

Time Allocation and the “Wage Gap”

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Two strands of ISER's substantive research programme

MiSoC:

- “Social Position and Life Chances”.

Time Use:

- “Daily Life and Social Structure”.

.....converge in this project!

Three sub-projects

1. Unpaid work-time and wage differentials.

- Negative **cross-sectional** relation between women's share of domestic work and shadow wage differential.

2. Disentangling causal processes using longitudinal data.

- Fusing data sources, panel (*BHPS*) and diary (*HoL*).
- Gender time-balances and **subsequent** wage diff'ls.

3. Regime effects on gender-balance/wage-diff'l links.

- Multinational Time Use Study (MTUS) plus LIS.
- Couples' scheduling through the day.
- National patterns vary with regime provisions?

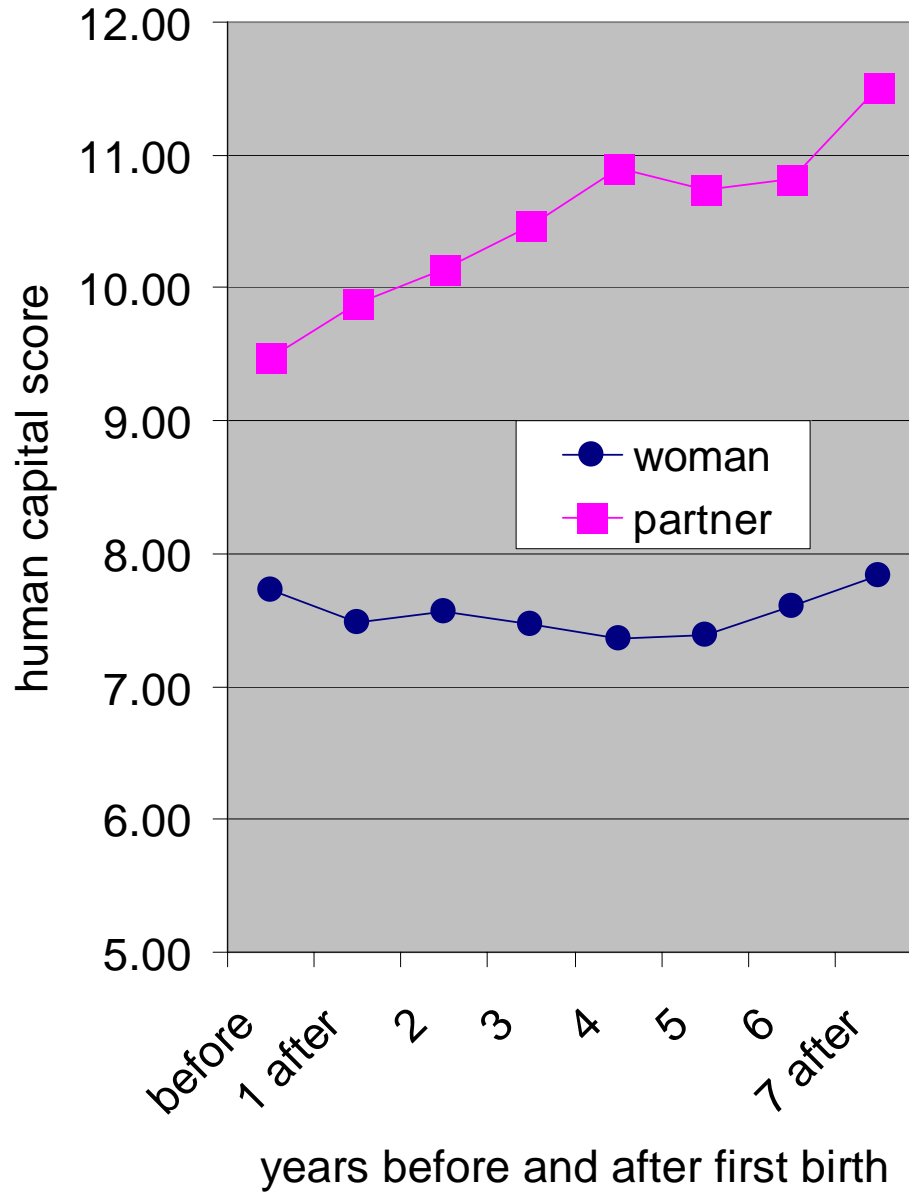
Previous work

- Effects of domestic dol on career progress.
- Estimating shadow wage for first ten waves of *BHPS*.
- Based on education + 4 years' work history.
- Childcare choices as proxy for time-use.
- Pooled model around birth of first child.

