

13 FUNDING RESEARCH IN TERTIARY EDUCATION

13

AN OVERVIEW

Government funding of research via Vote Education increased in 2008 by 15 percent.

Research contract income in the universities increased in 2008, both in total and as a percentage of total university revenue.

Estimated university expenditure on research and development increased in 2008. The largest proportion of research and development expenditure in the universities was estimated to be on basic research.

The share of Vote Research, Science and Technology funding won by universities rose in 2007/08 compared with the previous year, indicating that the quality and relevance of university research rose.

2009 YEAR

The government made a number of announcements about research funding initiatives during 2009. These included that:

- an additional \$18.5 million in operating funding for the Performance-Based Research Fund will be provided over four years to support the quality of research and research-based teaching and learning, and
- from 2010, the Building Research Capability in Social Sciences fund will cease. This fund, created in 2005, allocated around \$1.3 million per year to tertiary education organisations to build the capability of the tertiary education social science sector and to promote greater quality and relevance in social science research.

Also in 2009, the Tertiary Education Commission continued the process of consultation on the next Performance-Based Research Fund quality evaluation, to be held in 2012. Several discussion papers were issued by the sector reference group asking for feedback from the sector. Among the topics consulted on in 2009 were: evaluating applied and practice-based research, new and emerging researchers, staff eligibility, reporting of results, managing nominated research outputs, Pacifica research and Māori research.

RESEARCH INCOME VIA VOTE EDUCATION

Figure 13.1: Vote Education research funding in tertiary education organisations

The total research income of tertiary education organisations, via Vote Education, increased in 2008. Centres of research excellence exhibited the largest rate of increase in funding in 2008.

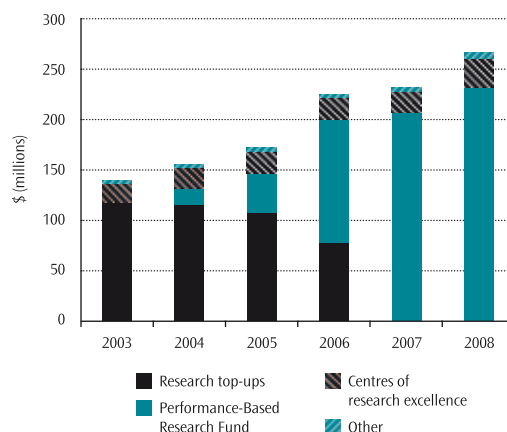
Research income of tertiary education organisations, via Vote Education, in 2008:

	\$ (millions)	
Total	266.3	(up 15% on 2007)
Performance-Based Research Fund	231.6	(up 12% on 2007)
Centres of research excellence	29.1	(up 35% on 2007)
Other	5.6	(up 84% on 2007)

Notes:

- 'Other' includes tuition subsidies for international research students, the Building Research Capability in the Social Sciences Fund and the Building Research Capability in Strategically Relevant Areas Fund.
- Research top-ups were phased out over the period 2004 to 2006.

Source: Ministry of Education and Tertiary Education Commission.



DISTRIBUTION OF RESEARCH INCOME

Figure 13.2: Distribution of Vote Education research funding in tertiary education organisations

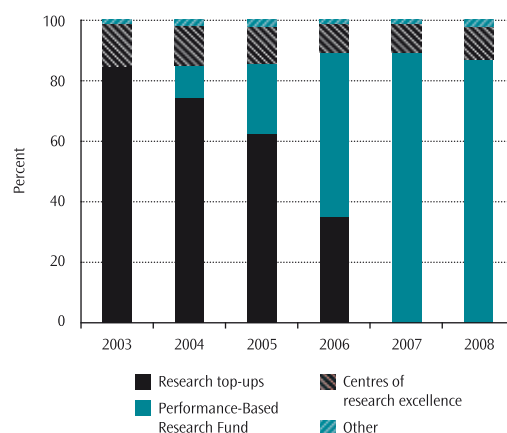
In 2008, the Performance-Based Research Fund was the largest single source of research income of tertiary education organisations from Vote Education.

