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The Impact of Paid Maternity Leave on Labour Market Outcomes

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Abstract

I estimate the effect of paid maternity leave on mothers probability of employment after birth, how this effect varies with the age of the child, and the effect on wages when the child is about four years old. A statistical matching approach is applied. The matching procedure controls for an extensive range of pre-birth job characteristics, health and human capital measures, and attitudes towards non-maternal care. Mothers appear to delay their return to work after a birth if they are entitled to paid maternity leave, but the delay is short and does not affect wages in the long-run.

JEL classification: J13, J16, J22

Keywords: Maternity leave, maternal employment, maternal wages.

1 Introduction

Is provision of paid maternity leave a good policy? Paid maternity leave can have impact on a wide range of life aspects, including the child's health and cognitive development, the mother's health, parents' life satisfaction, and how they fare in the labour market. How does maternity leave impact on a mother's career - does it help mothers to combine family life and work life? Or does it keep them out of employment after a birth, lowering their labour market incomes and cementing gender inequalities?

Many international studies have tried to answer this question, and one of the major conclusions from this body of research is: it depends. It depends on the length of or the amount of pay during leave, on accessibility of child care services, or on other labour market and child care institutions that are already in place. The effects vary strongly by country, and conclusions drawn from one country's experience are hence not fully transferable to other countries. The aim of this paper is to provide empirical evidence about the effects of maternity leave on labour market outcomes in Australia. The following questions will be addressed: Does maternity leave have an effect on mother's *probability of employment* after giving birth? How does such an effect vary depending on the child's age? Does maternity leave have an effect on mother's *wages* after returning to employment?

The major challenge for this analysis is to find variation in leave coverage that can be used for identification. Where possible, international analyses exploit regional variation or variation in legislation over time to produce estimates of the effects of maternity leave on labour market outcomes. Such variation over time or across regions is not available for Australia at this point in time. Statistical analyses thus have to rely on variation across individuals (Baxter 2009; Ulker and Guven 2011). However, this approach is problematic if individuals select themselves into different leave regimes. An employer might offer a generous maternity leave scheme only to employees who are particularly valuable to the company and not to others. A woman might choose between an employer with a more attractive salary package and one with a more generous leave policy according to her preferences for the amount of time off work after a birth. Those characteristics of firms and employees will have an effect on labour market outcomes above and beyond the effect of maternity leave. If those characteristics are not properly accounted for in a statistical analysis, the estimated effect of maternity leave will be biased.

No study is available that addresses these issues for Australia to date. The important contribution of this study is to be the first to provide estimates of the effect of maternity leave in Australia that takes self-selection into different maternity leave policies into account. This paper uses the Longitudinal Study of Australian Children (LSAC). The LSAC is a longitudinal study starting in 2004 that follows the development of children, and offers very rich information on the children's health and mothers' attitudes to non-maternal care, together with information on job characteristics of the pre-birth job, employment histories and family characteristics. This information will be used to estimate the effect of maternity leave with a statistical matching approach to account for self-selection.

I will first provide a brief overview of the institutional background (Section 2) and related literature (Section 3). Section 4 presents the statistical matching approach , and Section 5 describes the data set used, the LSAC, in more detail. Section 6 presents the quality of the matching procedure, the estimation results and discusses the underlying assumptions of the estimation procedure. Section 7 concludes.

2 Maternity Leave in Australia

The *Workplace Relations Act 1996* guarantees 12 months' unpaid maternity leave to mothers who had been working with their employer for at least 12 months as full-time or part-time permanent employees. The employee is entitled not only to return to the same employer, but to the same position. In 2001, the legislation was extended to casual workers who had been working for the employer for 12 months or more. Such standards for casuals had existed only in New South Wales and Queensland before. In the period of analysis for this study (after 2003), there is no regional variation in unpaid leave coverage, and variation across individuals is fully determined by the mothers' labour market history immediately before the birth. It is thus not possible to disentangle the effects of unpaid maternity leave and the effect of past labour market decisions. This study hence focuses on the effects of paid maternity leave, where substantial variation in coverage is available for identification.

A universal paid maternity leave scheme at the national level was introduced in Australia only at the beginning of last year, in contrast to most other industrialised countries. Beforehand, paid maternity leave was only available for public servants (with varying levels of coverage across states), or as the result of collective wage

agreements, company policies, or individual bargaining between employee and employer. According to the Equal Opportunity for Women in the Workplace Agency, there has been a consistent upward trend over time in the number of organisations that provide at least some paid maternity leave, with 36% of all reporting employers in 2003 and 53% in 2009 (EOWA 2010). However, not all women working in organisations that provide maternity leave schemes have access to these schemes. The percentage of female employees covered varies strongly with industry sector, between 14.2% in mining to 82.2% in health care. The Human Rights and Equal Opportunity Commission (HREOC 2002) found about 38% of all female employees to be covered by a paid maternity leave policy, with great variation by employer size, industry, the mothers' skills level and her form of employment, i.e. whether she was working full-time, part-time or casually. Usually, the offered duration of paid maternity leave is short, between two and 18 weeks, and in most cases falls short of the international standard of fourteen weeks (HREOC 2002). The variation in paid maternity leave coverage gives us an opportunity to identify the effects of the provision of leave, but also underlines the importance of controlling for differences in characteristics that affect paid leave coverage in the estimation, to the extent that they might influence employment and wages after birth.

3 Related Literature

A broad literature investigates the effects of maternity leave schemes on labour market outcomes. From a theoretical point of view, these effects are ambiguous. Klerman and Leibowitz (1999) develop a model of mothers' return to work after a birth that predicts that depending on her preferences for time spent with the child, her market wage and her wage with the pre-birth employer, a leave scheme can result either i) in an extension of the time spent out of work for mothers who would have returned to the pre-birth employer with and without a maternity leave scheme, or ii) in retention with the pre-birth employer and a potentially earlier return to work for mothers who would have left the labour market after giving birth had they no access to maternity leave. If the first effect is dominating, maternity leave increases the time out of work and in turn weakens their labour market position resulting in lower employment and lower wages. Statistical discrimination by employers could result in lower wages and employment levels for women in child-bearing age in general, regardless of whether they have children or not. If, on the other hand, the second effect is more important, increased job continuity may maintain good job matches and raise women's job tenure. Preventing mothers

from a loss of firm-specific human capital due to career interruptions could thus increase productivity, employment and wages and thereby decrease the "family pay gap" (Waldfogel 1998).

The international empirical evidence regarding the effects of maternity leave on labour market outcomes, based on evidence from several countries in Western Europe and Northern America, is mixed. With regard to post-birth wages, some studies find maternity leave to decrease wages (Schönberg and Ludsteck 2007, Ruhm 1998) while others find no such effect (Rønsen and Sundström 2002, Baum 2003b, Berger and Waldfogel 2004, Baker and Milligan 2008, Lalive et al. 2010, Hashimoto et al. 2004). If we look at employment after giving birth, some studies find that women are more likely to return to work, either with their pre-birth employer or elsewhere, if offered maternity leave (Ruhm 1998, Waldfogel et al. 1999, Rønsen and Sundström 2002, Baum 2003a, Berger and Waldfogel 2004, Baker and Milligan 2008), but at the same time, the longer the maternity leave is the later such a return to work seems to occur (Rønsen and Sundström 2002, Baker and Milligan 2008, Ludsteck and Schönberg 2007, Spiess and Wrohlich 2008, Lalive et al. 2010). Other studies find only very moderate or no effects on employment (Waldfogel 1999, Baum 2003b, Hashimoto et al. 2004).

The ambiguity of the results can be explained by mainly two factors: first, if maternity leave is not universally provided to the entire population, mothers who are covered by maternity leave may differ from those who are not in numerous characteristics. The estimated effect of maternity leave may thus differ depending on whether and to what extent an analysis takes that potential problem of unobserved heterogeneity into account. Some of the abovementioned studies do not address the problem, some control for pre-birth characteristics such as tenure, others apply Difference-in-differences approaches, using variation in legislation over time and region. Lalive et al. (2010) and Schönberg and Ludsteck (2007) both apply regression discontinuity techniques using a natural experiments that arose from discrete changes in leave regulations. These different estimation strategies can influence the results to the extent that one method might be not as good as another and produce biased estimates. A second important explanation for the variation in the estimated effect of maternity leave is that the *true* effect may vary depending on the length of the leave and its level of pay, depending on norms and attitudes towards non-maternal care, and depending on other labour market institutions that affect mothers' employment conditions, such as child care policies or home care allowances. Consequently, the effect will differ from country to country.

Evidence for Australia is scarce. While there is some evidence on the effects of child care accessibility and prices (Doiron and Kalb 2005, Breunig et al. 2011) and other family-friendly policies (Renda et al. 2009, Baxter and Chesters 2011) on labour supply, relatively little is known about how maternity leave shapes mothers' work decisions in Australia. Edwards (2006) estimate wage differentials between entitled and non-entitled women and finds that women in Australia are willing to pay a premium in the form of foregone wages to get access to maternity leave, indicating that they place value on such a scheme. Baxter (2009) estimates hazard rates back to work for women who used paid leave, unpaid leave or no leave. She uses the Longitudinal Study of Australian Children (LSAC) and finds that the propensity to re-enter work is smaller in the short-run and higher in the long-run for women who take maternity leave compared to those who do not. Ulker and Guven (2011) use the HILDA survey to estimate hazard rates for mothers who are entitled for different lengths of maternity leave or none. They conclude that Maternity leave entitlements lead to an earlier return to the labour market following the birth of a child. However, neither study accounts for unobserved heterogeneity between mothers who do and mothers who do not take leave, or for mothers who are or are not entitled to leave. This study aims to fill this gap in the literature on maternity leave in Australia.

