



PART 5 FUNDING

EFFECTIVE EDUCATION REQUIRES THE RIGHT COMBINATION of trained and talented personnel, adequate facilities, state-of-the-art equipment and motivated students ready to learn. Government investment in education is critical to achieving this and ensuring lifelong access to education and skills development.

The demand for high-quality education, which can translate into higher costs per student, must be balanced against placing undue burden on taxpayers.

Comparison of spending on education measures the share of national resources devoted to education and so provides a basis for assessing the fiscal implications of how that might change in future. This informs debate about resource allocation amongst competing uses, including other parts of the education sector.

Expenditure indicators also measure inputs to the education process. These can be used to understand education differences over time and amongst countries.

Areas examined in this chapter are expenditure on educational institutions, and per student expenditure.

There is a considerable amount of information on international comparisons and on trends in education funding and expenditure, but care needs to be taken because of:

- expenditure being influenced by many factors such as the wealth of a country
- the age structure of the population and its relationship to education levels (the compulsory school-age population being more likely to place demands on resources) and productivity
- differences in what is defined as education expenditure.

18. EDUCATION EXPENDITURE

WHAT WE HAVE FOUND

A detailed picture of how expenditure on education in New Zealand compares with other developed countries is revealed in the 2006 edition of *Education at a Glance*³² (*EAG2006*), an annual publication containing an array of financial and other education indicators.

New Zealand spends somewhat more than other countries on education, given its relative wealth and demographic structure. New Zealand has a relatively young population at present which demands a greater share of resources.

Public funding of education in New Zealand, per student, is very close to the OECD average level. However, some significant differences exist in some sectors: the share of public funding of pre-primary³³ education is lower, though this applies to a period prior to increases in subsidy rates and the implementation of free ECE³⁴; funding of tertiary³⁵ education has a relatively high proportion of student support as opposed to direct funding of educational institutions.

³² OECD. (2006). *Education at a Glance: OECD Indicators 2006*. Paris: OECD.

³³ Pre-primary in the OECD context refers to education of children aged three and above prior to compulsory schooling. The early childhood education sector in New Zealand includes all pre-school education including those aged less than three.

³⁴ From 1 July 2007 the first 20 hours per week of early childhood education in teacher-led services will be free for children aged three and four.

³⁵ In the OECD context, this broadly covers programmes leading to diplomas and degrees. In New Zealand only about half of our tertiary education programmes are so classified.

WHY THIS IS IMPORTANT

Comparisons of spending on education serve two main purposes. They measure the share of national resources devoted to education and so provide a basis for assessing the fiscal implications of how that might change in future. Thus they can inform debate about resource allocation amongst competing uses, including other parts of the education sector.

Expenditure indicators also measure inputs to the education process. These can be placed alongside other characteristics of education systems to analyse and seek to explain the differences in educational outcomes that are observed across countries.

How much a country spends on education will be influenced by a number of factors. A key factor is the relative wealth of the country, so many indicators relate education spending to the Gross Domestic Product (GDP), expressing the total spend as a percentage of GDP. Other key factors are:

- the age structure of the population (the compulsory school-age population being more likely to place demands on resources)
- the level of participation of the population at each level of education
- the volume of resources devoted to each student participating in education
- the price of education resources in the country.

