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REDUCING THE BURDEN FOR FUTURE GENERATIONS

Fairer Paid Parental Leave

Matthew Taylor

THE CENTRE FOR INDEPENDENT STUDIES

T30.11

National Library of Australia Cataloguing-in-Publication Data:

Author: Taylor, Matthew, author.

Title: Fair paid parental leave / Matthew Taylor.

ISBN: 9781922184313 (paperback)

Series: Target30 ; T30.11,

Subjects: Parental leave--Australia.

Maternity leave--Australia.

Income-contingent loans--Australia.

Other Authors/Contributors:

Centre for Independent Studies (Australia), issuing body.

Dewey Number: 331.25763

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IA100 Jessica Brown, *Baby Steps Toward Self-Funded Parental Leave* (2008).

Contents

Executive Summary

- Australia's statutory Paid Parental Leave (PPL) scheme currently costs just under $1.4 billion (2012–13) and involves payments equal to the full-time minimum wage ($641 per week) for up to 18 weeks ($11,538) made to more than 130,000 primary carers.
- Under current policy settings, PPL is estimated to cost $1.9 billion in 2014–15.
- The Abbott government proposes to pay primary carers at their pre-birth wages up to a cap of $100,000 for up to 26 weeks. If enacted, this will dramatically increase government outlays on statutory PPL by approximately $3 billion.
- While it could be argued that these maternal health and child health and development benefits and social benefits of parental leave are foregone where parents cannot finance their own parental leave or do not have access to PPL workplace entitlements in the absence of statutory PPL payments, current statutory PPL policy is not targeted at those parents. Under current policy, employed parents on incomes up to $150,000 receive these payments.
- Parents with the highest earnings are those who are most likely to have access to PPL through workplace entitlements. Data from the Household, Income and Labour Dynamics in Australia (HILDA) study indicates that 85% of employed women in the top 10% of female earnings had access to PPL as part of a workplace entitlement in 2012.
- For women on collective employment agreements in 2013, leave entitlements of 14 weeks were the most common.
- Compared to current PPL policy, the targeting of PPL payments under the Abbott government's scheme is even worse as is merely caps payments for those with an annual income of over $100,000.
- The Abbott government's scheme is also inequitable as it provides parents with incomes in excess of $100,000 with payments of $50,000 for 26 weeks of parental leave. This is almost three times the $16,667 that a parent who works full-time for the minimum wage would receive.
- Instead of the Abbott government's proposal, we need an alternative model of PPL that meets the objectives of a PPL scheme and aligns the cost of PPL with those that benefit from it. This should be in the form of an Income Contingent Loan (ICL) Scheme similar to the Higher Education Contributions-Higher Education Loans Program (HECS-HELP) used to fund tertiary education.
- This Parental Leave Contributions Scheme (PLCS) would provide parents with PPL payments when family incomes are low and enable them to defer repayment until family incomes are higher. This scheme would capture the social benefits of parental leave by alleviating the financial constraints faced by low-income parents who are unable to finance their own leave or do not have access to parental leave workplace entitlements.
- A minimum repayment threshold set at the full-time minimum wage ($33,332) would ensure that only parents with a capacity to make repayment would have to do so, and a progressive repayment schedule would ensure that repayments were not burdensome for low-income parents and families.
- A PLCS would meet the gender equity objectives of statutory PPL in two ways:
  - A PLCS would recognise the value of parenting by making the PPL loan liability the responsibility of both parents (regardless of their relationship status). The progressive repayment schedule would ensure the parent with higher earnings makes the lion's share of repayments, which is fair insofar as the higher earner benefits from the full-time care provided for their children over the parental leave period.
  - A PLCS would provide women with an alternative to trading off their financial remuneration in exchange for parental leave workplace entitlements. Employers would still have the option of paying off the PPL loans on behalf of their female employees.
- The modelling presented in this report estimates that the primary earner in a typical high-income family, where both parents are tertiary educated, with one child would repay 95% of the PPL loan and all of the loan if they have two children under a PLCS. The primary earner in a typical low-income family, where both parents have less than a Year 12 education, with one child would repay 89% of the PPL loan and all of the loan in a two-child family.
- It is not obvious that taxpayer-funded statutory PPL achieves these gender equity objectives. While the Coalition's wage replacement scheme might reduce the wage discounts associated with parental leave workplace entitlements, it does so by taxing low-income parents to make larger payments to high-wage parents.
- A PLCS is fairer than making higher permanent income transfers to high-income parents and provides equal recognition of the social benefits of parenting regardless of income.
- Loan repayment of a typical high-income family, where both parents are tertiary educated, would take three years for a one-child family and five years for a two-child family. Annual repayments would never exceed 5% to 6% of the family's annual earnings.

- Loan repayments would take a little longer for low-income families where both parents have less than a Year 12 education. A typical one-child family might take five years to pay off their loan while a typical two-child family would take eight years. For these families, repayments would not exceed 4% of the family's annual earnings.
- Under the Coalition's PPL scheme, the payments provided to families in the top 10% of combined lifetime parental earnings will, on average, be $30,000 higher than those provided to the bottom 10%. It is estimated that families in the top 10% will, on average, receive approximately double the PPL payments of those in the bottom 10%.
- Current PPL policy and the PLCS modelled in this report provide a more uniform level of support for families with different levels of earnings.
- It is estimated that the permanent income transfers to families under a PLCS would cost $657 million, cutting 2014–15 government expenditure on PPL by approximately $1.3 billion provided loans were repaid in full.
- The expenditure associated with a PLCS would be approximately 12% of likely 2016–17 expenditure on PPL resulting from the Coalition's proposed PPL policy (assuming no loan defaults).

Introduction

Prior to 2010, PPL in Australia was exclusively provided by employers as part of workplace agreements. The National Employment Standards (NES), however, offered employees with 12 months of continuous service with their employer up to 12 months of unpaid parental leave[1] and the right:

> … to return to their pre-parental leave position, or … an available position for which they are suited, which is nearest in status and pay to their pre-parental leave position.[2]

Australia's current statutory PPL policy settings introduced on 1 January 2011 under the Rudd government largely reflect the recommendations made by the Productivity Commission in *Paid Parental Leave: Support for Parents with Newborn Children* (2009) that came out of the commission's *Inquiry into Improved Support for Parents with Newborn Children* (2008). The inquiry considered the costs and benefits of providing statutory PPL, identified the relative merits of different policy models,[3] and offered three grounds for Australia adopting a PPL scheme:

- improving child and maternal health in the months following a birth by enabling mothers to increase the duration of breastfeeding and ensuring that children received full-time parental care in the early months of their life[4]
- encouraging women of reproductive age to maintain their lifetime attachment to the labour force, offsetting the disincentives for low-income parents to work inherent in other parts of Australia's income support and taxation system
- a symbolic expression of the government's view that having children and taking time out of the workforce to care for newborn children is part of the usual course of work and life for parents, including fathers, and a community norm.[5]

This report examines the question of whether there is a compelling case for government expenditure on statutory PPL. This was not directly addressed by the commission's inquiry as it wasn't part of the terms of reference, which were to 'identify the economic, productivity and social costs and benefits'[6] of PPL rather than address the question of whether public funding of PPL is necessary or desirable.

Following this, two equity arguments in favour of some form of government intervention to increase parents' access to PPL are outlined: It is inequitable that women fund their PPL entitlements through wage discounts, and the newborns of parents who cannot access private PPL entitlements might not receive full-time care. The extent to which this intervention can be justified within the context of current provision of private PPL through workplace entitlements and Australia's comprehensive system of income support and family payments is assessed before proposing an alternative approach to statutory PPL.

This report goes on to outline how these equity objectives could be achieved by providing Income Contingent Loans (ICLs) to parents similar to the Higher Education Contributions-Higher Education Loans Program (HECS-HELP) used to fund university tuition.

This report concludes by assessing the distributional impact of an ICL scheme for statutory PPL using micro-simulation techniques on representative survey data collected from Australian families with young children from the Household, Income and Labour Dynamics in Australia (HILDA) study. This section compares the level of PPL subsidies that would be received under a PPL loans scheme with those received under current statutory PPL policy settings and the current government's proposed reforms to PPL.

Comparing Paid Parental Leave schemes

Current statutory PPL policy pays parents an amount equal to the full-time weekly minimum wage of ($641) up to 18 weeks and will cost $1.9 billion in 2014–15. The payments are funded by taxpayers and made out of general government revenue.

On 8 March 2010, in an address to mark International Women's Day, then Leader of the Opposition Tony Abbott unveiled the Coalition's plans for statutory PPL of 26 weeks of PPL paid at the primary carer's wage before giving birth up to a maximum of $150,000 per annum for all eligible parents. The payments were to be partially funded by a 1.7% levy on the profits of business with financial year incomes over $5 million that was estimated to raise $2.7 billion.[7]

With the Coalition taking government at the 2013 election, this 'wage-replacement' statutory PPL scheme is not government policy. If enacted, this will dramatically increase government outlays on statutory PPL by over $3 billion—from $1.9 billion that the current scheme is forecast to costs in 2016–17.[8]

There have been two substantive changes to the Coalition's initial proposal. Prior to the 2013 election, the Coalition reduced the profits levy to 1.5%,[9] and in the lead-up to the 2014–15 Budget, the cap on primary earners wages was reduced to $100,000.[10]

Table 1 compares the most important aspects of current statutory PPL policy with that of the Coalition's proposed reforms.

Table 1: Comparison of the Coalition's Statutory Paid Parental Leave policy with current Statutory Paid Parental Leave policy

	CURRENT	PROPOSED
Eligibility criteria	• Statutory PPL to be taken by a child's birth mother or, where the child has been adopted, the primary carer. Eligibility can be transferred to the child's other parent—though this is rare.[11] • Eligibility contingent upon meeting a 'work test' and the usual residency criteria to receive income support payments. To meet the work test, the primary claimant must have worked for at least 10 of the 13 months before the child's birth or adoption and at least 330 hours in that 10-month period—a little over one day a week. • From 1 March 2014, PPL periods following the previous pregnancy can be counted as 'work' in fulfilling the work test.	• Similar eligibility conditions. Where leave is transferred, it is to be paid at the replacement wages of the mother. • Statutory PPL scheme would involve a similar work test to the current scheme. Not yet clear.
Rate of payment	• Full-time minimum wage, currently $641 per week, for the duration of the parental leave period. • Eligible parents who earn less than the full-time minimum wage would also receive this amount.	• Annual pre-birth wages for the duration of parental leave period capped at $100,000. • Eligible parents earning less than the full-time minimum wage would receive the full-time minimum wage.
Maximum leave period	Up to 18 weeks for a maximum payment of $11,538.	Up to 26 weeks for a maximum payment of $50,000.
Means testing of payment	Primary claimants must have an individual adjusted taxable income of less than $150,000 per annum in the financial year before their claim.	Not means tested. Payment for those with pre-birth incomes in excess of $100,000 are capped at $50,000 rather than phased out. This reduction in the cap on pre-birth incomes from the $150,000 originally proposed was announced in the lead-up to the 2014–15 Budget.
Methods of financing payments	By taxpayers out of general government revenue.	Partly funded by a 1.5% levy on companies with a taxable income in excess of $5 million. Remaining cost funded out of general government revenue.

In contrast to current PPL policy, the Abbott government proposes to make superannuation payments at the compulsory contribution rate of 9.5% for the duration of the period of leave. While it is not yet clear how the proposed scheme will interact with the rest of the tax and income support system, the government's view that statutory PPL is a workplace entitlement suggests that the payments will receive treatment similar to that of current policy settings and would therefore be included in taxable income.

Families that claim PPL forego their entitlement to Family Tax Benefit Part B (FTB-B) and the soon-to-be-abolished dependent spouse tax offset. They also forego entitlement to the Newborn Supplement and Newborn Upfront Payment components of Family Tax Benefit Part A (FTB-A). A family expecting their first child, where the primary earner has an annual income of less than $150,000 and the primary carer has no earnings in the first year of the child's life, forego $4,274 in FTB-B in addition to the FTB-A Newborn Supplement ($1,542) and the Newborn Upfront Payment ($514).

The $6,330 in foregone family benefits is just under 55% of the PPL payment where the full 18 weeks are taken. The family however need not forego the entirety of the $4,274 in FTB-B. If the primary earner returns to work after 18 weeks, the family would receive some FTB-B provided they earn less than $15,162.[12]

As PPL is provided on a per child basis, parents who have multiple births can receive PPL for one child while other children attract the FTB supplements.

The Coalition's scheme offers high-income families larger payments than low-income families. Although statutory PPL is often referred to as a workplace entitlement, it is taxpayer funded and therefore an income support payment. Providing larger income support payments to those with higher private incomes represents a departure from the established tenets of Australia's income support system: that the government only provide payments to those who cannot provide for themselves. The architecture of Australia's current taxation and income support system is, by international standards, one that is successful at targeting government support to those most in need.[13]

The Productivity Commission's *Inquiry into Improved Support for Parents with Newborn Children* (2008) was not tasked by the Rudd government to consider whether the social benefits of statutory PPL warranted public funds. The commission was not instructed to assess whether there was a specific market failure to be addressed or a specific social benefit (positive externality) to be subsidised. Instead, the commission was asked to examine a number of different financing and delivery options providing a detailed analysis of their relative efficiency, equity and simplicity. In light of the considerable increase in government expenditure on PPL being proposed by the government, it is an opportune moment to consider whether there is in fact a case for public subsidy.

The benefits of parental leave

There is no doubt mothers require time away from work to physically recover from child birth. The generally accepted period of recovery among the medical profession is six weeks.[14] The commission's report cites Australian and international research that suggests a longer period of 12 to 29 weeks is required before mothers return to 'full functionality' with 'wellbeing after that time dependent more on women's preferences than recovery from childbearing.'[15]

Before turning to the question of whether alleviating the financial constraints that might prevent mothers from taking leave should be the responsibility of the taxpayer, it is natural to ask whether paid, as opposed to unpaid, parental leave causes the benefits that are claimed. Very little of the literature cited by the commission pointed to a clear causal relationship between statutory PPL schemes in other countries and their resultant social benefits. Many relied on estimates of a correlation between these benefits and parental leave, whether paid or unpaid.

Statistical correlation, even when statistically significant, does not provide governments with clear guidance as to whether a program should be implemented or expanded. Establishing whether government policy is a causal antecedent of outcomes that improves the overall welfare of society is important. If there is no causal link between the program and the outcome, then taxpayer funds are redirected from the private uses (or other public uses) to which taxpayers would undoubtedly benefit to a public use that may not represent any increase in social welfare. For this reason, this section does not provide an exhaustive review of the child and maternal health and development benefits of PPL. Instead, it focuses on those that could reasonably be considered to shed light on the causal impacts of paid parental leave policies.

Impact of PPL on maternal health: Very few of the studies cited by the commission attempted to establish the causal impact of PPL on maternal health. Of those that do, just one focused on PPL as opposed to mandated employer guarantees of being able to return to their pre-birth job (unpaid parental leave). This study by Pinka Chatterji and Sara Markowitz collected data from the parents of a birth cohort of children in the United States to examine the impact of the duration of paid and unpaid parental leave on depressive symptoms experienced by mothers and their reports of their general health. Although the paper purports to show statistically significant causal estimates of PPL on these outcomes, it is not clear the methodology used can be said to justify such claims. This might explain why this working paper is yet to be published in an academic journal.

Impact of PPL on children's cognitive and educational outcomes: The methodologies used in the literature on the causal impacts of PPL on children's cognitive and educational outcomes are of much higher quality. These studies span Germany, Austria, Norway, Sweden, Denmark and Canada and make use of reforms that *increased* the duration of statutory PPL schemes in these countries.[16] Many of these studies fail to find statistically significant average increases in these outcomes caused by PPL reforms while some find very small positive impacts. Some find that the benefits of PPL accrue to specific groups of children. Even then the evidence is mixed, with some studies finding that children from low socioeconomic backgrounds are more likely to be positively affected, while others find that children with more educated mothers are more likely to benefit.

