

**Financial Difficulty and
Australian Families:
What do we learn from HILDA?**

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Financial difficulty

These questions have been asked consistently in each self-completion questionnaire (SCQ)

“Since January of 200# did any of the following happen to you because of a shortage of money?”

Financial Difficulty

Hardship

- Had to pawn/sell something
- Missed meals
- Went without heat
- Received help from charity

Cash-flow

- Couldn't pay utilities
- Couldn't pay rent/mortgage
- Asked for help from friends/relatives due to financial difficulty

Table 1: Incidence of Financial Difficulty by Family Type
Wave 2 data

Either Partner Reports Difficulty

	Family type			
	Couple	Lone parents	Singles	Total
Utilities	.195	.381	.191	.213
Missed Meals	.032	.079	.077	.050
Welfare	.032	.113	.053	.046
Hardship	.098	.249	.157	.130
Cashflow	.251	.464	.275	.280
Any difficulty	.273	.502	.308	.306
Sample sizes	3290	515	1724	5529

Table 2: Financial Difficulty by Equivalent Income quintile

	Equivalent Income quintiles in increasing order				
	Q1	Q2	Q3	Q4	Q5
Utilities	.274	.293	.237	.171	.089
Missed Meals	.096	.068	.052	.025	.009
Welfare	.095	.072	.042	.015	.007
Hardship	.228	.187	.132	.068	.039
Cashflow	.356	.366	.311	.234	.128
Any difficulty	.403	.393	.336	.258	.143

Observations

Cashflow/hardship distinction due to Bray (2001)

Income gradient much steeper for hardship than for cashflow

Lone parents really suffering from these problems

Singles experience marginally more difficulty than couples

Research Questions

1. What is the relationship between financial difficulty and important demographic and economic variables such as family size, number of children, family structure, disability, poor health, income, assets, home ownership, education, and region?
2. How do families respond to the experience of financial difficulty?
3. Do husbands and wives agree in their reports of financial difficulty?

My talk will be an attempt to summarize the results from investigation of these research questions.

Based upon collaborations with

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1 Characterizing Financial Difficulty

Main conclusions

These are based on estimating probit models of the propensity to experience financial difficulty which simultaneously control for a wide range of demographic and economic variables

Simple model

Household structure, household size, income

1. Household structure plays very strong role
 - (a) Lone parent households much more likely than other households to experience financial difficulty even after controlling for income and size
 - (b) Singles more likely to experience financial difficulty than couple-headed households after controlling for income

The following conclusions hold after controlling for the expected effect of household size on consumption.

2. Presence of children under age 10 has a significant positive relationship with experiencing hardship. The strongest effect is from children ages 5-9.
3. Presence of children of any age has a significant positive relationship with experiencing cashflow problems. The strongest effect is from children under the age of 5.
4. Presence of children much more important in describing cashflow than hardship.

Highlights a possibility for future research:
childcare costs and financial difficulty?

Richer model (adding health, wealth, region)

1. No relationship between presence of children (beyond their expected effect on consumption) and experience of hardship.
2. Other results from above still hold (lone parents, etc.)
3. Presence of non-resident children has positive relationship with financial difficulty.
4. Couples in de facto relationships much more likely to experience difficulty than couples in registered marriages, even after controlling for length of relationship.
5. Households with a member in poor health or a member with a limitation on work or study much more likely to experience financial difficulty
6. Very strong effect of home ownership and total assets.

7. No effect of region, state/territory or capital city
8. English-speaking immigrants less likely to experience financial difficulty than Australian-born individuals (small but significant)
9. No other effects of language or immigrant status
10. Couple-headed households use income more efficiently to avoid financial difficulty.

Specific to Cashflow

1. Children have significant effect on likelihood of experiencing cashflow problems with the same pattern as observed above—strongest effect for presence of children under age 5 and decreasing effect as age increases.

2 Do Couples Increase Labour Supply in the Presence of Financial Difficulty?

Main facts

1. Negative correlation in data between financial difficulty at time $t-1$ and labour supply at time t .
2. Negative correlation in data between financial difficulty at time $t-1$ and changes in labour supply from time $t-1$ to time t .
3. No relationship in data between lagged changes in financial difficulty and current changes (or levels) of labour supply.

