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Chapter 16: Funding of tertiary education

Operating expenditure and total government expenditure on tertiary education was well above 2002/03 levels in nominal and real terms. In the year ended June 2008, tertiary education operating expenditure rose in all categories except operating expenditure on student loans. That category of expenditure fell as a result of accounting changes in the loan scheme which meant that a greater share of the borrowings was treated as capital and less as operating.

Total government spending on tertiary education, including operational costs and capital expenditure, was \$4.8 billion in 2008, compared to \$4.9 billion in 2007.¹ As a percentage of gross domestic product, total expenditure and operating expenditure decreased in 2008, mainly as a result of a fall in the operating costs of the Student Loan Scheme, resulting from accounting changes in the loan scheme. Total tertiary expenditure accounted for 2.7 percent of gross domestic product while operating expenditure accounted for 1.9 percent. The main difference between the operating and total expenditure was the amount of Student Loan Scheme lending that was treated as a capital expense.

The number of equivalent full-time student places funded by the government increased in 2007. Government spending on tuition subsidies also increased as a result of increases in student places and in funding rates.

The average domestic student fee per equivalent full-time student increased by 6 percent at public tertiary education institutions. Part of this increase was due to a continued move away from enrolments in low-cost or zero-fee courses. The number of international students continued to fall in 2007 and as a result total international fees revenue also continued to fall in 2007.

An article examining the pattern in government-funded equivalent full-time students by age group and qualification level is included later in this chapter. The article looks at how the Statement of Tertiary Education Priorities 2005/07 has impacted on the allocation of resources in the tertiary education sector between 2001 and 2007. A second article compares the funding of tertiary education in New Zealand with other OECD countries.

2008 year

In 2008, the government implemented the new funding system for tertiary education organisations. The new funding system shifts the emphasis away from funding all enrolments to an investment system, under which the Tertiary Education Commission will negotiate the amount and types of provision it is prepared to fund. Under the new investment system, funding will be determined for up to three years, which will lead to greater certainty for tertiary education organisations and for the government. Whereas the old funding system rewarded participation alone, under the new investment system, resourcing will be delivered in two main parts – the tertiary education organisation component, designed to provide funding for organisational functions and for organisational capability, and the student achievement component, designed to recognise the costs of teaching and learning.

Each year, the government intends to set the amount of funding it is prepared to supply, taking account of demographic factors and cost pressures. This system will allow for fiscal certainty for government but without jeopardising access to tertiary education.

In August 2008, the government extended the Fee and Course Costs Maxima policy to 31 December 2009. A review of the policy is taking place during 2008.

The government also announced a number of funding initiatives during 2008. These included:

- an additional \$57 million for increased enrolments at universities and polytechnics in priority areas: young people enrolling in degrees, and higher participation in trade and technical qualifications. The level of additional funding is based on demographic information and projections of tertiary participation rates
- an additional \$74 million over four years for increases to the Public Provider Base Grant including additional funding for the Equity Loading. Funding will be used to provide support for tertiary education institutions to focus on their core roles and distinctive contributions, and to assist Māori and Pasifika students, and students with disabilities to succeed in tertiary education

1. Previous editions of *Profile & Trends* excluded operating expenditure on the Student Loan Scheme.

- an additional \$42 million over four years to increase the Performance-Based Research Fund pool size to \$250 million by 2010 to support increased quality research and research-based teaching and learning, and to provide incentives for improving research quality in the tertiary sector
- an additional \$60 million over four years to support universities' distinctive contributions and to ensure New Zealand will further develop high-quality academic education and research that will lead to the ongoing development of skills and knowledge
- an additional \$157 million over four years to support the New Zealand Skills Strategy. Government agencies will work together with the education sector, business and unions to implement a comprehensive programme designed to improve the literacy, language and numeracy of New Zealanders
- an additional \$66 million in operating funding over four years to increase the eligibility for student allowances by lowering the age at which the student allowances parental income test no longer applies. This change takes effect from 1 January 2009. The age limit reduces from 25 to 24 years of age. The maximum rate of student allowances for those aged 24 years also increases to that currently available to students aged 25 years and over
- an additional \$32 million in operating funding over four years, which will widen access to student allowances by increasing the parental income threshold by 10 percent. This change means that students whose parents' combined income is less than \$50,318.22 per annum will be eligible for a full allowance from 1 January 2009
- an additional \$72 million over four years for an adjustment of the Student Loan Scheme living cost maximum entitlement each year by the rate of inflation, along with an initial increase from \$150 to \$155 per week from 1 January 2009, and
- an additional \$95 million over three years to create a new Tertiary Education Capital Investment Fund for three years. The fund will contribute to tertiary education institutions' strategic capital projects that the institutions cannot fund from other means. The Capital Fund will provide a mechanism for the government to prioritise its capital expenditure. It will support structured and higher-quality government investment decisions and foster improved institutional viability. The fund will replace current contingencies and ad hoc funding.

GOVERNMENT EXPENDITURE²

In 2007/08, tertiary education operating expenditure rose in all categories except operating expenditure on student loans. That category of expenditure fell as a result of accounting changes in the loan scheme which meant that a greater share of the borrowings was treated as capital and less as operating.

Operating expenditure and total government expenditure on tertiary education was well above 2002/03 levels in nominal and real terms.

Government expenditure on tertiary education for the year ended June 2008:

		% change from 2003	
		Nominal	Inflation adjusted
Total expenditure	\$4.8 billion	28%	10%
Operating expenditure	\$3.5 billion	28%	11%

Notes:

1. This expenditure excludes spending via Vote Research, Science and Technology and the initial fair valuation write-down on student loans in 2005/06 (\$1.4 billion).
2. The Consumers Price Index has been used to calculate real expenditure.

Source: Ministry of Education, Ministry of Social Development, Inland Revenue, New Zealand Trade and Enterprise and Tertiary Education Commission.

EXPENDITURE AS A PERCENTAGE OF GDP

Total government expenditure and operating expenditure on tertiary education decreased slightly as a percentage of the size of the economy in 2007/08, mainly as a result of a fall in the operating costs of the Student Loan Scheme, resulting from accounting changes in the Loan Scheme.

