

# **How much do we actually spend on early childhood?**

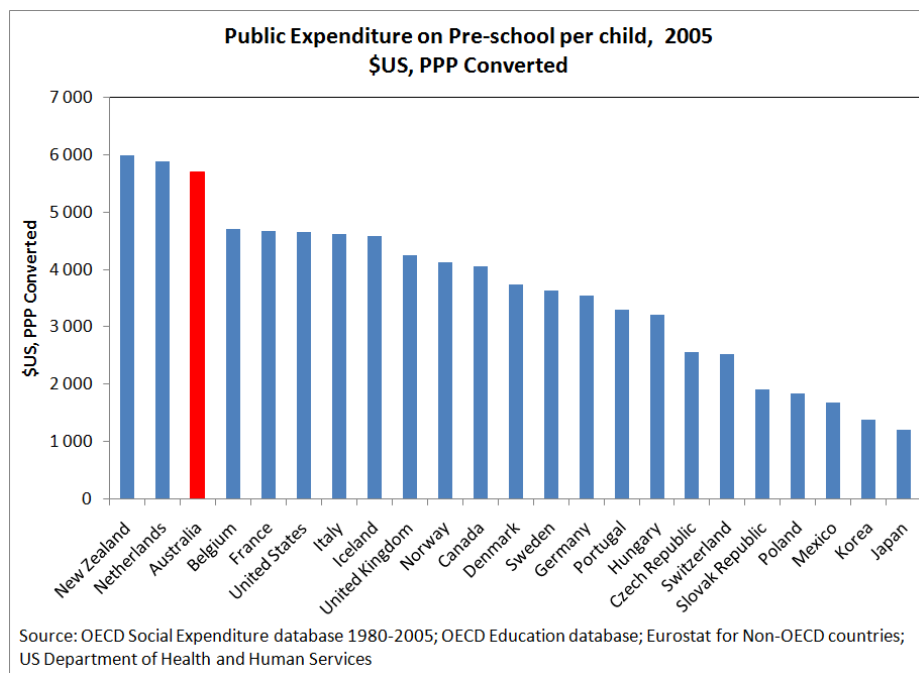
## **A review of international comparisons and the OECD's *Starting Strong II***

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Research Paper  
September 2009

## Executive Summary

- The 2006 OECD report *Starting Strong II* (2006 SSII) has been widely used in Australia as evidence that Australia lags behind the rest of the world when it comes to public spending on early childhood education and care (ECEC.)
- This paper shows that the OECD report should be treated with great caution by policymakers. On many ECEC spending indicators Australia ranks well ahead of most other OECD economies.
  - In 2005 Australia ranked third in the OECD on public expenditure on pre-school per child.



- The 2006 report does not take into account recent policy developments such as the government's recently introduced 50 per cent Child Care Rebate for out-of-pocket ECEC expenses.
- The aggregate amount of public spending on early childhood and education is a poor indicator of the health, robustness and vibrancy of a nation's ECEC sector:
  - Aggregate government spending is a poor measure of the efficiency and efficacy of individual spending initiatives.
  - Measures of public spending do not take into account the value of tax rebates and tax concessions, or the large proportion of ECEC spending that occurs in the private, rather than public sector, or unpaid ECEC by parents or relatives.
- The results of this review indicate that there is little doubt that Australia rates highly against OECD 2006 SSII countries. There is a risk that the publicity surrounding 2006 SSII may significantly mislead Australian policy makers.

## About the Institute of Public Affairs

The Institute of Public Affairs, founded in 1943, is the world's oldest free market think tank. The IPA is a not-for-profit research and advocacy institute based in Melbourne, Australia with staff and associates based around Australia.

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## Contents

Executive Summary .....	2
About the Institute of Public Affairs .....	3
About the author .....	3
1 Introduction .....	4
2 Is Aggregate Public Spending on ECEC a Useful Indicator? .....	5
3 <i>Starting Strong II's</i> International Comparisons.....	7
3.1 Who Attends Formal ECEC? .....	8
3.2 2006 SSII Apparent Child Number Inconsistencies .....	9
3.3 In 2006 SSII What is the Money Being Spent On? .....	10
4 Australian Taxpayer Support for Families and Children: A Brief Overview .....	14
5 Conclusions.....	20
Bibliography .....	20

# 1 Introduction

International comparisons of public spending data are ubiquitous in economics. But what do such exercises actually tell us? When performed correctly by economists, international comparisons can often provide useful information and insights into similarities and differences between countries, and suggest future broad directions for economic reform. However, because every country and every set of policies and data sets are different, it is important to take care when drawing policy conclusions from such international comparisons.

Consider, for example, the 2006 international comparisons of public spending on childcare and related services. The Organisation for Economic Cooperation and Development (OECD) defines *early childhood education and care* (ECEC) as services that include “all arrangements providing care and education for children under compulsory school age, regardless of setting, funding, opening hours, or programme content.”<sup>1</sup>

How does public ECEC spending in Australia compare with that provided in other countries? Meaningful international comparisons of the amount of taxpayer funded support for ECEC services are fraught with difficulty. Indeed, the OECD’s 2006 SSII publication notes that “*current investments of OECD countries in early childhood education and care services are difficult to calculate, as reliable figures for child care expenditure by governments are often not available.*”<sup>2</sup>

The OECD’s international comparisons of public ECEC spending are no theoretical curio. On the contrary, the data - particularly aggregate spending data, expressed as a percentage of GDP - has attracted a great deal of attention and impacts on public policy. Media reports constantly cite the 2006 quoted data, and policymakers refer to 2006 SSII regularly. During the 2007 election campaign, for example, the Australian Labor Party repeatedly cited the OECD’s public ECEC spending figures in its policy documents, calling for a universal, taxpayer funded early education scheme for all 4 year olds which, when fully implemented, is expected to cost taxpayers \$450 million per year.<sup>3</sup> This review is therefore proper and timely with data set updates covering changes in the intervening years since 2006 SSII data collection and publication.

However, such international comparisons are complicated by the fact that Australia is the only country in the OECD for which subsidies to parents are the main form of funding for ECEC services.<sup>4</sup> In contrast, the majority of OECD countries’ public funding is in the form of government provision or direct funding to service providers.

It is significant that Australia’s method of funding these services is almost unique in the OECD, and this has important implications for interpreting international comparisons. This paper examines the OECD’s public spending data on ECEC services and explores some of the issues that can arise as a result of our rather unique funding arrangements. We examine the Australian public spending data from a variety of different angles, and compare it with the OECD’s data, particularly that presented in Figure 5.3 in 2006 SSII.

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<sup>1</sup> See *Starting Strong* (2001), Executive Summary, page 7.

<sup>2</sup> *Starting Strong II*, page 103.

<sup>3</sup> See

<http://pandora.nla.gov.au/pan/22093/200711240102/www.alp.org.au/media/0807/msedutfcs100150.html> and <http://pandora.nla.gov.au/pan/22093/20071124-0102/www.alp.org.au/media/0807/msedutfcs310.html>

<sup>4</sup> See, for example, OECD (2009) *Education Today: The OECD Perspective*, page 12.

We find that extreme caution should be exercised in relation to this particular data, which appears to subjectively position Australia in an unflattering light. When considering more appropriate, up-to-date spending indicators, particularly including direct subsidies to parents delivering ECEC government and private provider choices to families, Australia is in fact a world leader.

## 2 Is Aggregate Public Spending on ECEC a Useful Indicator?

Spending on any economic activity is a cost, not a benefit, and is not a comprehensive measure of actual outcomes.

The OECD places a great deal of weight on data of aggregate public and private education spending in general, and on ECEC spending in particular. Indeed, the OECD's recently published *Education at a Glance* report states that "expenditure on educational institutions as a percentage of GDP shows how a country prioritises education in relation to its overall allocation of resources."

