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Personal income tax cuts and the new Child Care Subsidy: Do they address high effective marginal tax rates on women's work?

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Introduction¹

In Australia's tax and social welfare system, many women face effective marginal tax rates (EMTRs) on work income which are higher than the marginal tax rates of the personal income tax structure. Even for some top income earners, high EMTRs may be produced.² For example, if those caring for young children (mostly women) return to work or increase their work hours, this simultaneously requires them to pay increased taxes (and, possibly, the Medicare Levy) at the same time that family payments and child care subsidies are phased out. These high EMTRs tend to affect women more than men because women tend to be secondary earners in families either in terms of lower wages or lower working hours.

The Government's new Child Care Subsidy (CCS) and the recently enacted personal income tax (PIT) rate cuts might alleviate this effect for some families, by increasing the amount of the subsidy and reducing the phase out, and by lowering the personal income tax payable on earnings. This short paper explores whether stage 1 of the PIT rate cuts, combined with the CCS, will alleviate high EMTRs that are

disincentives to women increasing workforce participation.

We explore some of the effects of the new CCS and PIT rate cuts through cameos of some families. We present charts of the EMTR per day of work, for three examples of moderate earning families. We find that the CCS expansion has had some effect in improving dramatically high EMTRs under the previous regime. However, we find that high EMTRs still result for increasing hours from part-time to full-time work. The PIT rate cut does little to change this effect. High EMTRs, the cost of child care and women bearing the bulk of care responsibilities remain barriers to increasing work hours for women.

Child Care Subsidy

The CCS replaced Child Care Benefit (CCB) and Child Care Rebate (CCR) from 2 July 2018. The expansion of the subsidy has been estimated to cost about \$3 billion over 4 years from the 2017-18 budget that introduced the changes. It raises the amount of subsidy per child up to a cap and changes the design of the taper, or phase out, of CCS. The phase out continues to be based on joint family income.

¹ With thanks and acknowledgements to David Plunkett who prepared all charts and to Robert Breunig for helpful comments. Parameters and data can be provided.

² For example, as a result of the reduction in the superannuation contributions tax concession by Div

293 of the Income Tax Assessment Act 1997 raising the contributions tax from 15% to 30% when income reaches \$250,000 – this pushes up the top rate from 47% to 62% at that threshold.

Table 1: CCS³

Combined family income	Subsidy % of the actual fee charged (up to relevant percentage of the hourly rate cap)
Up to \$66,958 [^]	85%
More than \$66,958 [^] to below \$171,958 [^]	Decreasing to 50%*
\$171,958 [^] to below \$251,248 [^]	50%
\$251,248 [^] to below \$341,248 [^]	Decreasing to 20%*
\$341,248 [^] to below \$351,248 [^]	20%
\$351,248 [^] or more	0%

*Subsidy gradually decreases by 1% for each \$3000 of family income.

The Personal Income Tax rate cuts

The PIT rate cuts, now enacted,⁴ will apply in three stages. In Stage 1 commencing on 1 July 2018, the Bill applies the following components:

- Low and Middle Income Tax Offset (LMITO) of up to \$530 for individuals with taxable income up to \$125,333 for the 2018-19, 2019-20, 2020-21 and 2021-22 financial years.
- Increase the upper threshold for the 32.5% marginal tax rate (where the 37% rate commences) from \$87,000 to \$90,000.

In Stage 2 commencing on 1 July 2022 the Bill applies the following components:

- Increase the upper threshold for the 32.5% marginal tax rate (where the 37% marginal rate commences) from \$90,000 to \$120,000.

- Increase the upper threshold for the 19% marginal tax rate (where the 32.5% rate commences) from \$37,000 to \$41,000.
- Repeal the LMITO and Increase the Low Income Tax Offset to up to \$645 for taxable incomes up to \$66,667.

In Stage 3, commencing on 1 July 2024, the Bill applies the following components:

- Increase the lower threshold for the 45% marginal tax rate from \$180,001 to \$200,001.
- Remove the 37% marginal tax rate, so that all income from \$41,001 to \$200,000 is taxed at a marginal rate of 32.5%.

The effective PIT rate structure produced by Stage 1 is set out in Table 2.

³ Australian Government (2018) <https://www.education.gov.au/child-care-subsidy-combined-family-income-0>

⁴ Treasury Laws Amendment (Personal Income Tax Plan) Act 2018 (Cth).

Table 2: 2018-19 Personal Income Tax Scale

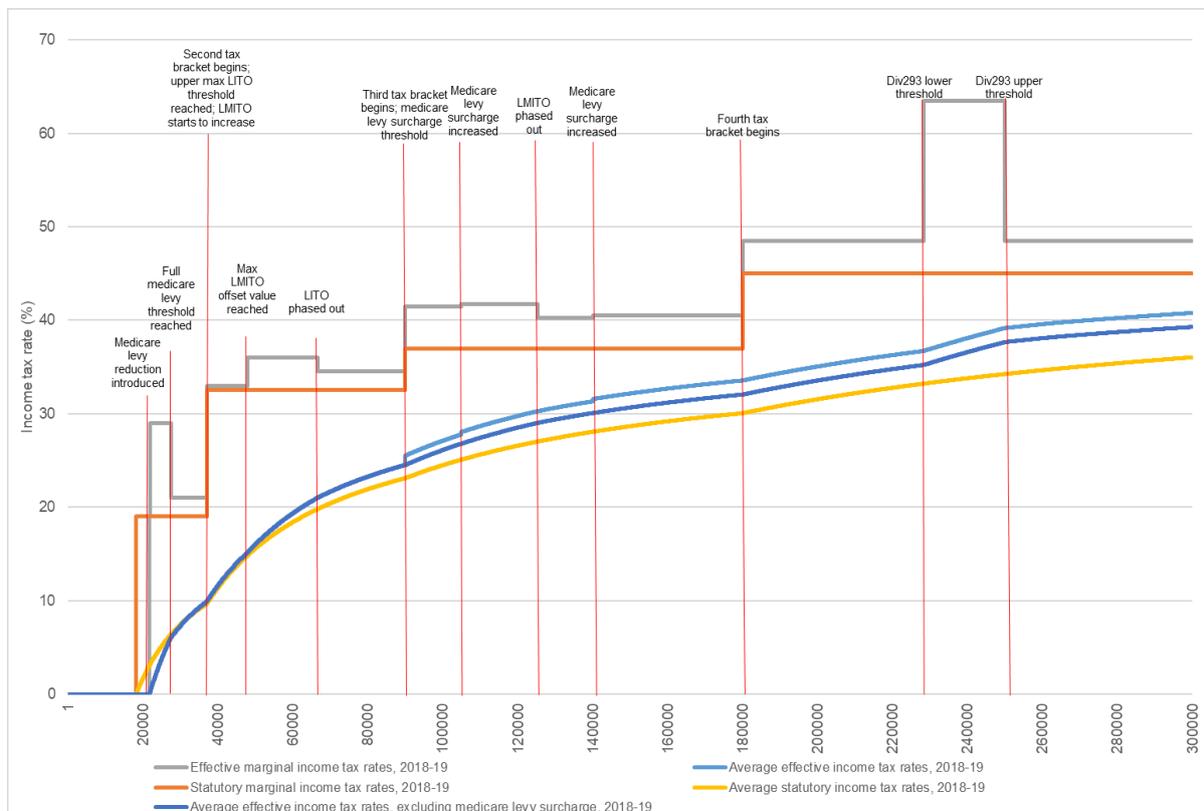
As publicly presented		As would actually apply	
Income range (\$)	Marginal rate (%)	Income range (\$)	Marginal rate (%)
0-18,200	0	0-21,594	0
18,200-37,000	19	21,594-37,000	19
37,000-90,000	32.5	37,000-48,000	31
90,000-180,000	37	48,000-66,667	34
Over 180,000	45	66,667-90,000	32.5
		90,000-120,000	38.5
With LITO and LMITO		120,000-180,000	37
		Over 180,000	45

Note: In addition, the Medicare Levy of 2% is phased in over a small range by family income.

