



CHAPTER THIRTEEN

FUNDING RESEARCH IN TERTIARY EDUCATION // 165-170

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AN OVERVIEW

Government funding of research via Vote Education increased in 2006. The funding distributed through enrolments-based research top-ups fell, as funding for this source continued to be progressively transferred to the Performance-Based Research Fund. Research top-ups will cease to exist in the 2007 year when the phase-in of the Performance-Based Research Fund will be completed.

Research contract income in the universities increased in 2005, both in total and as a percentage of total university revenue. Research contract funding won by the universities from the government contestable research funds, distributed via Vote Research, Science and Technology, increased in 2005. Research contract income won from other sources also increased in 2005.

Estimated university expenditure on research and development increased in 2006, with the largest increases taking place in the knowledge-general and health areas. The largest proportion of research and development expenditure in the universities was estimated to be on basic research.

THE 2007 YEAR

The phase-in of the Performance-Based Research Fund was completed in 2007. The size of the fund in 2007 is estimated at around \$230 million inclusive of goods and services tax.

The results of the 2006 round of centres of research excellence funding were announced in June 2007. Six of the existing centres of research excellence had their funding renewed and an additional new centre of research excellence – The Riddet Centre – will also receive funding. In total, the seven centres of research excellence will receive funding of about \$31.4 million per annum in operating funding and a one-off capital injection of \$20 million.

RESEARCH INCOME VIA VOTE EDUCATION ¹

Figure 13.1//Vote Education research funding in tertiary education institutions

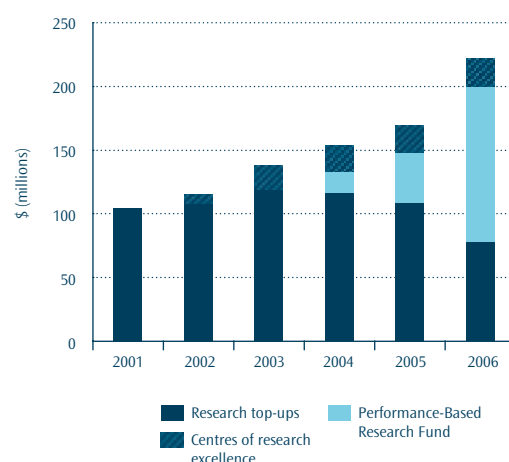
The total research income of tertiary education institutions, via Vote Education, increased in 2006. The Performance-Based Research Fund allocations increased, as the phase-in of the Performance-Based Research Fund continued, while as part of the funding switch-over the research top-ups decreased.

Research income of tertiary education institutions, via Vote Education, in 2006:

	\$ (millions)	
Total	222	(up 31% on 2005)
Research top-ups ²	78	(down 28% on 2005)
Performance-Based Research Fund	122	(up 207% on 2005)
Centres of research excellence	21	(up 0.4% on 2005)

Note: There was also income of approximately \$1.3 million in 2006 for building research capability in the social sciences.

Source: Ministry of Education and Tertiary Education Commission.



DISTRIBUTION OF RESEARCH INCOME

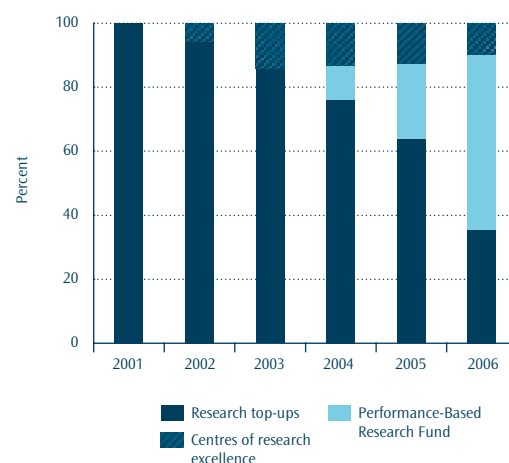
Figure 13.2// Distribution of Vote Education research funding in tertiary education institutions

In 2006, the Performance-Based Research Fund became the largest single source of research income of the tertiary education institutions from Vote Education. With the completion in 2007 of the phase-in of the Performance-Based Research Fund, research top-up funding will cease.