The percentages of research income of tertiary education organisations, via Vote Education, by type in 2008:

Performance-Based Research Fund	87%	(89% in 2007)
Centres of research excellence	11%	(9.3% in 2007)
Other	2.1%	(1.3% in 2007)

Note: 'Other' includes tuition subsidies for international research students, the Building Research Capability in the Social Sciences Fund and the Building Research Capability in Strategically Relevant Areas Fund.

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 the universities in 2008, with the highest growth occurring in funding for centres of research excellence. However, research contract income continued to be the single largest source of research income for the universities in 2008.

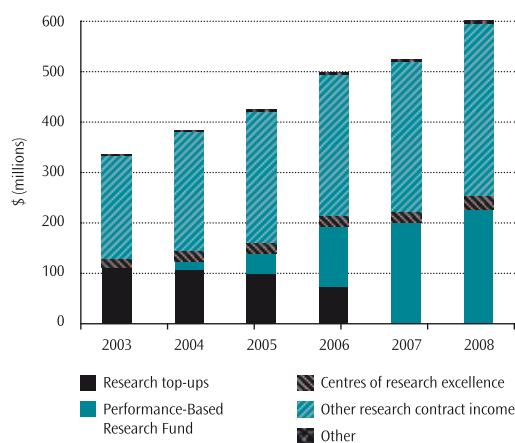
University research income by source in 2008:

	\$ (millions)	
Total	600.6	(up 15% on 2007)
Performance-Based Research Fund	225.5	(up 12% on 2007)
Research contract income	369.5	(up 16% on 2007)
Centres of research excellence	29.1	(up 35% on 2007)
Other research contract income	340.4	(up 15% on 2007)
Other	5.6	(up 84% on 2007)

Notes:

- 'Other' includes tuition subsidies for international research students, the Building Research Capability in the Social Sciences Fund and the Building Research Capability in Strategically Relevant Areas Fund.
- Research top-ups were phased out over the period 2004 to 2006.

Source: Ministry of Education and Tertiary Education Commission.



DISTRIBUTION OF RESEARCH INCOME IN UNIVERSITIES

The largest source of research income for the universities was contract income in 2008. Overall, there was little change in the distribution of research income for the universities between 2007 and 2008.

The percentage of university research income by source in 2008:

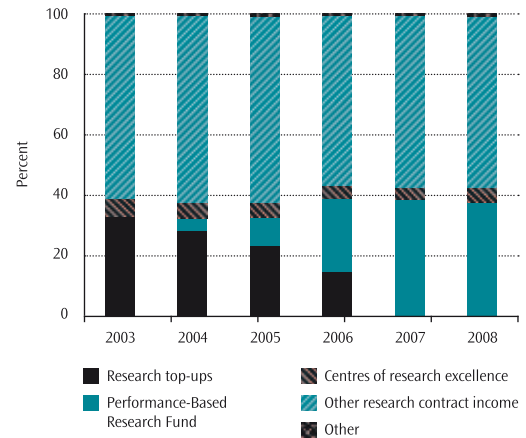
Performance-Based Research Fund	38%	(38% in 2007)
Research contract income	62%	(61% in 2007)
Centres of research excellence	4.8%	(4.1% in 2007)
Other research contract income	57%	(57% in 2007)
Other	0.9%	(0.6% in 2007)

Notes:

1. 'Other' includes tuition subsidies for international research students and for Building Research Capability in the Social Sciences Fund.
2. Numbers may not add to 100% due to rounding.

Source: Ministry of Education and Tertiary Education Commission.

