

# **Are Women With Children More Likely To Be Underemployed?**

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# Underemployment

- ✓ Occur when an employed labour market participant preferred hours of paid work (willing & able to work) exceed their current (actual) hours of work
- ✓ Employed full-time/part-time & wanting more hours of work
- ✓ Employed part-time & want to work full-time

## Why Underemployment is an issue?

- ✓ Employees' earning capacity and standard of living decreases – decreasing individual & family well-being (e.g., happiness & job satisfaction), and lower superannuation savings (Preston, 2023)
- ✓ The **rise in part-time employment** caused the spike in underemployment & was accompanied by a **rise in underutilisation** of the potential productivity of working employees (ABS, 2022)

# Employment Contract

## Casual (CAS)

- ✓ **Hours of work irregular** each week, **NO** guaranteed minimum hours per week, **NOT** entitled to paid sick & annual leave
- ✓ Received higher hourly pay rate, **25% casual loading** to compensate for sick & annual leave
- ✓ One in four employees in Australia is employed in a CAS job (ILO, 2016)

## FT CAS

- ✓ Employees work  $\geq$  **35 hours** a week

## PT CAS

- ✓ Employees work  $\leq$  **34 hours** a week
- ✓ Most casuals in PT hours

## Non-Casual

- ✓ **Hours of work regular** each week, are **entitled to paid sick & annual leave**

