

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 an undue burden on tax-payers.

A 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 the 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.

This chapter examines 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 the country
- the age structure of the population and its relationship to education levels (the compulsory school-age population is more likely to place demands on resources) and productivity differences in what is defined as education expenditure.



## 20. Education Expenditure

### What we have found

As a percentage of gross domestic product (GDP), New Zealand's education expenditure is one of the highest in the OECD. Contributing to this is the proportion of the population in the compulsory schooling age group where participation is greatest, and the proportion of international students in New Zealand the second highest in the OECD.

Public education expenditure as a proportion of total government spending has risen over the last decade in line with international trends. It forms a larger share of total government expenditure than the OECD average.

### Why this is important

Debate continues about whether 'money matters'; that is, whether or not the allocation of additional resources to the education process can be expected to make a difference to education outcomes. Measuring education expenditure provides a basis for that debate.

Although the effect of expenditure can be unclear, higher levels of expenditure are commonly interpreted positively and are seen as demonstrating commitment to the education process. Measuring expenditure and its trend over time provides a basis for assessing that commitment and comparing it with other countries.

In considering the international comparisons there are a number of factors that may be relevant:

- demographic factors such as the age structure of the population that affects the demand for education
- participation rates, particularly beyond the compulsory schooling age group, which similarly affects the demand for education
- international students, commonly included in many international education indicators that nevertheless have a domestic focus
- accounting treatment of transfer payments such as student loans, which have become a common funding mechanism as demand for tertiary education increases.

### How we are going

#### *Public expenditure on education*

Government expenditure on education as a percentage of GDP has remained relatively stable over the past decade. The data show:

- at 5.3 percent in 2007/08, government expenditure was at the same level as that for the period 2002/03 to 2004/05, and slightly above that of the five years prior to that (see Table 20.1)
- in 2007/08 the level of government expenditure was below the levels of 2005/06 and 2006/07, both of which reflect significant student loan write-downs related to the interest-free student loan policy and new international financial reporting standards
- in 2007/08 education expenditure was 16.8 percent of total government expenses, a percentage point higher than it had been a decade ago
- education expenditure grew as a percentage of total government expenses, though the trend has been volatile. This also reflects the effect of student loan write-downs in 2005/06 and 2006/07.



**Table 20.1:** Government expenditure on education in New Zealand (1996/97 to 2007/08)

Financial year	Expenditure on education (\$ m)	GDP (\$ m)	Percentage of GDP	Total government expenditure (\$ m)	Percentage of total government expenses
1996/97	4,817	99,043	4.9	31,368	15.2
1997/98	5,162	101,592	5.1	32,982	15.7
1998/99	5,337	104,730	5.1	33,939	15.5
1999/00	5,712	111,080	5.1	34,829	16.5
2000/01	6,136	118,403	5.2	36,559	16.7
2001/02	6,473	125,758	5.1	37,513	17.0
2002/03	7,016	132,334	5.3	39,897	16.8
2003/04	7,585	142,251	5.3	41,882	18.2
2004/05	7,930	150,789	5.3	44,895	17.2
2005/06	9,914	156,933	6.3	49,320	19.7
2006/07	9,269	168,106	5.6	54,003	18.6
2007/08	9,551	180,077	5.3	56,997	16.8

Source: The Treasury.

### *International comparisons of New Zealand's educational expenditure*

International comparisons of our education expenditure are presented in the OECD's annual publication of education indicators, *Education at a Glance*. The publication includes an array of financial indicators. Some of these relate expenditure to the size of the economy, expressing education expenditure as a percentage of GDP, while others compare levels of expenditure per student.

In absolute terms New Zealand's expenditure on education per student in 2007/08 was below the OECD mean. However, a greater proportion of New Zealand's resources was directed towards education overall than most countries. The data show:

- early childhood education expenditure was \$4,778 per student, two percent below the OECD mean
- primary education expenditure was \$4,780 per student, 24 percent below the OECD mean
- secondary education was \$6,278 per student, 20 percent below the OECD mean

- tertiary education was \$10,262 per student, 11 percent below the OECD mean
- these results reflect New Zealand's relative economic wealth within the OECD. In 2006, its GDP was 16 percent below the OECD mean. In all cases the expenditure levels were below those of countries with similar education systems, such as Australia, Ireland, and the United Kingdom, with which we often compare ourselves.

