Public expenditure on early childhood education (ECE)

Indicator Description

Four indicators have been used in this report. They are:

- Public expenditure on ECE (total and per child)
  - Shows trends in public expenditure on ECE and public expenditure on ECE per child.
  - Provides an international comparison with other OECD countries of total ECE expenditure per child aged 3 and over from public and private sources.

- Public expenditure on ECE as a proportion of total public expenditure
  - Shows public expenditure on ECE as a proportion of Vote Education, and as a proportion of total public expenditure.
  - Provides an international comparison with other OECD countries.

- Public expenditure on ECE as a proportion of GDP
  - Shows trends in public expenditure on ECE as a proportion of the country’s total earnings.
  - Provides an international comparison with other OECD countries.

- How much of ECE is funded publicly and how much is funded privately
  - Compares the relative proportion of ECE expenditure from public source and private source in New Zealand with that in other OECD countries.

Definitions

All years reported in this report relate to the financial year ending June, for example, 2013 means the year 1 July 2012 to 30 June 2013.

For international comparisons the latest year of data available is for 2010.

For the purpose of this report public expenditure on ECE is expressed on a funded child hour basis, where 1,000 funded child hours a year make up full time equivalent child (FTE child).

What We Have Found

Public expenditure on ECE increased significantly between 2002 and 2013. In current 2013 dollars, it rose by 203% from $542 million in 2002 to $1,641 million in 2013. Public expenditure on ECE when expressed as per FTE child (see definitions) has also increased significantly, from $5,700 per FTE child in 2002 to $9,700 per FTE child in 2013. The proportion of total public education expenditure that is allocated to ECE has more than doubled since 2002, up from 6.4% in 2002 to 13.1% in 2013. Public investment in ECE as a proportion of

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1 2002 was chosen as the baseline as the new ECE funding model was introduced

2 Dollar values in this report are GST exclusive.
national wealth (GDP) has increased by 137%, from 0.33% to 0.77% between 2002 and 2013.

Internationally, New Zealand ranks in the top group of OECD countries in terms of both its per-child public investment in ECE and its proportion of total public spending allocated to ECE.

Why This Is Important

ECE has been shown to make a significant contribution to children’s development, well-being, and future success. Public expenditure on ECE represents a significant investment from government to help children grow to reach their full potential in education, in the labour market, and in wider society. Healthy and productive lives also benefit society and contribute to the future of the country (Ministry of Education, 2011).

Public expenditure encourages participation in ECE by reducing financial barriers. For example, public subsidies to ECE services reduce the costs passed on to parents as fees. In particular, 20 Hours ECE policy enables services to provide early childhood education to children aged 3-5 for a maximum of six hours per day and 20 hours per week without charging fees. Public funding can also be targeted to help those groups that may benefit most, through supporting community projects on participation, and providing assistance to groups: particularly Māori and Pasifika children, children from low socio-economic backgrounds and children with special learning needs. It also facilitates parents to engage, or seek to engage, in the paid workforce.

Public expenditure is a useful way for governments to incentivise providers towards particular national objectives and goals. For example, since 2005, funding bands and rates have recognised the proportion of registered teachers within an ECE service. This reflects government’s strategic goal of improving the quality of ECE through increasing the proportion of registered teachers (Ministry of Education, 2011). Similarly, equity funding is used to help reduce educational disparities between different groups in New Zealand communities. It ensures fair and equitable access to high-quality ECE services for all (Ministry of Education, 2012a).

How We Are Going

Trends in ECE expenditure

Public expenditure on ECE rose significantly between 2002 and 2013. In 2013 dollars, public expenditure on ECE has increased by nearly 203% between 2002 and 2013, up from $542 million in 2002 to $1,641 million in 2013 (see Figure 1). In nominal dollars (without adjusting for inflation), the increase was 296%, up $1,227 million from $415 million in 2002.

Volume (as measured by funded child hours) increased by 79% (see Figure 2), which reflects both population growths (where the number of children aged under 5 grew by 9%) and real gains in the rate and duration of children’s participation in ECE.

The proportion of children starting school who have participated in ECE grew from 91.2% to 95.6%, and the average number of hours attended weekly has increased from 15.0 hours to 21.7 hours between 2002 and 2013.

