
E Effective marginal tax rates

A recurring concern regarding the design of any government program is the possible creation of disincentives to undertake paid work (or to work additional hours). These disincentives do not arise solely from the early childhood education and care (ECEC) program being examined, they also stem from the interactions with all relevant tax and government transfers.

The most common approach to determining the cumulative disincentives associated with a program is to compare effective marginal tax rates (EMTRs). At its most basic, an EMTR tells us that if a person earned an extra dollar, how much of it would lose and how much they would keep. As discussed in box E.1, EMTRs are often referred to as a measure of ‘cents in the dollar’.

Box E.1 What does ‘cents in the dollar’ mean?

Most people do not get to keep every cent that they earn — for every dollar that they earn, they pay tax (for high income earners, this is as high as 45 cents). Some people lose part or all of their benefits paid by governments, and, of relevance to this inquiry, some people pay childcare fees. The sum of these losses can be referred to as ‘cents in the dollar’.

To illustrate, if a person earns one extra dollar, but pays 30 cents of this dollar in tax, loses 17 cents of transfer payments (such as Family Tax Benefit) and pays 22 cents towards child care costs in order to earn that dollar, their effective marginal tax rate (EMTR) can be considered to be ‘69 cents in the dollar’.

EMTRs of over 100 cents in the dollar imply that the person has no financial gain from working more hours (in fact, they would incur a financial loss). That said, some people may tolerate very high EMTRs in the short term if they think participating in paid work now would bring financial gains in the longer term (for example, through career progression) or they enjoy being in paid work.

Why are effective marginal tax rates important?

EMTRs are important because they can discourage people from working (or encourage them to work less). While some people derive satisfaction or enjoyment from their jobs, it is generally accepted that the main reason people work is to earn an income.

As an individual's EMTR increases, they get to keep less of their last dollar earned. In response, some will continue to increase their hours of work, but others will decide that the financial return from working more is insufficient to forego their additional leisure time or time spent caring for children.

As each person will have unique considerations when contemplating their work/lifestyle trade off, EMTRs are not a good tool for determining how any individual will respond to a policy or a policy change. Instead, they are best used to indicate how a group of people are likely to respond.

As such, EMTRs are a useful indicator for assessing the impact of a policy change — such as the Commission's recommendations for changing ECEC assistance — on workforce participation. In order to determine the likely EMTRs for families receiving childcare assistance, it is necessary to know what taxes those families face and which transfer payments they receive.

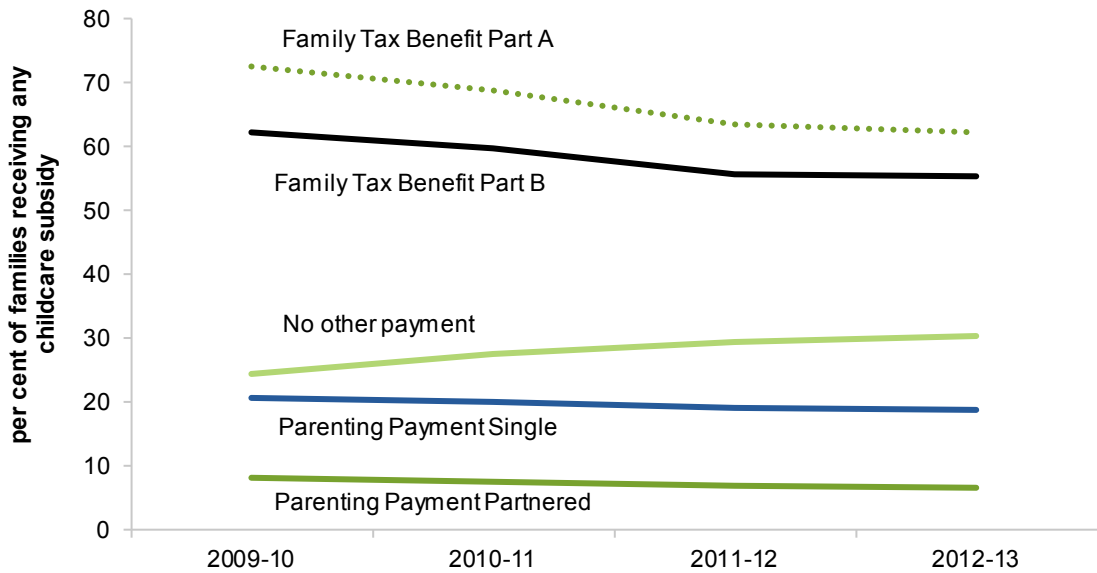
Taxes and transfers for families receiving childcare assistance

There are a range of tax and transfer policies that can interact with childcare assistance measures.

Most families will need to pay income tax and the Medicare levy. Families are also likely to pay goods and services tax (GST) and may be subject to a range of other taxes (including fringe benefits tax and capital gains tax). The taxes included in the Commission's calculation of marginal effective tax rates are income tax rates and the Medicare levy. This decision reflects the information publicly available to the Commission in these areas. For the remaining taxes, insufficient information is available to determine what taxes might be paid. In addition, payments for most of these remaining taxes will not vary based on work participation and childcare decisions and consequently, those taxes are unlikely to influence the decision whether to work or not (or the number of hours to work).

There are a range of government transfer payments to assist families and individuals facing differing circumstances. Over 660 000 families received ECEC assistance and at least one other family transfer payment in 2012-13 (Department of Humans Services Administrative Data, 2014). The most common form of transfer payments received by families who also receive childcare assistance are Family Tax Benefit (FTB) Parts A and B (figure E.1). There are a range of other income support payments received by families who also receive childcare assistance (including Parenting Payment, Paid Parental Leave, Newstart Allowance, Carer Payment and the Disability Support Pension). However, the number of families who receive at least one of these other income support payments and childcare assistance is less than families who receive childcare assistance and no other transfer payment.

Figure E.1 **Most common other government transfers received by families also receiving childcare assistance**



Source: Data supplied by the Department of Human Services.

E.1 A basic example – income tax and Medicare levy

The usual starting point for examining EMTRs is income tax. Australia has a progressive income tax system, where people are charged higher tax rates when they earn more money. For the 2014-15 financial year, the marginal tax rates for Australia are given in table E.1.

Table E.1 **Income tax rates**
2014-15

<i>Annual taxable income</i>	<i>Tax on this income</i>
0 – \$18 200	Nil
\$18 201 – \$37 000	19 cents for each dollar over \$18 200
\$37 001 – \$80 000	\$3 572 plus 32.5c for each \$1 over \$37 000
\$80 001 – \$180 000	\$17 547 plus 37c for each \$1 over \$80 000
\$180 001 and over	\$54 547 plus 45c for each \$1 over \$180 000

In addition to income tax, Australians also pay a Medicare levy. For most, the rate of the Medicare levy is 1.5 per cent of their income. For Australians who are only subject to income tax and the Medicare levy, the EMTR can be obtained by adding their marginal income tax rate with the Medicare levy rate. For a person without children (who is not eligible for ECEC assistance or most transfer payments) who earns between \$80 001 and \$180 000, their EMTR would be 38.5 cents in the dollar — indicating that they get to keep 61.5 cents of the last dollar that they earned.

In 2014–15, people with taxable incomes over \$180 000 will also be subject to the *Temporary Budget Repair Levy*, at a rate of 2 cents in the dollar for income earned over \$180 000 — a measure that will remain in effect until June 2017 .

Calculating EMTRs for childcare assistance

EMTR analysis is often used to examine the workforce implications of government taxes or policies that vary with income. Because of the rigidities in most typical work arrangements, EMTR comparisons are often based on predominant working arrangements — for example, a comparison between working full time and working less than 5 days a week and/or working less than a standard full time work day.

When examining EMTRs for childcare assistance, the rigidities inherent in using some forms of childcare also need to be considered. For example, long day care is usually charged on a per day basis. In addition, some assistance arrangements have eligibility criteria that require assumptions to be made about how parents might react to policy changes.

Potential for an EMTR exceeding 100 per cent

An EMTR in excess of 100 per cent indicates that a person would be in a financially superior position if they did not earn their last dollar of income. There are a few rare examples of a single policy measure that can impose an EMTR that exceeds 100 per cent — FTB Part B is one. The key feature of such measures that enables EMTRs over 100 per cent is that one of the eligibility criteria for a payment is an income threshold. More typically EMTRs in excess of 100 per cent occur when multiple government payments are being withdrawn at similar income levels (box E.2). While they may appear similar, a threshold for eligibility criteria is very different from thresholds for differing payment rates. For example, with FTB Part B, a family with one income earner would be entitled to the maximum rate of payment so long as their income does not exceed \$150 000 a year. Once that threshold is reached, the family is ineligible for the payment and receives nothing.

Box E.2 Should the same income thresholds apply for all transfer payments?

In an editorial on 4 July, it was suggested that ‘As a rule, means testing of government benefits should be uniform’ (The Australian 2014). This is not the first time that it has been suggested that consistent definitions of income and thresholds for means testing arrangements be adopted. The Commission shares the desire for the system of taxes and transfers to be as simple, transparent and consistent as possible. However, simplicity and consistency can come at a cost to achieving policy objectives. Unfortunately, adopting consistency in means testing arrangements can have serious (and unintended) consequences.

A key consideration for most transfer payments in Australia (including Disability Support Pension, Youth Allowance, Parenting Payments, Newstart Allowance, Family Tax Benefit, Child Care Benefit and Child Care Rebates) is that the payments should either encourage workforce participation, or at least not discourage people from working (or from working longer hours).

A large number of Australians are eligible for multiple government payments. In 2012-13, over 70 per cent of families who used approved ECEC services also received at least one other government payment. On average, families received more than four types of payments — including childcare subsidies (Administrative data supplied by the Department of Human Services 2014).

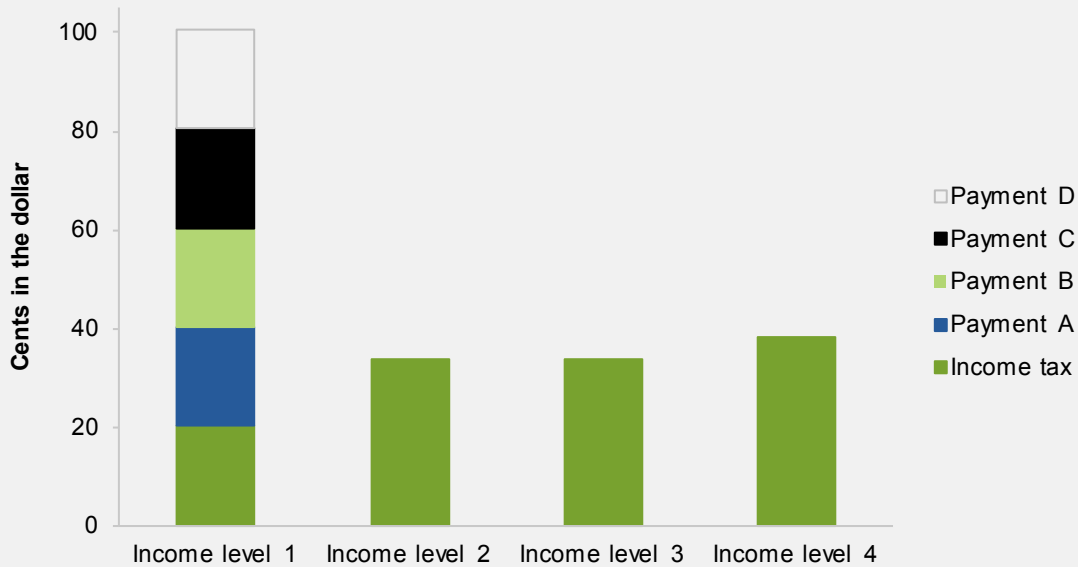
Aligning means tests for families receiving four or more means tested government payments results in small changes in income leading to big reductions in the transfer payments they receive. For illustrative purposes, consider a family receiving four payments (A to D). If the taper rates for each government payment were aligned at 20 cents in the dollar, then families would lose 80 cents of every additional dollar they earn just from the means tests if their income is within the taper range. Given that the lowest marginal tax rate is 19 cents in the dollar (and they would need to pay the Medicare levy), families would be worse off earning any income while subject to the combined taper (figure A). This implies that most mothers would be financially discouraged from working at least until their children start school, and potentially until their children complete school.