Table 3. Working hours by financial difficulty

	Obs.	Husbands Hours		Wives Hours	
		Mean	Std. D.	Mean	Std. D.
Financial difficulty ($t - 1$): Yes	256	36.113	(26.35)	16.688	(18.78)
Financial difficulty ($t - 1$): No	1157	41.832	(17.28)	22.049	(18.39)

Table 4: Mean change in working hours (from Wave 1 to Wave 2) worked by experience of financial difficulty

	Obs.	Males	Females
difficulty in neither wave	1068	-0.478(0.36)	-0.419(0.36)
difficulty in 2nd wave	72	0.319(1.90)	-4.125(1.59)
difficulty in 1st wave	115	2.357(1.24)	1.270(0.87)
difficulty in both waves	139	-0.367(1.77)	1.000(1.14)

(Standard errors)

Modelling challenge

- It is logical to suspect that financial difficulty is simultaneously determined with labour supply.
- This makes it difficult to estimate the way in which families might adjust their labour supply behaviour in response to difficult financial events.
- Our solution is to simultaneously model financial difficulty and labor supply.
- We use past year's financial difficulty and model its effect on current labor supply.

Model features

- Couples choose working hours from a finite number of alternatives to maximize a utility function over consumption and both partners' non-market time.
- suitable for the Australian case where the complicated tax and welfare system makes the budget constraint faced by households nonlinear and non-convex.
- fixed costs of working are taken into account and modelled.
- unobserved heterogeneity in preferences, in financial difficulty, and their correlation with each other and with the error term in the wage equation are taken into account (random effects-type specification). Partners may have similar tastes for non-market/market time trade-off and financial behaviour.

More model features

- Financial difficulty is identified using questions about the length of the couple's relationship, couple's savings habits, how housing is financed, how finances are managed within the family, and marital status.
- Three equation model (labour supply, wage rates, and financial difficulty) is estimated simultaneously using the method of simulated maximum likelihood.

Main Contributions/Results

- Structural model results: experience of financial difficulty in past appears to have a negative effect on current labor supply
- Negative effect is primarily through higher fixed costs associated with working. The effect is larger for men than for women.
- Including information about health problems and other fixed costs that could be driving this result does not eliminate the negative relationship between the experience of financial difficulty and labour supply.
- Candidate explanation: unobservable characteristics of the 'fixed-effect' type that are very persistent.
- In a reduced form fixed-effects model, we find zero effect of financial difficulty on labor supply

Other results

- Financial difficulty negatively affects hours worked by both husbands and wives through inducing extra fixed costs of working and/or making family members value non-market time more. The effect is larger for husbands than for wives.
- Family structure and individual health conditions affect labour supply in the usual way. For example, young children tend to affect mothers' labour supply negatively but have a small positive effect on fathers' labour supply.
- Financial difficulty is more likely to occur in couples who have been together for shorter periods, do not save regularly, do not budget into the future or are paying rent or mortgages.
- Unobserved heterogeneity in preferences is correlated with the error term in the financial difficulty equation.

3 Couple Disagreement about Financial Difficulty?

Main facts

	Neither	Husband only	Wife only	Both
Utilities	80.5%	5.1%	6.1%	8.3%
Rent	90.3%	3.1%	3.4%	3.3%
Meals	96.6%	1.5%	1.2%	0.8%
Friends	86.5%	4.0%	4.2%	5.3%
Welfare	96.5%	1.1%	1.5%	1.0%
Any stress	76.3%	6.0%	7.3%	10.5%
More than one stress	88.9%	3.5%	3.8%	3.9%

Motivation

1. Increasing focus in economics on material hardship and deprivation
2. Large amount of disagreement in HILDA between couples about the experience of financial hardship
3. Similar questions are asked in
 - Survey of Income and Program Participation
 - British Household Panel Survey
 - U.S. General Social Survey
 - European Community Household Panel
 - German Socio-Economic Panel

HILDA is the only one that asks the questions of both husband and wife.

Some details of our study

We test five candidate explanations for the disagreement

1. Gender differences in reports of financial difficulty
2. People may be reporting about individual problems rather than household problems.
3. Those who make decisions about household finances may be more informed about financial difficulty.
4. Couple disagreement may indicate something about the level of severity of the financial problem.
5. This might just be meaningless noise.

Main conclusions

1. No evidence that there are any differences in reports of financial difficulty by gender
2. People are reporting about household events, not individual ones.
3. Weak evidence in descriptive statistics that who makes decisions is related to more reports of financial difficulty. This is quite strong for de facto couples and quite weak for married couples. Interestingly, disagreeing about who makes the decisions is correlated with the experience of financial difficulty but not correlated with disagreeing about the experience of financial difficulty.

The evidence for a role for decision-making mostly disappears in a regression framework (controlling for income, etc.) but is still present for de facto couples.

4. It does not appear to be meaningless noise.
5. It does seem to be related to severity of the financial difficulty.
For all measures of financial difficulty, an ordered probit model is preferred to a logit model.
We take this as evidence of severity.