Impact of extended breastfeeding on child health: Many of the proponents of PPL point to the benefits of extended breastfeeding on child health. Indeed, this is cited as the primary mechanism through which child health is positively affected by PPL. Even so, it is difficult to establish whether breastfeeding improves child health or whether mothers who engage in breastfeeding have other characteristics or behaviours that promote their child's health. According to the Productivity Commission, 'Despite the volume of research, evidence of a causal relationship between breastfeeding and health benefits has been difficult to obtain.'[17]

One study cited by the commission presents what appears to be conclusive evidence of the health benefits associated with breastfeeding.[18] However, this study focused on a randomised trial of a breastfeeding intervention that was found to increase the prevalence of breastfeeding among women in Belarus. This study did not therefore examine whether PPL increased

the prevalence of breastfeeding. On the whole, the commission did not view the evidence of the health benefits of breastfeeding as the strongest argument for a PPL scheme:

> The systematic reviews and meta-analyses of interventions to promote and support breastfeeding indicate that breastfeeding interventions are more effective than routine care in increasing short and long term breastfeeding rates.[19]

The commission went on to catalogue policies already funded by the Commonwealth that targeted breastfeeding specifically.

Were it proven that the benefits of parental leave listed above could be caused by statutory PPL, this would not necessarily be sufficient justification for committing taxpayer funds to statutory PPL. These benefits, while undoubtedly private benefits to the children and parents who utilise PPL, are not obviously social benefits that justify income transfers from taxpayers.

The commission did not directly address the question of the extent to which parental leave benefits society more broadly. The commission did, however, assert that such social benefits existed as reason for rejecting the proposition that PPL should be completely self-financed:

> Complete self-financing fails to recognise the broader value to the community of a parent taking leave to care for children. Those social benefits (or externalities) suggest that the community has a role to play in supporting (and paying for) such arrangements.[20]

The assertion that the social benefits (positive externalities) associated with PPL are a case for public funding suggests a misunderstanding of the economic theory of externalities. It is only when the private decisions made by individuals fail to fully realise the social benefits of those decisions that government subsidies are necessary to increase the total welfare of society. If the private decisions of individuals already fully realise these social benefits, then providing subsidies does not increase the welfare of society. Rather, it reduces the welfare of those who must pay for the subsidies and increases the welfare of those who receive them. Just because there may be social benefits from PPL does not mean subsidising PPL increases the welfare of society as a whole—as seems to have been assumed by the commission.

To assert that those who produce social benefits are worthy of subsidies in the absence of any evidence that these subsidies directly contribute to the production of social benefits that would not otherwise be produced is not an economic argument for increasing social welfare. This is an argument in favour of redistribution from those who do not have children to those who do—one that presumes that the welfare of families with young children is more important than the welfare of those without. This justification is controversial as it presumes how society weighs the welfare of different groups. It also implicitly assumes that current transfers to families such as Family Tax Benefit and Parenting Payments are insufficient to achieve this subjective view of equity. Even so, this perspective underscores current PPL policy and the reforms proposed by the government.

Put simply, society does not benefit from paying parents to do that which they would do already. Providing parents who have access to private PPL entitlements, or any other means of financing a period of parents leave, with taxpayer funded PPL payments is not a social welfare measure—it is redistribution.

The social benefits of parental leave: Sufficient justification for permanent income transfers?

There are two reasons why the private decisions of parents might not realise the social benefits of parental leave. First, they might not be aware of the benefits. Second, they might not be able to finance a period of parental leave—that is, they might face 'liquidity constraints.'

That parents may not be aware of the social, or indeed private, benefits of taking or extending parental leave is not a persuasive argument for providing taxpayer-funded subsidies. While providing subsidies may increase the uptake and duration of leave, this. It may be that the government need only communicate these benefits to parents via a relatively inexpensive public information campaign, who would then voluntarily self-finance greater leave.

On the other hand, if parents are unable to finance a period of parental leave then it is certainly the case that they are denied the private benefits associated with this leave and society the attendant social benefits. This is a persuasive argument for government intervention that alleviates these financial constraints and perhaps expands access to PPL. The inability of *some* parents to finance their own parental leave is not an argument for the permanent transfers of taxpayer funds that current statutory PPL policy and that proposed by the current government represent—especially not those who can already finance parental leave.

That some parents might not be able to finance their own parental leave is argument for government intervention that alleviates these financial, or 'liquidity,' constraints. This could be achieved through temporary income transfers in the form of parental leave loans rather than an argument for a permanent transfer of taxpayer funds to families. A permanent transfer of taxpayer funds can only be made on the basis that the social benefits of parental leave would only be produced if the income transfer were permanent.

It would be difficult to argue that this is the case in the context of parental leave. Parental leave is a private decision made by parents that provides health and developmental benefits for them and their children. To suggest that parents, once aware of these benefits, would not take parental leave unless the transfer were permanent seems strange. If parents genuinely had so little regard for their own health and that of the children, it is not clear how a payment from the government would of itself improve the decision-making of these

parents. The more pertinent public policy question is where such loans would be provided by the private sector or whether these loans would require some form of government intervention.

Equity arguments in favour of temporary assistance for families with newborns

There are less controversial equity arguments in favour of government intervention. These relate to horizontal equity in terms of how society treats particular individuals rather than asserting that the welfare of some is more important to society than the welfare of others.

1. **Gender equity:** Where private PPL is provided in workplace agreements, this workplace condition is traded off against financial remuneration.[21] It is perfectly understandable that employers would be reluctant to enter into workplace agreements that remunerate employees for 52 weeks in return for fewer than 52 weeks of labour. Insofar as it is predominantly women who avail themselves of these conditions, it is predominantly women who incur the attendant reductions in financial remuneration and not men. Thus, an argument could be made for government intervention that would ameliorate the burden placed on women, but this need not involve permanent transfers from the taxpayer to women.
2. **Equity among children:** Children do not get to choose whether they are born to parents who have access to private PPL provisions in their workplace agreements—this is the accident of birth. If society values the health and development of all children equally, then ensuring full coverage of PPL is a worthy policy goal. Providing PPL that covers the parents of all children need not mean permanent transfers from taxpayers to families with newborns. It would only require intervention that ensured no parent were prevented from taking parental leave as a consequence of these, often temporary, financial constraints.

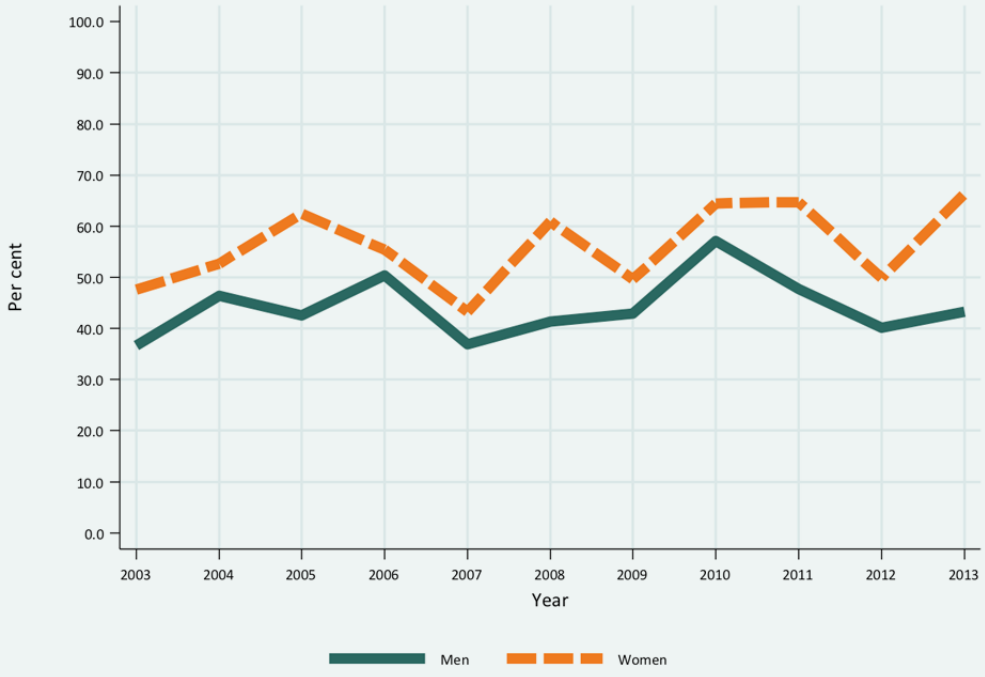
Neither equity argument relies on the assumption that any group in society is more important than another. The first assumes that the welfare of employed women is equal to that of employed men while the second that the welfare of all children should be equal. But neither argument is an argument in favour of permanent redistribution from the taxpayer to families with young children.

The following sections examine these equity arguments in greater detail within the broader context of Australia's labour market and income support policies.

Gender equity and private provision of Paid Parental Leave

Prior to the introduction of statutory PPL policy in 2011, PPL entitlements were exclusively provided by employers through workplace agreements negotiated by individual employees or collectively at the enterprise level. The Productivity Commission estimated that in 2007, 54% of female employees and 50% of male employees had access to PPL as part of their employment arrangements.[22] In 2013, the third year of Australia's statutory PPL scheme, 66% of women covered by collective employment agreements were covered by an agreement with a private PPL workplace entitlement according to the Department of Employment's Workplace Agreements Database (WAD).

Figure 1: Percentage of female employees covered by a collective agreement that contain a PPL entitlement, 2003 to 2013



Source: Workplace Agreements Database, Department of Employment.

Figure 1 presents the percentage of men and women covered by collective agreements that included private PPL provisions between 2003 and 2013 from the WAD. The figure shows the percentage of women who were covered by collective agreements that include private PPL provisions has increased from 48% in 2003 to just over two-thirds in 2013. The percentage of men covered by collective agreements that include private PPL provisions is lower over the entire period increasing from 37% in 2003 to 43% in 2013.

Coverage of private PPL provisions among women on collective agreements (not shown) is much higher among women on collective agreements in the public sector than in the private sector. Over this period, coverage in the public sector has, with the exception of 2012, been in excess of 90%. For those in the private sector, there was an upward trend in coverage from 27% in 2003 to 57% in 2013.

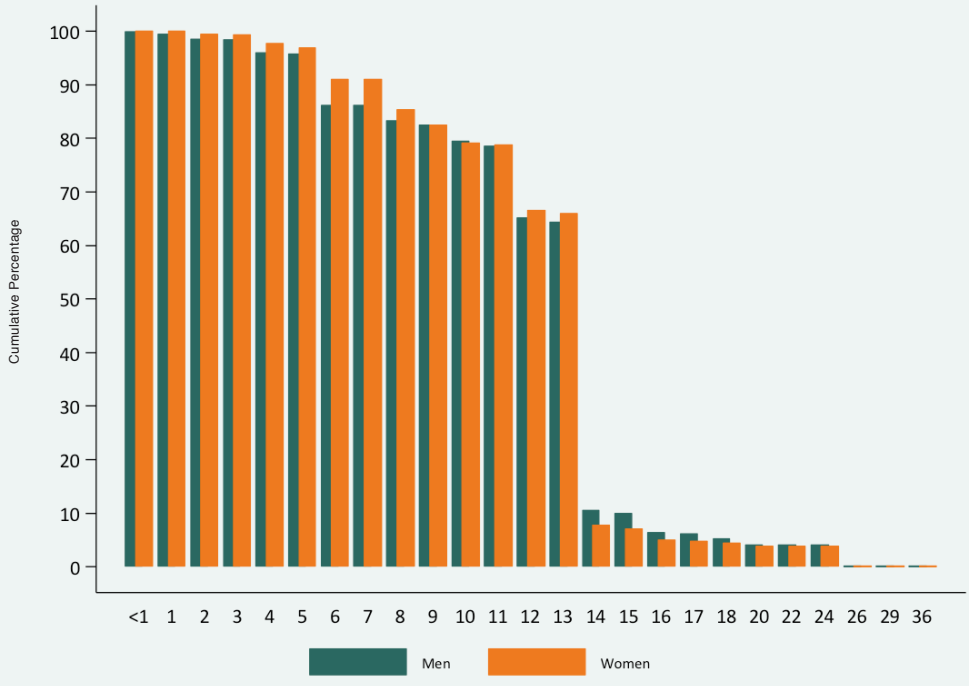
Figure 2 presents the cumulative percentage of men and women covered under collective agreements (private and public sector) with private PPL entitlements that provide for a minimum number of months in 2013.[23] Of those women who had access to PPL as part of their collective agreements, 91% were covered by agreements that provided at least six weeks of leave and 86% of men. Fourteen weeks of leave accounted for the majority of entitlements with 58% of women covered by an agreement with a private PPL entitlement of 14 weeks and 54% of men. Private PPL entitlements of 26 weeks are quite rare with just 4% of men women covered by collective agreements that contained PPL provisions of this length.

The message of Figure 1 is that where private provision of PPL is available under collective agreements, it more likely to be women who are employed under collective agreements that contain these provisions than men. Figure 2 indicates that where private provision is available under collective agreements, a leave period of 14 weeks is the most common private PPL entitlement. The fact that women have broader coverage of private PPL entitlements reflects the fact that they are most likely to use these entitlements and therefore more likely to bargain for them.

In contrast to statutory PPL, the private PPL entitlements that exist under collective agreements are not financed by the taxpayer. These private entitlements are financed by the workers who make use of these entitlements, and to some extent, by those with whom they collectively bargain. Wages and salaries are but part of an overall package of benefits that employees receive in return for the provision of their labour. This package of benefits not only includes financial remuneration in the form of wages and salaries but also leave entitlements whether they are used by some, or all, employees.

From the perspective of the employer, an increase in leave entitlements of any sort is a reduction in the number of hours worked insofar as the entitlement is exercised by the employee. An expansion of the duration of a leave entitlement that is not offset by a commensurate increase in productivity will have one of two consequences. It will either reduce the wage offers made to those who are deemed likely to exercise those entitlements or reduce the likelihood that those who use these entitlements will be employed in the first place.

Figure 2: Cumulative percentage of female employees covered by an employment agreement that contains a PPL provision by length of leave entitlement, 2013



Source: Workplace Agreements Database, Department of Employment.

Put simply, in the absence of productivity increases, leave entitlements are secured by trading off financial remuneration for more generous workplace conditions.

There is a gender equity dimension to private PPL entitlements that is not present in the context of other leave entitlements like sick leave and recreation leave. Private PPL entitlements differ from sick leave and recreation leave insofar as it is primarily women who make use of these provisions. The trade-off of financial remuneration for conditions that occurs in securing sick leave and recreation leave apply equally to men and women, but this is not the case for private PPL. Work by Rebecca Edwards (2006) using Australian data found that, all else equal, women who had access to private PPL had lower wages than those who did not.[24] Leaving the provision of PPL to purely private provision, therefore, involves a level of self-financing by women and by those with whom they collectively bargain.

The wage discounts that are incurred by women to secure private PPL entitlements are inequitable for the reason that it is not only women who benefit from the full-time care provided to newborns. Children have two parents and therefore both benefit from any parental leave that is taken. Purely private provision of PPL would ensure that parental leave is largely financed by women as they are most likely to use these private entitlements when this responsibility should be shared by both parents.

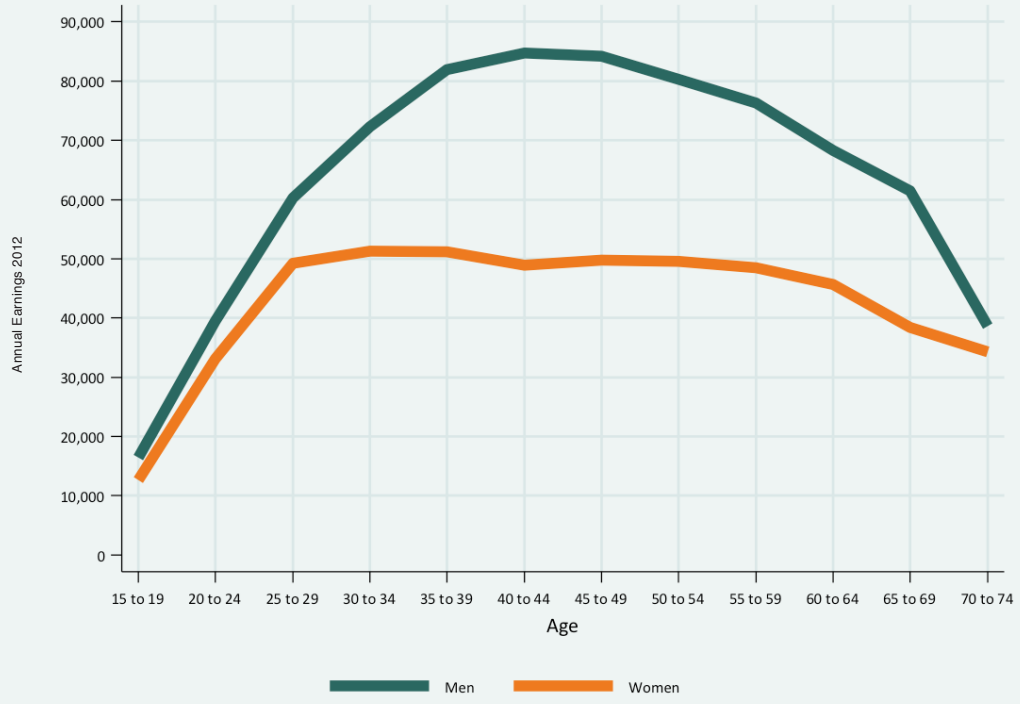
With this in mind, there is something of a contradiction inherent in the commission citing statutory PPL's symbolic status as a 'workplace entitlement' in recommending against a self-financing approach to PPL.