There are a number of steps that can be taken to reduce families being affected by multiple tapers — thus reducing the disincentives to undertake paid work. One is to reduce the number of payments, as recommended by the current welfare review (RGWR 2014). The second is to stagger the income thresholds for each means test, reducing the risk that families will face excessive EMTRs at particular income thresholds. While staggering the means test may result in the tapering of some payments coinciding with higher incomes and higher income tax rates, it would reduce the compounding effect at lower incomes and hence the disincentives to work would be lower (figure B). The third is to apply a very low taper rate, but this would increase the fiscal cost of the program.

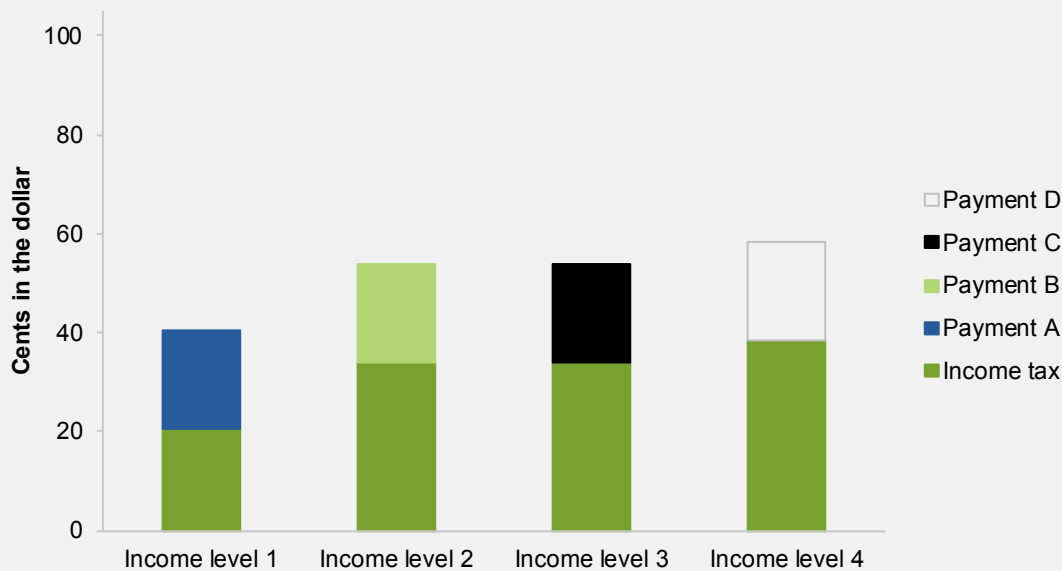
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Box E.2 (continued)

A: Example EMTRs for multiple transfer payment tapers that coincide



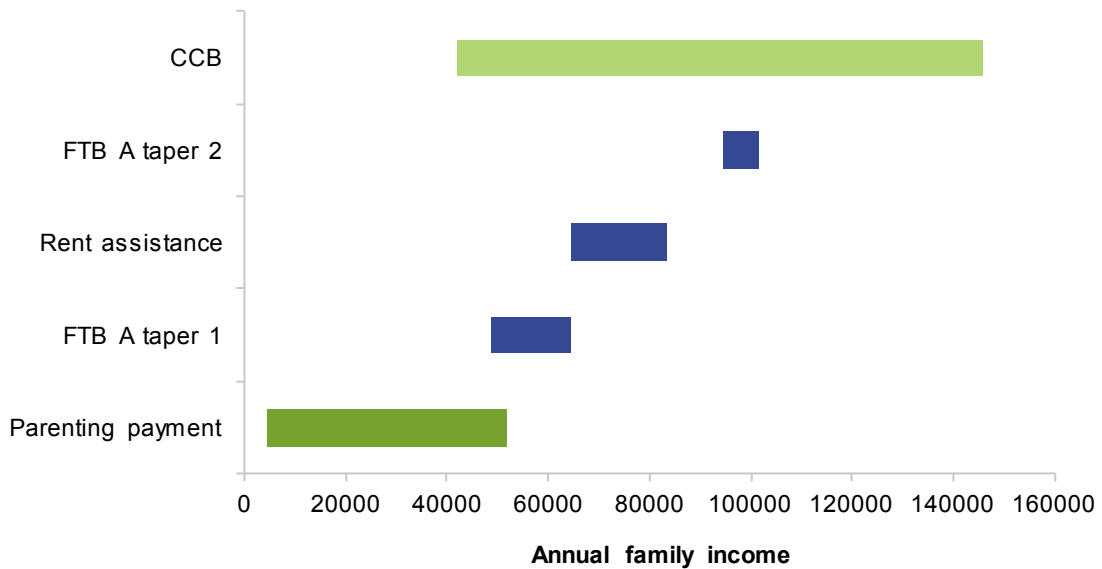
B: Example EMTRs for staggered transfer payment tapers



Such eligibility thresholds could result in a person working for a number of days or, in extreme cases, weeks, yet still being worse off financially than if their income remained below the eligibility threshold. While few households tend to have incomes close to the eligibility thresholds for such payments, those families near the threshold can have a strong incentive to work substantially fewer hours than they would if their income remained just above the threshold.

More typically, very high EMTRs result when a number of policies interact — as is the case with FTB Parts A and B, income tax rates and ECEC assistance. As discussed in box E.2, one remedy to overcome very high EMTRs is to stagger the means testing of different payments. To some extent, this already occurs. For example, Parenting Payment, FTB Part A (where payments are partially tapered across two income ranges) and rent assistance (which is paid with FTB Part A) are largely staggered for a family with one child (figure E.2). The means test for FTB Part B is not based on the combined family income — and cannot be accurately represented in figure E.2.

Figure E.2 Staggering of means tests under current arrangements
Income ranges where government assistance is withdrawn^a



^a As at June 2014 for a single parent family with one child. FTB Part A is subjected to two tapers. Any Rent Assistance a family receiving FTB Part A receives begins to be reduced after the first taper for FTB Part A.

Source: Productivity Commission calculations, Department of Human Services (2014).

Something that is apparent from figure E.2 is that the taper rates for different payments cover very different ranges of incomes. Two key factors affect the income ranges that different tapers are applied across — the maximum value of payments to which families may be entitled and the taper rate that is applied. In this regard, one of the particular challenges for ECEC subsidies is that some families can be eligible for substantial levels of assistance from a combination of payments (table E.2). As such, it would be difficult to stagger any means test for ECEC assistance between the tapers for other existing payments.

Table E.2 Maximum weekly assistance that families using ECEC may receive

For a single parent family with one child, as at June 2014

<i>Transfer payment</i>	<i>Maximum weekly amount</i>
Family Tax Benefit Part A	\$86.10
Family Tax Benefit Part B	\$73.22
Child Care Benefit (CCB) ^a	\$199.50
Child Care Rebate (CCR) ^a	\$87.50
Parenting Payment	\$356.60
Rent Assistance	\$73.99
Total	\$876.91

^a CCB is based on a child attending approved ECEC services for 50 hours in the week at a fee of \$7.46 per hour. CCR is calculated as half of the out-of-pocket costs after the maximum amount of CCB is deducted from the fees paid.

Source: Productivity Commission calculations.

In the absence of system-wide reforms it would be difficult for the Commission to effectively include ECEC assistance within a wider suite of staggered means tests. As such, there are two possible approaches the Commission can use to try to reduce the extent that compounding means tests will adversely impact on incentives to work.

- One approach is to vary the means test for family circumstances in an attempt to avoid the overlap with some other specific payments
 - given that the income ranges for means tests for other payments can vary based on the number and age of children, that would require the development of a fragmented and complex means test for ECEC.
- A second approach is to have a very low taper rate — under that approach, overlaps between tapers for ECEC support and other payments will occur, however the additional disincentive to work should be minimal and the fiscal cost of the support would be greater.
 - The current taper rates applied to the CCB are an example of a low to very low taper (section E.2).

Choice of work hours tends to be lumpy

EMTRs for an individual are most informative when they compare changes in work hours or annual wages that can be negotiated. For most workers, the smallest change in annual earnings that they could negotiate would be to forgo working an hour of overtime. Other ways of slightly reducing their annual income could include arranging to take a week of unpaid leave, working part time rather than full time (or reducing their hours per week or days per week worked if they are already part time). Because of these rigidities, working hours are often referred to as being ‘lumpy’ or ‘sticky’.

Lumpiness in consumption of ECEC services

When examining the EMTRs that factor in ECEC payments, we not only need to consider the lumpiness of working hours, but also the lumpiness of care provision. For example, the most common type of ECEC — long day care (LDC) — is typically purchased by day of the week. If a family agrees to pay for Mondays, they will pay for every Monday in the year (including public holidays and other days they do not attend). That payment entitles their child to attend from the time the centre opens until it closes. Families are typically required to pay for a full day of care even if their child is in care for part of the day.

The session lengths for other services vary. For services such as family day care, occasional care or nannies, it is more likely that families will be able to vary their hours of ECEC use as well as the days and time of care.

Lumpiness of work hours and ECEC arrangements will affect some families more

Families that receive ECEC assistance are likely to respond to the lumpiness of work hours and ECEC services in different ways. For example:

- some families may have ready access to informal care arrangements (such as family and friends) which allow them to either reduce their ECEC needs or to overcome mismatches in work or care hours
- couple families may be able to stagger working hours, allowing one parent to drop off children and the other to pick them up from ECEC services
- some parents have more flexible work arrangements (including part time work, varying days worked each week or hours per day and working from home) which can overcome mismatches in work and ECEC hours or reduce or negate the need for ECEC services
- some parents have standard work hours that are consistent with the hours of operation of ECEC services
- some parents' work options are limited by the operational hours of ECEC services.

Any such response is also based on the premise that ECEC services are readily available to families — which is not always the case (chapters 3 and 10).

In order to calculate EMTRs for parents using ECEC services, it is necessary to make assumptions about the relationship between work hours and use of ECEC services.

