

How migrant mothers' labour supply is shaped by formal and informal childcare supply

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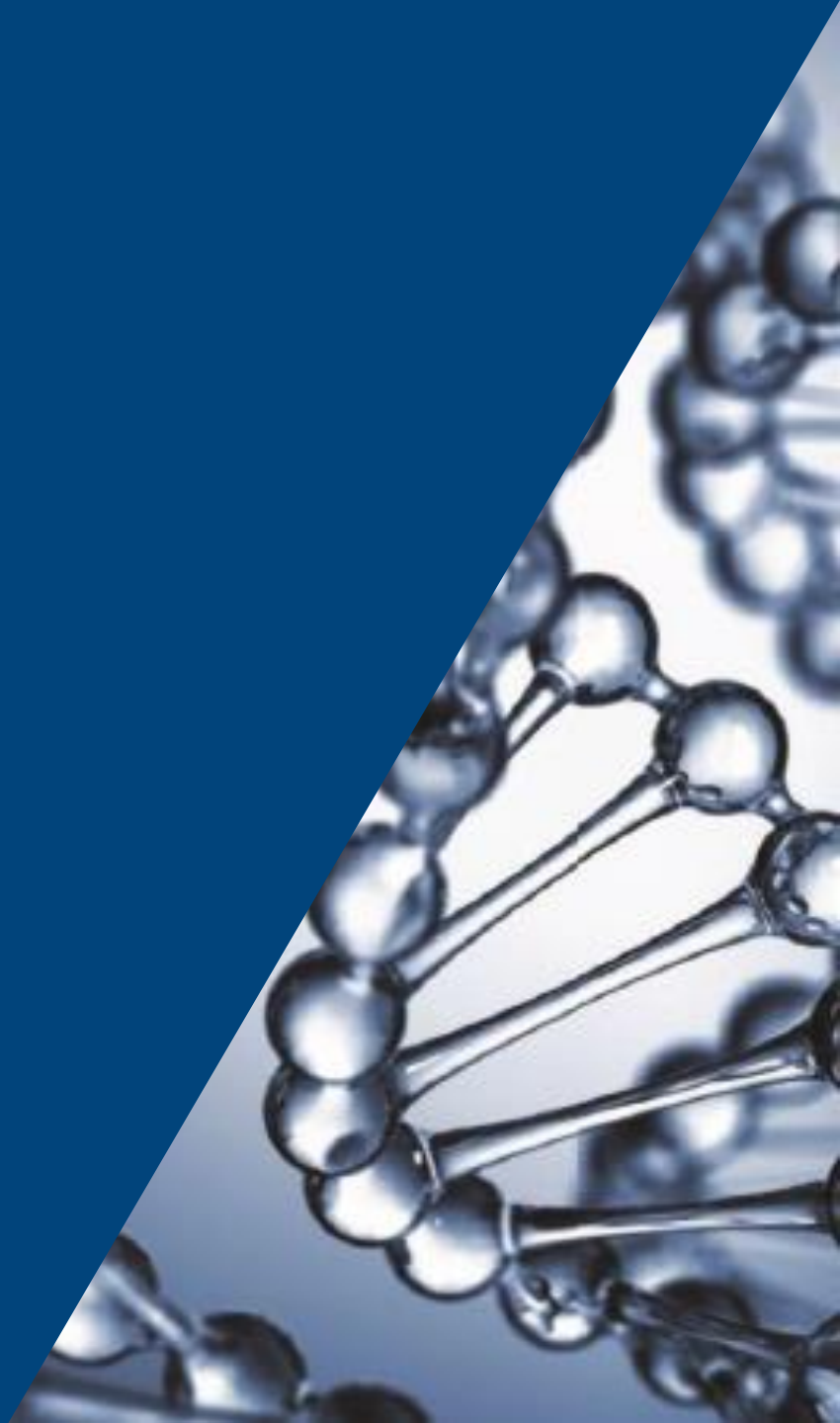
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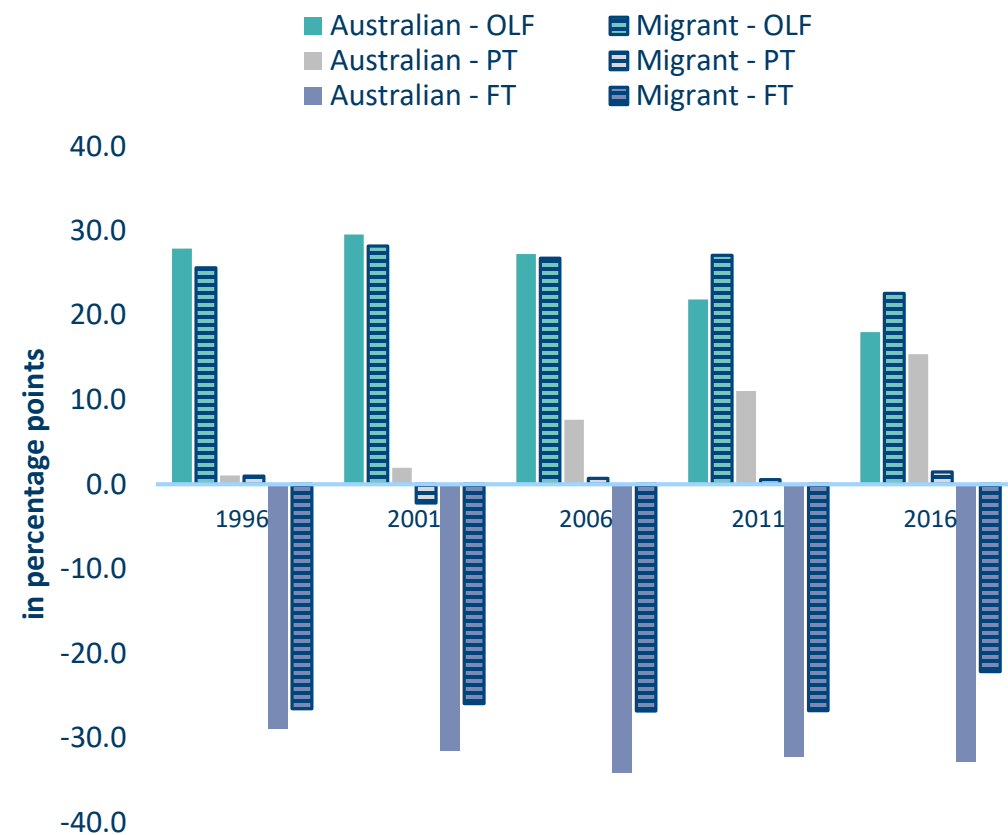
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Difference in women's labour force status with child (age 0-4) in household, compared to without