The percentages of research income of tertiary education institutions, via Vote Education, by type in 2006:

Research top-ups	35%	(64% in 2005)
Performance-Based Research Fund	55%	(23% in 2005)
Centres of research excellence	9.6%	(13% in 2005)

Source: Ministry of Education and Tertiary Education Commission.



RESEARCH INCOME IN UNIVERSITIES

Figure 13.3// University research income by source

Research income continued to grow in universities in 2005, with the fastest growth occurring in the size of the Performance-Based Research Fund. However, research contract income continued to be the single largest source of research income for the universities in 2005.

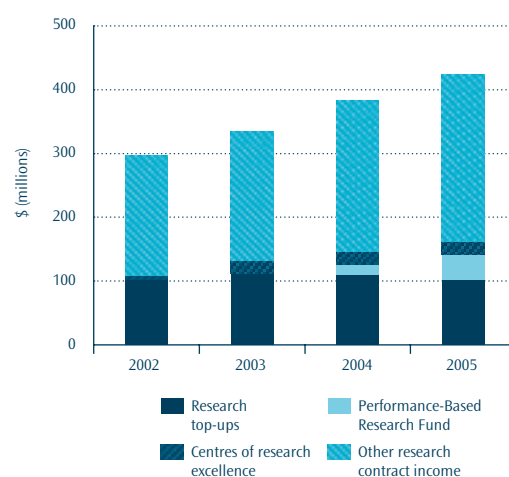
University research income by source in 2005:

	\$ (millions)	
Total	424	(up 11% on 2004)
Research top-ups	102	(down 7.1% on 2004)
Performance-Based Research Fund	39	(up 140% on 2004)
Research contract income ³	283	(up 10% on 2004)
• Centres of research excellence	21	(up 4.3% on 2004)
• Other research contract income	261	(up 11% on 2004)

Notes:

1. Research contract income data for 2006 is not yet available.
2. There was also income of about \$1.3 million in 2005 for building research capability in the social sciences.

Source: Ministry of Education and Tertiary Education Commission.



1. These highlights include colleges of education data with the universities unless otherwise indicated. The revenue and expenditure are exclusive of goods and services tax.
2. In these highlights the tuition subsidies for foreign research-based students are included in the research top-ups figure.

3. These highlights use the Performance-Based Research Fund external research income measure as the value of research contract income.

DISTRIBUTION OF RESEARCH INCOME IN UNIVERSITIES

Figure 13.4// Distribution of university research income by source

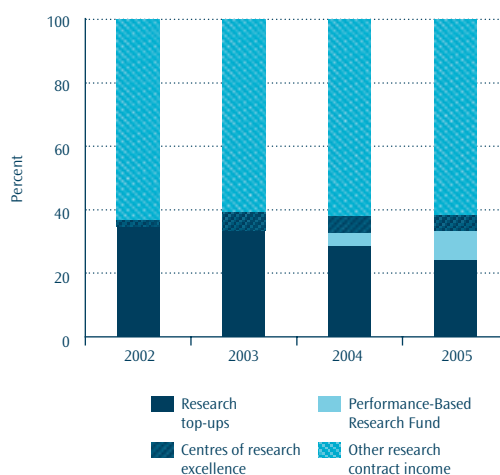
The largest source of research income for universities was contract income in 2005.

The percentage of university research income by source in 2005:

Research top-ups	24%	(29% in 2004)
Performance-Based Research Fund	9.2%	(4.3% in 2004)
Research contract income	67%	(67% in 2004)
Centres of research excellence	5.0%	(5.3% in 2004)
Other research contract income	62%	(62% in 2004)

Note: Research contract income data for 2006 is not yet available.

Source: Ministry of Education and Tertiary Education Commission.