Out-of-pocket childcare costs

EMTR calculations typically only cover government taxes, benefits and transfer payments. However, some studies extend the coverage to include items that can be considered private consumption — such as rent or mortgage costs or transport costs. The advantage of including private consumption items is that it provides a better indication of the impact of work on net household income. Difficulties arise however because such consumption decisions will themselves depend upon the level of income earned.

While out-of-pocket childcare costs (fees paid by families less government subsidies) can be considered private consumption, the overwhelming majority of parents predominantly use ECEC services for work purposes (chapter 3). This work link is enhanced because the hours of care used is typically strongly related to working hours of mothers. As such, previous researchers have included the hourly out-of-pocket childcare costs as a component of their EMTR analysis (Daley 2012; Gong and Breunig 2012). The Commission will also follow this approach.

E.2 The operation of payments related to childcare assistance

This section examines the taper rates for the three most common ECEC subsidies and the two most common transfer payments in more detail. Those payments are FTB Parts A and B, CCR, CCB and the Jobs, Education and Training Childcare Financial Assistance (JETCCFA) payments.

Family Tax Benefit (Part A)

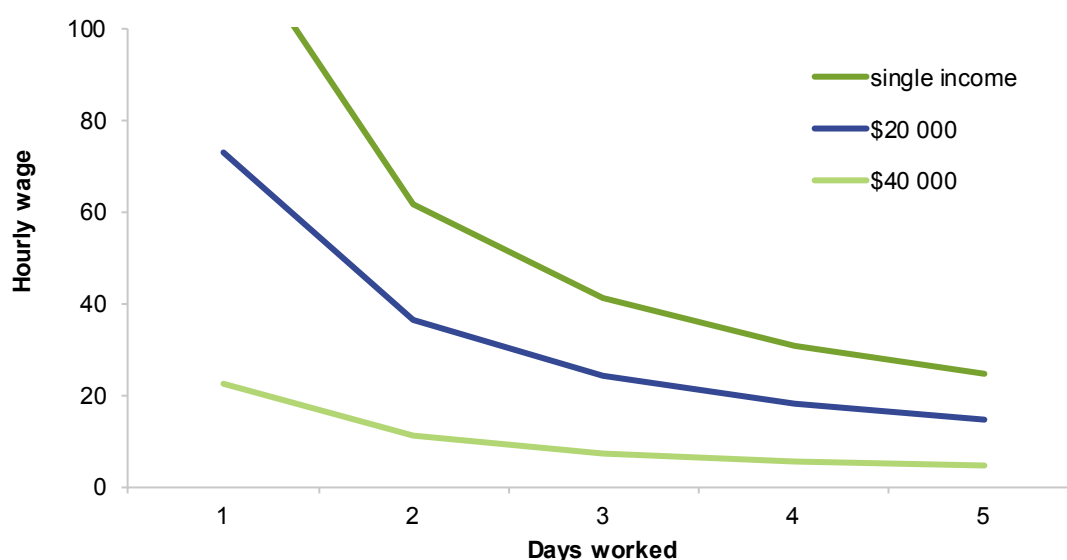
FTB (Parts A and B) are social welfare transfers to families that are subject to eligibility criteria and a family income based means test.

As described in appendix B, there are two income tests that are applied. The first test applies a taper of 20 cents in the dollar and the second test applies a taper of 30 cents in the dollar.

FTB Part A can provide families with substantial financial assistance. The maximum rate that a family can receive if they have a child aged under 13 is \$172.20 a fortnight (as of June 2014). The gradual withdrawal of this payment may also have a substantial impact on family's finances.

As the income tests are based on combined family incomes, there are numerous combinations of partner incomes, wage rates for secondary earners and hours of work that result in families being subjected to FTB Part A tapers. For example, a single parent earning \$25 an hour would be subject to the 20 cents in the dollar taper if they worked full time (figure E.3). Such a person would also face a marginal income tax rate of 32.5 cents in the dollar and would also have to pay the Medicare Levy (at a marginal rate of 10 cents in the dollar as they are subject to the low income family reduction for Medicare). For families with two income earners, the first taper can be reached with combinations of low partner income and low hours of work and wage rates for the other parent.

Figure E.3 Hourly income required to reach FTB Part A first taper
By partner's annual income levels



Families can reach the second income test if they have a parent with below average incomes and a second earner with a wage rate of \$30 an hour who works three days a week (figure E.4). Families continue to have payments withdrawn for incomes over \$100 000 for a single child (table E.3). This threshold increases with the number of children in a family — for example, if a family had one child aged 13 and two children aged 12 or under, they would still be subjected to the second income test until their family income exceeds \$136 839. A significant number of couple families using approved ECEC services are likely to be subjected to the second income test for FTB Part A.

Figure E.4 Hourly income required to reach FTB Part A second taper
By partner's annual income levels

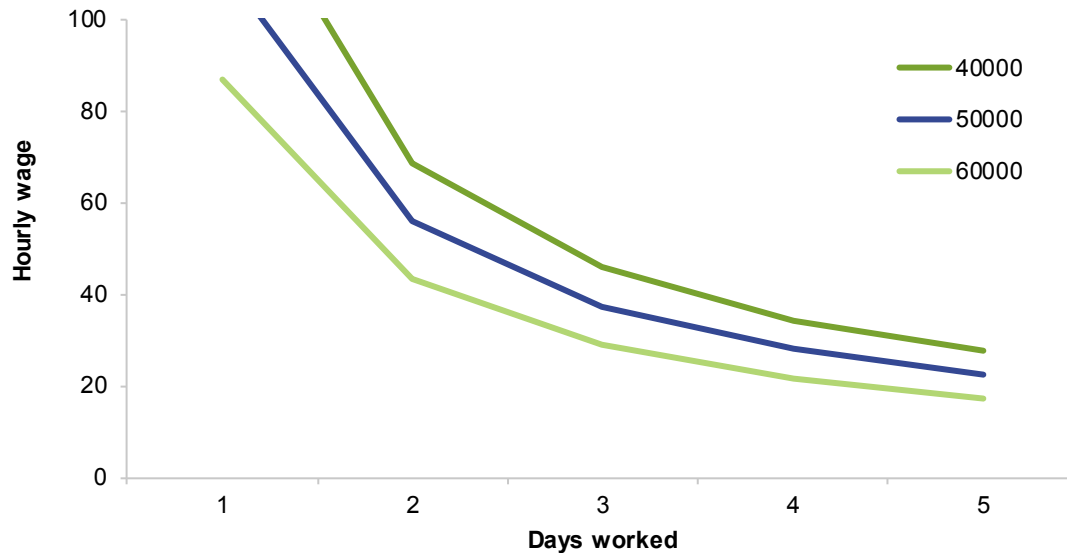


Table E.3 Income at which Family Tax Benefit (Part A) is not paid

		<i>Number of children 13–15 years or secondary students 16–19 years</i>			
		Nil	One	Two	Three
Number of children aged 0–12 years	Nil		\$101 653	\$115 632	\$150 599
	One	\$101 653	\$112 785	\$143 719	\$178 686
	Two	\$112 785	\$136 839	\$171 806	\$206 773
	Three	\$129 959	\$164 926	\$199 893	\$234 860

Source: Department of Human Services *Guide to Australian Government Payments*, 20 September to 31 December 2013.

Family Tax Benefit Part B

FTB Part B is paid to families with at least one eligible child. The payment rates depend on the age of the youngest eligible child and two income tests. Payments are not higher for multiple children.

Payment is subject to separate income tests for the higher and lower earning parents.

To be eligible for FTB Part B, the higher income earner needs to earn less than \$150 000. If there is only one parent, they are eligible for the maximum FTB Part B so long as their income is below \$150 000.

A family is entitled to the maximum amount of FTB Part B so long as the lower income earner earns no more than \$5183. The payment then reduces by 20 cents in the dollar for each dollar of income the lower earns over this amount.

The maximum amount of FTB Part B depends on the age of the youngest eligible child (table E.4).

Table E.4 Maximum rate of Family Tax Benefit Part B

<i>Age of youngest child</i>	<i>per fortnight</i>	<i>per year</i>
Under 5	\$146.44	\$4171.95
5–15 years ^a	\$102.20	\$3018.55

^a Or until the end of the calendar year that the child turns 18 years if they are a full time secondary student.

Source: Department of Human Services *Guide to Australian Government Payments*, 20 September to 31 December 2013.

Child Care Rebate

Those families which are eligible to receive the Child Care Rebate (CCR) — see appendix B for eligibility criteria — are entitled to a subsidy equal to half of their out-of-pocket childcare fees, up to a maximum cap of \$7500 per year for each child in care. As the CCR is not means tested, there is no explicit link between income and the level of subsidy. However, two indirect links occur.

1. The hours of work (and hence the income) of the primary care giver of a family is strongly linked to the hours of approved care used.
2. As out-of-pocket costs are defined as the approved ECEC fees less any other subsidy received, and the main other subsidy (the Child Care Benefit — CCB) is means tested, CCR will increase as some family incomes rise. This will be explored in the section on CCB.

Typically, the impact of net childcare costs after CCB on EMTRs will be higher for low income families than high income families. This can be demonstrated using a simple example. If we assume that hours of work of the primary care giver is the same as the hours of care and the out-of-pocket childcare costs are \$10 an hour, then the family will lose \$5 an hour because of net childcare costs. If a primary care giver earns \$25 an hour before tax, this would add 20 cents in the dollar onto the EMTR. If however, the primary care givers pre-tax wage rate was \$50 an hour, the EMTR would only increase by 10 cents in the dollar because of net childcare costs.

If a child reaches the CCR cap, they are no longer eligible for the CCR. In that case, the full out-of-pocket cost will be added to the EMTR for the remainder of the year. Using the two example families from the previous paragraph, EMTRs would be 40 cents in the dollar higher for the primary carer earning \$25 an hour before tax and 20 percentage points higher for the primary carer with a \$50 pre-tax wage rate.

Child Care Benefit

Access to the Child Care Benefit (CCB) is subject to a means test based on family income. For those families who are eligible to receive CCB, the amount of subsidy they receive can be explained in four steps.¹

1. A maximum hourly subsidy rate is determined for each type of care used.
2. The maximum hourly rate is multiplied by the hours of care used by the family for the week for each care type, to give a weekly maximum subsidy by care type.
3. The weekly maximum subsidy for each care type is added together to give a weekly maximum amount of CCB.
4. This weekly maximum amount is subjected to an income test to determine the family's weekly CCB amount.