By place of birth

Census 1996-2016



Source: ABS, Cat.No 2037.0: Census of Population and Housing, 1996-2016, Basic CURF. Own calculations.

Notes: The Figure shows the difference in probability of a) being out of the labour force b) being part-time employed/unemployed or c) being full-time employed/unemployed, for women with a young child in the household compared to for women without. Children are 0-4 years old. All figures are calculated for partnered women aged 25-44, who are not full-time secondary students. Migrant women are all women born outside of Australia.

Behavioural shift for Australian-born mothers, not mirrored by migrant mothers: **Why?**

Aim/contribution of study: examine possible causes of diverging trends.

- Are there differences in cost of formal child care?
- Are there differences in access to informal care?
- If yes, do both contribute to differences in labour supply response to having young children?
- Does any such effect hold when controlling for attitudes and beliefs to working mothers? Or is it all “culture”?

Possible factors in diverging trends:

- Skill selection in visa process → earnings potential
- Skills not fully transferable → earnings potential
 - Cost of formal child care
- Lack of family support/access to informal care
 - Household structure
- Attitudes to female/maternal work outside of the home
- Self-selection into family migration → preference for work in the home

Sample

HILDA Survey - wave 2011

Partnered women aged 25 to 44

Australian-born and overseas born

With and without pre-school aged child in household (0-4 years)

Number of observations

| | Australian-born | Overseas-born | Total |
|---------------|-----------------|---------------|-------|
| No child 0-4 | 1,053 | 286 | 1,639 |
| Has child 0-4 | 663 | 219 | 882 |
| Total | 1,716 | 505 | 2,221 |

Source: HILDA Survey, Wave 11.

