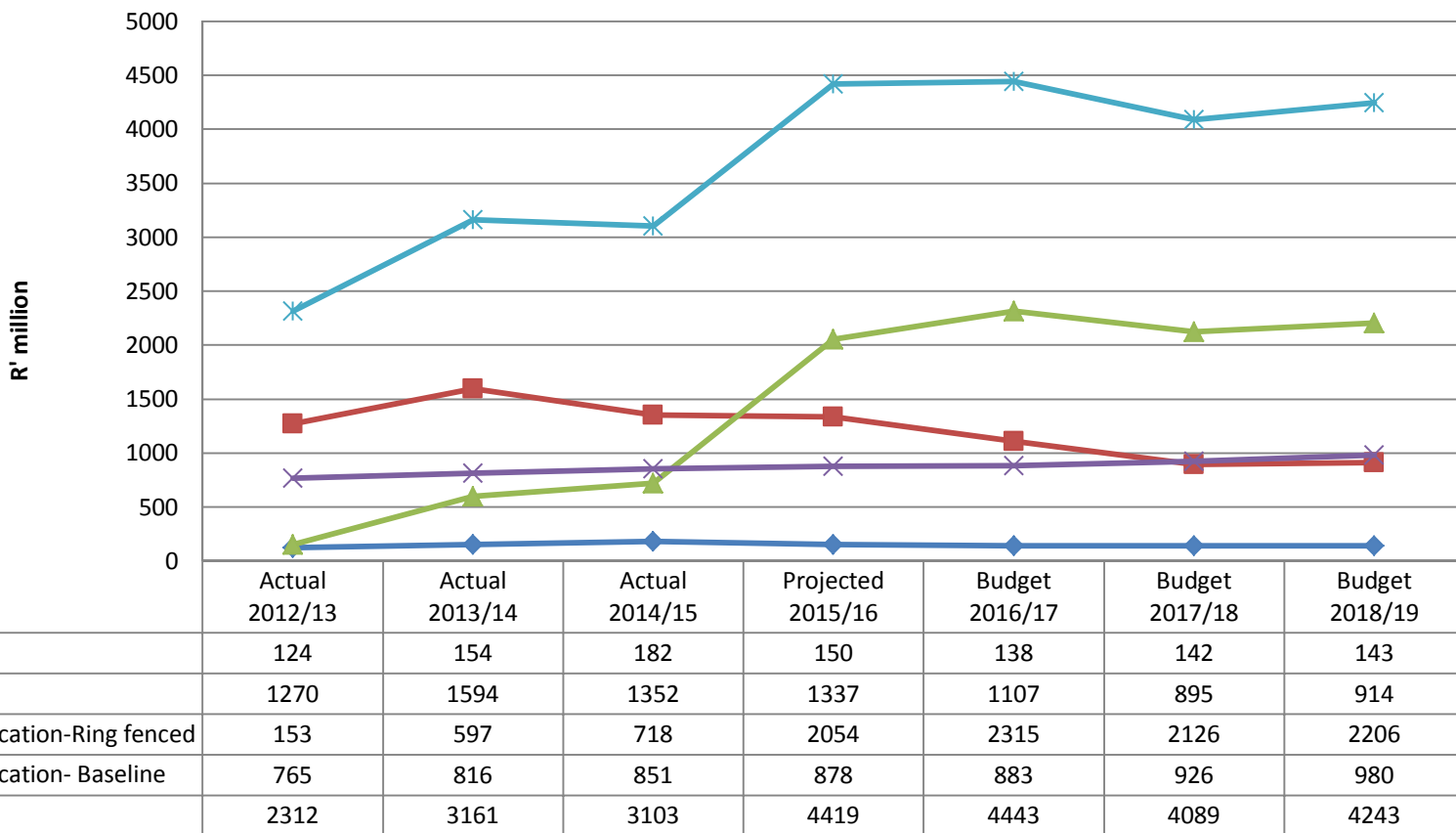
- The funding of Higher Education is more than just about funding undergraduate students. It is about creating a knowledge driven economy which requires sustainable universities, the produce quality trainees who in turn produce knowledge to create sustainable solutions for the nation's problem
- There is need to provide adequate funding for postgraduate students, researchers, research infrastructure as enablers for generating new knowledge and enhancing our research and innovation
- The higher education sector has dual funding streams the National Research Foundation an agency of the Department of Science and Technology and National Student Financial Aid Scheme as an agency the Department of Higher Education and Training
- The NRF funds 10% of all postgraduate students in the country while NSFAS funds 25% of all undergraduate students in the country.
- The funding of researchers at universities comes in the form of NRF research grants, student bursaries and scholarships, large infrastructure equipment grants which cannot be based at one single university