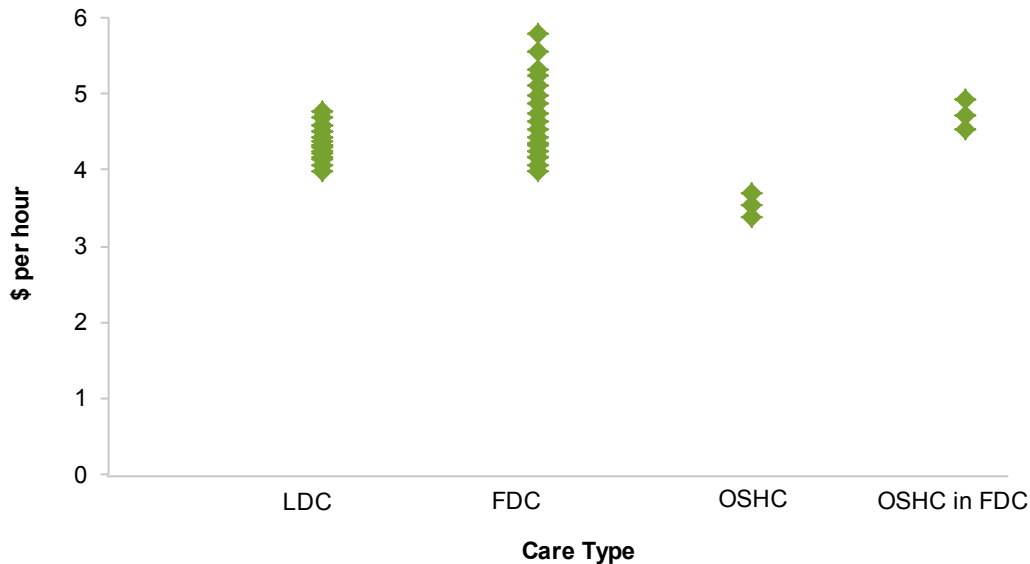
Maximum hourly rate of CCB

As outlined in appendix C, the 'maximum' rate for CCB for approved care in 2013-14 is \$3.99 per hour. However, the actual maximum hourly subsidy rate will change depending upon the type of care used, the number of children a family has in care and the length of time in care. In practice, the maximum CCB rate varies from \$3.39 an hour if a family has one child in Outside School Hours Care (OSHC) to \$5.78 an hour if a family has three or more children in Family Day Care (FDC) and each child is in care for less than 37.5 hours per week. Each possible maximum CCB payment rate is illustrated in figure E.5.

¹ This description is a simplification of process used to determine a family's CCB. It also reorders the steps to allow a consistent comparison to be made with EMTRs for other payments — but the re-ordering of steps does not alter the outcome.

Figure E.5 **Range of maximum hourly subsidy rates for CCB**

Payment rates as of 2013-14



Source: Productivity Commission calculations.

There are complex formulas involved in determining the maximum amount of CCB to which families are entitled; these calculations involve four stated adjustments and two adjustments incorporated into the calculation methodology. The two methodological adjustments interact with the stated adjustments. The stated adjustments are that:

- the standard hourly rate of CCB is reduced by 15 per cent for OSHC
- the hourly rate of CCB is increased by 13.3 per cent for OSHC in FDC
- the hourly rate for FDC is increased by 33.3 per cent if a child is in care for less than 37.5 hours per week with this loading then reducing to zero if 50 hours of care is used
- the hourly rate of LDC is increased if a child is in care for less than 38 hours per week
 - the hourly rate is increased by 2 per cent if children attend between 37 and 38 hours a week, with the hourly rate increasing by 2 per cent more for each hour of attendance below 37 hours — up to a maximum of a 10 per cent increase for care below 34 hours a week.

The methodological adjustments relate to the number of children from the same family who use care in a given week:

- if two children from the same family use the same kind of care in a week, the hourly CCB rate is increased by 4.5 per cent
- if three or more children from the same family use care in a week, the hourly CCB rate is increased by 8.7 per cent.

The hours of care and calculating maximum weekly amount of CCB

Before the means test for CCB can be applied, it is necessary to know which maximum weekly CCB subsidy amount would apply for each family. The maximum weekly subsidy for each care type can be calculated by:

- taking the maximum hourly CCB subsidy that relates to the hours of care used for each care type
- multiplying that rate by the weekly hours of that care type used.

The maximum weekly CCB subsidy amount is obtained by adding the subsidy amount for each type of care for each child.

Applying the CCB means test

For approved forms of child care, the amount of CCB a family can receive is subject to a means test. The means test for CCB payments reduces the weekly subsidy amount that families are entitled to if their combined family income exceeds a threshold level. For 2013-14, this threshold was \$41 902.

The reduction in CCB is determined by applying taper rates. These taper rates reduce the weekly amount of CCB a family is entitled to for every dollar that the families income exceeds the income tapers. The taper that applies for each family varies depending upon the number of children in care (table E.5).

Table E.5 Taper rates for CCB for approved childcare
For 2013-14

	<i>Number of children in care from the same family</i>	<i>Stated taper rate (cents in the \$)</i>	<i>Annual family income threshold that taper applies above</i>
1 st taper	1	10c	\$41 902
	2 or more	15c	\$41 902
2 nd taper ^a	2	25c	\$97 632
	3 or more	35c	\$97 632

^a If a family only has one child in care, only the first taper is applied.

Given the methodology for determining CCB payments, most families receiving CCB will not face the full effect of the stated taper. This is because the stated taper is only applied in full if a child is in care on a full-time basis (typically 50 hours per week for a child younger than school age). Otherwise, the taper that is applied is a fraction of the stated taper.

For the purposes of calculating CCB, the hours a child is in care are the hours of care that are charged for. For example, if an LDC service operates for 10 hours a day and children are allocated a place on a daily basis, then families are charged based on the full 10 hours per day even if they do not use care for the full 10 hours. The subsidies parents receive would also be based on the 10 hours of care that parents are charged for.

How the taper rates vary based on hours of care per week

In order to demonstrate how the taper that is applied to a family's weekly CCB subsidy varies, a family with one child in long day care will be used as an example. To demonstrate how the applied tapers differ from the stated tapers, all these examples examine the impact of a family's weekly income rising by a single dollar. In practice, the effects of income changes this small on childcare subsidies would be subjected to rounding adjustments. Because the examples are intended to demonstrate how the tapers work across a wide range of incomes, the rounding rules that would apply in these examples have been ignored.

If a family has the child enrolled in LDC for 50 hours a week and they have a combined annual family income of \$41 902, in 2013-14 they would be entitled to a CCB subsidy of \$199.50 per week. If their income increased by \$1 a week (or \$52 a year), the CCB they receive each week would fall by 10 cents — and if they are eligible for CCR, they would also receive 5 cents more a week in CCR. After combining the effects of changes in CCB and CCR, the family would lose 5 cents in childcare subsidies per week for each additional dollar of income they earned.

If the same family (with annual income of \$41 902 in 2013-14) used LDC for their child for 40 hours a week, they would be entitled to a CCB subsidy of \$159.60 per week — which is four fifths of the CCB they would be entitled to if the child attended LDC for 50 hours a week. If their income increased by \$1 a week (or \$52 a year), the CCB they receive each week would fall by 8 cents — and the CCR they obtain would increase by 4 cents a week. The family would lose 4 cents in childcare subsidies per week for each additional dollar of income they earned. The relationship between hours of care and CCB taper rates is illustrated in table E.6 and figure E.6.

The final variant for a one child family is the impact of receiving a part-time loading, which is available when children attend either an LDC or FDC service below a threshold number of hours (although the threshold hours and operation of the part time taper between the care types). If a family has the child enrolled in LDC for 25 hours a week and they have a combined annual family income of \$41 902, in 2013-14 they would be entitled to a CCB subsidy of \$109.73 per week — 55 per cent of what they would be entitled to if the child was in care for 50 hours per week. This is more than half the subsidy for 50 hours of care because a 10 per cent loading is applied for LDC hours that are less than 34 hours per week. If the family were to earn \$1 a week more, the weekly CCB would be reduced by 5.5 cents — and the CCR would increase by 2.25 cents. The family would lose 2.25 cents of childcare benefit for each additional dollar of weekly income they earn.

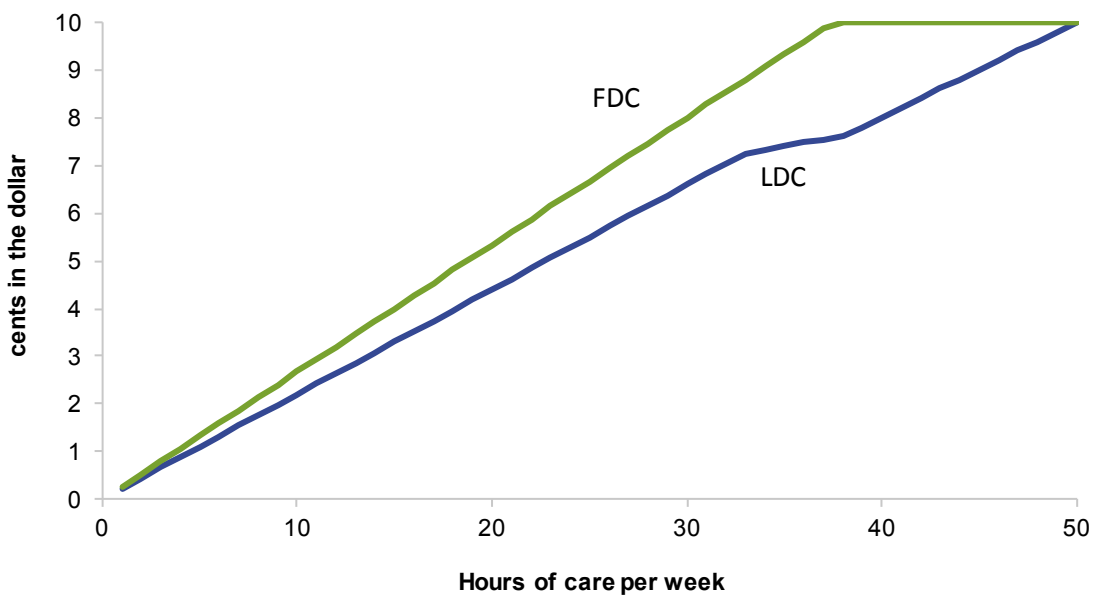
Table E.6 Change in CCB and CCR due to additional earnings
 For a family initially earning \$41 902 per year which increases by \$1 a week^a

	Units	Hours of LDC use per week		
		25 hours (part-time loading applies)	40 hours	50 hours
Max CCB subsidy	\$ per week	109.73	159.60	199.50
Withdrawal of CCB due to \$1 increase of weekly income	cents per week	5.5	8	10
Associated increase in CCR	cents per week	2.25	4	5
Overall decrease in ECEC subsidies	cents per week	2.25	4	5

^a For a family with one child in ECEC.
 Source: Productivity Commission calculations.

Figure E.6 How applied CCB taper rates change based on weekly hours of care

For long day care and family day care for a family with 1 child in care



Source: Productivity Commission calculations.

The stated taper rates for CCB are the maximum that families will face. They only apply if children in the family are using ECEC services on a full-time basis. If they are using less care, then the taper that will apply will be lower than the stated taper. The reduced rate will be proportional to the ratio of the maximum rate of CCB, given the hours of ECEC used to determine the maximum CCB rate that would apply if ECEC was used on a full-time basis. For those families who are also eligible for CCR assistance — and who have not reached

the CCR threshold — the effective loss of childcare subsidies would only be half of the applied CCB taper rate due to the subsequent increase in CCR received.

How the CCB taper rates vary by number of children in care and family income

Under the CCB arrangements, the stated taper differs based on the number of children. The taper rates for multiple children are higher than for families who only have one child in care.

The taper rate also varies by family income. Regardless of the number of children in care, assistance doesn't begin to reduce until annual family income reaches \$41 902 in 2013-14. For incomes above that level, assistance tapers at a constant rate of 10 cents in the dollar for families who have one child, and the family is entitled to no CCB once income exceeds \$145 642.