## FT

- ✓ Employees work  $\geq$  **35 hours/week**

## PT

- ✓ Employees work  $\leq$  **34 hours/week**

# Trend in Female Underemployment

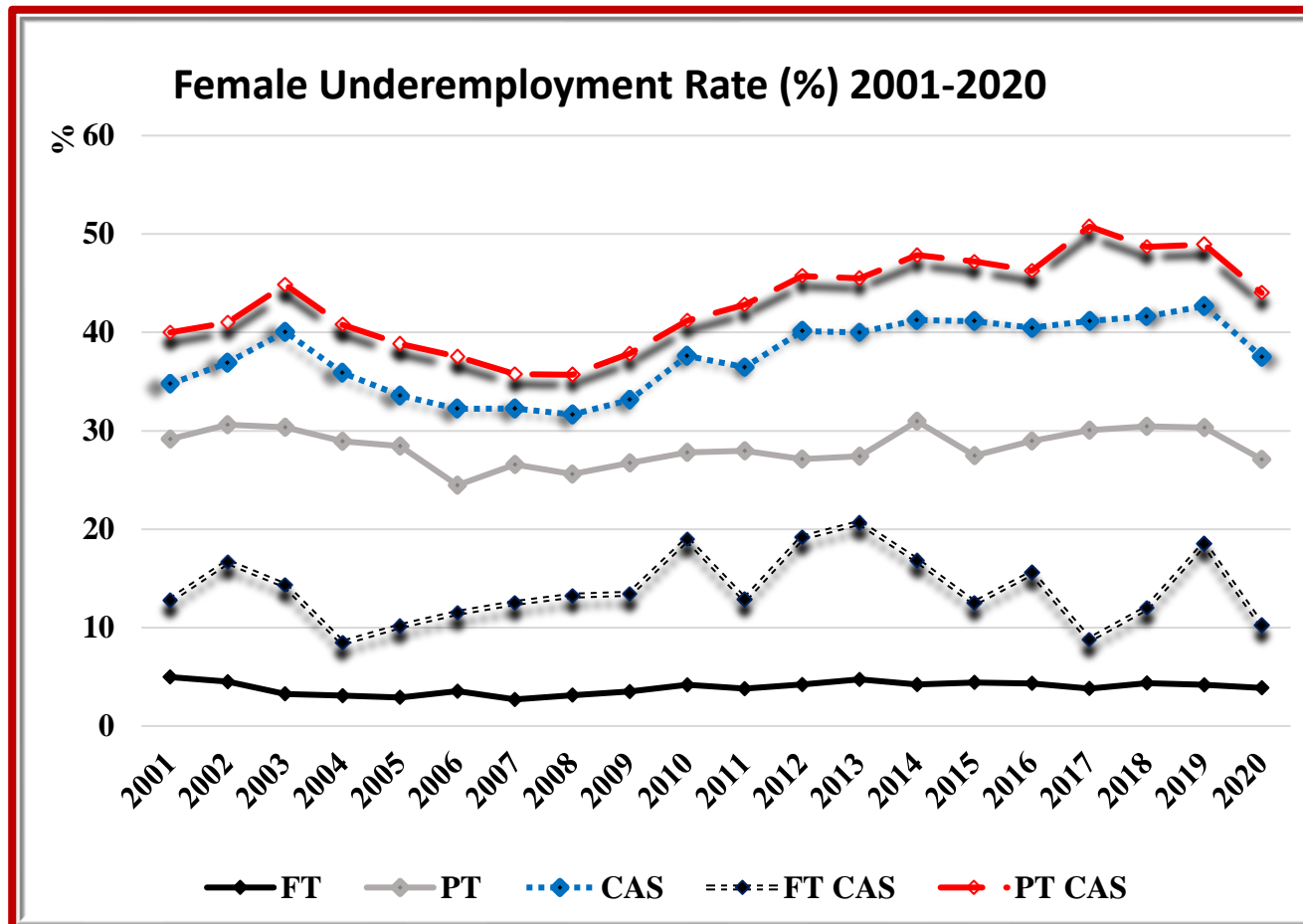
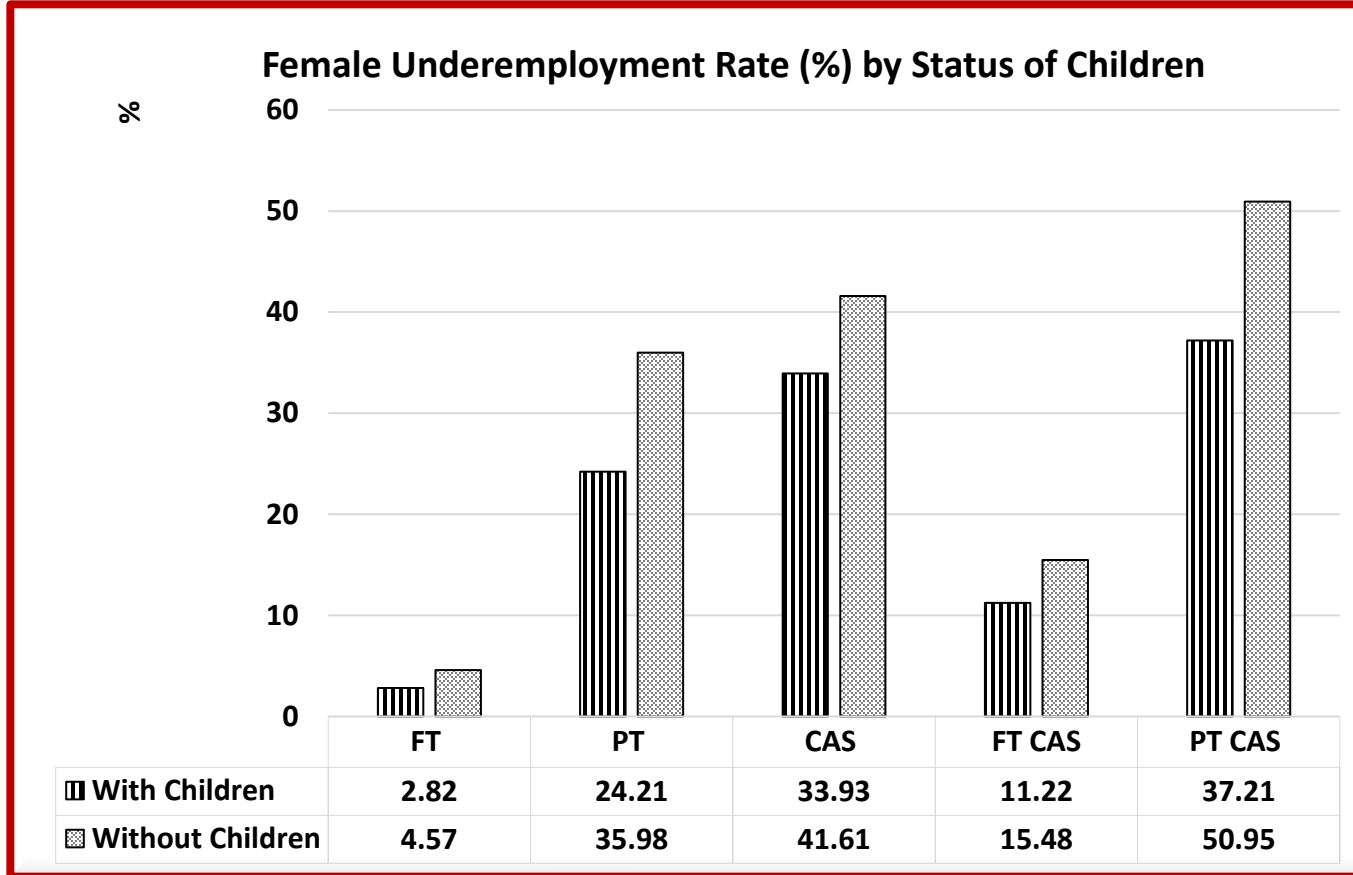


