Motivation
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Data
0000000000000

Methods
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Results
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Conclusion
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Appendix
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Paid Parental Leave and Maternal Mental Health

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Introduction

- Postnatal depression is formed 1 to 12 months after giving birth.
- Anxiety frequently coexists, while severe cases of perinatal depression can lead to psychosis
- Employed new mothers particularly vulnerable as they struggle to juggle work and family. Can create further stress and a sense of guilt.

Introduction

- Women experience postnatal depression:
  - International estimates suggest 13% (WHO, 2019)
  - Australian estimates suggest 10% (AIHW 2012)

  - compromise ability to care for children, adversely affect parent-child interactions and affect child development and wellbeing
  - Can lead to relationship breakdowns, suicide / infanticide and partner depression
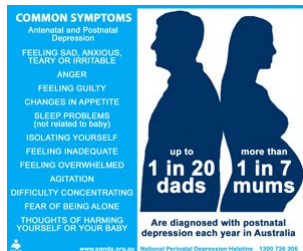
Literature

- Most studies have focused on labour market outcomes when assessing the impact of parental leave (Broadway et al, 2016; Kalb, 2018; Rossin-Slater et al., 2013; Stearns, 2015).
- Little focus has been given to estimating the impact of parental leave on maternal mental health.
- Studies have either estimated:
  - effects of leave duration on mental health across individuals (individual-level studies) or
  - whether access to leave after a policy change impacted mental health (policy-level studies) (Aitken et al., 2015).
- Labour market policy has the potential to impact the postnatal experience for a mother and father.
- Leave for a mother can help with recovery and child bonding (Andres et.al., 2016)
- Leave less than 12 weeks associate with depression (Chatterjee and Markowitz, 2012)

Australian Policy

- All women are entitled to one year of unpaid parental leave
  (if worked 12 months). Some women are entitled to
  employer paid parental leave
- A national paid parental leave (PPL) scheme was
  introduced in 2011
  - Provides primary parent up to 18 weeks of pay at the
    national minimum full time wage (42% of the average wage)
  - Must meet minimum work test (330 hours in 10 months)
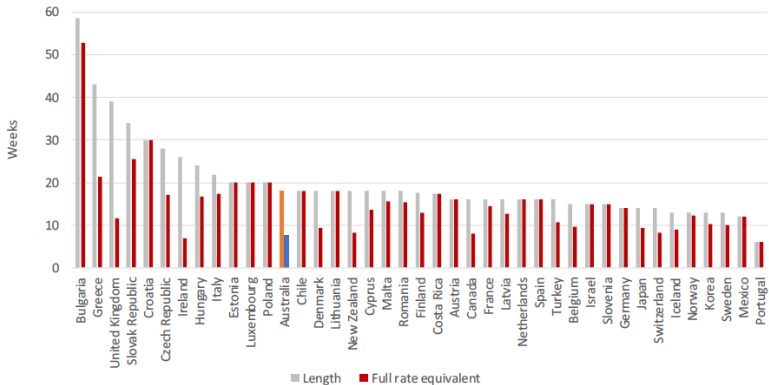   and income test thresholds (<$150,000)

Australian Policy

- Dad and Partner Pay (DAPP) introduced in 2013 to provide two weeks at the national minimum full time wage
  - Introduced in times of concurrent relevant policy change
  - $2.2 billion investment in mental health (2011)
  - Removal of Baby Bonus (2014)
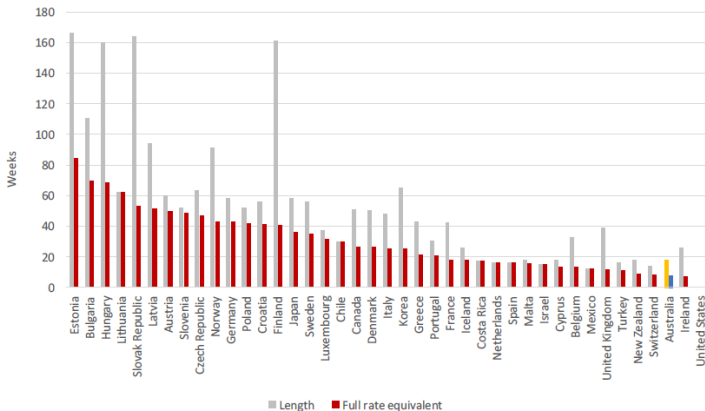
Parental leave OECD