GROSS FUNDING OF UNIVERSITIES - 2000 TO 2014



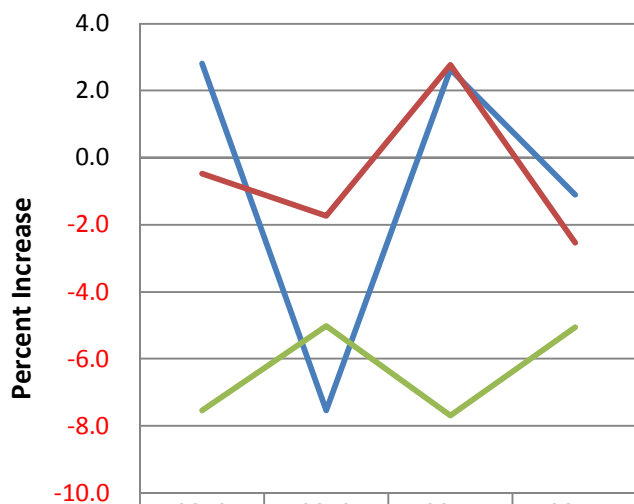
Source: Audited financial statements of the universities for the period 2000/01 to 2014/15. Pretoria: DHET

DIRECTED FUNDING FOR RESEARCH AND INNOVATION



Income trends over MTEF period

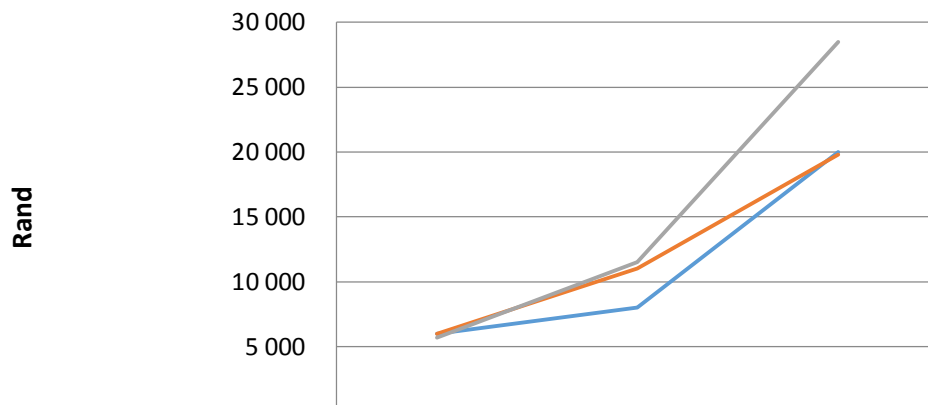
DIRECTED FUNDING UNDER PRESSURE



	2012	2013	2014	2015
All	2.8	-7.5	2.6	-1.1
Rated Researchers	-0.5	-1.7	2.8	-2.5
Incentive Funding	-7.6	-5.0	-7.7	-5.1

