EVALUATION AND RATING

facts & figures 2007

National Research Foundation

This publication is intended to ...

- Provide objective information and statistics
- Explain relevant procedures and policies to assist researchers who intend to apply for evaluation and rating for the first time
- Illustrate the objectivity, fairness, credibility and impact of the NRF evaluation and rating system
- Answer frequently asked questions about the system.

Send us your feedback ...

Please contact the NRF Evaluation Centre (by phone, fax or email) with any comments or questions regarding this publication.

National Research Foundation (NRF)
EVALUATION AND RATING:
FACTS & FIGURES 2007

A publication of the
NRF Evaluation Centre

Postal address:
PO Box 2600
Pretoria 0001
SOUTH AFRICA

Physical address:
NRF Building
Meiring Naudé Road
Brummeria Pretoria

Internet:
www.nrf.ac.za/evaluation/
Email: evaluation@nrf.ac.za
Telephone: +27 12 481 4036
Fax: +27 12 481 4010

Most of the data in this publication relate to the period between 2002 and 2005, with some earlier data for the natural sciences and engineering. Limited statistics for 2006 and 2007 are also included.

More comprehensive data sets can be accessed at

www.nrf.ac.za/evaluation/Content/Facts/factsfigures.htm

Published July 2007

CONTENTS

ABOUT THE NRF ...

- Established through the National Research Foundation Act of 1998

- South Africa's national agency for promoting and supporting research across all fields of the humanities, social and natural sciences, engineering and technology

- The NRF head office is in Pretoria, with business units and national research facilities across South Africa

- RISA (Research and Innovation Support and Advancement) is the business unit of the NRF responsible for investing in knowledge, people and infrastructure

- More information about the diverse portfolio of NRF initiatives is available at

www.nrf.ac.za

PRESIDENT'S FOREWORD

A time to evaluate evaluation and rating

THE FIRST "FACTS AND FIGURES" on the National Research Foundation (NRF) evaluation and rating was published in 2005. South Africa's research community welcomed the succinct information and comprehensive data on the evaluation and rating of researchers. Researchers and research managers commented on the value and usefulness of the publication.

We have now updated the "Facts and Figures" to include even more data, based on suggestions and requests from the research community. We trust that it will help to make NRF evaluation and rating even more transparent, and that it will encourage researchers to participate. Once again, we welcome your comments on the value and usefulness of the information.

After more than 20 years of evaluating and rating researchers, the NRF has a rich "data mine" of research-related data and information. We have launched the Project: Evaluation and Rating Data (PERD) to tap the potential of the data, analyse these meaningfully and make relevant and useful information available to the South African research community and public.

At the same time an in-depth review of the NRF evaluation and rating system, driven by leaders in higher education in South Africa, is taking shape. This review was one of the recommendations from a 2005 institutional review of the NRF. It will document the history of the system since 1984, analyse its processes, map the use of the system over time, explore its impact within specific fields and compare it with evaluation systems in other countries.

We look forward to sharing the results of the PERD and the review process with you as the information becomes available towards the end of 2007 and during 2008.

Professor Mzamo P Mangaliso

| President and Chief Executive Officer | National Research Foundation | July 2007 |

EVALUATION AND RATING TRENDS AND NUMBERS

THE NRF USES THE evaluation and rating system as a mechanism to nurture scholarship and grow the country's research capacity. The collection of data over time makes it possible to follow trends in the number of rated researchers in different fields and at different institutions. Trends in the number of rated researchers in a specific field or at a specific institution highlight fields or environments where the South African research competency is strengthening or weakening. As such, it provides a basis for policy decisions on areas that need more funding and development.

The evaluation and rating system reinforces the importance of internationally competitive research and stimulates healthy competition between researchers and research institutions. It demands that researchers are accountable and efficient. The system recognises researchers who produce quality research outputs and remain internationally competitive. Several higher education institutions use the results of the NRF evaluation and rating process to position themselves as research-intensive institutions and to recruit more research leaders. Others use it as a tool and an incentive to develop research staff. The process of evaluation and rating is outlined on page 16, with the definitions of the rating categories on pages 18 and 19.

The tables and figures on the following pages provide an overview of key trends and statistics from information captured by the NRF's Evaluation Centre.

Evaluation and rating of researchers in the natural sciences and engineering (NSE) date back to 1984, while researchers in the social sciences and humanities (SSH) started participating in the process in 2002.

Between 2003 and 2005, the percentage of researchers (higher education staff in academic and related positions) at South African higher education institutions with a valid NRF rating increased from 8,7% to 9,8% (see Table 1).

During 2005, the total number of researchers with a valid NRF rating increased to 1 652, an increase of 14% since 2003. Close to 91% of these worked for South African higher education institutions, while the rest were attached to museums, science councils, national research facilities or left South Africa to work abroad (see Figure1).

"Measuring oneself against the best in the world is the only benchmark for a science system that aspires to become globally competitive. The current review of the NRF rating system should spell out best practice to support an upward trajectory in the competitive performance of our national science system as a whole."

Dr Albert S van Jaarsveld,
Vice-President: Research and Innovation Support and Advancement (RISA), NRF

Figure 1: Distribution of researchers with a valid NRF rating in 2003 compared to 2005

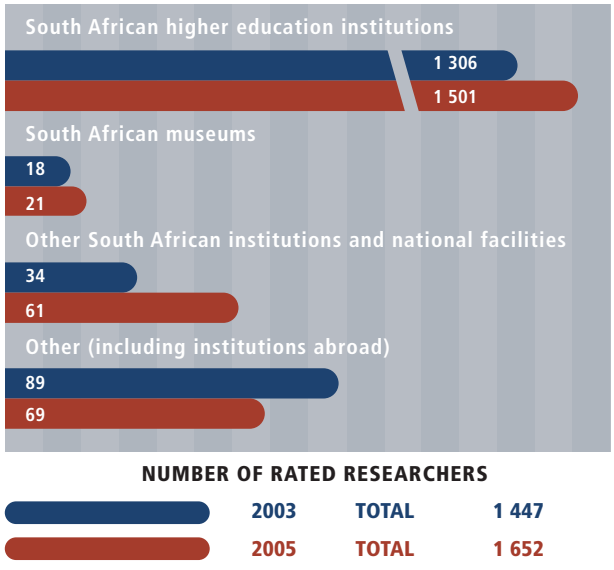


Table 1: Percentage of researchers with a valid NRF rating in higher education in South Africa

	2003	2005
Total number of higher education staff in academic and related positions in South Africa*	14 976	15 315
Number of rated researchers in higher education in South Africa	1 306	1 501
% Rated	8,7%	9,8%
*Higher Education Management Information System (HEMIS) Report, Department of Education (DoE), 2003 and 2005		

Table 2 lists the ten universities in South Africa with the highest percentage of rated researchers on their staff. Table 27 (page 30, Appendix) provides a complete list of South African higher education institutions showing the percentage of rated researchers in 2003 compared to 2005.

Table 2: The top 10 universities in South Africa in 2005 in terms of the percentage of their research/instruction staff* with a valid NRF rating

Institution	Rated researchers	Instruction/ Research professionals*	Percentage rated
University of Cape Town	262	829	31,6%
Stellenbosch University	220	818	26,9%
University of the Witwatersrand	161	952	16,9%
Rhodes University	47	306	15,4%
University of the Western Cape	65	465	14,0%
University of the Free State	72	620	11,6%
University of Pretoria	177	1 575	11,2%
North-West University	85	769	11,1%
University of KwaZulu-Natal	152	1 448	10,5%
Nelson Mandela Metropolitan University	50	557	9,0%

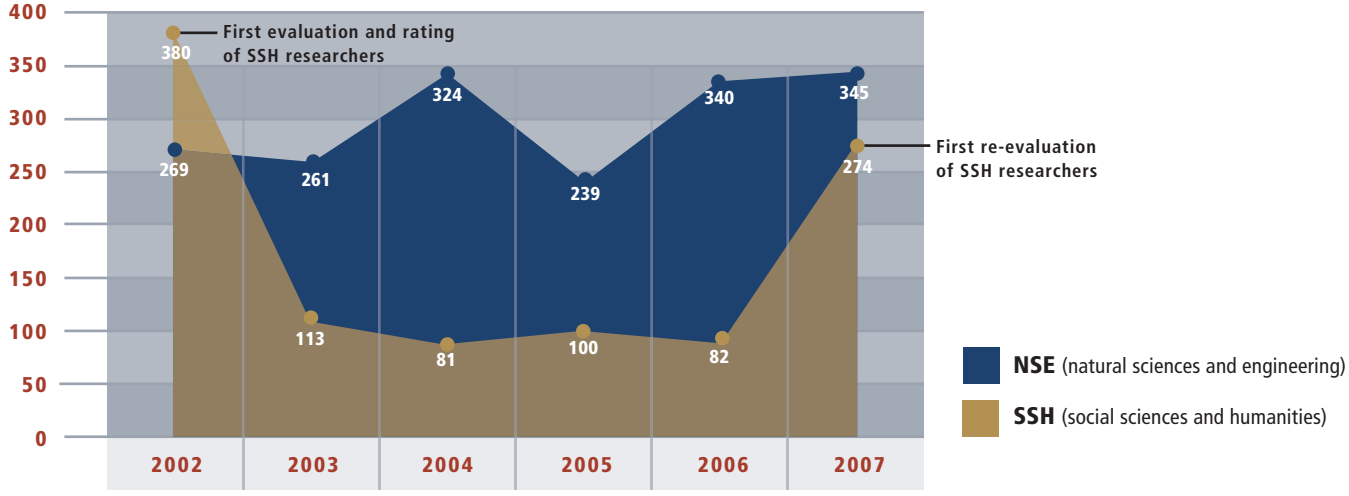
*Higher Education Management Information System (HEMIS) Report, Department of Education (DoE), 2005

"Universities should aspire to have at least 25% of their academic staff rated by the NRF to be regarded as a research-intensive university."

Professor Frikkie van Niekerk, Institutional Director: Research and Innovation, North-West University

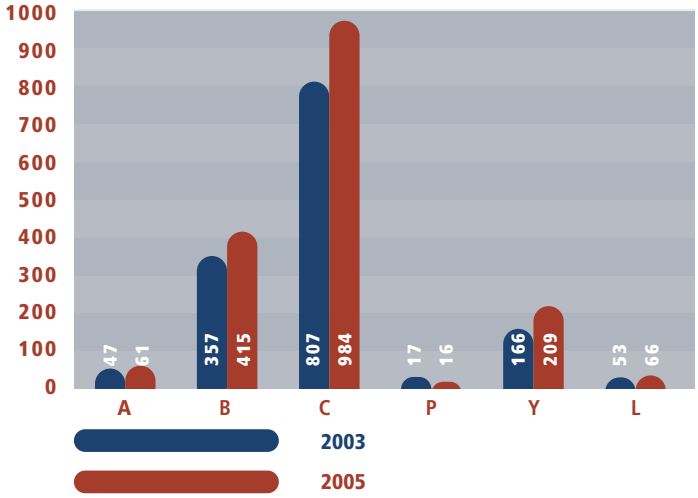
The annual number of applications in the natural sciences and engineering has stabilised between 250 and 350, but there is a bigger fluctuation in the number of applications in the social sciences and humanities. Figure 2 shows the comparative fluctuations and trends in the number of evaluation applications (new applications and re-evaluations) over the past six years.

Figure 2: The annual number of evaluation applications received between 2002 and 2007



The total number of rated researchers – at all institutions locally and abroad – increased by 21% from 1 447 in 2003, to 1 753 in 2006. Figure 3 shows that more than half of all rated researchers are in the C category, defined as established researchers (see full definition of rating categories on pages 18 and 19).

Figure 3: Number of researchers per rating category in 2003 and 2005



> "The NRF data from more than two decades of evaluating and rating researchers are a uniquely South African asset. At a time of increasing emphasis on the productivity and accountability of researchers, the historical data provide an invaluable benchmark for current and future comparisons. It also serves as an overall indicator of the country's research strength."
>
> **Dr Andrew M Kaniki,**
> **Executive Director: Knowledge Management and Strategy, NRF**

In 1984 the NRF evaluation and rating system started off with 508 rated researchers in the natural sciences and engineering (NSE). This number increased steadily over the following 16 years to 1 010 rated researchers in 2001 (see Table 3). Since the inclusion of researchers in the social sciences and humanities (SSH) in 2002 (when there were 1 267 rated researchers), the number of rated researchers at higher education institutions and museums has grown by 27% to 1 606 in 2006 (see Figure 4).

Table 3: The number of NRF-rated researchers at South African higher education institutions and museums (per rating category) from 1984 to 2001 (During this time only researchers in the natural sciences and engineering participated in the system.)

Rating	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
A	35	39	40	38	43	47	48	47	38	39	40	43	46	48	43	47	47	44
B	140	163	177	172	180	169	166	165	175	184	178	191	202	219	234	250	254	256
C	327	384	431	437	400	410	408	441	434	438	449	523	506	520	538	559	552	554
P	-	8	7	9	7	11	15	17	21	23	21	24	23	21	18	11	12	12
Y	6	28	64	73	83	106	109	122	122	130	126	150	151	140	123	116	107	104
L	-	-	-	-	-	-	-	-	-	-	-	34	41	43	48	50	48	40
Total	508	622	719	729	713	743	746	792	790	814	814	965	969	991	1 007	1 033	1 020	1 010

Table 4: The number of NRF-rated researchers at South African higher education institutions and museums (per rating category) from 2002 to 2006 (Since 2002, researchers in the natural sciences and engineering, as well as the social sciences and humanities participated in the system.)