However, there are several problems with the OECD's general approach and with this conclusion in particular.

Firstly, spending is a means to an end, not an end in itself, and as such it is a poor measure of the net economic benefits of a particular activity. This is particularly true for taxpayer funded in-kind services, which are typically valued at the cost of their provision to taxpayers, not their value to families and children. Often the cost can be less than the value as a result of willingness to pay. However for the purposes of public policy, it is net benefits that are the most important factor; indeed, for a given quantity of services, the cost to taxpayers is something that policymakers should strive to minimise, not maximise.

By definition, spending is equal to the price of a service multiplied by its quantity. If prices are higher in different countries for the same or lower quality-adjusted service, then higher aggregate spending across countries could be an indicator of *lower* consumer value for money, and could indicate a relatively uncompetitive ECEC sector.

Secondly, *aggregate* government spending is a poor measure of efficiency and efficacy of *individual* spending initiatives. What matters for policy is the efficacy and efficiency of individual programs and the value to taxpayers of those programs.

Thirdly, aggregate ECEC spending figures should not ignore important factors that determine individual ECEC choices in an economy such as, for example, demographic and geographic factors, including a country's age profile; the size distribution of families, parents' wages, and other potentially important demand and supply side factors such as social and cultural norms and informal institutions and traditions. To ignore such factors would be similar to expecting that Australia spend the same percentage of GDP on snowploughing as European countries, despite our very different climate.

Fourthly, observed spending on ECEC does not take account of the value of unpaid ECEC that is supplied by parents or by relatives. In 2007-08, the vast majority of children aged 0-5 years did *not* use Australian government approved or State/Territory government funded or provided child care, with only 35.4 per cent of children in this age group using

these services. Indeed, if public spending tends to crowd out private spending and privately supplied unpaid ECEC, then there is no reason to expect that higher public spending leads to a greater proportion of *actual* economic resources being devoted to ECEC.

Many measures of direct public spending on ECEC do not take account of the value of tax rebates and other tax concessions. Nor do they take into account the fact that such items are exempt from income tax and so are effectively supplemented by so-called “tax expenditures” that must be added to tax concessions to compute the grossed-up value of indirect ECEC benefits. For if tax expenditures are regarded as government spending by another name in the Treasury’s annual Tax Expenditure Survey (as they often are by policymakers and media commentators), then for consistency purposes they should also be counted when assessing public spending on ECEC services.

Finally, in many countries a large proportion even the majority of spending on early childhood education occurs in the private sector, not in the public sector. Thus direct public spending will only be a partial indicator of overall spending. With some 80 per cent of centre-based formal ECEC provided by private providers in Australia, the large amounts of capital and recurrent expenditure by these service providers should also be correctly assessed and added to total ECEC expenditures to get a better idea of the amount of resources devoted to the ECEC sector.

Indeed, as the OECD itself notes in its recently released report *Doing Better For Children (2009)*:

*“Public social expenditure is not the only input to child well-being. Private determinants include a nurturing family environment, access to informal support in the community for families, opportunity for participation in the community and society for children, and the quality of the living environment, such as safety and access to outdoor spaces. The quantity and quality of parental time invested in children...are obviously important omissions from consideration of investment in children.”*<sup>5</sup>

For all of these reasons, the aggregate amount of public spending on early childhood and education is often a poor indicator of the health, robustness and vibrancy of a nation’s ECEC sector. In short, when it comes to ECEC, aggregate direct public ECEC spending as a proportion of GDP tells us very little about the things that policymakers are interested in, particularly when subjective decisions and judgements are made in different countries as to what exactly is included in these aggregate spending figures.

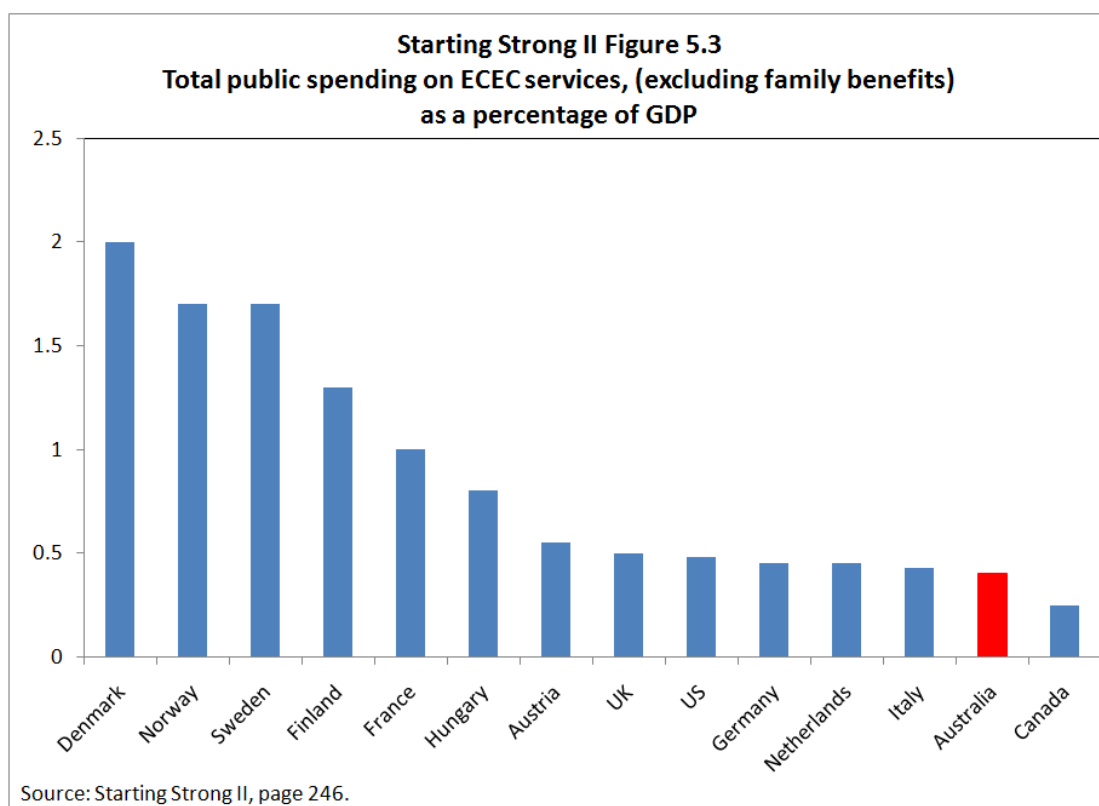
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<sup>5</sup> *Doing Better For Children*, page 71.

### 3 *Starting Strong II's* International Comparisons

As an example of the kinds of problems that can arise with international comparisons of public ECEC spending, consider the OECD's 2006 SSII Pages 105 and 246 of this report present data on public spending on ECEC services for children aged 0-6 for a group of 14 OECD economies. The data, which excludes family benefits, finds that public spending in Australia on ECEC services in 2004 was 0.4 per cent of GDP, which results in Australia receiving an unflattering ranking of second last in the group on 2004 data (see Fig. 3.1).