4 Estimation Strategy

I use a propensity score matching approach developed by Rosenbaum and Rubin (1983). The propensity score is defined as the probability of receiving a treatment conditional on pre-treatment characteristics:

$$p(x) \equiv \Pr\left(D = 1 \mid x\right) = E\left(D \mid x\right) \tag{1}$$

where D indicates the treatment status, i.e. whether a mother is entitled for paid maternity leave or not, and x is the vector of all observed variables that are used to estimate the propensity score p(x). A standard probit model is used for the estimation of p(x). After calculating each mothers propensity score to be entitled for paid maternity leave, for each 'treated' mother a set of 'control' units is selected: mothers who were not entitled for paid maternity leave, but have a similar propensity score as the mother who was. The difference in their labour market outcomes averaged over all matched sets of mothers provides the estimate for the effect of leave entitlement.

$$\tau = \frac{1}{N^{Leave}} \sum_{i \in Leave} \left(Y_i^{Leave} - \sum_{j \in noLeave} w_{ij} Y_j^{noLeave} \right) \quad (3)$$

Leave is the set of treated units with N^{Leave} observations, i.e. all mothers who are entitled for paid maternity leave, and *noLeave* is the set of all control units. Y_i^{Leave} and $Y_j^{noLeave}$ is the outcome variable for mothers *i* and *j* from the set of treated mothers and control mothers, respectively. The outcomes of interest, Y_i^{Leave} and $Y_j^{noLeave}$, are post-birth wages and the post-birth employment status at different ages of the child. τ is an estimate of the 'average treatment effect on the treated' (ATT). It tells us how paid maternity leave affects the sample of mothers who are entitled to it.[1]

A weight w_{ij} is assigned to all mothers from the set of control units. The weighting scheme is defined by the matching method that is used. "Nearest neighbour matching" assigns the weight $w_{ij}=1/k$ to the k mothers from the set of control units whose propensity scores are closest to the propensity score of the treated mother *i*, and $w_{ij}=0$ otherwise. "Radius caliper matching" assigns the weight $w_{ij}=1/m_i$ to the m_i control mothers whose propensity score is within a predefined distance to the propensity score of the treated mother *i*, and $w_{ij}=0$ otherwise. "Kernel density matching" assigns a positive weight to each mother from the set of control mothers. The weight is inversely proportional to the distance between the propensity scores of treated unit *i* and control unit *j*. I will compare the matching quality for each of these matching strategies, and choose the one that ensures best that treated and control observations are matched only when they are similar to each other in all observed characteristics except for the treatment status.

Including all pre-birth characteristics that may have an impact on post-birth labour market outcomes in the vector x is crucial, in order to ensure that the estimation procedure provides unbiased estimates of the effect of maternity leave. The approach is based on the assumption that, conditional on the propensity score, the effect of the treatment status is independent from the treatment status itself. The assumption implies that mothers who are eligible for paid maternity leave differ from the control units only in characteristics that are either a) not

[1] Note that the "potential" effect of paid maternity leave on the sample of mothers who are not entitled to it - the "average treatment effect on the untreated (ATU) - is not necessarily the same as the ATT. In other words: this analysis tells us how entitled mothers change their behaviour because they are entitled to maternity leave – but it does not tell us how currently non-entitled mothers would change their behaviour were the current policy extended to them.

relevant for post-birth labour market outcomes , or b) included in the estimation of the propensity score. The LSAC provides an extremely broad range of characteristics that can be included in the propensity score estimation. As will be described in more detail in the next section, education, employment status, salary, weekly working hours, job and firm characteristics before birth, the mothers' attitudes, their health during pregnancy and the children's health at the time of birth, and household demographics will be included. This set of characteristics should capture the most relevant aspects determining the mothers utility derived from time spent with the infant or at work, and thus her labour market outcomes.

5 Data and Descriptive Results

I use the waves 1 to 3 of the Longitudinal Study of Australian Children (LSAC). The LSAC is an ongoing study that started in 2004 and follows the development of two cohorts of children: a sample of infants born between March 2003 and February 2004, and a sample of children born between March 1999 and February 2000. This analysis uses information on the parents of children in the infant cohort. The children's parents are interviewed biannually about the child's health and social and cognitive development, and about the parents' health, living arrangements, work and family situation. At the time of the first interview in Wave 1, the children were on average 9 months old. In wave 2 and wave 3, the children were on average slightly younger than 3 and 5 years, respectively. Wave 1.5 was conducted in 2005, in between wave 1 and wave 2: a shorter questionnaire was sent out to parents, asking them about their pre-birth job characteristics and their leave taking around the time of birth.[2]

I restrict the sample to parents who answered to Wave 1.5, as I do not have information on leave entitlements for other parents. This reduces the sample size from the original parents of 5107 children to the parents of 3573 children. I drop observations when the mother did not work in the 12 months leading up to the birth, and when the child's mother is not the biological mother.[3] Observations with missing information on key characteristics

[2] For detailed information on the LSAC see Australian Institute for Family Studies (2009).

[3] Generally, the LSAC distinguishes between 'parent 1' (the parent who knows the study child best) and 'parent 2' (another adult living in the home with a parental relationship to the study child). For children with one male and one female parent, LSAC defines the female parent as 'mother', regardless of whether this is 'parent1' or 'parent 2' and regardless of biological relationship. However, if a child has two female parents or two male parents, 'parent 1' is defined as 'mother' and 'parent 2' as 'father', which leads to a small number of female fathers and male mothers in the data set. For simplicity, and because maternity leave schemes may depend on biological motherhood, I restrict the analysis to children whose mother is their biological mother.

such as eligibility for paid maternity leave or their labour market outcomes after birth are removed from the sample as well. These restrictions leave a sample of mothers of 1860 children. 54.7% of those mothers did have access to at least some paid maternity leave at the pre-birth job, while 45.3% did not.[4]

Table 1 shows return patterns to work and average wages in the third year after the child's birth by eligibility status for paid maternity leave:

[Table 1]

Mothers with and without entitlements for paid maternity leave show very different patterns of return to work. Mothers who are ineligible for maternity leave are almost twice as likely to return to work before the child is 6 months old than mothers who are eligible for paid leave. With leave entitlements, on the other hand, a return to work occurs substantially more often when the child is between 6 months and two years old instead. In both groups, mothers are about equally likely to return to work when the child is between 2 and three years old, or not to return before the child's third birthday. While women with leave entitlements appear to return to work later, they are on average in more highly paid jobs after they have returned. Their average post-birth weekly salary exceeds that of mothers without leave entitlements by 25%.

Mothers with and without leave entitlements also differ substantially in pre-birth characteristics other than their leave entitlements, that might affect their return patterns and earnings potential. Table 2 shows key characteristics of mothers with and without leave entitlements. Three sets of characteristics are considered: first, mothers' labour market decisions might be influenced by household demographics such as the presence of other children, and her marital status. The stability of the parents' relationship and father's age and education are used as proxies for expected family income beyond the mother's potential labour income. Second, parents' religiousness and country of birth as a proxy for their attitude towards non-parental care, and the child's health at birth and the mothers health during pregnancy reflect differences in parents' utility derived from time spent with the child. Finally, mothers' age and education and her pre-birth salary, working hours, and other job characteristics such as employer size, unionisation, and workplace culture reflect differences in her earnings potential and expected disutility from work. All these characteristics are likely to influence a mothers earnings

[4] Eligibility for paid maternity leave at the pre-birth job is not asked directly in LSAC, but can be derived from a number of questions. The exact derivation of the information is described in the Appendix.

potential and decision whether to work or not, and at the same time, most of them are strongly correlated with her entitlement for paid maternity leave.

The strongest differences are found in mother's human capital and characteristics of the pre-birth jobs: compared to mothers who are entitled for paid maternity leave, mothers who are not entitled are younger, less often tertiary educated, and in the pre-birth job they worked fewer hours per week on a lower weekly salary for smaller companies, were less often members of a union and report more often that they encountered problems at work while they were pregnant, such as being treated with less respect or having trouble getting information on maternity leave. Mothers who are not entitled to paid maternity leave seem to have lower human capital and thus a lower earnings potential after birth than mothers who are entitled to paid maternity leave. This finding is matched by the characteristics of their pre-birth jobs, that are unequivocally less favourable for non-entitled mothers than for entitled mothers. It is thus reasonable to assume that any differences in post-birth earnings ad work decisions cannot be fully assigned to the effect of entitlement for paid maternity leave.

[Table 2]

There are few significant differences regarding the child's health at the time of birth. Non-entitled mothers are more likely to have suffered from high blood pressure and more likely to have smoked during pregnancy. In all other health measures, there are no significant differences between both groups: children of mothers who are and of mothers who are not entitled for paid maternity leave are equally likely to be born on time, to be born naturally, and to have needed intensive care after birth. The mothers of both groups are similar in alcohol usage during pregnancy, the incidence of diabetes and stress or anxiety, and in whether they gave birth to one or more children. They are equally likely to have had at least ten medical check-us during pregnancy, and their children are of the same birth weight. Problematic circumstances around birth or health problems of the child, that would reasonably expected to affect the timing of return to work and post-birth earnings, do not seem to vary much by mothers' leave entitlement. Regarding their cultural background that might influence norms and attitudes towards non-maternal care, entitled and non-entitled mothers are equally likely to be born in Australia or New Zealand, but non-entitled mothers are less likely to be religious.

As for household characteristics, non-entitled mothers are more often in a de facto relationship to the child's father and less often married to the child's father, but there are no statistically significant differences in terms of single motherhood. Matching their own human capital endowments, non-entitled mothers also live with fathers who are younger and less well educated, indicating that not only is their own earnings potential lower than that of entitled mothers, but also the family's other income is likely to be lower. Such differences in family wealth might affect mother's return to work and should thus be taken into account when estimating the effect of paid maternity leave entitlements. To that effect a matching procedure is applied, and the results are described in the next section.

6 Results of the Matching Procedure

6.1 Matching Quality Indicators

The first step in the matching procedure is to estimate the propensity score, i.e. the probability of being entitled for paid maternity leave. I use a probit model that includes all variables in Table 2.[5] It is crucial for the matching procedure that we have individuals in the control group with propensity scores similar to the ones in the treatment group, over the full range of propensity scores that occur in the treatment group ("common support"). As Figure 1 shows, this is the case. While the distribution of propensity scores clearly varies between treatment and control group, they do share a common support region. However, in the upper tail of the propensity score distribution for the treatment group, the number of available control cases with similar propensity scores is small for propensity scores of 0.85 and higher. I thus exclude the 7% of the treatment observations at which the propensity score density of the control observations is the lowest. This excludes 71 treatment observations with a propensity score of 0.85 and higher.