Rating	2002		2003		2004		2005		2006	
	NSE	SSH	NSE	SSH	NSE	SSH	NSE	SSH	NSE	SSH
A	39	6	37	7	41	9	45	10	45	14
B	260	59	253	76	256	85	282	92	281	92
C	532	175	518	227	500	253	545	296	585	327
P	12	5	11	6	10	6	10	9	7	9
Y	112	16	117	23	117	25	135	36	137	43
L	43	8	38	11	40	15	40	22	38	28
Total	998	269	974	350	964	393	1 057	465	1 093	513

"Although the system is not flawless, it does provide a benchmark, and I think a reasonably objective one, for research standing. The NRF rating system is an important developmental tool that can motivate researchers by getting them to evaluate themselves and open themselves up to evaluation by their peers. This helps to make the South African research system more thoroughly part of the world research system, and this is important for those of us who suffered isolation and exclusion during the academic and cultural boycott. It also helps connect us internationally and encourages us to judge ourselves in international terms." **Professor Myrtle Hooper, Assistant Vice-Rector: Research and Community Outreach, University of Zululand**

Figure 4: Growth in the total number of rated researchers across all disciplines at South African institutions since 1984

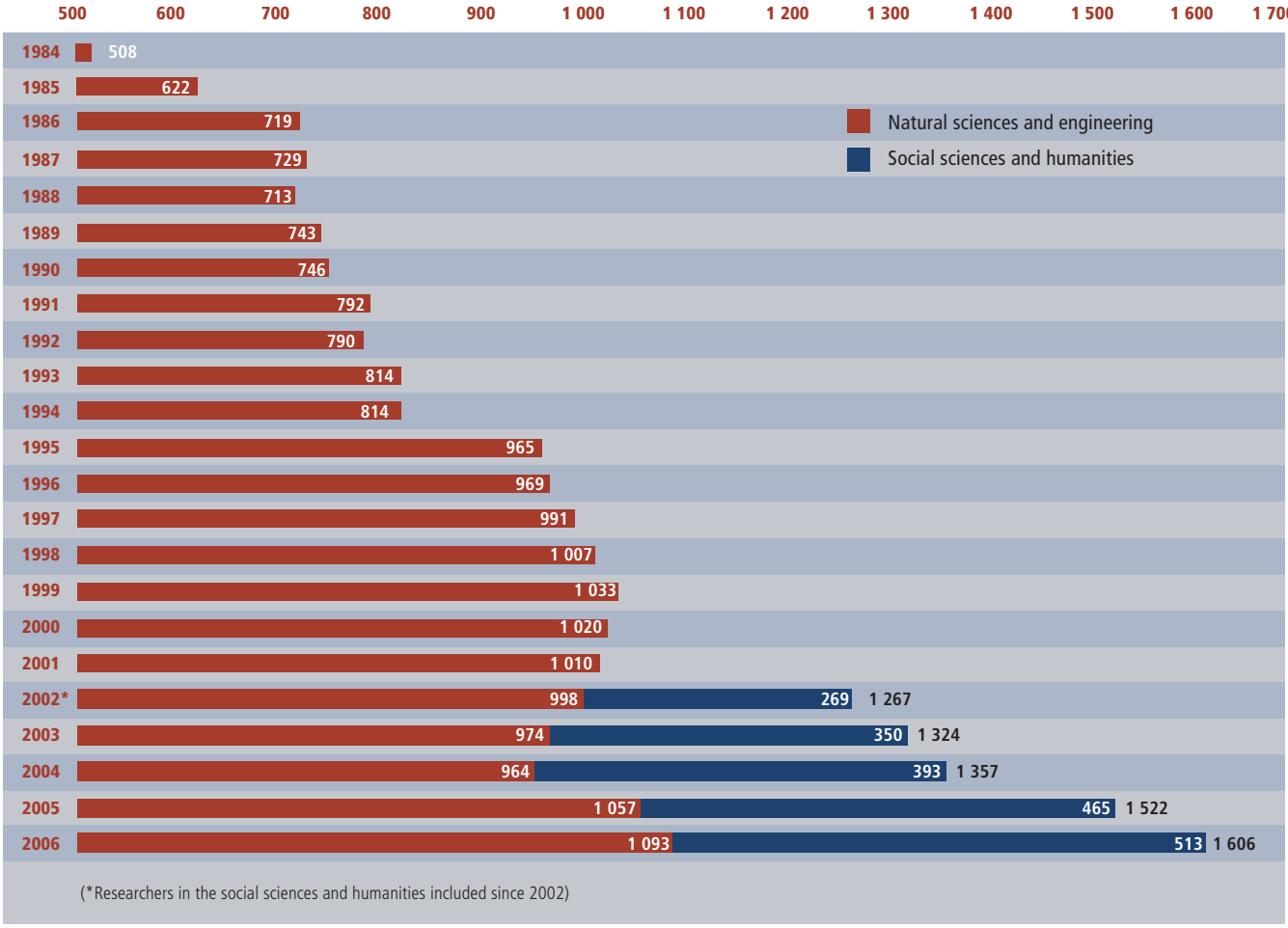


Figure 5: Growth in the number of rated black researchers at South African higher education institutions and museums

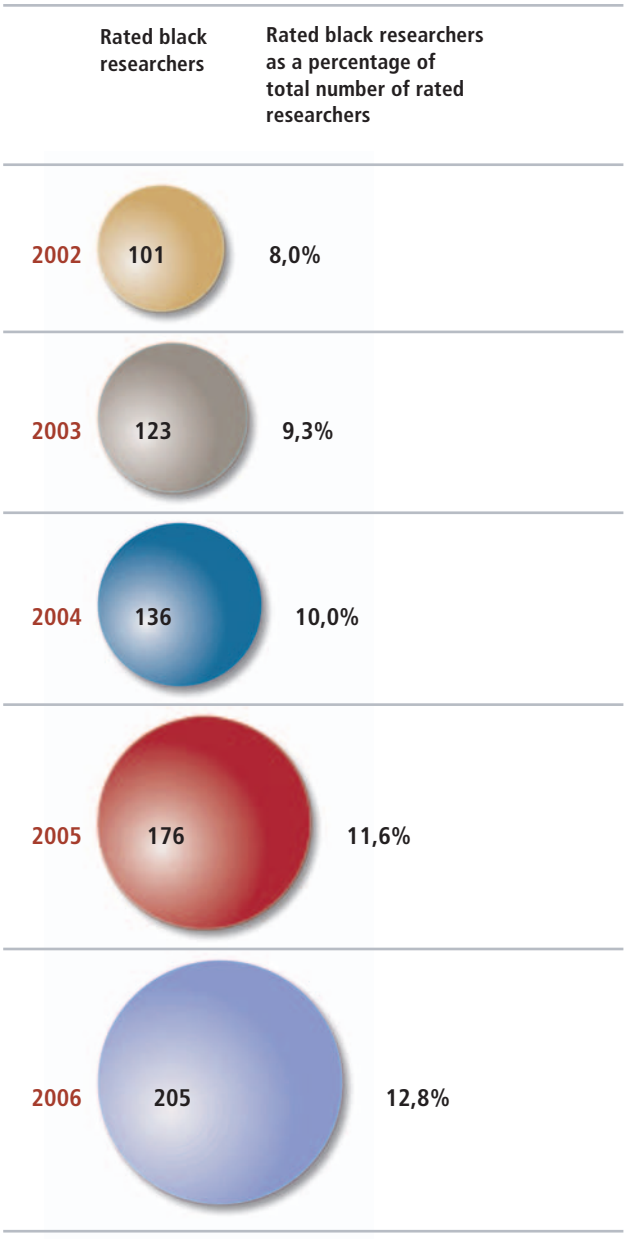
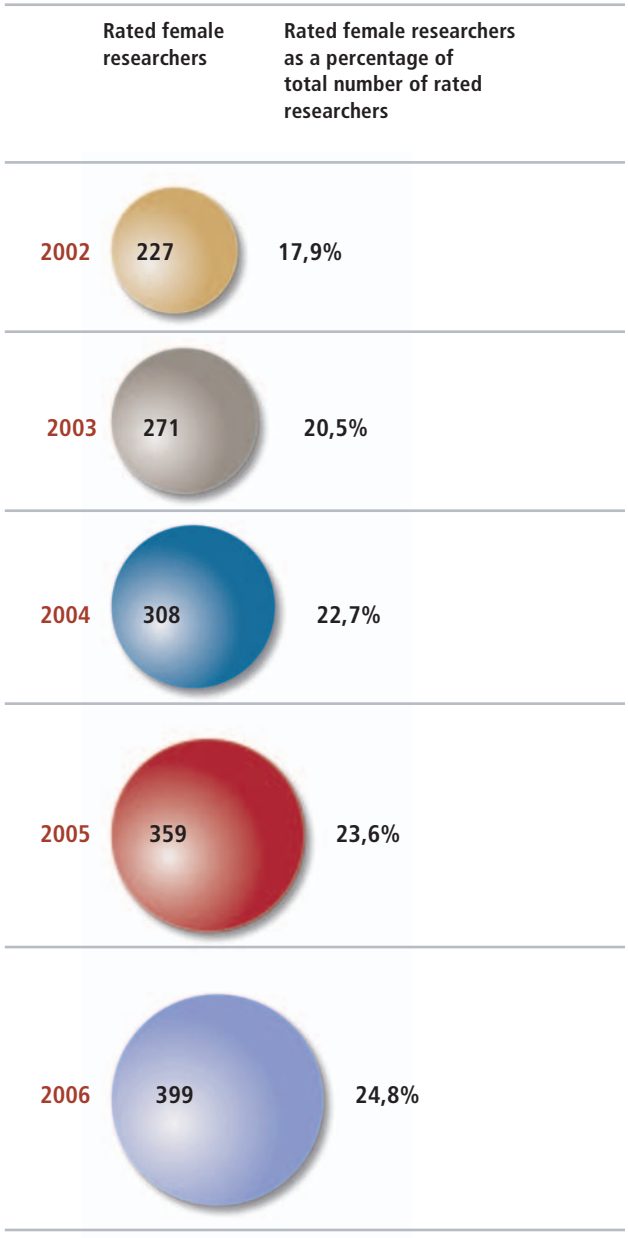


Figure 6: Growth in the number of rated female researchers at South African higher education institutions and museums



There has been a steady increase in the number of rated black and female researchers at South African higher education institutions and museums (see Figures 5 and 6). Since 2002 (when the social sciences and humanities were first included), the number of rated black researchers has more than doubled, while rated female researchers has increased by 75%.

South Africa's institutional landscape changed significantly over the past five years, due to several mergers and re-naming of higher education institutions. Table 5 shows the number of rated researchers at South African higher education institutions in 2006 compared to the number of rated researchers at the original institutions in 2002, prior to the mergers or name changes (where relevant).

"Since the rating system represents an important aspect of the functioning of an international peer review system, it is important for the University of KwaZulu-Natal to be an active participant in this process. There is nothing more important than ensuring that the institution's researchers see themselves as part of a national and international research system."

Professor Ahmed C Bawa, Deputy Vice-Chancellor: Research, Knowledge Production and Partnerships, University of KwaZulu-Natal

Table 5: The number of rated researchers at South African higher education institutions in 2002 compared to 2006

Institutions (2006 names listed alphabetically*)	2002		2006	
	Natural sciences and engineering	Social sciences and humanities	Natural sciences and engineering	Social sciences and humanities
Cape Peninsula University of Technology			**6**	**4**
Peninsula Technikon	2			
Cape Technikon	3			
Central University of Technology, Free State			**5**	**1**
Technikon Free State	2	1		
Durban University of Technology			**11**	**1**
Durban Institute of Technology	6			
Nelson Mandela Metropolitan University			**33**	**17**
University of Port Elizabeth	25	12		
Port Elizabeth Technikon	6			
North-West University			**56**	**29**
Potchefstroom University for CHE	50	15		
University of the North-West	2			
Rhodes University	34	6	**39**	**12**
Stellenbosch University	136	56	**151**	**80**
Tshwane University of Technology			**16**	**4**
Technikon Pretoria	9	2		
University of Cape Town	168	42	**196**	**75**
University of Fort Hare	6		**5**	**1**
University of Johannesburg			**41**	**28**
Rand Afrikaans University	38	23		
Technikon Witwatersrand	2			
University of KwaZulu-Natal			**102**	**40**
University of Natal	98	25		
University of Durban-Westville	22			
University of Limpopo			**8**	**1**
University of the North	11	2		
Medical University of Southern Africa	4			
University of Pretoria	114	24	**154**	**60**
University of South Africa	18	8	**18**	**63**
Technikon Southern Africa		3		
University of the Free State	54	13	**49**	**20**
University of the North, Qwa-Qwa campus	4			
University of the Western Cape	34	15	**35**	**32**
University of the Witwatersrand	116	13	**135**	**39**
University of Venda	3		**1**	
University of Zululand	5		**9**	**5**
Vaal University of Technology			**1**	**1**
Vaal Triangle Technikon		2		
Walter Sisulu University			**2**	
Border Technikon		1		
University of Transkei	3			

*In 2004 Vista University had four rated researchers in the natural sciences and engineering and one in the social sciences and humanities. Since then the different campuses of Vista University merged with several other higher education institutions and by 2006 Vista University ceased to exist.