Paid maternity leave, 2018

Source: OECD (2019)

Paid maternity, parental and home care leave for moms OECD

Paid maternity, parental and home care leave available to mothers, 2018

Source: OECD (2019)

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Data
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Methods
○○○○
Results
○○○○○○○○
Conclusion
○○
Appendix
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Paid Parental Leave duration

Paid Parental Leave: U.S. vs. The World

The U.S. joins Lesotho, Swaziland and Papua New Guinea as the only countries that do not mandate paid maternity leave. Most countries ensure at least three months of paid leave for new mothers, and many give fathers benefits too.
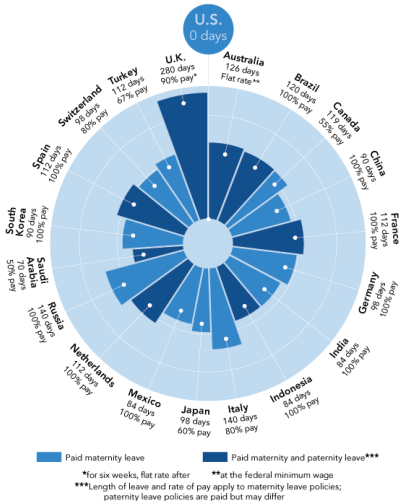
Paid maternity leave   Paid maternity and paternity leave***

*for six weeks, flat rate after   **at the federal minimum wage
***Length of leave and rate of pay apply to maternity leave policies;
paternity leave policies are paid but may differ

Source: International Labour Organization   THE HUFFINGTON POST

Paid Parental leave cross country comparison (Moms and Dads)

Bringing up baby
Paid parental-leave entitlement, weeks

Source: OECD

*Includes shared-leave option which can be taken by fathers   †At average earnings

Economist.com
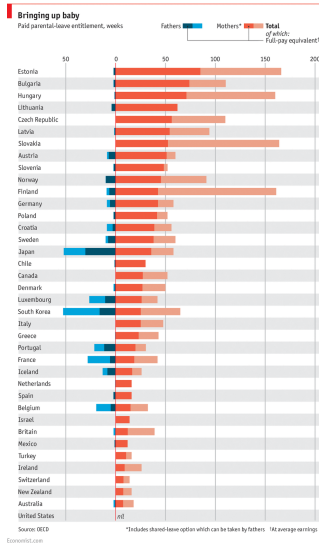
Our study

- Our study investigates the impact of the PPL scheme on mental health of mothers in Australia:
    - whether the introduction of the Paid Parental Leave (PPL) scheme in 2011 and
    - complementary Dad and Partner Pay (DAPP) scheme in 2013,
- We use HILDA to construct a variable on PPL eligibility (work test, income test and leave) based on income and work calendar history

Our contribution

- One Australian study has investigated the impacts of the PPL on maternal mental and physical outcomes (Hewitt et al 2017)
  - Focused on heterogeneity across contract type, sector, organisation size and occupation
  - Found a small (significant) increase in mental and physical health post PPL, with most effect among professional or managerial women
- Our study extends this analysis by:
  - Extending outcomes to include 'depression' and subgroups of anxiety
  - Using panel data to account for trends in maternal mental health Exploring impact across mother 'type', maternal leave 'type' and relationship between PPL and DAPP

PPL Policy: Eligibility Criteria

- The government-set PPL eligibility criteria is based on the past-year work and income history of the primary carer (DHS, 2017):
    - Work test: Worked at least 330 hours in 10 of the 13 months prior to birth, with no more than an eight-week gap. This translates to just over a full day of work per week (8 hours per week).
    - Income test: An individual *adjusted taxable income* of $150,000 or less in the financial year prior to birth.
    - Leave: Take leave from the time when one becomes primary carer until the end of the parental leave period.
- DAPP has the same eligibility criteria as PPL, except it applies to the partners to PPL-eligible women.
- Both PPL and DAPP were implemented nationally, resulting in a lack of regional variation.