Source: Andrew Podger <http://www.austaxpolicy.com/budget-forum-2018-not-genuine-equitable-way-simplify-personal-income-tax-system/>

The effective tax rate structure (ignoring the transfer system) applicable for the 2018-19 year is shown in Figure 1.

Figure 1: Tax rate structure (Stage 1 2018-19 settings)



Source: Chart prepared by Kristen Sobek based on TTPI calculations.

Some context: Gender effects of the tax cuts

Distributional analysis of the tax cuts by the Parliamentary Budget Office (PBO) demonstrates that overall, the tax cuts will benefit men significantly more than

women, in each Stage, over 4 years and over 10 years.⁵ This is unsurprising. ATO individual tax records data reveals very significant gender inequality in income, especially at the top of the income distribution (Table 3).

Table 3: Share at the top of the Income distribution (2013-14), male and female

	Annual income	Men	Women
Top 10%	\$94,236	74.3%	25.7%
Top 1%	\$237,341	79.7%	20.3%
Top 0.1%	\$698,108	82.8%	17.2%

Source: ATO individual tax records data; Stewart, Voitchovsky, Wilkins (2017).⁶ Excludes capital gains and franking credits.

The LMITO will benefit some high income earners in the top 10% as it is phased out at \$125,333. The phase out at 1.5 cents in the dollar produces a small increase in EMTRs over the phase out range.

Overall, the tax cuts benefit higher income earners (who pay more tax) the most, who are predominantly men. Of course, the tax law does not have “pink forms and blue forms”, as [Treasurer Scott Morrison remarked](#). Substantive earnings inequalities between men and women persist due to differences in work participation and differences in average wages. These differences reflect differences in observable and unobservable worker characteristics and any occupational segregation or wage discrimination.⁷

The fiscal cost by gender of Stage 1 of the tax cuts is estimated by the PBO over 4 years at \$7.28 billion for men and \$6.12 billion for women. The PBO estimates that 5,146,000 men and 4,863,000 women will benefit from LMITO in the 2018-19 year.⁸ This suggests that men and women benefit close to equally from the LMITO overall both in raw numbers and in dollars.

However, more than twice the number of men as women benefit from the increase to the threshold for the 37% marginal tax rate from \$87,000 to \$90,000. The PBO estimates that 2,168,000 men and 960,000 women benefit from this change in 2018-19. Again, this is not surprising; as Table 3 shows, less than one third of those who earn above that threshold are women. These fiscal estimates are presented in Table 4.

⁵ PBO, Partial response 1 of 2 (5 June 2018), https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Budget_Office/Publications/subs

⁶ <http://press-files.anu.edu.au/downloads/press/n3959/pdf/ch09.pdf>

⁷ World Economic Forum (2016), <http://reports.weforum.org/global-gender-gap-report-2016/economies/#economy=AUS>

⁸ PBO, Partial response 2 of 2 (13 June 2018), https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Budget_Office/Publications/subs

Table 4: Stage 1 Tax Cuts 4 year and 10 year estimate: male, female and total fiscal cost

	2018-19 to 2021-22 (4 years) \$	2018-19 to 2028-29 (10 years) \$
LMITO of up to \$530 for individuals with taxable income up to \$125,333		
Males	-6,050	-8,200
Females	-5,600	-7,700
Total	-11,650	-15,900
Increase the upper threshold for the 32.5% marginal tax rate from \$87,000 to \$90,000		
Males	-1,230	-4,330
Females	-520	-2,120
Total	-1,750	-6,450
Total revenue – Components commencing from 1 July 2018		
Males	-7,280	-12,530
Females	-6,120	-9,820
Total	-13,400	-22,350

Source: Extracted from Table A1, PBO (2018).⁹

Effective marginal tax rates and workforce participation

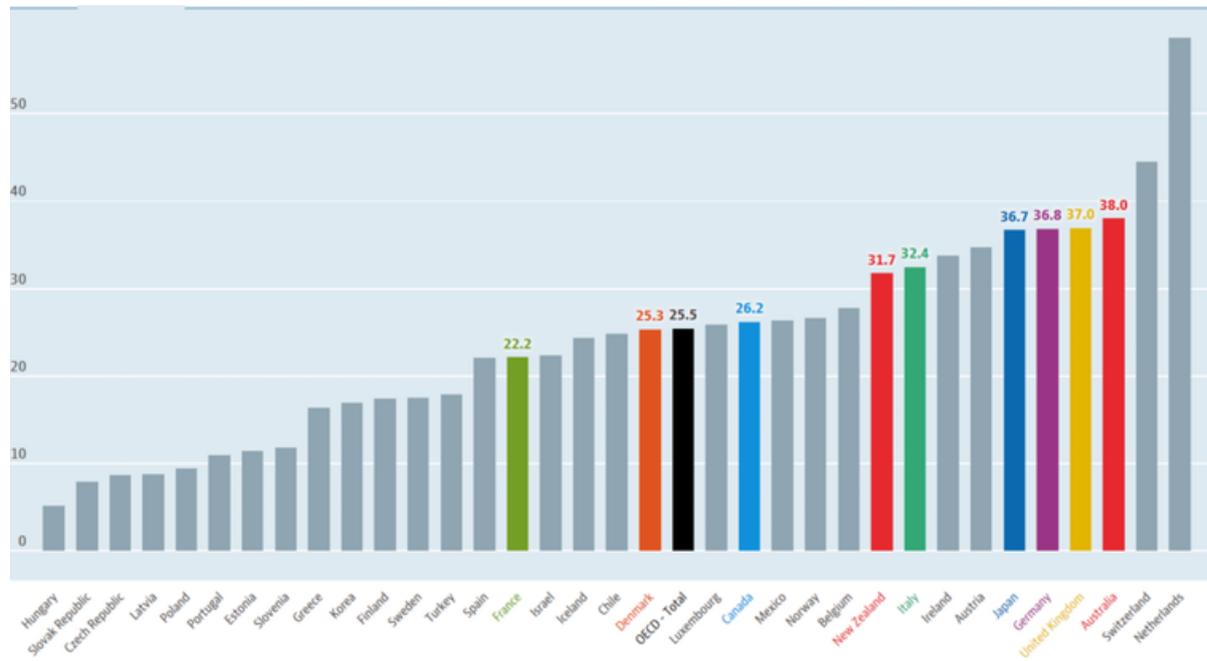
Female [workforce participation](#) is increasing, but working age women still participate 10 percentage points less than men in the paid workforce. The ABS [Gender Indicators](#) show that 45% of women employed were part-time in 2016-17. For men, it is only 16%. The gender disparity for those caring for children is most stark: the proportion of

women caring for a child under 5, working part time is 61%, while for men this proportion is 8.4%.