Table 6: The spread of NRF ratings per institution in 2006

Type of institution	Institution	A	B	C	L	P	Y	Total
Universities	Cape Peninsula University of Technology	-	1	4	3	-	2	10
	Central University of Technology, Free State	-	-	4	1	-	1	6
	Durban University of Technology	-	-	6	2	-	4	12
	Nelson Mandela Metropolitan University	1	4	31	7	-	7	50
	North-West University	2	8	60	3	1	11	85
	Rhodes University	1	13	32	1	-	4	51
	Stellenbosch University	7	54	125	12	2	32	232
	Tshwane University of Technology	-	2	10	3	-	5	20
	University of Cape Town	24	84	133	3	7	20	271
	University of Fort Hare	-	1	1	3	-	1	6
	University of Johannesburg	2	11	46	3	-	7	69
	University of KwaZulu-Natal	3	45	78	3	2	11	142
	University of Limpopo	-	-	5	1	-	3	9
	University of Pretoria	5	54	117	5	1	32	214
	University of South Africa	-	13	60	6	-	2	81
	University of the Free State	-	11	50	1	-	8	70
	University of the Western Cape	-	11	47	5	-	4	67
	University of the Witwatersrand	14	55	76	2	3	24	174
	University of Venda	-	-	1	-	-	-	1
	University of Zululand	-	-	12	1	-	1	14
	Vaal University of Technology	-	-	-	1	-	1	2
	Walter Sisulu University	-	-	2	-	-	-	2
Museums	Albany Museum	-	1	3	-	-	-	4
	Bayworld Centre for Research and Education	-	1	1	-	-	-	2
	Durban Natural Science Museum	-	-	1	-	-	-	1
	Iziko Museums of Cape Town	-	3	2	-	-	-	5
	Natal Museum	-	1	2	-	-	-	3
	National Museum	-	-	1	-	-	-	1
	Northern Flagship Institution	-	-	2	-	-	-	2
National facilities	Hermanus Magnetic Observatory	-	1	-	-	-	-	1
	iThemba Laboratory for Accelerator Based Sciences	-	3	3	-	-	1	7
	South African Astronomical Observatory	1	3	-	-	-	2	6
	South African Institute for Aquatic Biodiversity	-	2	2	-	-	1	5
Science councils	Agricultural Research Council	-	-	2	1	-	-	3
	Council for Scientific and Industrial Research	-	3	9	-	-	3	15
	Human Sciences Research Council	-	1	2	-	-	1	4
	Medical Research Council	-	3	-	-	-	1	4
	Mintek	-	1	-	-	-	-	1
Other South African institutions		-	8	15	-	-	5	28
Researchers who have retired/left their institutions/ Institutions not known/abroad		1	17	39	1	-	15	73
Total number of rated researchers		61	415	984	68	16	209	1 753

Table 7: The spread of rated researchers in the various rating categories per subject areas (grouped according to NRF Specialist Committees) for 2006

NRF Specialist Committees – the social sciences and humanities	A	B	C	L	P	Y	Total
Anthropology, Development Studies, Geography, Sociology and Social Work	2	9	37	-	3	9	60
Communication, Media Studies, Library and Information Sciences	-	2	15	2	-	2	21
Education	1	6	38	8	1	2	56
Economics, Management, Administration and Accounting	-	7	46	4	-	11	68
Historical Studies	2	12	19	1	-	2	36
Law	2	15	57	4	2	5	85
Literary Studies, Languages and Linguistics	5	21	58	10	1	3	98
Performing and Creative Arts, and Design	-	10	16	-	-	2	28
Political Sciences, Policy Studies and Philosophy	-	7	18	-	2	4	31
Psychology	-	6	28	-	-	4	38
Religious Studies and Theology	2	5	20	-	-	2	29
Total for the social sciences and humanities	**14**	**100**	**352**	**29**	**9**	**46**	**550**
NRF Specialist Committees – the natural sciences and engineering							
Animal and Veterinary Sciences	7	42	106	4	2	22	183
Biochemistry, Molecular and Cell Biology	1	18	28	2	-	14	63
Chemistry	2	28	44	6	-	12	92
Earth Sciences	4	33	50	1	-	10	98
Engineering	7	34	85	5	1	24	156
Forestry and Agricultural Sciences*	-	2	15	2	-	7	26
Health Sciences	6	30	113	3	2	26	180
Mathematical Sciences	8	39	73	6	-	13	139
Microbiology and Plant Pathology	3	16	33	5	-	11	68
Physics	6	44	42	4	1	12	109
Plant Sciences	3	29	43	1	1	12	89
Total for the natural sciences and engineering	**47**	**315**	**632**	**39**	**7**	**163**	**1 203**
Total for all disciplines	**61**	**415**	**984**	**68**	**16**	**209**	**1 753**

*The NRF Specialist Committee for Forestry and Agricultural Sciences was disbanded in 2004. Since then, all new applications in these fields are handled by other relevant committees with an expanded mandate.

Table 8: The top performing higher education institutions during 2006 in terms of the number of rated researchers per NRF Specialist Committee (per subject areas)

SOCIAL SCIENCES AND HUMANITIES

Specialist Committee	Institution	Number of rated researchers	Total number of rated researchers
Anthropology, Development Studies, Geography, Sociology and Social Work	1) University of the Witwatersrand 2) University of the Western Cape 3) Stellenbosch University 3) University of Cape Town 3) University of KwaZulu-Natal	11 7 6 6 6	60
Communication, Media Studies, Library and Information Sciences	1) University of Pretoria 2) University of Cape Town 3) Stellenbosch University 3) University of KwaZulu-Natal	6 3 2 2	21
Economics, Management, Administration and Accounting	1) Stellenbosch University 2) University of Cape Town 2) University of Pretoria 3) Nelson Mandela Metropolitan University	14 12 12 7	68
Education	1) University of Pretoria 2) University of Cape Town 3) Stellenbosch University	12 8 6	56
Historical Studies	1) University of Cape Town 2) Stellenbosch University 2) University of South Africa 2) University of the Western Cape 3) University of the Witwatersrand	6 5 5 5 4	36
Law	1) University of South Africa 2) University of Cape Town 3) Stellenbosch University	26 11 9	85
Literary Studies, Languages and Linguistics	1) University of South Africa 2) Stellenbosch University 2) University of Cape Town 3) North-West University	16 10 10 9	98
Performing and Creative Arts, and Design	1) University of Cape Town 2) Stellenbosch University 3) University of Pretoria	7 6 5	28
Political Sciences, Policy Studies and Philosophy	1) Stellenbosch University 2) University of Cape Town 3) University of KwaZulu-Natal	9 5 4	31
Psychology	1) Stellenbosch University 2) University of Cape Town 2) University of South Africa 3) Nelson Mandela Metropolitan University 3) North-West University	5 4 4 3 3	38
Religious Studies and Theology	1) Stellenbosch University 2) University of the Free State 3) North-West University 3) University of Cape Town 3) University of Pretoria	8 4 3 3 3	29

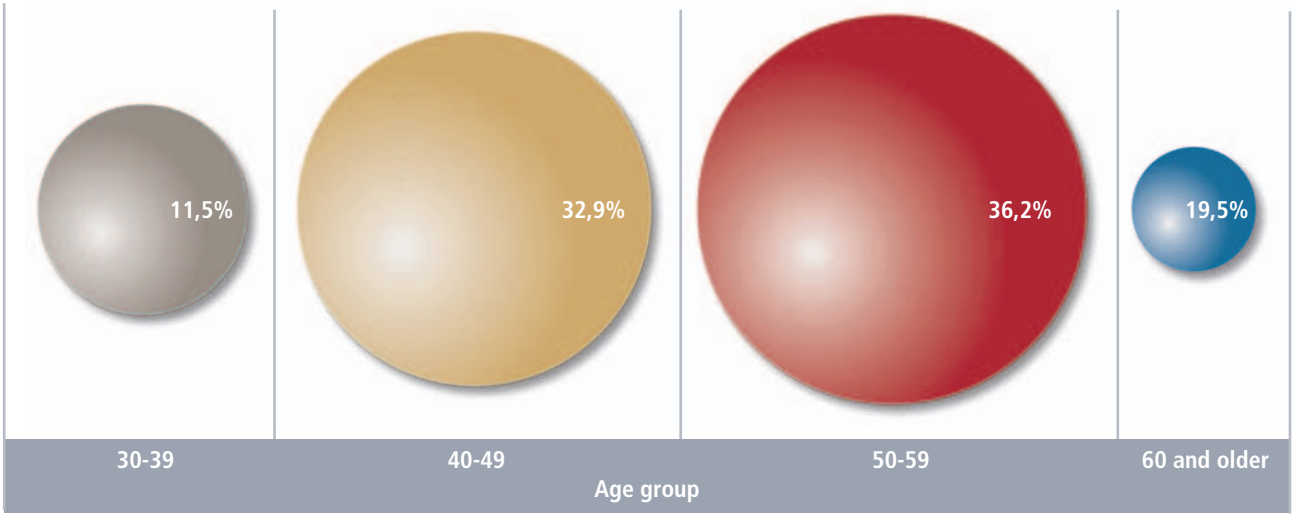
NATURAL SCIENCES AND ENGINEERING

Specialist Committee	Institution	Number of rated researchers	Total number of rated researchers
Animal and Veterinary Sciences	1) University of Pretoria 2) University of Cape Town 3) Stellenbosch University	34 22 16	183
Biochemistry, Molecular and Cell Biology	1) University of Cape Town 2) Stellenbosch University 3) University of the Western Cape 3) University of the Witwatersrand	13 9 7 7	63
Chemistry	1) University of Cape Town 2) Stellenbosch University 2) University of the Witwatersrand 3) University of KwaZulu-Natal	14 11 11 9	92
Earth Sciences	1) University of Cape Town 2) University of the Witwatersrand 3) University of Pretoria	25 18 8	98
Engineering	**1) University of Cape Town** 2) University of Pretoria 3) Stellenbosch University	**31** 28 25	**156**
Health Sciences	1) University of Cape Town 2) Stellenbosch University 3) University of the Witwatersrand	41 22 21	180
Mathematical Sciences	1) Stellenbosch University 2) University of Cape Town 3) University of the Witwatersrand	22 21 19	139
Microbiology and Plant Pathology	1) University of Pretoria 2) University of the Free State 3) Stellenbosch University	15 11 10	68
Physics	1) University of Cape Town 2) University of the Witwatersrand 3) University of KwaZulu-Natal 3) Stellenbosch University	15 13 12 12	109
Plant Sciences	1) University of KwaZulu-Natal 2) Stellenbosch University 3) University of Pretoria	15 12 11	89

Table 9: The age profile of rated researchers: The number of researchers employed at South African higher education institutions and museums in 2006

Age	A-rated researchers	B-rated researchers	C-rated researchers	L-rated researchers	P-rated researchers	Y-rated researchers	Total
30-39	-	7	34	-	10	134	185
40-49	7	93	335	40	6	46	527
50-59	23	156	382	21	-	-	582
60 and older	29	117	161	5	-	-	312

Figure 7: Percentage of rated researchers by age in 2006



"The age profile of rated researchers in 2006 indicates that the majority of rated researchers are within the 40-49 (32,9%) and 50-59 (36,2%) age categories. It is interesting to note that the 2002 data from the Centre for Research on Science and Technology (CREST) at Stellenbosch University indicate a similar pattern in these two categories for the ISI-accredited journals and South African (SA) journals approved by the Department of Education.

However, the 2002 CREST data show that young researchers (30-39 age category) published more articles in ISI or SA-accredited journals (18,8%), while only 11,5% obtained a valid rating in 2006.