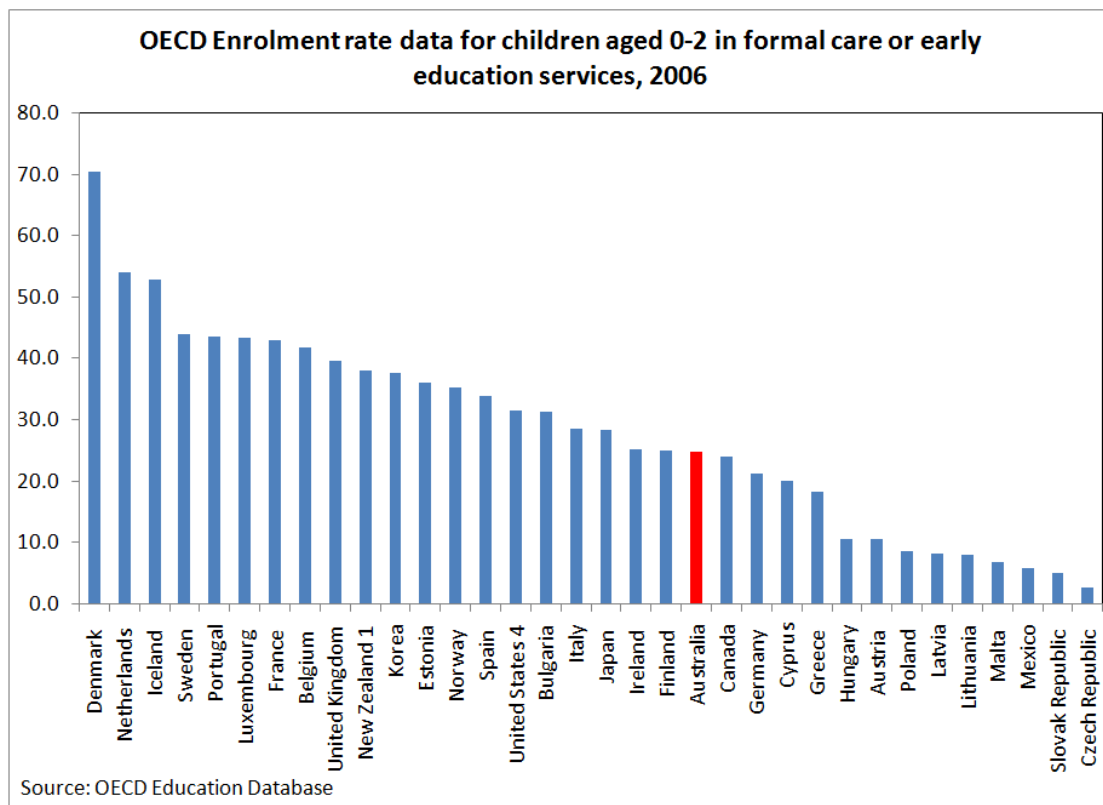
**Figure 3.1**



### 3.1 Who Attends Formal ECEC?

The first thing to note about this data is that not all countries are equal when it comes to ECEC attendance. (See Figure 3.2). Most 0-2 year olds in Denmark (70 per cent), for example, attend some kind of formal care or early education; the OECD's figure for Australia is only 24.8 per cent, and as indicated in Section 2 above there would be many different reasons for this, including local society norms and climates which affect such family choices. With such different patterns of attendance, it would be very odd if Australia's aggregate public spending per dollar of GDP was exactly identical to that of Denmark's.

Figure 3.2



### **3.2 2006 SSII Apparent Child Number Inconsistencies**

A second and related key point is what is actually being counted in *2006 SSII*'s data. In all Australian states and territories the age at which a child's attendance at school becomes compulsory is 6 years (except Tasmania where it is 5 years). However, pre-year 1 schooling is also offered in each state and territory, with many children enrolling between four and a half to five at the beginning of the Pre-year 1 school year.<sup>6</sup>

The key point is that in Australia the pre-primary year of schooling is not compulsory and encompasses children aged less than 6 years. Thus, it appears to fall within the OECD's definition of ECEC.

How many students are enrolled in pre-year 1 schools in Australia? Recent data is available to 2008, but for the purposes of comparison with later OECD figures that will be analysed, we consider 2005 data. According to the Australian Bureau of Statistics, there were 217,543 full time equivalent students enrolled in pre-year 1 schooling in 2005. Note that this pre-primary education sector appears to be separate from the preschool sector in each state and territory.

The OECD's *Education Database* and other publications provide details of full time equivalent enrolments in pre-primary education at all types of institutions. For Australia, the OECD's data shows that in 2005, only 131,488.5 full time equivalent students were enrolled in pre-primary education.

It is unclear how *2006 SSII* deals with this difference and it is difficult to reconcile the two sets of data. The OECD's number does not even come close to the number of full time equivalent students enrolled in pre-primary education in *government* schools in Australia in 2005, which was 153,636. A simple cross check of the population data suggests that the ABS data may be more accurate. Most Australian children attend pre-primary education, and in 2005 there were 262,092 children aged between 5 and 6, which is close to the ABS number for full-time equivalent pre-primary students. Thus, OECD data appears to undercount enrolments in pre-primary education, and hence appears to have undercounted the number of children in the ECEC sector.

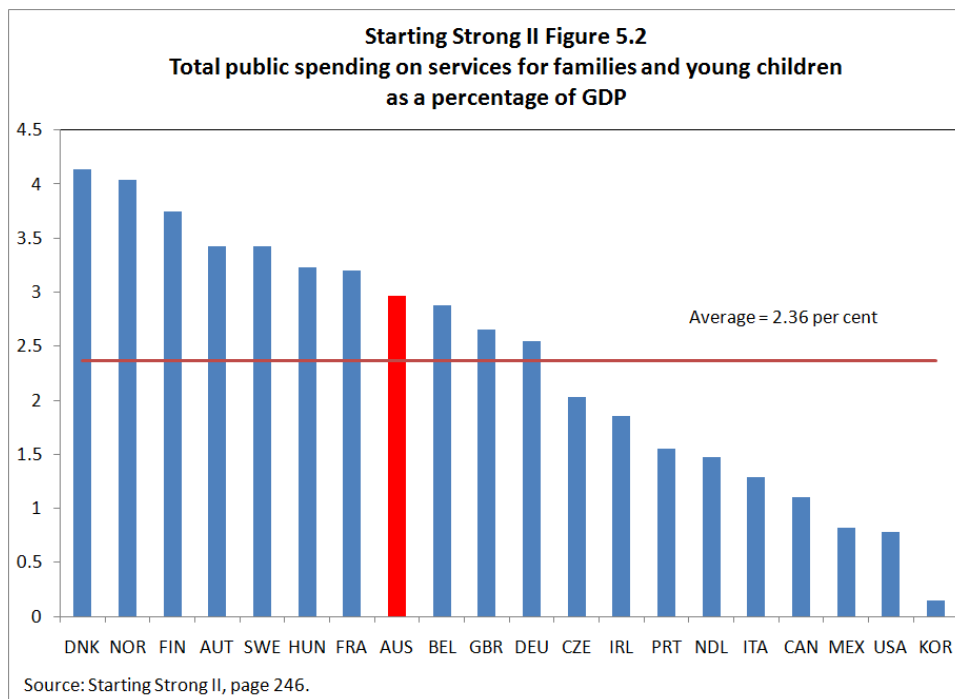
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<sup>6</sup> In NSW and the ACT Pre-Year 1 is called Kindergarten. In Victoria, Tasmania and Queensland it is called Preparatory and in NT it is called Transition. In SA it is called Reception and in WA it is called Pre-Primary.

### 3.3 In 2006 SSII, What what is the money being spent on?

A third key point is the composition of spending. *2006 SSII* also presents data on “public investment in services for families and young children” [including cash benefits, public expenditure family services, and public spending on International Standard Classification of Education (ISCED) Level 0 programmes] as a proportion of GDP. These figures, which are based on data collected in 2002 and published by the OECD in 2005, are reproduced below. (See Fig 3.3).