Rate of growth of NRF grants, corrected for CPI

Honours

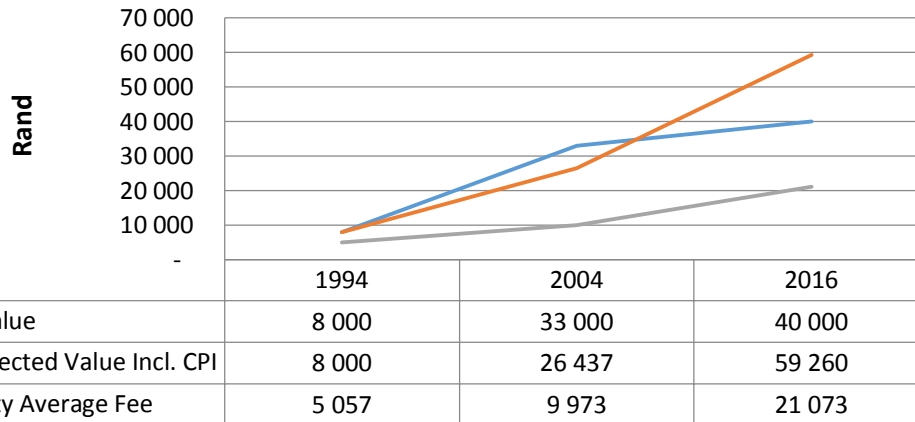


	1994	2004	2016
NRF R Value	6 000	8 000	20 000
NRF Projected Value Incl. CPI	6 000	11 042	19 828
University Average Fee	5 723	11 540	28 491