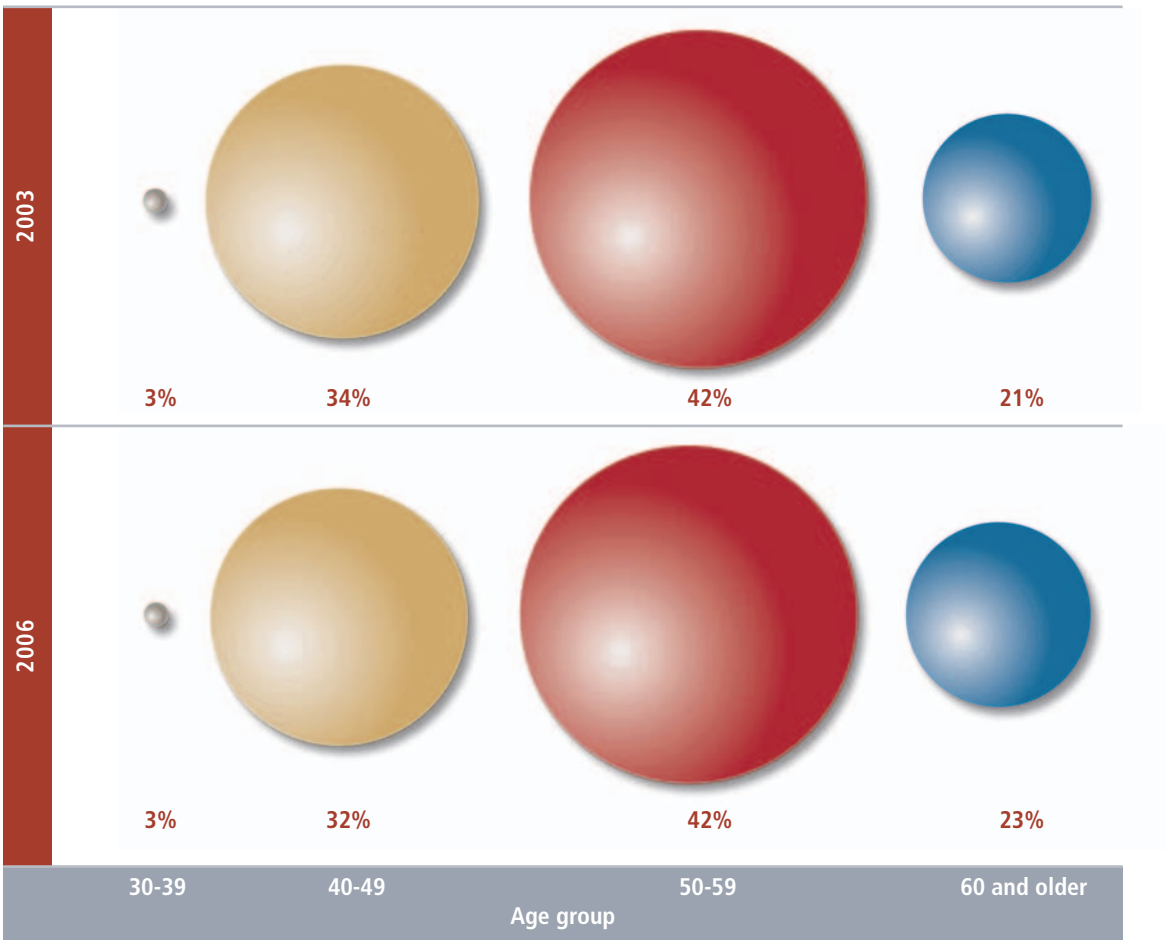
The percentage of A-, B- and C-rated researchers within the age categories did not change significantly from 2003 to 2006."

Professor Amanda Lourens, Institutional Director: Research and Innovation, North-West University

Table 10: Comparison of the percentage of A-, B- and C-rated researchers in 2003 and 2006, according to their age, at South African higher education institutions and museums

	2003				2006			
	30-39	40-49	50-59	60 and older	30-39	40-49	50-59	60 and older
A	-	9%	34%	57%	-	12%	39%	49%
B	1%	27%	45%	27%	2%	25%	42%	31%
C	4%	39%	41%	16%	4%	37%	42%	17%

Figure 8: Age distribution (as a percentage) of the combined number of A-, B- and C-rated researchers in 2003 and 2006 at South African higher education institutions and museums



NUTS AND BOLTS OF NRF EVALUATION AND RATING

PROMOTING RESEARCH EXCELLENCE remains an important foundation of all NRF initiatives and therefore evaluation and quality assessments are integrated across all programmes and capacity building initiatives.

Different kinds of expert reviews are used to measure performance and to support funding decisions, including:

- Peer evaluation to assess research proposals and research plans, as well as research niche areas in the NRF's institutional programmes
- Regular external reviews of all NRF business units, programmes and services
- Evaluation and rating of researchers where expert opinion is solicited to identify individuals who exemplify the highest standards of research, as well as those demonstrating potential to do quality research.
  In this process, the following quality assurance tools are used:
  - An extensive network of local and international reviewers
  - More than 20 Specialist Committees and a Special Assessment Panel for the L rating
  - The Executive Evaluation Committee and the Appeals Committee.

How the evaluation and rating system works

NRF evaluation and rating is a benchmarking system based on expert opinions from peers, locally and abroad. These expert reviewers base their opinions on the quality and impact of each applicant's research outputs and achievements. They assess each applicant's standing as a researcher based on his/her work over the past seven years.

Steps in the evaluation and rating of individual researchers

1. A researcher applies for evaluation and rating (or re-evaluation) by submitting an application. The application includes details of his/her research outputs for the past seven years.
2. The applicant identifies the most appropriate of more than 20 Specialist Committees for his/her application.
3. Specialist Committees appoint appropriate peer reviewers for each application.
4. The Evaluation Centre approaches reviewers to solicit their expert opinion on the research outputs of each applicant.
5. The reviewers study the documentation of applicants and evaluate the research outputs of the past seven years against internationally benchmarked excellence and impact. They also estimate the applicant's standing as a researcher from both a South African and an international perspective.
6. The Evaluation Centre submits these reports to the relevant Specialist Committee.
7. Specialist Committees assess the quality of each reviewer's report and assign a rating of "excellent", "good", "satisfactory" or "unsatisfactory" to each report.
8. The Evaluation Centre approaches more reviewers, should there not be enough (normally at least six) "satisfactory" to " excellent" reports to go forward with the process.
9. The actual evaluation is done by the expert reviewers. They also judge each applicant's local and international standing as a researcher. The role of the Specialist Committees is to study the reports from the reviewers and to then recommend a rating for each applicant, based on those reports. They do not act as reviewers themselves.
10. An Assessor also recommends a rating for each applicant based on the reviewers' reports. The Assessor's role is to ensure that the assessment process is fair and independent and that all Specialist Committees apply the same criteria across disciplines. Assessors are highly respected researchers who are familiar with the evaluation and rating process, but who are not specialists in any of the fields for which they act as assessors.
11. An Assessment Panel (that consists of members of the Specialist Committee, an Assessor and a Chairperson) meets to consider and discuss each application. The Panel's goal is to reach consensus on the rating. The Chairperson (either a member of the NRF Executive or a researcher of repute) facilitates the discussion to reach consensus where possible. The Chairperson must also ensure that NRF procedures, policies and rules are followed.
12. The Executive Evaluation Committee, chaired by the NRF President, takes all final decisions on A and P ratings (see definitions on page 18 and 19), considers all applications where consensus could not be reached at the Assessment Panel meetings and also considers appeals against rating decisions of the various Assessment Panels.
13. The L Committee pays special attention to applications for placement in the L category. The L rating was introduced to draw more women and disadvantaged researchers into research. The category also caters for researchers at previously disadvantaged institutions or those who were previously established as researchers and who have recently returned to academia after some time away, for example, working in industry.
14. The Evaluation Centre communicates the outcome of the evaluation and rating process to each applicant via the research office of the institution where the applicant is employed.
15. The Appeals Committee considers all appeals against decisions of the Executive Evaluation Committee.

An NRF rating is valid for five years. To maintain an NRF rating, researchers must apply for re-evaluation every five years.

SUMMARY OF THE EVALUATION AND RATING PROCESS

DEFINITION OF RESEARCH

For purposes of the NRF, research is original investigation undertaken to gain knowledge and/or enhance understanding.

Research specifically includes:

- the creation and development of the intellectual infrastructure of subjects and disciplines (e.g. through dictionaries, scholarly editions, catalogues and contributions to major research databases);
- the invention or generation of ideas, images, performances and artefacts where these manifestly embody new or substantially developed insights;
- building on existing knowledge to produce new or substantially improved materials, devices, products, policies or processes.

It specifically excludes:

- routine testing and analysis of materials, components, instruments and processes, as distinct from the development of new analytical techniques;
- the development of teaching materials and teaching practices that do not embody substantial original enquiry.

Table 11: Detailed definitions of NRF rating categories and sub-categories

Category	Definition	Sub-category	Description
A	Researchers who are unequivocally recognised by their peers as leading international scholars in their field for the high quality and impact of their recent research outputs.	A1	A researcher in this group is recognised by all reviewers as a leading scholar in his/her field internationally for the high quality and wide impact (i.e. beyond a narrow field of specialisation) of his/her recent research outputs.
		A2	A researcher in this group is recognised by the overriding majority of reviewers as a leading scholar in his/her field internationally for the high quality and impact (either wide or confined) of his/her recent research outputs.
B	Researchers who enjoy considerable international recognition by their peers for the high quality and impact of their recent research outputs.	B1	All reviewers concur that the applicant enjoys considerable international recognition for the high quality and impact of his/her recent research outputs, with some of them indicating that he/she is a leading international scholar in the field.
		B2	All or the overriding majority of reviewers are firmly convinced that the applicant enjoys considerable international recognition for the high quality and impact of his/her recent research outputs.
		B3	Most of the reviewers are convinced that the applicant enjoys considerable international recognition for the high quality and impact of his/her recent research outputs.
C	Established researchers with a sustained recent record of productivity in the field who are recognised by their peers as having: • produced a body of quality work, the core of which has coherence and attests to ongoing engagement with the field • demonstrated the ability to conceptualise problems and apply research methods to investigating them.	C1	While all reviewers concur that the applicant is an established researcher (as described), some of them indicate that he/she already enjoys considerable international recognition for his/her high quality recent research outputs.
		C2	All or the overriding majority of reviewers are firmly convinced that the applicant is an established researcher (as described).
		C3	Most of the reviewers concur that the applicant is an established researcher (as described).

"We can be a little parochial in South Africa, and easily suppose 'if I'm the best researcher in Rondebosch, then I must also be the best in the world'. The thoroughness of the NRF rating system provides a valid measure of how far each of us still has to go to be internationally competitive and relevant. It correctly establishes the benchmark as 'world class'."

Professor Tim Noakes, Director: Exercise and Sport Medicine, University of Cape Town

Category	Definition	Sub-category	Description
P	Young researchers (normally younger than 35 years of age), who have held the doctorate or equivalent qualification for less than five years at the time of application and who, on the basis of exceptional potential demonstrated in their published doctoral work and/or their research outputs in their early post-doctoral careers are considered likely to become future leaders in their field.		Researchers in this group are recognised by all or the overriding majority of reviewers as having demonstrated the potential of becoming future leaders in their field, on the basis of exceptional research performance and output from their doctoral and/or early post-doctoral research careers.
Y	Young researchers (normally younger than 35 years of age), who have held the doctorate or equivalent qualification for less than five years at the time of application, and who are recognised as having the potential to establish themselves as researchers within a five-year period after evaluation, based on their performance and productivity as researchers during their doctoral studies and/or early post-doctoral careers.	Y1	A researcher in this group is recognised by all reviewers as having the potential (demonstrated by research products) to establish him/herself as a researcher with some of them indicating that he/she has the potential to become a future leader in his/her field. (Applicants on the borderline between P and Y should be rated at this level.)
		Y2	A researcher in this group is recognised by all or the overriding majority of reviewers as having the potential to establish him/herself as a researcher (demonstrated by recent research products).
L	Persons (normally younger than 55 years) who were previously established as researchers or who previously demonstrated potential through their own research products, and who are considered capable of fully establishing or re-establishing themselves as researchers within a five-year period after evaluation. Candidates should be South African citizens or foreign nationals who have been resident in South Africa for five years during which time they have been unable for practical reasons, to realise their potential as researchers. Candidates who are eligible in this category include: • black researchers • female researchers • those employed in a higher education institution that lacked a research environment • those who were previously established as researchers and have returned to a research environment.		This category was introduced to draw an increased number of researchers with potential from disadvantaged backgrounds as well as women into research. It also caters for persons previously established as researchers who have returned to a research environment after periods in industry or elsewhere. Applicants must demonstrate that they could not realise their potential or sustain their research ability by virtue of a lack of a research environment, or time spent in industry, or on maternity leave, or raising a family. For candidates to qualify for this category, the employing institution must have demonstrated its financial commitment towards a development strategy for the staff member concerned.

THE VITAL ROLE OF EXPERT REVIEWERS

THE NRF APPROACHES experts from hundreds of institutions around the world to review the applications for evaluation and rating. The contribution of these expert reviewers is the lifeblood of the NRF evaluation and rating system. The NRF relies on the goodwill of these expert reviewers and does not pay them for their services.

Between 2002 and 2006, more than 13 000 reviewers from around the globe were invited to participate in the NRF evaluation and rating process. It is important to identify new reviewers all the time so that the existing reviewers are not overburdened by repeated review requests. The Specialist Committees must continually add new names of foremost researchers to expand the NRF's reviewer network

Table 12 shows that there was a steady growth in the number of evaluation applications received since 2004, and accordingly the NRF Evaluation Centre had to approach more reviewers. The percentage responses received from reviewers who were requested to participate in the NRF evaluation and rating process has remained fairly consistent over the past four years.

In Table 13 the average number of reviewers approached per applicant in the social sciences and humanities is compared with reviewers approached for applicants in the natural sciences and engineering.

Choosing the reviewers

When a researcher applies for evaluation, he/she also submits a list of potential reviewers. The NRF guidelines recommend that up to half of the reviewers should be selected from the applicant's list, while the Specialist Committees choose the rest. In some instances, the reviewers suggested by the applicant are not available, while others may decline the review request.

Of the 4 904 review requests issued in 2006, 38% (across all disciplines) were sent to reviewers identified by applicants.

Spread of reviewers around the globe

The NRF Evaluation Centre has a wide network of expert reviewers around the globe. Tables 14 and 15 give an indication of the geographical spread of these reviewers. The total number of reviewers approached during the period 2003 to 2006 added up to 11 356.