> Self-financing is not compatible with the view that parental paid leave should be an employment entitlement like any other leave, which at least as many in the community … regard as an important norm to be reinforced.[25]

All workplace entitlements are self-financed through wage negotiations, if not solely by individuals then by individual in addition to those with whom they work alongside who might arguably contribute to their productivity. The particular case of private PPL entitlements is no different. It is the very reason that private PPL entitlements are largely self-financed by women that gives rise to the gender equity objectives of the statutory PPL scheme in the first place.

Figure 3 illustrates average annual earnings of employed men and women at different ages taken from the 2012 Household, Income and Labour Dynamics in Australia (HILDA) survey. For men, average earnings increase reaching a peak in their late 30s and declining thereafter. Average earnings for women increase at a lower rate before reaching a plateau in their late 20s as many women reduce their hours of work to care for children.

Figure 3: Average annual earnings for employed men and women by age, 2012



Source: Household, Income and Labour Dynamics in Australia.

It would be hyperbole to suggest that the entirety of this earnings gap is the result of wage discounts associated with private PPL. Much of it is the result of the reduction in hours worked by women in the years following childbirth. What Figure 3 underlines is the earnings differential between men and women and highlights the extent to which this opens up during women's childbearing years.

The fact that women incur the wage discounts associated with securing these private PPL entitlements is not in itself a persuasive argument for taxpayer funded PPL payments. Income is shared within households so that most women who receive these private conditions will undoubtedly benefit from the earnings of the child's other parent. It should however be recognised that time spent caring for children full-time has longer term consequences for the wage growth of parents who provide this care.[26] For those parents who separate, it might be difficult to secure income transfers from the other parent as compensation for the earnings impact of providing that full-time care.

Substituting the private provision of PPL with taxpayer-funded payments might be one way of addressing the gender inequity of the wage discounts associated with private PPL. The problem with this is that it shifts the cost of PPL from the families of newborns who benefit from parental leave to the taxpayer with no obvious increase in the social benefits associated with parental leave for those parents who already had access to private workplace entitlements or other means of financing their own parental leave.

An alternative to private and taxpayer funded PPL that can address these wage discounts would be to offer families the option of taking out Income Contingent Loans (ICLs) from the government. These PPL loans would be similar to the Australian government's Higher Education Contributions-Higher Education Loans Program (HECS-HELP) used for university tuition. ICLs would address these wage discounts by providing women with an alternative to financing PPL out of their own productivity and the opaque cross-subsidisation of workplace entitlements that occurs within enterprises as a result of collective bargaining.

Instead of having to accept a wage discount and a private PPL entitlement that reflects the preferences of those with whom they collectively bargain women would be free to opt into an ICL arrangement that would secure a maximum parental leave period of 26 weeks at a rate equal to, or less than, their full pay. This ICL scheme for parental leave could be referred to as the Parental Leave Contributions Scheme (PLCS).

Australian government support for the care for newborns

The previous section outlined the significant, but not universal, coverage of private PPL. The fact that private PPL was not universally available to all employed women was cited as an important reason for the introduction of statutory PPL:

> While [the increase in private PPL coverage] could be expected to continue in the absence of a statutory leave scheme, it is unlikely to lead to (anywhere near) universal provision because attraction and retention are less important issues for firms that mainly employ lower skilled workers who are less costly to train and replace.[27]

While it is true that not all parents who would like to take a period of parental leave will have a level of productivity that would enable them to secure private PPL, it cannot be said that statutory PPL was implemented in a vacuum of government support for the parents of newborns. Low-income parents are able to access Parenting Payment, and those on low and middle incomes are eligible for Family Tax Benefits. The maximum rate of Parenting Payment Single is $6,419 for 18 weeks, and $4,148 for those on Parenting Payment Partnered provided their partner has an income under $8,046 over that period[28].

Before 2014, parents who did not receive PPL could still access the Baby Bonus, which provided $5,000 for the first child and $3,000 for subsequent children for families with incomes under $75,000.[29] This has since been replaced with a Newborn Supplement for Family Tax Benefit Part A currently $1,542 for the first child and $514 for subsequent children. This is in addition to the $514 Newborn Upfront Payment for newborns.

Taken together, these existing income support and family payments can be said to provide a de facto PPL scheme for those unable to secure private PPL, albeit at a level that is less generous than the full-time minimum wage. Eligibility for these payments is not limited to 18 weeks, ensuring an extended period of government support for parents who would like to care for their children full-time. In the absence of any clear evidence that the social benefits of statutory PPL exceed the existing payments made to parents, it is not clear that the additional expenditure on families was justified. Australia's existing system of income support and family payments already ensured that the social benefits of the full-time care for children born into households without private PPL entitlements are realised.

It was not the notion that existing government support for families was insufficient to reflect the social benefits of parental leave that the commission used in recommending payment at the full-time minimum wage. Instead, the commission argued that statutory PPL might provide incentives to parents who were not employed, or employed on low wages, to increase their work hours to meet the work test eligibility requirements for statutory PPL:

> [PPL paid at] the minimum wage typically exceeds the replacement wages of lower income parents (since many work less than full-time hours) … It would create good incentives to work for lower income females, since the payment is significantly more than the value of income support for women working in the unpaid sector [i.e. at home].[30]

This is a more persuasive argument for targeting taxpayer-funded PPL payments at low-wage workers rather than providing payments to all parents with an income of up to $150,000 who only need meet a very light work test for eligibility. Equally, it is also an argument for looking at the specific aspects of Australia's income support and taxation system that directly contribute to these work disincentives rather than placing a new income support payment on top of the existing structure.

The Coalition's proposal of wage replacement PPL inherits all the problems of the existing PPL scheme. The current government's scheme would cap payments at $50,000 for parents with incomes in excess of $100,000 rather than phasing them out at $150,000. This would make a policy that is already poorly targeted even worse in this regard, and one that proposes to make larger payments to parents who are most likely to be able to finance their own parental leave and those most likely to have access to private PPL.

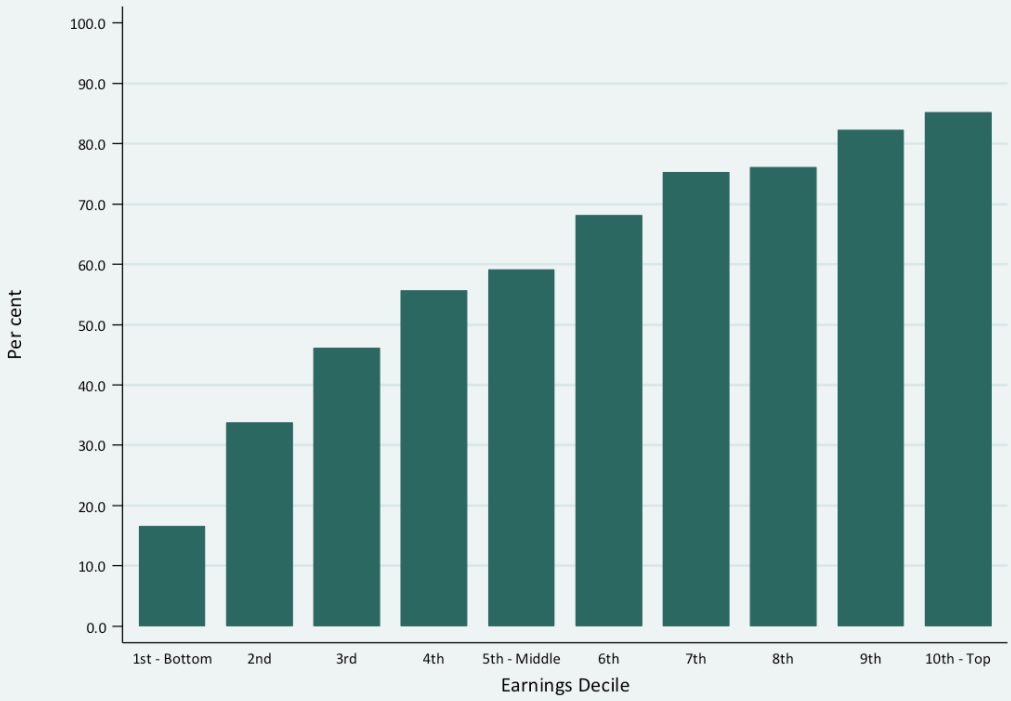
If the labour force participation incentives were the most persuasive reason to make payments at the full-time wage, it is not clear why these payments were to be made to parents who were already employed and on incomes of up to $150,000, especially when most parents on high incomes would already have access to private PPL entitlements.

Figure 4 presents the percentage of employed women who reported that they had access to a private PPL entitlement as part of their employment conditions in the 2012 HILDA survey. The figure presents the percentage for women who had access to these entitlements within each earnings decile. It quite clearly shows that it is women in the bottom 30% of female income earners who were least likely to be able access private PPL. Over 80% of those in the top 20% of female income earners (income above $65,312) had access to private PPL entitlements.

Even if it were true that existing government support for families was insufficient to support parents during the period they wished to care for their children full-time, it is not obvious that providing payments to high-income earners who can already access private PPL creates any additional social benefits. Parents who never intended on taking more than 18 weeks of leave are able to pocket the taxpayer-funded payment on top of their leave entitlement without extending their parental leave period.

The commission argued in favour of allowing private and publicly funded leave to be taken concurrently as this would increase the opportunity cost of taking a leave period less than the maximum allowed under the statutory scheme.[31] Some parents may have responded to the incentives of PPL in this way; however, in the absence of any conclusive evidence that the social benefits of parental leave extend beyond 18 weeks, this is not justification for poorly targeted government payments.

Figure 4: Percentage of employed women who report access to Paid Parental Leave by female earnings decile, 2012



Source: Household, Income and Labour Dynamics in Australia.

Is statutory Paid Parental Leave a workplace entitlement?

Prior to taking government, the prime minister outlined the current government's more generous proposal of 'wage replacement' PPL in a speech to mark International Women's Day 2010. In this speech the prime minister justified wage replacement PPL on the grounds that:

> Parental leave ... ought to be as much part and parcel of any decent system of employment entitlements as sick pay, holiday pay and retirement benefits, all of which, one way or another, are mandated by government.[32]

The prime minister's assertion that leave entitlements are mandated by government is correct. The National Employment Standards mandate minimum annual leave and personal carers leave entitlements. While these may alter what constitutes the legal composition of the financial and non-financial benefits associated with employment, they do not in any way change the fact that employees cannot be remunerated above the value of their productivity without increasing unemployment. These workplace entitlements might be mandated by government but they are not *paid for* by government.

As earlier workplace entitlements involve trade-offs of financial remuneration for conditions based upon the productivity of the individual or, in the context of collective bargaining, trade-offs among workers at the enterprise level. This quite clearly does not happen once the government provides a payment from general revenue that is not contingent upon an increase in the productivity of the individual workers who are able to access that entitlement. Privately negotiated PPL is a workplace entitlement; PPL payments made to families by the government are income support payments.

The 'workplace entitlement' refrain of proponents of statutory PPL is central to its legitimacy whether it provides the minimum wage or wage-replacement. If it is seen as an income support payment, then it is an income support payment unlike any other found in Australia's income support system as it provides larger transfers to those on high incomes than it does to those on low incomes. This is in stark contrast to the objectives of the rest of system which attempts to ensure vertical equity by targeting income support at those with a lesser ability to provide for themselves. Proponents of statutory PPL would argue that the introduction of a statutory PPL scheme increases the labour productivity of the economy and that this will finance the provision of PPL payments. They might argue that a statutory PPL scheme operates in a way that is analogous to a workplace entitlement at an aggregate level. Indeed, the Treasurer has gone so far as to claim the government's 'Paid Parental Leave Scheme is about getting people back to work so they can pay for the pensions of tomorrow.'[33] This statement seems to suggest that the policy will not only be self-financing but will also generate additional tax revenue that can be put towards Age Pension payments.

The Productivity Commission thought that a scheme that offered full-replacement wages would come at a considerable cost and unlikely to increase labour force attachment among women on higher incomes.[34] Any increase in female labour force participation would come from women who might not otherwise work before having their first child and those who might not return to work between births.

From the perspective of low-wage parents, the offer of a payment equal to the full-time minimum wage is more than they would receive in income support payments and, for many, more than they would receive from employment. This amounts to an effective increase in the financial returns from work provided they work enough hours to meet the work test eligibility requirement.[35] The provision of PPL payments at replacement wages to women already in work does not provide women who earn more than the full-time minimum wage with any more money than they would receive from paid work, and does not therefore embody any additional labour force participation incentives.

If wage replacement PPL is going to have any impact on the labour supply of parents, it will be through hours worked. It will be primarily parents who currently work part-time between births who will have an incentive to increase their hours to become eligible for higher PPL payments.

This relies on parents being able to find additional childcare and being willing to leave their young children in care for longer. Even then the tax revenue from additional hours worked will be offset by increases in expenditure on childcare subsidies. The increase in hours worked in the year prior to birth will have to be significant to offset the reduction in hours that will result from increasing the maximum leave period from 18 to 26 weeks – a full two months.

If increasing labour force participation among women is the government's key objective, then measures that increase the returns to work are where the government should focus policy. This may involve reforms to child care subsidies, Family Tax Benefits, and income support payments targeted at families. Increasing statutory PPL from the full-time minimum wage to pre-birth wages is unlikely to bring about an increase in labour force participation over and above that of current policy settings to the point that it will pay for over $3 billion of additional PPL expenditure.

In the absence of any clear evidence that there exist independent social benefits of PPL, it is not clear there is a case for the redistribution of income from the pool of general revenue to families with young children. It cannot, however, be denied that there may be some parents who would struggle to avail themselves of such private benefits in the absence of government intervention. This may be a case for government intervention to ameliorate the liquidity constraints that prevent low-income families with private PPL entitlements from accessing PPL but not for the government to redistribute income in favour of parents.

At the time of the introduction of Australia's statutory PPL scheme, there was nothing to stop parents from taking out personal loans to finance a period of parental leave—and that is equally the case now. But not all parents are able to secure a loan for these purposes. In his submission to the inquiry, Professor Bruce Chapman of the Crawford School of Public Policy at the Australian National University described what he called the 'capital market failure' associated with PPL:

> If a mother or a father wants to go to a bank and finance leave from paid work the bank will say 'I don't think so,' because there is no collateral and it is risky. You don't know what will happen to those parents in the future with respect to their income.[36]

The most common debt finance used by families is that of the mortgage taken out to buy the family home. This is a fundamentally different debt instrument to that which would be taken out to finance a period of PPL as there is no asset for the bank to claim if the parents default on their debt. PPL can be seen an investment in the human capital of the child. This is an asset that takes time to appreciate and is not one that lenders can seize in the event of default. As the late Nobel Laureate Gary S. Becker put it, 'Human capital is poor collateral to lenders.'[37]

It is debatable whether this constitutes a genuine market failure. Some would say if capital markets refuse to make loans to those who may not be able to repay them, then it is evidence that capital markets are working efficiently. Nonetheless, if low-income parents are unable to access private PPL entitlements and lack the collateral required to secure a loan from a commercial bank, then these families forgo any of the private benefits of PPL and society forgoes the social benefits.

An alternative to the private provision of PPL, and to the public provision of PPL through income support payments, is for the government to loan money to parents while their children are young. This not only allows parents to self-finance their PPL in a transparent way but it also provides them with the choice of whether they wish to receive an amount equal to full wage-replacement of the primary carer or a lesser amount. It also affords parents the flexibility of selecting a period of leave that reflects their personal estimation of its private benefits up to a cap.

An Income Contingent Loan (ICL), like any other loan, involves the provision of a principal to someone seeking finance on the condition that they pay back that principal with interest. An ICL differs from a commercial loan in a number of important ways.

The most fundamental difference is that repayment of the loan is contingent upon income. ICL schemes do not require repayment from those whose incomes are below a certain threshold when their income is low. If however, their income rises above the threshold, they are required to make a repayment in that period. This is the 'Income Contingent' part of the ICL.