When education expenditure is compared to GDP, New Zealand's expenditure appears considerably larger. It consistently rates as one of the top countries in terms of expenditure as a percentage of GDP. The data show:

- over all levels<sup>36</sup> of education, New Zealand's expenditure<sup>37</sup> of 6.7 percent of GDP<sup>38</sup> in 2006 was the fifth highest in the OECD and 0.9 percent above the OECD average of 5.8 percent. This places it well above United Kingdom (6.2 percent), Australia (5.8 percent), and Ireland (4.6 percent)

<sup>36</sup> Excluding pre-primary education (early childhood education).

<sup>37</sup> Expenditure measured is expenditure on educational institutions, which consists of direct purchases of resources for education. Core services, research, and ancillary services such as transport to schools, are included in this measure of expenditure, while transfer payments to private entities in the form of loans and private expenditure on materials are not included.

<sup>38</sup> This figure should be distinguished from the series presented in Table 20.1 which records public expenditure only, thus excluding private expenditure, but also recording public-private transfer payments, notably student loans.



- the margin above the OECD average was most marked across compulsory schooling years – at primary to upper secondary level New Zealand's expenditure was 4.5 percent of GDP compared to the OECD mean of 3.7 percent. At tertiary education level,<sup>39</sup> New Zealand's expenditure was line with the OECD average of 1.5 percent of GDP.

The interpretation of this result is that a greater proportion of New Zealand's resources were directed towards education overall than most other OECD countries. Two factors should be considered in assessing this result: demographic and international student factors.

New Zealand's demographic structure has an effect on expenditure. New Zealand has a relatively high proportion of its population in the compulsory schooling years where participation and expenditure per capita is high. If New Zealand had the same proportion of 5- to 19-year-olds (approximating compulsory schooling years) as the OECD average, its percentage of GDP spent on schools would be 0.5 percent of GDP lower. On the other hand, were New Zealand to have the same proportion of 20- to 29-year-olds as the OECD average, its expenditure on tertiary education would have been 0.1 percent of GDP higher.

All OECD expenditure indicators include expenditure by international students, of which New Zealand has a high proportion, the second highest (to Australia) in the OECD. In 2006/07, international students contributed six percent of education expenditure, amounting 0.4 percent of GDP. The majority of this expenditure occurred at the tertiary education level, where international students' expenditure accounts for 0.3 percent of GDP. These amounts were included in the overall percentage of GDP spent on education.

### *Public and private expenditure compared to the OECD*

Most education expenditure in OECD countries is met by public sources over the compulsory schooling years. In the early childhood and tertiary education sectors, the increased level of private funding is more noticeable. The data show:

- between 2000 and 2005, public funding of education grew internationally by 19 percent. Growth was most obvious at tertiary education level, at 26 percent. In New Zealand, growth in public funding over the same period was significant although more modest – 10 percent overall and 18 percent at tertiary education level
- overall, 78 percent of education expenditure on education institutions was from public sources, below the OECD average of 86 percent. Yet if international students were to be excluded, the New Zealand percentage rises to 85 percent, and if the implicit subsidy on fees through the student loan scheme were accounted for, the percentage would rise to 90 percent
- the effect of these factors was most marked at the tertiary education level. New Zealand's share of private funding at the tertiary education level (40.3 percent) was sixth highest in the OECD, notably lower than Australia. Adjusting for international students and implicit student loan subsidies reduces that figure substantially to just 16 percent. The unadjusted OECD average was 26.9 percent
- the growth in public spending as a proportion of total government expenses (see Table 20.1) was paralleled in data presented in *Education a Glance*. While there are some issues with definitions, a consistent picture emerges. New Zealand's public education expenditure as measured by OECD grew from 16.5 percent of total public expenditure in 1995 to 19.4 percent in 2005. These are significantly higher figures than the comparable OECD averages of 11.9 percent and 13.2 percent respectively.