[Figure 1]

In the next step, observations from the treatment group and control group are matched if they are similar in their propensity score. It is then tested whether the matched samples of treatment and control observations differ in terms of characteristics that might affect their return to work patterns and post-birth wages. There are different matching procedures available. As described in Section 3, I use radius caliper matching, nearest

[5] The results of the probit estimations are reported in Table A.1 in the appendix.

neighbour matching and kernel density matching. The results presented below are based on kernel density matching which yielded the highest matching quality, i.e. the best results in terms of making the samples of treated observations and control observations similar to each other.[6] Table 3 shows measures of the matching quality. The first two columns report the sample means by treatment status together with the standardised bias[7], for each of the matching variables before and after the matching. The fourth column shows by how much the matching procedure reduces the standardised bias. We see that the matching reduces differences between the control observations and the treatment observations in terms of mothers' human capital indicators, pre-birth employer size, weekly salary, union membership and problems with the employer during pregnancy by two thirds to up to almost hundred percent. The standardised bias in weekly working hours and the relative frequency of having received support from the pre-birth employer is not reduced greatly, but differences in these characteristics were negligible even before the matching, and still are after the matching. The reduction in standardised biases is lower for the set of variables concerning the child's and mother's health and the parents' cultural background. However, except smoking behaviour, for which the bias was removed almost completely, there was no significant bias in the health variables even without matching. In the last set of characteristics, household characteristics, the reduction in standardised bias is slightly lower than for mothers' human capital and pre-birth job characteristics, but with at least fifty percent up to almost hundred percent still very high.

[Table 3]

The last column reports the p-value for a t-test for equality of means in the treated and the control group. While many of the characteristics differ for treated observations and control observations on the 0.1%-, 1%- or 5%-level before the matching procedure is applied, all characteristics are balanced at the 10%-level after the matching. Only four out of the fifty-seven characteristics (the frequency of working 20-29 vs. 30-39 hours/week, the child being born on time, and the child's father having a post-graduate degree) differ for both

[6] The results based on nearest neighbour matching using one, three and five neighbours and based on radius caliper matching with a radius caliper of 0.01, 0.005, 0.001 and 0.0005 are available upon request. The results of nearest neighbour matching are very similar to the ones presented here, but the matching procedure is not completely successful in balancing the samples with respect to pre-birth weekly working hours. The matching quality is better for five and three neighbours than for one and generally sufficient, but not as good as with kernel matching. The matching quality with radius caliper matching is unsatisfactory, because either no suitable control observation is found for a large number of treated observations (small radius caliper), or the samples are not balanced in mother's education and pre-birth salary (large radius caliper).

[7] The standardised bias is the difference of the sample means, divided by the square root of the average of the sample variances (Rosenbaum and Rubin, 1985).

samples at the 15%-level, and the absolute standardised bias is less than 10% for them. The matching quality is very high, as the standardised biases are reduced strongly and the two samples of mothers are very similar to each other after the matching.

6.2 Effects of Paid Maternity Leave on Employment and Wages after Matching

After the assessment of the matching quality, we can now compare the outcomes of treated and control units. Entitlement for paid maternity leave significantly reduces the probability of returning to work before the child is three months old. The probability to do so is halved compared to when they are not entitled for any paid maternity leave. Similarly, a return to work before the child is six months old is 40% less likely if the mother is entitled for paid maternity leave then if she is not. The most common age for entitled mothers in the data set to return to work is six to eleven months. This probability is almost 10 percentage points higher than for non-entitled mothers. Mothers with and without eligibility for paid maternity leave do not differ in their probability to return to work when the child is one year or two years old, or in their probability to not have returned to work before the child's third birthday. While entitled mothers are slightly more likely to choose one of these older ages for their return to work or not to return at all, this difference is not significant at the 5%-level. It appears that the main response to eligibility for paid maternity leave is to postpone the return to work by a couple of months or weeks, from the first six months of a child's life to the second six months. There is evidence that delaying the return to work at this very young age of the child is advantageous for the child's health and has also positive effects on cognitive outcomes (Ruhm 2004, Tanaka 2005, Berger et al. 2005, Gregg et al. 2005).

While having those potentially positive effects on the child, paid maternity leave schemes do not seem to have significantly positive effects on mothers' career in the longer term: the policy does not decrease mothers' probability to quit their jobs permanently and leave the labour force for an extended period. This is very much in line with Rønsen and Sundström (2002), Ludsteck and Schönberg (2007) and Lalive et al. (2010) who find for several European countries that most mothers exhaust the maximum period of paid maternity leave that is available to them. However, the policy does not seem to have negative long-term effects on mothers employment either. Instead, employment decisions after the child's first birthday remains largely unaffected.

It is important to note that the comparison of entitled and non-entitled mothers yields an estimate of the ATT, i.e. of the effect of paid maternity leave on mothers who are entitled to it – in this case a sample of highly qualified mothers with high market wages, who also have highly qualified partners. Introducing paid maternity leave for the general population might have different effects, and it is plausible to assume that the effects might be stronger. The mothers in our sample are more likely to be able to afford time off work even if they had no paid maternity leave available to them, so that access to paid leave would not change the actual labour market decision for some of them. In contrast to that, the sample of non-entitled mothers who are lower qualified, in less well paid jobs before the birth, and have lower qualified partners, are more likely to be restricted in their choices without access to leave, and thus likely to be more responsive to a policy that removes such restrictions.

With respect to post-birth wages, it turns out that the effect of paid maternity leave on the sub-sample of entitled mothers is very small and insignificantly negative.[8] This is in line with the majority of studies that investigate the effects of maternity leave on wages, and find no strong effect (Rønsen and Sundström 2002, Baum 2003b, Berger and Waldfogel 2004, Baker and Milligan 2008, Lalive et al. 2010, and Hashimoto et al. 2004). While the whole sample of entitled mothers has considerably and significantly higher wages than non-entitled mothers, the matching procedure reveals that this is not due to any causal effect of paid maternity leave on post-birth wages, but entirely the result of other pre-birth characteristics that result in endogenous sorting into different leave entitlement schemes. Again, it is important to note that this is a treatment effect on the treated, and the population of currently non-entitled mothers might be affected differently by the introduction of a paid maternity leave scheme for them. However, given their lower market wages and lower human capital before the birth, it is plausible to assume that their loss of human capital would be even lower and thus any effect on their incomes should be smaller than for this sample of high-skilled women.

[Table 4]

6.3 Is the Set of Matching Variables Sufficient to Assume Conditional Independence?

[8] I use the exact same matching procedure for the analysis of wages as for the analysis of return to work patterns, but on a somewhat smaller sample of mothers who are employed in wave 3. Measures of the matching quality for this sub-sample (analogous to what is reported in Table 3) are shown in Table A.2 in the Appendix.

A noticeable result from the matching procedure for the timing of return to work is that the estimates hardly differ from those resulting from the 'naive' estimator, i.e. from comparing entitled and non-entitled mothers without controlling any other characteristics. This means that the characteristics included in the matching procedure - although strongly related to leave entitlement as shown in Table 2 - do not have a substantial influence on the timing of return to work. The aim of this study is not to explain the return to work patterns, but to estimate the effect of paid maternity leave on them, so this is not necessarily a problem. As long as the unobserved characteristics that *do* determine when a mother returns to work are not related to entitlement for paid maternity leave, the conditional independence assumption is fulfilled and the estimates are unbiased. But the fact that none of the included characteristics seems to be closely related to the return to work patterns raises some doubt whether this is the case. While it is perfectly possible that the sorting into different leave schemes is indeed not related to characteristics that also determine how much time a mother takes off after birth, it is also possible that the joint determinants are not sufficiently controlled for in the matching.

The most important characteristic that one might suspect to be insufficiently controlled for is attitude towards non-maternal care, because the proxies included in the model represent attitudes only in a very broad sense. LSAC asks mothers to what extent they agree with the statements "Only a mother just naturally knows how to comfort her distressed child" and "A child is likely to get upset when he/she is left with a babysitter or carer." There are also measures of trust, happiness of their relationship, whether they feel closely attached to family and friends, and whether they feel a lack of support in their life. All these characteristics capture whether a mother will consider non-maternal care a valid option for her child in a much more direct way than the variables 'country of birth' and 'regular attendance of religious services' do. Unfortunately, these questions are asked only after the mother has (or has not) taken maternity leave. The experience of being at home on leave or of giving the child in other care might have influenced the mother's attitudes towards non-maternal care, so that any possible difference in attitudes between the treated and control observations after the treatment might be a result of a specific leave scheme. The variables therefore cannot be included in the matching procedure. However, if the two sub-samples are similar in attitudes even *after* the treatment, it is plausible to assume that they were similar in attitudes before the treatment as well, regardless of whether these characteristics were used for the matching. Using the same matched sample as in Table 3, Table 5 presents the sample means for treated

and control cases, the standardised bias and t-tests of equality of means in the two samples for the available measures of attitudes as described above. The matched sample is well balanced in all of those variables after the treatment. Treated and control cases are thus likely to have been similar in those characteristics before the differential experience with maternity leave as well, which corroborates that the estimated effects of maternity leave are not confounded by variations in insufficiently controlled attitudes.

[Table 5]

7 Summary and Conclusions

This study analyses the effect of paid maternity leave on the decision to return to work and wages after birth using a statistical matching approach. The estimation procedure compares mothers who are similar in an extensive range of pre-birth job characteristics and measures of mothers' human capital, in their health situation and health behaviour during pregnancy and who do not differ significantly with respect to birth circumstances, nor with respect to their family situation and partner characteristics. The matching quality is very high, and the estimation sample is well-balanced in a wide range of measures for attitudes towards non-maternal care. This is the first study that analyses the effects of paid maternity leave in Australia that accounts for endogenous selection into eligibility for paid maternity leave.

I find that the employer-provided, relatively short, paid maternity leave schemes that are in place in Australia create an incentive to delay the return to work by a couple of weeks or months, mainly from the first half of a child's first year to the second half. At the same time, there is no effect on long-term employment or wages after a child's first birthday. Neither is there any evidence that mothers labour market attachment is improved a great deal, nor do there seem to be any deleterious effects on employment prospects or wages in the long-run. This result is in line with several studies for the U.S. and Canada, where - in contrast to most European countries that tend to have much longer leave policies – paid maternity leave schemes are typically of similarly short length as in Australia (Waldfogel 1999, Baum 2003b, Berger and Waldfogel 2004, Hashimoto et al. 2004, Baker and Milligan 2008) Previous research has shown that time spent with an infant in this early period of a child's life has positive effects on child health and development (Ruhm 2004, Tanaka 2005, Berger et al. 2005, Gregg et al. 2005). Furthermore, the costs of such relatively short programs are manageable. A nationwide,

fourteen week long maternity leave scheme paid at the federal minimum wage is estimated to cost AUD$460 million per year, before taking savings of other government outlays (e.g. child care subsidies or baby bonus payments) into account, which further reduce the net costs of the program (Lloyd et al. 2002).