HOW WE ARE GOING

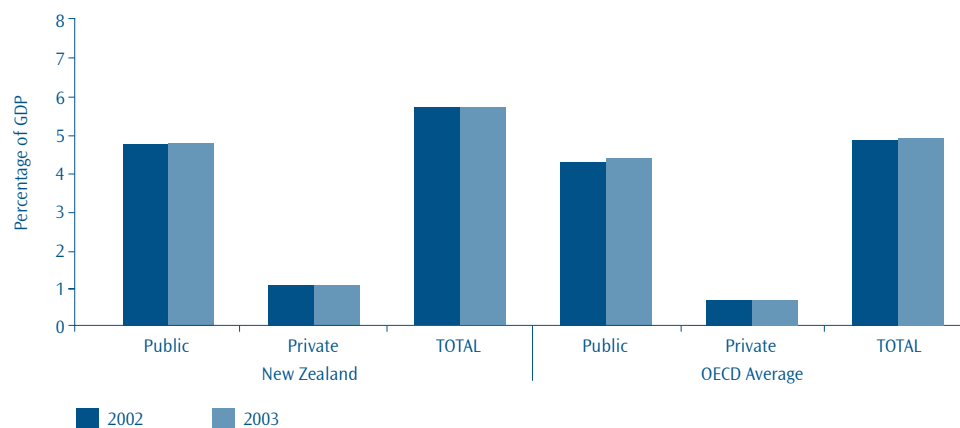
EXPENDITURE ON EDUCATION INSTITUTIONS COMPARED TO THE OECD

Most of the international measures of education expenditure relate to expenditure paid directly to educational institutions, including teacher salaries. For most levels of education that expenditure covers a very high proportion of total expenditure, so that the definition does not distort conclusions. However, in tertiary education the incidence of student support payments and expenditure that does not occur through institutions and relatively high co-payments by students make interpretation of expenditure indicators more demanding.

The share of national income devoted to education continues to rise. The data show:

- in the year ended June 2004³⁶, education as a proportion of GDP amounted to 6.8 percent. This is higher than the OECD average of 5.7 percent and places New Zealand in the top five spending OECD countries as measured on this basis (see Figure 18.1)
- education expenditure from public sources as a proportion of GDP amounted to 5.7 percent in the year ended June 2004, an increase from 4.8 percent in 1995
- our above average expenditure relative to GDP is partially explained by our demographic structure. EAG2006 estimates the percentage of GDP by which expenditure would change were the population structure to differ. If New Zealand had the same proportion of 5 to 19-year-olds (roughly corresponding to the compulsory school age population of 6 to 16 years) and 20 to 29-year-olds as the OECD average, then it is estimated that the percentage of GDP spent on educational institutions would be 0.5 percent lower

FIGURE 18.1: EXPENDITURE ON EDUCATIONAL INSTITUTIONS AS A PERCENTAGE OF GDP, FOR ALL LEVELS OF EDUCATION, NEW ZEALAND VS. OECD AVERAGE (2002 AND 2003)



Source: OECD (2006)

1. OECD financial indicators are generally based on data for the calendar year. 2002 relates to the 2002/03 fiscal year and 2003 relates to the 2003/04 fiscal year for New Zealand.

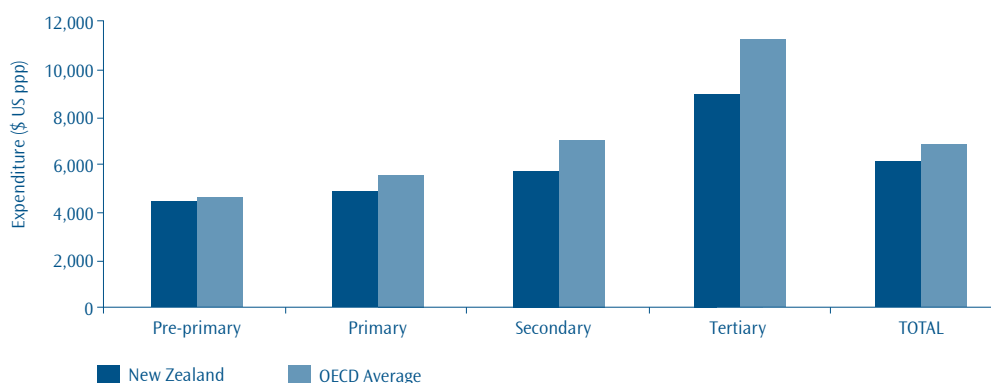
³⁶ EAG2006 financial indicators are generally based on data for the 2003 year (2003/04 fiscal year for New Zealand).