UNIVERSITY RESEARCH CONTRACT INCOME

Figure 13.5// University research contract income

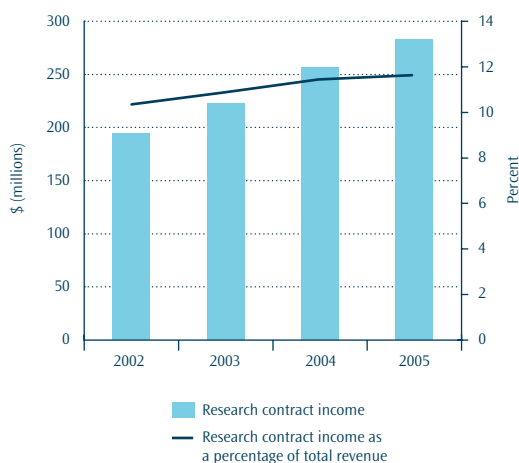
Research contract income continued to increase as a percentage of total university revenue in 2005.

University research contract income in 2005:

Total	\$283m	(up 10% on 2004)
As a % of total university revenue	11.6%	(11.4% in 2004)

Note: Research contract income data for 2006 is not yet available.

Source: Tertiary Education Commission and annual reports of universities.



UNIVERSITY RESEARCH CONTRACT INCOME BY SOURCE

Figure 13.6// University research contract income by source

All sources of research contract income increased in 2005, with the largest growth occurring in Health Research Council funding.

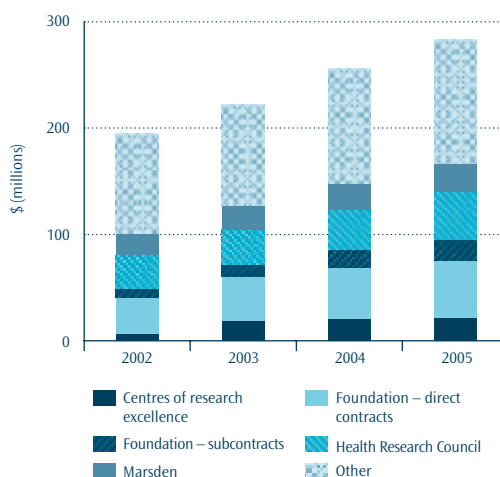
University research contract income by source in 2005:

	\$ (millions)	
Centres of research excellence	21	(up 4.3% on 2004)
Foundation for Research, Science and Technology	75	(up 14% on 2004)
Direct contracts	54	(up 11% on 2004)
Subcontracts	20	(up 24% on 2004)
Health Research Council	44	(up 18% on 2004)
Marsden Fund	27	(up 7.8% on 2004)
Other	116	(up 6.5% on 2004)

Notes:

1. Research contract income data for 2006 is not yet available.
2. 'Other' includes funding from private business, government agencies, state-owned enterprises, not-for-profit organisations and overseas sources.

Source: Tertiary Education Commission, Royal Society of New Zealand, Foundation for Research, Science and Technology, and Health Research Council.



UNIVERSITY RESEARCH INCOME BY SOURCE

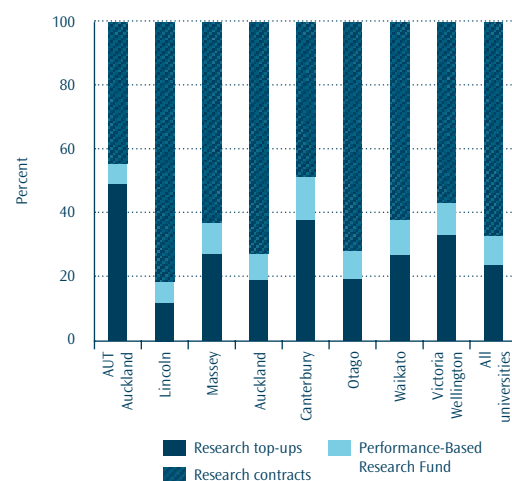
The main source of research income for most universities was contract income in 2005. Lincoln University, the University of Auckland and the University of Otago received more than 70 percent of their research income from this source, while the Auckland University of Technology and the University of Canterbury received less than half of their research income from external contracts.