<sup>39</sup> In OECD terms this means degree and diploma level programmes and excludes programmes at lower levels.





### *New Zealand government expenditure<sup>40</sup> on early childhood education*

The free early childhood education policy (*20 Hours ECE*) came into effect on 1 July 2007. This policy initiative provides up to 20 hours per week for three- and four-year-olds in teacher-led services. Since *20 Hours ECE* came into effect, there have been significant changes in early childhood participation, with more children now attending early childhood education services, and children attending services for a greater number of hours per week. As a result of this, and the high level of births observed in recent years, expenditure on early childhood education has increased significantly. Over the coming years, further increases in expenditure are expected from further funding changes, and the higher under-five population. The data show:

- expenditure on early childhood education increased from \$316 million in 1999/00 to \$874 million in 2007/08, which in nominal terms represents an increase of 176 percent. In real terms, the expenditure increase is 123 percent
- expenditure on early childhood education is forecast to exceed \$1.1 billion in 2011/12.

### *New Zealand government expenditure on schools*

Education expenditure on New Zealand schools increased between 1996/97 and 2007/08. The data show:

- funding on schools increased from \$3.2 billion in 1996/07 to \$6.4 billion in 2007/08. This represents a doubling in nominal terms and a 57 percent increase in real terms. It is estimated that by 2011/12 the total funding on schools will reach \$6.5 billion
- total operational expenditure on schools increased in nominal terms by over 100 percent from \$2.5 billion in 1996/97 to \$5.2 billion in 2007/08. This was a 63 percent increase in real terms. It is estimated that operational expenditure on schools will reach to \$5.3 billion in 2011/12
- teacher salaries made up about 62 percent of all operational expenditure on schools in 2007/08. The amount spent on teacher salaries has almost doubled

in the past 10 years. In real terms expenditure on teacher salaries has increased by 50 percent since 1996/97

- approximately one-fifth (18 percent) of all funding on schools in 2007/08 was funding provided to schools for their operation. This operational funding has increased by 75 percent in nominal terms and 38 percent in real terms since 1996/97
- capital funding on property made up 18 percent of all funding on schools in 2007/08. Property funding has increased by 71 percent in nominal terms and 34 percent in real terms since 1996/97.

### *New Zealand government expenditure on tertiary education*

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

- in 2007/08, total operating expenditure on tertiary education was \$3.3 billion. This was a 55 percent increase on the total operating expenditure of \$2.2 billion in 2000/01. In real terms, this increase amounts to 28 percent
- tuition subsidies<sup>41</sup> are the largest component of tertiary education operating expenditure. In 2007/08, tuition subsidies were \$2.1 billion, compared with \$1.2 billion in 2000/01. This represents an increase of 76 percent in nominal terms and 45 percent in real terms
- expenditure on industry training and targeted training<sup>42</sup> increased from \$215 in 2000/01 to \$356 million in 2007/08. This represents an increase of 66 percent in nominal terms and 37 percent in real terms
- between 2006 and 2007, the number of student places funded by government<sup>43</sup> increased by 1.9 percent, from 218,416 to 222,586 equivalent full-time student units. The number of funded places remains below the peak in 2005
- between 2006 and 2007, average tuition funding per equivalent full-time student for tertiary education organisations increased by 7.1 percent, from \$7,863 to \$8,417.

<sup>40</sup> Expenditure presented on early childhood education, schools, and tertiary education in the rest of this chapter is confined to expenditure through Vote: Education and through student support programmes (student loans, student allowances, and scholarships) administered through Vote: Social Development.

<sup>41</sup> For trend analysis purposes this includes expenditure on tuition subsidies, the Performance-Based Research Fund, adult and community education, and provider capability.

<sup>42</sup> Industry training and targeted training includes expenditure on the Industry Training Fund, Modern Apprenticeships, Skill Enhancement, Youth Training, Training Opportunities, Gateway, and Ngā Kaiarataki Pathfinders.

<sup>43</sup> Student places in course classification 5.1 community education are excluded from this data. They ceased being funded out of the student component in 2006.