For families with more than one child, a two part taper is used. For families with two children, the first taper of 15 cents in the dollar for the family (or 7.5 cents in the dollar per child) applies to income ranges between \$41 902 and \$97 632, with a higher taper — 25 cents in the dollar per family or 12.5 cents in the dollar per child — applying between \$97 632 and when assistance cuts out at \$151 747 (table E.7).

Table E.7 Per child CCB taper rates — cents in the dollar

All children using either FDC or LDC on a full time basis in 2013-14

<i>Stated taper</i>		<i>maximum taper — 1 child in care</i>	<i>maximum taper — 2 children in care</i>	<i>maximum taper — 3 children in care</i>
Taper 1	Stated taper	10	15	15
	Per child taper	10	7.5	5.0
Taper 2	Stated taper	na	25	35
	Per child taper	na	12.5	11.7

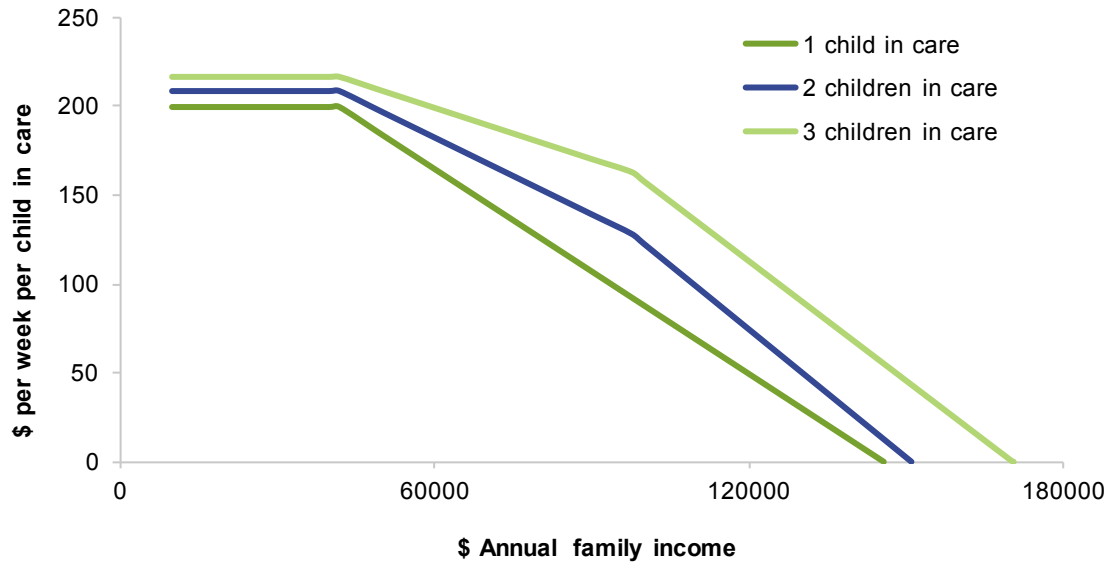
Source: Productivity Commission calculations.

Families with three children in care are still entitled to receive some CCB assistance for family incomes up to \$170 000 (figure E.7). For those families, the per child taper is 5.0 cents in the dollar for family incomes between \$41 902 and \$97 632 and 11.7 cents in the dollar for incomes over that amount.

Despite having higher tapers, the subsidies that families with multiple children in care are entitled to are always higher than for a family with one child in care which has the same family income (figure E.7).

Figure E.7 **Per child weekly CCB amounts**

All children using either FDC or LDC on a full time basis in 2013-14



Source: Productivity Commission calculations.

Interactions of CCB and other transfer payments that encourage part-time use of ECEC

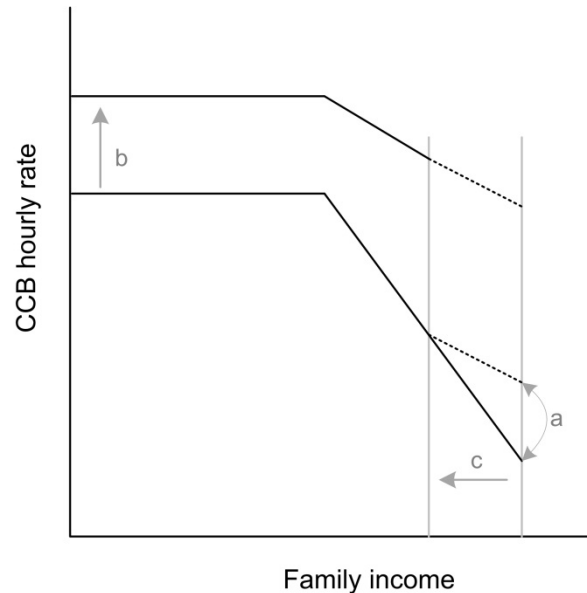
Most families use ECEC services so they can work. Accordingly, the choice of parents' work hours and use of ECEC are typically linked. If parents increase their work hours, it is increasingly likely that they will use ECEC services. In addition, the more hours that parents work, the hours of ECEC that they use is likely to be higher.

As illustrated in figure E.8, when families make the linked decision to use ECEC on a part-time basis and have one or more parents working part-time:

- they will be subjected to a lower taper rate for any CCB assistance they receive (effect 'a' from figure E.8)
- they may be entitled to a higher hourly rate of CCB (effect 'b')
- if they are entitled to CCB, they will lose less of the CCB (effect 'c').

These in-built incentives in the CCB arrangements that encourage part-time use of ECEC are complimented and strengthened by elements of the CCR and transfer arrangements. The annual per child CCR cap of \$7500 provides an incentive for families currently using higher priced ECEC services to limit their use of ECEC so as not to exhaust their CCR subsidies (cameo no. 3). In addition, the partial overlap in the ranges of incomes in which CCB, FTB Part A and Parenting Payment are reduced actively discourages many secondary income earning parents from working on a full-time basis.

Figure E.8 **The three ways CCB can encourage families to use fewer hours of ECEC a week**



These interactions are often complex and are difficult for families to unravel. It is likely that many families will struggle to identify what work and care arrangements are the best for them financially. However, if families are in a situation where they are facing a very high EMTR (especially if it exceeds 100 per cent), most will be able to tell that they are working for very little (or no) additional money. The most likely response for such families would either be for the secondary income earner to work less, or to stop work altogether.

Jobs, education and training childcare funding assistance

As outlined in appendix C, families eligible for the Jobs, Education and Training Childcare Funding Assistance (JETCCFA) can receive some ECEC services at an out-of-pocket cost of 50 cents an hour.

To be eligible for JETCCFA, a parent needs to be studying or training. As such, parents receiving JETCCFA will typically not be earning income while their children attend ECEC services. As EMTRs measure how much of a person's additional income they get to keep after taxes and loss of transfer payments, it is not possible to calculate EMTRs for JETCCFA recipients.

Generally, the Commission's recommendations are likely to reduce the hourly ECEC subsidies that current JETCCFA recipients receive — but such families are likely to receive the highest subsidy levels under the recommended reforms.

Parenting Payment

Parenting Payment is an income support payment to assist eligible parents with the costs of raising children. The payment is available to low income single parents who care for a child aged less than eight years and low income couples who care for a child aged less than six years.

For single parents, income must be less than \$184.60 (plus \$24.60 for each additional child) per fortnight, to be eligible for the maximum Parenting Payment of \$720.30 per fortnight. Part Parenting Payment is available for single parents if income is less than \$2015 (plus \$24.60 for each additional child) per fortnight.

For partnered parents, different income limits apply if a partner receives a pension or allowance. If a partner does not receive a pension or allowance the primary carer's income must be less than \$100 a fortnight and the partners income less than \$914 per fortnight to receive the maximum Parenting Payment. The maximum Payment is \$465.50 for a couple and \$557.90 for a couple separated through illness, respite care or prison. If a partner earns income above \$914, the payment is reduced by 60 cents for every dollar of income over \$914.

Under the Commission's recommended new approach to funding families on Parenting Payment are eligible for 20 hours of subsidised ECEC a fortnight without meeting the activity test (chapter 15).

E.3 Specific examples of effective marginal tax rates

When calculating the EMTRs of families using ECEC services, it is necessary to analyse an array of tax and transfer arrangements. Many of the transfer payments are complex in their own right (with eligibility and payment rates varying based on family characteristics, the type of ECEC services used, the pattern of ECEC usage and income thresholds — with the thresholds also varying based on family characteristics).

The presence of systemic problems arising from the interactions of an array of taxes and transfer payments can be identified by examining EMTRs for some family circumstances (called cameos). The current or future prevalence of those circumstances can then be determined by examining the impacts of policies and policy changes on a representative sample of family circumstances. The following sections use selected cameos to highlight key strengths and weakness of the current ECEC funding arrangements. This approach also underlies the distributional analysis of the recommended reforms as outlined in chapters 13, 14 and 15. Table E.8 outlines ten cameos that the Commission has undertaken to assist with an examination of EMTRs.

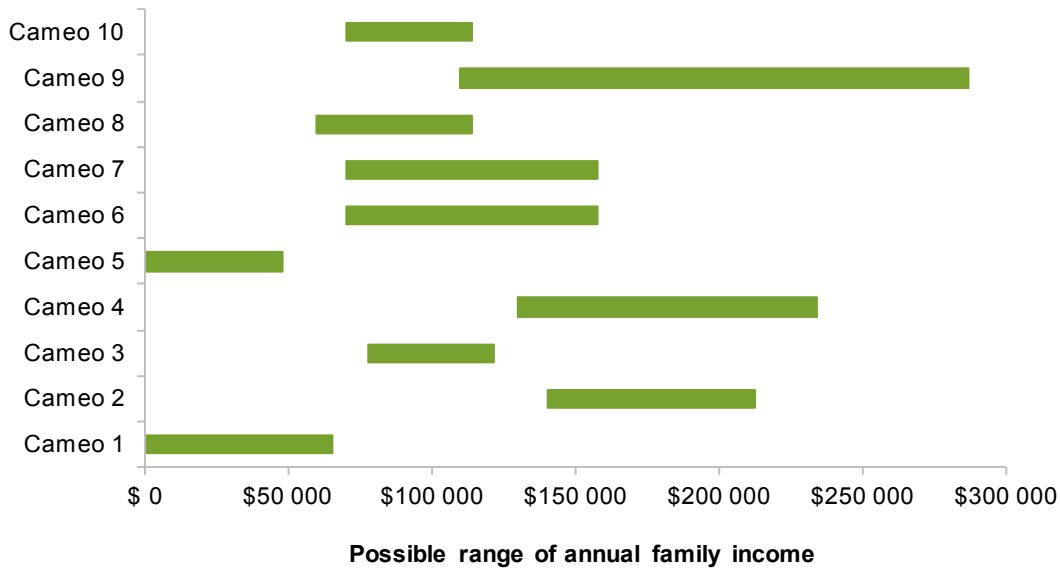
Table E.8 Commission Cameos

	<i>Family structure</i>	<i>Number of children (ages)</i>	<i>Type of ECEC used</i>	<i>ECEC fees</i>	<i>Wage rate of mother</i>	<i>Partner's income (per annum)</i>	<i>Other factors</i>
				\$ per hour per child	\$ per hour	\$	
Cameo 1	Single	2 (2 and 3)	LDC	\$7.27	\$31.54	na	none
Cameo 2	Couple	2 (2 and 3)	LDC	\$8.50	\$35	\$140 000	
Cameo 3	Couple	2 (3 and 6)	LDC for younger child, OSHC for older child	\$7.46 for LDC, \$5 for OSHC	\$21	\$78 000	none
Cameo 4	Couple	2 (3 and 6)	LDC for younger child, OSHC for older child	\$7.46 for LDC, \$5 for OSHC	\$50	\$130 000	none
Cameo 5	Single	2 (2 and 4)	LDC	\$7.46	\$23	na	none
Cameo 6	Couple	1 (3)	LDC	\$7.46	\$42	\$70 000	Mother has a HELP debt
Cameo 7	Couple	2 (6 and 8)	OSHC	\$5	\$42	\$70 000	none
Cameo 8	Couple	2 (2 and 4)	Friends (2 days), remainder LDC	\$7.46 for LDC	\$26	\$60 000	Using some informal care
Cameo 9	Couple	3 (1, 3 and 6)	LDC for younger children, OSHC for oldest child	\$10 for LDC, \$6 for OSHC	\$85	\$110 000	none
Cameo 10	Couple	2 (6 and 9)	OSHC	\$5	\$21	\$70 000	

na. Not applicable.