Provided the funds are put to good use, this has a number of advantages over commercial loans. ICLs enable those who do not have large amounts of collateral to secure finance when they might not otherwise be able to. It also ensures that repayments do not put those who take out loans in a position of financial hardship while their incomes are low.

ICLs do however impose costs on the taxpayer as they must be provided by the government as no private banking institution would provide finance on such terms: Some who receive finance *will* have incomes that might remain below the repayment threshold and effectively default on the debt. In addition, where loans are provided at below market interest rates, the government is gifting its borrowing capacity to those who take out loans and thereby providing them with an implicit interest rate subsidy.

ICLs do however have a number of advantages over permanent transfers to families that are funded by the taxpayer. They provide some degree of flexibility in the amounts to be borrowed. This flexibility must be balanced by designing the scheme to mitigate the default risk borne by taxpayers. In doing so, it effectively allows individuals to pay themselves now and tax themselves in the future when their incomes are higher and repayment is less of a burden.

When discussing the taxpayer subsidy associated with ICLs, it is worth differentiating between direct and indirect subsidies. A direct subsidy arises where the beneficiary is not required to repay the full amount of the payment. The amount that need not be repaid is effectively an income support payment.

An additional subsidy arises where the interest charged on the principal of the loan is concessional. Insofar as the government provides loans to parents that do not incur interest payment the government has given the holder of the loan finance on the terms that are more favourable than they would have received from a commercial loan. The government has, in a sense, gifted its borrowing capacity to these families and in doing so provides them with an implicit subsidy.

Within the context of PPL, an ICL has some specific advantages. An ICL scheme is preferable to private provision as it can provide full coverage for all employees, not just those who can negotiate PPL as a workplace entitlement. Over time the existence of the Parental Leave Contributions Scheme would remove much of the wage discount associated with private provision. Insofar as these wage discounts are disproportionately felt by women, this can be seen an improvement in gender equity. It would not however completely eliminate these wage differentials as employers would still face the costs associated with hiring and training replacement employees while parents are on leave.

Another feature of an ICL that can enhance gender equity is by making the repayment obligations the joint responsibility of both parents. While it is far from clear that the benefits of PPL are the sort of social benefits that require government subsidy, women are responsible for generating most of the private benefits that arise from providing full-time care for newborns. In doing so, it is women who incur the cost in terms of the earnings foregone while on leave and the reduction in wage growth from taking time out of the labour force. Their partners, predominantly male, do not incur these costs but receive the private benefits of improved child health and development.

These costs are significant. Professor Trevor Breusch and Dr Edith Gray of the Australian National University estimate the average lifetime earnings foregone by a women with at least a bachelor's degree with one child is 28% of an otherwise equivalent woman who has no children. For women with less than a Year 12 level of education with three children, average foregone earnings are as high as 68%.[38]

By having a ladder of repayment thresholds with progressively higher repayments percentages, it is the higher income earner within the couple that pays more of the PPL liability. This is not to say that the primary carer bears no responsibility for any repayment. While they are providing full-time care for the child and have no earnings, the primary earner bears the full responsibility for repayment. Once the primary carer re-enters the labour force and ha an income above the minimum repayment threshold, they will begin to make payments. Insofar as they earn less than their partner, their repayments will be lower.

Rather than shifting the costs of the primary carer's foregone earnings onto the taxpayer, as would happen in the full wage-replacement PPL scheme proposed by the Coalition, an ICL enables couples to self-finance the primary carer's leave. It simultaneously achieves a gender equity objective by ensuring that the lion's share of the repayment falls on the parent who does not incur the costs of foregone labour earnings,[39] and in doing so, better aligns the cost of PPL with those who benefit from it.

If the objective of statutory PPL is gender equity, then this best achieved through an ICL where the higher income earning parent, who is generally male makes, transfers to the parent, who is mostly female and provides full-time care for their children in return for providing the unpaid work of childcare. It is not only inequitable that taxpayers should have to provide subsidies that do not obviously provide additional social benefits, but it is also a very imprecise approach to achieve gender equity. Permanent income transfers of the sort that occur under current statutory PPL policy, and the larger transfers that would take place under the Coalition's proposed scheme, will be funded by all taxpayers—many of whom are women.

The prospect of an ICL for PPL was put to the Productivity Commission by Professor Bruce Chapman and Dr Tim Higgins of the Australian National University in a submission to the Productivity Commission's 2008 *Inquiry into Improved Support for Parents with Newborn Children*. These participants did not propose an ICL scheme that would require that parents repay the full amount of the payment that they received, rather they proposed that once the government had formed a view on what the social benefits of the scheme were, this could be offered as a direct subsidy in addition to a top-up payment that would be repaid by both parents. The modelling undertaken by Chapman, Higgins & Lin (2008) assumed that this top-up would be equal to the full-time minimum wage.

The commission argued against such a scheme on a number of grounds. The merits of these arguments are not addressed here but discussed in Appendix I. Whatever their merits, these arguments held more weight at the time they were made than they do now when the government proposes to introduce a scheme that would provide large permanent income transfers to families that would reward high-income families more than low-income families.

Much has changed since Professor Chapman and Dr Higgins presented their work in May 2008. The remaining sections of this report model a policy proposal similar in spirit to that suggested by Chapman and his colleagues but one that is more relevant to the contemporary policy debate.

The scheme proposed in this report involves an ICL scheme for PPL that has more in common with the Coalition's proposed scheme than with current policy. Eligibility for a PPL loan would be capped at an annual taxable income of $100,000 for 26 weeks ($50,000) in the financial year prior to birth. Eligibility would be limited to those who met the current work test. All parents would receive a direct subsidy equal to the $5,000 Baby Bonus phased out on 1 March 2014.

The limit on the amount of borrowing would be equal to the primary carer's pre-birth income less the direct subsidy, but parents would be able to choose less than full-wage replacement to reduce the amount of the debt if they wished.

Similar to Chapman's scheme, the liability would be the joint responsibility of both parents and the repayment thresholds and rates listed below are the same as those

used for the repayment of HECS-HELP. There is however one important exception to the thresholds show in Table 2 and those used in Chapman, Higgins & Lin (2008). Chapman and colleagues set the minimum repayment threshold at the amount of income that is exempt from the calculation of child support liabilities for a parent with a single child under the age of 13, $26,953 under the 2007 child support policy settings. They reason that this amount is a 'suitable proxy for the lower limit of income affordability for individuals faced with child rearing responsibilities.'[40] With extensive reforms to the calculation of child support liabilities in mid-2008, there is no analogous value in the Australian tax and transfer system.

The minimum repayment threshold chosen for the modelling that follows is equal to the full-time minimum wage in 2012 of $31,538. This ensures that loan repayments will not increase effective marginal tax rates on those at the margin of entering the labour force. The direct subsidy is set at the recently phased out Baby Bonus amount of $5,000. This is somewhat less generous than the current maximum payment of statutory PPL of 18 weeks of the full-time minimum wage equal to $11,538; however, it is also considerably more than the annual repayments that would be required of a parent with an income that pushed over the minimum repayment threshold.

Table 2: Parental Leave Contribution Scheme Loan repayment thresholds

Annual income	Repayment rate
Less than $31,538	0
$31,539 to $49,096	3
$49,097 to $54,688	4
$54,689 to $60,279	4.5
$60,280 to $63,448	5
$63,449 to $68,202	5.5
$68,203 to $73,864	6
$73,865 to $77,751	6.5
$77,752 to $85,564	7
$85,565 to $91,177	7.5
$91,178 and above	8

Source: Australian Taxation Office, *HELP Repayment Thresholds and Rates 2012-13*;[41] Centrelink, *A Guide to Australian Government Payment: 1 July to 19 September 2012*.[42]

The PPL liability would be indexed to the Consumer Price Index and therefore maintain its value in real terms rather than compounding with market interest rates. This is also consistent with current HECS-HELP policy settings and the PPL ICL scheme proposed in Chapman, Higgins & Lin (2008). This gives rise to indirect subsidies associated with the concessional interest rate on the debt that will be modelled in addition to the direct subsidy of $5,000 per child.

Though not modelled explicitly, this scheme would allow transferability between parents. While the amount of the liability would be restricted to the pre-birth earnings of the lower income earner of the couple, the leave could be taken in total, or in part by the other parent. Consistent with both current policy and that proposed by the Coalition, the work test would remain as is. Primary carers must have worked 10 out of the previous 13 months prior to the birth of their child and worked 300 hours in those 10 months with a gap in employment of no more than 8 weeks. This is not modelled in the analysis that follows.

It is important to emphasise that the PPL liability would be borne by both parents regardless of their marital status or gender. If parents separate, their repayment obligations do not cease. Similarly, there is no reason why same-sex couples would be treated any differently to heterosexual couples under this scheme. Repayments would be based on the incomes of parents, and the progressive repayment thresholds would ensure that the higher income parent, whether male or female, would make greater repayments than the parent who takes time out of the labour force. All that would matter for repayment is for the identity of both parents be known and both parents had parental obligation under the law. Single women who give birth to children as a result of IVF would have the option of taking on the entirety of the liability.

The PPL payment made to parents, both the direct subsidy and the loan, would not be included in taxable income. Proponents of 'workplace entitlement' of statutory PPL would be critical of this as it is a move away from the symbolism advocated by the Productivity Commission and supported by the Coalition, Labor, and the Greens. It should be noted that all transfer payments, no matter their symbolic value, are paid out of tax revenue. Symbolism is not a sufficient reason to add to the churn already present in Australia's tax and transfer system.[43] Insofar as the PPL loan allows parents to access future income for up to 26 weeks without paying tax, it can be thought of as a small reduction in their lifetime tax payments which should create take-up incentivises.

Since the income from the PPL payment must eventually be repaid, it should not affect eligibility for Family Tax Benefits and Parenting Payments. Insofar as the direct subsidy associated with this scheme is less than that which would be payable under current statutory PPL policy, the albeit quite modest labour force participation incentives for parents earning less than the full-time minimum wage would be slightly reduced. These parents would be eligible to receive loans equal to the full-time minimum wage, and the direct subsidy would cover a significant portion of the payment they would receive.

In contrast to the Coalition's proposed PPL policy, the subsidies associated with the ICL scheme would be wholly paid out of general revenue without the imposition of a levy on business profits.

Box 2 summarises current policy, the Coalition's policy and the ICL put forward in this report.

Box 2 Three approaches to Paid Parental Leave

	Current	Coalition	Parental Leave Contributions Scheme
Rate	Minimum wage	Full replacement capped at $100,000	Full replacement capped at $100,000
Duration	18 weeks	26 weeks	26 weeks
Transferability	Yes	Yes	Yes
Eligibility	Up to incomes of $150,000	No means test.	No means test
Financing	General revenue	General revenue + Company levy	General revenue + Loan repayments
Dad and Partner Pay	2 weeks in addition at the minimum wage	2 weeks inclusive at full-replacement	

Modelling the Parental Leave Contributions Scheme

The easiest way to understand how an incomes policy such as statutory PPL works is to consider how it affects a range of hypothetical families. This section presents modelling that demonstrates how each policy affects families from the birth of the first child to the time they pay off their PPL loan.

To get a sense of how the earnings of high- and low-income parents vary over the life course, data from the 2012 HILDA survey are used to model the earnings of men and women with children. Statistical modelling methods are used to ascertain how earnings vary with different levels of education, the earner's age, and labour force experience. For women, the number and ages of their children are important determinants of their earnings. The data, statistical methodologies and empirical specifications are described in more detail in Appendix II.

The statistical modelling assumes that men are continuously employed and accumulate labour force experience from the time they enter the labour force. Given the interrupted nature of women's labour force experience, they are assumed to accumulate experience consistent with their probability of being employed. They are assumed to gain experience for every year after they finish education until the birth of their first child, at which time experience is assumed to accumulate with the probability of being employed in each year. These probabilities are themselves determined by the number and ages of their children.

Taking into account the impact that children have on labour force participation and earnings is important in the context of the policies that are modelled in this section. Under the statutory PPL policy proposed by the government, the amount of the PPL payment is directly determined by the primary carer's earnings in the year prior to birth. Under the proposed ICL, pre-birth earnings determine the amount of the PPL liability and the primary carer's repayments after the birth of the first child.

These estimates of earnings for men and women can be used to simulate hypothetical repayments to be made on PPL loans for different types of hypothetical families under the policy settings described in the previous section. To provide a sense of how such a policy would affect the incomes of both high- and low-income families, a hypothetical scenario where both parents have a bachelor's degree or higher will be compared with one where both parents did not complete Year 12. To emphasise how the repayment of the PPL liability is affected by the labour force participation of women, scenarios are presented for families that have a single child in addition to a scenario where families have two children where the second child is born two years after the first.

Repayments for high-income families

The top panel of Figure 5 illustrates simulated annual age-earnings profiles for parents who have bachelor's degree qualifications or higher from the age of 27 to the age of 47. The annual earnings of the father (primary earner) increase over time, reaching a maximum in their late 40s and assumed to be unimpeded by the arrival of children. Uninterrupted labour force experience that begins when they were 22 is assumed.[44]

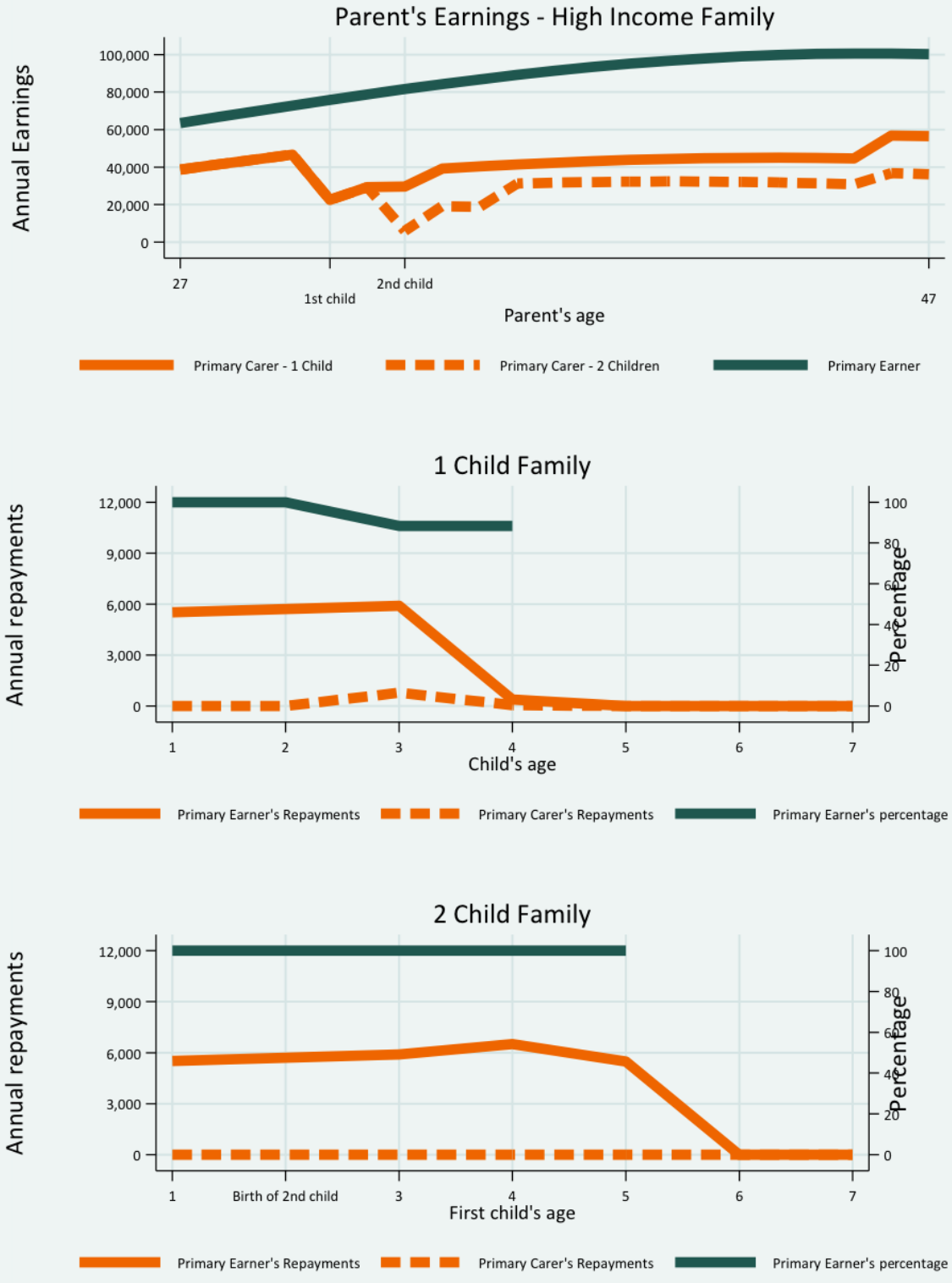
The simulated annual earnings of mothers is significantly reduced with the arrival of the first child when they are aged 31 as they take on the responsibility of being the child's primary carer. For one-child families, the primary carer's earnings begin to recover as the child grows older but continue to remain considerably lower than that of the father's. Where primary carers have a second child at the age of 33, earnings remain lower for a longer period of time.