NRF bursary values vs inflation vs actual fees

DIRECTED FUNDING UNDER PRESSURE

Masters

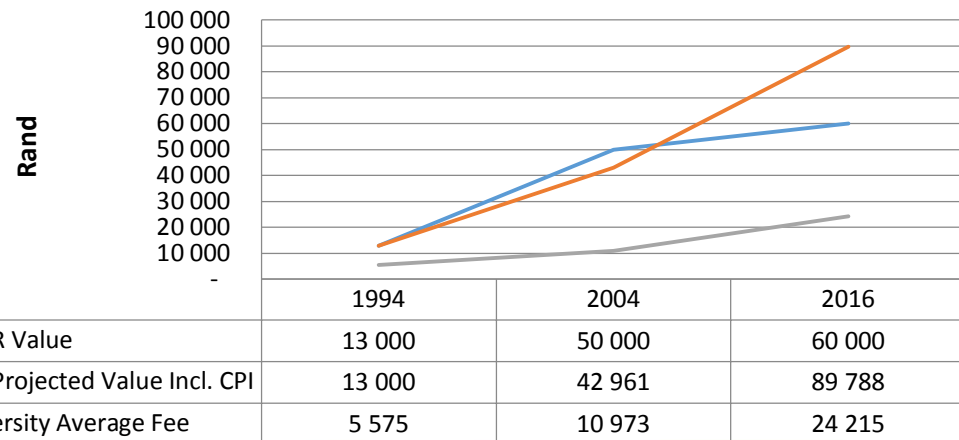


The NSFAS undergraduate bursary amount is R71 000

NRF bursary values vs inflation vs actual fees

Average fees does not include living expenses such as food and accommodation

Doctoral



REALIZING THE GOALS OF THE NDP

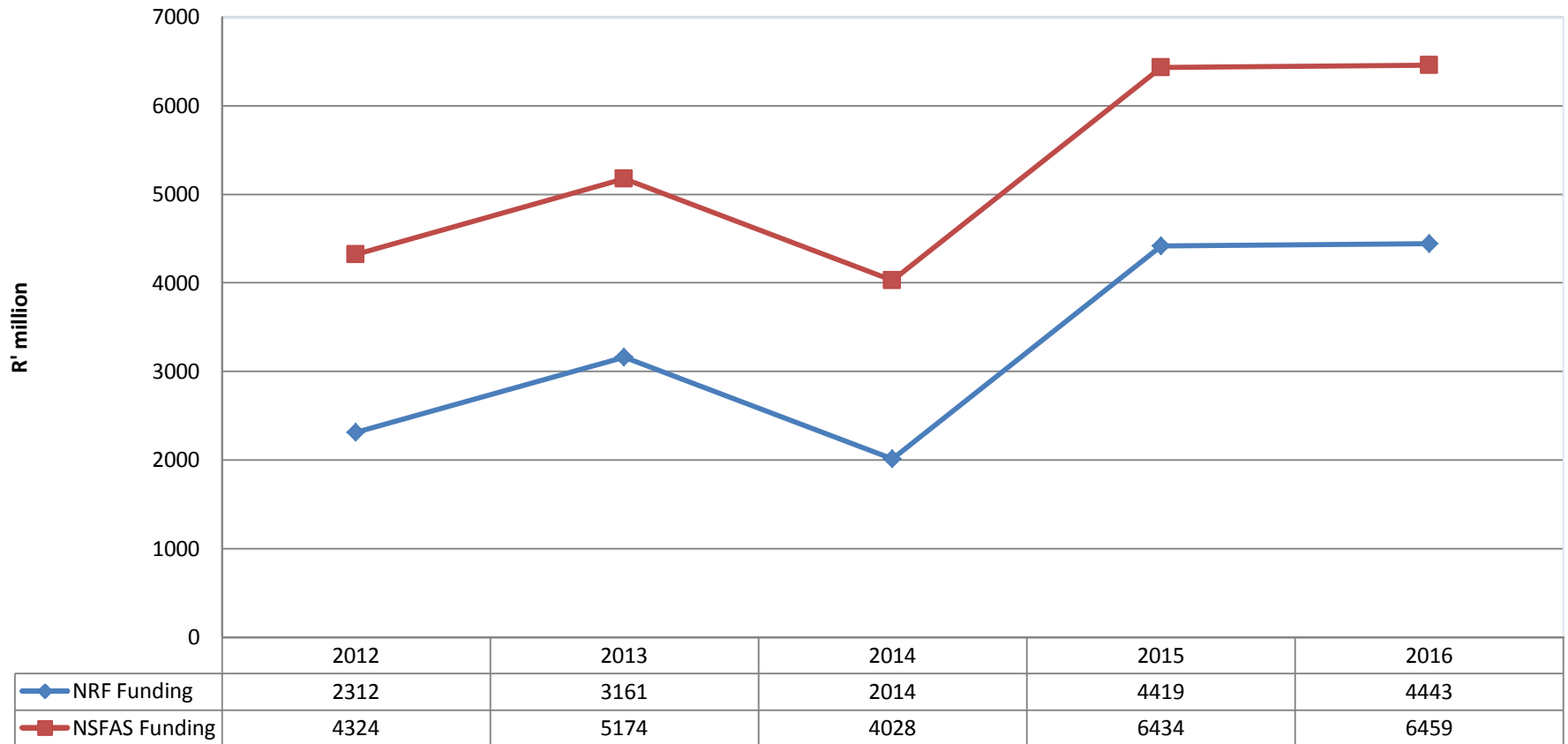
- The NDP proposes increased postgraduate registrations leading to over 5000 doctoral graduates per annum by 2030 . Currently producing approximately 2000 per annum.
- Most of these doctorates should be in SET (current <50%)
- Over 25% of university enrolments should be postgraduate (current 16%)
- Increase percentage of academic staff with PhD from 43% to 75%

These projection imply that:

- There will be significant growth and graduate output by universities.
- There is significant investment in universities to support research performance, capacity development, knowledge production and postgraduate students