**Student support services**

The government provides a significant proportion of funding to support students studying in tertiary education through the student loan scheme, student allowances, and scholarships. There were significant increases in these student support payments in 2007.

The removal of interest on student loans for borrowers from April 2006 was accompanied by a significant increase in borrowers in the 2007 year. In addition, the number of new borrowers increased as did the uptake rate of those students eligible for student loans. The data show:

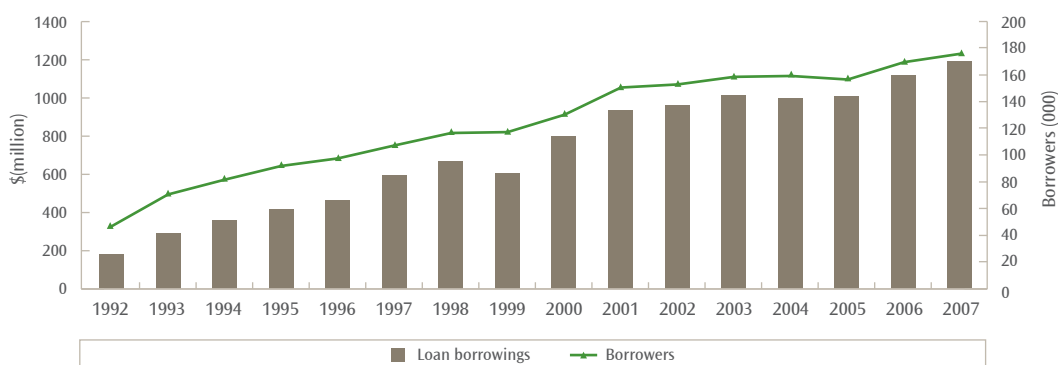
- the number of students who borrowed under the loan scheme in the academic year 2007 was 173,791 (see Figure 20.1). This was 6,366 or 3.8 percent more than in 2006. It is estimated that 57,604 of those were first-time borrowers
- the overall uptake rate of student loans increased from 56 percent in 2006 to 66 percent in 2007. The significant increase in the uptake rate was the result of an overall increase in borrowing levels coupled with a decrease in the number of eligible students that had resulted from a government policy that aligns student support with funded qualifications
- in 2007, the total amount borrowed increased by \$72.8 million (6.6 percent) from \$1,099.8 million in 2006 to \$1,172.6 million (see Figure 20.1). The average amount borrowed increased by 2.8 percent or \$182 from \$6,565 in 2006 to \$6,747 in 2007

- the total amount borrowed for course fees increased by \$47 million (6.8 percent) from \$689 million in 2006 to \$736 million in 2007. The average amount borrowed for course fees consequently increased by 3.8 percent from \$6,565 to \$6,747
- the total amount borrowed for course-related costs remained unchanged from the 2006 level of \$98 million while the average amount borrowed marginally decreased
- the total amount borrowed for living costs increased by \$26 million (8.3 percent) from \$312 million in 2006 to \$338 million in 2007. The average amount borrowed for living costs increased marginally from \$3,839 in 2006 to \$3,866 in 2007.

International financial reporting standards have applied to student loans since 2005/06. Loans are classified as loans and receivables and as such are initially valued at fair value and at amortised cost thereafter. The loan portfolio is actuarially revalued each year according to the required accounting standards. This includes testing for impairment or a change in the value of the asset based on objective evidence. The data show:

- during 2007/08, \$1.201 billion was lent to students through the student loan scheme. This was written down to 59.75 percent or \$0.717 billion, representing the estimated fair value of that lending

**Figure 20.1:** Total loan borrowings and borrowers by year (1992-2007)



Source: Ministry of Social Development and Ministry of Education.