Government expenditure on tertiary education as a percentage of gross domestic product for the year ended June 2008:

Total expenditure	2.7%	(2.9% in 2003)
Operating expenditure	1.9%	(2.1% in 2003)

Note: This expenditure excludes spending via Vote Research, Science and Technology and the initial fair valuation write-down on student loans in 2005/06 (\$1.4 billion).

Source: Ministry of Education, Ministry of Social Development, Inland Revenue, New Zealand Trade and Enterprise and Tertiary Education Commission.

EXPENDITURE BY COMPONENT

Government spending on tuition subsidies and provider capability increased in 2007/08 and is now substantially above the 2002/03 level. Capital spending on student loans increased in 2007/08, following a period of stability between 2002/03 and 2004/05. Student allowances spending rose in 2007/08, but remained below its 2002/03 level. Spending on other tertiary training in 2007/08 was significantly higher than in 2002/03.

Government expenditure on tertiary education by selected components for the year ended June 2008:

Tuition subsidies & provider capability	\$2,089 million	(up 34% on 2003)
Other tertiary training	\$366 million	(up 35% on 2003)
Student allowances	\$386 million	(down 0.4% on 2003)
Student loans (capital)	\$1,201 million	(up 26% on 2003)
Student loans (operating)	\$256 million	(up 12% on 2003)

Notes: For trend analysis purposes, tuition subsidies & provider capability includes funding allocated to the Performance-Based Research Fund, community education and provider capability. Other tertiary training includes the Industry Training Fund, Modern Apprenticeships, Training Opportunities, Youth Training, Gateway, second chance education, English for migrants and enterprise training. Also, the initial fair valuation write-down on student loans in 2005/06 (\$1.4 billion) is excluded from the operating cost of student loans.

Source: Ministry of Education, Ministry of Social Development, Inland Revenue, New Zealand Trade and Enterprise and Tertiary Education Commission.

Figure 16.1: Government spending (June years) on tertiary education

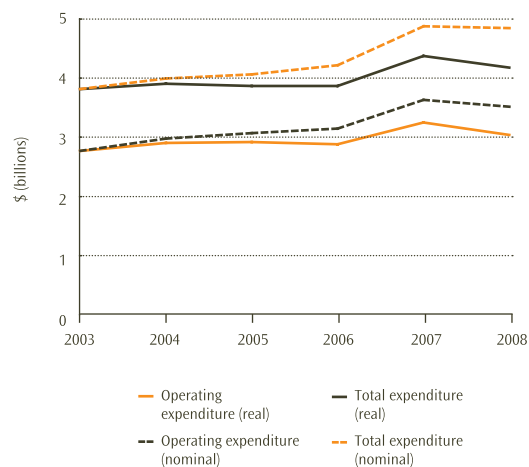
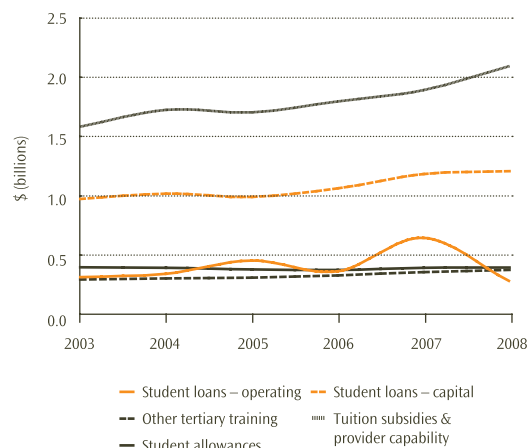


Figure 16.2: Government spending (June years) on tertiary education as a % of gross domestic product



Figure 16.3: Government spending (June years) on tertiary education by component



2. All the figures quoted in these highlights are exclusive of goods and services tax, unless otherwise stated. Data for the colleges of education has been included with the universities' data.

EXPENDITURE ON INDUSTRY AND TARGETED TRAINING BY COMPONENT

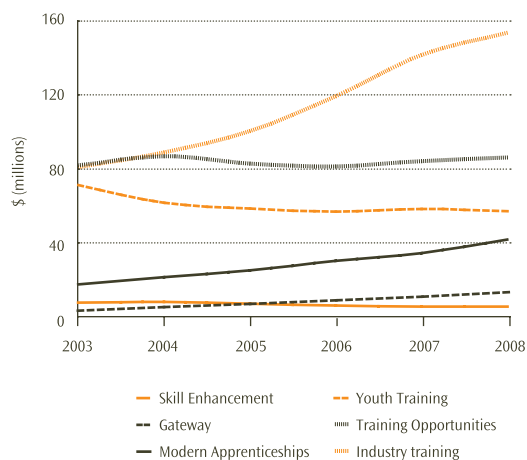
Government spending on industry training, Modern Apprenticeships and Gateway continues to increase in 2007/08 and is now well above 2002/03 levels. Government expenditure on Youth Training and Skill Enhancement remained stable in 2007/08 and is now well below the 2002/03 levels.

Government expenditure on industry and targeted training by selected components for the year ended June 2008:

Industry training	\$153 million	(up 93% on 2003)
Modern Apprenticeships	\$41 million	(up 158% on 2003)
Training Opportunities	\$86 million	(up 6% on 2003)
Youth Training	\$56 million	(down 22% on 2003)
Skill Enhancement	\$4.1 million	(down 40% on 2003)
Gateway	\$13 million	(up 424% on 2003)

Source: Tertiary Education Commission.

Figure 16.4: Government spending (June years) on industry and targeted training by component



GOVERNMENT-FUNDED PLACES

The number of government-funded student places increased slightly in 2007 following a decrease in 2006. Most sub-sectors exhibited a modest increase in funded places, with wānanga the only sub-sector to have a decrease.