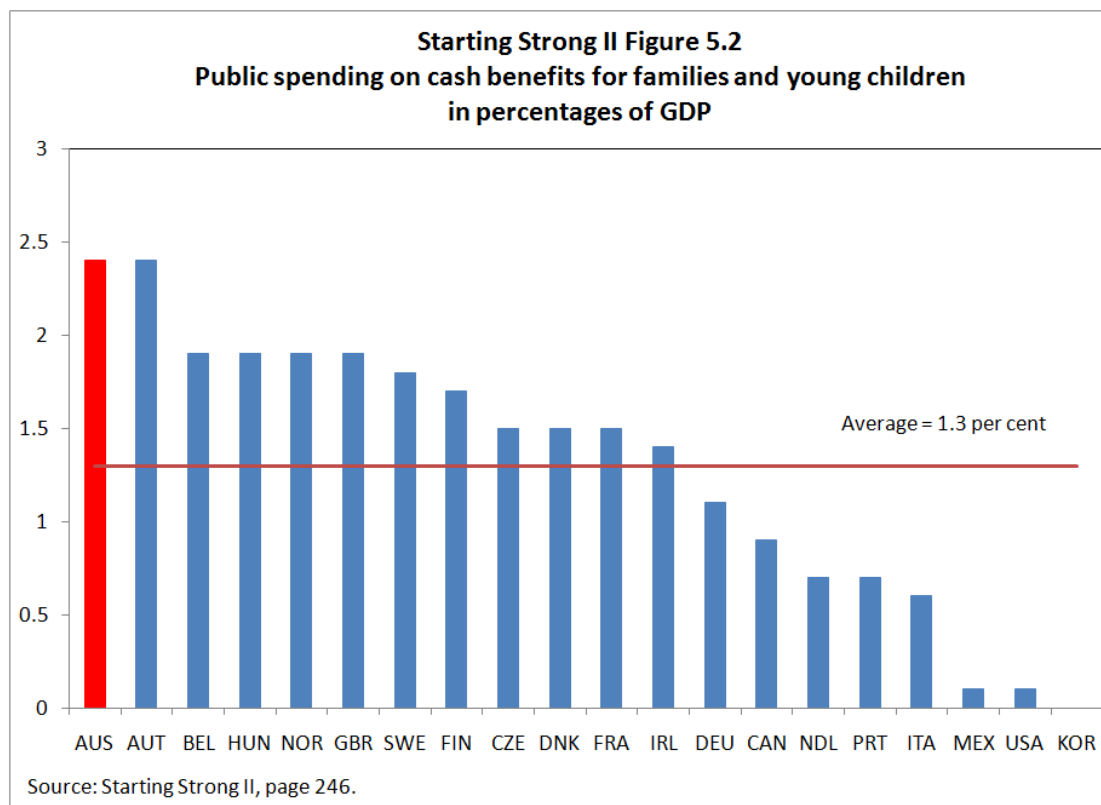
Figure 3.3



While total 2006 SSII expenditure appears incomplete, the data shows that public spending on families and young children in Australia was nearly 3 per cent of GDP in 2002, giving us an overall ranking of eighth and well above the average of this group of developed countries.

The key difference between 2006 SSII's two comparisons, of course, is the inclusion of taxpayer funded family benefits, where Australia was the OECD frontrunner in 2002. To see this, note that the data in Figure 5.2 can also be broken down into its constituent parts. Consider, for example, 2006 SSII's estimates of public spending on cash benefits for families and young children in 2002. This data is reproduced below. (See Figure 3.4).

**Figure 3.4**



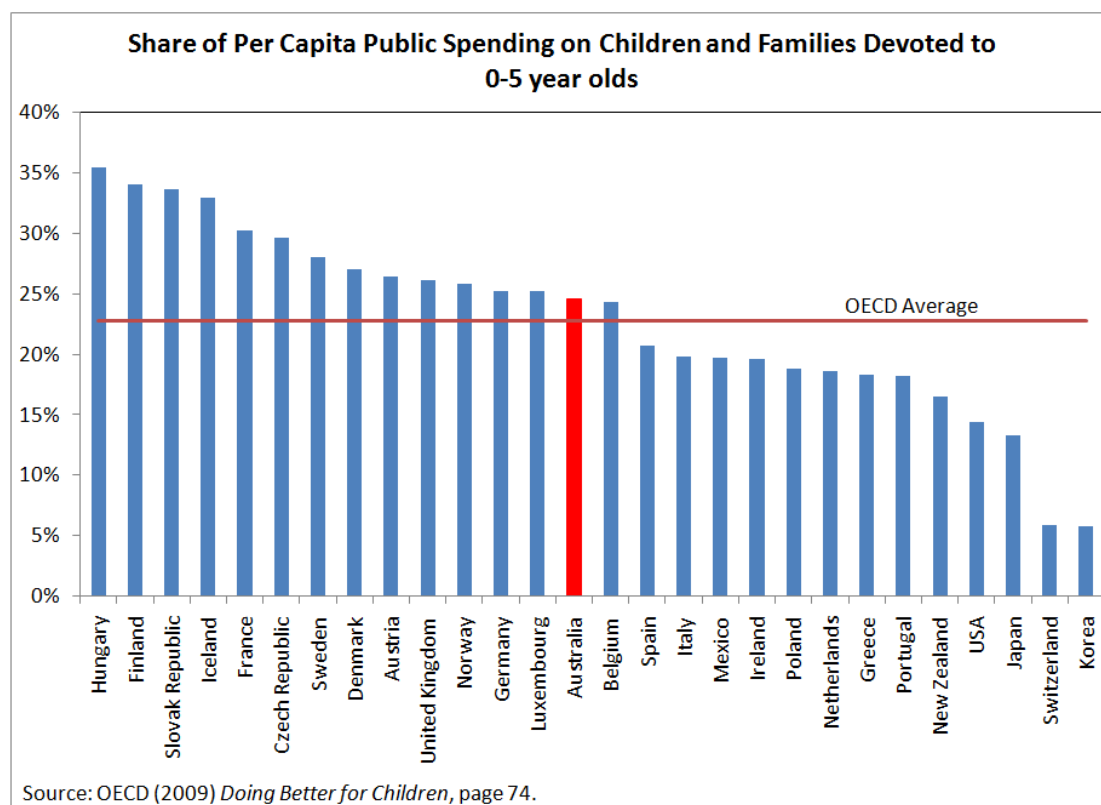
The data shows that in 2002 Australia had the most generous system of taxpayer funded cash benefits (in terms of percentage of GDP) in the entire group.<sup>7</sup>

Section 4 of this review provides further details of these payments, their expected budgetary cost in 2009-10, their size relative to other OECD economies, and the effect on out-of-pocket childcare expenses.

<sup>7</sup> The most recently available data is for 2005, and shows that Australia devotes 2.2 per cent of GDP towards family cash benefits, placing us fifth in the entire OECD and well above the average of 1.3 per cent of GDP.

So exactly how much of this family spending goes to families with young children? The Boston Consulting Group recently (2008) estimated that \$11 billion – 1 per cent of GDP - is paid annually to families of children aged between 0 and 5.<sup>8</sup> In its recent *Doing Better for Children (2009)* report, the OECD published estimates of each country's share of per capita public spending on families and children that is devoted to children aged 0-5. This data, which is presented in the Figure 3.5 below, shows that Australia devotes a high share (25 per cent) of each dollar of public spending on families and children towards children in the early stages of childhood, relative to the OECD average (22.8 per cent). None of these factors seem to be accounted for in the data presented in Figure 5.3 of *2006 SSII*.

**Figure 3.5**



*2006 SSII* also makes other problematic international comparisons. For example, the report's estimates suggest that Australia devotes relatively little public spending to ISCED Level 0 programmes (0.07 per cent of GDP, the lowest of the group), which again suggests that public spending on ECEC in Australia is low, relative to other developed countries.

But what exactly is ISCED Level 0 spending? *2006 SSII* notes on page 69 that:

“International Standard Classification of Education (ISCED) Level 0 programmes are defined as centre or school-based programmes that are designed to meet the educational and developmental needs of children at least 3 years of age, and that have staff that are adequately trained (i.e. qualified) to provide an educational

<sup>8</sup> See page 15 of BCG (2008) *National Early Childhood Development Strategy*, Report to the ECD Subgroup of the Productivity Agenda Working Group, COAG, September.