Notes: some observations were removed because of missing data on key variables.

Labour Force Status

By place of birth and child aged 0-4 in the household

OLF: Out of the labour force

PT: part-time employed or unemployed, looking for part-time employment

FT: full-time employed or unemployed, looking for full-time employment

| | | Australian-born | Overseas-born |
|---------------|-----|-----------------|---------------|
| No child 0-4 | OLF | 10% | 24% |
| | PT | 37% | 24% |
| | FT | 53% | 52% |
| Has child 0-4 | OLF | 39% | 58% |
| | PT | 44% | 22% |
| | FT | 17% | 20% |

Source: HILDA Survey, Wave 11. Sample: partnered women age 25-44, as described on page 5. Own calculations.

Notes: an individual is defined to be part-time employed (full-time employed) if their usual weekly working hours in all jobs combined are less than 35 hours (35 hours or more).

Estimation

Multinomial logit

LFS=m; m=OLF / PT/ FT

$$PR(LFS = l) = \frac{\exp(Z_l)}{\sum_l \exp(Z_m)}$$

$$Z_m = \alpha_m + \beta_{1m}child04 + \beta_{2m}mig + \beta_{3m}child04 \cdot mig + \gamma_{1m}X_w + \gamma_{2m}X_{hh} + \gamma_{3m}X_a + \gamma_{4m}X_{fc} + \gamma_{5m}X_{ic} + u_{im}$$

Explanatory variables:

- a) X_w : Individual wage determinants
- b) X_{hh} : Household characteristics, incl partner income
- c) X_a : Cultural and individual attitudes/beliefs
- d) X_{fc} : Cost of formal child care
- e) X_{ic} : Access to informal care

Wage determinants

By place of birth and child aged 0-4 in the household

uni: has a university degree

Y12: has not finished 12 years of school

ep: speaks English poorly or not at all

exp: years of labour market experience

Source: HILDA Survey, Wave 11. Sample: partnered women age 25-44, as described on page 5. Own calculations.

Notes: English language skills are only asked of survey respondents who were born outside of Australia. Experience is measured as years of employment since respondent first left full-time schooling after age 15.

| | | Australian-born | Overseas-born |
|---------------|-----|-----------------|---------------|
| No child 0-4 | uni | 35% | 57% |
| | Y12 | 19% | 11% |
| | ep | | 7% |
| | exp | 14.3 | 11.2 |
| Has child 0-4 | uni | 38% | 55% |
| | Y12 | 14% | 6% |
| | ep | | 11% |
| | exp | 11.7 | 8.5 |

Household characteristics

By place of birth and child aged 0-4 in the household

pinc: partner's weekly earnings (\$1,000)

child_ij: #children aged *i* to *j* years in hh

home: couple lives in own home

Source: HILDA Survey, Wave 11. Sample: partnered women age 25-44, as described on page 5. Own calculations.

Notes: partner's earnings are earnings from all jobs combined, in September 2011 values. Children aged 15 to 24 only includes dependent children. Home indicates that the couple is paying off a mortgage or owns their home outright.

| | | Australian-born | Overseas-born |
|---------------|---------|-----------------|---------------|
| No child 0-4 | pinc | 1307 | 1329 |
| | hh_59 | 0.46 | 0.45 |
| | hh_1014 | 0.51 | 0.26 |
| | hh_1524 | 0.21 | 0.23 |
| | home | 69% | 51% |
| Has child 0-4 | pinc | 1377 | 1350 |
| | hh_59 | 0.51 | 0.30 |
| | hh_1014 | 0.16 | 0.13 |
| | hh_1524 | 0.05 | 0.06 |
| | home | 70% | 46% |

Attitudes and beliefs

By place of birth and child aged 0-4 in the household

fm_hc: ratio of female to male labour force participation rate in country of birth

mw: “Mothers who don’t really need the money shouldn’t work”

cr: “A working mother can establish just as good a relationship with her children as a mother who does not work for pay”

| | | Australian-born | Overseas-born |
|---------------|-------|-----------------|---------------|
| No child 0-4 | fm_hc | 82% | 70% |
| | mw | 2.97 | 3.13 |
| | cr | 4.92 | 4.90 |
| Has child 0-4 | fm_hc | 82% | 66% |
| | mw | 3.04 | 3.29 |
| | cr | 4.80 | 4.70 |

Source: HILDA Survey, Wave 11. Sample: partnered women age 25-44, as described on page 5. Own calculations.