- as a proportion of total public expenditure in the year ended June 2004, New Zealand's public education expenditure, at 22.6 percent, was second only to Mexico amongst OECD countries. Contributing to this result was New Zealand's relatively young population structure noted above and the treatment of all student loan borrowings as expenditure. However, even after accounting for these factors, New Zealand still devotes a high proportion of its public expenditure to education
- New Zealand's public expenditure as a proportion of total expenditure (public and private) paid to education institutions is low in the pre-primary (61.2 percent) and tertiary (61.5 percent) sectors, compared to the OECD mean of 81.5 percent and 76.4 percent respectively
- in the tertiary sector, New Zealand's public subsidies to households (0.6 percent) in the form of student loans, student allowances and scholarships as a proportion of GDP are above the OECD average of 0.3 percent.

EXPENDITURE PER STUDENT COMPARED TO THE OECD

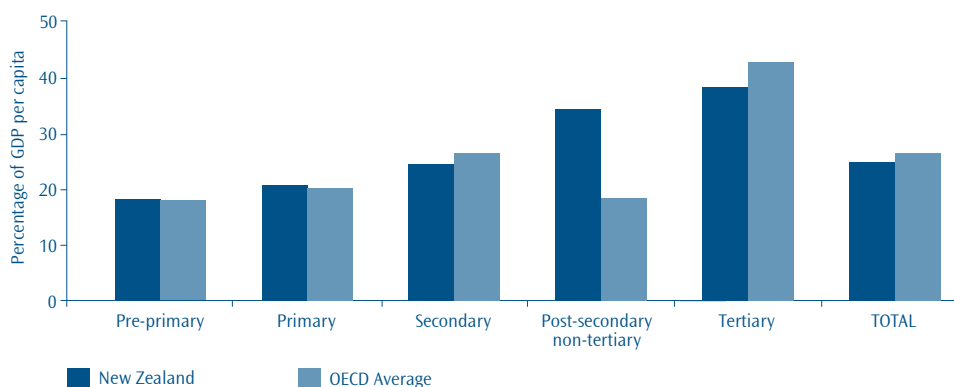
- In the year ended June 2004, New Zealand's annual expenditure on educational institutions per student (converted using purchasing power parity (PPP)³⁷ rates for GDP) for all sectors was \$5,963. This was below the OECD average of \$6,827 (see Figure 18.2).
- New Zealand's annual expenditure on educational institutions per student for all sectors was 25 percent of GDP per capita for the year ended June 2004. This was similar to the OECD average (26 percent) and that of Australia (24 percent) and the United Kingdom (25 percent).
- When broken down by sector, New Zealand's expenditure per student in relation to GDP per capita (that is, the average value of resources available to students) was around the OECD average at pre-primary, primary, lower secondary, and upper secondary level. At the post-secondary non-tertiary level, expenditure was markedly above the OECD average, while at tertiary it was lower than the OECD average (see Figure 18.3). The result for tertiary is affected by the significant funding of education through student support programmes, which do not involve expenditure on educational institutions.

FIGURE 18.2: ANNUAL EXPENDITURE ON EDUCATIONAL INSTITUTIONS PER STUDENT BY SECTOR (2003)



Source: OECD (2006)

FIGURE 18.3: ANNUAL EXPENDITURE ON EDUCATIONAL INSTITUTIONS PER STUDENT AS A PERCENTAGE OF GDP PER CAPITA BY SECTOR (2003)



Source: OECD (2006)

³⁷ Purchasing power parity (PPP) is a theory of exchange rate determination and a way to compare the average costs of goods and services among countries.

NEW ZEALAND GOVERNMENT EXPENDITURE ON EDUCATION AS A WHOLE

Government expenditure on education as a percentage of GDP remained relatively stable between 1996/97 and 2004/05. There was a more noticeable increase of one percentage point between 2004/05 and 2005/06.³⁸ The data show:

- in the 2005/06 financial year education expenses as a percentage of GDP were 6.3 percent, an increase of 29.9 percent since 1996/97 (see Table 18.1)
- spending on education as a percentage of total government expenses has increased by 30.8 percent from 15.2 percent in 1996/97 to 19.9 percent in 2005/06 (see Table 18.1).