Data

- Use the Household, Income, and Labour Dynamics in Australia (HILDA) survey (since 2001).
    - Wave 1: contained information on 7,682 responding households and 19,914 persons.
    - Wave 11: sample was replenished with 2,153 additional households
    - Wave 16: contains information on 7,635 households and 18,379 individuals.
- Respondents are asked questions on family, household formation, income and work (Summerfield et al., 2017).
- HILDA collects a rich set of self-reported health variables and detailed information on calendar-based employment and past-year income

Sample data

- We construct a variable on PPL eligibility (work test, income test and leave) based on income and work calendar history
- Pooled Waves 4-10 for the pre-reform sample and Waves 12-16 for post reform period
- Exclude 2011 births to avoid counting women who 'shifted' births
- Low numbers of birth presents some challenges
- Ours is first to methodically construct adjusted taxable income and work calendar history to assess PPL-eligibility.
- Productivity Commission predicted 84% eligibility, we predict 87% using HILDA

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Results ○○○○○○○○
Conclusion ○○
Appendix ○○○○○

Paid leave over the past year ▸ Results T2

'Other paid leave' over the past year (total women)
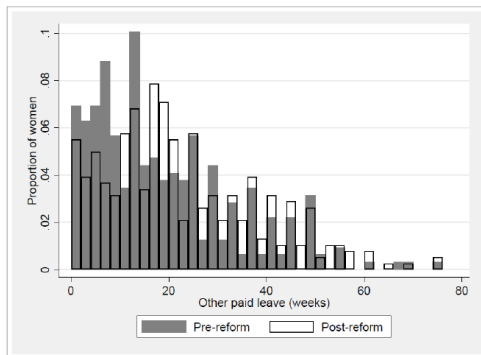
Note: Other paid leave includes maternity, paternity, parental, long-service, bereavement, family, carers, or other leave

- Decrease in eligible women reporting no leave taken (28% of women pre-reform and 13% in post-reform period).
- Overall, increased paid leave duration from PPL and a higher proportion of women reporting 18 or more weeks.

Dependent variable

- Outcome variables include Mental Component Summary (MCS), mental health subscales (SF-36), Mental Health Inventory (MHI) depression thresholds
- Some measurement error in self-reported measures.
- A more expansive set of outcome measures:
    - including a continuous measure,
    - depression severity, and
    - individual SF-36 items indicative of major depression
- Mental Component Summary (MCS) measure: items across mental health, vitality, social functioning, general health and role subscales
- Construct a four-category threshold-based measure (Yamazaki et al., 2005):
    - no depression (MHI-5>68),
    - mild depression (60<MHI-5 $\leq$ 68),
    - moderate depression (52 < MHI-5$\leq$60), and
    - severe depression (MHI-5$\leq$52)

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Results
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Conclusion
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Appendix
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Trend in MCS Scale

Trend in MCS
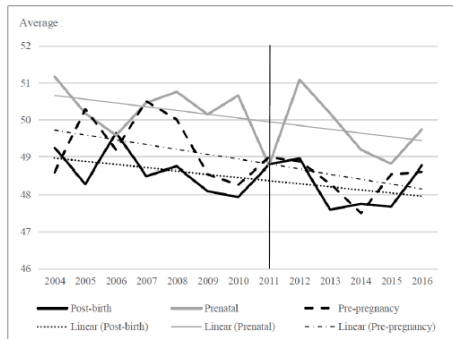
▸ Results T1

Trend in mental health
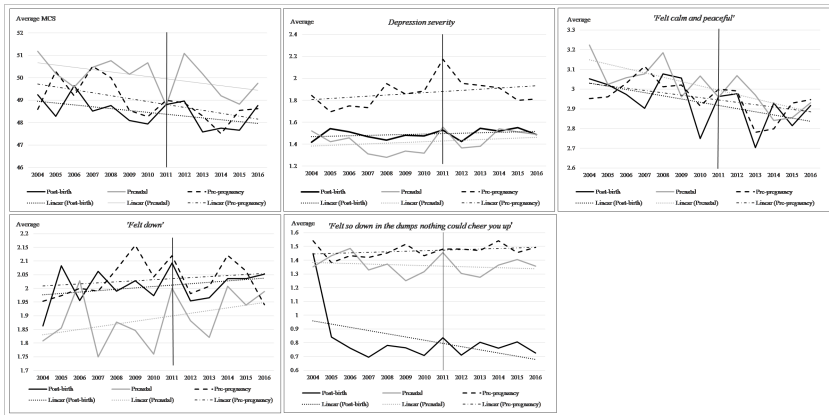
Trend in mental health

- Mental health has worsened over time for the eligible sample.
    - time trend that needs to be controlled for in estimation.
- The data also indicate prenatal and pre-pregnancy levels of mental health are strongly correlated with post-birth levels (Gjerdingen et al., 1993) and
- that eligible women have the best levels of mental functioning during the prenatal year, and worst levels immediately following birth.