Figure 1: Trend in the female underemployment rate (%) 2001-2020 (HILDA Survey, 2020)

- ✓ Underemployment is higher among **PT** given that they are more likely to express the willingness to work additional hours, even after accounting for those who wish to work restricted hours due to factors such as childrearing
- ✓ **CAS (PT CAS)** more likely to report underemployment – instability in an employment status

# Female Underemployment Rate (%) by Status of Children



✓ Females with children are less likely to report underemployment - due to being more likely to have voluntarily chosen restricted hours of paid work to balance out childrearing duties

Figure 2: Female underemployment rate (average %) by status of children 2001-2020 (HILDA Survey, 2020)

# Literature Review

- ✓ Women labour market patterns vary differently → Motherhood is the strongest determinant of this variation & women's preference hours of work highly correlated with their attitudes to gender roles (Preston, 2023)
- ✓ Childbearing & its relationship to paid work is a women's issue (Argyrous et al., 2017) & efficient divisions of tasks (Abendroth, 2013) only occur if men in a family unit, on average, take responsibility for earnings, while women take on greater responsibility for unpaid hours of parental care (Evans & Baxter, 2013), given solid male-breadwinner culture in Australia (Blom & Hewitt, 2020)
- ✓ The most significant pressure for parents is the need to increase parental care hours & family income → trade-offs between paid work in the labour market & unpaid domestic labour → reduction in paid work hours from FT to PT, particularly for "first-time mothers having new-born"(Evans & Baxter, 2013; Argyrous et al., 2017; Gehringer & Klasen, 2017; Baum & Mitchell, 2022)

# Female Underemployment – Why Children Matter?

- ✓ Presence of children has a significant influence on female paid hours of work in Australia; however, the **debate on the exact** influence of children on female underemployment remains unsettled
- ✓ The literature could benefit from a greater understanding of anomalous labour market phenomena intertwined with children, particularly underemployment (Kler et al., 2018), where potential employees are not working at their perceived maximum capacity
- ✓ **Limited research** thus far has linked female underemployment with the age of children (Kifle et al., 2014; Kler et al., 2023) as a potential influence of female underemployment

# Hypotheses

**H<sub>1</sub>: Presence of children**

**A negative significant relationship between the presence of children & female underemployment**

**H<sub>2</sub>: Age of children**

**Female underemployment increases by having older age children**



# HILDA Data 20 Waves (2001-2020) panel data

Table 1: Descriptive statistics (Employed women working in one job)