Relying on slightly different measures, the OECD statistics indicate that Australia has one of the highest rates of female part time employment in the OECD (under 30 hours a week).

⁹ PBO, Partial response 1 of 2 (5 June 2018), https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Budget_Office/Publications/subs

Figure 2: Part-time employment rate for women as % of employment (2017 or latest data, OECD)



Source: OECD data (2017 or latest data, selected countries highlighted).

The empirical evidence suggests that women caring for younger children have a more elastic labour supply, so are more likely to be deterred from increasing work hours as a result of high EMTRs.¹⁰ A woman who is caring for one or more young children in a couple is more likely than not to be the ‘second earner’, with a lower wage and/or a more flexible job than the primary earner. This means that her workforce decision is the marginal decision in the household. The ‘primary earner’, almost always the man, will continue working full-time. Families make choices about what is best for household well-being including income and care of children; however, it is not clear whether families, or women themselves, take into account the long-

term costs and benefits of the decision about work for women.

EMTRs applying the CCS and PIT cut for 2018-19 year

We present EMTR charts based on cameos that demonstrate the EMTRs produced by combining the CCS¹¹ which replaces CCB and CCR from 2 July 2018, with Stage 1 of the PIT rate cut that commences from 1 July 2018.

The charts present the EMTR calculated “per day” of work for the second earner. EMTR is measured based upon an increment of one day's wage and incorporates net childcare costs. We calculate the average effective marginal tax rate for each daily increment of income earned, increasing

¹⁰ See the discussion of labour supply elasticities in Ingles, D and Plunkett, D (2016); Kalb G (2017) Table 5.1 and Breunig, B and Gong, X (2017).

¹¹ Australian Government, Fact sheet <https://docs.education.gov.au/node/38911>.

from one day to five days (FTE). Another way of considering the EMTR is to identify the point in a year when the CCS stops completely; hence, it could be suggested that for the last two to three months of a year, families are 'doing it tough' because of childcare costs. We suggest it is more plausible in terms of work and childcare choices to present the data on a daily basis than on a marginal dollar basis.

We model two alternative child care costs. First, we model the long day **childcare cap of \$11.77 per hour, or \$117.70 for a 10 hour day**. Second, as some may be able to access childcare at a cheaper rate, we model a childcare fee of **\$10 per hour, or \$100 for a 10 hour day**. [Child care fees](#) in the major cities range from about \$85 a day to more than \$137 a day, so many will be paying fees in excess of the cap.

We model three different families with children. We assume work/activation requirements are satisfied.

- **Family 1** has a relatively low wage for the primary earner of \$52,730 (about 140% of the minimum wage), and the second earner at \$44,880 (about 120% of the minimum wage).
- **Family 2** has a primary earner at \$87,000 (about the average full time male wage) and second earner at \$70,000 (about the average full time female wage).
- We also model **Family 3, a sole parent** household at the two second earner wage levels.

None of these families can be considered high income; none of them

have an earner in the top 10% of the distribution.

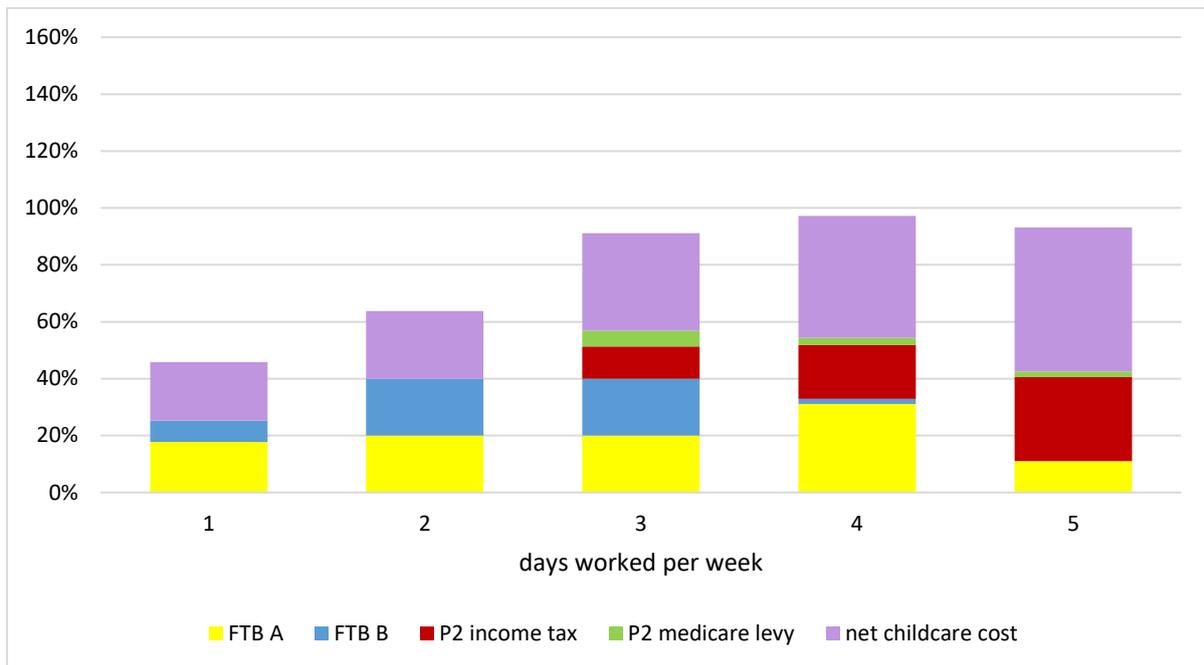
We apply Stage 1 of the tax cuts to commence in 2018 including the LMITO and raising the 37% threshold from \$87,000 to \$90,000. However, our modelled families will not benefit from the threshold increase, as they do not earn high enough wages. The families benefit from the LMITO, but the phase out of LMITO at 1.5% affects the EMTR over some income ranges.

We have previously modelled the effect for each day of work for an example of a second earner in a low income couple, combined with the Child Care Benefit CCB and Child Care Rebate CCR. In our previous modelling, we assumed a rather low hourly fee of \$8.31 per hour for childcare and 2016 tax rate, family tax benefit and childcare settings. We found that the EMTR by day on the second earner reached 95% on Day 4 of work. The Appendix contains that chart and updates previous modelling to apply the above wages and the higher childcare fee of \$11.77 for comparison with CCS and PIT rates for 2018-19.