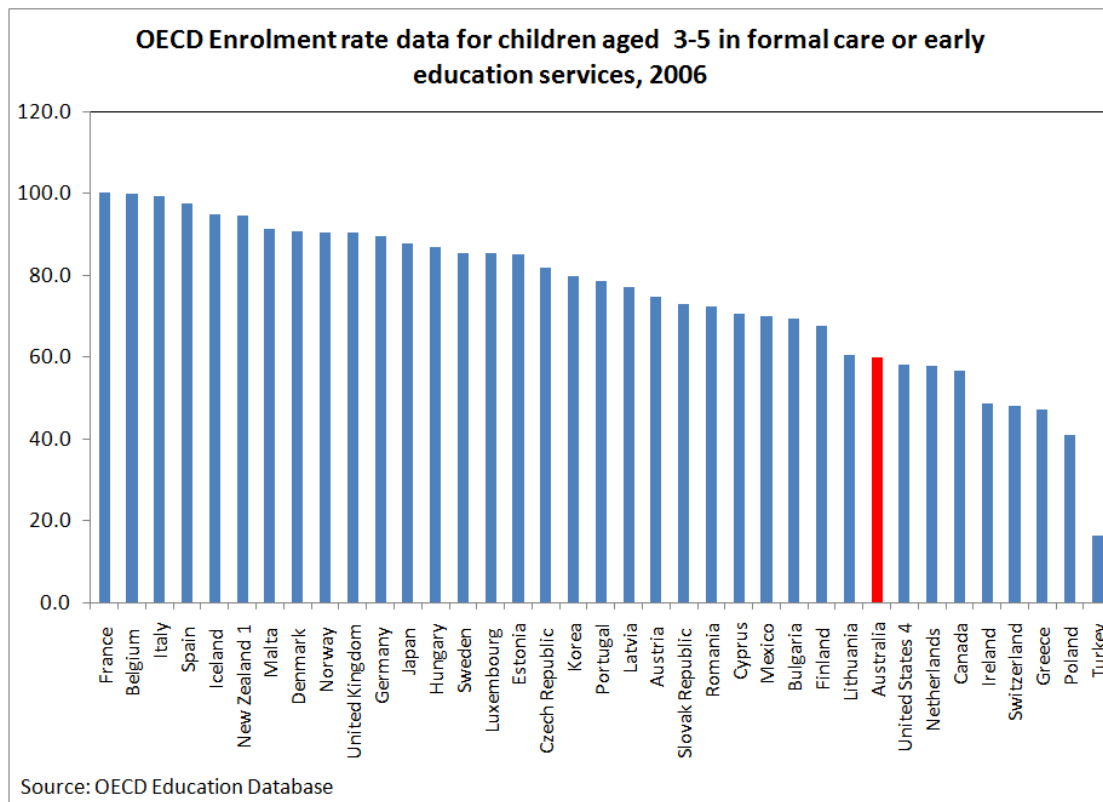
programme for the children. (Subjectively) *Programmes devoted to early childhood care or play are not included in this definition.*"

Recall that the OECD defines ECEC as “*all arrangements providing care and education for children under compulsory school age, regardless of setting, funding, opening hours, or programme content.*”

In other words, by the OECD’s own definition of ECEC, the data used in 2006 SSII Figure 5.2 on ISCED Level 0 programmes is not a fair indicator of public ECEC spending, because ISCED Level 0 spending is only a small subset of all relevant public spending on ECEC educational arrangements. It is therefore improper to make international comparisons on the basis of such an incomplete data set.

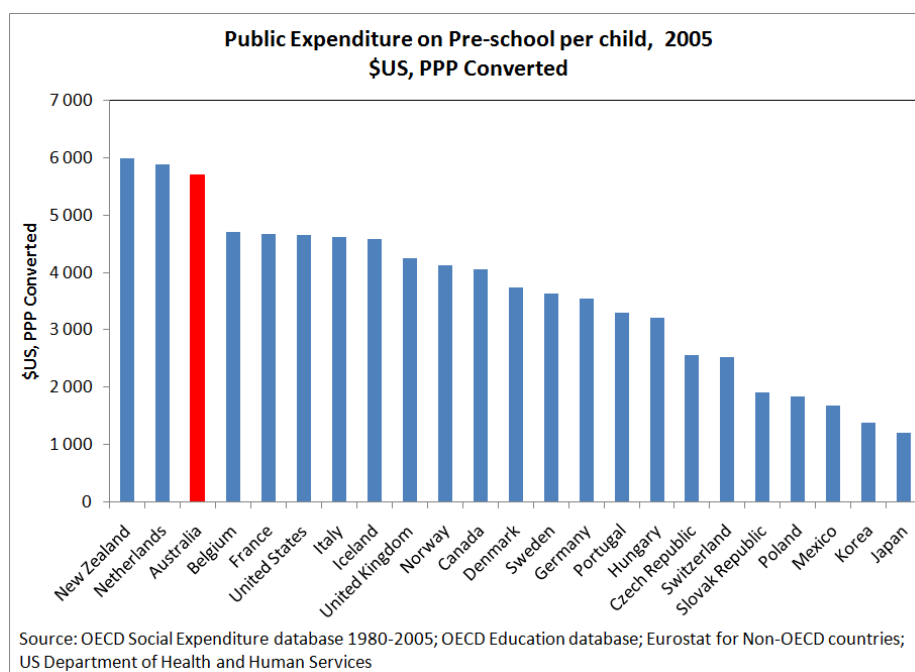
Finally, let us come back to the difference between aggregate spending data and the amount spent per child. If enrolment rates in formal early childhood education are low because such forms of education are not compulsory or because subsidies encourage other forms of care (such as parents staying at home with their children), then international comparisons of aggregate spending figures on formal ECEC will not show the complete picture of what is happening in different countries. Take public expenditure on preschool, for example. According to the OECD, Australia devotes a relatively low proportion of GDP to public spending in this area. But as the Figure 3.6 below shows, the OECD’s measured enrolment rates for this form of education are relatively low for Australia with previously indicated valid reasons.

**Figure 3.6**



The result is the data in the Figure 3.7 below, which provides details of public expenditure on pre-school per child in 2005. Using this measure, Australia ranks third in the OECD.

**Figure 3.7**



## 4 Australian Taxpayer Support for Families and Children: A Brief Overview

For completeness, for policy comparison and as a data update, a comprehensive data set of 2009 government funding for families and children is provided in Table 1 below, with details of the most significant family and childcare related Federal Government programs (in terms of overall budgetary costs) that are currently in place in Australia. The largest programs are as follows:

- **Family Tax Benefit Part A:** For a child under the age of 13, the maximum fortnightly rate of FTB (A) is \$156.94, or \$4803.4 per year, and is gradually phased out at a rate of 20 cents in the dollar once annual family income reaches \$44,165.<sup>9</sup>
- **Family Tax Benefit Part B:** This is paid to one and two parent families with one main income, and where one parent stays at home and combines part time work with caring for their children. For children under the age of 5, the maximum rate of FTB (B) is \$3828.85 per year.
- **The Baby Bonus:** This is a series of 13 fortnightly payments totalling \$5185 per eligible child, and is payable to families whose adjusted taxable income is \$75,000 or less in the six months following the birth of the child.

<sup>9</sup> All details of these payments are taken from the Australian Government publication, *A Guide to Australian Family Payments*, and are current to 31 December 2009.

- **The Child Care Benefit:** The maximum amount of Child Care Benefit (CCB) is \$180 per child per week, and this rate is available to families with family income of \$37,960, and is subject to a work, training or study test.
- **The Child Care Tax Rebate:** This is now known as the Child Care Rebate, and covers 50 per cent of out of pocket childcare expenses for approved childcare, up to an annual total of \$7778 for 2009-10.
- **Parenting Payment:** The single and partnered Parenting Payment is paid to parents of young children at a rate of either \$574.50 per fortnight, or \$411.50 per fortnight for partnered parents, and is subject to an income test.