NEW ZEALAND GOVERNMENT EXPENDITURE ON EARLY CHILDHOOD EDUCATION³⁹

Expenditure on early childhood education continues to increase. In 2007, the government will be providing free early childhood education for up to 20 hours per week for all three and four-year-olds attending teacher-led⁴⁰ early childhood education services. The data show:

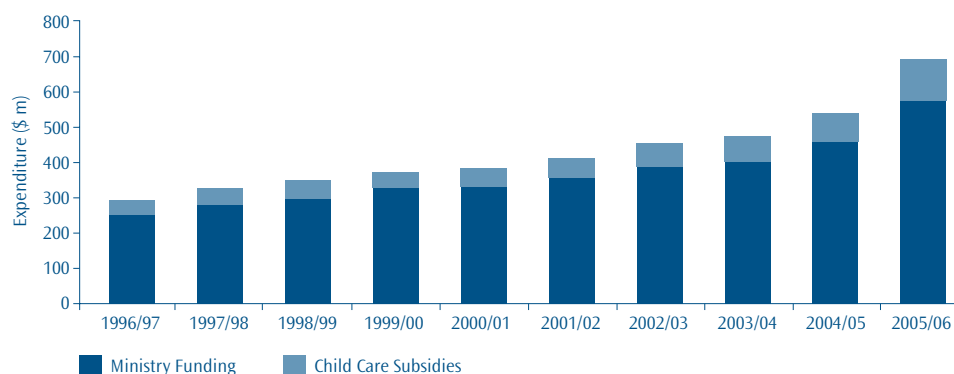
- total expenditure on early childhood education in nominal terms increased by 140 percent from \$284.3 million in 1996/97 to \$682.9 million in 2005/06 (see Figure 18.4)
- total expenditure on early childhood education in real terms doubled between 1996/97 and 2005/06
- the amount provided to families/whānau through the childcare subsidy administered by the Ministry of Social Development nearly tripled from \$37.6 million in 1996/97 to \$110 million in 2005/06 (see Figure 18.4)
- a substantial increase in expenditure occurred in 2005/06 as the new funding system was put in place to incentivise an increase in the number of registered teachers.

TABLE 18.1: GOVERNMENT EXPENDITURE ON EDUCATION IN NEW ZEALAND (1996/97 to 2005/06)

Financial Year	Expenditure on education (\$ m)	GDP (\$ m)	Percentage of GDP	Total government expenditure (\$ m)	Percentage of total government expenses
1996/97	4,817	99,034	4.9	31,708	15.2
1997/98	5,162	101,524	5.1	32,852	15.7
1998/99	5,337	104,730	5.1	34,367	15.5
1999/00	5,712	111,079	5.1	34,536	16.5
2000/01	6,136	118,407	5.2	36,699	16.7
2001/02	6,473	125,758	5.1	37,970	17.0
2002/03	7,016	132,227	5.3	41,749	16.8
2003/04	7,585	141,889	5.3	41,608	18.2
2004/05	7,930	150,629	5.3	46,234	17.2
2005/06	9,914	156,933	6.3	49,900	19.9

Source: The Treasury

FIGURE 18.4: GOVERNMENT EXPENDITURE ON EARLY CHILDHOOD EDUCATION IN NEW ZEALAND (1996/97 to 2005/06)



Source: Ministry of Education, Ministry of Social Development

1. Includes expenditure on licensed early childhood education services and licence-exempt ECE groups.
2. Childcare subsidies are provided by the Ministry of Social Development.

³⁸ Government expenditure on education as a percentage of GDP referred to in Table 18.1 may differ from percentages quoted earlier in this chapter that are based on OECD figures. OECD figures use a slightly different definition of education expenditure. Specifically, expenditure in early childhood education for children under three is not included in the OECD definition, but is included in the Treasury definition. Additionally, expenditure on student loans differs between the OECD and Treasury definition.

³⁹ Figures stated in this section are exclusive of GST.

⁴⁰ Teacher-led early childhood education services include kindergartens, education and care services (including casual services) and home-based services.