What does that mean for the question whether provision of paid maternity leave is a good policy? It means that this question is to be answered in view of other life dimensions than in view of mothers' careers: does it improve the child's or the mother's health? Does it foster social or cognitive development of the child? Does it have a positive influence on the relationship between parents, or on their life satisfaction? None of these questions are answered in this analysis, but this analysis shows: if any positive effects occur in these domains, they do not come at the cost of significant losses in wages or employment prospects. Given the relatively low direct costs of short maternity leave programs and these virtually zero long-term costs in terms of mothers' labour market position, we can conclude that paid maternity leave in the form as it is analysed here is a policy that achieves its goal, to enable mothers to spend time with their children when they are very young, at low overall costs.

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Figure 1 Propensity Score by Treatment Status – Common Support

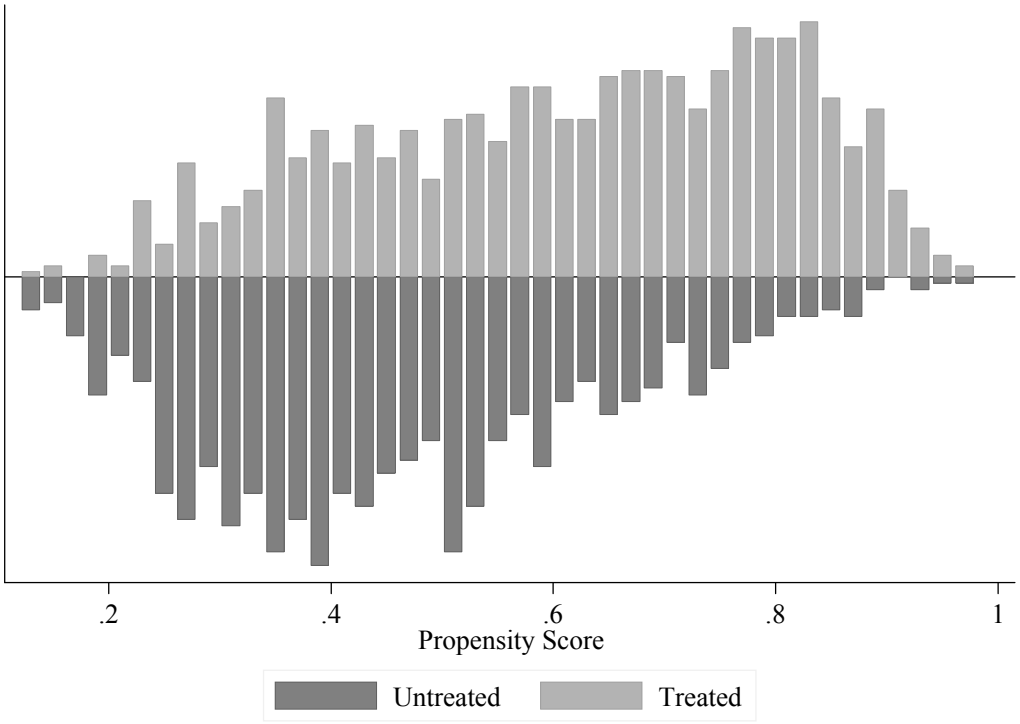

Table 1 Return to Work Patterns and Post-Birth Wages by Entitlement for Paid Maternity Leave

	Eligible for paid maternity leave	
Relative frequency of a return to work when the child was...	No	Yes
...0 to 2 months old	0.125	0.066
...3 to 5 months old	0.266	0.172
...6 to 11 months old	0.289	0.389
...12 to 23 months old	0.114	0.152
...24 to 35 months old	0.059	0.060
No return to work before child was 36 months old	0.147	0.161
Number of observations	842	1018
Average weekly salary in wave 3, given employment in wave3 (in AUD)	681.39	849.30
Number of observations	549	721

Table 2 Labour Market, Health and Household Characteristics by Entitlement for Paid Maternity Leave

	Eligible for paid maternity			Std.	p-
	No	Yes	Diff	Err.	value
Mother's human capital					
Mother's age at birth of child					
youngest quartile	0.285	0.204	0.081**	0.020	0.000
second quartile	0.251	0.263	-0.013	0.020	0.534
third quartile	0.243	0.256	-0.013	0.020	0.522
oldest quartile	0.221	0.276	-0.055**	0.020	0.006
Mother's education					
no trade certificate, Year 12 not finished	0.099	0.070	0.029*	0.013	0.025
no trade certificate, Year 12 finished	0.160	0.110	0.050**	0.016	0.001
trade certificate, Year 12 not finished	0.121	0.071	0.050**	0.014	0.000
trade certificate, Year 12 finished	0.170	0.092	0.077**	0.015	0.000
advanced diploma/ diploma	0.107	0.094	0.013	0.014	0.368
bachelor degree	0.200	0.328	-0.129**	0.020	0.000
graduate diploma/ certificate	0.071	0.091	-0.020	0.013	0.116
post-graduate degree	0.072	0.143	-0.071**	0.015	0.000
Pre-birth job characteristics					
Size of employer					
<=5 employees	0.094	0.056	0.038**	0.012	0.002
5-19 employees	0.238	0.111	0.127**	0.017	0.000
20-99 employees	0.219	0.159	0.059**	0.018	0.001
100-499 employees	0.151	0.148	0.003	0.017	0.880
>=500 employees	0.299	0.526	-0.226**	0.022	0.000
Weekly hours of work					
<10 hours/week	0.051	0.042	0.009	0.010	0.367
10-19 hours/week	0.144	0.121	0.023	0.016	0.146
20-29 hours/week	0.165	0.178	-0.013	0.018	0.470
30-39 hours/week	0.369	0.358	0.012	0.022	0.599
40-49 hours/week	0.232	0.243	-0.011	0.020	0.578
>=50 hours/week	0.039	0.059	-0.020°	0.010	0.052
Weekly salary, before tax	623.69	818.96	-195.26**	20.38	0.000
Union membership (1=yes)	0.202	0.435	-0.233**	0.021	0.000
Received support from employer while pregnant (1=yes)	0.501	0.536	-0.035	0.023	0.131
Had problems with employer while pregnant (1=yes)	0.274	0.226	0.048*	0.020	0.016

Table 2 Labour Market, Health and Household Characteristics by Entitlement for Paid Maternity Leave – continued.

Health around birth and during pregnancy					
Child is male (1=yes)	0.533	0.515	0.019	0.023	0.426
Child was born on time (37-41 weeks of pregnancy; 1=yes)	0.894	0.888	0.006	0.015	0.666
Child needed intensive care after birth	0.170	0.161	0.009	0.017	0.614
Birth was not a single birth (1= twins, triplets,... 0=single birth)	0.031	0.037	-0.006	0.008	0.448
Birth was natural (1=yes, 0=no: caesarean, breech, forceps, vacuum extraction)	0.587	0.574	0.013	0.023	0.571
Birth weight					
lowest quartile	0.246	0.240	0.006	0.020	0.758
second quartile	0.247	0.254	-0.007	0.020	0.715
third quartile	0.249	0.252	-0.003	0.020	0.880
highest quartile	0.258	0.253	0.004	0.020	0.833
>=10 medical visits/check-ups during pregnancy	0.214	0.224	-0.01	0.019	0.597
Mothered suffered from ... during pregnancy					
Diabetes	0.055	0.045	0.009	0.010	0.350
High blood pressure requiring treatment	0.091	0.061	0.031*	0.012	0.013
Stress, anxiety or depression	0.164	0.143	0.020	0.017	0.222
Mother smoked during pregnancy					
never	0.867	0.901	-0.034*	0.015	0.023
less than once a week for entire pregnancy	0.018	0.014	0.004	0.006	0.482
at least once a week at least during some time of pregnancy	0.115	0.085	0.030*	0.014	0.032
Mother drank alcohol during pregnancy					
never	0.552	0.522	0.031	0.023	0.187
less than once a week for entire pregnancy	0.308	0.315	-0.008	0.022	0.721
at least once a week at least during some time of pregnancy	0.140	0.163	-0.023	0.017	0.171
Cultural background					
Mother born in AUS/NZ	0.855	0.876	-0.021	0.016	0.182
Father born in AUS/NZ	0.876	0.852	0.025	0.016	0.122
Mother attends religious service regularly	0.166	0.215	-0.049**	0.018	0.008
Father attends religious service regularly	0.114	0.159	-0.045**	0.016	0.005
Household demographics					
Mother's relationship to child's father					
there is no father/ no relationship with child's father	0.058	0.043	0.015	0.010	0.140
child's father is mother's husband	0.767	0.825	-0.058**	0.019	0.002
child's father is mother's de facto partner	0.175	0.132	0.043*	0.017	0.010
Mother is in a long-term relationship with child's father (at least one year at time of conception)	0.103	0.078	0.026°	0.013	0.053
Child has siblings (1=yes)	0.444	0.482	-0.038	0.023	0.101
Father's age at birth of child					
youngest quartile	0.279	0.222	0.057**	0.020	0.005
second quartile	0.243	0.249	-0.005	0.020	0.801
third quartile	0.254	0.261	-0.007	0.020	0.726
oldest quartile	0.223	0.268	-0.045*	0.020	0.026
Father's education					
no trade certificate, Year 12 not finished	0.184	0.128	0.056**	0.017	0.001
no trade certificate, Year 12 finished	0.120	0.098	0.022	0.014	0.133
trade certificate, Year 12 not finished	0.224	0.175	0.050**	0.019	0.007
trade certificate, Year 12 finished	0.137	0.127	0.010	0.016	0.531
advanced diploma/ diploma	0.074	0.093	-0.020	0.013	0.129
bachelor degree	0.148	0.210	-0.062**	0.018	0.001
graduate diploma/ certificate	0.053	0.076	-0.022°	0.012	0.054
post-graduate degree	0.059	0.093	-0.034**	0.012	0.007