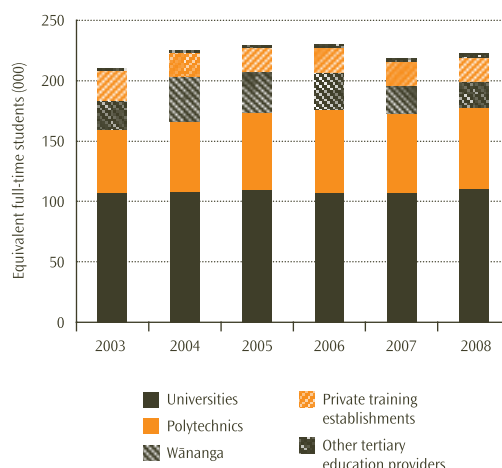
Government-funded equivalent full-time students by sub-sector in 2007:

Total	222,585	(up 1.9% on 2006)
Universities	110,271	(up 2.8% on 2006)
Polytechnics	67,237	(up 2.7% on 2006)
Wānanga	22,045	(down 5.5% on 2006)
Private training establishments	19,797	(up 0.5% on 2006)
Other tertiary education providers	3,235	(up 20% on 2006)

Note: For trend analysis purposes, funded places for community education have been excluded from this data, given that these ceased being funded via tuition subsidies in 2006.

Source: Tertiary Education Commission.

Figure 16.5: Government-funded student places by sub-sector



TUITION SUBSIDIES

Total tuition subsidies increased in 2007, due to an increase in student-funded places and increases in funding rates. Wānanga were the only sub-sector to report a fall in tuition subsidies in 2007 as a result of a decrease in funded places.

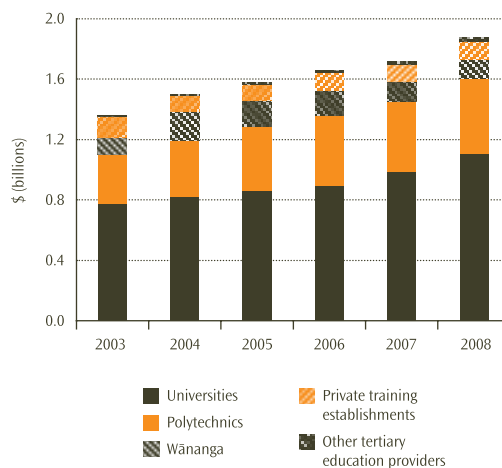
Tuition subsidies by sub-sector in 2007:

Total	\$1,874 million	(up 9.1% on 2006)
Universities	\$1,106 million	(up 12% on 2006)
Polytechnics	\$499 million	(up 7.1% on 2006)
Wānanga	\$125 million	(down 3.3% on 2006)
Private training establishments	\$122 million	(up 4.4% on 2006)
Other tertiary education providers	\$22 million	(up 23% on 2006)

Note: For trend analysis purposes, tuition subsidies include funding allocated through the Performance-Based Research Fund and tripartite funding. However, funding for community education places is excluded from the data series as it ceased being funded via tuition subsidies in 2006.

Source: Tertiary Education Commission.

Figure 16.6: Tuition subsidies by sub-sector



AVERAGE TUITION SUBSIDY

The average tuition subsidy continued to rise in 2007, due to increases in the base funding rates and a shift to enrolments in higher-cost categories. The average tuition subsidy for universities was also boosted by tripartite funding and the completion of the phasing-in of the Performance-Based Research Fund.

Average tuition subsidies per equivalent full-time student in 2007:

Total	\$8,417	(up 7.1% on 2006)
Universities	\$10,031	(up 8.9% on 2006)
Polytechnics	\$7,415	(up 4.3% on 2006)
Wānanga	\$5,689	(up 2.3% on 2006)
Private training establishments	\$6,141	(up 3.8% on 2006)
Other tertiary education providers	\$6,769	(up 2.7% on 2006)

Note: For trend analysis purposes, tuition subsidies include funding allocated through the Performance-Based Research Fund and tripartite funding. However, funding for community education places is excluded from the data series as it ceased being funded via tuition subsidies in 2006.

Source: Tertiary Education Commission.

Figure 16.7: Average tuition subsidy per student by sub-sector



GOVERNMENT-FUNDED PLACES BY CATEGORY

The proportion of government-funded places in low-cost categories in tertiary education institutions continued to fall in 2007.

Government-funded equivalent full-time students in tertiary education institutions by category in 2007:

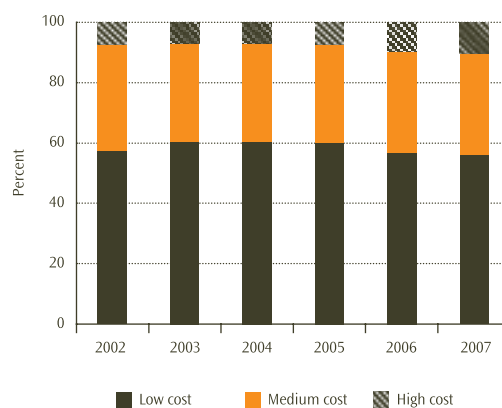
Low cost (A & J)	56%	(57% in 2006)
Medium cost (B, I, L & P)	34%	(34% in 2006)
High cost (C, G, H, M, N, O, Q, R, S, T & U)	10%	(9.5% in 2006)

Notes:

- For trend analysis purposes, funded places for community education have been excluded from this data, given that these ceased being funded via tuition subsidies in 2006.
- Figures may not add to 100 percent due to rounding.

Source: Tertiary Education Commission.

Figure 16.8: Government-funded places in tertiary education institutions by category



GOVERNMENT-FUNDED PLACES BY LEVEL

The proportion of government-funded places at the non-degree level in tertiary education institutions continued to fall in 2007.

Government-funded equivalent full-time students in tertiary education institutions by level in 2007:

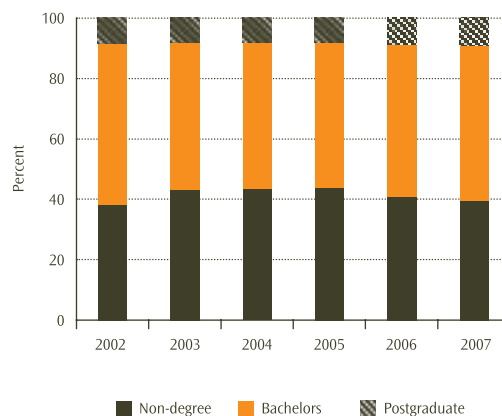
Non-degree	39%	(41% in 2006)
Bachelors	51%	(51% in 2006)
Postgraduate	9.3%	(8.8% in 2006)

Notes:

- For trend analysis purposes, funded places for community education are excluded from this data, given that these ceased being funded via tuition subsidies in 2006.
- Figures may not add to 100 percent due to rounding.