Notes: fm_hc is measured in 2011 (ILOSta Database). mw and cr measure level of agreement with the statement on a scale from 1 (strongly disagree) to 7 (strongly agree).

Formal child care

By place of birth, for women with a child aged 0-4 in the household

sd_f: hourly cost of formal child care at place of residence

diff_qual: reported difficulty finding good quality care

diff_cost: reported difficulty with the cost of child care

diff_avail: reported difficulty with the availability of child care

| | | Australian-born | Overseas-born |
|---------------|------|-----------------|---------------|
| Has child 0-4 | sd_f | \$5.97 | \$6.31 |
| | dq | 70% | 84% |
| | dc | 82% | 88% |
| | da | 80% | 85% |

Source: HILDA Survey, Wave 11. Sample: partnered women age 25-44, as described on page 5. Own calculations.

Notes: hourly cost of child care are derived from usual total weekly cost after CCR/CCB, divided by usual weekly hours used (for children not yet at school, while parents are working). Formal care includes care provided by long day care centres, kinder or pre-school programs, or family day care. Responses are averaged across statistical divisions (SD) and then assigned to individuals in that SD (excluding the respondents' own household). Respondents in SDs with less than 2 responding households are excluded. All question regarding difficulty with child care can be answered on a scale from 0 (no difficulty at all) to 10 (very much a problem). The table reports share of respondents who did not answer "0". The variables combine several items relating to the dimensions "quality", "cost" and "availability".

Informal child care

By place of birth, for women with a child aged 0-4 in the household

iw: uses informal care for employment purposes

il: uses informal care for non-employment purposes

sup: “When I need someone to help me out, I can usually find someone”

noinf: has no access to informal care (iw=0 & il=0 & sup=0)

| | | Australian-born | Overseas-born |
|---------------|-------|-----------------|---------------|
| Has child 0-4 | iw | 33% | 18% |
| | il | 23% | 16% |
| | sup | 84% | 79% |
| | noinf | 8.6% | 14.2% |

Source: HILDA Survey, Wave 11. Sample: partnered women age 25-44, as described on page 5. Own calculations.

Notes: informal care is care provided by a grandparent, other relative, friend, or neighbour. Care used for employment purposes and non-employment purposes are reported separately. The table reports the share of respondents who report a non-zero number of hours used in a usual week.

Sup: respondents can report their level of agreement with the statement on a scale from 1 (strongly disagree) to 7 (Strongly agree). Table reports the share of respondents who answer 5 or higher.

Noinf: reports the share of respondents who do not use informal care in a usual week (neither for employment purposes nor for other purposes) and report that they can NOT usually find someone to help them out.

Respondents with missing information on any of those variables are assumed to have access to informal care.

Average Marginal Effects

Effects of

mw: “Mothers who don’t really need the money shouldn’t work”

cr: “A working mother can establish just as good a relationship with her children as a mother who does not work for pay”

on probability of labour force status OLF, PT, and FT

| | | Coeff. | Std. Err. |
|----|-----|-----------|-----------|
| mw | OLF | 0.017*** | 0.005 |
| | PT | -0.008 | 0.006 |
| | FT | -0.009 | 0.006 |
| cr | OLF | -0.019*** | 0.005 |
| | PT | -0.013** | 0.006 |
| | FT | 0.032*** | 0.006 |

Source: HILDA Survey, Wave 11. Sample: partnered women age 25-44, as described on page 5. Own calculations.

Notes: marginal effects are from a multinomial logit model with dependent variable OLF/PT/FT. Model includes state dummies, all wage determinants (experience: linear and squared), household characteristics, and attitudes/beliefs reported on earlier slides, as well as cost of formal child care at place of residence (in logs) and a dummy variable indicating access to informal care.