Variable	Obs	Mean	Std. Dev.
Underemployed	60,618	.1632848	.3696284
Age:16-24	60,618	.1961794	.3971091
Age:25-34	60,618	.2327856	.4226103
Age:35-44	60,618	.2235475	.4166256
Age:45-54	60,618	.220809	.4147954
Age:55-65	60,618	.1266785	.3326153
Children	60,618	.4483817	.4973325
Child:0-4	60,618	.1209377	.3260575
Child:5-14	60,618	.2355901	.4243706
Child:15-24	60,618	.1823716	.3861537
Partnered	60,618	.6374014	.4807543
Non-partner	60,618	.3625986	.4807543
ESB	60,618	.0782606	.2685834
NESB	60,618	.1045894	.3060261
Higher_edu	60,618	.3364017	.4724821
Lower_edu	60,618	.6635983	.4724821
Loghw	53,593	2.894778	.4547061
FT	60,618	.535732	.4987257
PT	60,618	.464268	.4987257
Union	60,618	.271685	.444832
Spv	60,618	.4410901	.4965216
Ten_occpc	60,618	8.151384	9.108182
Ten_emp	60,618	6.132633	7.196302
Yrs_wrk	60,618	16.69012	11.73698
Yrs_unemp	60,618	.5004561	1.368242
Yrs_nolf	60,618	3.419878	5.100452
GSP	60,618	2.629742	1.695654
Unemp	60,618	5.250361	.9192163

Queensland Australia

## Dependent Variable:

✓ Underemployed

## Independent Variable:

✓ Personal Characteristics

✓ Labour Market Characteristics

✓ Non-HILDA controls

✓ Gross State Products (GSP)

✓ State-level monthly unemployment rate (lagged by one year)

*\*Non-HILDA controls included to account for time-varying heterogeneity that may arise from macro-level shocks that affect employees differently (Kler et al., 2018)*

# Econometric Models

**Pooled OLS regression with the cluster at family level-robust standard errors**

$$U_{it} = \beta_1 O_{it} + X'_{it} \sigma + \varepsilon_{it}$$

- $U_{it}$  is the female underemployment variable,
- $\beta$  are the regression coefficients to be estimated,
- $O_{it}$  is the presence of children indicator as the key variable of interest in this study,
- $X$  denotes a vector of independent variables,
- $\varepsilon$  the error term, subscripts  $i$  &  $t$  represents individual & time, respectively

**FE estimator with cluster-robust standard errors**

$$U_{it} = \beta_1 O_{it} + X'_{it} \gamma + \alpha_i + \varepsilon_{it}$$

- “As above”
- FE model allows controlling for all time-invariant effects over time

# Hausman Specification Test

```
hausman fixed ., sigmamore
      ----- Coefficients -----
      |          (b)          (B)          (b-B)          sqrt(diag(V_b-V_B))
      |          fixed          .          Difference          S.E.
-----|-----
Age:25-34 |  -.0347639  -.014729  -.0200349  .0068143
Age:35-44 |  -.006906  .0011086  -.0080146  .0053591
Age: 45-54|   .034672  .0358748  -.0012028  .0034542
  Children|  -.0412664  -.03141   -.0098564  .0033962
Partnered|  -.0466427  -.0399572  -.0066856  .0033973
      PT|   .2571711  .2526451   .004526   .0020351
-----|-----
      b = consistent under Ho and Ha; obtained from xtreg
      B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

      chi2(37) = (b-B)' [(V_b-V_B)^(-1)] (b-B)
              =      231.96
      Prob>chi2 =      0.0000
```

\*All independent variables are included

**Alternative econometric models - RE model equivalent to FE model**

**Wu-Hausman Test**

Used to determine whether FE or RE - more appropriate?

**Decision rule**

If the p-value is <0.05, we reject the null hypothesis & a FE model is preferred instead of a RE model

In this estimation, p-value = 0.00 - **FE is preferred**

# ECONOMETRIC RESULTS

Table 2: Presence of children & determinants of female underemployment

Variables	OLS	FE
Women's age: 25-34	0.01 (0.01)	-0.02***(0.01)
Women's age: 35-44	0.02*(0.01)	0.00 (0.01)
Women's age: 45-54	0.05*** (0.01)	0.05**(0.02)
Children's presence	-0.02***(0.00)	-0.04***(0.01)
Partnered	-0.05***(0.00)	-0.05***(0.01)
Part-time	0.24***(0.00)	0.26***(0.01)
Constant	0.16***(0.03)	0.42***(0.08)
Total N	53,593	53,593

There is a negative significant relationship between the presence of children & female underemployment

Coefficient values are provided with two significant decimal places. Standard errors are presented in brackets. All independent variables are included. Omitted categories for the results presented are female without children.\*Significant at 10% level, \*\*Significant at 5% level, \*\*\*Significant at 1% level.