Family 1: Low to moderate earning family

At the childcare cap of \$11.77 per hour, the second earner in Family 1 faces an EMTR on Days 3 to 5 of between 85% and 95%, or an average tax rate on these three days of work of about 85%. The EMTR for Days 1 and 2 of work by the second earner is more moderate although it may be noted that this is still an average tax rate of about 50% over two days work.

Figure 3: Family 1, Childcare \$11.77 per hour per child. EMTR Second earner; Primary earner \$52,730, second earner \$8,976 per year per day (up to \$44,880); two children age 2, 3; CCS; Stage 1 tax cuts (2018)

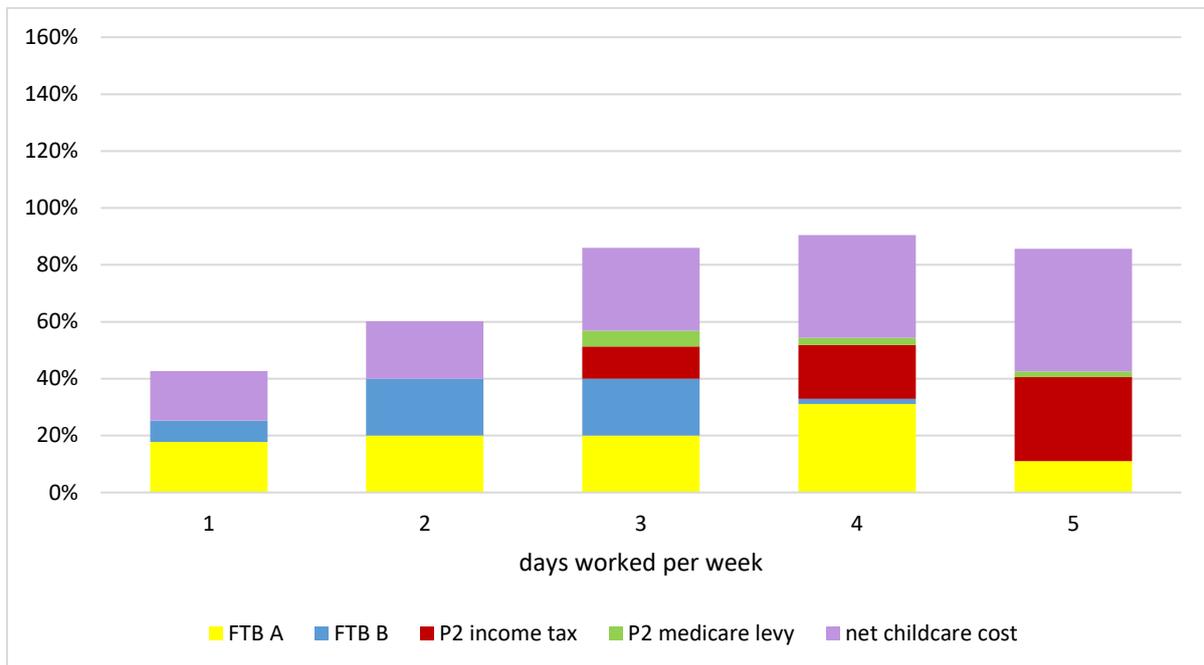


Source: Plunkett model.

In dollars, this means that of the second earner's salary of \$8,976 per day per year, on each of Days 3 to 5, the second earner only retains up to about \$1,300. The second earner has in total about \$4,000 more income during the year, but at the cost to her (and the family) of three additional working days per week. There remains a substantial disincentive for the second earner to work more than two days a week at this wage.

Despite continuing high EMTRs, the CCS has improved matters for this family. In the Appendix, Figure A2 presents the same scenario, applying 2016 parameters and the childcare fee of \$11.77 per hour. The EMTRs under the previous regime are worse than in Figure 2, and much worse than we previously modelled at \$8.31 per hour, substantially exceeding 100% on Days 3 to 5 of work.

Figure 4: Family 1, Childcare \$10 per hour per child. EMTR Second earner; Primary earner \$52,730, second earner \$8,976 per year per day (up to \$44,880); two children age 2, 3; CCS; Stage 1 tax cuts (2018)



Source: Plunkett model.

Family 2: Average earning family

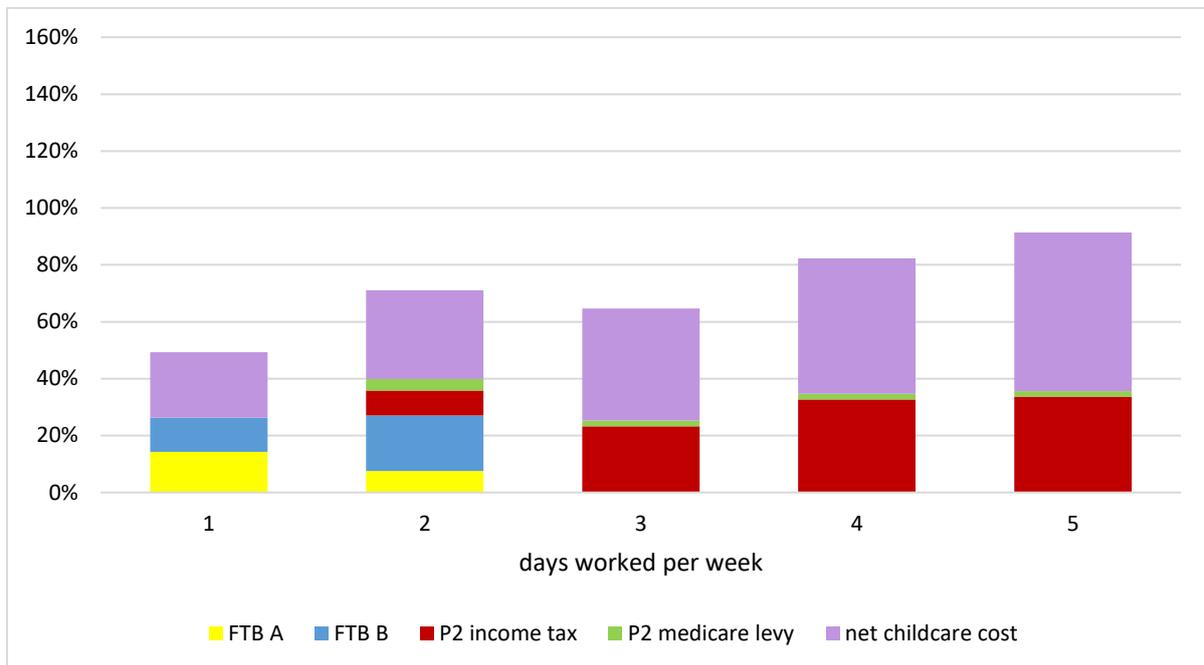
Family 2 earns higher incomes: the primary earner earns \$87,000 per year and the second earner \$14,000 per day, increasing to \$70,000 per year full time.

Figure 5 shows that the EMTRs for working from one to three days a week range from 45% to 65% for the second earner. The EMTRs for Days 4 and 5 of work are lower than for Family 1, but still high at just over 80%. Therefore, in spite of the higher wages of both primary and second earner in this family, there remains only limited additional income of about \$5,500 per year to be gained at a cost of three additional days of work per week. This

EMTR is caused primarily by the withdrawal of CCS on joint income.