Price (as measured in terms of average public expenditure per FTE child – see definitions) has risen by 70% in 2013 dollars, from $5,700 in 2002 to $9,700 in 2013 (see Figure 1). Noticeable price increases have occurred as a result of the introduction of differentiated funding for qualified teachers in 2005 and of 20 Hours ECE in 2007, both of which are discussed further below.

There have also been a number of smaller inflation cost adjustments over this time.

There were four distinct periods of public expenditure growth. During 2002-2004, there was steady average annual growth of about 4%. In this period, part of each hour of ECE for every child, up to six hours a day and 30 hours a week, was funded by government. At this point the system did not link funding to the different costs of providing ECE in different service types (Ministry of Education, 2004).

3 Dollar values in this section have been adjusted to current 2013 dollars unless otherwise stated.
4 For more statistics on nominal historical dollars see http://www.educationcounts.govt.nz/statistics/ece2/finances.
(1) Full-time equivalent (FTE child) here is defined as 1,000 funded child hours per year.
(2) All figures are in 2013 dollars, using Consumers price Index 2013 June Quarter.

Figure 1: Public expenditure on ECE, 2002-2013 (in 2013 dollars)

Figure 2: Funded child hours, 2002-2013
As part of the implementation of Pathways to the Future: Ngā Huarahi Arataki (Ministry of Education, 2002), a new funding system and new rates were implemented in 2005. This new system took a ‘cost-drivers’ approach which provided funding on the basis of costs services face. This established a path for future government funding increases to reflect increases in costs. It set higher funding rates for those services that met certain quality standards, to provide incentive for quality improvement. It also increased funding to support rural ECE services and children with special education needs. The new system increased the average funding per funded child hour by 38%, and accelerated public expenditure on ECE by 51%.

In July 2007, 20 Hours ECE policy was introduced. Services opting in to this policy received a higher subsidy per funded child hour (on average $7.30 per hour compared with $4.06 per hour) in exchange for agreeing to charge no fees.

Public expenditure on ECE increased by $569 million (or 65%) in the period 2007-2010. Not all of this was due to 20 hours ECE policy and children participating for longer with higher levels of subsidy. Coinciding with this policy change there was a relatively high level of population growth for children aged under 5, at 2.2% each year compared with annual growth of 0.8% prior to 2007. In terms of the overall growth in volume between 2007 and 2010, 27% can be attributed to population change, and the rest to other changes, including 20 hours ECE policy.

Between 2010 and 2012, annual growth in public expenditure on ECE slowed from 12% to 2%; however it increased by 4% in 2013. Average weekly hours had reached 20.2 in 2010, and much of the growth in average weekly hours that had occurred after 20 hours ECE policy was introduced was then slowing in 2011. With the economy gradually recovering from the recession, the employment rate has been improving since 2013; which has led to a relatively stronger increase in average weekly hours and enrolments.

In February 2011, the top two funding rates were replaced with a single lower rate. This was designed to balance the need to control unsustainable costs with our priority to increase opportunities for all children to participate in high quality ECE. This change resulted in an average funding per hour drop of 8% for those services impacted, and an estimated 5% decline in affordability for parents. This is likely to have slowed volume growth. Despite this change, affordability remains 32% better than it was at June 2007, prior to the introduction of the 20 Hours ECE policy (Ministry of Education, 2012b).
Trends in public expenditure on a per unit basis

Public expenditure per FTE child rose by 70% between 2002 and 2013. It initially dropped between 2002 and 2004 from $5,700 to $5,300 (when adjusted to 2013 dollars). This reflected decreases in the non-subsidy component of public funding, for items such as professional development and family support. The subsidy-based component of public expenditure, both rate and total funding, increased between 2002 and 2004. The implementation of the new funding system in 2005 and 20 hours ECE policy in 2007, as well as subsequent inflation cost adjustments, has seen the average public expenditure per FTE child increase on average 13% each year between 2005 and 2010. After a sustained period of growth, average funding per FTE child stabilised between 2010 and 2013.

