

Direct Estimation Approach

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1 No Input Measurement Error

The specification estimated is:

$$LW_{02,i} = \log(\theta_i) + \frac{\delta_1}{\gamma} \log \left(\left(a_{m,i} \tau_{m,97,i}^\rho + a_{f,i} \tau_{f,97,i}^\rho + a_{g,i} g_{02,i}^\rho \right)^{\gamma/\rho} + (\tau_{C,97,i} + a_N \tau_{N,97,i})^\gamma \right) + \delta_2 LW_{97,i}$$

where:

- $\tau_{C,i}$ is hours spent in center-based care
- $\tau_{N,i}$ is hours spent in any non center-based, non-relative care
- $a_{x,i} = \exp(X_i \phi_x)$ for each $x \in \{m, g\}$ and $a_{f,i} = M_i \exp(X_i \phi_f)$ where M_i is a binary variable indicating whether the mother is cohabiting or married.

Table 1: Direct Estimation Results with Fixed Elasticities

	(1)	(2)	(3)
ρ	-1.20 (0.00)	-0.50 (0.00)	-1.20 (0.00)
γ	-2.00 (0.00)	-0.50 (0.00)	-2.00 (0.00)
δ_1	0.13 (0.07)	0.14 (0.10)	0.11 (0.08)
δ_2	0.73 (0.08)	0.72 (0.08)	0.76 (0.07)
ϕ_m : Mother's Time			
Const.	-2.87 (8.78)	3.12 (9.81)	-0.07 (0.07)
Married	-0.78 (1.68)	3.50 (5.21)	-0.03 (0.02)
Mother: HS	-	-	-0.02 (0.06)
Mother: Some Coll.	-	-	-0.02 (0.01)
Mother: Coll.	-	-	-0.01 (0.01)
Mother: College+	-	-	-0.01 (0.02)
Child Age	-	-	-0.69 (0.45)
ϕ_f : Father's Time			
Const.	1.95 (83.58)	5.78 (8.09)	-0.03 (1.31)
ϕ_g : Goods			
Const.	2.37 (55.68)	5.70 (10.49)	0.14 (5.90)
Married	-0.02 (12.23)	0.77 (8.37)	0.06 (3.94)
Child Age	-	-	1.24 (46.73)
Childcare			
Formal Care	1.00 (1.00)	1.00 (1.00)	1.00 (1.00)
Informal Care	1.74 (83.95)	8.76 (0.01)	0.19 (1.88)
ϕ_θ : TFP			
Const.	-0.35 (2.59)	0.96 (0.90)	0.00 (0.28)
Married	0.25 (1.78)	0.64 (0.87)	0.14 (0.09)
Mother: HS	-0.02 (0.18)	-0.03 (0.17)	-0.06 (0.17)
Mother: Some Coll.	0.17 (0.17)	0.18 (0.16)	0.11 (0.17)
Mother: Coll.	0.28 (0.22)	0.27 (0.22)	0.17 (0.22)
Mother: College+	0.23 (0.18)	0.24 (0.17)	0.14 (0.18)
Child Age	2	-	0.05 (0.13)

Standard errors are calculated using 50 bootstrap samples. Sample is 700 children with non-missing skills in both 1997 and 2002, non-missing time use observations (including childcare) in 1997, and non-missing goods observations in 2002.