Treatment and control group

- We constructed samples of PPL-eligible women with partners (married/defacto), giving birth before and after the PPL reform,
  - the pre-reform group constitutes a 'control group',
  - post-reform group constitutes a 'treatment group'.
- There were low number of annual recorded births in HILDA.
- Sample size was boosted by pooling births in the years around the reform (Baker and Milligan, 2008, Hondralis, 2017 and Rossin-Slater et al.,2013).

Pre-reform and Post-reform period

- was driven by the timing of policy and data availability.
- Wave 4 (2004) as the earliest wave, to correspond with the introduction of the Baby Bonus policy.
  - pre-Baby Bonus waves are not included in our sample to avoid confounding the policy effect.
  - The Baby Bonus was a non-means-tested lump-sum payment available to all Australian women on the birth of a child.
- Consequently, the pre-reform sample pools Waves 4 to 10 (2004 - 2010)
- the post-reform sample pools Waves 12 to 16 (2012 - 2016).

PPL eligible sample

- To construct the PPL-eligible sample, we applied government-set work and income criteria to the subset of employed, partnered women (married/defacto) who reported giving birth in the pre-reform and post-reform periods.

- To do this, we used the labour market calendar in HILDA, which contains information on time spent in jobs from the month prior to the interview to July of the previous financial year.

- HILDA also asks women who gave birth over the last year how long ago this happened (0-3 months, 4-6 months, 7-9 months or 10-12 months). The birth month was approximated as the midpoint of these ranges relative to the interview date, giving a range of error of one month.

PPL eligible sample

- Birth month and calendar data used to estimate whether women met the 'work test'. Data for up to three jobs were used to check employment over 13 months prior to birth, reported by only 0.15% of employed women.

- HILDA tax-benefit model was applied to estimate previous-year ATI, assessed it against the PPL income threshold.

- 210 births we excluded from the overall sample of employed women giving birth, for either being above the income threshold (N=30) or not meet the 'work test' (N=180).

PPL eligible sample

- The final pre-reform sample had 732 births and the post-reform sample had 748 births to partnered, eligible women (N=1,480).

- Interestingly, the post-reform sample had a slightly higher number of births, despite comprising two less waves, due to an increased recording of births in HILDA over time, rather than âselectionâ into the post-reform period.

Control variables

- Two sets of covariates were constructed:
    - a core set including basic determinants of dynamic health outcomes from two widely cited studies (Contoyannis et al., 2004; Hauck and Rice, 2004)
    - an expanded set which adds more variables to the core set:

        - woman's pre-birth job characteristics,
        - matched partners' educational and job characteristics (Hewitt et al., 2017),
        - partner and family support,
        - life events that may cause temporary fluctuations (Roy and Schurer, 2013), and
        - job quality index variables that may influence postpartum mental health (Cooklin et al., 2011).

    - Stressful life events and social support are both significantly associated with postnatal depression (Chojenta et al., 2012)

Control variables

- logarithm of individual disposable income (past-year) and partner's disposable income is included in both sets
- There is possible endogeneity between income and self-reported mental health (Ettner, 1996):
  - we assume income and mental health are not simultaneously determined in our estimation because the income measure we use is past-year income, while our mental health variables measure recent changes in mental health (i.e. 'over the past four weeks').
  - While yearly income may impact mental health, it would be implausible for recent mental health to influence past-year income.
  - Income also includes various forms of non-labour income, which are unlikely to be endogenous with health.
  - we include lags of the dependent variables across both sets to control for pre-existing mental health conditions and baseline mental health levels following the approach in literature.

Methods

- Due to the lack of regional variation, we adopt a pre-/post-estimation approach to estimate policy effects
- Before/after approach following studies for parental leave effects on health and labour markets using national survey data
  - Baker and Milligan (2008)
  - Broadway et.al., (2016)
  - Hewitt et.al., (2017)
  - Hondralis, (2017).