The middle panel of Figure 5 presents repayments for a scenario where the parents have one child. The bottom panel presents a scenario where the mother gives birth to a second child two years after the first. Instead of plotting repayment with respect to the age of the parents, repayments are shown from the birth of the first child when parents first incur their initial PPL liability.

Beginning with the one-child family, in the year prior to the birth of the first child the mother is earning $47,000 while her partner has annual earnings of $73,000. Assuming the mother of the child will take on the role of the primary carer, 26 weeks of their pre-birth replacement wage amounts to approximately $23,000 were they to take the full 26 weeks of leave they would be eligible for. This is the value of the payment they would receive from the government.

The parents need not repay the full amount of the payment they receive. Their PPL liability will be equal to $23,000 less the direct subsidy of $5,000 such that they need only repay $18,000.

Figure 5: Age-earnings profiles and PPL loan repayments for high-income parents



There is a grace period of one year such that neither parent is required to make repayments in the first year of the child's life, and so the gold schedules depicting the annual repayments of the primary earner and the primary carer begin when the child is one. In the year following the child's birth, the primary carer's earnings are quite low ($29,000) and they need not make any repayments at this time (broken gold schedule). The primary earner, however, has annual earnings of $79,000 which places them above the 8th repayment threshold in Table 2, requiring them to make a repayment equal to 7% of their earnings, approximately $5,500 (solid gold schedule).

The primary earner's repayments increase in the years that follow in line with their earnings growth. Though it is not obvious in the figure, their earnings move above the 9th repayment thresholds in the year the child turns 4, which is the final year that repayments are required.

The figure underlines the progressivity of the repayments thresholds and how this affects the relative share of repayments that each parent must make. The primary carer is not required to make any repayments until the year in which the child turns 3, and their initial repayment of $800 is considerably less than the $6,000 contributed by the primary earner in that year. It is not until this time that the primary carer's earnings exceed the minimum repayment threshold of $31,538.

The solid emerald schedule plots the percentage of repayments made by the primary earner in each year of the loan. In the first two years of the loan, they make all the repayments. Once the carer has sufficient income to contribute to loan repayments, the primary earner still contributes 88% of the repayments in those years but makes 95% of total repayments.

In the bottom panel, the mother gives birth to a second child when the first is aged 2. An initial PPL loan of $18,500 is incurred at the birth of the first child and the family receives a payment of $23,500.

When the first child turns 2, the family is eligible for an additional payment of $16,000. This amount is larger than 26 weeks of the primary carer's replacement wages at this time ($30,000) as parents are entitled to receive a payment equal to 26 weeks of the full-time minimum wage even if they are earnings less than this amount.

With the addition of the PPL liability associated with the second child, total PPL liabilities increase to $18,000. This does not induce any dramatic increase in repayments as this additional amount is merely added to the existing liability. This increases the duration of repayments, not their level. With the primary carer looking after two young children, their earnings never exceed the minimum repayment thresholds during the life of the loan in this two-child scenario. As illustrated by the solid emerald schedule, the primary earner makes 100% of repayments over the life of the loan.

It is quite clear that in both the scenarios presented in Figure 5 that the minimum repayment threshold and the progressive repayments schedule presented in Table 2 are effective at shielding the primary carer from almost any of the burden of repayment. This is especially true when their earnings are reduced when caring for multiple young children.

Repayments are not overly burdensome on either of these hypothetical families. For the single-child family, repayments are never higher than 5% of annual family earnings in any given year. For a two-child family, repayments are never higher than 6% of annual family earnings.

Repayments for low-income families

Figure 6 presents simulated annual age-earnings profiles for parents who did not complete Year 12. In this figure, father's earnings are considerably lower than those with bachelor's degrees (or higher) across all ages. The earnings of fathers with less than a Year 12 education peak earlier than men with bachelor's degrees, in their early 40s. Similarly, mother's earnings are lower than those of their more highly educated counterparts.

The middle panel of Figure 6 presents a hypothetical scenario involving a one-child family. Prior to the birth of this child, the primary carer has annual earnings of $40,000. Assuming that she takes the full 26 weeks of statutory PPL, the family will receive a payment of $20,000 of which $15,000 must be repaid.

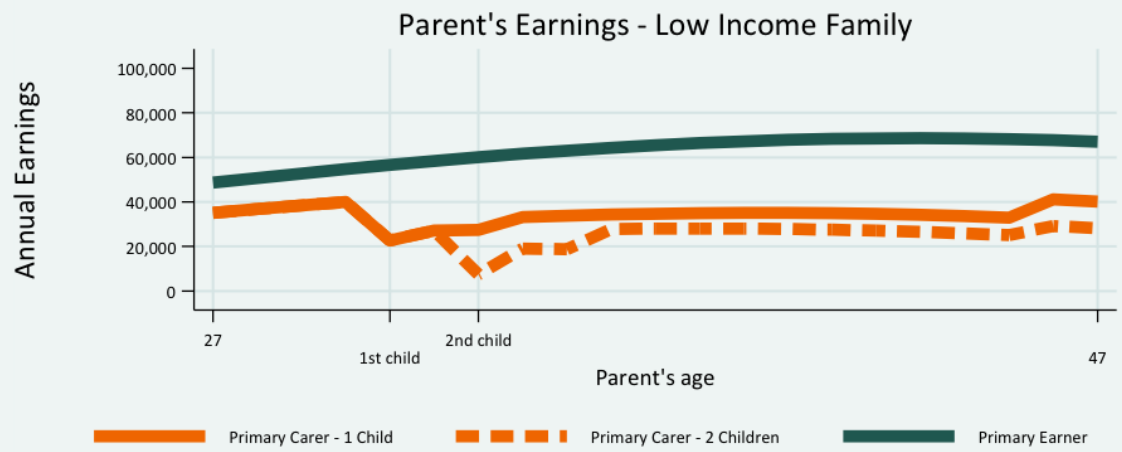
In comparison to high-income parents with one child (middle panel of Figure 5), the primary carer makes more repayments. This is because the lower income of the primary earner ensures that the loan takes a little longer to be paid off, giving the primary carer the time to increase their earnings over the minimum repayment threshold and make more of a contribution to repayment of the loan. It should be noted that the repayments made by these lower-income parents are considerably smaller in any given year compared to those on higher incomes and quite modest relative to that of the primary earner, who makes 89% of total loan repayments. This is a direct result of the progressivity of the repayment thresholds of Table 2. The additional repayment period for low-income parents is not particularly great. They pay off their loan when their child turns 4, one year later than for high-income parents.

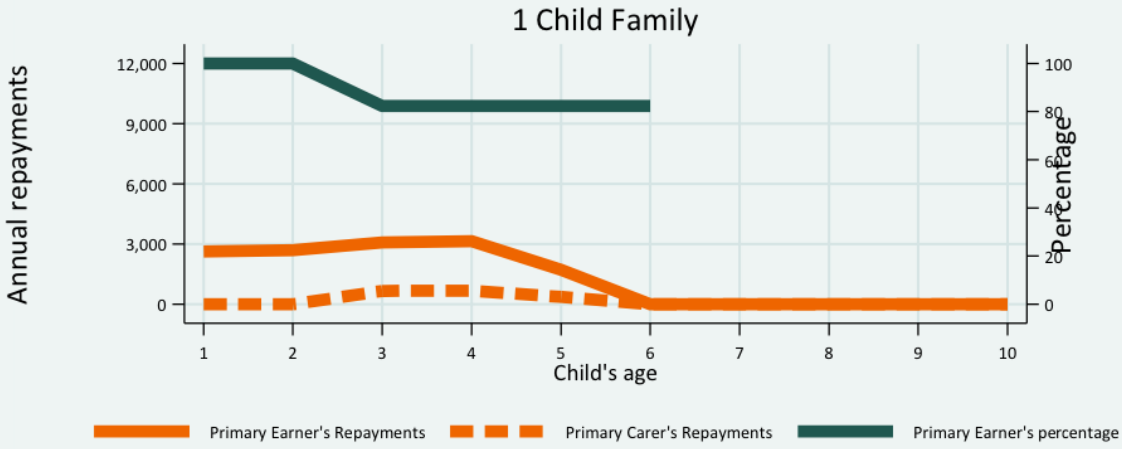
For low-income parents who have two children (bottom panel) the overall pattern of repayments is similar to that observed in Figure 5 except that the repayments are considerably smaller. With the addition of the second child total liabilities increase to $20,000. As in Figure 5, the primary carer need not make any repayments as caring for two young children keeps their earnings below the minimum repayment threshold.

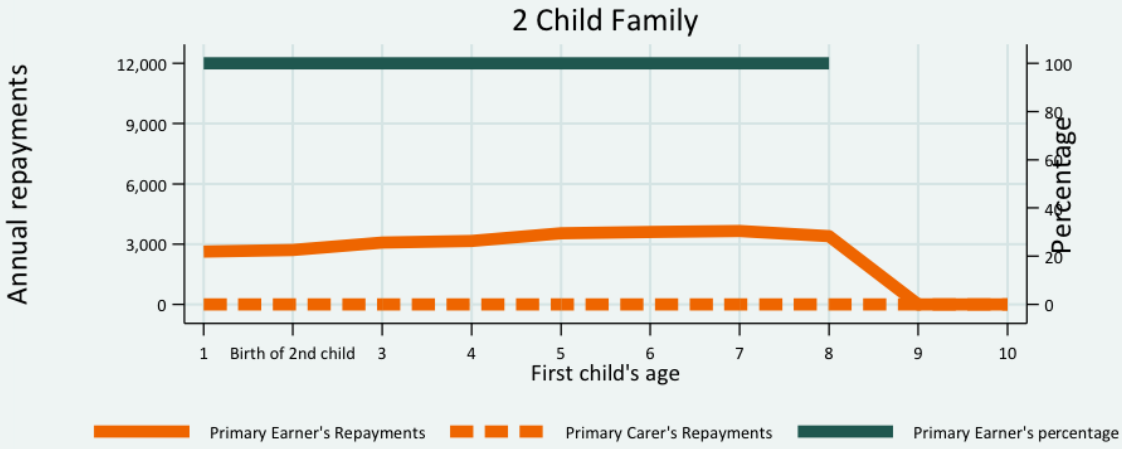
Despite the lower earnings of this family, repayments are never greater than 4% of annual family earnings. This is because the lower earnings of the primary carer ensure the size of total PPL liabilities are always smaller than for high-income families.

As is to be expected, it takes the lower income family in Figure 6 longer to pay off their PPL loan compared to the higher income family in Figure 5 but not too much longer. The one-child family takes an additional two years, while the two-child family takes an additional three years. This is due to the smaller loan(s) taken out by the lower income families. The loan repayments are not overly burdensome on these low-income families. For both these low-income families, repayments are never higher than 4% of annual family earnings.

Figure 6: Simulated age-earnings profiles low-income parents







Though informative, the hypothetical families in the previous section do not provide an insight into the overall impacts of different PPL policy settings on Australian families. This section presents an analysis of the distributional implications of current statutory PPL and the Coalition's proposed reforms to statutory PPL that both involve permanent transfers of income to families.

Distributional analysis uses representative survey data describing the population that is the target of a policy and a mathematical model that captures the salient features of a policy[45] to assess its impact on the incomes of individual or families with different incomes, or indeed, any other entire socioeconomic characteristic.

In this section, the distributional implications of current statutory PPL policy, and the one proposed by the Coalition, are contrasted with an alternative to permanent income transfers from taxpayers— the Parental Leave Contributions Scheme.

The statistical estimates used to generate the hypothetical age-earnings profiles displayed in the previous section can be used to simulate the age-earnings profiles of a representative sample of 1,656 Australian families containing 2,800 taken from the 2012 HILDA survey. Rather than assuming that all mothers have their first child at the age of 31 and have at most two children, this data captures variation in patterns of parents' fertility and education that occur in reality.

Under current statutory PPL policy, the amount of the PPL subsidy is determined not by the primary carer's pre-birth earnings, but by how many of the available 18 weeks they choose to take per birth and the number of children they have. In 2011–12, 99% of eligible parents took the full 18 weeks, which suggests that the total amount of PPL subsidies received under current policy are almost entirely determined by the number of children and whether the primary carer is eligible at the time of their birth.[46]

Under the Coalition's proposal, the level of subsidy is contingent upon the primary carer's wages prior to birth, the number of births where the primary carer is eligible and the number of weeks of leave associated with each birth. If it is assumed that the primary carer would use 26 weeks of statutory PPL if it were offered, then the primary determinant of total subsidies under this scheme would be pre-birth wages and the number of children. In the modelling of the Coalition's scheme presented in this section, it is assumed that all primary carers use the full 26 weeks.

Subsidies are slightly more complicated in the context of the Parental Leave Contributions Scheme presented in this report. While this scheme provides payments along the same lines as the Coalition's proposal, only $5,000 of this payment is a direct subsidy. The direct subsidy under this scheme has more in common with current policy in the sense that it is the same for each child and is not contingent upon pre-birth earnings. All but this amount of the PPL payment must be repaid so the direct subsidies under this scheme will be less than under current policy.

There is however an implicit subsidy afforded to parents under the loans scheme. Insofar as the debt is indexed to the price level via the Consumer Price Index rather than market interest rates, there is no real interest paid on the debt. This suggests that in addition to providing a direct subsidy in the form of a $5,000 payment per child, there is also an implicit subsidy from which parents benefit via the concessional interest rate. This implicit subsidy increases with the size of the loan and the length of time taken to repay the loan.[47]

Even in the absence of any modelling, it is quite clear that high-income families have far more to gain from the Coalition's policy. Even if low-income women were to have more children and high-income women to take shorter leave periods, this would not be enough to offset the benefits that high-income parents receive from a wage replacement PPL policy. The same is not necessarily true under a loans scheme. While high-income parents would be eligible to receive larger payments, they would also be required to pay these back.

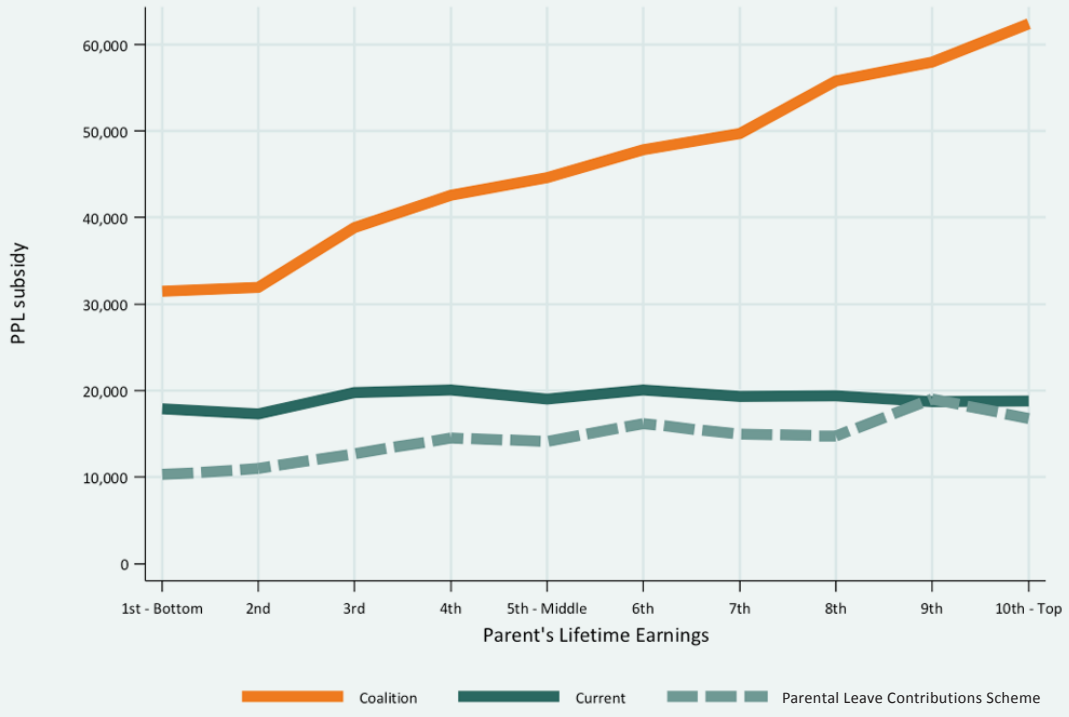
Though it is not modelled in this analysis, there is an additional subsidy implicit in the Parental Leave Contributions Scheme that is more likely to benefit low-income families more than high-income families—loan defaults. It is only if both parents were to drop out of the labour force permanently, or were unable to earn above the minimum repayment threshold, that the entire PPL payment becomes a direct subsidy equal to that which they would receive under the Coalition's policy. Since it is low-income parents who are more likely to drop out of the labour force or experience a sustained period of low earnings, it is low-income families who are more likely to receive these large implicit subsidies. Since the modelling contained in this section assumes no defaults for any families, it could be argued that these results will underestimate the extent to which low-income families would in fact benefit from the loans scheme.