Internationally, New Zealand has one of the highest levels of expenditure per child on ECE. Overall, total expenditure, including from both public and private sources, per FTE child aged three to five years in centre-based ECE in New Zealand was USD 11,495 in 2010. This ranked New Zealand second highest for expenditure on ECE in the OECD (see Figure 3), and was 70% higher than the OECD average (USD 6,762).

Comparability for this OECD ECE indicator is, to some extent, adversely affected by differences in how countries define an FTE child in ECE. There is no standard definition used for international reporting. For example, countries using a higher weekly hours threshold for defining an FTE child will tend to have lower numbers of FTE children and hence a higher per FTE child expenditure. However, regardless of the threshold used, New Zealand is likely to remain in the top group of the OECD for per-child expenditure on ECE.

Figure 3: Total expenditure (public and private) per FTE child aged 3 and older for OECD countries, 2010

(1) Data relates to expenditure on children aged 3 and over in centre-based ECE institutions.
(2) Dollar values are in equivalent USD converted using Purchasing Power Parity.
(3) Comparisons are influenced by differences in how countries define an FTE, which varies significantly across countries.
Public expenditure on ECE as a proportion of total public expenditure on education has doubled since 2002

The proportion of public education expenditure devoted to ECE more than doubled between 2002 and 2013, from 6.4% in 2002 to 13.1% in 2013 (see Figure 4). This growth reflects successive governments’ increased investment in this part of the education sector, as well as population changes. The recent plateau in the proportion of education expenditure allocated to ECE reflects relatively larger gains in other parts of the education sector. Public ECE expenditure still increased significantly in 2009 (by $175 million, or 17.4%) as is evident in the continuing increase in ECE expenditure as a proportion of core public expenses. 5

New Zealand’s expenditure of 1.5% of total public expenditure on ECE ranked New Zealand seventh in the OECD, and was higher than the OECD average by 0.4 percentage points (see Figure 5).

5 In particular, student loan expenses rose by nearly $1,000 million (see the Core Crown Expenses tables from Budget Economic and Fiscal Update 2010, http://www.treasury.govt.nz/budget/forecasts/befu2010).
Figure 4: ECE public expenditure as a proportion of total education public expenditure, 2002-2013

Figure 5: Public expenditure on ECE as a proportion of total public expenditure for OECD countries, 2010

(1) Data relates to expenditure on children aged 3 and over in centre-based ECE providers only.
Public expenditure on ECE as a percentage of GDP rose strongly, by 0.43 percentage points, between 2005 and 2013.

The proportion of public expenditure on ECE remained steady at about 0.33% between 2002 and 2004 (see Figure 6), and then more than doubled between 2005 and 2011, from 0.34% of GDP to 0.76%. A slight decrease was shown in 2012 and then it picked up its growth in 2013. Some of the factors influencing these increases have been discussed above: 20 Hours ECE; increases in equity funding, and cost adjustments.

Figure 6: Public expenditure on ECE as a percentage of GDP, 2002-2013

In 2010, New Zealand spent 0.53% of GDP from public sources and 0.09% (see Figure 7) from private sources on ECE, both of which were slightly higher than the OECD averages of 0.47% and 0.08% respectively. Overall, 0.62% of GDP spending on ECE positioned New Zealand in the middle group of OECD countries in 2010.

(1) GDP figures are nominal GDP sourced from Budget Economic and Fiscal Update, http://www.treasury.govt.nz/budget.
Where To Find Out More

- More statistics on ECE expenditure, including total and per-funded-child-hour expenditure trends by programme, funding band, type of service, decile and geographical area, and funding subsidy rates, fees and affordability, can be found at [http://www.educationcounts.govt.nz/statistics/ec2/finances](http://www.educationcounts.govt.nz/statistics/ec2/finances).


- More ECE indicators, including affordability, can be found at [http://www.educationcounts.govt.nz/indicators](http://www.educationcounts.govt.nz/indicators).

- The Education Counts website also provides a range of ECE-related publications at [http://www.educationcounts.govt.nz/publications/ec](http://www.educationcounts.govt.nz/publications/ec).

- A wider range of other information on ECE in New Zealand, can be found at [http://www.lead.ece.govt.nz/](http://www.lead.ece.govt.nz/).

References