It would be impossible to reflect the circumstances of all Australian families who are using (or might consider to use) ECEC services through the use of 10 cameos. However, in choosing cameo families, the Commission has actively attempted to represent a range of family circumstances that more commonly occur as well as examples that can demonstrate the interaction between ECEC subsidies and other tax and transfer arrangements. Given that the effects of tax and transfer arrangements differ based on family or individual incomes, the example families used span a reasonable spread of potential family incomes (figure E.9).

Figure E.9 Range of family incomes implied in the cameos



Apart from cameo 8, these cameos assume that families do not have access to informal care. As such, increasing the hours of work of the mother requires an increase in the amount of ECEC used. Chapter 3 notes that many families use at least some informal care arrangements. As informal care is typically cheaper than formal ECEC (or even free), families are financially better off using such arrangements where they are available and are considered suitable.

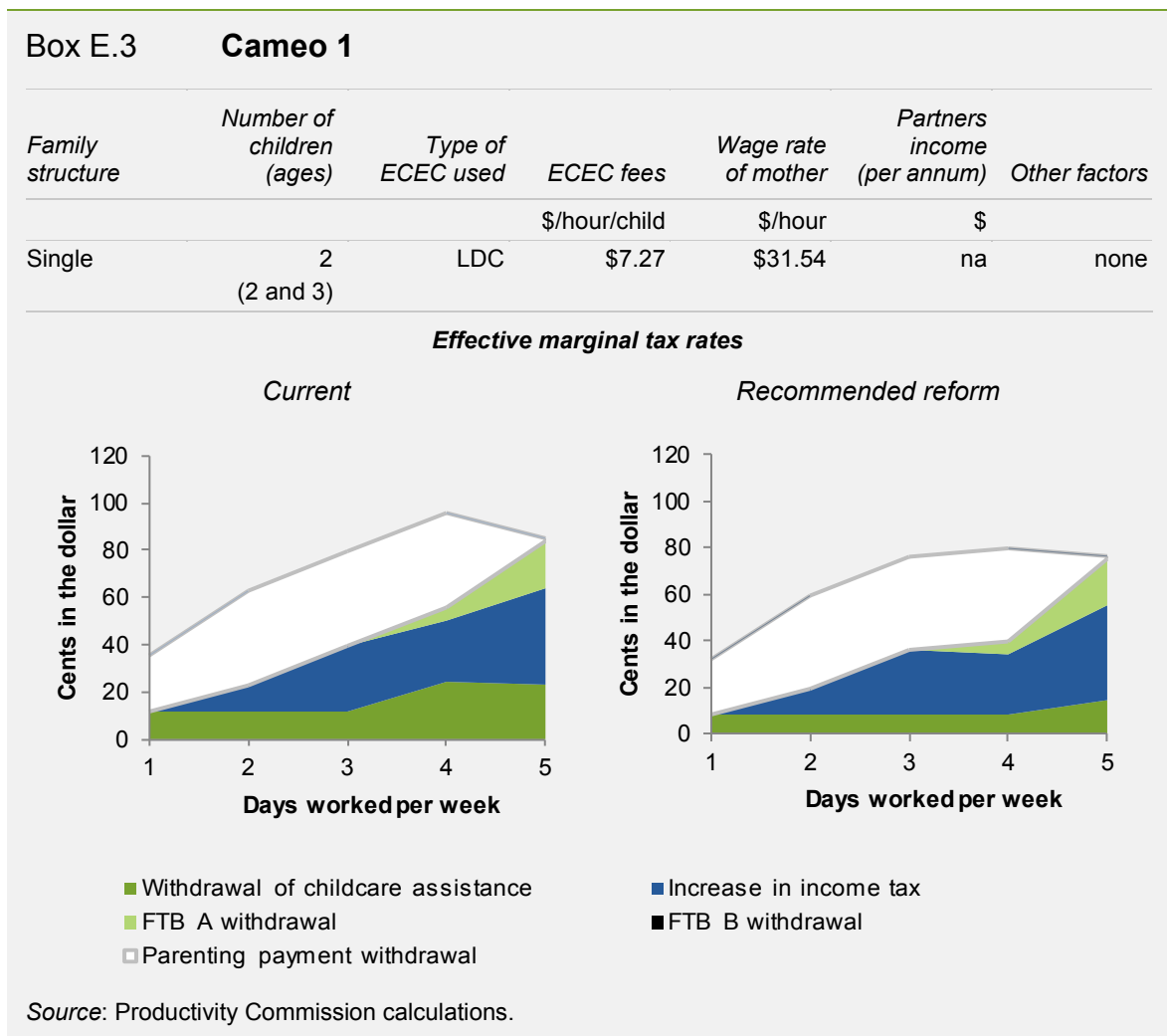
The effect of childcare costs on EMTRs depends on a number of factors. As well as care patterns of the family — such as how many children are in care, how many weeks the care is for and the hourly cost of that care — the rate of withdrawal of childcare assistance also affects EMTRs.

The Commission’s modelled scenario assumes a subsidy rate of 85 per cent of the benchmark price of care for families whose annual income does not exceed \$60 000. Once income exceeds this threshold, a linear taper is applied until family income reaches \$250 000, at which point, tapering ceases and families are entitled to a subsidy of 20 per cent of the benchmark price per hour of care used.

Taper rates and income thresholds for other transfers — the Parenting Payment, and Family Tax Benefit assistance — and taxation rates are reflective of current policies. In a number of cameos, it is these payments that have the dominant effect on EMTRs and as such, EMTRs may remain very high in these cameos despite the EMTRs for childcare costs becoming more favourable.

Cameo 1

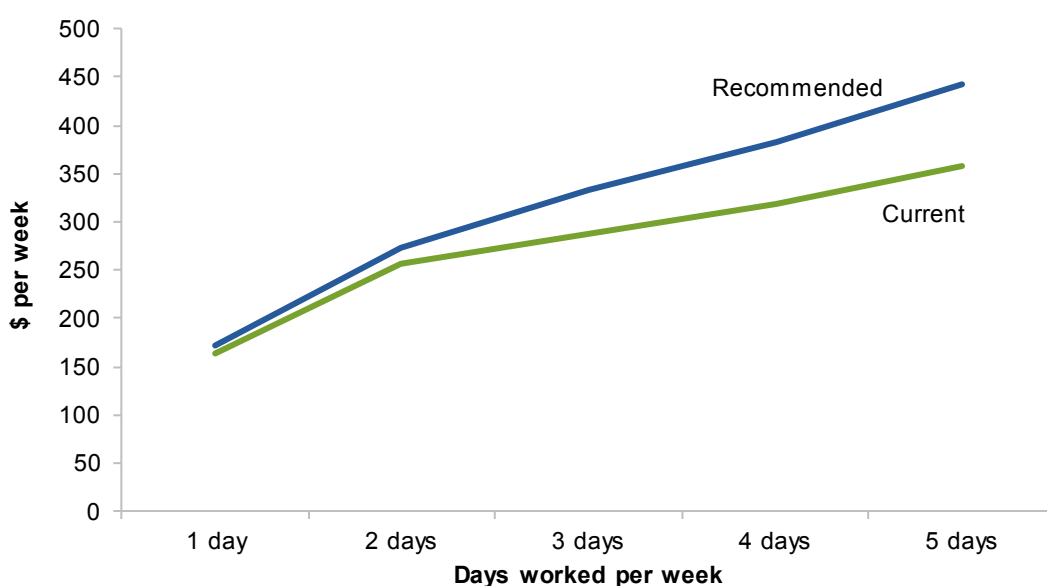
Cameo 1 replicates the circumstances of the first cameo family in box 5 of the overview. The mother is entitled to the Parenting Payment, and it is the withdrawal of this benefit that has the biggest single impact on her EMTRs under current policies. From working two days to working three days, the mother loses \$101 per week in her Parenting Payment, and this is the largest contributor to her EMTR approaching 100 cents in the dollar for working on day 4 (box E.3). This means that there is little immediate financial incentive for her to work beyond three days a week.



Under the Commission’s recommended reforms, the mother would still face high EMTRs, but the EMTRs no longer approach 100 cents in the dollar for her fourth day at work because the effect of the withdrawal of childcare assistance on her EMTR is lessened. Her childcare assistance gets taken away more slowly — and consequently, her overall EMTRs are lower.

It is not possible to determine if the Commission’s recommended changes would entice the mother to work more hours. However, it is clear that the proposals would increase the likelihood of her working four or five days a week. Under current arrangements, her weekly disposable income would increase by less than \$70 if she increased her work from three to five days a week (where disposable income is what remains after tax, changes in social security benefits and after deducting net childcare costs). Under the Commission’s proposals, she would be able to increase her disposable income by just under \$110 by changing her work arrangements from three to five days a week (figure E.10).