In assessing the distributional implications of different PPL policies, PPL subsidies are compared according to the combined life-time earnings of both parents.[48] More specifically, parents are grouped according to their decile of combined lifetime earnings. The combined lifetime earnings of the bottom 10% of parents are compared with the next 10% and so on up to the top 10% of combined lifetime earnings.

Figure 7 presents average PPL subsidies for each decile of combined lifetime earnings for each of three PPL policies. The average simulated subsidies in the figure are intuitive. Under current policy, families are provided with a direct subsidy equal to approximately $10,000 per child and most families contain two children, providing approximately $20,000 to each family on average across each decile of combined lifetime earnings.

Simulated average payments are higher under the Coalition's scheme as the maximum allowable duration is longer and the amount of subsidy increases with

Figure 7: Simulated total PPL subsidies by couple's life-time earnings decile under current policy, Coalition policy and the Parental Leave Contributions Scheme



pre-birth earnings. Women with higher pre-birth earnings are more likely to be found in the higher deciles of lifetime couple earnings. This is in part due to their earnings and partly because they are more likely to be partnered to men with high earnings. The Coalition's policy is therefore highly inequitable and is estimated to provide direct subsidies to the top decile of families that are almost double those provided to the bottom decile (1.97).

Under the Parental Leave Contributions Scheme proposed in this report, total subsidies are lower compared to the other policies across all deciles of lifetime earnings. It might appear that Figure 7 suggests that families in the higher earnings deciles benefit more from the scheme than those in the lower deciles, but this is the result of the larger loans taken out by these families and the indirect subsidies that accrue by virtue of the concessional interest rates. These indirect subsidies could be removed by imposing a real interest rate on PPL loans that would have the added benefit of ensuring that high-income families, those not genuinely liquidity constrained, would be less likely to opt into the scheme as a means of arbitraging their home mortgage repayments. Charging real interest on the loan, and the specifics of how real interest would be charged, should be considered within the broader context of how a PPL loans scheme provides equity for low-income families.

In terms of the absolute value of the direct transfers to families, the Coalition's policy is highly inequitable. This policy would provide those in the top decile with average payments that are $30,000 higher than those in the bottom decile. This is in stark contrast to the subsidies received under the loans scheme. Families in the top decile receive average total subsidies that are only $11,000 higher than those in the bottom decile. As indicated above, this is the result of the indirect subsidies associated with the concessional interest rate and would be easily eliminated by the imposition of a real interest rate on the PPL loan.

It should be emphasised that the analysis contained in this section assumes full repayment of all loans and therefore does not reflect any of the defaults that inevitably occur within the context of any loans program.

The overall magnitude of default should not be exaggerated. It should be kept in mind that the liability is the responsibility of both parents and not solely that of the primary carer and the other parent is far more likely to have uninterrupted labour force participation. Where defaults occur they are more likely to result in larger subsidies to low wage earners. When it is considered that the more likely policy counterfactual is one in which the government makes permanent income transfers at pre-birth wages, the cost of the Parental Leave Contributions Scheme can only equal that of the Coalition's proposal if there were 100% default.

Conclusion

Though it is clear that the introduction of an Income Contingent Loans (ICLs) for parental leave would come at a lower cost to the taxpayer when compared to the Coalition's proposed PPL scheme, it is difficult to form an estimate of its cost in the absence of a thorough modelling of potential defaults. A default risk analysis is beyond the scope of this report, but an estimate of the direct subsidies that would be paid to parents under the scheme can be formed by taking the caseload of the current statutory PPL scheme and multiplying this by the direct subsidy amount of $5,000. According to the *Paid Parental Leave Scheme Review Report (2014)*, the caseload for 2012–13 was 131,307.

Under current PPL policy, eligibility is restricted to those with adjusted taxable incomes under $150,000, which is in contrast to the Coalition's policy of capping payments to parents with incomes above this amount. For this reason, it might be thought that the current caseload would underestimate the caseload that would eventuate under the Coalition's policy and an ICL that had similar eligibility requirements. The Review Report suggests that the current caseload provides a close approximation to that which would eventuate under Coalition policy as only 773 parents had incomes between $140,001 and $150,000, suggesting that the numbers with incomes in excess of $150,000 are not likely to be large. This is also supported by the Australian Taxation Office's *Taxation Statistics 2011–12* which indicates that only 1.4% of women aged 18 to 39 had annual taxable incomes in excess of $150,000.[49]

Insofar as a caseload of 131,307 is a reasonable guide to one that would eventuate under Coalition policy, the cost of the direct subsidies under a PPL loans scheme would be $657 million. This is a fraction of the approximately $5.7 billion[50] that could be spent under Coalition policy and is considerably lower than the $1.9 billion[51] forward estimates of expenditure that would take place under the current statutory PPL scheme in 2016–17. While it is true that defaults and administrative costs would push the cost of the Parental Leave Contributions Scheme above $657 million, it would still cost the taxpayer less than the Coalition's scheme unless defaults were in the order of 100%.

While the lower cost of an ICL scheme is certainly something to recommend it, there are other advantages of a PPL loans scheme over current statutory PPL policy. In contrast to current PPL policy the Parental Leave Contributions Scheme would align the cost of PPL with those who benefit from it. A PPL loans scheme does not push the cost of PPL onto taxpayers who already pay for family payments, income support payments targeted at parents, and a suite of in-kind benefits that families receive. The social benefits of having children, insofar as they exist, are already recognised in Australia's tax and transfer system. If recognition of these social benefits were the real objective of statutory PPL, these payments would not be restricted to working parents.

A PPL loans scheme is also preferable to the Coalition's proposed scheme. Insofar as high-income families are those most likely to repay their PPL loans, this scheme provides greater subsidies to lower-income families. This is in stark contrast to the Coalition's proposal which provides the largest permanent income transfers to the highest income families.

A PPL loans scheme avoids the inequity of the Coalition's scheme while achieving the same gender equity objectives. Instead of the taxpayer buying employers out of a portion of their employee's remuneration, a loans scheme offers women an alternative to trading off financial remuneration to secure a workplace entitlement. As take-up of these loans increases over time, the gender wage gap will narrow. A PPL loans scheme recognises the sacrifices made by working women, not through income transfers from taxpayers, but by through the higher repayments made by the other parent of the child for whom they are caring.

Appendix I: A brief history of income contingent loans for Paid Parental Leave

In 2008, the Committee for the Development of Australia (CEDA) commissioned Professor Bruce Chapman to develop an alternative model to provide statutory PPL. Professor Chapman was instrumental in the motivation and design of the Australian Higher Education Contribution Scheme (HECS), the first national income contingent loan scheme for university fees.

Chapman and his colleagues proposed an ICL scheme for PPL that was similar in many respects to HECS introduced in 1989. At present, domestic students who are offered a place at a university are usually eligible for a Commonwealth Supported Place (CSP), which is a subsidised enrolment at university. The government subsidises CSPs through a direct subsidy and the student pays the remainder of the fees through a student contribution amount.

The payment of the student contribution need not be up-front. Those who receive CSPs are eligible for HECS-HELP. Under HECS-HELP the government pays the student contribution on the student's behalf. At this time the liability is indexed to the Consumer Price Index so that the amount of the debt increases with prices rather than compounding at higher commercial interest rates. As of 2014–15, students need not make payments on their debt until their income exceeds $53,345 per annum, at which point they must make a repayment equal to 4% of their 'repayment income.[52] The repayment thresholds increase from this amount with those on incomes of $99,070 or above making repayments of 8%.

The income-contingent nature of repayments ensure that not all of the debt is recovered by the government. According to estimates by from the Australian Government Actuary cited by Andrew Norton and Ittima Cherastidtham (2014),[53] about $7.1 billion of the $30.1 billion outstanding HECS-HELP debt at 30 June 2013 is unlikely to be repaid. For financial year 2013–14, 17% of new lending is not expected to be repaid, which represents about $1.1 billion. Insofar as default rates are not 100% and the costs of administration are not prohibitive, as indicated by other work by Chapman,[54] an ICL scheme for PPL will represent a smaller impost on government finances than would an income support payment—especially one that proposes to pay replacement wages.

The ICL scheme that Chapman and his colleagues proposed for PPL involved families being eligible for a loan equal to the minimum wage paid for 40 hours a week for 26 weeks. In today's terms, this amounts to a payment of $16,667.[55] The repayment of this sum would involve policy settings quite similar to HECS-HELP with three important exceptions.

In contrast to HECS-HELP, the PPL loan would involve an interest charge equal to 20% of the amount borrowed. This is more in line with the 25% charge faced by students who do not receive CSPs and take out FEE-HELP loans. This would be added to the principal to be repaid and from that point on would compound at the CPI. In this sense, interest would be applied to the debt via this surcharge rather than compounding at commercial interest rates.

They also determined that repayment of PPL liabilities should occur at a lower income level than that which occurs under HECS-HELP. In determining a repayment threshold, they chose the amount of income that is exempt from child support payment assessments made for children under the age of 13. This parameter is intended to reflect the minimum amount of income required to sustain a parent after which they must make payments to the parent with whom their children reside.

Finally, HECS-HELP liabilities are the responsibility of the student who receives university tuition. Under this scheme, the PPL liability would be the joint responsibility of both parents rather than have the liability split equally between parents.

Although Chapman and colleagues noted that care must be taken in determining the eligibility criteria for access to PPL loans, they did not make specific assumptions about what those eligibility criteria would be.

The report concludes with modelling that shows how repayments are made over time for four different family types and considers the magnitude of the direct and indirect government subsidies associated with the scheme.

Professor Chapman and Dr Tim Higgins, a co-author of the CEDA report, presented the findings of their work to the Productivity Commission's *Inquiry into Improved Support for Parents with Newborn Children* in 2008.

The first concern raised by the commission applies to all ICL programs, that of 'moral hazard.' ICLs provide incentives for those who have borrowed to maintain their earnings at a level below the repayment threshold. Insofar as the interest rate on debt is concessional, the ICL policy settings may entice primary carers to move back into work at a slower rate than they might otherwise if they faced market interest rates. The commission seemed most concerned at the impact that the repayment of an ICL liability would have on the labour force participation incentives of low-income earners as the repayment thresholds impose relatively high Effective Marginal Tax Rates (EMTRs) on earnings around the repayment threshold. There is little empirical evidence to suggest that this is a material concern with respect to Australia's previous experience with ICLs[56] for higher education, though it should be noted that the minimum repayment threshold assumed by Chapman et al. (2008) was significantly lower than that of the HECS-HELP policy settings.

The other challenge that arises in the context of ICLs is that of 'adverse selection.' In contrast to commercial loans, those who have an extended period of low earnings need not repay the loan. Those who never

return to the workforce essentially default on the debt. Insofar as the government has provided finance to those who were not required to provide any collateral, there is no prospect of the government recovering the debt. It is precisely those who are least likely to return to work who receive the greatest subsidies from such a scheme and have the greatest incentive to select into it. It is difficult for the government to ascertain who those parents will be before providing finance.

These twin problems of moral hazard and adverse selection are by no means insurmountable if the scheme is designed appropriately.

Moral hazard is not so much a concern among high income earners if the repayment threshold is set at an income level that is well below the standard of living to which they have become accustomed. An appropriately designed work test should be able to mitigate the risks associated with parents who receive loans leaving the labour force altogether.

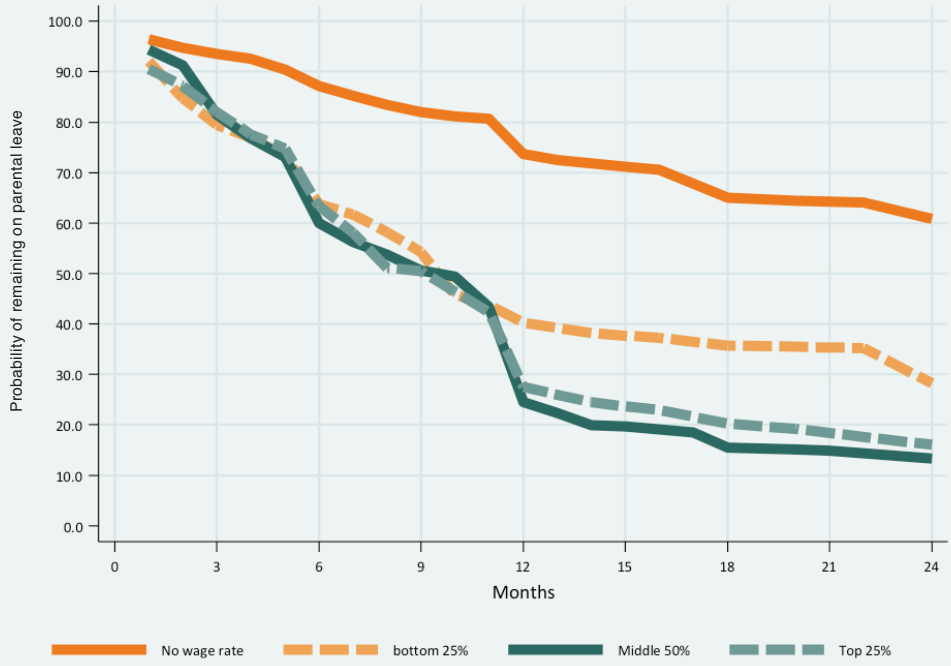
Figure 8 presents the percentage of parental leave periods that last for a range of months after the birth of a child for women who responded to the 2012 HILDA survey. It presents estimates of these percentages for women who gave birth to their most recent child at some time after the first HILDA survey in 2001 and who responded to the HILDA survey in the year prior to the birth of that child. These estimates are presented for women who did not have hourly earnings in addition to those who had wage rates in the top 25% and bottom 25% in the year prior to birth. Estimates for those with wage rates in the middle 50% are also presented.

Figure 8 suggests that it is women who were not working when surveyed in the year prior to birth who were the slowest to return to work. For those observed to have an hourly wage, the average rate of return to work appears to be similar among wage-earners for the first 10 months of parental leave. Low-wage women who take 12 months of leave are, however, slower to return to work. On average, after 12 months 28% of women with wage rates in top 25% remain on leave only slightly higher than the 25% of women with wage rates in the middle 50%. About 40% of women on lower wages are yet to return to work at this time; however, this is considerably more than the 74% of women who were not working when surveyed prior to birth. The figure suggests that pre-birth employment is more strongly associated with the rate of return to work after birth than women's hourly wages, and it is these parents who would be targeted by the work test.

There is nothing to stop the government from setting the repayment threshold at a level that is below the maximum rate of the income support payments that parents would be eligible for. However, this would add to the already high EMTRs imposed on low-income earners and further dampen labour force participation incentives. It would also take a long period of time for their liabilities to be repaid.

The problem of adverse selection can be addressed through tightening eligibility requirements and placing a cap on loans equal to the primary carer's replacement wage, which will in most cases be lower than that of the primary earner. This ensures that those on low incomes do not borrow more than that which they could reasonably be expected to repay.

Figure 8: Percentage of Australian women who return to work after the birth of a child by months after birth and wage rate percentile



Source: Household, Income and Labour Dynamics in Australia

The most effective way to ameliorate adverse selection is to make the liability the joint responsibility of both the primary carer and the child's other parent. While there is substantial evidence that the incomes of women are reduced substantially in the years following childbirth, as most assume the role of primary care giver, the same is not generally true for their male partners.[57]

The remaining criticisms made by the commission were less salient than those presented above. The commission expressed concerns that parents may use the funds from the loan to finance expenditures other than parental leave. How the government will enforce the use of the payment for parental leave is something faced by any statutory scheme, no matter how it is to be funded.