Source: Tertiary Education Commission.

Figure 16.9: Government-funded places in tertiary education institutions by level



AVERAGE DOMESTIC FEES

The overall average domestic tuition fee for tertiary education institutions increased in 2007. The largest increase occurred in wānanga, where a shift in the proportion of enrolments to higher-cost courses was a contributing factor to the scale of this increase.

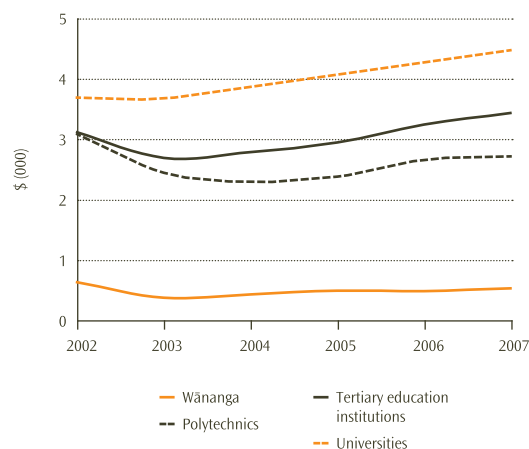
Average domestic tuition fees per equivalent full-time student in 2007:

Tertiary education institutions	\$3,414	(up 6.0% on 2006)
Universities	\$4,458	(up 5.5% on 2006)
Polytechnics	\$2,693	(up 2.2% on 2006)
Wānanga	\$508	(up 9.5% on 2006)

Note: The tuition fees are inclusive of goods and services tax.

Source: Ministry of Education and Tertiary Education Commission.

Figure 16.10: Average domestic tuition fees in tertiary education institutions



AFFORDABILITY OF TERTIARY EDUCATION

The affordability of tertiary education improved in 2007 as a result of average weekly income increasing at a faster rate than average tuition fees.

Average domestic tuition fees as a ratio of the average weekly income in 2007:

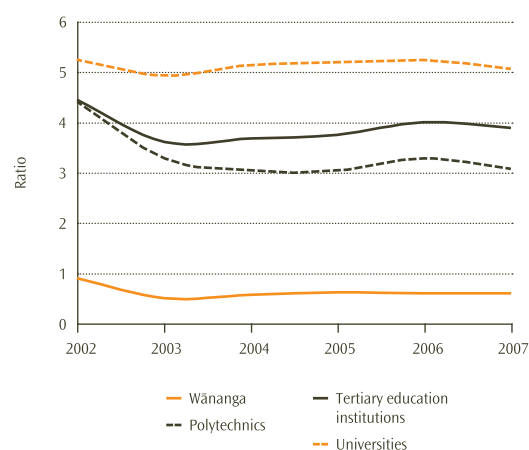
Tertiary education institutions	3.9	(down 3.0% on 2006)
Universities	5.0	(down 3.5% on 2006)
Polytechnics	3.0	(down 6.4% on 2006)
Wānanga	0.6	(up 0.2% on 2006)

Notes:

- The tuition fees are inclusive of goods and services tax.
- These ratios have been calculated using the average tuition fee per equivalent full-time student and the average weekly income of employed persons from the *New Zealand Income Survey*.

Source: Ministry of Education, Tertiary Education Commission and Statistics New Zealand.

Figure 16.11: Ratio of the average domestic fee to average weekly income for employed persons



COMBINED TUITION REVENUE IN TERTIARY EDUCATION INSTITUTIONS

The average tuition funding per student increased for all sub-sectors in 2007, with the largest increase being in the universities.

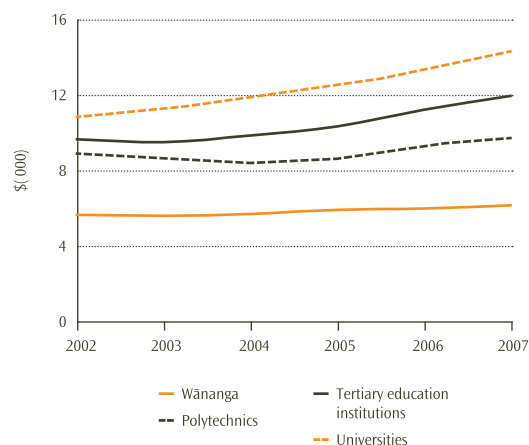
Average combined tuition funding per equivalent full-time student in 2007:

Tertiary education institutions	\$10,729	(up 4.5% on 2006)
Universities	\$14,261	(up 7.6% on 2006)
Polytechnics	\$9,655	(up 4.2% on 2006)
Wānanga	\$6,097	(up 3.0% on 2006)

Note: The combined tuition funding per equivalent full-time student is calculated from the sum of the student component, Performance-Based Research Fund funding, domestic tuition fees and international fees, divided by the numbers of government-funded and international equivalent full-time students.

Source: Ministry of Education and Tertiary Education Commission.

Figure 16.12: Combined tuition revenue in tertiary education institutions



In step or out of step? – government tertiary education funding by age group

The Tertiary Education Strategy 2007-12 lists as one of its priorities the need to ensure that a greater proportion of New Zealanders achieve tertiary qualifications at level 4 and above before they reach 25 years of age. The importance of younger New Zealanders participating in tertiary education or training is also emphasised in the Schools Plus strategy. One rationale for these objectives is that the gains from tertiary education are much higher for younger people.

The Organisation for Economic Co-operation and Development (OECD) estimates that the private internal rate of return in 2004 for a woman leaving school and completing a university qualification is 12 percent. The comparable figure for a man is 8.6 percent. However, the returns are much lower for people attaining this level of qualification at an older age. The OECD calculates that the private internal rate of return for a 40 year-old completing a university degree is 3.3 percent for women and 4.1 percent for men.