## Findings (Support H<sub>1</sub>)

The presence of children **decreases** female underemployment by 2% (OLS) & 4% (FE), & the estimated effects are statistically significant



- ✓ Women with children have a high preference for PT to enable them to balance work & family than childless women
- ✓ Underemployment is predominantly an issue for PT workers
- ✓ Despite overwhelmingly working PT, women with children **voluntarily** choose to limit their working hours relative to childless women

# ECONOMETRIC RESULTS

Table 3: Age of children & determinants of female underemployment

Variables	OLS	FE
Children's age: 0-4	-0.06***(0.00)	-0.07***(0.01)
Children's age: 5-14	-0.01***(0.00)	-0.02***(0.01)
Children's age: 15-24	0.02***(0.00)	0.02***(0.01)
Total N	53,593	53,593

**Female underemployment increases by having older age children**

Coefficient values are provided with two significant decimal places. Standard errors are presented in brackets. All explanatory variables are included except age of women. Omitted categories for the results presented are females without children.\*Significant at 10% level, \*\*Significant at 5% level, \*\*\*Significant at 1% level. Note: Women's age is excluded from the control variable as there is a significant correlation between the age of the children and the mother's age (Kler et al., 2023).

## Findings (Support H<sub>2</sub>)

The **very young** (non-school-aged) & **young** children are, working women **prefer to work less hours** in paid employment, thus the **lower the likelihood of underemployment**

- ✓ HILDA Data report that **60.70%** (0-4) & **40.17%** (5-14); main reasons for working PT hours than FT is because they are caring for children
- ✓ Australian females with very young child (0-4) spent, on average, over 30 hours weekly on primary childcare activities (ABS,2022)
- ✓ If the youngest child's age is between 5-11, on average, the time dedicated by both parents to parental care is about 10 hours per week (ABS,2022)

The **older** (15-24) the children are, working women **prefer to work more hours** in paid employment, thus the higher the likelihood of underemployment

- ✓ HILDA Data report that **11.57%** of females are working PT hours than FT is because caring for children
- ✓ This is due to decreasing need for parental supervision & higher the cost of raising the older children
- ✓ It could be challenging for a female to re-enter the workforce FT after experiencing career interruptions in taking time to care for their children

# Conclusion

The presence of children has some association with female underemployment

- ✓ This is not to say that they are more likely to be underemployed vis-à-vis childless females, but that having children significantly alters female's decision to switch from FT to PT work should they choose to remain in the labour market since they are the primary caregiver, particularly for very young children
- ✓ Females having young children are **voluntarily in PT employment – less likely to be underemployed**
- ✓ Females having older children are **involuntarily in PT employment – more likely to be underemployed**

# Policy Implications

Presence of children in the family & traditional gender ideology influence females adjusting their hours in paid work by transitioning to PT jobs with the high availability of casual hours in Australia

- ✓ Though PT employment in Australia may strengthen female engagement in the labour market, it also comes with the cost of increasing labour market exclusion, a lack of career prospects & disparity in holding leadership positions
- ✓ Policymakers should:
  - ✓ Persistently support employed females having children by offering flexible working arrangements
  - ✓ Persistently encourages employers to consider all requests for an increase in hours of work in PT employment or the right to transition from PT work to FT employment if the transition is reasonable

# Future Research

- ✓ Future research should incorporate self-employment in the female employment indicators to help provide a deeper understanding of the female preference in the labour market for having children
- ✓ Examining fertility choices among working females would be a prosperous avenue for future research
- ✓ They may be reverse causality as the presence of children impacts female employment outcomes, and female employment may also affect a female's decision to have children



**THANK YOU!**