NEW ZEALAND GOVERNMENT EXPENDITURE ON SCHOOLS⁴¹

Education expenditure on New Zealand schools increased between 1996/97 and 2005/06. The data show:

- total expenditure on schools in nominal terms increased by 74.1 percent from \$3,142 million in 1996/97 to \$5,470 million in 2005/06. Total expenditure in real terms increased by 43% between 1996/97 and 2005/06
- teacher salaries made up nearly half (48.9 percent) of all expenditure on schools in 2005/06. The amount spent on teacher salaries increased by 35.2 percent in real terms since 1996/97 (see Figure 18.5)
- approximately one fifth (19.1 percent) of all expenditure on schools in 2005/06 was operational. Operational expenditure increased by 32.8 percent in real terms since 1996/97 (see Figure 18.5)
- expenditure on property made up 21.2 percent of all expenditure on schools in 2005/06. Property expenditure increased by 42.9 percent in real terms since 1996/97 (see Figure 18.5).
- between 2000/01 and 2005/06 government operating expenditure on tertiary education increased by 38 percent from \$2,154 million to \$2,982 million. In real terms⁴⁴ this amounted to an increase of 21 percent
- tuition subsidies account for the biggest share of tertiary expenditure. In absolute terms tuition subsidies had the most growth over the five years to 2005/06, rising by \$657 million (48 percent)
- from 2000/01 to 2005/06 expenditure on student loans and training for designated groups increased by \$178 million (21 percent) and \$98 million (67 percent) respectively (see Figure 18.6)
- between 2004 and 2005, the number of student places funded by government decreased by three percent, from 247,279 to 239,770 equivalent full-time student units. This is the first decrease in recent years and follows a slowdown in the growth of student places in 2004
- between 2004 and 2005, average tuition funding per equivalent full-time student for tertiary education organisations increased by 4.9 percent, from \$7,590 to \$7,963.

NEW ZEALAND GOVERNMENT EXPENDITURE ON TERTIARY EDUCATION⁴²

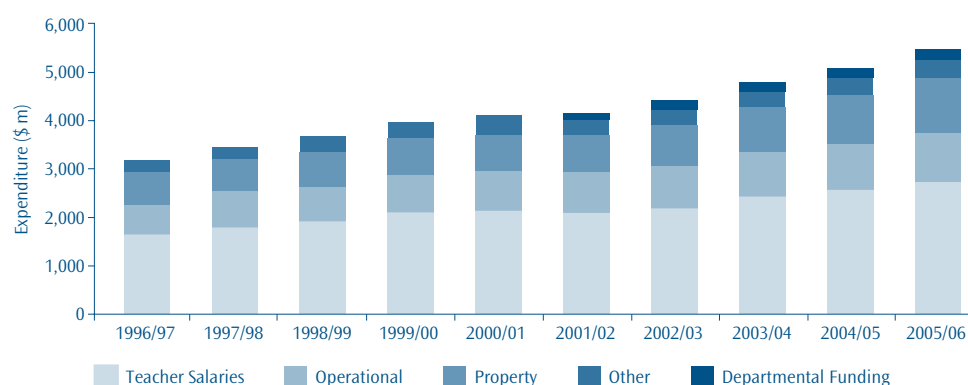
Total government spending on tertiary education has increased over the past five years. The data show:

- in 2005/06 total expenditure⁴³ on tertiary education, including operating and capital expenditure, was \$4,046 million. This is an increase of 6.6 percent on the total expenditure of \$3,795 million in 2004/05
- the number of students who borrowed under the loan scheme in the academic year was 154,000, a decrease of 1.7 percent since 2004. This was the first time since the introduction of the scheme in 1992 that the number of borrowers fell

STUDENT LOANS AND ALLOWANCES

The number of student loan borrowers under the Student Loan Scheme and the number of student allowances recipients decreased in the 2005 academic year. The data show:

FIGURE 18.5: GOVERNMENT EXPENDITURE ON SCHOOLS IN NEW ZEALAND BY COMPONENT (1996/97 TO 2005/06)



Source: Ministry of Education

1. Departmental Funding relates to Special Education Services transferred from Other to Departmental Funding in 2001/02.

⁴¹ Figures stated in this section are exclusive of GST.