In the younger age groups, New Zealand's participation in education does not compare well internationally. In 2006, 74 percent of New Zealanders aged 15 to 19 years participated in some form of education, compared with an OECD average of 82 percent. In tertiary education, New Zealanders have a higher participation rate than the OECD average at age 17, 18 and 19 years. But this may be reflecting the practice of young people remaining longer at school in nearly all European countries.

Demographic factors are also behind the focus on the younger age group. Currently there is a 'population bulge' working its way through the tertiary education system, which is expected to peak around 2012. This 'bulge' is expected to result in record levels of bachelors-degree enrolments (McClelland, 2006).

One of the reasons for the focus on the attainment of qualifications at level 4 or higher is that numerous studies, for example, Maani and Maloney (2004) and Nair (2007), have shown that New Zealand students who attain higher-level tertiary qualifications earn significantly more than those with lower-level qualifications. This implies that they are making a greater contribution to the economy.

This article examines how government tuition subsidy funding was allocated, between 2001 and 2007, to public tertiary education institutions by age group. Although government's tertiary education priorities over the years 2005 to 2007 did not directly target students aged 25 years and under who were studying qualifications at level 4 or higher, it is nevertheless useful to assess their impact on the mix of tertiary education provision in terms of age group and level given their focus on quality and relevance. The preceding Statement of Tertiary Education Priorities 2005/07 aimed for greater quality and relevance in tertiary education provision funded by government. Relevance in this context referred to the extent to which qualifications contributed to the current and future skill, knowledge and development needs of New Zealand's communities, regions and industries. A previous study of the impact of these priorities on the provision of tertiary education (Ministry of Education, 2007b) did not examine the effect by age group.

The results of this study are presented following the key findings and a brief discussion of the way tuition subsidies were allocated between 2001 and 2007. Some data limitations are presented next followed by the study conclusions.

Key findings:

- **The study found that the emphasis on quality and relevance in tertiary provision, articulated in the Statement of Tertiary Education Priorities 2005/07, resulted in government-funded places being limited for those studying towards level 1 to 3 qualifications who were aged 25 years or over.**
- **The proportion of government-funded places directed at students under 25 years of age studying towards a qualification at level 4 and above has increased. This trend is in alignment with the direction of New Zealand's second tertiary education strategy and the Statement of Tertiary Education Priorities 2008-10.**

Allocating tuition subsidies between 2001 and 2007

Over the period of the study, a number of policy changes were made to the system for allocating tuition subsidies to tertiary education organisations.

Tuition subsidies were allocated to tertiary institutions based on the number of valid enrolments of students, with enrolments in higher-cost courses, such as science-based subjects, attracting more funding³

Higher levels of funding were also allocated for students studying at higher qualification levels in the form of research top-ups. The research top-ups were phased out between 2004 and 2007 and the money transferred to the Performance-Based Research Fund.

Between 2001 and 2002, tuition subsidies were allocated to all valid enrolments, with one or two exceptions. Enrolments in a small number of high-cost programmes, such as medicine and veterinary science, were subject to a cap.

For private training establishments, tuition subsidies were limited by the government in 2003 in response to the significant rise in enrolments in this sub-sector in the uncontrolled funding environment. In addition, the notional capital component in the funding rates for private training establishments was removed.

3. Before 2003, the Universal Tertiary Tuition Allowance was the name given to the system for allocating tuition subsidies. Between 2003 and 2007, the name given to the system for distributing tuition subsidies was the student component.

In response to government's desire for increased quality and relevance of provision, articulated in the Statement of Tertiary Education Priorities 2005/07, a number of new funding policies and reviews of the tertiary education system were undertaken by the education agencies.⁴

The Managing Growth policy, which was introduced in 2004, restricted the growth in enrolments. At the institutional level, this policy limited the growth in equivalent full-time students to 15 percent, or 1,000 over the previous year's equivalent full-time students total, whichever was greater.

In 2005, the Managing Growth policy was extended limiting the increase in non-degree certificate and diploma enrolments to 200 equivalent full-time students per year in tertiary education organisations. The Tertiary Education Commission also carried out a review of the relevance of non-degree qualifications with a majority of courses classified in the A1 or J1 funding categories.

From 2006, funding for short awards for qualifications with fewer than 40 credits was also capped in tertiary education institutions.

In another significant change to the way tuition subsidies were distributed, the number of community education equivalent full-time students funded by the government was limited from 2004. Students enrolled in community education courses did not undertake formal assessment. In 2006, the funding of these courses was transferred from tuition subsidies to a ring-fenced fund within the Adult and Community Education Funding Pool.

Results and discussion

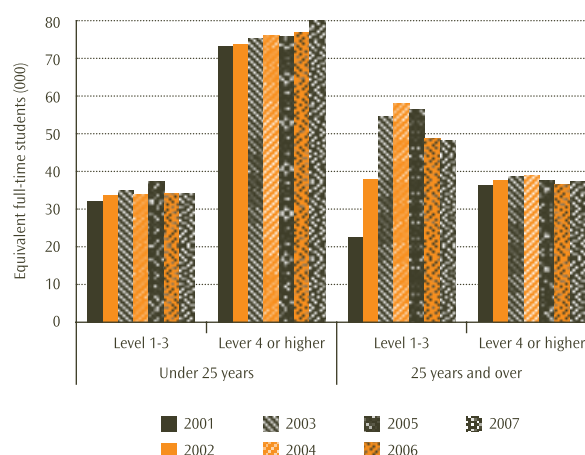
The numbers of funded equivalent full-time students, by age group, are presented in Figure 16.13 for the period 2001 to 2007. Clearly, the large number of students funded in the priority group – students aged 25 years and under studying at level 4 or higher – reflects a rising level of participation in tertiary education by younger students. Figure 16.13 indicates that in 2007 there were around 80,000 students in this group and it also shows that there was a steady rise of 9.3 percent, between 2001 and 2007, in funded places for this group. Over the same period, the number of funded equivalent full-time students was relatively stable for under-25-years-olds studying at levels 1 to 3 and those aged 25 years and over studying at level 4 or higher. The number of funded equivalent full-time students aged 25 years and over studying at level 4 or higher grew by just 2.7 percent between 2001 and 2007.