***, **, *: significant on 1%-level, 5%-level and 10%-level

Average Marginal Effects

Effects of

sd_f: Hourly cost of formal child care in SD of residence (in logs)

noinf: has no access to informal care

on probability of labour force status OLF, PT, and FT

| | | Coeff. | Std. Err. |
|-------|-----|----------|-----------|
| sd_f | OLF | 0.065** | 0.033 |
| | PT | 0.032 | 0.042 |
| | FT | -0.096** | 0.040 |
| noinf | OLF | 0.074* | 0.041 |
| | PT | -0.054 | 0.056 |
| | FT | -0.020 | 0.061 |

Source: HILDA Survey, Wave 11. Sample: partnered women age 25-44, as described on page 5. Own calculations.

Notes: marginal effects are from a multinomial logit model with dependent variable OLF/PT/FT. Model includes state dummies, all wage determinants (experience: linear and squared), household characteristics, and attitudes/beliefs reported on earlier slides, as well as cost of formal child care at place of residence (in logs) and a dummy variable indicating access to informal care.

***, **, *: significant on 1%-level, 5%-level and 10%-level

Average Marginal Effects

Effects child aged 0-4 in the household on probability of labour force status OLF, PT, and FT

| | | Coeff. | Std. Err. |
|-----------------|-----|-----------|-----------|
| Australian-born | OLF | 0.259*** | 0.021 |
| | PT | 0.151*** | 0.024 |
| | FT | -0.410*** | 0.020 |
| Born overseas | OLF | 0.212*** | 0.039 |
| | PT | 0.125*** | 0.043 |
| | FT | -0.337*** | 0.037 |

Source: HILDA Survey, Wave 11. Sample: partnered women age 25-44, as described on page 5. Own calculations.

Notes: marginal effects are from a multinomial logit model with dependent variable OLF/PT/FT. Model includes state dummies, all wage determinants (experience: linear and squared), household characteristics, and attitudes/beliefs reported on earlier slides, as well as cost of formal child care at place of residence (in logs) and a dummy variable indicating access to informal care.

***, **, *: significant on 1%-level, 5%-level and 10%-level

Results fit pattern in raw data

- High cost of formal child care
 - Shifts from FT to OLF, little effect on PT
 - Disproportionally affects migrant mothers
 - But small overall
- Limited access to informal child care
 - Shifts to OLF, predominantly at the expense of PT
 - Disproportionally affects migrant mothers
 - Big effect, but measured imprecisely
- After controlling formal and informal care, differential effect of young children in household for Australian-born mothers and mothers born overseas drastically reduced

Repeated: Australian-born / born in main English speaking country / born elsewhere

- Behavior of ESB migrants more similar to NESB migrants than to Australian-born
- Beliefs and cost of formal child care are similar to Australian-born
- Access to informal care is similar to NESB born
- After controlling for these factors, differential effect of young children on Australian-born vs.
 - ESB migrants fully disappears
 - NESB migrants is app. halved

Repeated: Australian-born / arrived before 2001/ arrived 2001-2011

- Behavior of early arrivals very similar to Australian-born, differential effect of young children much stronger for recent migrants
- Access to informal care similar for early arrivals and Australian-born, very different for recent migrants
- Cost of formal care slightly higher for early arrivals and recent migrants than Australian-born
- After controlling for these factors, differential effect of young children on Australian-born vs.
 - Early arrivals remains zero
 - recent migrants is reduced by $\sim 1/3$

Summary

Migrant women with young children

- Face slightly higher cost of formal child care, and have slightly more negative beliefs about working mothers
- Are much more likely to not have access to informal care
- Mostly the latter explains why Australian-born mothers' trend to part-time employment is not mirrored by migrant mothers
- Pattern is more pronounced
 - for NESB migrant than for ESB migrants and
 - for recent migrants vs. earlier arrivals.
 - However, for both groups, additional factors also at play

Main problems:

- measurement error in cost of formal child care
- Measurement error in access to informal care
- endogeneity of informal care
- endogeneity of attitudes
- sample size

Implications:

- Stresses importance of informal care
- Trend in increasing LFP for mothers dampened by increasing LFP of grandmothers?
- Increased pressure on formal care sector in the future
- Success of migration depends not only on primary applicant