Figure E.10 Increase in disposable income



Cameo 2

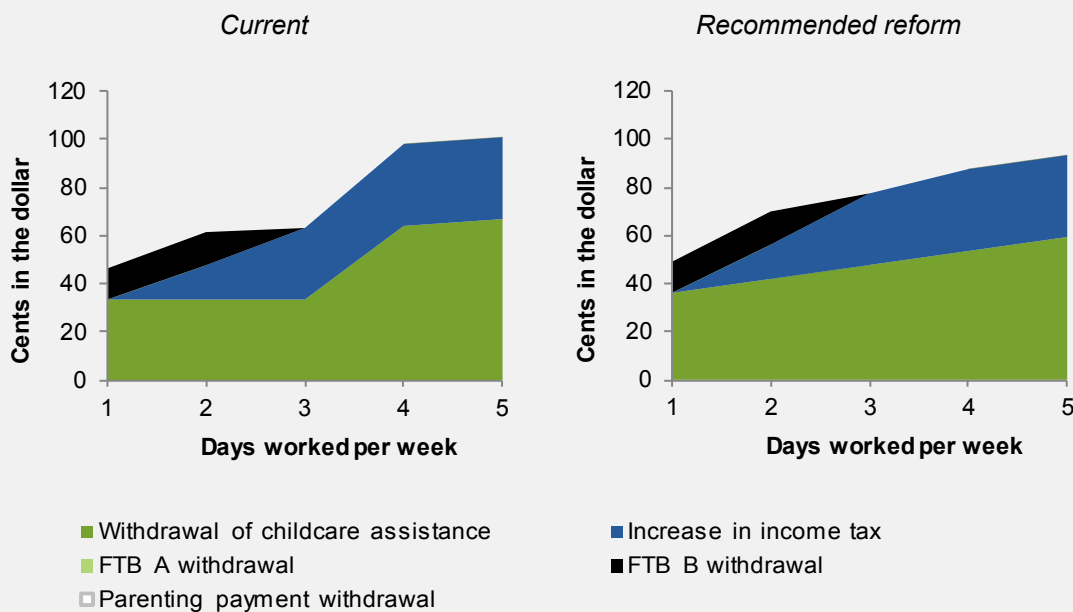
Cameo 2 replicates the second cameo family in box 5 of the overview. It represents a couple family with two children in LDC who pay above average fees and are reliant upon formal childcare to enable the father to work (who is the secondary income earner). Under current arrangements, the family faces a significant increase in EMTRs if the father chooses to work more than three days per week because they would exceed the cap on CCR subsidies. The profile of this father’s EMTRs can be seen in box E.4.

Under the Commission’s proposal, the family would be eligible for a lower rate of subsidy because of their income level. As such, they would be worse off than they would be under current policies if the father chose to work three or less days per week. However, if the father chose to work four or five days per week, the family would receive higher subsidies under the Commission’s proposal than under current arrangements.

Box E.4 Cameo 2

Family structure	Number of children (ages)	Type of ECEC used	ECEC fees	Wage rate of partner	Mother's income (per annum)	Other factors
			\$/hour/child	\$/hour	\$	
Couple	2 (2 and 3)	LDC	\$8.50 for LDC	\$35	\$140000	none

Effective marginal tax rates



Source: Productivity Commission calculations.

Cameo 3

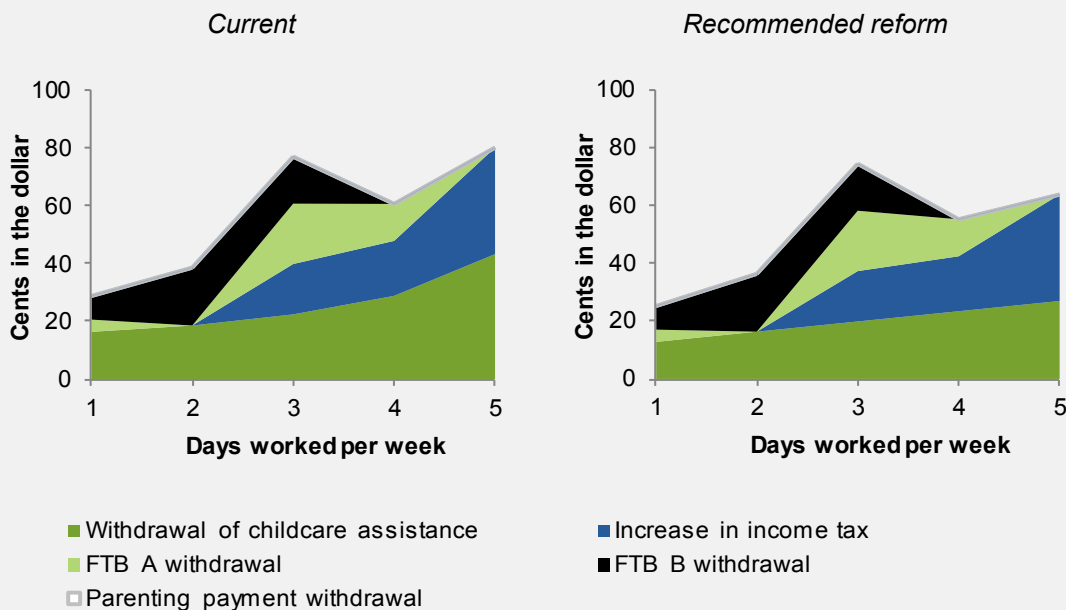
Under current tax and transfer arrangements, the mother in cameo 3 faces EMTRs that peak on her third day of work (box E.5). The peak at three days is the combination of a high rate of withdrawal of the Family Tax Benefit at the same time as she exceeds the tax free threshold. By increasing her hours of work from two to three days a week, the mother continues to lose FTB Part B, almost entirely loses FTB Part A and begins to pay income tax and the Medicare levy. The interaction of these measures dramatically reduces the financial incentives to work three days a week.

As can be seen in the graphical representation of the Commission's proposals (box E.5), the incentives are still dominated by the withdrawal of FTB and when income tax begins to be paid.

Box E.5 Cameo 3

Family structure	Number of children (ages)	Type of ECEC used	ECEC fees	Wage rate of mother	Partners income (per annum)	Other factors
			\$/hour/child	\$/hour	\$	
Couple	2 (3 and 6)	LDC for younger child, OSHC for older child	\$7.46 for LDC, \$5 for OSHC	\$21	\$78 000	none

Effective marginal tax rates



Source: Productivity Commission calculations.

Cameo 4

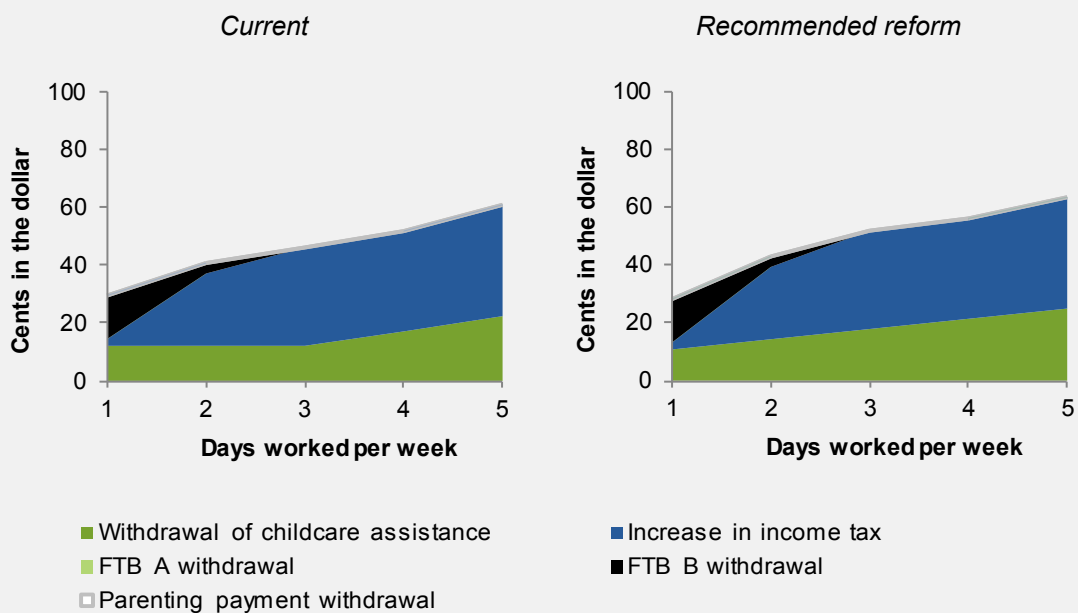
Cameo 4 represents a couple family with two children, one who uses LDC and the other who uses OSHC. The wage rate of the mother is assumed to be \$50 per hour. Under current policy settings, the mother in this family faces EMTRs that gradually increase the more days a week she works (box E.6). EMTRs consistently remain well below 100 cents in the dollar.

The Commission’s recommended reforms do not markedly change the EMTR profile of the second income earner in this family (box E.6). The family would face slightly higher out-of-pocket costs for the first four days of ECEC than they do under current assistance arrangements, and lower ECEC costs compared to current arrangements for the fifth day of work.

Box E.6 Cameo 4

Family structure	Number of children (ages)	Type of ECEC used	ECEC fees	Wage rate of mother	Partners income (per annum)	Other factors
			\$/hour/child	\$/hour	\$	
Couple	2 (3 and 6)	LDC for younger child, OSHC for older child	\$7.46 for LDC, \$5 for OSHC	\$50	\$130 000	none

Effective marginal tax rates



Source: Productivity Commission calculations.

Cameo 5

Cameo 5 represents a lone parent family with two children, both of which use LDC services. The assumed wage of the mother is \$23 per hour. Under current arrangements, this mother is eligible for the Parenting Payment, and this dominates her EMTR profile (box E.7). The withdrawal of the Parenting Payment means that there is very little financial incentive for the mother to work beyond three days a week, because her EMTRs are very high.

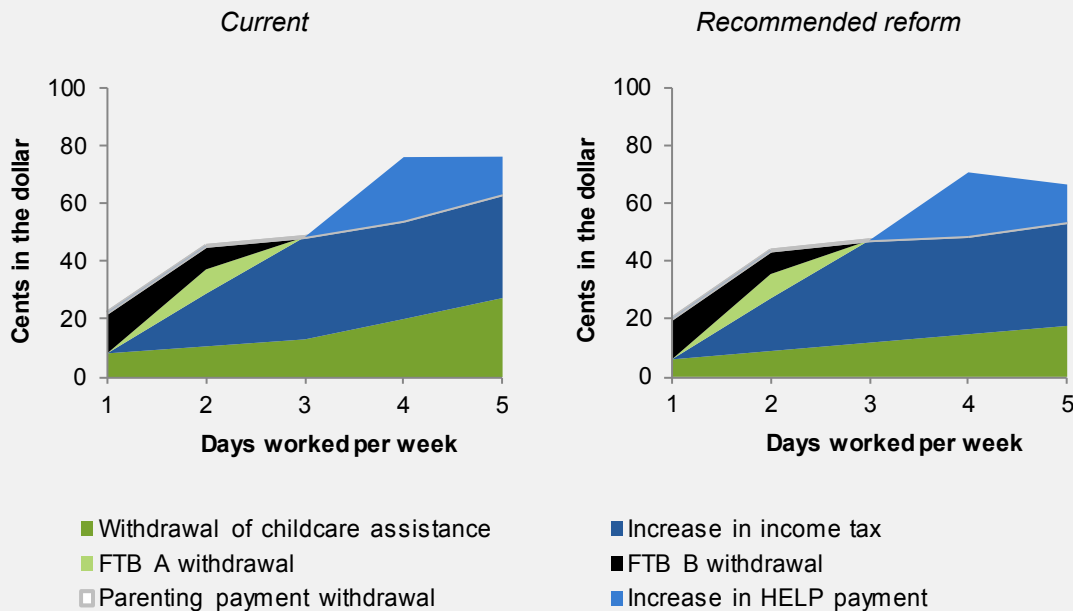
Under the Commission’s recommended reforms, this lone parent family would be entitled to the maximum subsidy rate for ECEC assistance, no matter how many days the mother worked at her wage rate. This reduces the EMTR faced by this mother, however, the biggest influence on the mother’s EMTR remains the withdrawal of the Parenting Payment (box E.7).