The number of funded equivalent full-time students aged 25 years and under studying at levels 1 to 3 was also relatively stable from 2001 to 2007, apart from in 2005, when their number increased by 10 percent from 2004. However, as a result of the focus on quality and relevance of tertiary provision, following the release of the Statement of Tertiary Education Priorities 2005/07, the number of equivalent full-time students in this category returned to 2004 levels in the 2006 year. The number of equivalent full-time students in this category in 2007 was 6.1 percent higher than in 2001.

The largest variation in funded equivalent full-time students was exhibited by students aged 25 years and over studying qualifications at levels 1 to 3. Between 2001 and 2004, the number of funded equivalent full-time students in this group increased by 157 percent from around 23,000 to 58,000. Most of this growth took place in polytechnics and wānanga.

The increased focus on the quality and relevance of tertiary provision funded by the government would appear to have had the greatest impact on students aged 25 years and over studying qualifications at levels 1 to 3. Between 2004 and 2007, the number of funded equivalent full-time students in this group fell by 17 percent to around 48,000. However, the net growth in this group between 2001 and 2007 was 113 percent.

Figure 16.13: Government-funded students by age group and qualification level in tertiary education institutions



Note: The equivalent full-time students in this graph exclude those in community education.

Although the number of funded equivalent full-time students in the priority group grew steadily over the period between 2001 and 2007, a different picture emerges when students aged 25 years and under studying qualifications at level 4 and above are presented as a percentage of total funded students (see Figure 16.14).

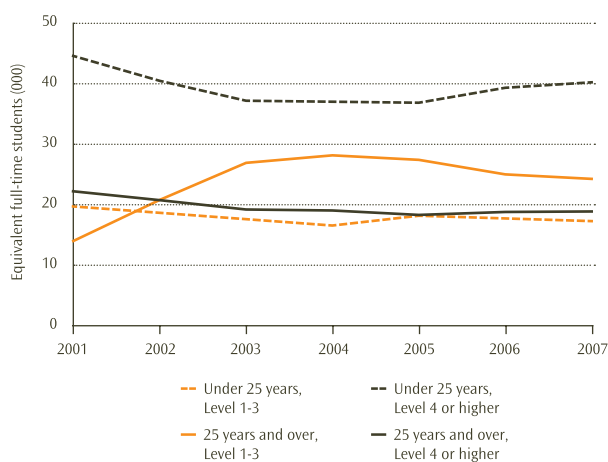
As a percentage of total equivalent full-time students, those aged 25 years and under studying at level 4 or higher decreased from 45 percent in 2001 to 37 percent in 2005, before rising again to 40 percent in 2007.

The share of funded equivalent full-time students for students aged 25 years and over studying at levels 1 to 3 doubled from 14 percent in 2001 to 28 percent in 2004. Since then, it has fallen to 24 percent of total equivalent full-time students.

The share of funded equivalent full-time students in the other two groups exhibited a general downward trend over time. In 2001, 20 percent were students aged 25 years and under studying at levels 1 to 3 but by 2007 this proportion had fallen to 17 percent. Similarly, the proportion of students aged 25 years and over studying level 4 or above fell from 22 percent in 2001 to 19 percent in 2007.

4. For more detail on these actions and the effect they had on tertiary provision see Ministry of Education (2007b).

Figure 16.14: Distribution of government-funded students by age group and qualification level in tertiary education institutions



Note: This graph excludes those in community education.

The introduction of Modern Apprenticeships in 2001 is likely to have absorbed some students who may have otherwise left school for study at a tertiary provider. The number of students in a Modern Apprenticeship aged 25 years and under increased by 143 percent from 4,290 in 2002 to 10,430 in 2007. Therefore, the funded equivalent full-time student figures presented above will understate the government's funding for students in the priority group.

Data limitations

Private training establishments were excluded from this analysis. They were subject to a limited funding pool from 2003 and this made the identification of funded students difficult.

While there were also partial restrictions on the funding of enrolments in public tertiary education institutions, this was much smaller than for private training establishments. In 2007, only around 0.05 percent of domestic enrolments in tertiary education institutions were not funded. The dataset used in this analysis has been adjusted to take account of this by assuming that the distribution of funded equivalent full-time students by age and qualification level was the same for funded and unfunded students.⁵

Also excluded from the analysis were other tertiary education providers (OTEPs) and enrolments in community education courses (course classification 5.1). The coverage of this study was therefore around 90 percent of total government-funded equivalent full-time students.

Conclusion

The Tertiary Education Strategy 2007-12 has a priority outcome for more young New Zealanders to achieve qualifications at level 4 or above by the age of 25 years. Although this article examined a period before the current strategy, the focus on improving the quality and relevance of tertiary education provision, articulated in the Statement of Tertiary Education Priorities 2005/07, resulted in a steady rise in the number of government-funded places for the targeted priority group – students aged 25 years and under studying at level 4 or higher.

The increased focus on quality and relevance of tertiary provision also limited the number of government-funded places allocated to students aged 25 years and over in qualifications at levels 1 to 3, and this has led to a reduction in lower-level enrolments after a period of very strong growth.

As a result, there has been an increase in the proportion of government-funded places directed towards the priority group. This is an outcome that is in step with the current tertiary education strategy priority of younger students achieving tertiary qualifications at level 4 and above.

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- OECD (2008) *Education at a glance: 2007 OECD indicators*, Paris: Organisation for Economic Co-operation and Development.

5. The proportion of actual equivalent full-time students funded by the Tertiary Education Commission to the funded equivalent full-time students used in this study is 100 percent in 2004, 100 percent in 2005, 99.97 percent in 2006 and 99.95 percent in 2007.