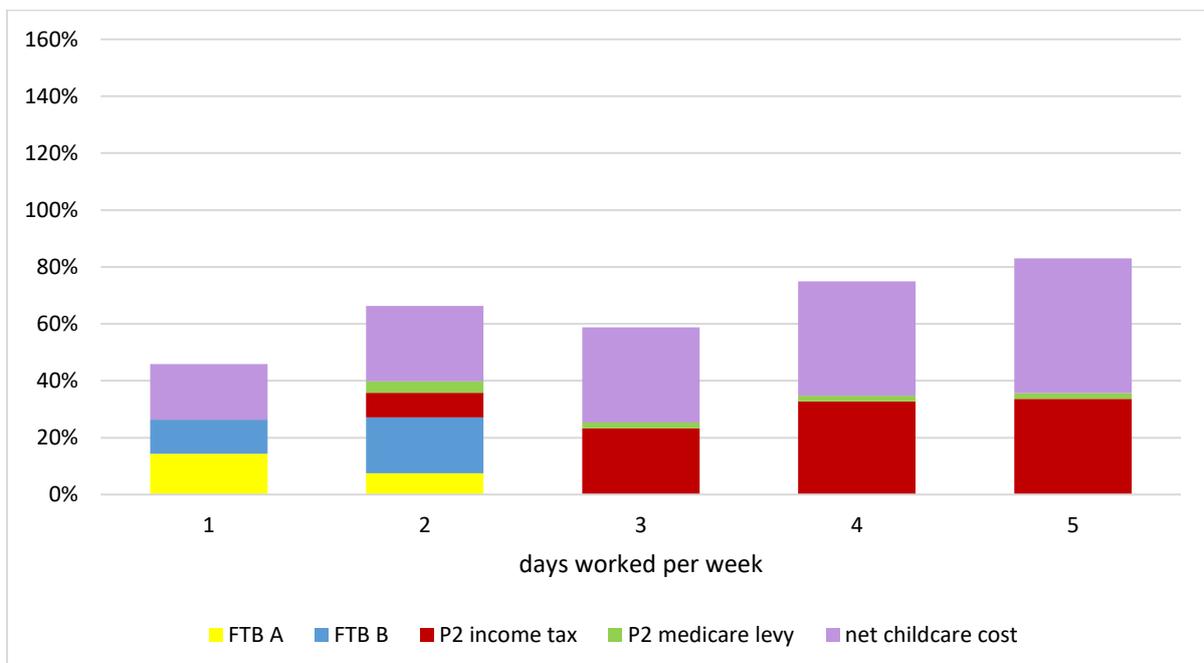
Figure 6 shows the EMTR at a lower childcare cost of \$10 per hour. The EMTRs are substantially better for up to 3 days of work, and marginally better on Day 4 of work. That is, if both earners can derive average wages and the family can access relatively cheap childcare, they will be substantially better off from up to 4 days work by the second earner. However, the EMTR on Day 5 of work by the second earner is about 90%. Over the full week of work by the second earner, the effective average tax rate is about 70%, nearly three times the average tax rate of about 25% faced by an individual without children earning \$70,000 (as shown in Figure 1).

Figure 5: Family 2, Childcare \$11.77 per hour per child. EMTR Second earner; Primary earner \$87,000, second earner \$14,000 per year per day (up to \$70,000); two children age 2, 3; CCS; Stage 1 tax cuts (2018)



Source: D Plunkett model.

Figure 6: Family 2, Childcare \$10 per hour per child. EMTR Second earner; Primary earner \$87,000, second earner \$14,000 per year per day (up to \$70,000); two children age 2, 3; CCS; Stage 1 tax cuts (2018)



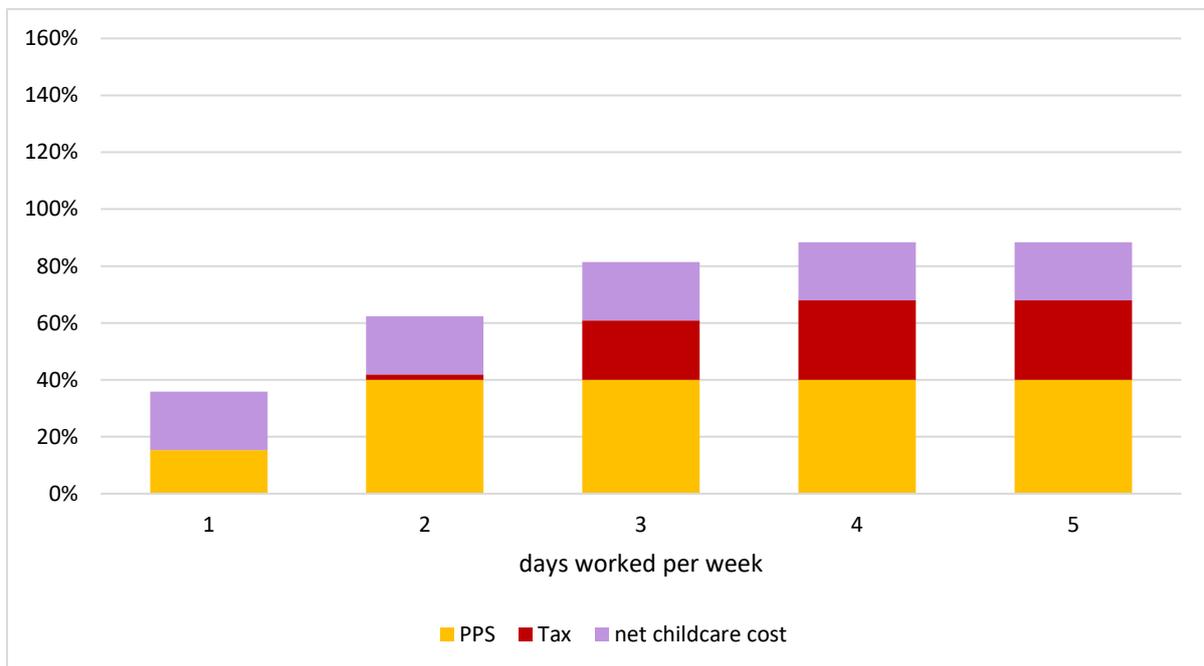
Source: D Plunkett model.

Family 3: Sole parent

We also model these settings (at the second earner wage) for a sole parent. Figures 7 to 9 show that a sole parent earning a higher wage derives more income by being in full time work than not; however, the EMTR exceeds 80% on Days 3 to 5 of work and the lower childcare fee makes little difference.