(box E.8). Overall, this family would pay lower out-of-pocket ECEC costs under the Commission’s proposals.

Box E.8 Cameo 6

Family structure	Number of children (ages)	Type of ECEC used	ECEC fees	Wage rate of mother	Partners income (per annum)	Other factors
			\$/hour/child	\$/hour	\$	
Couple	1 (3)	LDC	\$7.46	\$42	\$70 000	Mother has a HELP debt

Effective marginal tax rates



Source: Productivity Commission calculations.

Cameo 7

Cameo 7 consists of a couple family with two school age children, both of who attend outside school hours care. For the purposes of the cameo, we have assumed that this family does not need to use OSHC services until the mother works more than 30 hours per week. This is because, for families which only have school age children, we assume that the mother has sufficient flexibility in her working arrangements to work during school hours — so long as the mother works less than 30 hours a week.

For consistency with other cameos, this pattern of work hours — of working up to 6 hours a day spread throughout the week — has been represented as an equivalent number of ‘standard work days’ (based on a full time work week of 38 hours assumed for other

cameos). The profile of this mother's EMTRs under current policy settings (assuming a wage rate of \$42 per hour) is shown in box E.9.

If this mother is working 30 hours per week, we assume that she works five days a week for six hours a day, avoiding the need for outside school hours care. For the purpose of comparing with other cameos, we have represented this as 3 'full time' days per week.

Childcare only has a small influence on the EMTR's of this mother, owing to:

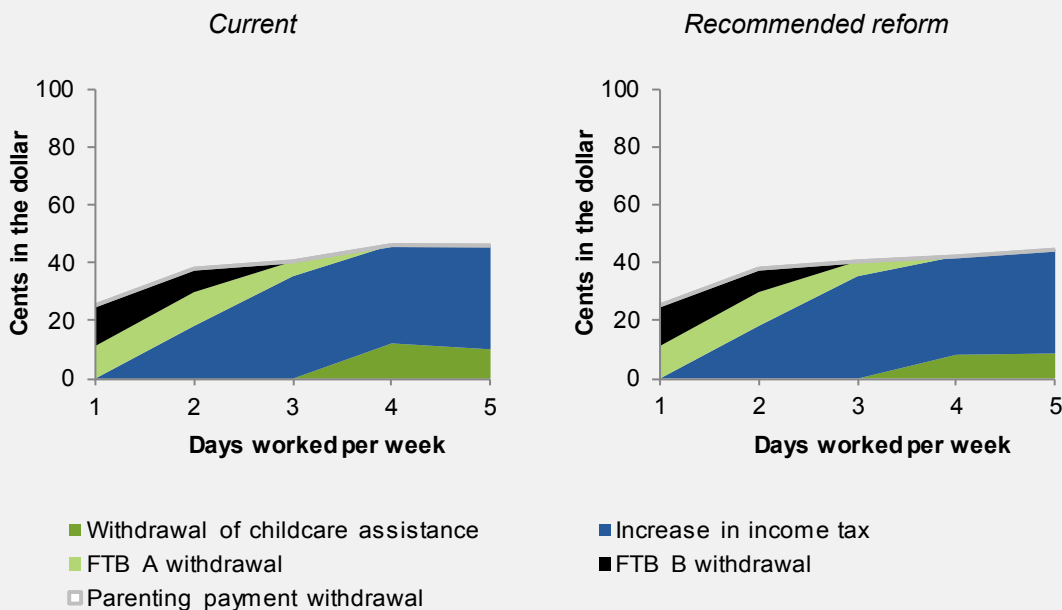
- childcare only being required after three days of work
- this family only requiring a very low amount of childcare a week
- the hourly cost of childcare for this family is low compared to other cameos.

As a result, under the Commission's recommended reforms, the EMTR profile of the mother is slightly lower than under current policies (box E.9).

Box E.9 Cameo 7

Family structure	Number of children (ages)	Type of ECEC used	ECEC fees \$/hour/child	Wage rate of mother \$/hour	Partners income (per annum) \$	Other factors
Couple	2 (6 and 8)	OSHC	\$5	\$42	\$70 000	none

Effective marginal tax rates



Source: Productivity Commission calculations.

Cameo 8

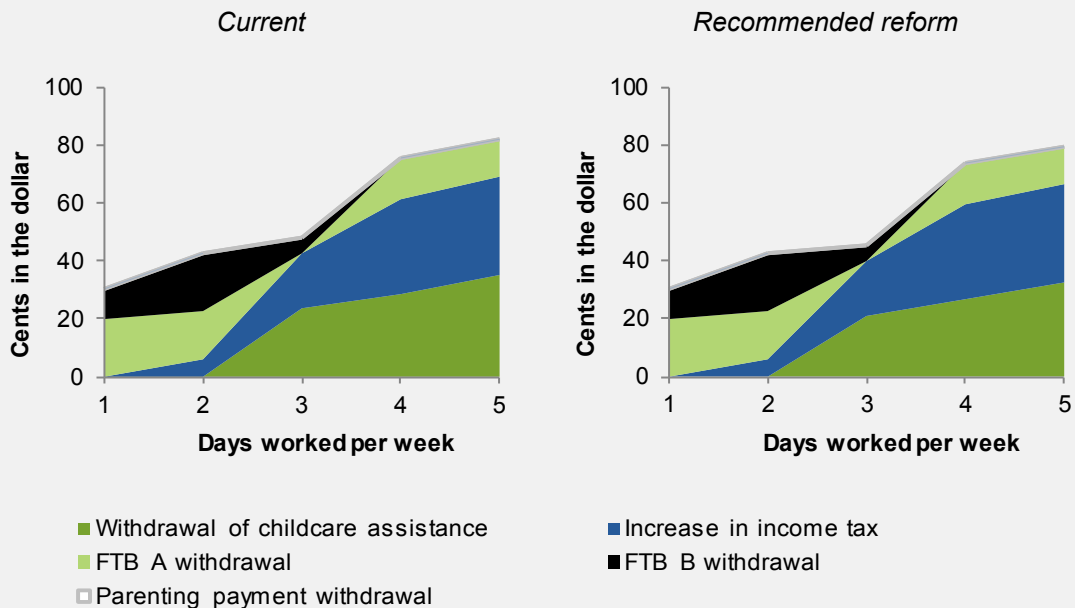
Cameo 8 represents a couple family with two children. This family has access to two days of informal care a week (through friends), with any more than two days of care provided by a LDC. The mother's wage is assumed to be \$26 per hour. The profile of this mother's EMTRs can be seen in box E.10.

Box E.10

Cameo 8

Family structure	Number of children (ages)	Type of ECEC used	ECEC fees \$/hour/child	Wage rate of mother \$/hour	Partners income (per annum) \$	Other factors
Couple	2 (2 and 4)	Friends (2 days), remainder LDC	\$7.46 for LDC	\$26	\$60 000	Using some informal care

Effective marginal tax rates



Source: Productivity Commission calculations.

As this family has access to informal childcare for two days a week, the family is largely able to avoid the compounding effect of high withdrawal rates of Family Tax Benefit coinciding with out-of-pocket ECEC fees. By the time the second income earner works three days a week, the annual family income would exceed \$90 000. This is an income level when access to CCB is small. Under the Commission's reforms, the family would have lower out-of-pocket ECEC costs than under current arrangements.

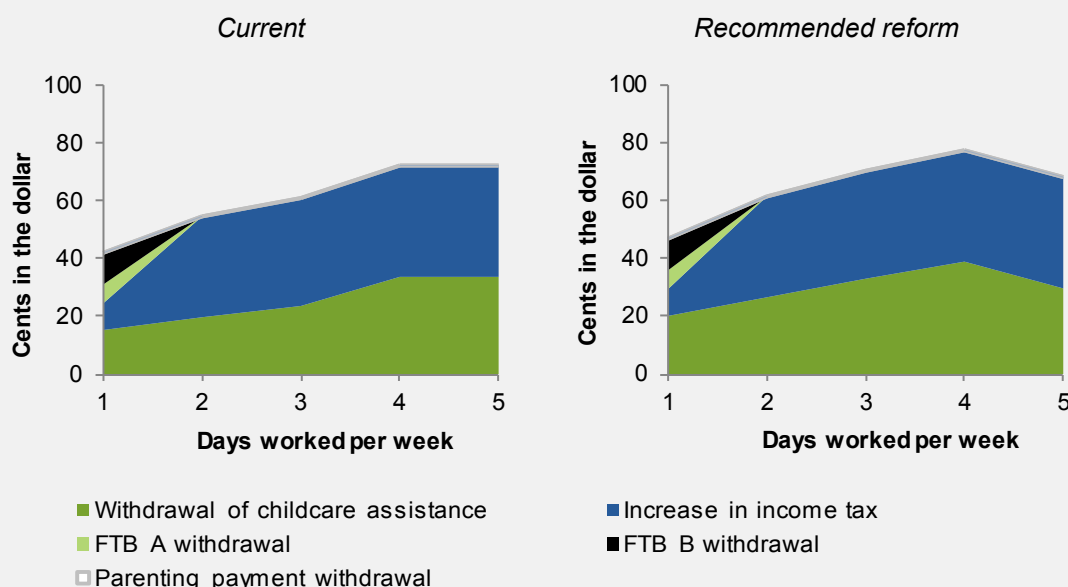
Cameo 9

Cameo 9 examines a family with 3 children, with 2 using LDC and the older child in OSHC. Under current policies, for this family, EMTRs remain below 100 cents in the dollar regardless of the number of days worked (box E.11). That said, the mother faces higher EMTRs on her fourth and fifth days of work, largely attributable to the family reaching the CCR cap for the children in LDC.

Box E.11 **Cameo 9**

Family structure	Number of children (ages)	Type of ECEC used	ECEC fees	Wage rate of mother	Partners income (per annum)	Other factors
			\$/hour/child	\$/hour	\$	
Couple	3 (1, 3 and 6)	LDC for younger children, OSHC for older child	\$10 for LDC, \$6 for OSHC	\$85	\$110 000	none

Effective marginal tax rates



Source: Productivity Commission calculations.

Under the Commission's proposal, the mother would face marginally higher EMTRs for her first four days of work, but a lower EMTR on her fifth day of work. There is a noticeable spike in the EMTR profile if she chose to work four days a week. This spike occurs as the family would just reach the \$250 000 family income threshold when the mother works four days a week. As such, the family faces declining subsidy rates for the first four days of work (60 per cent if the mother works one day a week reducing to 20 per cent when she works for four days a week), but no further decline in the subsidy

rate for working five days a week. The EMTR profile faced by the mother under the recommended ECLS is shown in box E.11.

Cameo 10

Cameo 10 represents a couple family with two school aged children who use outside school hours care. Consistent with cameo 7, it is assumed that the mother has flexibility to work within school hours, so that no ECEC is required until the mother works the equivalent of four days per week. The mother’s wage is assumed to be \$21 per hour. The profile of this mother’s EMTRs can be seen in box E.12.

While this income earner would face much lower EMTRs on their fourth and fifth day of work under the Commission’s proposal, the withdrawal of Family Tax Benefits (both Part A and B) combined with the income tax dominate the financial considerations faced by this family.