**Table 1: Estimated Budgetary Cost of Federal Taxpayer-Funded Direct Family and Childcare Related Payments, 2009-10**

Policy	Estimated Budgetary Cost in 2009-10
<b>Family Tax Benefit (Parts A and B)</b>	\$17,424 million
<b>Baby Bonus</b>	\$1,416 million
<b>Child Care Benefit (CCB)</b>	\$2,021 million
<b>Child Care Tax Rebate</b>	\$1,071 million
<b>Parenting Payment (Single &amp; Partnered)</b>	\$5,252 million

*Source: 2009-10 Budget Paper No. 1 and 2009-10 FAHCSIA and DEEWR Portfolio Budget Estimates.*

It is important to note that these payments are exempt from income tax. In addition, childcare supplied by an approved provider in Australia is not subject to the Goods and Services Tax (GST). To arrive at an expenditure-equivalent of these benefits, the so-called "tax expenditures" associated with the payments must also be taken into account. The aggregate value of these tax expenditures is reported in Table 2 below.

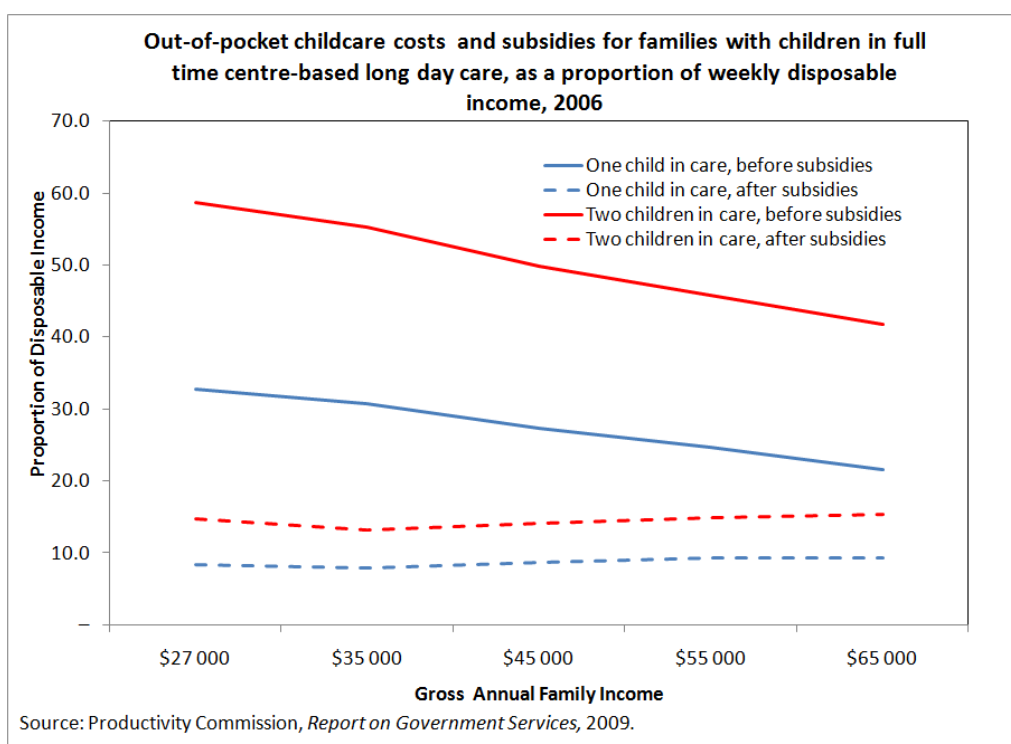
**Table 2: Family/Childcare-Related Tax Expenditures, 2009-10**

Policy	Estimated Cost in 2009-10
<b>Exemption of FTB (A) and FTB (B) from Income Tax</b>	\$1,940 million
<b>GST Exemption for Eligible Childcare</b>	\$430 million
<b>Exemption of Child Care Tax Rebate from Income Tax</b>	\$195 million
<b>Exemption of the Baby Bonus from Income Tax</b>	\$155 million
<b>Exemption of Child Care Benefit from Income Tax</b>	\$445 million

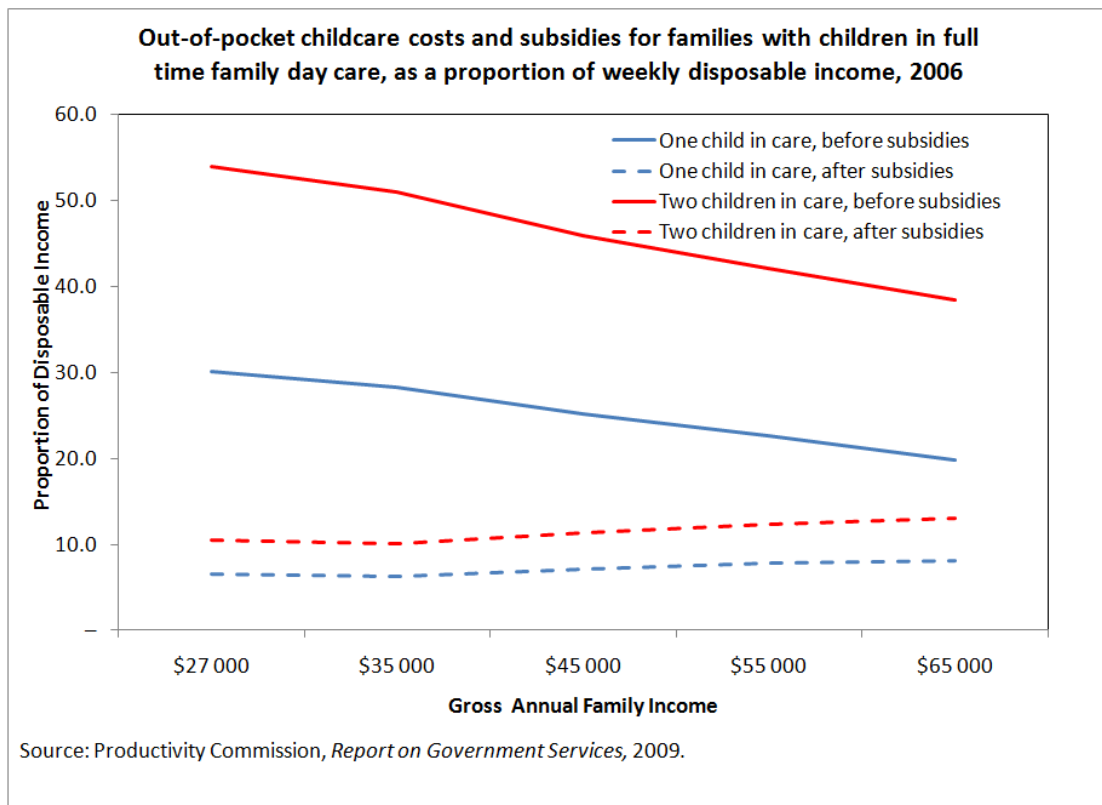
*Source: Commonwealth Treasury, 2008-09 Tax Expenditure Statement.*

What are the effects of these benefits on out-of-pocket childcare costs in Australia? The figures 4.1 and 4.2 below show that the effect is substantial. For a family with two children in full time centre-based long day care, taxpayer funded subsidies equate to nearly 50 per cent of disposable income for very low income earners. The effects are similar for full time family day care.