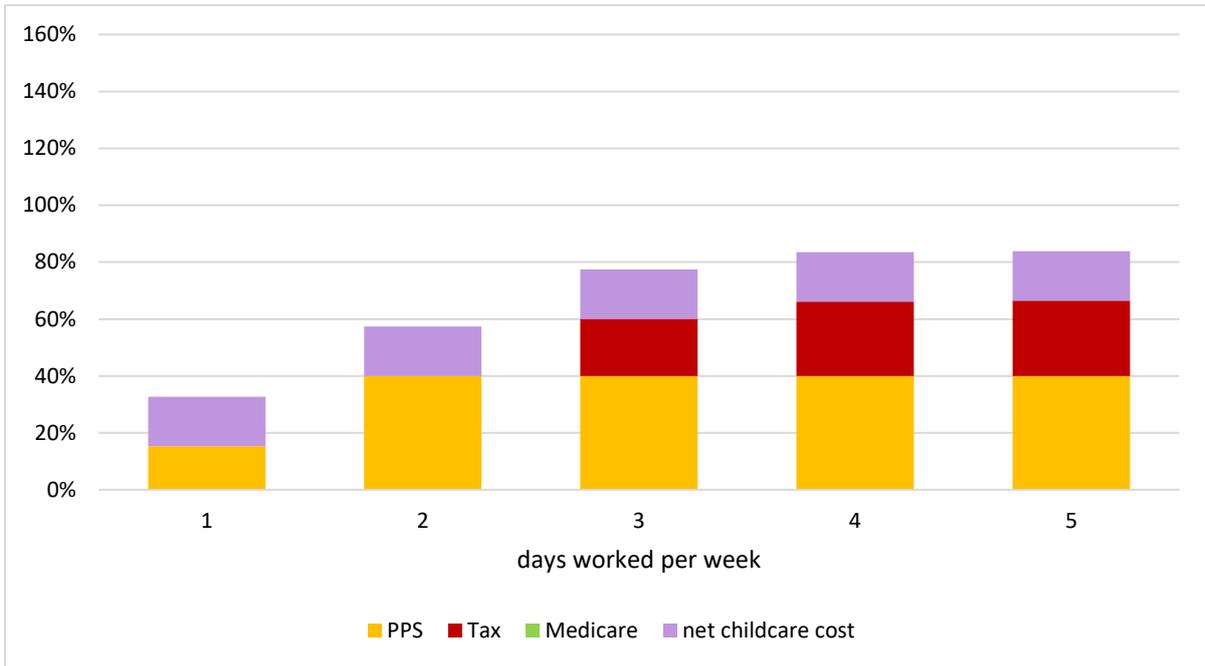
Overall, it pays to work for sole parents, although at this wage, the benefit from moving from part-time to full-time work is small at the cost of more days of work. Some sole parents will benefit from a higher CCS which covers 95% of the childcare fee, or even more if they satisfy more stringent work or study requirements. We do not address that special case in our cameo.

Figure 7: EMTR Sole parent, Childcare \$11.77 per hour per child; \$8,976 per year per day (up to \$44,880); two children age 2, 3; CCS; Stage 1 tax cuts (2018)



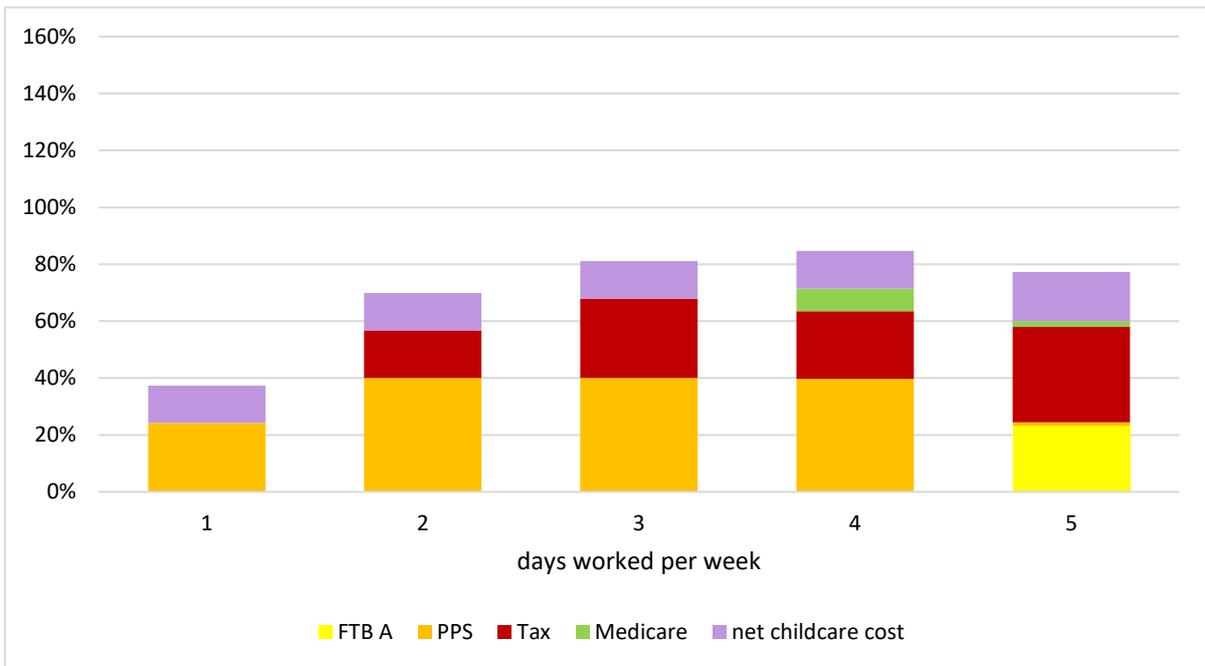
Source: Plunkett model.

Figure 8: EMTR Sole parent, Childcare \$10 per hour per child; \$8,976 per year per day (up to \$44,880); two children age 2, 3; CCS; Stage 1 tax cuts (2018)



Source: D Plunkett model.

Figure 9: EMTR Sole parent; \$14,000 per year per day (up to \$70,000); two children age 2, 3; childcare \$11.77 per hour per child (CCS; Stage 1 tax cuts) (2018)



Source: Plunkett model.

Still a way to go to remove high EMTRs on women's work

Women's workforce participation rates have increased markedly since the 1970s, but this increase has been concentrated almost entirely in part-time work. The greatest dip in female workforce participation occurs when a household is caring for one or more children under the age of five. There are cultural and social reasons for this, but there are also economic reasons: it is a rational response to high EMTRs applicable to workers with elastic labour supply.

The new CCS improves EMTRs for second earners in our cameos compared to CCB and CCR. However, only a small benefit is provided by the Stage 1 LMITO and the personal tax cuts make little impact on these high EMTRs. Despite improvements, in the new regime, second earners, mostly women, as well as sole parents, still face high EMTRs on moving from part-time to full time work. In many cases, family incomes increase by a relatively small amount at the cost of several additional days of work.

The daily EMTRs second earners face are significantly higher than the marginal rates faced by higher earning full time workers – including those at the threshold of \$90,000 which is enacted for the 37% tax rate. The main cause is the income-tested withdrawal of family tax benefit and CCS based on joint family income. The second earner's salary is piled "on top" of the primary earner's income, leading to the phase out of these benefits at about the level of income when the second earner

would increase her days worked from part time to full time.