Table 12: Requests to reviewers to evaluate applicants' research outputs versus responses received between 2003 and 2006

	2003	2004	2005	2006
Number of evaluation applications received	410	324	368	452
Number of reviewers approached	3 359	2 792	3 520	4 306
Number of requests to reviewers*	3 899	3 191	4 007	4 904
Number of responses received	3 178	2 531	3 231	3 708
% Responses	82%	79%	81%	76%

*Some reviewers are approached more than once

Table 13: Average number of reviewers approached during 2006 per applicant in the social sciences and humanities compared to the natural sciences and engineering

	Number of reviewers approached	Number of applications processed	Average number of reviewers approached per applicant
Social sciences and humanities	896	82	10,9
Natural sciences and engineering	3 427	340	10,1

2006 Applications for evaluation and rating

- The NRF Evaluation Centre received 452 applications for evaluation and rating.
- The Evaluation Centre approached 4 306 experts to act as reviewers. Some of them were approached more than once.
- The total number of requests to reviewers added up to 4 904.
- On average, more than ten reviewers were approached per applicant.
- The NRF received 3 708 responses, a response rate of 76%.
- Most reviewers will be asked to review an application only once in a particular year. In exceptional cases, a reviewer may receive two or more review requests from the NRF Evaluation Centre in the same year. During 2006, 89% of the reviewers were asked to review the work of one applicant only, while 9% received two requests. Only 2% (86 reviewers in total) were approached more than twice.
- Many reviewers invest considerable time and effort in their reports. However, some responses (29% in 2006) do not contribute to the review for reasons ranging from time constraints on the part of the reviewer, to inappropriate reports.
- Specialist Committees assess the quality of each reviewer's report. During 2006, an average of more than six reports rated as "satisfactory" to "excellent" were received for each applicant.

Table 14: Number of reviewers approached per country from 2003 to 2006

Number of reviewers approached	Country
1 – 40	Algeria, Argentina, Belarus, Bosnia Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Chile, China, Colombia, Congo, Costa Rica, Croatia, Cyprus, Czech Republic, Egypt, Estonia, Ethiopia, Fiji, Ghana, Greece, Hawaii, Hong Kong, Hungary, Indonesia, Ireland, Ivory Coast, Jordan, Kenya, Kuwait, Latvia, Lithuania, Luxembourg, Malawi, Malaysia, Malta, Mauritius, Mexico, Morocco, Mozambique, Namibia, Nigeria, Oman, Pakistan, Peru, Philippines, Portugal, Puerto Rico, Republic of Korea, Romania, Russia, Saudi Arabia, Senegal, Singapore, Slovak Republic, Slovenia, South Korea, St Bartholomew, Swaziland, Taiwan, Tajikistan, Tanzania, Thailand, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, Venezuela, Yugoslavia, Zambia, Zimbabwe
41 – 100	Austria, Denmark, Finland, India, Israel, Japan, New Zealand, Norway, Poland, Spain, Switzerland
101 – 500	Canada, Belgium, France, Italy, Netherlands, Sweden
501 – 3 400	Australia, Germany, South Africa, United Kingdom, United States of America

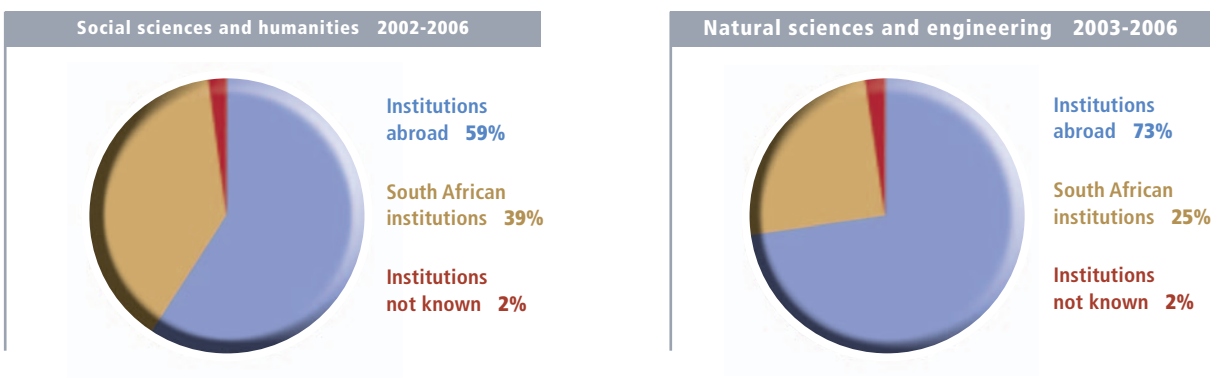
Table 15: Institutions abroad where 40 or more reviewers were approached during the period 2003 to 2006

Name of institution	Number of reviewers approached
University of California	173
University of London	117
University of Cambridge	91
University of Oxford	84
University of Wisconsin	64
Catholic University of Leuven	63
University of Melbourne	58
Max Planck Institutes	55
University of Illinois	55
Harvard University	52
Cornell University	48
University of Florida	48
University of Toronto	48
University of Manchester	46
University of Sheffield	44
CSIRO, Australia	42
University of Michigan	41
Australian National University	40
Stanford University	40
University of British Columbia	40
University of Texas	40

Table 16: South African institutions where 20 or more reviewers were approached from 2003 to 2006

Agricultural Research Council
Council for Scientific and Industrial Research
Human Sciences Research Council
Medical Research Council
Nelson Mandela Metropolitan University
North-West University
Rhodes University
Sasol Technology (Pty) Ltd
Stellenbosch University
Tshwane University of Technology
University of Cape Town
University of Johannesburg
University of KwaZulu-Natal
University of Limpopo
University of Pretoria
University of South Africa
University of the Free State
University of the Western Cape
University of the Witwatersrand
University of Zululand

Figure 9: A comparison of the percentage of institutions locally and abroad where reviewers are approached



STRIVING FOR A FAIR AND CREDIBLE PROCESS

THE CREDIBILITY AND FAIRNESS of the evaluation and rating system rest, on the one hand, on the collective effort and wisdom of the Specialist Committees in identifying appropriate reviewers. On the other hand, the availability of a sufficient number of quality reports on which to base the rating decision is critically important. An Assessor moderates the process and also studies the applicant's documentation and reviewers' reports to reach an independent opinion on an appropriate rating category for each applicant.

Assessors play a critical role in ensuring that the same standards and criteria are applied consistently throughout the process. They also consider evidence for appeals and make recommendations to the Executive Evaluation Committee.

Checks and balances in the evaluation and rating system:

1. Information on the process is available on the NRF website and the criteria are clearly stipulated.
2. At least six reviewers (on average more than ten) are approached for each applicant.
3. Should Specialist Committees or Assessment Panels require more reports to reach an informed decision, the NRF will solicit reports from additional reviewers.
4. The relevant Specialist Committee, Assessor and Chairperson study the reviewers' reports independently. They then meet to compare their recommended rating for each applicant and try to reach consensus.
5. Across all disciplines, all nominations for A and P ratings are referred to the Executive Evaluation Committee for a decision.
6. A recommendation for placement in the L category is referred to the L Committee for a decision to ensure a consistent interpretation for placement in this category.
7. Should the Assessment Panels not reach consensus, the case is referred to the Executive Evaluation Committee.
8. Every applicant has the right to appeal against the outcome of the rating process.

How long does it take to process an evaluation application?

During 2006 it took the NRF Evaluation Centre an average of 8,4 months to process applications from the closing date (28 February 2006) to the time the letter with the evaluation outcome was mailed to the relevant research office.

Assessing the validity of the evaluation and rating system

Despite the fact that the relevant Specialist Committee and Assessor decide independently on a recommended rating for each applicant, they agree on the exact rating sub-category*, or differ by only one sub-category at most, in the overriding majority of cases. During 2006, this was the case in 95% of all natural sciences and engineering applications processed and in 96% of all social sciences and humanities applications (see table 17 below).

Making sure that the process is even-handed across Specialist Committees

The NRF strives to ensure even-handedness across the various Specialist Committees. One way to assess this is to compare – in each rating category – the percentage of ratings assigned in that category by each committee. Tables 18 and 19 (in which the total of the numbers in each row equals 100%) show the data. The ratings in a specific category that are deemed substantially lower or higher than the overall percentage are highlighted.

The extensive national and international networks of members of the Specialist Committees are invaluable in identifying suitable expert reviewers who can evaluate fairly and submit objective reports on the quality and impact of applicants' research outputs.

Table 17: Extent of agreement between the initial assessments of Specialist Committee and Assessor during 2006

Difference in rating recommended	Natural sciences and engineering applications	Social sciences and humanities applications
Specialist Committee recommended rating two sub-categories higher than the Assessor	4%	1%
Specialist Committee recommended rating one sub-category higher than the Assessor	28%	25%
Exact agreement on the sub-category recommended	58%	56%
Specialist Committee recommended rating one sub-category lower than the Assessor	9%	15%
Specialist Committee recommended rating two sub-categories lower than the Assessor	1%	3%

*Refer to pages 18 and 19 for a detailed definition of rating categories and sub-categories

Table 18: Valid ratings across Specialist Committees in the natural sciences and engineering, expressed as a percentage of the total number of ratings in the discipline during 2006

Specialist Committee	Category A	Category B	Category C	Category L	Category P	Category Y	RU*
Animal and Veterinary Sciences	4	22	57	2	1	11	3
Biochemistry, Molecular and Cell Biology	2	25	39	3	0	19	12
Chemistry	2	27	41	6	0	11	13
Earth Sciences	4	32	48	1	0	10	5
Engineering	4	21	52	3	1	4	15
Health Sciences	4	15	58	1	1	13	8
Mathematical Sciences	5	26	50	5	0	9	5
Microbiology and Plant Pathology	4	22	45	7	0	15	7
Physics	5	39	37	4	1	11	3
Plant Sciences	3	30	45	1	1	12	8
Overall percentage across all disciplines	**4**	**25**	**49**	**3**	**1**	**12**	**6**

Lower percentage Higher percentage

*RU = rating unsuccessful: could not be placed in one of the rating categories based on the application submitted

Table 19: Valid ratings across Specialist Committees in the social sciences and humanities, expressed as a percentage of the total number of ratings in the discipline during 2006

Specialist Committee	Category A	Category B	Category C	Category L	Category P	Category Y	RU*
Anthropology, Development Studies, Geography, Sociology and Social Work	3	13	52	0	4	12	16
Communication, Media Studies, Library and Information Sciences	0	9	64	9	0	9	9
Education	2	10	59	12	2	3	12
Economics, Management, Administration and Accounting	0	9	57	5	0	13	16
Historical Studies	5	32	50	3	0	5	5
Law	2	17	65	5	2	6	3
Literary Studies, Languages and Linguistics	5	21	57	10	1	3	3
Performing and Creative Arts, and Design	0	33	53	0	0	7	7
Political Sciences, Policy Studies and Philosophy	0	22	56	0	6	13	3
Psychology	0	14	68	0	0	9	9
Religious Studies and Theology	6	16	62	0	0	6	10
Overall percentage across all disciplines	**2**	**17**	**58**	**5**	**1**	**8**	**9**

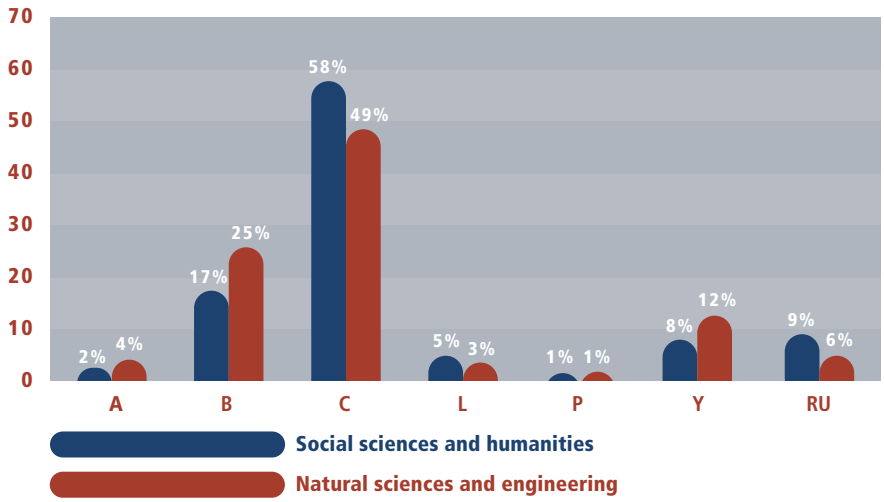
Lower percentage Higher percentage

*RU = rating unsuccessful: could not be placed in one of the rating categories based on the application submitted

"The NRF rating system encourages quality amongst researchers at the University of Pretoria as it focuses on quality and impact and not quantity. It also encourages career planning as novice researchers are mentored and guided in their planning for when they will become rated. Achieving an NRF rating furthermore contributes to a sense of being part of the great global research network!"

Joyce Olivier, Acting Director: Research Support, University of Pretoria

Figure 10: A comparison of the percentage of valid ratings, across all rating categories, between the social sciences and humanities and the natural sciences and engineering for 2006



Appealing against an evaluation result

Applicants have the right to appeal against the outcome of their ratings. The same committee that originally assigned the rating does not hear such appeals. The appeals are referred to a committee at a higher level of decision-making. Appeals against ratings assigned by Assessment Panels are referred to the Executive Evaluation Committee (EEC), while appeals against ratings assigned by the EEC are referred to the Appeals Committee. The percentage of appeals against a rating decision remained consistent at 4 – 7% of total evaluations processed over the past four years, as shown in Table 20.