Table 3 Variables Included in the Matching Procedure by Treatment Status (Full Sample)

	Eligible for paid maternity leave		Standardised bias (in %)	Reduction of |bias| (in %)	p-value (H0: bias=0)
	No	Yes			
	Sample before matching				
	Matched Sample				
Mother's human capital					
Mother's age at birth of child					
youngest quartile	*0.285*	*0.204*	*-18.8*		*0.000*
	0.225	**0.215**	**-2.2**	**88.4**	**0.622**
second quartile	*0.251*	*0.263*	*2.9*		*0.534*
	0.277	**0.266**	**-2.6**	**11.1**	**0.582**
third quartile	*0.243*	*0.256*	*3.0*		*0.522*
	0.245	**0.257**	**2.6**	**13.9**	**0.577**
oldest quartile	*0.221*	*0.276*	*12.8*		*0.006*
	0.252	**0.262**	**2.2**	**82.7**	**0.636**
Mother's education					
no trade certificate, Year 12 not finished	*0.099*	*0.070*	*-10.4*		*0.025*
	0.071	**0.075**	**1.3**	**87.2**	**0.759**
no trade certificate, Year 12 finished	*0.160*	*0.110*	*-14.7*		*0.001*
	0.118	**0.115**	**-0.7**	**95.2**	**0.869**
trade certificate, Year 12 not finished	*0.121*	*0.071*	*-17.2*		*0.000*
	0.092	**0.076**	**-5.4**	**68.8**	**0.217**
trade certificate, Year 12 finished	*0.170*	*0.092*	*-23.1*		*0.000*
	0.096	**0.099**	**1.0**	**95.8**	**0.810**
advanced diploma/ diploma	*0.107*	*0.094*	*-4.2*		*0.368*
	0.095	**0.099**	**1.5**	**64.1**	**0.740**
bachelor degree	*0.200*	*0.328*	*29.5*		*0.000*
	0.306	**0.312**	**1.3**	**95.6**	**0.791**
graduate diploma/ certificate	*0.071*	*0.091*	*7.4*		*0.116*
	0.094	**0.094**	**0.1**	**98.1**	**0.978**
post-graduate degree	*0.072*	*0.143*	*23.0*		*0.000*
	0.129	**0.130**	**0.2**	**99.0**	**0.965**
Pre-birth job characteristics					
Size of employer					
<=5 employees	*0.094*	*0.056*	*-14.4*		*0.002*
	0.063	**0.060**	**-1.1**	**92.2**	**0.791**
5-19 employees	*0.238*	*0.111*	*-33.8*		*0.000*
	0.129	**0.118**	**-2.8**	**91.8**	**0.492**
20-99 employees	*0.219*	*0.159*	*-15.2*		*0.001*
	0.163	**0.170**	**1.9**	**87.8**	**0.672**
100-499 employees	*0.151*	*0.148*	*-0.7*		*0.880*
	0.156	**0.152**	**-1.2**	**-73.2**	**0.794**
>=500 employees	*0.299*	*0.526*	*47.2*		*0.000*
	0.489	**0.499**	**2.2**	**95.4**	**0.650**
Weekly hours of work					
<10 hours/week	*0.051*	*0.042*	*-4.2*		*0.367*
	0.052	**0.044**	**-3.6**	**13.5**	**0.438**
10-19 hours/week	*0.144*	*0.121*	*-6.8*		*0.146*
	0.142	**0.129**	**-3.8**	**43.7**	**0.413**
20-29 hours/week	*0.165*	*0.178*	*3.4*		*0.470*
	0.204	**0.176**	**-7.5**	**-121.0**	**0.119**
30-39 hours/week	*0.369*	*0.358*	*-2.5*		*0.599*
	0.326	**0.356**	**6.2**	**-154.2**	**0.169**
40-49 hours/week	*0.232*	*0.243*	*2.6*		*0.578*
	0.218	**0.241**	**5.4**	**-107.9**	**0.235**
>=50 hours/week	*0.039*	*0.059*	*9.1*		*0.052*
	0.058	**0.054**	**-2.0**	**78.2**	**0.684**

Table 3 Variables Included in the Matching Procedure by Treatment Status (Full Sample) – continued.

Weekly salary, before tax	*623.69*	*818.96*	*45.0*		*0.000*
	749.54	**771.01**	**4.9**	**89.0**	**0.310**
Union membership (1=yes)	*0.202*	*0.435*	*51.7*		*0.000*
	0.392	**0.394**	**0.4**	**99.3**	**0.938**
Received support from employer during pregnancy (1=yes)	*0.501*	*0.536*	*7.0*		*0.131*
	0.502	**0.526**	**4.9**	**30.8**	**0.290**
Had problems with employer during pregnancy (1=yes)	*0.274*	*0.226*	*-11.2*		*0.016*
	0.223	**0.230**	**1.6**	**86.0**	**0.726**
Health around birth and during pregnancy					
Child is male (1=yes)	*0.533*	*0.515*	*-3.7*		*0.426*
	0.530	**0.516**	**-2.7**	**26.4**	**0.553**
Child was born on time (37-41 weeks of pregnancy; 1=yes)	*0.894*	*0.888*	*-2.0*		*0.666*
	0.871	**0.891**	**6.4**	**-216.6**	**0.181**
Child needed intensive care after birth	*0.170*	*0.161*	*-2.3*		*0.614*
	0.167	**0.161**	**-1.8**	**21.3**	**0.686**
Birth was not a single birth	*0.031*	*0.037*	*3.6*		*0.448*
	0.032	**0.035**	**1.8**	**48.4**	**0.686**
Birth was natural (1=yes, 0=no: caesarean, breech, forceps, vacuum extraction)	*0.587*	*0.574*	*-2.6*		*0.571*
	0.590	**0.586**	**-0.8**	**69.6**	**0.861**
Birth weight					
lowest quartile	*0.246*	*0.240*	*-1.4*		*0.758*
	0.235	**0.239**	**0.8**	**43.0**	**0.858**
second quartile	*0.247*	*0.254*	*1.7*		*0.715*
	0.252	**0.249**	**-0.7**	**58.6**	**0.878**
third quartile	*0.249*	*0.252*	*0.7*		*0.880*
	0.266	**0.253**	**-2.9**	**-308.9**	**0.536**
highest quartile	*0.258*	*0.253*	*-1.0*		*0.833*
	0.247	**0.259**	**2.8**	**-180.6**	**0.548**
>=10 medical visits/check-ups during pregnancy	*0.214*	*0.224*	*2.5*		*0.597*
	0.221	**0.224**	**0.8**	**67.1**	**0.861**
Mothered suffered from ... during pregnancy					
Diabetes	*0.055*	*0.045*	*-4.3*		*0.350*
	0.039	**0.045**	**3.0**	**31.5**	**0.484**
High blood pressure requiring treatment	*0.091*	*0.061*	*-11.5*		*0.013*
	0.059	**0.063**	**1.8**	**84.3**	**0.663**
Stress, anxiety or depression	*0.164*	*0.143*	*-5.7*		*0.222*
	0.155	**0.150**	**-1.3**	**76.9**	**0.774**
Mother smoked pregnancy					
never	*0.867*	*0.901*	*10.6*		*0.023*
	0.900	**0.899**	**-0.5**	**94.8**	**0.900**
less than once a week for entire pregnancy	*0.018*	*0.014*	*-3.3*		*0.482*
	0.012	**0.013**	**0.2**	**94.0**	**0.962**
at least once a week at least during some time of pregnancy	*0.115*	*0.085*	*-9.9*		*0.032*
	0.087	**0.089**	**0.5**	**95.0**	**0.908**
Mother drank alcohol during pregnancy					
never	*0.552*	*0.522*	*-6.1*		*0.187*
	0.514	**0.527**	**2.6**	**57.5**	**0.570**
less than once a week for entire pregnancy	*0.308*	*0.315*	*1.7*		*0.721*
	0.318	**0.319**	**0.2**	**85.2**	**0.957**
at least once a week at least during some time of pregnancy	*0.140*	*0.163*	*6.4*		*0.171*
	0.168	**0.154**	**-4.0**	**38.1**	**0.402**
Cultural background					
Mother born in AUS/NZ	*0.855*	*0.876*	*6.2*		*0.182*
	0.870	**0.880**	**3.0**	**52.2**	**0.508**
Father born in AUS/NZ	*0.876*	*0.852*	*-7.2*		*0.122*
	0.837	**0.853**	**4.7**	**34.6**	**0.330**

Table 3 Variables Included in the Matching Procedure by Treatment Status (Full Sample) – continued.

Mother attends religious service regularly	*0.166*	*0.215*	*12.5*		*0.008*
	0.211	**0.208**	**-0.7**	**94.7**	**0.890**
Father attends religious service regularly	*0.114*	*0.159*	*13.2*		*0.005*
	0.159	**0.150**	**-2.6**	**80.4**	**0.594**
Household demographics					
Mother's relationship to child's father					
there is no father, or mother is not in a relationship with child's father	*0.058*	*0.043*	*-6.8*		*0.140*
	0.050	**0.042**	**-3.7**	**45.6**	**0.399**
child's father is mother's husband	*0.767*	*0.825*	*14.4*		*0.002*
	0.820	**0.826**	**1.3**	**90.9**	**0.763**
child's father is mother's de facto partner	*0.175*	*0.132*	*-11.9*		*0.010*
	0.129	**0.132**	**0.8**	**93.3**	**0.854**
Mother is in a long-term relationship with child's father (at least a year at time of	*0.103*	*0.078*	*-9.0*		*0.053*
	0.084	**0.077**	**-2.3**	**74.4**	**0.598**
Child has siblings (1=yes)	*0.444*	*0.482*	*7.6*		*0.101*
	0.488	**0.483**	**-1.1**	**85.3**	**0.807**
Father's age at birth of child					
youngest quartile	*0.279*	*0.222*	*-13.2*		*0.005*
	0.246	**0.223**	**-5.4**	**59.2**	**0.232**
second quartile	*0.243*	*0.249*	*1.2*		*0.801*
	0.253	**0.252**	**-0.2**	**81.7**	**0.963**
third quartile	*0.254*	*0.261*	*1.6*		*0.726*
	0.253	**0.262**	**2.1**	**-27.3**	**0.651**
oldest quartile	*0.223*	*0.268*	*10.4*		*0.026*
	0.248	**0.263**	**3.5**	**66.3**	**0.450**
Father's education					
no trade certificate, Year 12 not finished	*0.184*	*0.128*	*-15.6*		*0.001*
	0.134	**0.132**	**-0.6**	**96.0**	**0.884**
no trade certificate, Year 12 finished	*0.120*	*0.098*	*-7.0*		*0.133*
	0.088	**0.101**	**4.3**	**38.1**	**0.318**
trade certificate, Year 12 not finished	*0.224*	*0.175*	*-12.4*		*0.007*
	0.193	**0.188**	**-1.3**	**89.7**	**0.777**
trade certificate, Year 12 finished	*0.137*	*0.127*	*-2.9*		*0.531*
	0.126	**0.128**	**0.6**	**80.3**	**0.899**
advanced diploma/ diploma	*0.074*	*0.093*	*7.1*		*0.129*
	0.094	**0.094**	**-0.1**	**98.9**	**0.987**
bachelor degree	*0.148*	*0.210*	*16.1*		*0.001*
	0.194	**0.195**	**0.4**	**97.3**	**0.928**
graduate diploma/ certificate	*0.053*	*0.076*	*9.0*		*0.054*
	0.066	**0.076**	**4.1**	**54.4**	**0.391**
post-graduate degree	*0.059*	*0.093*	*12.8*		*0.007*
	0.105	**0.086**	**-7.4**	**42.4**	**0.148**