Families avoid the effect of these EMTRs in several ways. Women, and/or couples jointly, decide that it is not financially worthwhile to work full-time and specialise in looking after children. In most families, it is still the mother who reduces her work hours to do childcare in the home. As many as 30% of families access grandparental or other informal care at least one day a week.¹² If the childcare cost can be eliminated for a day, then the choice to increase paid work hours looks significantly more attractive. But many families do not have access to informal care for various reasons; nor is it always a sustainable option for families.

Some families obtain cheaper care. Family day care, and some childcare centres, have lower fees than the cap of \$11.77 that we model. A lower cost of care net of the subsidy will produce lower EMTRs. However, cheaper care is not always available and it may not be desirable to push for cheaper child care as child care workers are already paid relatively low wages. The quality of care is important to Australian families and many invest in more expensive care than the government cap.

The combination of traditional gender roles and high marginal tax rates on second earners produces unequal outcomes for men and women. Over the lifecycle, "specialising as the primary caregiver has a high personal economic cost to women, but it also has a large societal cost, in terms of foregone productivity and higher income support dependency rates."¹³ At a fiscal cost over four years for Stage

¹² Australian Institute of Family Studies (2015) <https://aifs.gov.au/publications/child-care-and-early-childhood-education-australia>

¹³ Kalb G (2017).

1 only of \$13.4 billion, the PIT rate cuts dwarf the fiscal cost of about \$3 billion of expanding childcare support, but do not remove the disincentive to engage in paid work for many women. An important reform agenda is making sure that the tax system does not discourage anyone who wants to work from working – in particular, by expanding child care - to benefit women and men more equally while also achieving economic goals.

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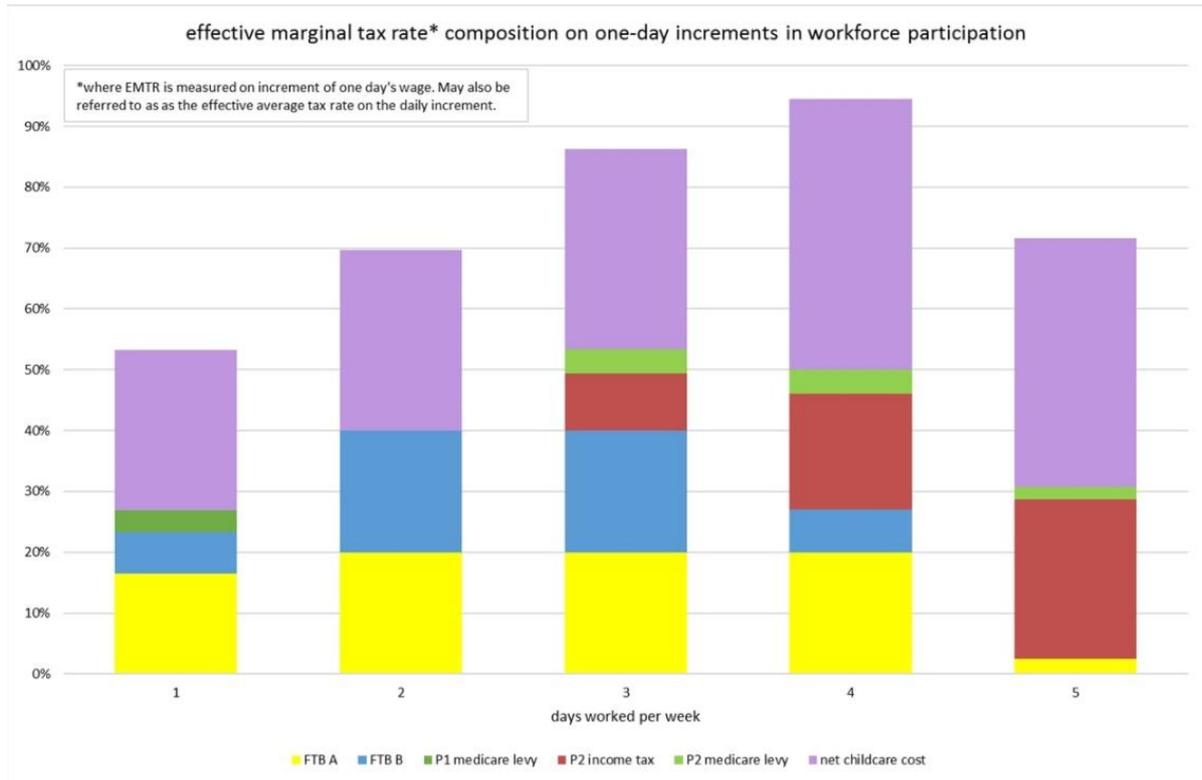
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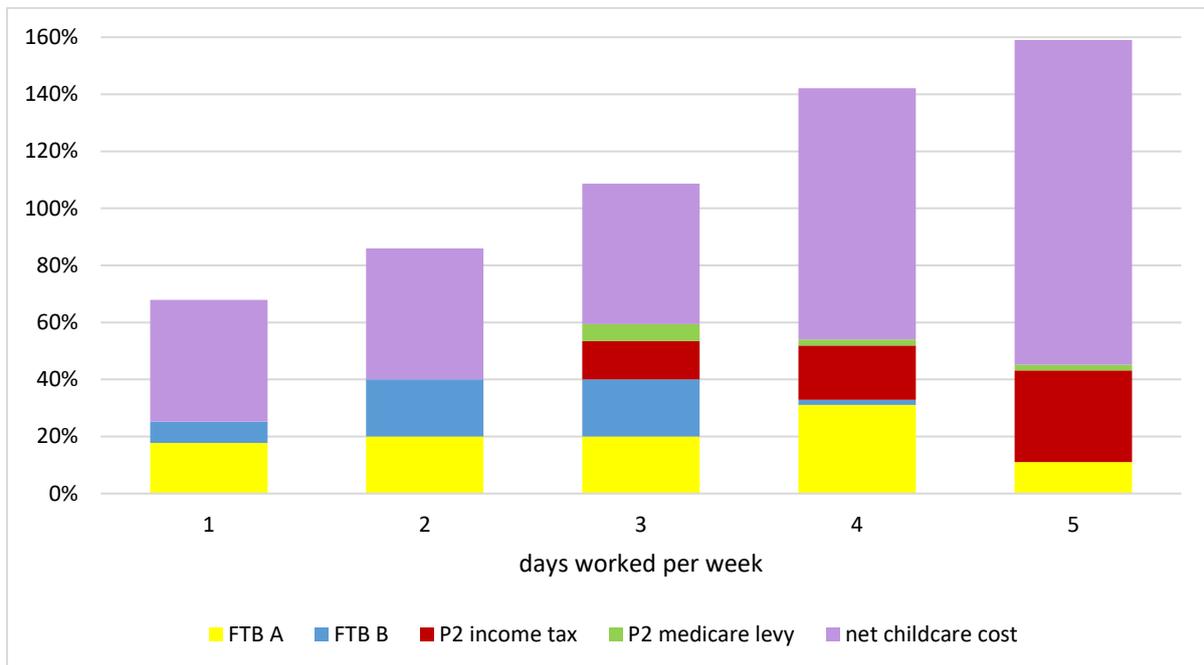
APPENDIX (2016 settings, updated for comparison)