- at the end of 2007/08, there was a revaluation of the loan scheme leading to a reversal of previous impairment costs. This amounted, in total, to a reversal of \$230.6 million
  - at the end of 2007/08, student loan debt totalled \$9.573 billion and was valued in the financial statements of government at \$6.741 billion.
  - expenditure on allowances grew by three percent to \$386 million in 2007
  - the average allowance was \$6,200
  - three out of four allowance recipients also receive an accommodation benefit. In 2007, 46,000 students received the accommodation benefit, which increased by 5.8 percent in 2007 to an annual average of \$1,100
  - the proportion of allowance recipients under the age of 25, the threshold for parental income testing, grew slightly to 58 percent in 2007
  - about 81 percent of allowance recipients also borrowed under the student loan scheme, which represents 29 percent of all student loan borrowers
  - the government paid a total of \$20.1 million on scholarships, a \$7.3 million increase from 2006.
- The number of student allowance recipients increased in 2007, while the average allowance decreased marginally. The increase in recipients followed an increase in 2006 and declines in the previous four years. This principally reflects the effects of further changes to the income testing regime in 2006; in particular, an increase in the parental income threshold and changes to the personal income abatement regime. The data show:
- the number of student allowance recipients grew by five percent in 2007 to 62,500

### Where to find out more

Visit <a href="http://www.educationcounts.govt.nz">www.educationcounts.govt.nz</a>		
Indicators	Resources	<ul style="list-style-type: none"> <li>■ Total investment in education</li> <li>■ Annual expenditure per student</li> <li>■ Government funding of tertiary education</li> </ul>
Publications	Key publication series	<ul style="list-style-type: none"> <li>■ New Zealand schools: Ngā Kura o Aotearoa</li> <li>■ Profile and trends</li> </ul>

# 21. Financial Performance

## What we have found

In general, state and state-integrated schools have sustained higher levels of working capital and public equity in 2007, indicating a generally healthy financial position in the school sector. Most schools have experienced operating surpluses in 2007.

Overall, tertiary financial performance in 2007 was satisfactory and an improvement on what was achieved in the previous year. In particular, universities are maintaining a sound financial position. The financial performance of polytechnics showed improvement, with four of the 20 polytechnics running operating deficits in 2007 compared with eight in 2006. One of the three wānanga experienced operating deficits in 2007.

## Why this is important

The effect 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 wellbeing of their institutions.

## How we are doing

This chapter looks at the financial performance and position of public education providers, specifically public schools (state schools and state-integrated schools<sup>44</sup>) 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 (2007)* and public tertiary institutions' financial performance as considered in *Profile and Trends:*

*New Zealand's Tertiary Education Sector (2007)*. More detailed information is available in these publications.

### *Financial performance of state and state-integrated schools*

The collective financial performance of state and state-integrated schools was reasonably strong in 2007 (estimated<sup>45</sup>) and shows improvement compared to 2006. Overall, schools are being capably governed and managed, and are in financially healthy positions. The data show:

- government funding<sup>46</sup> as a percentage of schools' revenue has increased slightly since 2003. In 2007, 89 percent of primary schools' revenue and 83 percent of secondary schools' revenue came from government funding
- the net operating surplus<sup>47</sup> as a percentage of revenue increased slightly from 0.8 percent in 2006 to 0.9 percent in 2007. The surplus at primary schools declined from 1.3 percent of revenue in 2006 to 1.0 percent in 2007. The surplus at secondary schools increased from 0.1 percent in 2006 to 0.7 percent in 2007

<sup>44</sup> 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.

<sup>45</sup> At the most recent data extraction, the ministry received 94.3 percent of schools' 2007 financial accounts. The remaining schools, where applicable, were estimated using their financial accounts provided in previous years. Financial data have been converted to compatible formats for estimations to take place.

<sup>46</sup> Government funding represents what schools have received from government directly (including teachers' salaries). This does not represent all funding provided by the government as some payments were made to third parties for the benefit of schools which do not go through schools' accounts directly.

<sup>47</sup> Operating surplus is the difference between revenue and normal operating expenditure (including depreciation).



- despite the increase in average net operating surplus, there were slightly more schools in operating deficits in 2007. In 2006, 42 percent of schools had operating deficits compared to an estimated 44 percent of schools in 2007
- schools have steadily increased their working capital<sup>48</sup> over the past five years. Ninety-four percent of primary schools and 86 percent of secondary schools had healthy working capital ratios in 2007
- public equity<sup>49</sup> has increased gradually each year over the past five years. Eighty percent of primary schools and 76 percent of secondary schools expanded their public equity between 2003 and 2007.