International funding comparisons

The Organisation for Economic Co-operation and Development (OECD) provides the most reliable source of standardised international comparisons of funding and expenditure on education. It uses purchasing power parities⁶ to compare the relative levels of tertiary education funding in member countries. The use of purchasing power parities is complex and caution should be exercised when making comparisons. The index used in the OECD's comparisons is a gross domestic product purchasing power parities index which measures the prices of goods and services produced in each economy. Some sectors, such as education, may have quite different cost structures; these differences may not be captured by the index.

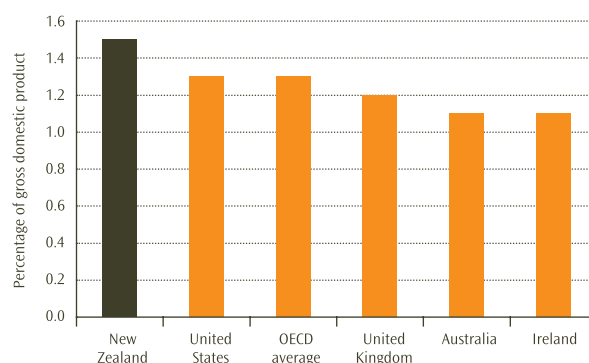
In all OECD international comparisons, tertiary education is defined according to the International Standard Classification of Education level. The levels of tertiary education include levels 5A (bachelors, honours, masters, and postgraduate certificates and diplomas), 5B (diplomas and national diplomas) and 6 (doctorates). The classification level 5A is called tertiary-type A education by the OECD: classification level 5B is called tertiary-type B.

In New Zealand, tertiary education has traditionally been measured as formal study, regardless of the classification level. However, the tertiary education sector as reported in OECD comparisons excludes enrolments in level 1 to 4 certificates and hence represents only about 50 percent of the students measured in New Zealand education statistics. For this reason, the reports only reflect New Zealand's investment in the higher-tertiary education sector. The remainder of the sector is reported as post-secondary, non-tertiary in OECD comparisons. For this reason, funding figures presented earlier in this chapter may be different from the international comparisons presented here.

Fair comparisons of the funding of tertiary education are difficult to make for a number of reasons. For example, countries have different definitions of what tertiary education is, they face different cost structures and there are also complications with the conversions to a common currency.

The New Zealand government spends above the Organisation for Economic Co-operation and Development (OECD) average on higher tertiary education, expressed as a percentage of gross domestic product. New Zealand ranked sixth among OECD countries, with spending at 1.5 percent of gross domestic product in 2005. This compared with the OECD country average of 1.3 percent. As New Zealand has a high rate of participation in post-secondary, non-tertiary education, it is probable that its ranking would improve further if this was taken into account. The OECD country with the highest proportion of gross domestic product spent on tertiary education was Denmark (2.5 percent).

Figure 16.15: Government spending on tertiary education in 2005 for selected OECD countries



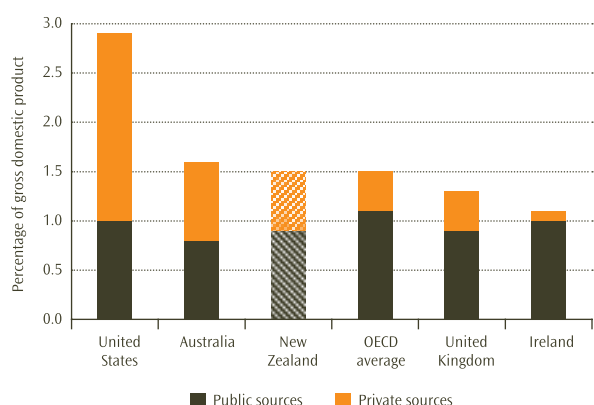
Source: OECD (2008), *Education at a glance: 2008 OECD indicators*, Table B4.1.

Note: Government spending includes direct public expenditure on tertiary institutions plus public subsidies to households (including those for living costs).

The government expenditure provided to fund tertiary education organisations as a percentage of gross domestic product is below the OECD average. In 2005, New Zealand spent 0.9 percent of gross domestic product on tertiary education organisations compared to an OECD average of 1.1 percent. However, once student fees are added to government funding of tertiary education providers, the total funding to tertiary education organisations as a proportion of gross domestic product is equal to the OECD average.

6. Purchasing power parities (PPPs) are the currency exchange rates that equalise the purchasing power of different currencies. This means that a given sum of money, when converted into different currencies at the PPP rates, will buy the same basket of goods and services in all countries. In other words, PPPs are the rates of currency conversion that eliminate the differences in price levels among countries. Thus, when expenditure on GDP for different countries is converted into a common currency by means of PPPs, it is, in effect, expressed at the same set of international prices so that comparisons among countries reflect only difference in the volume of goods and services purchased.

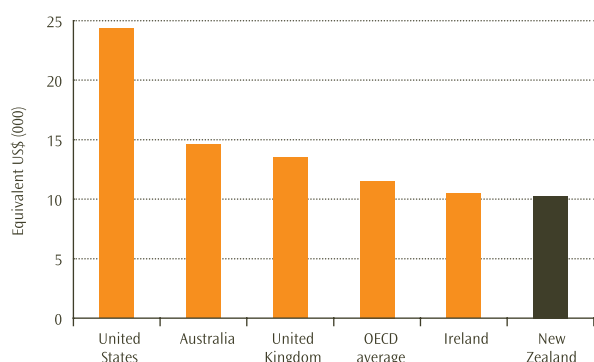
Figure 16.16: Expenditure on educational institutions in 2005 for selected OECD countries



Source: OECD (2008), *Education at a glance: 2008 OECD indicators*, Table B2.4.

A comparison of annual expenditure per student on tertiary institutions shows that New Zealand ranks 19th out of 27 OECD countries. This puts it below the United States, Australia and the United Kingdom. Annual government and private spending on tertiary institutions was US\$10,262 per student in 2005, on a purchasing power parity basis, compared to the OECD average of US\$11,512 per student. As noted earlier, because of the measure used to convert the expenditure to US dollars, the gross domestic product purchasing power parities, caution should be exercised in viewing these results as they reflect the cost structure of entire economies rather than the education cost structures of member countries. In addition, lower annual expenditure does not necessarily lead to lower achievement as the efficiencies of the tertiary education system need to be taken into account.