Figure A1: Family 1, 2016 settings. EMTR second earner, \$50,000, primary earner \$50,000, two children aged 2, 3; childcare at \$8.31 per hour



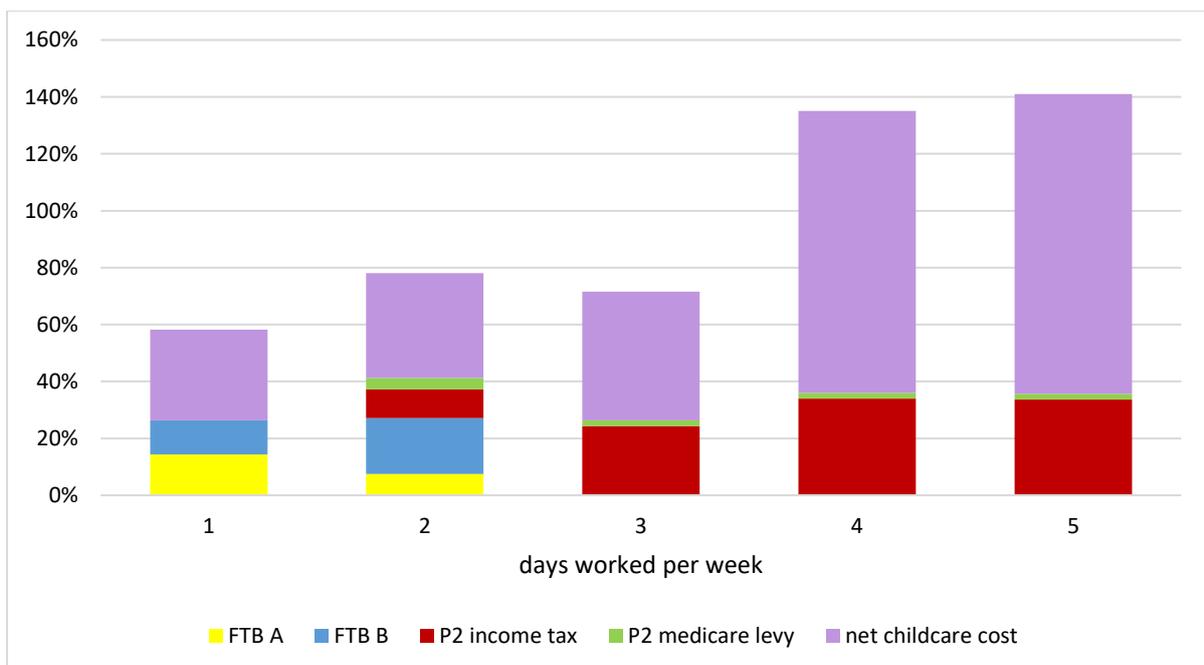
Source: Stewart (2017), Figure 1.8b.

Figure A2: Family 1 (2016 settings, updated). EMTR Second earner; Primary earner \$52,730, second earner \$8,976 per year per day (up to \$44,880); two children age 2, 3; childcare \$11.77 per hour per child (CCB, CCR)



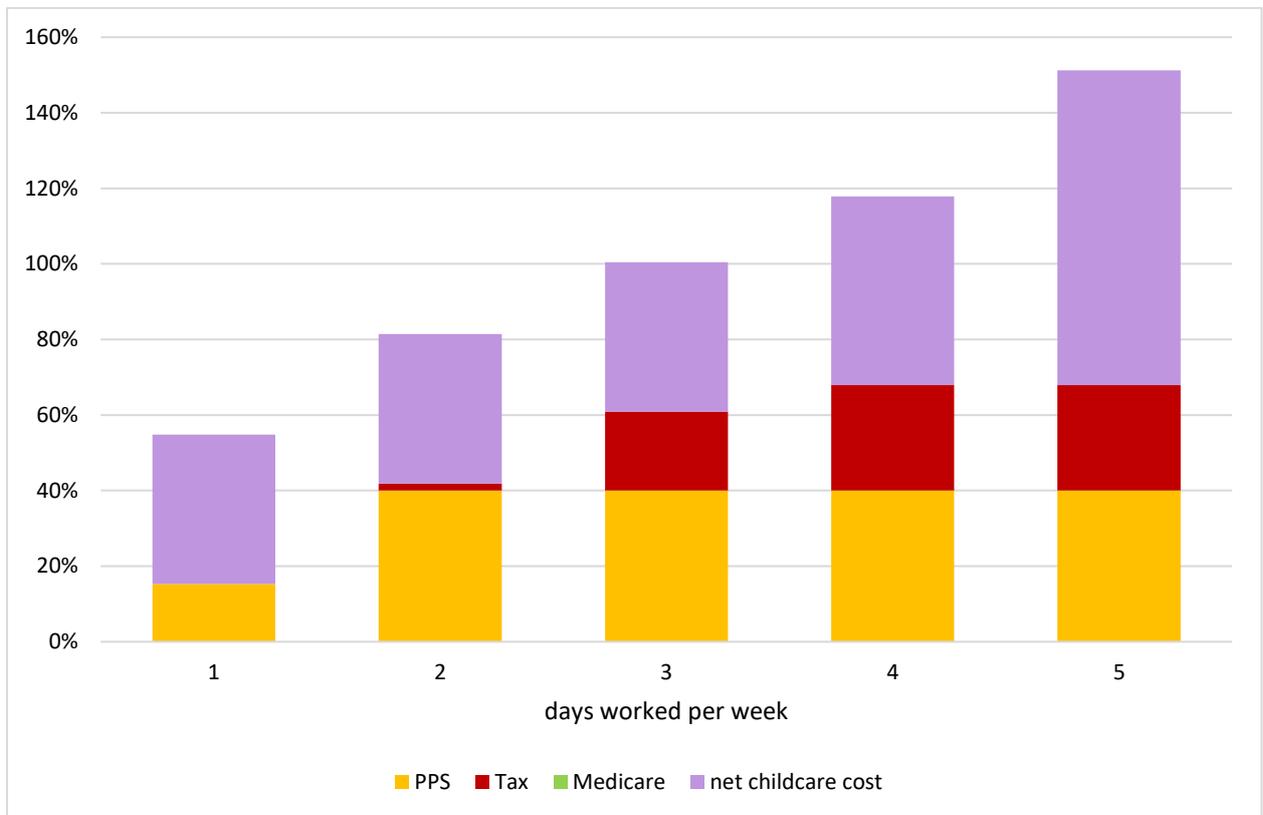
Source: D Plunkett model.

Figure A3: Family 2. (2016 settings, updated). EMTR Second earner; Primary earner \$87,000 per year; second earner \$14,000 per year, per day worked up to \$70,000 per year. Childcare is \$11.77 per hour, per child; two children age 2, 3; childcare \$11.77 per hour per child (CCB, CCR)



Source: D Plunkett model.

Figure A3: Family 3. Sole parent. (2016 settings, updated). Income is \$8,976 per year, per day worked up to \$44,880; two children age 2, 3; childcare \$11.77 per hour per child (CCB, CCR)



Source: D Plunkett model.