The commission also suggested that the positive externalities 'would probably have been significantly exhausted given a base government scheme.' This is true if the purported social benefits of the scheme exceed the direct subsidy component of the payment. However, if the alternative is a full-replacement scheme up to annual incomes of $100,000 as proposed by the Coalition, then an ICL can be seen as a way of ensuring that the considerable cost of the remaining private benefits is incurred by those who do in fact benefit from the leave rather than by the taxpayer.

The commission also stated that 'scheme errors would be difficult and costly to reverse.' Perhaps, but surely no more costly than a direct grant equal to the pre-birth wages of the primary carer capped at $100,000.

The commission was prescient in its summation of its rejection of an ICL scheme:

> The Commission is also mindful of the … likely future pressures that will bear on the Government to extend the duration of the scheme beyond 18 weeks and to increase the payment rate … should the Government consider extending scheme duration and/or the payment rate at some point in the future, the Commission now believes that income contingent loans could provide an appropriate low cost option … for doing so.[58]

There are precisely the circumstances in which we find ourselves at present.

Appendix II: Modelling age-earnings profiles using the 2012 Household, Income and Labour Dynamics in Australia survey

The modelling in this report uses data from the 2012 Household, Income and Labour Dynamics in Australia (HILDA) survey managed by the Melbourne Institute of Applied Economic and Social Research and funded by the Department of Social Services conducted in 2012. There were 9,210 female responding persons, 7,132 after excluding the top-up sample introduced in wave 10.

The estimated age earnings profiles for women presented in this report are estimated using the same statistical methodology and modelling approach to that used by Trevor Breusch and Edith Gray.[59] The empirical specification however is somewhat simpler. The statistical method used in this report models the log of usual weekly earnings (**_wscei**) multiplied by 100 as a function of education, age, labour force experience, and a suite of variables that take into account the number and ages of children. More specifically:

Experience: Experience enters the specification as a quadratic and based on the derived variable **_ehtjb**. This variable is derived from: ***Now of these [years / months], how many [years / months] in total have you spent… In paid work? (including both full- or part-time work)*** asked in the Education and Employment History Section of the Responding Person Questionnaire.

Age also enters as a quadratic and is based on **_hgage** which is taken from the household file and derived from information on date of birth for each household member. The variable is presented as age at last birth as of 30 June 2012.

Education. The Education indicators are coded from the derived variable **_edhigh1** which is itself coded from a comprehensive suite of indicators that collect information on a wide range of qualifications also contained in the Employment History Section of the Responding Person Questionnaire. More specifically: ***Looking at SHOWCARD 3, since leaving school (as a [child / teenager]) what qualifications have you completed?***

Degree: Includes responding persons where **_edhigh1=1**, **_edhigh1=2** or **_edhigh1=3**. This includes those with a Postgraduate Degree, Master Degree, Graduate Diploma, Bachelor Degree, Bachelor (Pass) Degree, Doctoral Degree, Grad Diploma and Grad Certificate, Graduate Certificate or a Bachelor (Honours) Degree.

Trade: Includes responding persons where **_edhigh1=4** or **_edhigh1=5**. This includes Advanced Diploma and Diploma, Associate Degree, Certificate Level III, Advanced Diploma, Diploma and Certificate Level IV.

Year 12: Includes responding persons with **_edhigh1=8**. This picks out those with a Year 12

attainment. For this reason the regression constant averages over those with incomplete schooling and those who may have completed a low level vocational qualification.

Ever had children is coded from **_tchad**. This represents the question: ***How many children in total have you ever had? That is, ever [fathered / given birth to] or adopted?*** which is found in the Family Formation section of the Responding Person Questionnaire.

The child age indicators are all coded from the resident child age variables **_rcage1-_rcage13** found in the resident child grid in the Family Formation Section of the Responding Person Questionnaire. More specifically:

Infant indicates whether there is a resident children under 1 year of age as of 30 June 2012.

Toddler indicates whether there is a resident child aged 1 to 2 years.

1 older child indicates whether there is one child aged between 3 and 14.

2 or more older children indicates whether there is more than 1 child aged between 3 and 14.

4 or more children this indicator picks out parents who have had 4 or more children to account for any additional reduction in earnings that might occur for parents who have large families that might not be captured by the **2 or more older children** indicator.

The coding of these variables, with the exception of **4 or more children**, is the same as that used in Breusch and Gray. This specification allows the impact of young children to be of a qualitatively different magnitude to those of older children.

This simpler specification is adopted so that only that information from the most recent wave of HILDA is required to simulate annual earnings for the years before and after this wave. The only information required to construct the variables that characterise women's fertility can be coded from knowledge of the age of her resident children (those under 15 years) at the time of the most recent wave. The women's level of education at this wave is assumed to be the highest that she will ever achieve and this level is assumed to determine the age at which she began to accumulate full-time labour force experience. Experience itself is assumed to accumulate for every year after entering the labour force until such time that the woman is observed to have her first child.

Another advantage of such a sparse empirical specification is that the estimation sample is larger than it otherwise would, which increases the precision of the statistical estimates and the representativeness of the sample. Just two women have missing values for **_tchad**, which is used to construct the variables that indicate whether a women has ever had children and whether they have four children or more. There are, however, 1,042 missing values for experience, which arise as not every responding person (all those in household over the age of 15) has entered the labour force at the time they are surveyed in wave 12. All up, the estimation sample includes 6,088 women, 2,731 of whom were observed to have earnings and 3,357 who were not.

The age-earnings profiles for men are estimated using Ordinary Least Squares regression on the sample of responding personal who were employed men at the time of the 12th wave. The empirical specification for men is even simpler than that for women. Male earnings are modelled as a functions of age, experience and education. There were 6,405 male responding persons at wave 12 after deleting the wave 10 top-up sample. Missing data is of little concern in the context of such a sample specification, there are 6 missing observations for education and 895 missing values for experience. Conditioning on those responding males who were employed at wave 12 leaves an estimate sample of 3,507.

Table 3 presents the regression estimates used to construct the age earnings profile for men and women with t-statistics in parenthesis.

The regression estimates contained in Table 3 are not overly intuitive by themselves. To understand the association between education and fertility and earnings, it is more informative to plot simulated estimates of earnings for hypothetical men and women.

Figure 5 illustrates the estimated average age-earnings profiles of men who hold different levels of educational qualifications. Men with a bachelor's degree or higher have the highest estimated earnings, followed by those with a trade qualification while men who have completed Year 12 have an earnings profile more similar to those who did not complete school. For men, estimated earnings peak in their mid-40s. The modelling used to produce these age-earnings profiles assumes uninterrupted labour force experience that begins at an age appropriate to their level of education.[60]

Figure 6 presents estimated age-earnings profiles for women with different levels of education and different numbers of children. These estimated age-earnings profiles assume that women give birth to their first child at the age of 31 and that those who have additional children have these children two years apart.[61] As in Figure 5 women are assumed to enter the workforce at an age appropriate for their level of education. In contrast to the estimates presented in Figure 5, women are assumed to accumulate experience in line with their probability of employment, which varies with the number and age of their children from the time of their first birth. Figure 6 indicates that at all levels of education, the impact of childbearing on female earnings is considerable and lasting.

Table 3: Statistical estimates used in the construction of age-earnings profiles

	Female		Male
	Earnings	**Employment**	**Earnings**
Experience	6.302***	0.178***	5.384***
	(8.198)	(25.757)	(6.012)
Experience²	-0.072***	-0.002***	-0.049**
	(-5.358)	(-16.900)	(-2.896)
Age	3.853***	-0.105***	4.778**
	(3.772)	(-31.806)	(3.289)
Age²	-0.073***		-0.086***
	(-6.567)		(-5.124)
Degree	54.257***	0.596***	58.276***
	(14.858)	(10.624)	(16.704)
Trade	13.421***	0.256***	23.018***
	(3.849)	(4.781)	(8.015)
Year 12	5.940	0.231***	8.366*
	(1.487)	(3.650)	(2.287)
Ever had children	-7.702	0.277***	
	(-1.872)	(4.076)	
Infant	-9.518	-1.384***	
	(-1.063)	(-13.388)	
Toddler	-16.592**	-0.910***	
	(-2.895)	(-11.559)	
1 older child	-17.444***	-0.272***	
	(-4.184)	(-3.965)	
2 or more older children	-26.470***	-0.488***	
	(-6.035)	(-7.001)	
4 or more children	7.172	0.271***	
	(1.469)	(3.838)	
Constant	544.126***	2.378***	560.703***
	(33.570)	(25.113)	(25.594)
ρ	0.133		
	(0.194)		
σ	0.657		
	(342.719)		
N	6,088		3,507

Notes: t-statistics in parenthesis.* $p<0.05$, ** $p<0.01$ and *** $p<0.001$

Figure 9: Estimated earnings for men by age and level of education in 2012

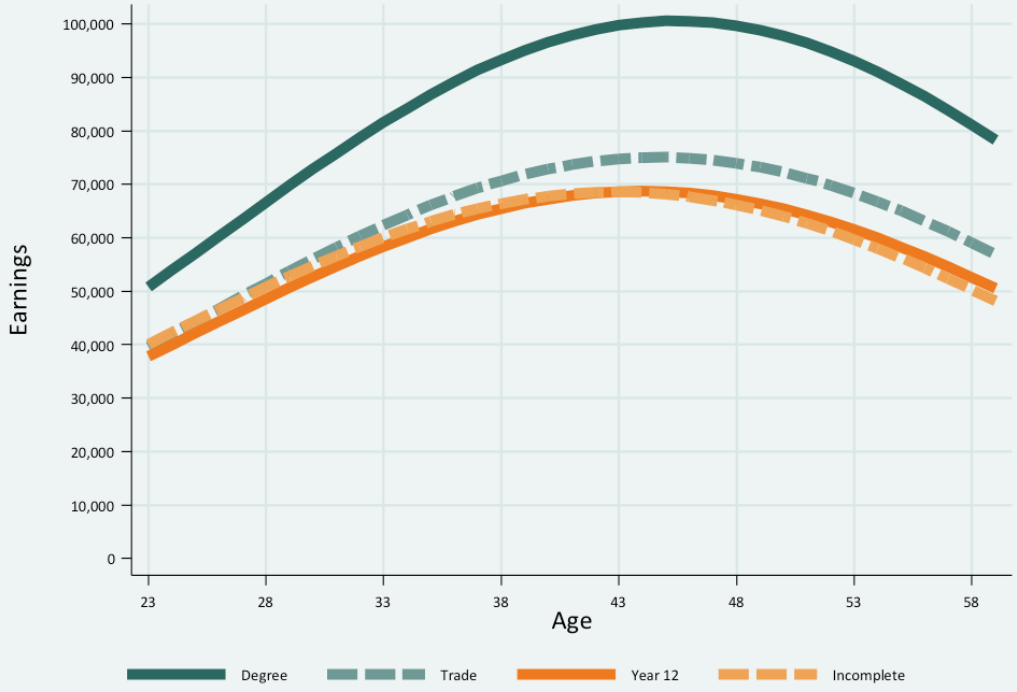
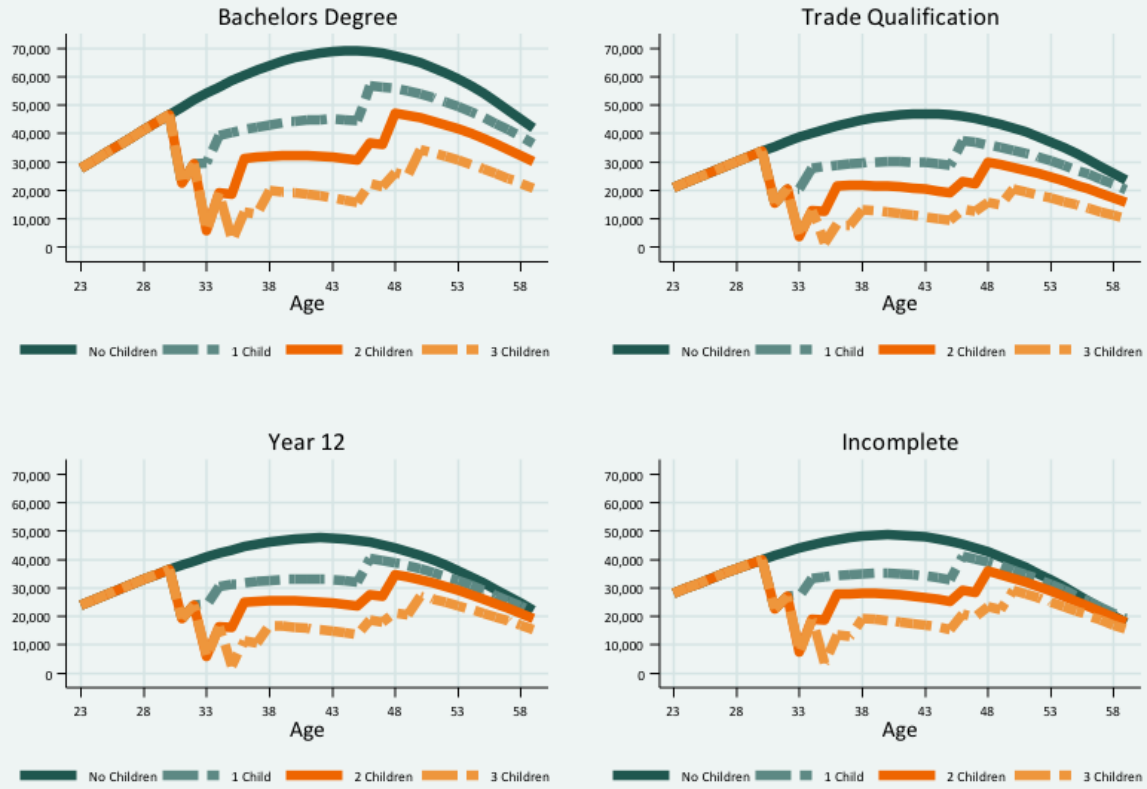


Figure 10: Estimated earnings for women by age and number of children in 2012



Appendix III: Modelling Paid Parental Leave policies using the 2012 Household, Income and Labour Dynamics in Australia survey

At wave 12, there were 9,210 female responding persons, 7,132 after excluding the top-up sample introduced in wave 10. Of these, 4,801 women reported they had children and 2,835 reported they had at least one child living with them at wave 12. The household file is then merged with the responding person file, linking resident biological children to mothers who are responding persons and to responding persons who are the mother's partner and the other male biological parent of the resident child. This is performed for every wave prior to wave 12 in an effort to ascertain the characteristics of parents who may have left the responding mother's household prior to wave 12. Obviously this is not possible for children whose parents separated prior to the initial wave of HILDA in 2001 and these children are dropped from the analysis.

A wide longitudinal data file that nests children within mothers across the waves is then constructed by matching children across time according to their age at 30 June in each year. Children under the age of 15 are not responding persons in their own right and therefore do not have their own responding person IDs, matching on age is the only way to link them over time. A consequence of this is that children who were born as the result of a multiple birth are iteratively dropped from the analysis as it is not clear which child is to be matched. This does not appear to have had much of an impact on the total number of children merged into the basefile. The process merges 5,237 children to 2,835 mothers. A comparison of the wave 12 variable **_tcr**, which counts the number of children the mother has ever had, with a count of the number of children for each mother produces a 97.3% correspondence. Deleting children over the age of 15 leaves a sample of 1,795 mothers and 3,096 children. This is done so that children over the age of 15 who are responding persons in their own right will not be double counted, and can be justified on the grounds that few children over the age of 15 would have a PPL liability attached to them.

Information on the child's other parents is taken from the most recent wave in which that parents is observed in the household. For 2,402 children this is wave 12, which represents 77.6% of children of the 3,096 children. There are 296 children for whom the other parent is never observed in the households representing about 9.6% of children. The other parent of the remaining children is observed in at least one wave between wave 1 and wave 11. Children for whom the other parent is never observed are dropped from the basefile, which removes an additional 139 mothers. The final basefile includes a sample of 1,656 mothers and 2,800 children.

Insofar as there exists representative longitudinal data on Australian families, it is natural to ask why it is necessary to use simulated age earnings profiles rather than the earnings reported in these surveys. While these observed earnings undoubtedly provide a more accurate picture of how these policies would impact upon families, there are a number of reasons why a statistical model must be employed.