In more than 90% of cases, the Specialist Committee and the Assessor reach consensus on the recommended rating for an applicant. In less than 10% of cases, consensus is not reached and these are then referred to the Executive Evaluation Committee for a decision.

Table 20: Number of appeals against the outcome of evaluation and rating

Year	2002	2003	2004	2005
Number of applications for evaluation	649	410	324	368
Total number of appeals (EEC and Appeals Committee)	43	16	21	26
Percentage of total applications appealed	**7%**	**4%**	**6%**	**7%**

RATIONALE FOR OBTAINING AN NRF RATING

RESEARCH IS A COMPETITIVE activity and researchers can benefit from knowing their standing relative to peers worldwide. The evaluation and rating process can therefore serve as a benchmarking tool and provides tangible objectives for researchers who aspire to maintain or improve their standing as researchers over time. Some researchers find that a valid NRF rating enhances their credibility and standing as researchers for other funding applications. Applicants may also find benefit from the feedback extracted from the reviewers' reports.

While a valid rating does not automatically lead to NRF research funding, rated researchers have the advantage of qualifying for longer funding cycles (see below).

The evaluation and rating system also complements the research mission of universities and provides an indication of the academic achievement of their research staff. Several higher education institutions use the NRF rating as a benchmark to determine the quality of their research staff and provide incentives for researchers to obtain high ratings.

The link between rating and funding

The NRF Board's framework for research support has provided access to research funding to all researchers, irrespective of rating. However, after a finite period of NRF support, researchers must be rated to be eligible for further support.

A valid NRF rating currently does not mean that a researcher is guaranteed funding from the NRF. Like all other applicants, rated researchers must submit a detailed research proposal to one of the NRF funding programmes. However, if a research proposal is successful, rated researchers enjoy the advantage of a funding cycle of up to five years, compared to a maximum of two years' funding normally awarded to unrated researchers in many of the NRF's programmes.

More than 65% of funds awarded in 2005 in the NRF's focus area programmes and its capacity development programmes went to rated researchers.

This extended funding security allows rated researchers to plan their research in five-year cycles.

Many researchers feel that by separating funding from the evaluation and rating system, one of the major attractions of the system has been eroded. The NRF is in the process of refining a new Multi-Criteria Decision Making (MCDM) tool that will once again link rating to funding. The proposed implementation date is 2009.

While there is currently no formal link between the rating status of a researcher and the funding awarded, rated researchers generally fare better in the funding they receive from the NRF (see Tables 21–26).

Table 21 shows that:

- The number of rated grant-holders increased by 33% from 2003 to 2005, while unrated grant-holders increased by 12%.
- The total value of grants disbursed to all grant-holders increased by 11% over the same period.
- The average value of grants disbursed to rated grant-holders is close to double the value of grants disbursed to unrated grant-holders.
- The average value of grants disbursed to all grant-holders decreased. This decrease is even more significant when calculated in real terms.

Table 21: Total and average values of grants disbursed* to rated principal grant-holders versus unrated principal grant-holders in selected NRF programmes in 2003 and 2005**

		2003	2005
RATED	Number of principal grant-holders	563	747
	Total value of grants disbursed	R90 467 000	R113 183 000
	Average value of grants disbursed	R161 000	R152 000
UNRATED	Number of principal grant-holders	730	817
	Total value of grants disbursed	R63 960 000	R58 671 000
	Average value of grants disbursed	R88 000	R72 000
	Total value of grants disbursed	**R154 427 000**	**R171 854 000**

*Grants are disbursed to researchers based on proven research expenditure, including bursaries. All amounts are rounded off to the nearest R1 000.

**Programmes include Focus Area Programme, Institutional Research Development (universities and technikons) and the Thuthuka Programme. The Innovation Fund and Technology and Human Resources for Industry Programme (THRIP) are excluded.

A comparison of the average value of grants disbursed to rated and unrated researchers shows that grants disbursed to rated researchers were consistently higher than grants disbursed to unrated researchers across all NRF programmes (see Table 22).

Table 22: Number of grant-holders and value of grants disbursed* to rated and unrated principal grant-holders per programme during 2005

Programme	RATED GRANT-HOLDERS			UNRATED GRANT-HOLDERS			Total grants disbursed to all grant-holders
	Number of principal grant-holders	Total value of grants disbursed	Average value of grants disbursed	Number of principal grant-holders	Total value of grants disbursed	Average value of grants disbursed	
Focus Area Programme**	652	R92 527 000	R142 000	241	R18 341 000	R76 000	R110 868 000
Indigenous Knowledge Systems	46	R6 959 000	R151 000	45	R5 299 000	R118 000	R12 259 000
Institutional Research Development (universities)	36	R6 645 000	R185 000	67	R6 756 000	R101 000	R13 401 000
Institutional Research Development (technikons)	33	R5 077 000	R154 000	151	R11 456 000	R76 000	R16 533 000
Thuthuka Programme	24	R1 975 000	R82 000	333	R16 818 000	R51 000	R18 793 000
Innovation Fund	13	R40 908 000	R3 147 000	76	R158 558 000	R2 086 000	R199 467 000
Technology and Human Resources for Industry Programme (THRIP)	115	R59 112 000	R514 000	124	R56 472 000	R455 000	R115 584 000

*Grants are disbursed to researchers based on proven research expenditure, including bursaries. All amounts are rounded off to the nearest R1 000.
Note: A principal grant-holder may receive a grant individually or as a leader of a research team (which could include rated and unrated team members). Grants disbursed to the same grant-holder were added together for each programme.
**Excluding "Indigenous Knowledge Systems"

Table 23: Comparison of total, average, highest and lowest values of grants disbursed* per rated principal grant-holder, per rating category and per programme during 2005**

	Programme**	FAP**	IKS**	IRDU**	IRDT**	THUT**	IF**	THRIP**
A-RATED	Number of grant-holders	35	-	-	-	-	1	7
	Total value of grants disbursed	R7 482 000	-	-	-	-	R25 000 000	R8 381 000
	Average value of grants	R214 000	-	-	-	-	R25 000 000	R1 197 000
	Lowest grant disbursed	R24 000	-	-	-	-	R25 000 000	R71 000
	Highest grant disbursed	R584 000	-	-	-	-	R25 000 000	R2 651 000
B-RATED	Number of grant-holders	222	17	4	4	3	7	36
	Total value of grants disbursed	R35 898 000	R2 381 000	R1 772 000	R572 000	R135 000	R12 238 000	R21 679 000
	Average value of grants	R162 000	R140 000	R443 000	R143 000	R45 000	R1 748 000	R602 000
	Lowest grant disbursed	R2 000	R4 000	R114 000	R13 000	R11 000	R350 000	R23 000
	Highest grant disbursed	R763 000	R674 000	R939 000	R245 000	R74 000	R3 427 000	R4 104 000
C-RATED	Number of grant-holders	316	21	26	14	7	5	58
	Total value of grants disbursed	R40 286 000	R2 838 000	R3 975 000	R2 667 000	R538 000	R3 670 000	R21 393 000
	Average value of grants	R127 000	R135 000	R153 000	R190 000	R77 000	R734 000	R367 000
	Lowest grant disbursed	R1 000	R4 000	R33 000	R33 000	R8 000	R25 000	R12 000
	Highest grant disbursed	R640 000	R518 000	R445 000	R548 000	R248 000	R2 063 000	R2 722 000
L-RATED	Number of grant-holders	14	2	2	9	4	-	1
	Total value of grants disbursed	R1 354 000	R624 000	R421 000	R1 135 000	R344 000	-	R413 000
	Average value of grants	R97 000	R312 000	R210 000	R126 000	R86 000	-	R413 000
	Lowest grant disbursed	R4 000	R71 000	R40 000	R26 000	R15 000	-	R413 000
	Highest grant disbursed	R394 000	R534 000	R381 000	R234 000	R177 000	-	R413 000
P-RATED	Number of grant-holders	12	-	-	-	1	-	1
	Total value of grants disbursed	R1 438 000	-	-	-	R110 000	-	R336 000
	Average value of grants	R120 000	-	-	-	R110 000	-	R336 000
	Lowest grant disbursed	R20 000	-	-	-	R110 000	-	R336 000
	Highest grant disbursed	R411 000	-	-	-	R110 000	-	R336 000
Y-RATED	Number of grant-holders	53	6	4	6	9	-	12
	Total value of grants disbursed	R6 070 000	R1 116 000	R478 000	R703 000	R849 000	-	R6 909 000
	Average value of grants	R115 000	R186 000	R119 000	R117 000	R94 000	-	R576 000
	Lowest grant disbursed	R2 000	R37 000	R11 000	R13 000	R3 000	-	R35 000
	Highest grant disbursed	R484 000	R520 000	R253 000	R237 000	R311 000	-	R2 911 000
	Total number of rated principal grant-holders	652	46	36	33	24	13	115
	Total value of grants disbursed	**R92 527 000**	**R6 959 000**	**R6 645 000**	**R5 077 000**	**R1 975 000**	**R40 909 000**	**R59 112 000**

*Grants are disbursed to researchers based on proven research expenditure, including bursaries. All amounts are rounded off to the nearest R1 000.
Note: A principal grant-holder may receive a grant individually or as a leader of a research team (which could include rated and unrated team members). Grants disbursed to the same grant-holder were added together for each programme.

Programmes **FAP = Focus Area Programme **IKS** = Indigenous Knowledge Systems **IRDU** = Institutional Research Development: Universities **IRDT** = Institutional Research Development: Technikons **THUT** = Thuthuka Programme **IF** = Innovation Fund **THRIP** = Technology and Human Resources for Industry Programme

Table 24: Total and average values of grants disbursed* to rated and unrated principal grant-holders per gender per programme** during 2005

	Programme**	FAP**	IKS**	IRDU**	IRDT**	THUT**	THRIP**
UNRATED FEMALE GRANT-HOLDERS	Number of grant-holders	91	16	17	51	242	22
	Total value of grants disbursed	R6 362 000	R1 846 000	R1 523 000	R4 042 000	R12 165 000	R7 615 000
	Average value of grants disbursed	R70 000	R115 000	R90 000	R79 000	R50 000	R346 000
UNRATED MALE GRANT-HOLDERS	Number of grant-holders	150	29	50	100	91	102
	Total value of grants disbursed	R11 979 000	R3 454 000	R5 233 000	R7 415 000	R4 652 000	R48 857 000
	Average value of grants disbursed	R80 000	R119 000	R105 000	R74 000	R51 000	R479 000
RATED FEMALE GRANT-HOLDERS	Number of grant-holders	145	14	6	7	14	20
	Total value of grants disbursed	R20 192 000	R2 524 000	R901 000	R771 000	R1 036 000	R12 359 000
	Average value of grants disbursed	R139 000	R180 000	R150 000	R110 000	R74 000	R618 000
RATED MALE GRANT-HOLDERS	Number of grant-holders	507	32	30	26	10	95
	Total value of grants disbursed	R72 335 000	R4 435 000	R5 744 000	R4 306 000	R939 000	R46 753 000
	Average value of grants disbursed	R143 000	R139 000	R191 000	R166 000	R94 000	R492 000
	Total number of principal grant-holders	**893**	**91**	**103**	**184**	**357**	**239**
	Total value of grants disbursed	**R110 868 000**	**R12 259 000**	**R13 401 000**	**R16 533 000**	**R18 793 000**	**R115 584 000**

Table 25: Total and average values of grants disbursed* to black and white, rated and unrated principal grant-holders per programme** during 2005

	Programme**	FAP**	IKS**	IRDU**	IRDT**	THUT**	THRIP**
UNRATED BLACK GRANT-HOLDERS	Number of grant-holders	55	25	42	55	184	15
	Total value of grants disbursed	R3 513 000	R2 309 000	R4 718 000	R3 360 000	R9 999 000	R6 787 000
	Average value of grants disbursed	R64 000	R92 000	R112 000	R61 000	R54 000	R452 000
UNRATED WHITE GRANT-HOLDERS	Number of grant-holders	186	20	25	96	149	109
	Total value of grants disbursed	R14 828 000	R2 990 000	R2 038 000	R8 096 000	R6 818 000	R49 685 000
	Average value of grants disbursed	R80 000	R150 000	R82 000	R84 000	R46 000	R456 000
RATED BLACK GRANT-HOLDERS	Number of grant-holders	61	9	17	8	16	5
	Total value of grants disbursed	R6 978 000	R995 000	R2 768 000	R765 000	R1 455 000	R953 000
	Average value of grants disbursed	R114 000	R111 000	R163 000	R96 000	R91 000	R191 000
RATED WHITE GRANT-HOLDERS	Number of grant-holders	591	37	19	25	8	110
	Total value of grants disbursed	R85 549 000	R5 965 000	R3 877 000	R4 312 000	R521 000	R58 158 000
	Average value of grants disbursed	R145 000	R161 000	R204 000	R172 000	R65 000	R529 000
	Total number of principal grant-holders	**893**	**91**	**103**	**184**	**357**	**239**
	Total value of grants disbursed	**R110 868 000**	**R12 259 000**	**R13 401 000**	**R16 533 000**	**R18 793 000**	**R115 584 000**

*Grants are disbursed to researchers based on proven research expenditure, including bursaries. All amounts are rounded off to the nearest R1 000.
Note: A principal grant-holder may receive a grant individually or as a leader of a research team (which could include rated and unrated team members). Grants disbursed to the same grant-holder were added together for each programme.