Figure 13.4: Distribution of university research income by source



UNIVERSITY RESEARCH CONTRACT INCOME

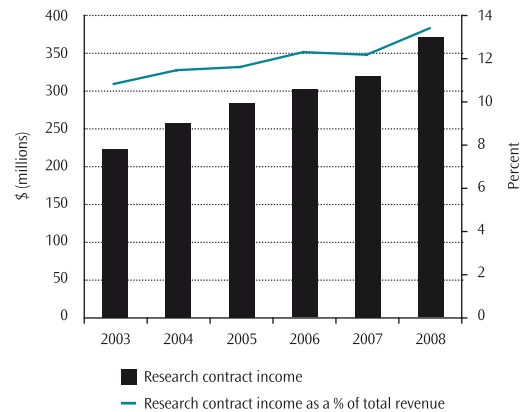
University research contract income increased as a percentage of total university operating revenue in 2008 following a decrease in 2007.

University research contract income in 2008:

Total	\$369.5 million	(up 16% on 2007)
As a % of total university revenue	13%	(12% in 2007)

Source: Tertiary Education Commission and annual reports of universities.

Figure 13.5: University research contract income



UNIVERSITY RESEARCH INCOME BY SOURCE

The main source of research income for most universities was external research contract income in 2008. Lincoln University, the University of Auckland and the University of Otago received more than 60 percent of their research income from this source.

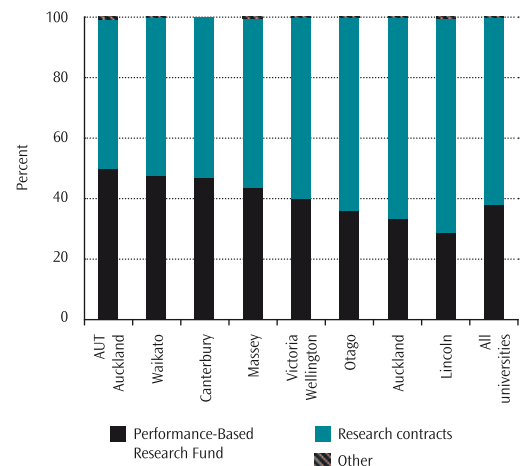
The proportions of university research income by source in 2008:

	Performance-Based Research	Research contracts	Other
Total	38%	62%	0.2%
Auckland University of Technology	50%	50%	0.7%
Lincoln University	29%	71%	0.5%
Massey University	43%	56%	0.5%
University of Auckland	33%	66%	0.2%
University of Canterbury	47%	53%	0.0%
University of Otago	36%	64%	0.2%
University of Waikato	47%	52%	0.3%
Victoria University of Wellington	40%	60%	0.2%

Note: 'Other' includes tuition subsidies for international research students.

Source: Ministry of Education and Tertiary Education Commission.

Figure 13.6: University research income in 2008 by source



VOTE RESEARCH, SCIENCE AND TECHNOLOGY FUNDING

In 2007/08, the share of Vote Research, Science and Technology funding allocated to tertiary education organisations increased slightly, while the share of funding awarded to Crown Research Institutes remained constant and the share of funding awarded to businesses fell.

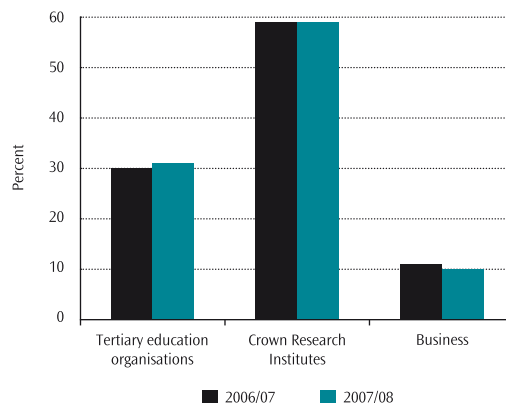
Research contracts awarded via Vote Research, Science and Technology are allocated based on the quality of the proposed research and how it aligns with government priorities. The increasing share of funding won by tertiary education organisations indicates that the quality and relevance of their research is improving relative to the rest of the innovation sector.