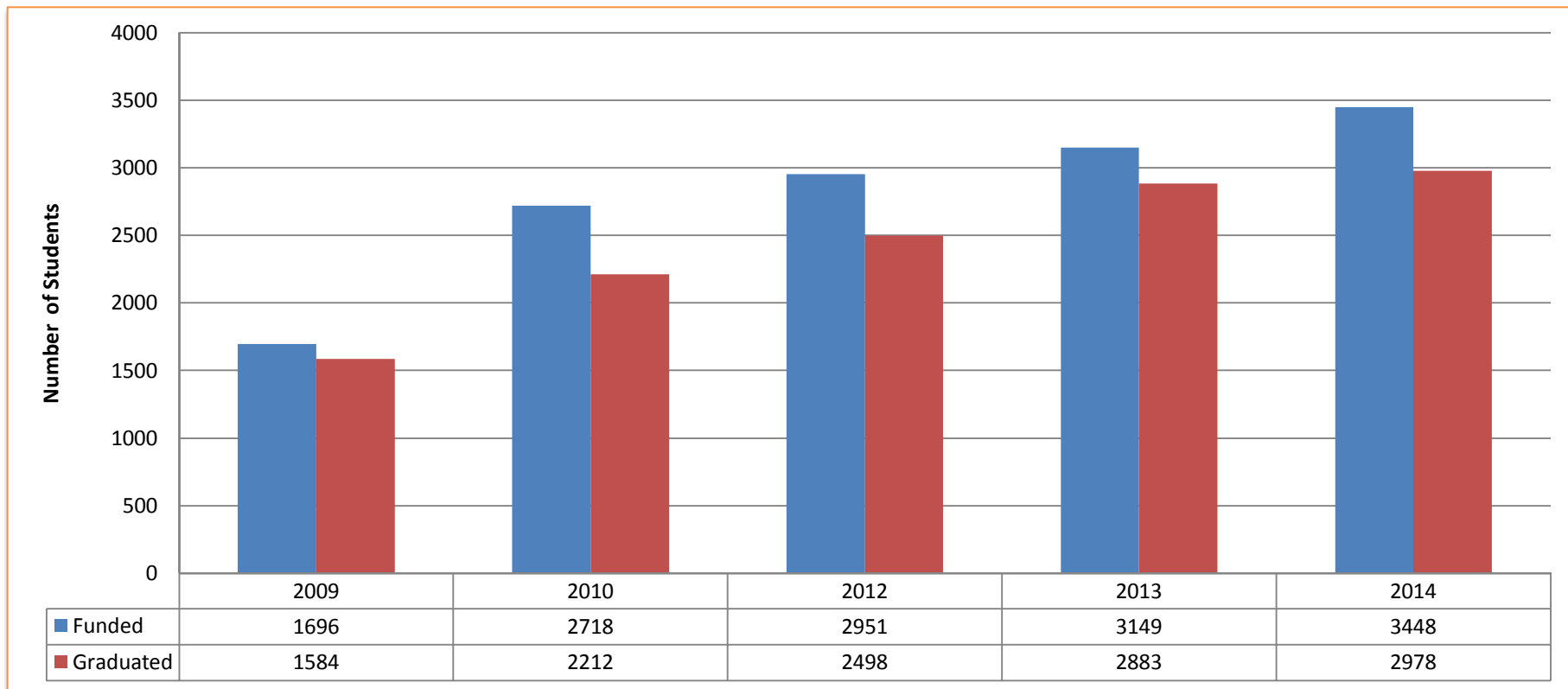
CURRENT FUNDING LEVELS

NRF Funding vs NSFAS Funding



BTECH/HONOURS STUDENT