**Figure 4.1**

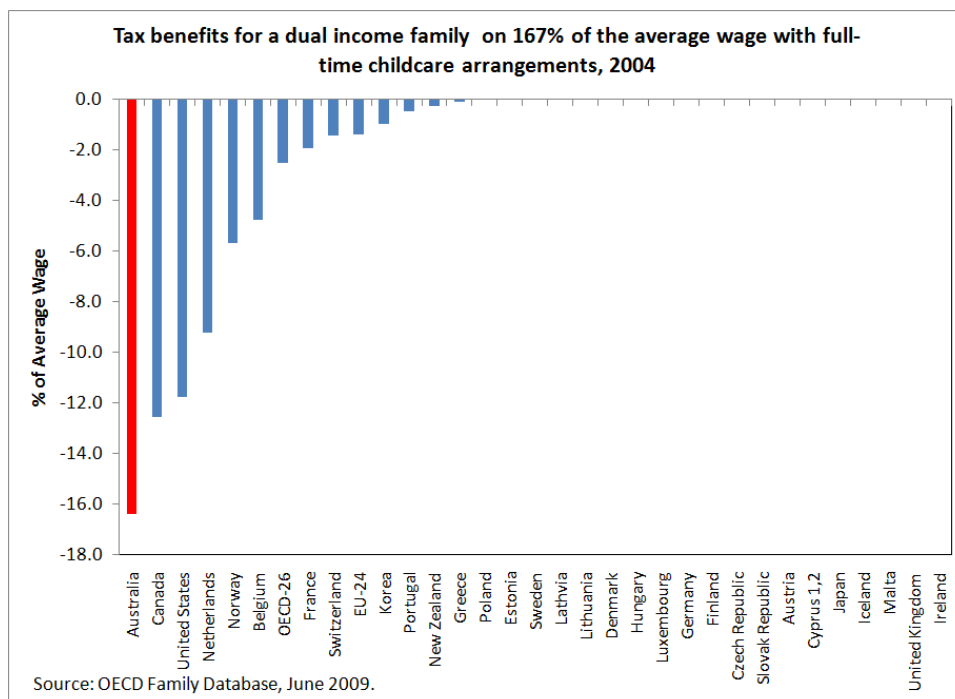


**Figure 4.2**

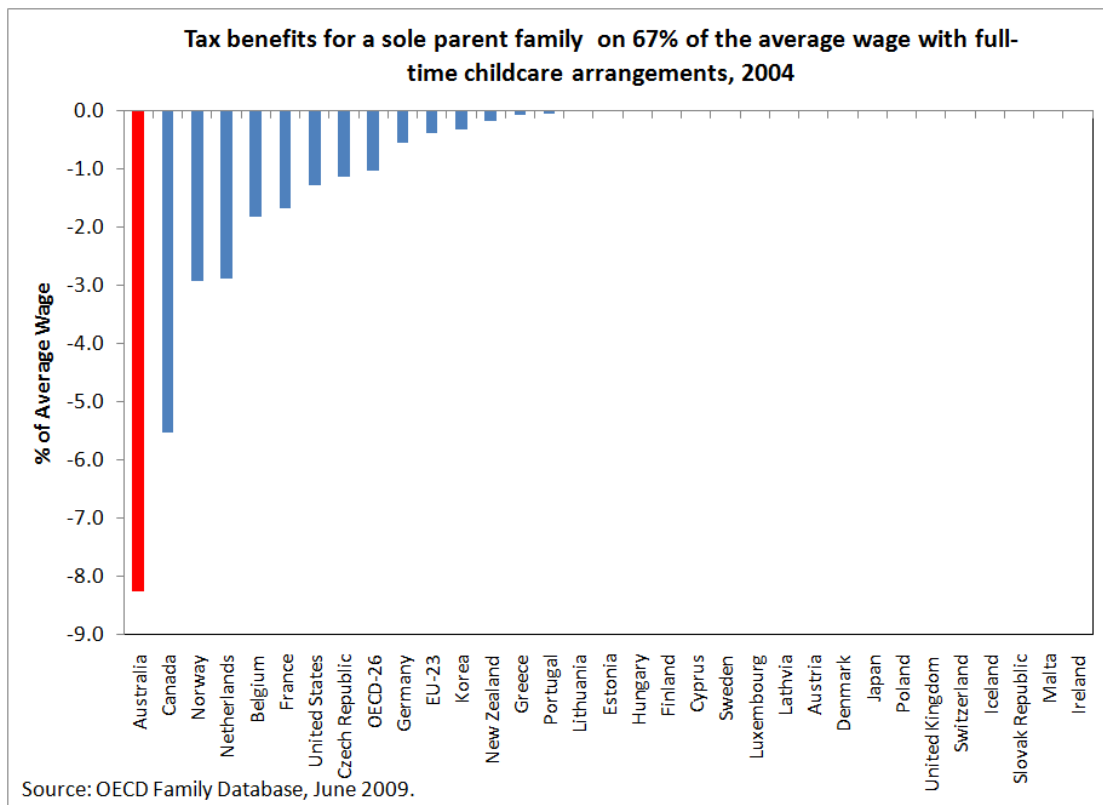


How generous are these individual subsidies, relative to those provided in other OECD economies? The Figures 4.3 and 4.4 below give us a reasonable idea. The first two figures provide an OECD-wide comparison of tax benefits for dual and single income families with full-time childcare arrangements, and show that Australia leads the world in these tax benefits.