Methods

- OLS used to evaluate MCS, ordered logit for depression and sub-group response to SF-36:

Model - OLS

$$Y_{it} = \delta + \beta Post_i + \partial X_{i,t} + \mu_1 Y_{i,t-1} + \mu_2 Y_{i,t-2} + T_t + \epsilon_i$$

- where:
- $Y_{i,t}$ = outcome variable (MCS, depression, sub-group response to SF-36)
- $Y_{i,t-(1,2)}$ = lagged outcome variable to account for unobserved mental health conditions
- $POST_i$ = dummy variable on whether mother gave birth/adopted in post-reform years
- $X_{i,t}$ = vector of covariates
- T_t = time trend

▸ Table 4

Methods

- We employ the ordered logistic model, which also has a latent variable motivation:

Model - Ordered logistic regression

$$P(Y_{i,t} = j) = G(\alpha_j - \beta POST_i - \partial X_{(i,t)} - \mu_1 Y_{(i,t-1)} - \mu_2 Y_{(i,t-2)} + T_t) -$$

$$G(\alpha_{(j-1)} - \beta POST_i - \partial X_{(i,t)} - \mu_1 Y_{(i,t-1)} - \mu_2 Y_{(i,t-2)} + T_t) + \epsilon_i (1)$$

- $P(Y_{(i,t)} = j)$ is the probability of selecting category j conditional on the covariates
- $G(z)$ is the logistic cumulative distribution function, $G(z) = \frac{exp(z)}{[1+exp(z)]}$
- β coefficients in equations (1) and (2) capture average differences in mental health outcomes between women with births in the pre- and post-reform periods (our estimated policy effect)

▶ Table 4

DAPP Analysis

- Since DAPP was introduced as a complementary policy for partners of PPL-eligible women,
- We examine whether it had an additive effect on maternal mental health outcomes from the PPL scheme:
  - by narrowing our sample to eligible mothers whose partners had concurrent access to DAPP in post-DAPP years.
- We also undertake subgroup analysis on first-time mothers and women with pre-existing leave entitlements.
- For the first time the differential effect of parental leave has been assessed based on mothers' prior birth experience.
- We explore the mechanisms behind these effects, by analysing differences in the duration of paid leave taken between groups.

Results

- We show policy impacts on mental health over the entire post-reform period (2012-2016)
  - significant decrease in depression severity. Translates to a 14% reduction in the likelihood of all depression (mild, moderate and severe).
  - Policy effects for the MCS and individual SF-36 mental health items suggest improved mental health outcomes, these effects are insignificant at the 10% level
- Results for years after DAPP and eligible women with access to DAPP
  - We now find a larger, significant improvement in depression severity (p=0.028), which translates to a 18.5% reduction in the likelihood of all depression (mild, moderate and severe).
  - Improvements in the MCS hold across covariate sets with and without lags ($p < 0.10$), and translate to a nearly 5-point increase
- These results suggest DAPP may have supplemented mental health gains from the PPL.

Results - DAPP

- As a test, we re-estimate the main regression models using post-DAPP years (2014-2016) as post-reform waves but without narrowing the eligible sample to those with DAPP-eligible partners
  - we find mental health gains smaller in magnitude and significance than those found after arrowing the sample to eligible women with DAPP-eligible partners
- partners' concurrent access to DAPP may have supplemented mental health improvement from the PPL scheme.

What was policy impact for first-time mothers v/s experienced mothers?

- we explore whether policy impacts differed across first-time mothers versus experienced mothers, and
- mothers with existing paid and unpaid leave entitlements versus those without
  - did this by including dummy variables indicating group membership interacted with the post-reform coefficient in our estimation equations.

What was policy impact for first-time mothers v/s experienced mothers?

- In our eligible women sample, 765 births were to first-time mothers (371 pre-PPL and 394 post-PPL), while 715 births were to experienced mothers (361 pre-PPL and 354 post-PPL).
  - significant mental health improvements for first-time mothers, as opposed to insignificant changes for experienced mothers at the 10% level.
  - a significant 3-point increase in MCS ($p \leq 0.05$) and substantial improvements on depression severity ($p<0.01$) and the 'felt so down in the dumps' item (marginal effects).

What about women with leave entitlement access?