The proportions of research income by source and university in 2005:

	Research top-ups	Performance-Based Research Fund	Research contracts
Total	24%	9%	67%
Auckland University of Technology	50%	6%	44%
Lincoln University	12%	7%	81%
Massey University	27%	10%	63%
University of Auckland	19%	8%	73%
University of Canterbury	38%	14%	48%
University of Otago	20%	9%	71%
University of Waikato	27%	11%	62%
Victoria University of Wellington	33%	10%	57%

Source: Ministry of Education and Tertiary Education Commission.

Figure 13.7// University research income in 2005 by source



UNIVERSITY RESEARCH EXPENDITURE

The estimated research expenditure* of universities continued to rise in 2006, while as a percentage of gross domestic product it remained unchanged from 2004.

University research and development expenditure in 2006:

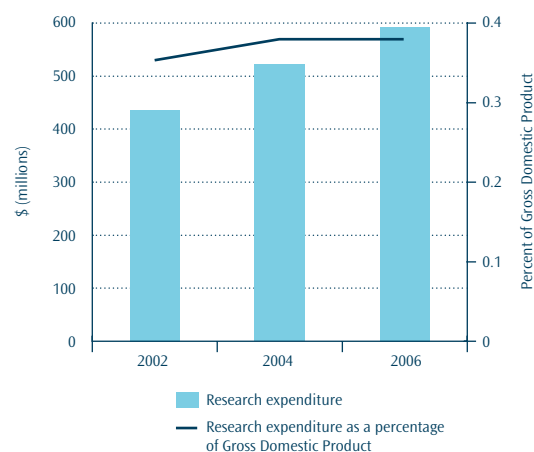
Total	\$593m	(up 14% on 2004)
As a % of gross domestic product	0.38%	(0.38% in 2004)

Note: This excludes colleges of education data where they were not already merged with the universities.

*This data is collected biennially by Statistics New Zealand and the Ministry of Research, Science and Technology.

Source: Ministry of Research, Science and Technology and Statistics New Zealand.

Figure 13.8// University research and development expenditure



UNIVERSITY RESEARCH EXPENDITURE BY TYPE

In 2006, the largest type of expenditure on research and development in universities was on basic research. The universities were responsible for 52 percent of all New Zealand's expenditure on basic research.

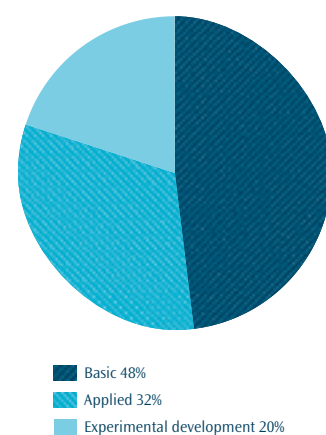
The distribution of university research and development expenditure in 2006:

Basic	48%
Applied	32%
Experimental development	20%

Note: This excludes colleges of education data where they were not already merged with the universities.

Source: Ministry of Research, Science and Technology and Statistics New Zealand.

Figure 13.9// University research and development expenditure by type



UNIVERSITY RESEARCH EXPENDITURE BY PURPOSE

Figure 13.10// University research and development expenditure by purpose

The largest category of university research and development expenditure is knowledge-general, followed by health.

The distribution of university research and development expenditure in 2006:

Agriculture, fishing and forestry	6.2%	(5.5% in 2004)
Industrial development	11%	(10% in 2004)
Development of infrastructure	12%	(12% in 2004)
Care of the environment	5.0%	(8.3% in 2004)
Health	21%	(22% in 2004)
Earth and atmosphere	3.5%	(2.4% in 2004)
Other	18%	(14% in 2004)
Knowledge-general	23%	(25% in 2004)

Notes:

1. This excludes colleges of education data where they were not already merged with the universities.
2. 'Other' expenditure includes spending on energy, social development and services, defence and other research purposes.
3. 'Knowledge-general' includes spending on research that is undertaken by universities that does not relate to a specific area of purpose.

Source: Ministry of Research, Science and Technology and Statistics New Zealand.