**Figure 4.3**

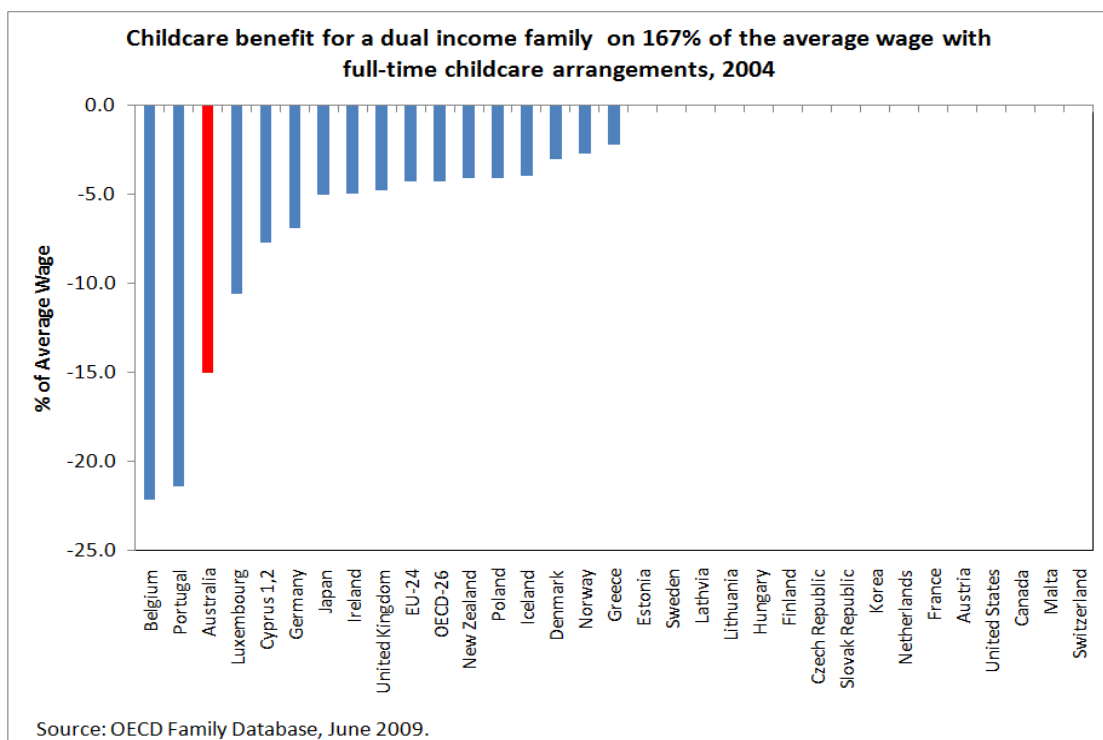


**Figure 4.4**

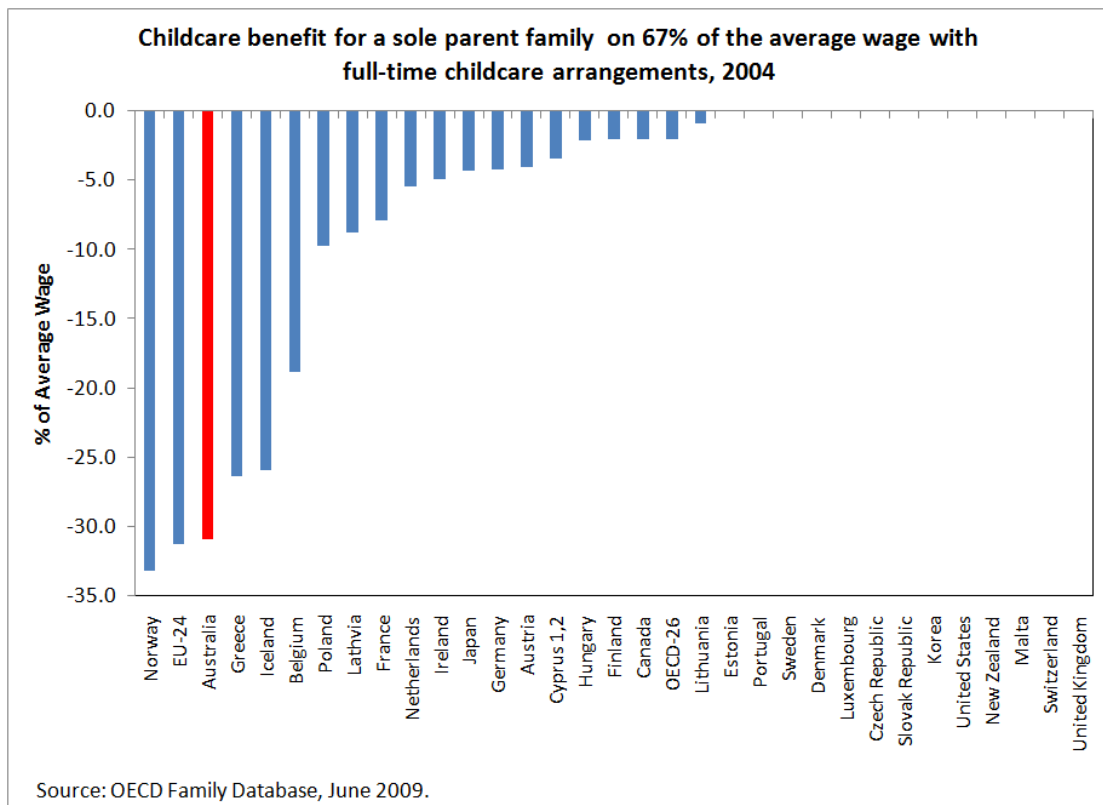


The second set of Figures 4.5 and 4.6 provide a comparison of childcare benefits for dual and single income families with full-time childcare arrangements, and again show Australia is very generous by world standards.

**Figure 4.5**

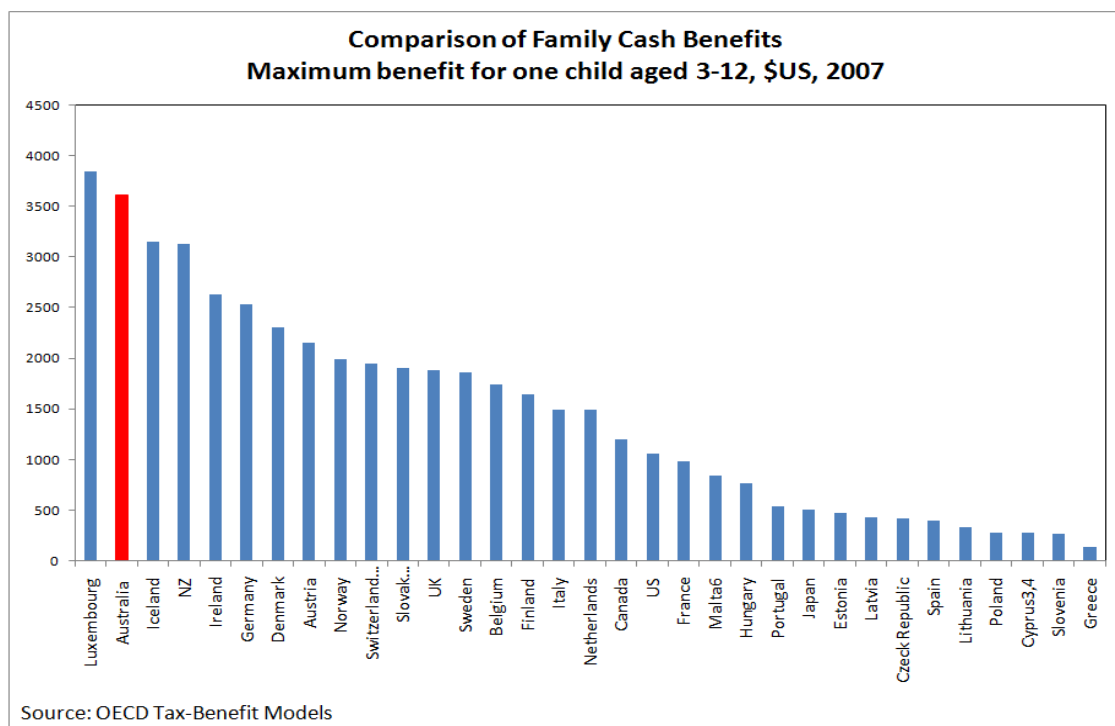


**Figure 4.6**



Finally, the Figure 4.7 below provides a comparison of the maximum annual family benefit (in \$US) available for a child aged 3-12 in different countries in 2007. Again, according to this data, Australia does well on this measure, ranking second in this group of countries.

**Figure 4.7**



## 5 Conclusions

In a world where at least the appearance of developing and implementing “evidence-based policy” is becoming increasingly fashionable in policy circles, obtaining the right evidence and interpreting it correctly is crucial.

Even under the best of circumstances, aggregate public spending is an imperfect economic indicator. But when such data is used to make international comparisons and draw policy conclusions, a whole new set of problems may arise.

Aggregate spending masks important differences in prices, quality of service, and demographic, geographic and cultural factors, as well as other policies that may drive public spending up or down, relative to other countries.

International comparisons of early childhood education and care provide an interesting case study of the kinds of problems that can arise and what can go wrong in these kinds of comparative exercises.

Direct subsidies to providers are not necessarily directly equivalent to cash benefits, tax breaks and other forms of funding to parents, but all of these matters affect families choices with their ECEC mix. In the Australian case, most public ECEC funding occurs through the latter mechanisms, whereas spending in various areas of the OECD there is a focus on the former. This makes international comparisons difficult, and unless a great deal of care is taken, incorrect conclusions can be drawn from the data.

Ultimately, any decision to increase public spending on early childhood education and care should confront the issue of whether there are positive net benefits from such forms of spending, and should examine the net incremental benefits of a range of policy options, relative to a baseline in which no such spending occurs. International comparisons of spending data, even when done correctly, are no doubt very interesting and challenging but they may shed very little light on the efficacy and efficiency of individual policy programs and spending proposals.

## Bibliography

Australian Government Publishing Service, *A Guide to Australian Family Payments*, 20 September 2009

Boston Consulting Group, *National Early Childhood Development Strategy, Report to the ECD Subgroup of the Productivity Agenda Working Group, COAG*, 2008

OECD, *Education Today: The OECD Perspective*, 2009

OECD, *Doing Better for Children*, 2009

OECD, *Starting Strong II: Early Childhood Education and Care*, 2006