Table 4 Matching Results

	Controls	Treated	Diff	Std.Err.	t-value	p-value
Relative frequency of a return to work when the child was...	*Sample before matching*					
	Matched Sample					
	0.125	*0.066*	*-0.059*	*0.013*	*-4.38*	*0.000*
...0 to 2 months old	**0.120**	**0.064**	**-0.056**	**0.018**	**-3.14**	**0.002**
	0.266	*0.172*	*-0.094*	*0.019*	*-4.95*	*0.000*
...3 to 5 months old	**0.268**	**0.167**	**-0.101**	**0.024**	**-4.15**	**0.000**
	0.289	*0.389*	*0.100*	*0.022*	*4.56*	*0.000*
...6 to 11 months old	**0.289**	**0.386**	**0.097**	**0.027**	**3.61**	**0.000**
	0.114	*0.152*	*0.038*	*0.016*	*2.41*	*0.016*
...12 to 23 months old	**0.136**	**0.151**	**0.015**	**0.019**	**0.81**	**0.418**
	0.059	*0.060*	*0.001*	*0.011*	*0.05*	*0.960*
...24 to 35 months old	**0.049**	**0.063**	**0.014**	**0.014**	**1.00**	**0.317**
	0.147	*0.161*	*0.014*	*0.017*	*0.82*	*0.412*
No return to work before child was 36 months old	**0.137**	**0.168**	**0.030**	**0.021**	**1.46**	**0.145**
	681.39	*849.30*	*167.91*	*35.42*	*4.74*	*0.000*
Average weekly salary in wave 3, given employment in wave3 (in AUD)	**862.13**	**813.03**	**-49.10**	**45.12**	**-1.09**	**0.276**

Table 5 Additional Characteristics not Included in the Matching Procedure by Treatment Status (Full Sample)

	Eligible for paid maternity leave		Standardised bias (in %)	p-value
	No	Yes		
	Sample before matching			
	Matched Sample			
To what extent do you agree or disagree with the following statements?				
Only a mother just naturally knows how to comfort her distressed child.				
Strongly agree	*0.123*	*0.097*	*-8.2*	*0.081*
	0.116	**0.099**	**-5.5**	**0.237**
Agree	*0.231*	*0.216*	*-3.4*	*0.467*
	0.194	**0.223**	**7.1**	**0.117**
Neither agree nor disagree	*0.201*	*0.228*	*6.4*	*0.177*
	0.205	**0.223**	**4.4**	**0.342**
Disagree	*0.407*	*0.412*	*1.0*	*0.834*
	0.435	**0.410**	**-5.1**	**0.279**
Strongly disagree	*0.038*	*0.047*	*4.4*	*0.354*
	0.051	**0.045**	**-2.9**	**0.556**
A child is likely to get upset when he/she is left with a babysitter or carer.				
Strongly agree	*0.054*	*0.053*	*-0.4*	*0.931*
	0.059	**0.056**	**-1.6**	**0.743**
Agree	*0.220*	*0.215*	*-1.0*	*0.825*
	0.213	**0.218**	**1.2**	**0.802**
Neither agree nor disagree	*0.256*	*0.266*	*2.2*	*0.636*
	0.255	**0.265**	**2.2**	**0.630**
Disagree	*0.438*	*0.428*	*-2.1*	*0.655*
	0.441	**0.424**	**-3.4**	**0.464**
Strongly disagree	*0.032*	*0.038*	*3.2*	*0.503*
	0.031	**0.037**	**3.2**	**0.493**
Thinking about your close family (parents and brothers or sisters) living elsewhere, how do these descriptions fit for you?				
I feel closely attached to my family.				
Strongly agree	*0.647*	*0.628*	*-4.0*	*0.398*
	0.648	**0.629**	**-4.0**	**0.387**
Agree	*0.192*	*0.230*	*9.2*	*0.051*
	0.201	**0.220**	**4.5**	**0.325**
Neither agree nor disagree	*0.097*	*0.091*	*-2.0*	*0.668*
	0.090	**0.096**	**2.2**	**0.631**
Disagree	*0.042*	*0.039*	*-1.4*	*0.757*
	0.039	**0.042**	**1.5**	**0.753**
Strongly disagree	*0.023*	*0.013*	*-7.3*	*0.113*
	0.022	**0.013**	**-6.5**	**0.150**
Thinking about your friends, how do these descriptions fit for you?				
I feel closely attached to my friends.				
Strongly agree	*0.393*	*0.428*	*7.2*	*0.125*
	0.410	**0.426**	**3.2**	**0.488**
Agree	*0.364*	*0.357*	*-1.5*	*0.747*
	0.381	**0.357**	**-4.9**	**0.286**
Neither agree nor disagree	*0.183*	*0.159*	*-6.2*	*0.181*
	0.163	**0.160**	**-0.6**	**0.896**
Disagree	*0.049*	*0.050*	*0.7*	*0.885*
	0.037	**0.050**	**6.1**	**0.160**
Strongly disagree	*0.012*	*0.006*	*-6.4*	*0.165*
	0.009	**0.006**	**-3.1**	**0.467**

Table 5 Additional Characteristics not Included in the Matching Procedure by Treatment Status (Full Sample) – continued.

How much do you agree that...				
Most people in your neighbourhood can be trusted?				
Strongly agree	*0.067*	*0.076*	*3.6*	*0.438*
	0.071	**0.074**	**1.3**	**0.787**
Agree	*0.386*	*0.426*	*8.3*	*0.076*
	0.391	**0.426**	**7.1**	**0.122**
Neither agree nor disagree	*0.449*	*0.425*	*-4.7*	*0.313*
	0.460	**0.428**	**-6.6**	**0.155**
Disagree	*0.073*	*0.061*	*-4.6*	*0.326*
	0.059	**0.061**	**0.4**	**0.919**
Strongly disagree	*0.026*	*0.011*	*-11.4*	*0.013*
	0.018	**0.012**	**-5.1**	**0.226**
How often do you feel that you need support or help but can't get it from anyone?				
Very often	*0.016*	*0.015*	*-0.4*	*0.935*
	0.010	**0.015**	**4.2**	**0.331**
Often	*0.053*	*0.049*	*-2.1*	*0.660*
	0.046	**0.048**	**0.8**	**0.871**
Sometimes	*0.434*	*0.457*	*4.5*	*0.354*
	0.444	**0.455**	**2.1**	**0.661**
Never	*0.497*	*0.479*	*-3.5*	*0.479*
	0.500	**0.483**	**-3.5**	**0.471**
Which best describes the degree of happiness, all things considered, in your relationship?				
Extremely unhappy, fairly unhappy, or a little unhappy	*0.049*	*0.057*	*3.3*	*0.487*
	0.032	**0.058**	**11.4**	**0.009**
Happy	*0.127*	*0.104*	*-6.9*	*0.147*
	0.126	**0.108**	**-5.7**	**0.230**
Very happy	*0.239*	*0.251*	*2.8*	*0.560*
	0.223	**0.254**	**7.3**	**0.121**
Extremely happy	*0.449*	*0.451*	*0.3*	*0.950*
	0.458	**0.446**	**-2.5**	**0.590**
Perfectly happy	*0.135*	*0.137*	*0.3*	*0.949*
	0.160	**0.134**	**-7.6**	**0.121**

Appendix

Derivation of the treatments status

Eligibility for paid maternity leave is not asked directly in LSAC. However, it is possible to derive the treatment status from a combination of questions regarding leave that was actually taken, and the reasons for not taking a specific form of leave. I used the following rules:

1. Mothers who took paid maternity leave are assumed to have been eligible to do so.
2. Mothers who took maternity leave, but only unpaid maternity leave, are assumed to have not been entitled to paid leave, because there is no immediate reason to prefer unpaid absence from work over paid absence from work.
3. Mothers who took leave, but not maternity leave, are assumed to have been not eligible for paid maternity leave, if they indicate that one reason (possibly among other reasons) for not taking maternity leave was i) that they were not eligible, or ii) that paid leave was not available to them, or iii) that they were self-employed. If they do not indicate that any of those three applied to them, they are assumed to have been eligible.
4. Mothers who did not take any leave around the birth of their child are assumed to have been not eligible for paid maternity leave if they state that their reason for not taking any leave was i) that they did not have access to any leave, or ii) that they were dismissed during pregnancy, or iii) that they were self-employed. If they state that their reason was that they quit their job during pregnancy, I assume that they did not have access to leave if they also indicate that a lack of maternity leave was one reason (possibly among others) for them to quit. If a lack of maternity leave was not among the reasons why they quit, I assume they had been eligible. For all other reasons, I do not make an assumption and exclude the observation from the estimation, reducing the sample by 7%.

Figure A.1 illustrates the derivation of the treatment status. The last row gives the number of observations determined according to each of the rules.