The first is that there is always attrition in longitudinal surveys. Some respondents will participate in a number of waves and then never return while others may not participate for a few waves only to return in later waves of the study. This would necessitate some form of imputation, which would likely require statistical methods similar to those employed here. The second reason for using statistical methods is that some of the parents responding in the most recent wave of data collection will have only recently started a family. Without making some assumption with respect to their future earnings, it would not be possible to include these families—resulting in a selective sample of parents dominated by those with older children. It should also be pointed out that the total subsidies received by these families will necessarily be underestimated as the total number of children that will be born into these families cannot be observed at the time of the most recent wave of HILDA.

The modelling in this report differs in some respects from that contained in Chapman, Higgins and Lin (2008). The age earnings profiles used in the hypothetical repayment scenarios and the distributional modelling do not assume 4% wage growth as was the case in Chapman, Higgins & Lin, chosen because this was the average annual growth in Average Weekly Earnings (AWE) over the 10-year period that preceded their study. The simulated age-earnings profiles used in this report are merely the predicted values from the statistical models described in Appendix II and are therefore earnings estimates in real 2012 dollars.

This does not necessarily result in smaller simulated repayments than would be the case if the Chapman, Higgins and Lin methodology were applied as the repayment thresholds in their analysis would have been indexed to growth in AWE, whereas the analysis in this report holds the repayment thresholds constant over time at the value presented in Table 2. Chapman, Higgins and Lin merely chose to present their results in nominal values projected into a hypothetical post-2007 world, whereas this report presents results in real 2012 dollars. This is more appropriate in the context of this report which attempts to undertake distributional analysis and is not intended as a criticism of the Chapman, Higgins and Lin approach. Consistent with this desire to provide values in real 2012 dollars, the PPL liabilities are indexed at an annual growth rate of 0% (no real increase) rather than at the 2.5% CPI value chosen by Chapman, Higgins and Lin.

This decision to present earnings, repayments and PPL subsidies in real 2012 dollars also has implications for the way the indirect subsidies associated with PPL loans are calculated. Consistent with Chapman, Higgins and Lin, indirect subsidies are calculated as the difference between actual repayments and the repayments that would have to be made if the debt

were compounding at an average annual rate of market interest. Chapman, Higgins and Lin allow the liability to increase at an average annual rate of 2.5% (CPI) and compare these repayments to those which would have to be made if the debt were compounding at an average annual rate of 5.5%, the average 10-year government bond rate in 2007.

As the PPL liability in this analysis is not increasing in absolute terms, directly applying a market interest rate would overestimate the implicit subsidies received by parents. Instead, the simulated repayments are compared with those that would have to be made if the liability were compounding at an average annual rate of 1.04%. This is the difference between an average annual CPI increase of 2.5% and the average annual interest rate of 3.04%, the 10-year Treasury bond rate as of June 2012.[62] This involves a similar assumption about future inflation as that made by Chapman, Higgins and Lin, and that the 10-year bond rate will remain at its 2012 level for the life of the loans modelled in this report. Variations to these parameters would produce different estimates of the indirect subsidies received by parents.

Endnotes

1 Regulated unpaid maternity leave entitlements have existed since a Conciliation Arbitration test case that took place in 1979. A later test case in the Australian Industrial Relations Commission established the concept of parental leave that could be taken by mothers, fathers and adoptive parents for up to 12 months. This leave could be shared between parents but could only be taken concurrently in the first week of the child's birth.

2 Fair Work Ombudsman, 'Parental leave and related entitlements and the National Employment Standards,' website.

3 Chris Bowen, *Terms of Reference for the Inquiry into Improved Support for Parents with Newborn Children* in Productivity Commission, *Paid Parental Leave: Support for Parents with Newborn Children* (Canberra: Productivity Commission, 2014), iv.

4 Productivity Commission, *Paid Parental Leave*, as above.

5 As above.

6 Chris Bowen, *Terms of Reference for the Inquiry into Improved Support for Parents with Newborn Children*, as above.

7 'Abbott promises six months paid parental leave,' *The Age* (8 March 2010).

8 According to Parliamentary Budget Office, *Election 2013* (Canberra: PBO, 2013), Attachment F, 223, gross expenditure on PPL would be $5.7 billion in 2016–17 under the Coalition's proposal. The forward estimates in Australian Treasury, *Budget 2014–15 Budget Paper No. 1* (Canberra: Australian Treasury, 2014), 6–29, provide expenditure on PPL under current policy settings and place this at $1.9 billion. The forward estimates of expenditure in the Coalition's proposed PPL reforms were not disclosed as a separate item in the 2014–15 Budget. This PBO's costing is likely to be a reasonable, if a slightly inflated, estimate of the cost of the Coalition's scheme as the Australian Taxation Office, *Taxation Statistics 2011–12* (Canberra: Australian Taxation Office, 2012) indicate that only 1.4% of women aged 18 to 39 had annual taxable incomes in excess of $150,000 and only 4.7% had annual taxable incomes above $100,000.

9 According to Liberal Party of Australia and National Party of Australia, *The Coalition's Policy for Paid Parental Leave* (Canberra: Liberal Party of Australia and National Party of Australia, 2013), the levy was to be applied to the taxable income of companies with incomes in excess of $5 million. It was estimated that the levy would fall on 3,000 companies.

10 The change to the cap on payments came in the wake of speculation that the 2014–15 Budget would include sweeping cuts to family payments and threats from within the Coalition that some government senators might cross the floor to vote the bill down if the cap was not reduced. Dennis Shanahan, 'Under-pressure Tony Abbott drops parental leave cut-off to $100,000,' *The Australian* (30 April 2014).

11 Department of Social Services, Paid Parental Leave Review (Canberra: Department o*f Social Services, 2013).*

12 This is the $26,700 Family Tax Benefit Part B fadeout less the amount of the 18-week PPL payment.

13 Peter Whiteford, 'The Australian Tax-Transfer System: Architecture and Outcomes,' *The Economic Record* 86:275 (2010).

14 See for instance L. Tulman and J. Fawett 'Factors influencing recovery from childbirth,' in Janet Shibley Hyde and Marilyn J. Essex (eds), *Parental Leave and Child Care, Setting a Research and Policy Agenda* (Philadelphia: Temple University Press, 1991).

15 Productivity Commission, *Paid Parental Leave*, as above, 4.15.

16 See for instance Michael Baker and Kevin Milligan, 'Evidence from maternity leave expansions of the impact of maternal care on early child development,' *Journal of Human Resources* 45:1 (2010); Michael Baker and Kevin Milligan, 'Maternity Leave and Children's Cognitive and Behavioral Development,' Discussion paper presented at the Annual Meeting of the American Economic Association 6–8 January (Boston: American Economic Association, 2011); Pedro Carneiro, Katrine Løken, and Kjell G. Salvanes,

'A Flying Start? Long Term Consequences of Maternal Time Investments in Children During Their First Year of Life,' IZA Discussion paper No. 5362 (Bonn: Institute for the Study of Labor, 2010); Christian Dustmann and Uta Schönberg, 'The Effect of Expansions in Maternity Leave Coverage on Children's Long-Term Outcomes,' *American Economic Journal: Applied Economics* 4:3 (2011); Qian Liu and Oskar Nordstrom Skans, 'The Duration of Paid Parental Leave and Children's Scholastic Performance,' *The B.E. Journal of Economic Analysis & Policy* 10:1 (2010).

17 Productivity Commission, *Paid Parental Leave*, as above, 4.19.

18 M.S. Kramer, et al. 'Breastfeeding and Child Cognitive Development: New Evidence from a Large Randomized Trial,' *Archives General Psychiatry* 65:5 (2008).

19 Productivity Commission, *Paid Parental Leave*, as above, 4.29.

20 As above, 8.14.

21 See Rebecca Edwards 'Maternity leave and the evidence for compensating wage differentials in Australia,' *Economic Record* 82:258 (2006).

22 Productivity Commission, *Paid Parental Leave*, as above, 3.1.

23 Strictly speaking, these are percentages of those covered by entitlements where the length of entitlement was clear. About 15% of women were covered by agreements that had parental entitlements had entitlements that varied.

24 Rebecca Edwards, 'Maternity leave and the evidence for compensating wage differentials in Australia,' as above.

25 Productivity Commission, *Paid Parental Leave*, as above, 8.14.

26 Tanya Livermore, 'The Effect of Motherhood on Wages and Wage Growth: Evidence for Australia,' Paper Presented at the 39th Australian Conference of Economists 27–29 September (Sydney: Economic Society of Australia, 2010).

27 Productivity Commission, *Paid Parental Leave*, as above, 7.15.

28 Centrelink, 'Guide to Australian Government Payments 20 March to 30 June 2014' (Canberra: 2014).

29 Centrelink, 'Guide to Australian Government Payments 20 March to 30 June 2014' (Canberra: 2014).

30 Productivity Commission, *Paid Parental Leave*, as above, 5.18.

31 As above, 2.42.

32 Matthew Franklin, 'Tony Abbott eyes working families with paid parental leave,' *The Australian* (9 March 2010). For more detail on the Coalition's policy proposal, see Liberal Party of Australia and National Party of Australia, *The Coalition's Policy for Paid Parental Leave*, as above. This was released in the lead-up to the general election the following month.

33 Joe Hockey quoted in Diana Elliot, 'Anyone for Hockey? Not this future pensioner,' *The Age* (14 April 2014).

34 Productivity Commission, *Paid Parental Leave*, as above, 2.6.

35 As above, 5.17–18.

36 Bruce Chapman in testimony before the *Inquiry into Improved Support for Parents with Newborn Children* on 7 May 2008 in Canberra.

37 Gary S. Becker and Nigel Tomes, 'Human Capital and the Rise and Fall of Families,' *Journal of Labor Economics* 4:3 (1986).

38 Trevor Breusch and Edith Gray, 'New Estimates of Mother's Foregone Earnings Using HILDA Data,' *Australian Journal of Labour Economics* 7:2 (2004).

39 Interestingly, this is not the justification for a joint liability proposed in Bruce Chapman, Tim Higgins, and Lynnette Lin, *Sharing the Costs of Children: Paid Parental Leave and Income Contingent Loans* (Melbourne: Committee for the Economic Development of Australia Information, 2008). These authors were more concerned that if the liability were borne by the primary carer, an Income Contingent Loan scheme would disproportionately attract primary carers likely to have earnings below the minimum repayment threshold for an extended period of time (adverse selection) or, that having been provided with a payment, primary carers who might otherwise intend to return to work would not do so to avoid repayment (moral hazard).

40 Bruce Chapman, Tim Higgins, and Lynnette Lin, *Sharing the Costs of Children*, as above, 12.

41 Australian Taxation Office, 'HELP Repayment Thresholds and Rates' (Canberra: ATO, 2012).

42 Centrelink, 'Guide to Australian Government Payments 1 July to 19 September 2012' (Canberra: 2012).

43 See Andrew Baker, *Tax Welfare Churn and the Australian Welfare State* (Sydney: The Centre for Independent Studies, 2013) for more detail on churn in the Australian context.

44 Those with incomplete education are assumed to enter the workforce at 15, those with Year 12 only are assumed to enter at 18. Those with trade qualifications are assumed to begin work at the age of 20 and those with bachelor's degrees or higher are assumed to enter the workforce at the age of 22.

45 The model does not incorporate the entirety of the eligibility criteria. For instance, the work test is not modelled and it is assumed that all the mothers in the sample would have been eligible for PPL payments. It is also assumed that these families choose to use the full period of leave, whether it be 18 weeks under current policy or 26 weeks under the Coalition's proposal. Although the proposed PPL loan scheme would not necessitate families electing to make use of 100% of their entitlements, this is assumed in the modelling in this section. The data and modelling methodology are explained in more detail in Appendix III.

46 Department of Social Services, *Paid Parental Leave Review March 2013* (Canberra: DSS, 2013).

47 There is one aspect of a PPL loans scheme that could be argued to benefit higher-income families over lower-income families. Insofar as the loans made to high-income families will be larger on account of the higher pre-birth earnings of the primary carer, they benefit from higher interest rates subsidies. However, this is offset by the progressive repayment thresholds that ensure their loans are paid off faster such that they enjoy these subsidies for a shorter period of time than low-income parents. The question of the extent to which the PPL loans scheme benefits high-income families over low-income families is an empirical question and one that the modelling in this section illuminates.

48 Couples are chosen as the unit of analysis as the objective of PPL is to ensure that children receive full-time care in the early months of their lives. Both parents benefit from the PPL payment as the payment ensures that one of the parents can stay home with the child. Regardless of the policy settings under consideration, PPL is a policy that transfers income to families with young children. It is not a policy that makes transfers to women or men as individuals even if it is to be paid into the primary carer's account.

The HILDA sample used in the modelling includes couples who were partnered at the time of the 2012 survey in addition to those who had separated provided the other parents was observed in the household with the PPL children in at least one of the preceding waves. Whether parents remain together or separate is immaterial for the modelling of the PPL loans policy as both would remain liable to make repayments regardless of their relationship status. While the distributional analysis looks at how couples are affected by these policies, it is not assumed that these couples are living together for the purposes of the analysis.

Combined lifetime earnings are used in the distributional analysis in preference to a point-in-time measure of earnings. Lifetime earnings are not captive to the impact of fertility on the earnings of women, which has implications for combined earnings. Lifetime earnings provide a more accurate means of assessing the financial resources of different families over the life course. If a point in time measure were used, high-income families could be classified as low income merely because the mother had recently given birth and was providing full-time care for a young child or because parents just happened to be younger and have less labour force experience at the time they were surveyed.

49 Australian Taxation Office, *Taxation Statistics 2011–12,* as above.

50 Parliamentary Budget Office, *Election 2013*, as above, Attachment F, 223. The 2016–17 gross expenditure on PPL would be $5.7 billion under the Coalition's proposal.

51 Australian Treasury, *Budget 2014–15 Budget Paper No. 1* (Canberra: Australian Treasury, 2014), 6–29, puts the forward estimates for 2015–16 expenditure on PPL under current policy settings at $1.9 billion.

52 Repayment income is equal to taxable income plus reportable fringe benefits, total net investment loss, reportable super contributions, and exempt foreign employment income amounts. See Australian Government, 'Study Assist: When Do I Have to Repay My HELP Debt?' (Canberra: 2014).

53 Andrew Norton and Ittima Cherastidtham, 'Doubtful Debt: The Rising Cost of Student Loans' (Melbourne: Grattan Institute, 2014), 9.

54 Bruce Chapman, *Government's Managing Risk: Income Contingent Loans for social and Economic Progress* (London: Routledge, 2006).

55 This value of the minimum wage is sourced from Fair Work Ombudsman, 'Minimum wages,' website.

56 Bruce Chapman and Andrew Leigh, 'Do Very High Tax Rates Induce Bunching? Implications for the Design of Income-Contingent Loan Schemes,' *Economic Record* 85:270 (2006).

57 Trevor Breusch and Edith Gray, 'New Estimates of Mother's Foregone Earnings Using HILDA Data,' as above.

58 Productivity Commission, *Paid Parental Leave*, as above, 8.18.

59 Trevor Breusch and Edith Gray, 'New Estimates of Mother's Foregone Earnings Using HILDA Data,' as above.

60 Those with incomplete education are assumed to enter the workforce at 15, while those with Year 12 only are assumed to enter at 18. Those with trade qualifications are assumed to begin work at the age of 20 and those with bachelor's degrees or higher are assumed to enter the workforce at the age of 22.

61 This was the median age at first birth for Australian mothers in 2012 according to Australian Bureau of Statistics, 'Births Australia' (Canberra: ABS, 2012).

62 The rate of 3.04% is taken from Australian Taxation Office, 'Key Superannuation Rates and Thresholds,' website.

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REDUCING THE BURDEN FOR FUTURE GENERATIONS

Author

Matthew Taylor is a Research Fellow at The Centre for Independent Studies.

Acknowledgement

This paper uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Project was initiated and is funded by the Australian Government Department of Social Services (DSS) and is managed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute). The findings and views reported in this paper, however, are those of the author and should not be attributed to either DSS or the Melbourne Institute.

The author would like to acknowledge the assistance of all the staff at The Centre for Independent Studies and Warwick McKibben at the Australian National University.

However, any errors or omissions remain the author's responsibility.

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CIS TARGET30 • T30.11 • ISSN Print: 2201-7615 • ISSN Online: 2202-3240 • ISBN: 978 1 922184 31 3
Published July 2014 by The Centre for Independent Studies Limited. Views expressed are those of the authors and do not necessarily reflect the views of the Centre's staff, advisors, directors or officers.

This publication is available from the Centre for Independent Studies.
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