- Subgroup analysis for women with both employer-paid leave and unpaid job protection - the most advantaged:
  - had a significant 3-point increase in MCS in the post-reform period, compared to insignificant changes across other groups.
  - had significant improvements in depression severity compared to insignificant improvements for those without any.
- Women with access to employer-paid leave had greatest MH gains for with a 14.2% - 16.7% reduction in the likelihood of all depression.
- Women with no access to entitlements increased their leave from five weeks pre-PPL to around nine weeks post-PPL, on average, which may have been inadequate to realise mental health gains (Chatterjee and Markowitz, 2012; Kornfeind and Sipsma, 2018).

▸ Results T5

Testing the main estimates with a constant sample

- prenatal and pre-pregnancy mental health: included two dependent variable lags in the baseline estimations.
  - This lowered sample sizes by up to 349 births in estimations
  - including lags often results in significant policy effects (improved MH) compared to models of no lags.
- positive selection into models: women who report MH every year have better MH, on average, than those who don't creating positive selection into models with lags, biasing policy effects upward.
  - We re-estimate using a constant sample of women who report their lagged MH and current MH across all models to test this potential bias.
  - We find similar policy effects to the baseline estimations. This alleviates concerns that those reporting MH every year systematically differ from those who don't.

What about mothers unaffected by PPL?

- Mothers unaffected by PPL/DAPP: to test whether policy effects were affected by time trends or concurrent policy changes. These groups included:
  - employed mothers with older children (aged 5-9 years old and 10-14 years old) that matched PPL eligibility criteria in terms of the income and the work test
  - mothers 'not in the labour force' with newborns.
- We find insignificant policy effects across all estimations for test groups
- MH improvements for eligible women were due to PPL/DAPP introduction, rather than common time trends, general policy developments, or systematic changes in prenatal or postnatal health care policies.

Potential limitations

- Before and after study may not adequately account for outcome trends / other policy impacts
  - Included time trends to account for outcome variable trends
  - Tested 'policy impact' on mothers with children (5-14 years) and mother of newborns not in the labour force. No significant impact on outcomes.

  - Need to account for mental disorders in pregnancy and pre-pregnancy
  - Addressed this issue using outcome lags in two years prior

  - Don't know whether someone took up PPL, only whether they were eligible
  - Women are likely to sign up to PPL if eligible a policy impact, not whether someone took maternity leave

Policy implications

- PPL improved maternal mental health
    - Potential to increase PPL entitlements (align with Europe experience) to further reduce postpartum depression
- PPL improved maternal mental health in mothers who already have access to paid maternity leave
    - More PPL entitlements for mothers without prior entitlements could further reduce postpartum depression and improve health equity
    - Removing PPL for mothers with private entitlements may reduce maternal mental health
- PPL and DAPP are complementary
    - Potential to increase DAPP entitlements to further reduce postpartum depression.

Motivation
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Data
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Methods
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Results
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Conclusion
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Appendix
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Dependent variables -eligible sample characteristics

▸ Results T1

Table 1: Dependent variables – eligible sample characteristics

Variable	N	Observed min	Observed max	S.D	Mean* (pre-reform)	Mean* (post-reform)
			Continuous measure			
MCS	1,533	3.93	64.83	9.28	48.52	47.79
			Categorical measures			
Depression severity[a]	1,549	1	4	0.96	1.49	1.54
<u>SF-36 mental health items:</u>						
- 'Felt so down in the dumps nothing could cheer you up'[b]	1,544	1	4	0.78	1.47	1.47
- 'Felt down'[b]	1,546	1	4	0.86	2.00	2.05
- 'Felt calm and peaceful'[c]	1,547	1	4	1.06	2.96	2.86

Table note: a. Variable categories: 1=no depression, 2=mild depression, 3=moderate depression, 4=severe depression
b. Variable categories: 1='none of the time', 2='a little of the time', 3='some of the time', 4= 'a good bit of the time'/ 'most of the time'/ 'all of the time'
c. Variable categories: 1= 'none of the time'/'a little of the time', 2= 'some of the time', 3='a good bit of the time' and 4='most of the time'/'all of the time'
* Standardised means are not exactly 50 for the MCS and 0 for the mental health index due to rounding.