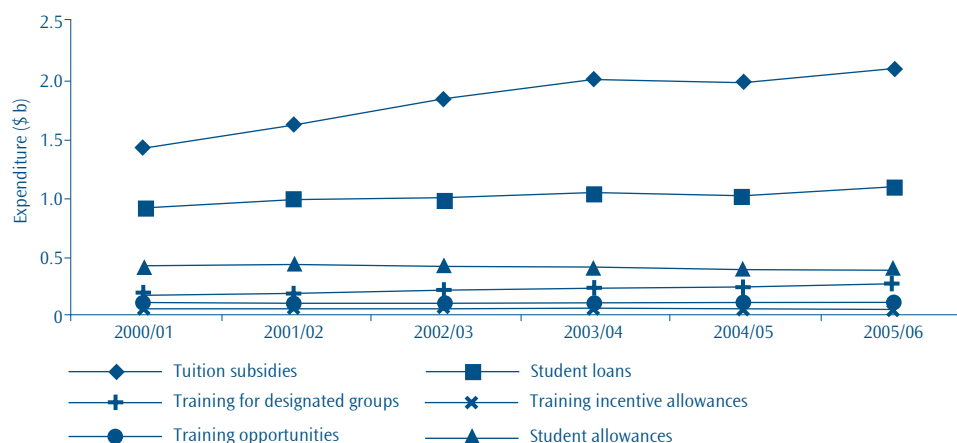
⁴² Figures stated in this section are inclusive of GST where applicable.

⁴³ Total government expenditure excludes operating expenditure on the Student Loan Scheme consisting of spending on interest rate write-offs and doubtful debts. In 2005/06 operating expenditure on student loans included a one-off write-down of \$1,415 million in the fair value of the Student Loan Scheme as a result of a change in accounting policy that coincided with the government's shift to make student loans interest-free for those resident in New Zealand. The large size of this one-off expenditure item makes comparing trends in government expenditure difficult. Therefore, all operating expenditure on the Student Loan Scheme has been omitted from analysis in this section.

⁴⁴ The Consumers Price Index (CPI) has been used to calculate the increase in real operating expenditure.

- the estimated uptake rate of loans by full-time students, which is the percentage of all eligible full-time students who take up a student loan, was 81 percent in 2001 and ranged from 72 percent in 2003 to 76 percent in 2005
- the number of first-time borrowers dropped from 62,763 in 2002 to 51,433 students in 2005, despite a rise in the number of people participating in tertiary education for the first time
- in 2005 the average amount borrowed through the Student Loan Scheme increased by 2.4 percent to \$6,408 from \$6,258 in 2004
- in 2005, \$610 million of borrowing was used for course fees, \$89 million for course-related costs, \$283 million for living costs and \$7.7 million for administration fees. The amount drawn for course-related costs varied from 8.4 percent of total borrowing in 2000 to nine percent in 2005
- nearly half of student allowances recipients received the parental-income-tested 16 to 24-year-old single student rate of allowance in 2005. There were 14.5 percent more students receiving this type of allowance in 2004 and this was mainly owing to an increase in the parental income thresholds
- in 2005, the average student allowance was \$5,597, which was \$11 less than in 2004
- of the 56,800 student allowances recipients in 2005, 45,400 students (80 percent) also borrowed from the Student Loan Scheme. This was 29 percent of all (154,400) 2005 borrowers
- total expenditure on student allowances in 2005 was \$318 million plus \$4 million in accommodation benefits paid to student allowances recipients. This was a 7 percent increase on 2004 expenditure.