Programmes **FAP = Focus Area Programme **IKS** = Indigenous Knowledge Systems **IRDU** = Institutional Research Development: Universities **IRDT** = Institutional Research Development: Technikons **THUT** = Thuthuka Programme **THRIP** = Technology and Human Resources for Industry Programme

Table 26: Total and average values of grants disbursed* to rated and unrated principal grant-holders in the natural sciences and engineering (NSE) and the social sciences and humanities (SSH) per programme during 2005**

	Programme**	FAP**	IKS**	IRDU**	IRDT**	THUT**
UNRATED NSE	Number of principal grant-holders	134	15	44	115	181
	Total value of grants disbursed	R12 589 000	R2 421 000	R3 605 000	R8 901 000	R11 138 000
	Average value of grants disbursed	R94 000	R161 000	R82 000	R77 000	R62 000
UNRATED SSH	Number of principal grant-holders	107	30	23	36	152
	Total value of grants disbursed	R5 752 000	R2 879 000	R3 151 000	R2 555 000	R5 680 000
	Average value of grants disbursed	R54 000	R96 000	R137 000	R71 000	R37 000
RATED NSE	Number of principal grant-holders	514	30	33	28	20
	Total value of grants disbursed	R80 027 000	R5 214 000	R6 297 000	R4 400 000	R1 733 000
	Average value of grants disbursed	R156 000	R174 000	R191 000	R157 000	R87 000
RATED SSH	Number of principal grant-holders	138	16	3	5	4
	Total value of grants disbursed	R12 500 000	R1 745 000	R348 000	R677 000	R242 000
	Average value of grants disbursed	R91 000	R109 000	R116 000	R135 000	R60 000
	Total number of principal grant-holders	**893**	**91**	**103**	**184**	**357**
	Total value of grants disbursed	**R110 868 000**	**R12 259 000**	**R13 401 000**	**R16 533 000**	**R18 793 000**

*Grants are disbursed to researchers based on proven research expenditure, including bursaries. All amounts are rounded off to the nearest R1 000.
Note: A principal grant-holder may receive a grant individually or as a leader of a research team (which could include rated and unrated team members). Grants disbursed to the same grant-holder were added together for each programme.

Programmes **FAP = Focus Area Programme **IKS** = Indigenous Knowledge Systems **IRDU** = Institutional Research Development: Universities **IRDT** = Institutional Research Development: Technikons **THUT** = Thuthuka Programme

HOW TO APPLY FOR EVALUATION AND RATING

More information on rated researchers and the data generated through the evaluation and rating process are available on the Evaluation Centre website at

www.nrf.ac.za/evaluation

This website also includes detailed information on the application process, including important information on closing dates, eligibility and criteria.

Submit your application for evaluation and rating electronically at

http://nrfonline.nrf.ac.za

APPENDIX

Table 27: Percentage rated researchers at South African higher education institutions in 2003 compared to 2005

Percentage rated researchers at institutions (2003)				Percentage rated researchers at institutions (2005)			
University/Technikon	Rated researchers•	Instruction/Research professionals**	% Rated	University/Technikon	Rated researchers•	Instruction/Research professionals**	% Rated
University of Cape Town	213	779	27,3	University of Cape Town	262	829	31,6
Stellenbosch University	199	809	24,6	Stellenbosch University	220	818	26,9
University of the Witwatersrand	132	890	14,8	University of the Witwatersrand	161	952	16,9
Rhodes University	41	334	12,3	Rhodes University	47	306	15,4
University of the Western Cape	49	448	10,9	University of the Western Cape	65	465	14,0
University of the Free State	75	517	14,5	University of the Free State	72	620	11,6
University of Pretoria	157	1 524	10,3	University of Pretoria	177	1 575	11,2
Potchefstroom University for CHE	64	531	12,1	North-West University	85	769	11,1
University of the North-West	2	184	1,1				
University of Natal	130	1 058	12,3	University of KwaZulu-Natal	152	1 448	10,5
University of Durban-Westville	23	345	6,7				
University of Port Elizabeth	37	267	13,9	Nelson Mandela Metropolitan University	50	557	9,0
Port Elizabeth Technikon	9	248	3,6				
Rand Afrikaans University	55	432	12,7	University of Johannesburg	64	917	7,0
Technikon Witwatersrand	3	383	0,8				
University of South Africa	52	1 090	4,8	University of South Africa	75	1 308	5,7
Technikon Southern Africa	5	176	2,8				
University of Zululand	5	242	2,1	University of Zululand	12	219	5,5
University of Fort Hare	5	190	2,6	University of Fort Hare	5	230	2,2
Technikon Pretoria	11	550	2,0	Tshwane University of Technology	17	880	1,9
Technikon Northern Gauteng	0	227	0				
Technikon North-West	0	107	0				
Durban Institute of Technology	8	544	1,5	Durban Institute of Technology	9	537	1,7
University of the North	7	342	2,0	University of Limpopo	9	804	1,1
Medical University of Southern Africa	2	413	0,5				
Technikon Free State	3	145	2,1	Central University of Technology, Free State	2	203	1,0
Vista University***	6	430	1,4				
Peninsula Technikon	3	214	1,4	Cape Peninsula University of Technology	10	621	1,6
Cape Technikon	3	345	0,9				
Mangosuthu Technikon	0	147	0	Mangosuthu Technikon	1	146	0,7
University of Venda	3	268	1,1	University of Venda	2	268	0,7
University of Transkei	3	170	1,8	Walter Sisulu University	3	531	0,6
Border Technikon	0	146	0				
Eastern Cape Technikon	0	173	0				
Vaal Triangle Technikon	1	308	0,3	Vaal University of Technology	1	312	0,3

*As at 12 March 2004 **DoE 2003 *As at 17 March 2006 **DoE 2005

***In 2004 the different campuses of Vista University merged with several other higher education institutions and by 2006 Vista University ceased to exist.

Table 28: Number of rated researchers in the social sciences and humanities per NRF Specialist Committee, per institution and per rating category during 2006 (as at 17 March 2007)

NRF Specialist Committee	Type of institution	Institution	A	B	C	L	P	Y	Total
Anthropology, Development Studies, Geography, Sociology and Social Work	South African universities	Nelson Mandela Metropolitan University		1					1
		North-West University			2				2
		Rhodes University		1	3				4
		Stellenbosch University			6				6
		University of Cape Town		1	2		2	1	6
		University of Johannesburg			3			1	4
		University of KwaZulu-Natal			6				6
		University of Pretoria			3				3
		University of South Africa			4				4
		University of the Free State						1	1
		University of the Western Cape		1	4			2	7
		University of the Witwatersrand	2	4	1		1	3	11
	Other South African institutions	Council for Scientific and Industrial Research		1					1
		Human Sciences Research Council			1			1	2
	Institution not known				2				2
Total for Anthropology, Development Studies, Geography, Sociology and Social Work			**2**	**9**	**37**		**3**	**9**	**60**
Communication, Media Studies, Library and Information Sciences	South African universities	Cape Peninsula University of Technology			1				1
		Stellenbosch University			1			1	2
		Tshwane University of Technology			1	1			2
		University of Cape Town			3				3
		University of KwaZulu-Natal		1	1				2
		University of Pretoria			5	1			6
		University of South Africa			1				1
		University of Zululand			1				1
		Vaal University of Technology						1	1
	Other South African institutions	National Research Foundation			1				1
	Institution not known			1					1
Total for Communication, Media Studies, Library and Information Sciences				**2**	**15**	**2**		**2**	**21**
Education	South African universities	Cape Peninsula University of Technology			1	1			2
		Central University of Technology, Free State			1				1
		Durban University of Technology			1				1
		North-West University			3				3
		Stellenbosch University			3	2		1	6
		Tshwane University of Technology				1			1
		University of Cape Town		1	6		1		8
		University of Johannesburg			4				4
		University of KwaZulu-Natal		1	2	1			4
		University of Pretoria		1	9	1		1	12
		University of South Africa			1	1			2
		University of the Free State			2				2
		University of the Western Cape		2	1	1			4
		University of the Witwatersrand	1		3				4
	Institutions abroad	University of Glasgow		1					1
	Institution not known				1				1
Total for Education			**1**	**6**	**38**	**8**	**1**	**2**	**56**

NRF Specialist Committee	Type of institution	Institution	A	B	C	L	P	Y	Total
Economics, Management, Administration and Accounting	South African universities	Nelson Mandela Metropolitan University			2	3		2	7
		North-West University			2				2
		Rhodes University				1			1
		Stellenbosch University			13			1	14
		University of Cape Town		2	8			2	12
		University of Johannesburg			1				1
		University of KwaZulu-Natal		1	3				4
		University of Pretoria		2	7			3	12
		University of South Africa		1	2				3
		University of the Free State			3			1	4
		University of the Western Cape			1				1
		University of the Witwatersrand			2			1	3
	Institutions abroad	Thames Valley University		1					1
	Institution not known				2			1	3
Total for Economics, Management, Administration and Accounting				**7**	**46**	**4**		**11**	**68**
Historical Studies	South African universities	Rhodes University			1				1
		Stellenbosch University		2	2			1	5
		University of Cape Town	1	2	3				6
		University of Johannesburg		1				1	2
		University of KwaZulu-Natal		2					2
		University of Pretoria	1	1	1				3
		University of South Africa		1	4				5
		University of the Free State			2				2
		University of the Western Cape			4	1			5
		University of the Witwatersrand		3	1				4
	Institution not known				1				1
Total for Historical Studies			**2**	**12**	**19**	**1**		**2**	**36**
Law	South African universities	Nelson Mandela Metropolitan University				1		1	2
		North-West University			5	1		1	7
		Rhodes University			1				1
		Stellenbosch University	1	3	4		1		9
		University of Cape Town		4	6		1		11
		University of Johannesburg		1	5			1	7
		University of KwaZulu-Natal		1	1				2
		University of Pretoria	1	3	1				5
		University of South Africa		1	22	2		1	26
		University of the Free State			1			1	2
		University of the Western Cape		1	4				5
		University of the Witwatersrand			2				2
	Institution not known			1	5				6
Total for Law			**2**	**15**	**57**	**4**	**2**	**5**	**85**

NRF Specialist Committee	Type of institution	Institution	A	B	C	L	P	Y	Total
Literary Studies, Languages and Linguistics	South African universities	Cape Peninsula University of Technology				1			1
		Nelson Mandela Metropolitan University			3	1			4
		North-West University			6			3	9
		Rhodes University		1	1				2
		Stellenbosch University		5	4	1			10
		University of Cape Town	3	3	4				10
		University of Fort Hare				1			1
		University of Johannesburg			3	2			5
		University of KwaZulu-Natal	1	1	6				8
		University of Pretoria		2	5				7
		University of South Africa		4	11	1			16
		University of the Free State			3				3
		University of the Western Cape		1	4	2			7
		University of the Witwatersrand	1	4	2		1		8
		University of Zululand			3				3
	Institutions abroad	Northeastern University			1				1
	Institution not known				2	1			3
Total for Literary Studies, Languages and Linguistics			**5**	**21**	**58**	**10**	**1**	**3**	**98**
Performing and Creative Arts, and Design	South African universities	Rhodes University			1				1
		Stellenbosch University		1	3			2	6
		Tshwane University of Technology			1				1
		University of Cape Town		3	4				7
		University of KwaZulu-Natal		1	3				4
		University of Pretoria		3	2				5
		University of the Free State			1				1
		University of the Witwatersrand		2					2
	Institution not known				1				1
Total for Performing and Creative Arts, and Design				**10**	**16**			**2**	**28**
Political Sciences, Policy Studies and Philosophy	South African universities	Stellenbosch University		2	6			1	9
		University of Cape Town		1	4				5
		University of Johannesburg		1	2				3
		University of KwaZulu-Natal		1			2	1	4
		University of Pretoria			2				2
		University of the Western Cape			1				1
		University of the Witwatersrand			1			2	3
	Other South African institutions	Southern African NGO Network		1					1
	Institutions abroad	University of Limerick		1					1
	Institution not known				2				2
Total for Political Sciences, Policy Studies and Philosophy				**7**	**18**		**2**	**4**	**31**

NRF Specialist Committee	Type of institution	Institution	A	B	C	L	P	Y	Total
Psychology	South African universities	Nelson Mandela Metropolitan University			3				3
		North-West University			3				3
		Rhodes University			2				2
		Stellenbosch University		1	3			1	5
		University of Cape Town		3	1				4
		University of Johannesburg			1				1
		University of KwaZulu-Natal			2				2
		University of Limpopo			1				1
		University of Pretoria		1				1	2
		University of South Africa			4				4
		University of the Free State			1				1
		University of the Western Cape			1				1
		University of the Witwatersrand			1			1	2
		University of Zululand			1				1
	Other South African institutions	Human Sciences Research Council		1	1				2
	Institution not known				3			1	4
Total for Psychology				6	28			4	38
Religious Studies and Theology	South African universities	North-West University			2			1	3
		Stellenbosch University		1	6			1	8
		University of Cape Town	2		1				3
		University of Johannesburg		1					1
		University of KwaZulu-Natal		2					2
		University of Pretoria		1	2				3
		University of South Africa			2				2
		University of the Free State			4				4
		University of the Western Cape			1				1
	Other South African institutions	St Augustine's College of South Africa			1				1
	Institution not known				1				1
Total for Religious Studies and Theology			2	5	20			2	29
TOTAL FOR ALL SOCIAL SCIENCES AND HUMANITIES			14	100	352	29	9	46	550