Source: Author adaptation of HILDA data (Melbourne Institute, 2017)

Other paid leave (weeks) taken in pre- and post-PPL periods by subgroups

Table 3: Other paid leave (weeks) taken in the pre- and post-PPL periods for different groups of eligible women (including zero leave)

	N	Mean	Std.Dev	Min	Max
By access to pre-existing leave entitlements					
(1) Access to both employer-paid maternity leave and unpaid job protection:					
Pre-reform	141	19.41	15.50	0	75.2
Post-reform	127	23.69	15.11	0	60
(2) Access to employer-paid maternity leave only:					
Pre-reform	104	16.1	16.64	0	60
Post-reform	135	22.38	16.81	0	76
(3) Access to unpaid job protection only:					
Pre-reform	130	5.24	8.43	0	40.8
Post-reform	81	15.13	16.41	0	76
(4) No access to employer-paid maternity leave and unpaid job protection:					
Pre-reform	150	5.21	10.91	0	49.6
Post-reform	130	9.36	12.80	0	52
First-time versus experienced mothers					
First-time mothers:					
Pre-reform	250	14.62	15.81	0	75.2
Post-reform	245	19.28	16.99	0	76
Experienced mothers:					
Pre-reform	275	8.06	12.55	0	67.2
Post-reform	228	16.45	15.56	0	64

‣ Results T2   *Source: Author adaptation of HILDA data (Melbourne Institute, 2017)*

Estimation results for PPL eligible women (estimate of policy effect) β - additive models

▸ Results T4a

Table 4: Estimation results (estimate of policy effect β) – additive models*

	(1) PPL-ELIGIBLE WOMEN					
Model:	*(i)*	*(ii)*	*(iii)*	*(iv)*	*(v)*	*(vi)*
Post reform coefficient	✓	✓	✓	✓	✓	✓
Time trend		✓	✓	✓	✓	✓
Core set covariates			✓	✓	✓	✓
Expanded set covariates					✓	✓
Lags of dependent variable				✓		✓
	Panel 1A: OLS estimation					
Dependent variable:						
MCS	-0.386 (0.566)	1.514 (1.231)	1.460 (1.253)	0.196 (1.207)	**3.452 (1.424)**	2.135 (1.392)
p-value	0.495	0.219	0.244	0.871	**0.015**	0.125
N	*1,453*	*1,453*	*1,445*	*1,163*	*1,076*	*937*
	Panel 1B: Ordered logit estimation					
Dependent variable:						
Depression severity	0.128 (0.146)	-0.093 (0.301)	-0.095 (0.312)	-0.355 (0.354)	**-0.625 (0.377)**	**-0.993 (0.392)**
p-value	0.381	0.757	0.761	0.317	**0.097**	**0.011**
N	*1,469*	*1,469*	*1,461*	*1,356*	*1,086*	*1,081*
- 'Felt so down in the dumps nothing could cheer you up'	-0.008 (0.141)	0.131 (0.288)	0.150 (0.300)	-0.129 (0.352)	-0.396 (0.375)	-0.676 (0.426)
p-value	-0.954	0.649	0.617	0.714	0.292	0.113
N	*1,465*	*1,465*	*1,457*	*1,191*	*1,083*	*959*
- 'Felt down'	0.035 (0.098)	-0.214 (0.220)	-0.263 (0.252)	-0.323 (0.290)	-0.395 (0.304)	-0.244 (0.348)
p-value	0.718	0.331	0.295	0.265	0.223	0.483
N	*1,472*	*1,472*	*1,458*	*1,193*	*1,084*	*960*
- 'Felt calm and peaceful'	-0.155 (0.116)	0.271 (0.262)	0.257 (0.262)	0.229 (0.307)	0.447 (0.304)	0.431 (0.354)
p-value	0.179	0.301	0.328	0.456	0.141	0.224
N	*1,467*	*1,467*	*1,459*	*1,195*	*1,085*	*736*

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Estimation results for PPL eligible women with DAPP-Eligible partners in post-DAPP years