Share of Vote Research, Science and Technology funding allocated in 2007/08:

Tertiary education organisations	31%	(30% in 2006/07)
Crown Research Institutes	59%	(59% in 2006/07)
Business	10%	(11% in 2006/07)

Source: Ministry of Research, Science and Technology.

Figure 13.7: Share of Vote Research, Science and Technology funding allocated by provider type



UNIVERSITY RESEARCH EXPENDITURE

The estimated research expenditure of universities continued to rise in 2008, while it decreased slightly from 2006 as a percentage of gross domestic product.

University research and development expenditure in 2008:

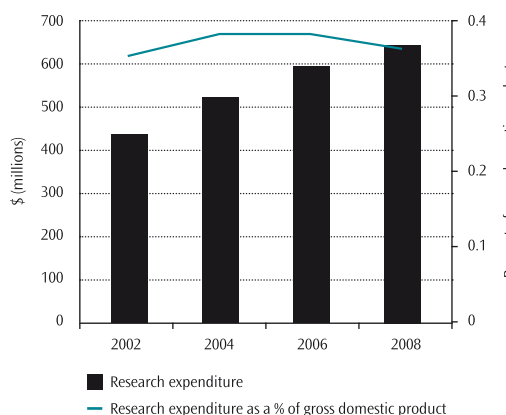
Total	\$643 million	(up 8.4% on 2006)
As a % of gross domestic product	0.36%	(0.38% in 2006)

Notes:

1. This excludes data from the colleges of education where they were not already merged with universities.
2. 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 by type



UNIVERSITY RESEARCH EXPENDITURE BY TYPE

In 2008, the largest type of expenditure on research and development in universities was on basic research. The proportion of expenditure on basic research increased from 2006, while expenditure on applied research and experimental development fell.

The distribution of university research and development expenditure in 2008:

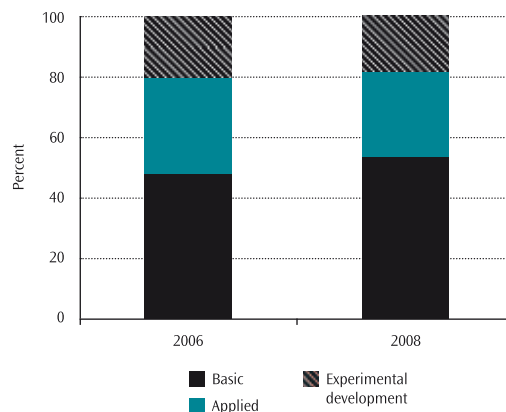
Basic	53%	(48% in 2006)
Applied	28%	(32% in 2006)
Experimental development	18%	(20% in 2006)

Notes:

1. This excludes colleges of education data where they were not already merged with universities.
2. Numbers may not add to 100% due to rounding.

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

Figure 13.9: University research and development expenditure by type



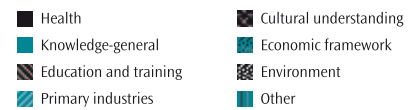
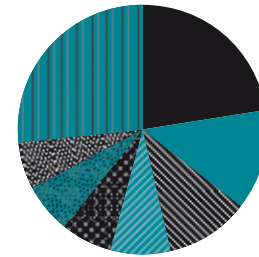
UNIVERSITY RESEARCH EXPENDITURE BY PURPOSE

Figure 13.10: University research and development expenditure in 2008 by purpose

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

The distribution of university research and development expenditure in 2008:

Health	23%
Knowledge-general	13%
Education & training	11%
Primary industries	7.9%
Cultural understanding	6.7%
Environment	6.2%
Economic framework	6.2%
Other	27%



Notes:

1. 'Other' expenditure includes spending in information and communication; manufacturing; commercial services and tourism; law; politics and community services; energy; construction and transport; and other research purposes.
2. 'Knowledge-general' includes spending on research that is undertaken by universities and that does not relate to a specific area or purpose.

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