Figure 16.17: Annual expenditure per student in tertiary education institutions in 2005 for selected OECD countries



Source: OECD (2008), *Education at a glance: 2008 OECD indicators*, Table B1.1a.

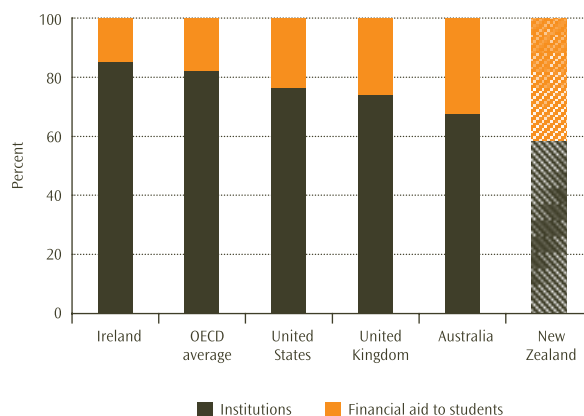
Notes:

1. This figure expresses annual expenditure on tertiary institutions per equivalent full-time student in equivalent US dollars converted using purchasing power parities.
2. Annual expenditure includes government and private spending on tertiary institutions.

The OECD also adjusts expenditure per student for the level of wealth in each country by calculating the ratio of expenditure per student to per capita gross domestic product. On this measure, New Zealand is above the OECD mean, above Japan, but below Australia.

In 2005, subsidies to students accounted for 42 percent of government spending on tertiary education in New Zealand, the second highest of all OECD countries. OECD countries spend, on average, 18 percent of their public budgets for tertiary education on subsidies to students. This high proportion in New Zealand is intended to maintain the diversity and open access of the New Zealand tertiary education system. Subsidies to students are important, in order to provide students with access to tertiary education, regardless of their financial situation. It should also be noted that a proportion of the financial aid to students goes directly to institutions, for example, tuition fees paid through student loan borrowing. Adjusting for that factor shifts the share of government spending that goes to subsidise students to about 23 percent.

Figure 16.18: Distribution of government spending on tertiary education in 2005 for selected OECD countries



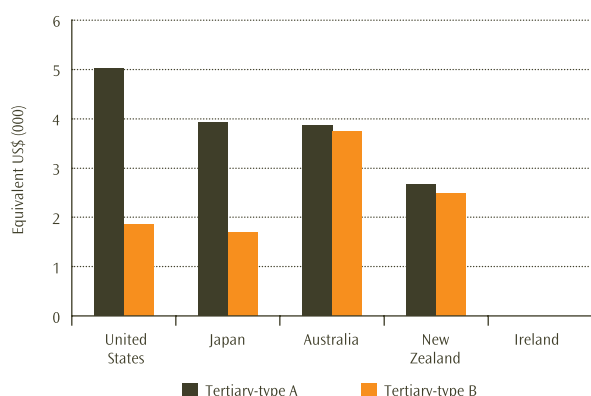
Source: OECD (2008), *Education at a glance: 2008 OECD indicators*, Table B5.2.

Note: Financial aid to students includes the following categories: grants/scholarships; public student loans; family or child allowances contingent on student status; public subsidies in cash or in kind, specifically for housing, transportation, medical expenses, books and supplies, and social, recreational and other purposes; and interest-related subsidies for private loans.

Large differences can be observed among OECD countries in the average tuition fees charged by tertiary institutions in 2005. For tertiary-type A programmes, New Zealand tertiary education institutions charged an average annual fee of US\$2,671. There were no tuition fees charged for tertiary-type A programmes by public institutions in eight OECD countries. The United States had the highest fee for tertiary-type A programmes, US\$5,027.

The average fee charged for tertiary-type B programmes by New Zealand tertiary education institutions was US\$2,489. There were no tuition fees charged for tertiary-type B programmes by public institutions in six OECD countries, for example, Ireland. Australia had the highest fee for tertiary-type B programmes, US\$3,734.

Figure 16.19: Annual average domestic tuition fees in 2005 for selected OECD countries



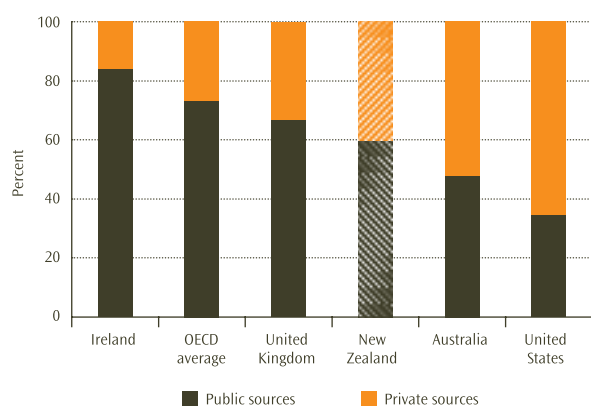
Source: OECD (2008), *Education at a glance: 2008 OECD indicators*, Table B5.1.

Notes:

1. This figure expresses annual average tuition fees per student in equivalent US dollars converted using purchasing power parities.
2. Amounts of tuition fees should be interpreted with caution as they result from the weighted average of the main tertiary-type A and tertiary-type B programmes and do not cover all institutions.
3. Fees are for public institutions only.

In New Zealand, private expenditure accounted for 40 percent of total expenditure on tertiary education in 2005. Private expenditure accounts for, on average, 27 percent of total expenditure on tertiary education in OECD countries. Note that expenditure from private sources includes tuition fees paid by international students. Removing the fees paid by international students shows that student fees account for about 30 percent of the revenue for teaching domestic students, and part of the fees cost is paid through the Student Loan Scheme, which carries a high level of government subsidy, further increasing the government's share of the full cost.

Figure 16.20: Proportions of public and private expenditure in 2005 for selected OECD countries



Source: OECD (2008), *Education at a glance: 2008 OECD indicators*, Table B3.2b.

Note: Private spending includes all direct expenditure on educational institutions, whether partially covered by public subsidies or not.