▸ Results T4b

(2) PPL-ELIGIBLE WOMEN WITH DAPP-ELIGIBLE PARTNERS IN POST-DAPP YEARS						
Model:	*(i)*	*(ii)*	*(iii)*	*(iv)*	*(v)*	*(vi)*
Post reform coefficient	✓	✓	✓	✓	✓	✓
Time trend		✓	✓	✓	✓	✓
Core set covariates			✓	✓	✓	✓
Expanded set covariates					✓	✓
Lags of dependent variable				✓		✓
Panel 2A: OLS estimation						
Dependent variable:						
MCS	-0.878 (0.841)	2.220 (1.873)	2.505 (1.910)	**3.612 (1.932)**	**3.888 (2.168)**	**4.829 (2.171)**
p-value	0.297	0.239	0.190	**0.062**	**0.073**	**0.027**
N	839	839	835	700	685	610
Panel 2B: Ordered logit estimation						
Dependent variable:						
Depression severity	**0.351 (0.205)**	-0.208 (0.489)	-0.324 (0.505)	-0.833 (0.534)	-0.890 (0.581)	**-1.359 (0.619)**
p-value	**0.086**	0.670	0.522	0.118	0.125	**0.028**
N	850	850	846	798	694	629
- 'Felt so down in the dumps nothing could cheer you up'	0.010 (0.213)	-0.080 (0.470)	-0.175 (0.495)	-0.635 (0.527)	-0.785 (0.577)	-1.206 (0.597)
p-value	0.964	0.865	0.724	0.228	0.174	**0.043**
N	846	846	842	715	691	623
- 'Felt down'	0.209 (0.193)	-0.252 (0.406)	-0.265 (0.415)	-0.655 (0.444)	-0.293 (0.488)	-0.731 (0.518)
p-value	0.277	0.534	0.524	0.140	0.693	0.158
N	848	848	844	719	549	626
- 'Felt calm and peaceful'	-0.145 (0.168)	0.643 (0.402)	0.608 (0.409)	**1.195 (0.454)**	0.618 (0.471)	**1.339 (0.523)**
p-value	0.389	0.110	0.138	**0.009**	0.190	**0.011**
N	849	849	845	720	694	627

*Robust standard errors in parentheses. Significant results (under at least a 10% level of significance) are in **bold**. Full results are available from the authors.

Estimation results - policy effect (β) for different subgroups - Model (vi)

▶ Results T5

Table 5: Estimation results – policy effect (β) for different subgroups – Model (vi)

Panel 1A: OLS estimation		
	First-time mothers	*Experienced mothers*
MCS (*N=937*)	3.091 (1.529)	1.396 (1.383)
p-value	**0.044**	0.313
Panel 1B: Ordered logit estimation		
	First-time mothers	*Experienced mothers*
Depression severity (*N=1,081*)	-1.350 (0.428)	-0.576 (0.403)
p-value	**0.002**	0.153
- 'Felt so down in the dumps nothing could cheer you up' (*N=959*)	-0.908 (0.478)	-0.450 (0.426)
p-value	0.057	0.291
- 'Felt down' (*N=960*)	-0.476 (0.396)	-0.089 (0.349)
p-value	0.229	0.799
- 'Felt calm and peaceful' (*N=736*)	0.502 (0.392)	0.340 (0.361)
p-value	0.201	0.346

Panel 2A: OLS estimation				
	(1) Employer-paid maternity leave & unpaid job protection	*(2) Employer-paid maternity leave only*	*(3) Unpaid job protection only*	*(4) No leave entitlements*
MCS (*N=937*)	3.644 (1.553)	1.330 (1.533)	2.613 (1.84)	1.386 (1.699)
p-value	**0.019**	0.379	0.157	0.415
Panel 2B: Ordered logit estimation				
	(1) Employer-paid maternity leave & unpaid job protection	*(2) Employer-paid maternity leave only*	*(3) Unpaid job protection only*	*(4) No leave entitlements*
Depression severity (*N=1,081*)	-1.009 (0.462)	-1.182 (0.468)	-0.926 (0.545)	-0.723 (0.449)
p-value	**0.029**	**0.012**	0.089	0.107
- 'Felt so down in the dumps nothing could cheer you up' (*N=959*)	-0.804 (0.511)	-0.534 (0.472)	-0.621 (0.608)	-0.814 (0.499)
p-value	0.116	0.258	0.307	0.103
- 'Felt down' (*N=960*)	-0.373 (0.393)	-0.259 (0.402)	-0.040 (0.478)	-0.148 (0.403)
p-value	0.343	0.519	0.934	0.713
- 'Felt calm and peaceful' (*N=736*)	**1.456 (0.626)**	**1.215 (0.536)**	0.429 (0.637)	0.800 (0.578)
p-value	**0.020**	**0.023**	0.501	0.167