Figure A.1. Derivation of Treatment Status

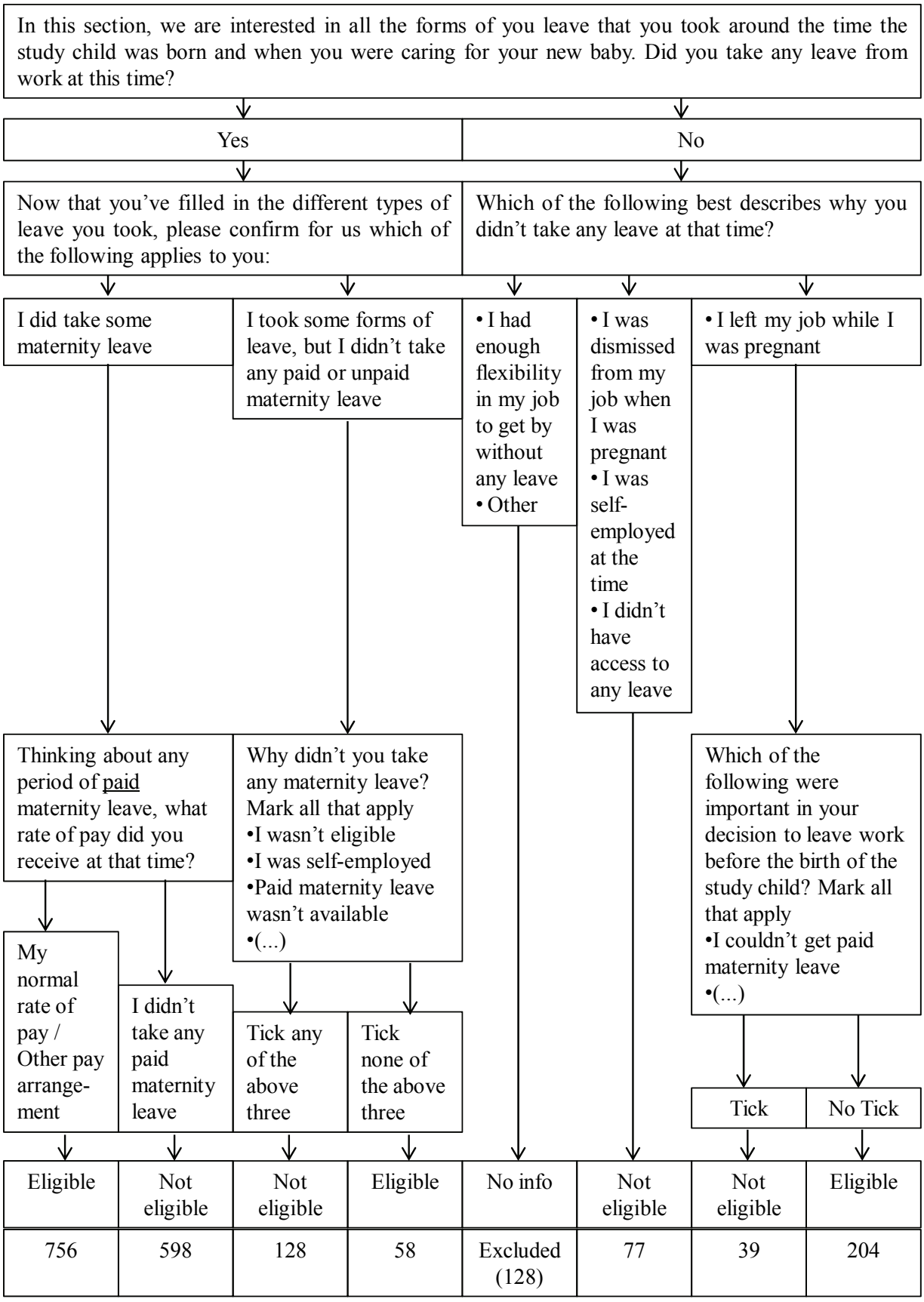

Table A.1 Propensity Score Estimation – Results

	Coeff.	Std.Err.	t-value	p-value
Mother's age at birth of child (reference: oldest quartile)				
youngest quartile	-0.050	0.115	-0.44	0.662
second quartile	0.008	0.101	0.08	0.936
third quartile	-0.040	0.094	-0.42	0.672
Mother's education (reference: postgraduate degree)				
no trade certificate, Year 12 not finished	-0.266	0.159	-1.67	0.094
no trade certificate, Year 12 finished	-0.251	0.144	-1.75	0.080
trade certificate, Year 12 not finished	-0.305	0.154	-1.98	0.048
trade certificate, Year 12 finished	-0.370	0.143	-2.59	0.010
advanced diploma/ diploma	-0.166	0.147	-1.13	0.259
bachelor degree	-0.047	0.120	-0.39	0.697
graduate diploma/ certificate	-0.152	0.151	-1.01	0.315
Pre-birth job characteristics				
Size of employer (reference: >=500 employees)				
<=5 employees	-0.357	0.127	-2.82	0.005
5-19 employees	-0.631	0.094	-6.74	0.000
20-99 employees	-0.385	0.088	-4.36	0.000
100-499 employees	-0.305	0.093	-3.27	0.001
Weekly hours of work (reference: >=50 hours/week)				
<10 hours/week	0.405	0.237	1.71	0.088
10-19 hours/week	0.272	0.201	1.35	0.176
20-29 hours/week	0.289	0.186	1.56	0.119
30-39 hours/week	0.111	0.164	0.68	0.498
40-49 hours/week	-0.072	0.161	-0.45	0.652
Weekly salary, before tax	0.001	0.000	5.38	0.000
Union membership (1=yes)	0.499	0.071	7.03	0.000
Received support from employer while pregnant (1=yes)	0.121	0.064	1.90	0.058
Had problems with employer while pregnant (1=yes)	-0.202	0.075	-2.71	0.007
Health around birth and during pregnancy				
Child is male (1=yes)	-0.037	0.063	-0.59	0.557
Child was born on time (37-41 weeks of pregnancy; 1=yes)	-0.075	0.107	-0.70	0.484
Child needed intensive care after birth	0.002	0.092	0.02	0.982
Birth was not a single birth (1= twins, triplets,... 0=single birth)	-0.063	0.195	-0.33	0.745
Birth was natural (1=yes, 0=no: caesarean, breech, forceps, vacuum	-0.048	0.067	-0.72	0.472
Birth weight (reference: highest quartile)				
lowest quartile	0.031	0.096	0.32	0.746
second quartile	0.075	0.089	0.84	0.400
third quartile	0.035	0.088	0.40	0.690
>=10 medical visits/check-ups during pregnancy	-0.039	0.076	-0.51	0.607
Mothered suffered from ... during pregnancy				
Diabetes	-0.133	0.147	-0.91	0.365
High blood pressure requiring treatment	-0.217	0.121	-1.79	0.073
Stress, anxiety or depression	-0.071	0.088	-0.81	0.417
Mother smoked during pregnancy (reference: at least once a week at least during some time of pregnancy)				
never	-0.129	0.111	-1.16	0.245
less than once a week for entire pregnancy	0.038	0.272	0.14	0.888
Mother drank alcohol during pregnancy (reference: at least once a week at least during some time of pregnancy)				
never	0.022	0.096	0.23	0.820
less than once a week for entire pregnancy	-0.013	0.099	-0.13	0.896

Cultural background				
Mother born in AUS/NZ	0.238	0.098	2.42	0.016
Father born in AUS/NZ	-0.055	0.096	-0.58	0.565
Mother attends religious service regularly	0.027	0.119	0.22	0.823
Father attends religious service regularly	0.109	0.137	0.80	0.425
Household demographics				
Mother's relationship to child's father (reference: child's father is mother's de facto partner)				
there is no father/ no relationship with child's father	0.027	0.235	0.12	0.907
child's father is mother's husband	0.043	0.094	0.46	0.646
Mother is in a long-term relationship with child's father (at least one	0.172	0.170	1.01	0.311
Child has siblings (1=yes)	0.069	0.080	0.87	0.385
Father's age at birth of child (reference: oldest quartile)				
youngest quartile	-0.018	0.117	-0.16	0.875
second quartile	-0.023	0.101	-0.23	0.819
third quartile	-0.073	0.092	-0.79	0.427
Father's education (reference: post-graduate degree)				
no trade certificate, Year 12 not finished	-0.055	0.159	-0.35	0.728
no trade certificate, Year 12 finished	-0.069	0.156	-0.44	0.660
trade certificate, Year 12 not finished	-0.107	0.143	-0.75	0.454
trade certificate, Year 12 finished	0.053	0.152	0.35	0.725
advanced diploma/ diploma	0.082	0.161	0.51	0.610
bachelor degree	0.049	0.139	0.35	0.724
graduate diploma/ certificate	0.134	0.173	0.77	0.441
Constant	-0.143	0.332	-0.43	0.666
Number of observations		1860		
Log-likelihood		-1122.43		
Joint significance of all coefficients (χ^2(dF))		316.96(57)		

Table A.2 Table 3 Variables Included in the Matching Procedure by Treatment Status (Sample of Working Mothers in Wave 3)