GRADUATION RATES

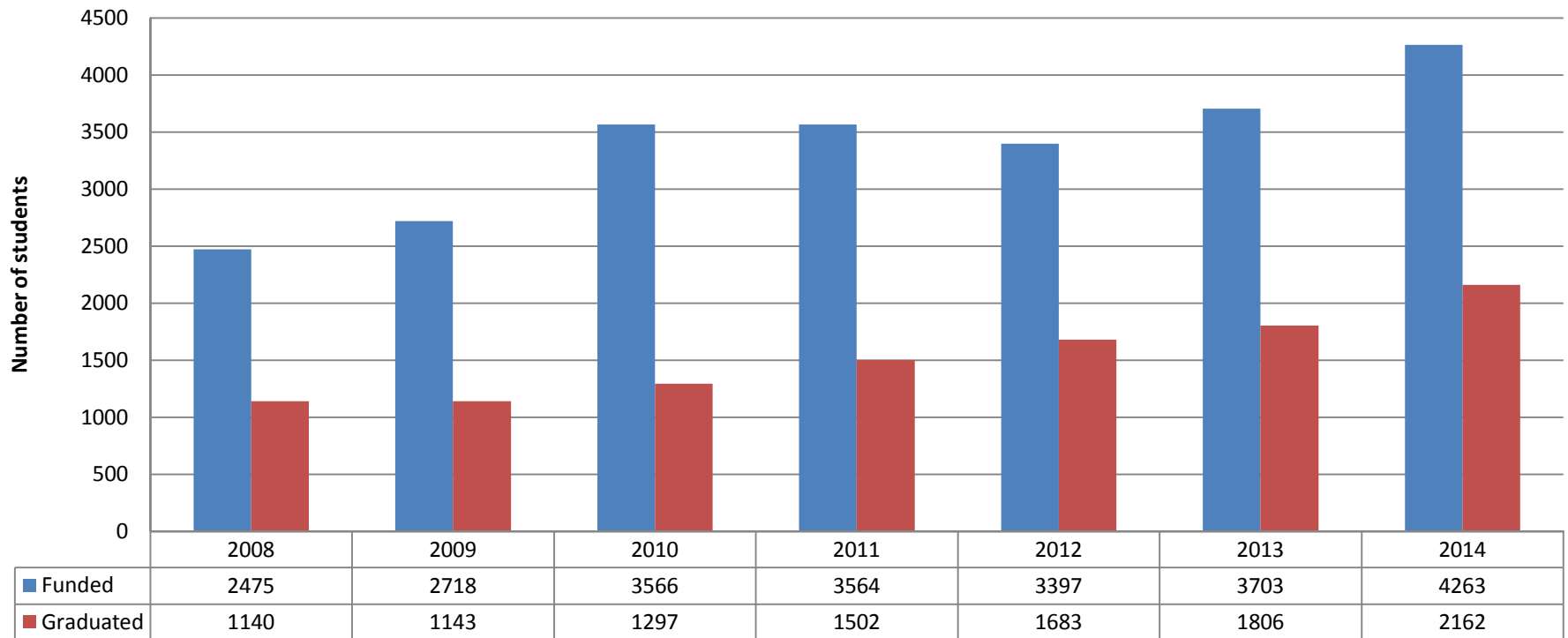
NRF average performance is 100% vs benchmark of 60%