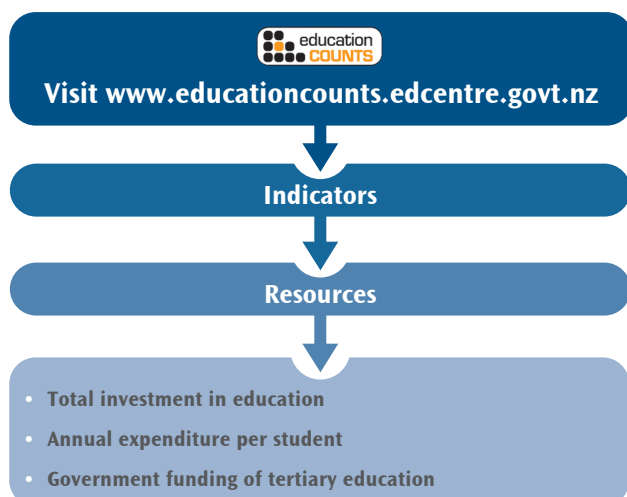
FIGURE 18.6: GOVERNMENT EXPENDITURE ON TERTIARY EDUCATION IN NEW ZEALAND BY COMPONENT (2000/01 TO 2005/06)



Source: Ministry of Education, Ministry of Social Development

1. In 2004 and 2005, funding allocated to the Performance-Based Research Fund was included in the 'tuition subsidies' category.
2. Training for designated groups includes the Industry Training Fund, Modern Apprenticeships, Skill Enhancement, Youth Training, Gateway, and second-chance education.

WHERE TO FIND OUT MORE



19. FINANCIAL PERFORMANCE

WHAT WE HAVE FOUND

The collective financial performance of publicly-owned education providers was good in 2005.

Schools' financial performance was strong, particularly primary schools', with financial indicators continuing to show improvements.

Overall, tertiary financial performance was satisfactory although below that achieved in 2004. In particular, universities are maintaining a sound financial position. The financial performance of polytechnics was mixed, with the return on income being below the recommended benchmark level. Five out of the twenty polytechnics were running operating deficits in 2005. All three wānanga experienced operating deficits in 2005. The financial performance of polytechnics and wānanga was influenced by a reduction in international students, policy changes to community education, and a slowing of roll growth.



WHY THIS IS IMPORTANT

The impact of public resources on education outcomes depends on a range of factors, including the management and governance efforts applied to these resources in public schools and tertiary education institutions.

The government has ownership interests in public education institutions. It is important that those in charge of these institutions, such as boards of trustees, ensure the future financial health of their institutions.

HOW WE ARE GOING

This chapter looks at the financial performance of public education providers, specifically public schools (state schools and state-integrated schools⁴⁵) and public tertiary education institutions (universities, polytechnics, colleges of education and wānanga). It provides a high-level summary of public schools' financial performance as considered in *New Zealand Schools: Ngā Kura o Aotearoa (2005)* and public tertiary institution financial performance as considered in *Profile and Trends: New Zealand's Tertiary Education Sector (2005)*. More detailed information is available in these publications.

THE FINANCIAL PERFORMANCE OF STATE AND STATE-INTEGRATED SCHOOLS

The collective financial performance of state and state-integrated schools was strong during 2005. Schools are in general being capably governed and managed and are in financially healthy positions. The data show:

- in 2005 there was an improvement in net operating surplus⁴⁶ as a percentage of revenue (1.3 percent). Primary schools had a surplus of 1.6 percent of revenue and secondary schools had a surplus of 1.1 percent of revenue
- schools have steadily increased their working capital⁴⁷ over the last five years. Ninety-five percent of primary schools and 87 percent of secondary schools had healthy working capital ratios in 2005
- public equity⁴⁸ has increased each year over the last five years. Eighty percent of primary schools and 74 percent of secondary schools had increasing public equity between 2001 and 2005.

TABLE 19.1: STRATEGIC FINANCIAL POSITION OF SCHOOLS IN REAL 2005 TERMS (2000 TO 2005)

Financial Indicator	Performance in 2000	Performance in 2004	Performance in 2005
Net operating surplus as a percentage of revenue	1.6	0.7	1.3
Working capital (\$ m)	360.8	402.4	435.5
Public equity (\$ m)	1170.2	1326	1352.1

Source: Ministry of Education (2006f)

1. The dollar amounts presented for working capital and public equity have been inflated to 2005 dollars using the appropriate June CPI values.

⁴⁵ State-integrated schools have been included in this analysis because they follow the state curriculum requirements (while retaining their 'special character', for example, religious observance) and the state pays day-to-day expenses, including teacher salaries. This funding represents the bulk of a school's revenue. The proprietors of integrated schools provide the accommodation.