Table 29: Number of rated researchers in the natural sciences and engineering per NRF Specialist Committee, per institution and per rating category during 2006 (as at 17 March 2007)

NRF Specialist Committee	Type of institution	Institution	A	B	C	L	P	Y	Total
Animal and Veterinary Sciences	South African museums	Albany Museum		1	3				4
		Bayworld Centre for Research and Education		1	1				2
		Durban Natural Science Museum			1				1
		Iziko Museums of Cape Town		1	2				3
		Natal Museum		1	2				3
		Northern Flagship Institution			2				2
	South African universities	Nelson Mandela Metropolitan University		1	3				4
		North-West University			2	1		1	4
		Rhodes University		4	9			1	14
		Stellenbosch University	1	3	8			4	16
		Tshwane University of Technology			1			1	2
		University of Cape Town	2	7	7	2	2	2	22
		University of Fort Hare		1					1
		University of Johannesburg			4			1	5
		University of KwaZulu-Natal	1	3	9			1	14
		University of Limpopo			1			1	2
		University of Pretoria	1	10	18	1		4	34
		University of the Free State			7			1	8
		University of the Western Cape			5				5
		University of the Witwatersrand	2	4	7			2	15
		University of Zululand			1				1
	Other South African institutions	Agricultural Research Council			1				1
		Council for Scientific and Industrial Research						1	1
		Department of Environmental Affairs and Tourism			1				1
		Elsenburg Agricultural Research Centre			1				1
		National Institute for Communicable Diseases			1				1
		National Research Foundation		1					1
		Oceanographic Research Institute			2				2
		South African Institute for Aquatic Biodiversity		2	2			1	5
		Tsb Sugar			1				1
	Institutions abroad	Universiti Brunei Darussalam			1				1
		University of Central Lancashire		1					1
		Utah State University		1					1
	Institution not known				3			1	4
Total for Animal and Veterinary Sciences			7	42	106	4	2	22	183

NRF Specialist Committee	Type of institution	Institution	A	B	C	L	P	Y	Total
Biochemistry, Molecular and Cell Biology	South African universities	Cape Peninsula University of Technology						1	1
		Nelson Mandela Metropolitan University			1	1		1	3
		North-West University						2	2
		Rhodes University		1	2			1	4
		Stellenbosch University	1	2	5	1			9
		University of Cape Town		4	8			1	13
		University of KwaZulu-Natal		1	3				4
		University of Limpopo						1	1
		University of Pretoria			2			3	5
		University of the Free State		1	2			1	4
		University of the Western Cape		5	1			1	7
		University of the Witwatersrand		2	3			2	7
	Other South African institutions	Medical Research Council		1					1
		National Health Laboratory Service			1				1
	Institution not known			1					1
Total for Biochemistry, Molecular and Cell Biology			**1**	**18**	**28**	**2**		**14**	**63**
Chemistry	South African universities	Nelson Mandela Metropolitan University			4				4
		North-West University			2			1	3
		Rhodes University	1	3				1	5
		Stellenbosch University	1	3	2	3		2	11
		Tshwane University of Technology		1	2				3
		University of Cape Town		7	7				14
		University of Johannesburg			2			2	4
		University of KwaZulu-Natal		2	7				9
		University of Limpopo				1			1
		University of Pretoria		4	2			1	7
		University of South Africa			1				1
		University of the Free State		1	2	1			4
		University of the Western Cape			4				4
		University of the Witwatersrand		4	4	1		2	11
		University of Venda			1				1
		University of Zululand			2				2
	Other South African institutions	Anglo Platinum Research Centre						1	1
		Council for Scientific and Industrial Research			1				1
		Medical Research Council		1					1
	Institution not known			2	1			2	5
Total for Chemistry			2	28	44	6		12	92

NRF Specialist Committee	Type of institution	Institution	A	B	C	L	P	Y	Total
Earth Sciences	South African museums	Iziko Museums of Cape Town		2					2
		National Museum			1				1
	South African universities	Nelson Mandela Metropolitan University			1				1
		North-West University			1				1
		Rhodes University		1	4			1	6
		Stellenbosch University		2	2			2	6
		University of Cape Town	2	10	10	1		2	25
		University of Johannesburg	1	2	4				7
		University of KwaZulu-Natal		2	3				5
		University of Pretoria	1	1	5			1	8
		University of South Africa			1				1
		University of the Free State			3				3
		University of the Western Cape			1				1
		University of the Witwatersrand		9	8			1	18
		University of Zululand			1				1
	Other South African institutions	Council for Scientific and Industrial Research			3			1	4
		iThemba Laboratory for Accelerator Based Sciences		1					1
		South African Weather Service			1				1
	Institutions abroad	University of Oxford		1					1
	Institution not known			2	1			2	5
Total for Earth Sciences			**4**	**33**	**50**	**1**		**10**	**98**
Engineering	South African universities	Cape Peninsula University of Technology		1	1	1		1	4
		Central University of Technology, Free State			2	1			3
		Durban University of Technology			3	1		1	5
		Nelson Mandela Metropolitan University			1				1
		North-West University		1	7				8
		Stellenbosch University	1	3	16	1		4	25
		Tshwane University of Technology			2			1	3
		University of Cape Town	3	8	15			5	31
		University of Johannesburg		1	2	1			4
		University of KwaZulu-Natal		5	4			3	12
		University of Pretoria		8	15			5	28
		University of South Africa			1				1
		University of the Western Cape			1				1
		University of the Witwatersrand	3	3	11		1	1	19
	Other South African institutions	Council for Mineral Technology (Mintek)		1					1
		Council for Scientific and Industrial Research			1			1	2
		Poynting Antennas			1				1
	Institutions abroad	Hamburg University of Technology		1					1
		University of Western Australia		1					1
	Institution not known			1	2			2	5
Total for Engineering			**7**	**34**	**85**	**5**	**1**	**24**	**156**

NRF Specialist Committee	Type of institution	Institution	A	B	C	L	P	Y	Total
Forestry and Agricultural Sciences*	South African universities	North-West University			1				1
		Stellenbosch University		1	2	1		3	7
		University of KwaZulu-Natal			1				1
		University of Pretoria		1	4			3	8
		University of the Free State			5				5
	Other South African institutions	Agricultural Research Council			1	1			2
		Council for Scientific and Industrial Research			1				1
		Sappi Ltd						1	1
Total for Forestry and Agricultural Sciences				2	15	2		7	26
Health Sciences	South African universities	Durban University of Technology						1	1
		Nelson Mandela Metropolitan University			3				3
		North-West University		1	16			1	18
		Rhodes University			3				3
		Stellenbosch University		4	14		1	3	22
		Tshwane University of Technology			1			2	3
		University of Cape Town	3	9	24		1	4	41
		University of Johannesburg	1		7				8
		University of KwaZulu-Natal		1	8			1	10
		University of Limpopo			2			1	3
		University of Pretoria		3	7	1		4	15
		University of South Africa			1				1
		University of the Free State			1				1
		University of the Western Cape			6	1			7
		University of the Witwatersrand	2	5	11			3	21
		Vaal University of Technology				1			1
		Walter Sisulu University			1				1
	Other South African institutions	GeneCare Molecular Genetics		1					1
		iThemba Laboratory for Accelerator Based Sciences			1				1
		Medical Research Council		1				1	2
		National Health Laboratory Service		4	1			2	7
		National Institute for Communicable Diseases			2				2
		National Institute for Occupational Health			1				1
	Institutions abroad	Garvan Institute of Medical Research						1	1
	Institution not known			1	3			2	6
Total for Health Sciences			6	30	113	3	2	26	180

*The Assessment Panel for Forestry and Agricultural Sciences was discontinued at the end of 2004.
The numbers given above reflect the applicants who have not yet been reassigned to other panels

NRF Specialist Committee	Type of institution	Institution	A	B	C	L	P	Y	Total
Mathematical Sciences	South African universities	Cape Peninsula University of Technology			1				1
		Durban University of Technology						1	1
		Nelson Mandela Metropolitan University		1	4			1	6
		North-West University		2	2	1			5
		Rhodes University			4				4
		Stellenbosch University	1	6	13	2			22
		Tshwane University of Technology			1				1
		University of Cape Town	6	6	8			1	21
		University of Fort Hare				1			1
		University of Johannesburg		1	3				4
		University of KwaZulu-Natal		9	7			1	17
		University of Pretoria		4	10	1		1	16
		University of South Africa		4	2	1		1	8
		University of the Free State		2	2				4
		University of the Western Cape			2				2
		University of the Witwatersrand	1	4	10			4	19
		University of Zululand			1				1
		Walter Sisulu University			1				1
	Other South African institutions	Standard Bank of South Africa						1	1
	Institutions abroad	National ICT Australia			1				1
	Institution not known				1			2	3
Total for Mathematical Sciences			8	39	73	6		13	139
Microbiology and Plant Pathology	South African universities	Central University of Technology, Free State			1			1	2
		Durban University of Technology			2	1		1	4
		Nelson Mandela Metropolitan University						1	1
		North-West University		1					1
		Stellenbosch University	1	4	4			1	10
		Tshwane University of Technology			1	1			2
		University of Cape Town		1	3				4
		University of Fort Hare				1			1
		University of Johannesburg						1	1
		University of KwaZulu-Natal			2	1			3
		University of Pretoria	1	4	7			3	15
		University of South Africa			1	1			2
		University of the Free State		4	7				11
		University of the Western Cape			1			1	2
		University of the Witwatersrand		2	1			1	4
	Institutions abroad	Centraalbureau voor Schimmelcultures	1						1
		Sasol Technology R&D			1				1
	Institution not known				2			1	3
Total for Microbiology and Plant Pathology			3	16	33	5		11	68

NRF Specialist Committee	Type of institution	Institution	A	B	C	L	P	Y	Total
Physics	South African universities	Nelson Mandela Metropolitan University		1	4	1		1	7
		North-West University	2	3	2		1		8
		Stellenbosch University		6	2	1		3	12
		University of Cape Town	1	8	5			1	15
		University of Fort Hare						1	1
		University of Johannesburg		2	3				5
		University of KwaZulu-Natal		5	6			1	12
		University of Limpopo			1				1
		University of Pretoria		4	3				7
		University of South Africa		2	2				4
		University of the Free State		1	1			2	4
		University of the Western Cape		1	5				6
		University of the Witwatersrand	2	6	4	1			13
		University of Zululand			1	1			2
	Other South African institutions	Hermanus Magnetic Observatory		1					1
		iThemba Laboratory for Accelerator Based Sciences		1	2			1	4
		South African Astronomical Observatory	1	3				2	6
	Institution not known				1				1
Total for Physics			**6**	**44**	**42**	**4**	**1**	**12**	**109**
Plant Sciences	South African universities	Nelson Mandela Metropolitan University	1		2				3
		North-West University			4			1	5
		Rhodes University		2	1				3
		Stellenbosch University		5	6			1	12
		Tshwane University of Technology		1				1	2
		University of Cape Town	1	4	4			1	10
		University of Fort Hare			1				1
		University of Johannesburg		1	2				3
		University of KwaZulu-Natal	1	6	4	1		3	15
		University of Pretoria		1	7		1	2	11
		University of the Free State		2	3			1	6
		University of the Witwatersrand		3	4			1	8
		University of Zululand			1			1	2
	Other South African institutions	Council for Scientific and Industrial Research		2	3				5
		iThemba Laboratory for Accelerator Based Sciences		1					1
		South African Sugarcane Research Institute		1					1
	Institution not known				1				1
Total for Plant Sciences			**3**	**29**	**43**	**1**	**1**	**12**	**89**
TOTAL FOR ALL NATURAL SCIENCES AND ENGINEERING			**47**	**315**	**632**	**37**	**7**	**163**	**1 201**

AFTER MORE THAN 20 years of commitment to the NRF's evaluation and rating system, Gudrun Schirge will retire at the end of October 2007. She moves to Cape Town to take on new challenges at the African Institute for Mathematical Sciences (AIMS) in Muizenberg.

When Gudrun took the reigns of evaluation and rating in 1986, the system was still in its infancy. She was inspired by the vision and passion for excellence of its architects, Professor Jack de Wet and Dr Reinhard Arndt. Today, Gudrun is still equally passionate about quality and service. She believes that excellence can be the tool to build research in South Africa to become a shining beacon on the African continent, and that the evaluation and rating system can help achieve that goal.

Looking back over the past two decades, Gudrun cherishes the many opportunities to get to know a wide range of academics and museum scientists. "It was an absolute privilege to work with our country's researchers for so many years," she says. "It is hard to say goodbye."

"It was always very important to me to treat all applications fairly and consistently. My job was not to influence the outcome of any evaluation, but always to safeguard the integrity of the process."

EVALUATION AND RATING

facts & figures 2007

National Research Foundation (NRF)

NRF Evaluation Centre

PO Box 2600
Pretoria 0001
SOUTH AFRICA

NRF Building
Meiring Naudé Road
Brummeria Pretoria

Telephone: +27 12 481 4036
Fax: +27 12 481 4010
Email: evaluation@nrf.ac.za
www.nrf.ac.za/evaluation/

Design and print production: Loretta Steyn Graphic Design Studio