MASTERS STUDENT GRADUATION RATES

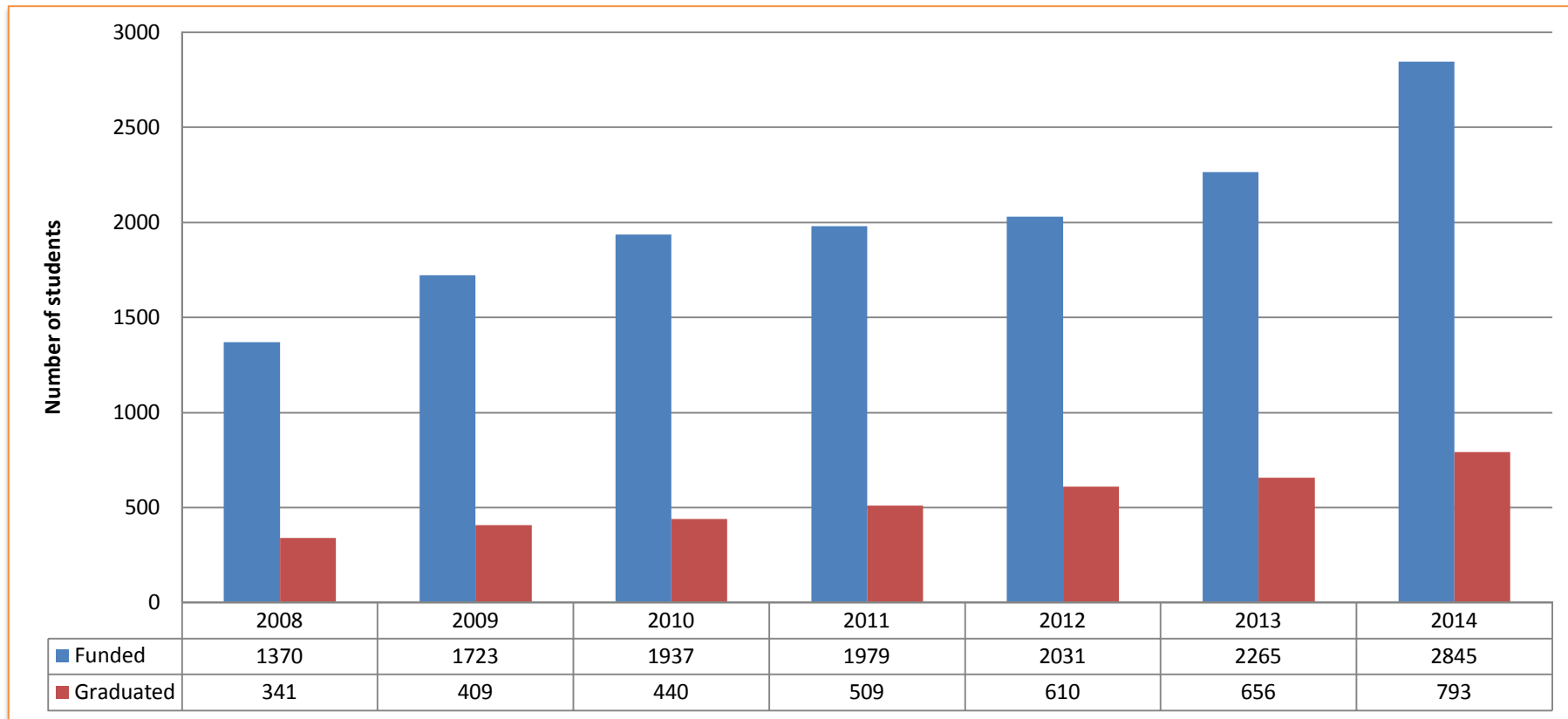
NRF average performance is 46% vs Benchmark of 33%

NRF Masters Students Funded vs Graduated per year



DOCTORAL STUDENT GRADUATION RATES

NRF average performance of 26% vs benchmarks of 20%



ISSUES FOR THE COMMISSION

- Any policy, planning or funding decisions that respond to the challenges of HE must enhance research excellence innovation and knowledge production.
- Any funding decisions for students must include appropriate resourcing for postgraduate studies (number and value of bursaries and scholarships)

ISSUES FOR THE COMMISSION

- Any funding decisions for students must consider different socio-economic circumstances
 - Differentiation which categorises students for full, partial or no funding depending on SEC.
 - Pro-poor free higher education for the poor at undergraduate and or postgraduate (free for all/some?)
- Any funding model must be scalable and support sustainable growth of HE
 - Current participation rate 18% (African 14, Coloured 13, Indian 45 and White 60)
 - Other middle income countries 30% and higher

ISSUES FOR THE COMMISSION

- Equally, funding decisions must include appropriate resourcing for research performance, capacity development and training
- Any policy, planning or funding decisions must consider both public and private investment in higher education , including research, innovation and knowledge production.
- Any funding decisions must assure the continued sustainability of universities to fulfil their mandate.

Thank you



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