⁴⁶ Operating surplus is the difference between revenue and normal operating expenditure (including depreciation).

⁴⁷ Working capital measures the difference between total current assets (including investments) and total current liabilities. A 'healthy' working capital means the school has enough money in the bank to cover short-term debt.

⁴⁸ Public equity represents net worth. It is the difference between total assets and total liabilities.

THE FINANCIAL PERFORMANCE OF PUBLIC TERTIARY EDUCATION INSTITUTIONS

The collective financial performance of the 33 tertiary education institutions was satisfactory during 2005. Between 2000 and 2004 financial performance improved significantly. While there was some reversal of this trend in 2005, results are still ahead of those in 2000. In most financial measures, performance is above benchmarks set for prudent management of tertiary institutions (see Table 19.2).

This dip in financial performance reflects factors such as: a reduction in international student enrolments; cost increases by institutions; a slowdown in enrolment growth; and changes to the funding of community education. Universities performed better than other institutions because they faced only a small decline of international students and they have relatively small community education programmes and more diversified sources of income. The data show:

- in 2005 there was an operating surplus of 2.3 percent of income. Universities had the largest operating surplus as a percentage of income (3.2 percent) while wānanga had the lowest with a deficit (-5.7 percent). Reasons for this decline below the benchmark level were the fall in international students, changes to the funding of community education, and a reduction in the recently experienced roll growth
- liquid assets⁴⁹ provide a buffer against variability in the operating environment. In public tertiary institutions, liquidity strengthened from 2000 to 2005, although it dropped from 20 percent in 2004 to 15.7 percent in 2005
- asset productivity indicates how efficiently tertiary education institutions generate income on each dollar of assets. The tertiary sector continues to perform above the minimum threshold
- net cash flows, the amount of cash institutions have left over after meeting their expenses, for the sector decreased slightly from 2004 to 2005, but remained above the minimum threshold (see Table 19.2).

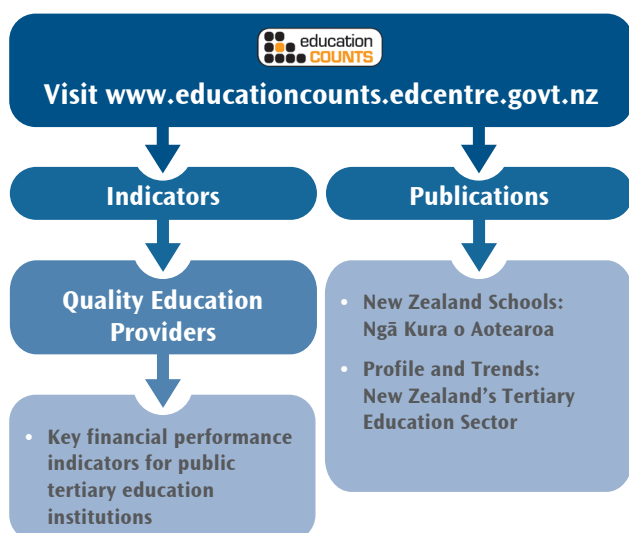
TABLE 19.2: STRATEGIC FINANCIAL POSITION OF TERTIARY EDUCATION INSTITUTIONS (2000 to 2005)

Financial Indicator	Percentage			
	Benchmark ¹	Performance in 2000	Performance in 2004	Performance in 2005
Liquid assets	12.0	12.7	20.0	15.7
Surplus ² as a percentage of revenue	3.0	2.4	4.0	2.3
Asset productivity	40.0	53.1	55.4	55.2
Net cash flow	11.0	13.2	15.0	13.5

Source: Ministry of Education (2006p)

1. Benchmark is the minimal thresholds expected by Tertiary Advisory Monitoring Unit (TAMU), the government unit that monitors tertiary education institution performance.
2. Surplus is before abnormal items.

WHERE TO FIND OUT MORE



⁴⁹ Liquid assets include the level of cash, bank deposits and readily liquefiable assets.