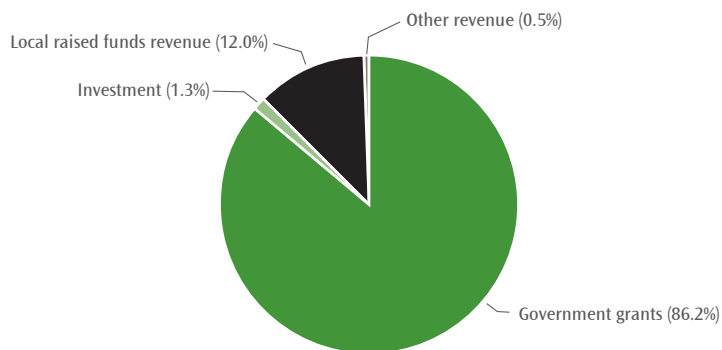
**Table 21.1:** Financial indicators of schools in real 2007 terms (2003, 2006, and estimated 2007)

Financial indicators	2003	2006	2007 (estimated)
Government funding as a percentage of revenue	85.4	86.6	86.2
Net operating surplus as a percentage of revenue	1.4	0.8	0.9
Working capital <sup>1</sup> (\$m)	408.7	486.3	518.3
Public equity <sup>1</sup> (\$m)	1,249.5	1,477.3	1,521.8

Source: Ministry of Education.

1. The dollar amounts for working capital and public equity have been inflated to 2007 dollars using June CPI values.

**Figure 21.1:** Breakdown of estimated revenue for state and state-integrated schools (2007)



Source: Ministry of Education.

**Financial performance of public tertiary education institutions**

The collective financial performance of public tertiary education institutions improved between 2000 and 2004, but there was a reversal in 2005 and 2006, with performance falling on all four of the key indicators used to monitor performance. In 2007, there was an improvement in the financial performance of tertiary education institutions.

In key financial measures, performance is above benchmarks set for prudent management of tertiary institutions (see Table 21.2).

This improvement in financial performance reflects factors such as an increase in the number of enrolments funded by the government. The data show:

<sup>48</sup> Working capital measures the difference between total current assets (including investments) and total current liabilities. A 'healthy' working capital means that the school has enough money or liquid assets to cover its short-term debt.

<sup>49</sup> Public equity represents net worth of the school. It is the difference between total assets and total liabilities.



- in 2007, there was an operating surplus of 3.4 percent of income. Universities had the largest operating surplus as a percentage of income (3.7 percent) while polytechnics had the lowest (2.7 percent)
- liquid assets provide a buffer against variability in the operating environment. In public tertiary institutions, liquidity strengthened from 2000 to 2006, although it dropped from 18 percent in 2004 to 13 percent in 2007
- 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 2006 to 2007, but remained above the minimum threshold (see Table 21.2).

**Table 21.2:** Financial indicators of the tertiary sector (2000, 2006 and 2007)

Financial indicators	Percentage			
	Benchmark	Performance in 2000	Performance in 2006	Performance in 2007
Liquid assets	100	110	130	107
Surplus as a percentage of revenue	100	81	63	113
Asset productivity	100	132	118	116
Net cash flow	100	119	118	155

Source: Ministry of Education (2008n).

1. Performance data has been scaled to form an index. The Tertiary Education Commission benchmark for prudent operation has been scaled to 100.
2. Surplus is before abnormal items.

## Where to find out more

Visit [www.educationcounts.govt.nz](http://www.educationcounts.govt.nz)

<b>Indicators</b>	<b>Quality education providers</b>	<ul style="list-style-type: none"> <li>■ Key financial performance indicators for public tertiary education institutions</li> </ul>
	<b>Resources</b>	<ul style="list-style-type: none"> <li>■ Total investment in education</li> <li>■ Annual expenditure per student</li> <li>■ Government funding of tertiary education</li> </ul>
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