	Eligible for paid maternity leave		Standardised bias (in %)	Reduction of |bias| (in %)	p-value (H0: bias=0)
	No	Yes			
	Sample before matching				
	Matched Sample				
Mother's human capital					
Mother's age at birth of child					
youngest quartile	*0.174*	*0.267*	*-22.4*		*0.000*
	0.183	**0.183**	**0.0**	**100.0**	**1.000**
second quartile	*0.261*	*0.236*	*5.8*		*0.321*
	0.263	**0.277**	**-3.3**	**42.9**	**0.565**
third quartile	*0.267*	*0.255*	*2.6*		*0.655*
	0.269	**0.283**	**-3.0**	**-15.5**	**0.597**
oldest quartile	*0.298*	*0.242*	*12.6*		*0.032*
	0.285	**0.257**	**6.2**	**50.6**	**0.269**
Mother's education					
no trade certificate, Year 12 not finished	*0.067*	*0.099*	*-11.6*		*0.045*
	0.072	**0.073**	**-0.2**	**98.0**	**0.965**
no trade certificate, Year 12 finished	*0.101*	*0.154*	*-15.9*		*0.006*
	0.106	**0.098**	**2.2**	**86.4**	**0.672**
trade certificate, Year 12 not finished	*0.051*	*0.135*	*-28.9*		*0.000*
	0.055	**0.076**	**-7.3**	**74.7**	**0.131**
trade certificate, Year 12 finished	*0.084*	*0.160*	*-23.5*		*0.000*
	0.090	**0.080**	**3.1**	**86.6**	**0.513**
advanced diploma/ diploma	*0.098*	*0.096*	*0.9*		*0.875*
	0.102	**0.094**	**2.7**	**-191.5**	**0.635**
bachelor degree	*0.345*	*0.234*	*24.6*		*0.000*
	0.346	**0.336**	**2.4**	**90.3**	**0.686**
graduate diploma/ certificate	*0.094*	*0.057*	*14.2*		*0.017*
	0.094	**0.071**	**9.0**	**36.6**	**0.126**
post-graduate degree	*0.160*	*0.066*	*29.8*		*0.000*
	0.134	**0.172**	**-12.2**	**59.2**	**0.059**
Pre-birth job characteristics					
Size of employer					
<=5 employees	*0.038*	*0.058*	*-9.5*		*0.099*
	0.041	**0.054**	**-6.1**	**35.4**	**0.271**
5-19 employees	*0.104*	*0.257*	*-40.6*		*0.000*
	0.112	**0.127**	**-4.0**	**90.1**	**0.407**
20-99 employees	*0.144*	*0.214*	*-18.5*		*0.001*
	0.153	**0.142**	**2.8**	**84.8**	**0.589**
100-499 employees	*0.147*	*0.154*	*-2.1*		*0.724*
	0.151	**0.154**	**-0.7**	**63.8**	**0.895**
>=500 employees	*0.567*	*0.316*	*52.3*		*0.000*
	0.543	**0.523**	**4.2**	**92.0**	**0.472**
Weekly hours of work					
<10 hours/week	*0.029*	*0.053*	*-11.8*		*0.040*
	0.032	**0.028**	**1.5**	**86.9**	**0.750**
10-19 hours/week	*0.107*	*0.166*	*-17.1*		*0.003*
	0.113	**0.129**	**-4.4**	**74.1**	**0.406**
20-29 hours/week	*0.195*	*0.170*	*6.6*		*0.262*
	0.189	**0.220**	**-8.0**	**-21.0**	**0.174**

30-39 hours/week	*0.364*	*0.351*	*2.7*		*0.649*
	0.359	**0.336**	**4.8**	**-79.1**	**0.393**
40-49 hours/week	*0.246*	*0.228*	*4.3*		*0.464*
	0.252	**0.226**	**6.1**	**-41.9**	**0.279**
>=50 hours/week	*0.059*	*0.033*	*12.2*		*0.041*
	0.055	**0.061**	**-2.8**	**77.0**	**0.655**
Weekly salary, before tax	*852.05*	*641.81*	*49.2*		*0.000*
	822.13	**793.49**	**6.7**	**86.4**	**0.269**
Union membership (1=yes)	*0.497*	*0.214*	*61.7*		*0.000*
	0.466	**0.475**	**-2.0**	**96.7**	**0.739**
Received support from employer during pregnancy (1=yes)	*0.573*	*0.509*	*13.0*		*0.027*
	0.556	**0.508**	**9.6**	**26.3**	**0.089**
Had problems with employer during pregnancy (1=yes)	*0.218*	*0.263*	*-10.5*		*0.073*
	0.222	**0.205**	**3.9**	**62.5**	**0.467**
Health around birth and during pregnancy					
Child is male (1=yes)	*0.512*	*0.499*	*2.5*		*0.664*
	0.506	**0.511**	**-1.1**	**56.0**	**0.842**
Child was born on time (37-41 weeks of pregnancy; 1=yes)	*0.893*	*0.901*	*-2.5*		*0.669*
	0.894	**0.864**	**9.9**	**-296.7**	**0.098**
Child needed intensive care after birth	*0.155*	*0.160*	*-1.2*		*0.836*
	0.161	**0.181**	**-5.6**	**-363.1**	**0.333**
Birth was not a single birth	*0.031*	*0.035*	*-2.4*		*0.679*
	0.033	**0.024**	**5.1**	**-111.3**	**0.332**
Birth was natural (1=yes, 0=no: caesarean, breech, forceps, vacuum extraction)	*0.579*	*0.604*	*-5.1*		*0.383*
	0.587	**0.592**	**-1.0**	**80.2**	**0.857**
Birth weight					
lowest quartile	*0.223*	*0.228*	*-1.2*		*0.832*
	0.224	**0.238**	**-3.4**	**-172.5**	**0.550**
second quartile	*0.260*	*0.257*	*0.5*		*0.931*
	0.257	**0.254**	**0.7**	**-34.6**	**0.903**
third quartile	*0.252*	*0.267*	*-3.4*		*0.562*
	0.249	**0.270**	**-4.8**	**-41.6**	**0.393**
highest quartile	*0.265*	*0.248*	*4.1*		*0.486*
	0.271	**0.239**	**7.4**	**-80.6**	**0.188**
>=10 medical visits/check-ups during pregnancy	*0.213*	*0.212*	*0.0*		*0.996*
	0.216	**0.231**	**-3.6**	**-10972.0**	**0.525**
Mothered suffered from ... during pregnancy					
Diabetes	*0.047*	*0.055*	*-3.5*		*0.549*
	0.049	**0.039**	**4.3**	**-23.8**	**0.411**
High blood pressure requiring treatment	*0.056*	*0.092*	*-13.8*		*0.017*
	0.058	**0.050**	**3.3**	**75.9**	**0.496**
Stress, anxiety or depression	*0.142*	*0.162*	*-5.4*		*0.350*
	0.148	**0.131**	**4.6**	**14.8**	**0.392**
Mother smoked pregnancy					
never	*0.899*	*0.879*	*6.3*		*0.281*
	0.896	**0.902**	**-1.9**	**70.0**	**0.727**
less than once a week for entire pregnancy	*0.016*	*0.019*	*-2.5*		*0.662*
	0.016	**0.017**	**-1.0**	**59.5**	**0.849**
at least once a week at least during some time of pregnancy	*0.085*	*0.101*	*-5.6*		*0.334*
	0.088	**0.081**	**2.5**	**55.5**	**0.642**
Mother drank alcohol during pregnancy					
never	*0.516*	*0.540*	*-4.8*		*0.415*
	0.518	**0.536**	**-3.5**	**26.9**	**0.534**
less than once a week for entire pregnancy	*0.308*	*0.304*	*0.8*		*0.887*
	0.315	**0.307**	**1.8**	**-114.3**	**0.753**
at least once a week at least during some time of pregnancy	*0.176*	*0.156*	*5.4*		*0.360*
	0.167	**0.158**	**2.5**	**53.8**	**0.656**

Cultural background					
Mother born in AUS/NZ	*0.881*	*0.858*	*7.0*		*0.230*
	0.882	**0.840**	**12.5**	**-79.6**	**0.030**
Father born in AUS/NZ	*0.862*	*0.869*	*-2.1*		*0.718*
	0.857	**0.816**	**12.0**	**-464.8**	**0.049**
Mother attends religious service regularly	*0.214*	*0.152*	*16.1*		*0.007*
	0.206	**0.230**	**-6.2**	**61.2**	**0.300**
Father attends religious service regularly	*0.154*	*0.107*	*13.9*		*0.019*
	0.148	**0.170**	**-6.6**	**52.4**	**0.279**
Household demographics					
Mother's relationship to child's father					
there is no father, or mother is not in a relationship with child's father	*0.038*	*0.049*	*-5.2*		*0.370*
	0.036	**0.045**	**-4.2**	**19.9**	**0.443**
child's father is mother's husband	*0.845*	*0.776*	*17.6*		*0.002*
	0.843	**0.841**	**0.4**	**97.5**	**0.933**
child's father is mother's de facto partner	*0.117*	*0.175*	*-16.5*		*0.004*
	0.121	**0.114**	**1.9**	**88.3**	**0.708**
Mother is in a long-term relationship with child's father (at least a year at time of conception)	*0.065*	*0.084*	*-7.4*		*0.204*
	0.061	**0.077**	**-5.8**	**21.0**	**0.284**
Child has siblings (1=yes)	*0.525*	*0.509*	*3.2*		*0.581*
	0.524	**0.522**	**0.5**	**83.5**	**0.924**
Father's age at birth of child					
youngest quartile	*0.188*	*0.261*	*-17.7*		*0.002*
	0.192	**0.210**	**-4.3**	**75.6**	**0.426**
second quartile	*0.245*	*0.250*	*-1.1*		*0.854*
	0.247	**0.279**	**-7.2**	**-573.7**	**0.206**
third quartile	*0.274*	*0.257*	*3.8*		*0.514*
	0.272	**0.260**	**2.8**	**25.7**	**0.613**
oldest quartile	*0.293*	*0.232*	*13.9*		*0.018*
	0.288	**0.252**	**8.3**	**40.2**	**0.141**
Father's education					
no trade certificate, Year 12 not finished	*0.114*	*0.175*	*-17.4*		*0.003*
	0.115	**0.119**	**-1.1**	**93.5**	**0.827**
no trade certificate, Year 12 finished	*0.106*	*0.107*	*-0.5*		*0.927*
	0.109	**0.080**	**9.3**	**-1657.0**	**0.079**
trade certificate, Year 12 not finished	*0.188*	*0.203*	*-3.8*		*0.516*
	0.197	**0.215**	**-4.5**	**-17.9**	**0.435**
trade certificate, Year 12 finished	*0.116*	*0.146*	*-9.0*		*0.121*
	0.118	**0.110**	**2.3**	**74.0**	**0.658**
advanced diploma/ diploma	*0.113*	*0.094*	*6.4*		*0.280*
	0.112	**0.123**	**-3.7**	**41.9**	**0.534**
bachelor degree	*0.208*	*0.148*	*15.7*		*0.008*
	0.194	**0.175**	**5.0**	**68.4**	**0.384**
graduate diploma/ certificate	*0.066*	*0.060*	*2.3*		*0.697*
	0.069	**0.055**	**6.0**	**-162.8**	**0.281**
post-graduate degree	*0.089*	*0.066*	*8.6*		*0.143*
	0.087	**0.124**	**-13.9**	**-61.3**	**0.030**