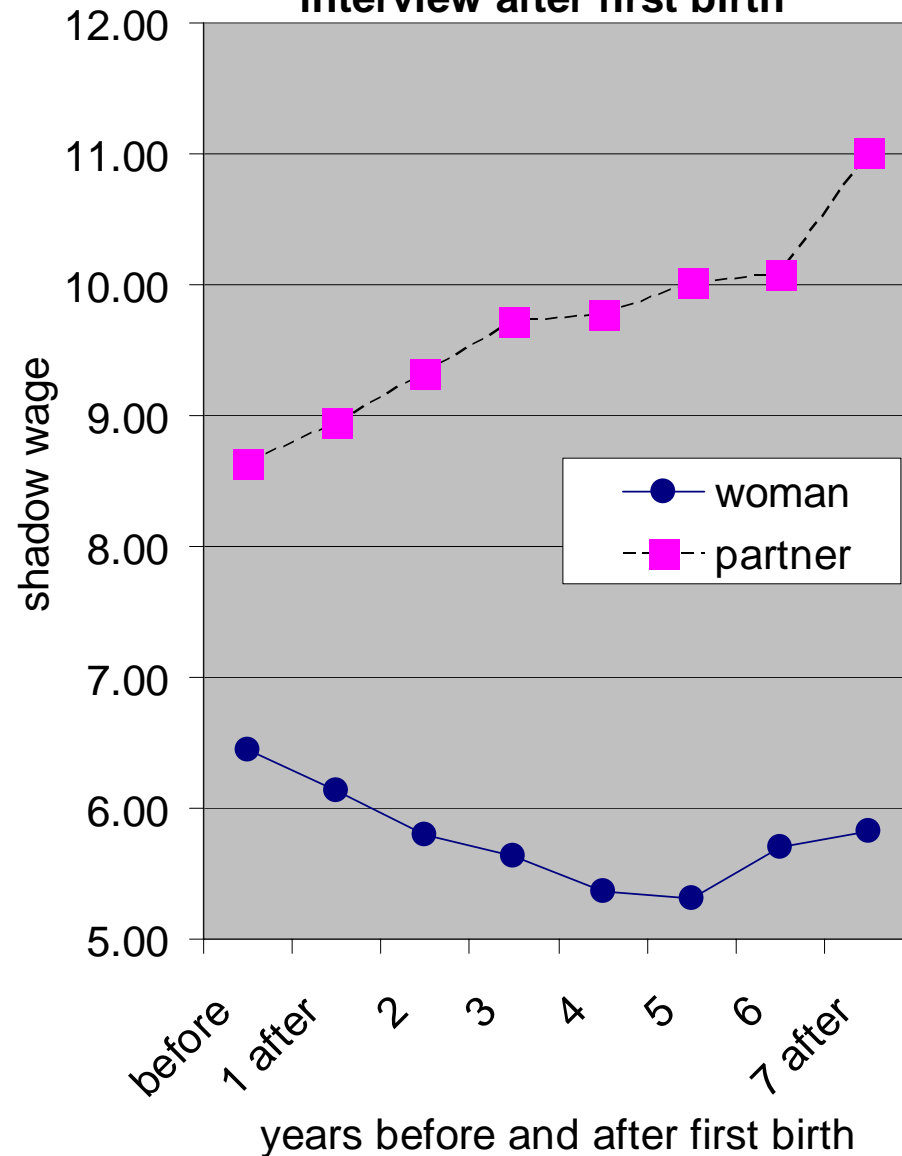
Allerednic: a backwards fairytale.

- (*Prince marries princess, turns her into scullerymaid*).
- Household formation choices, and
- Division of unpaid work, with
- Consequences for partners' human capital formation.

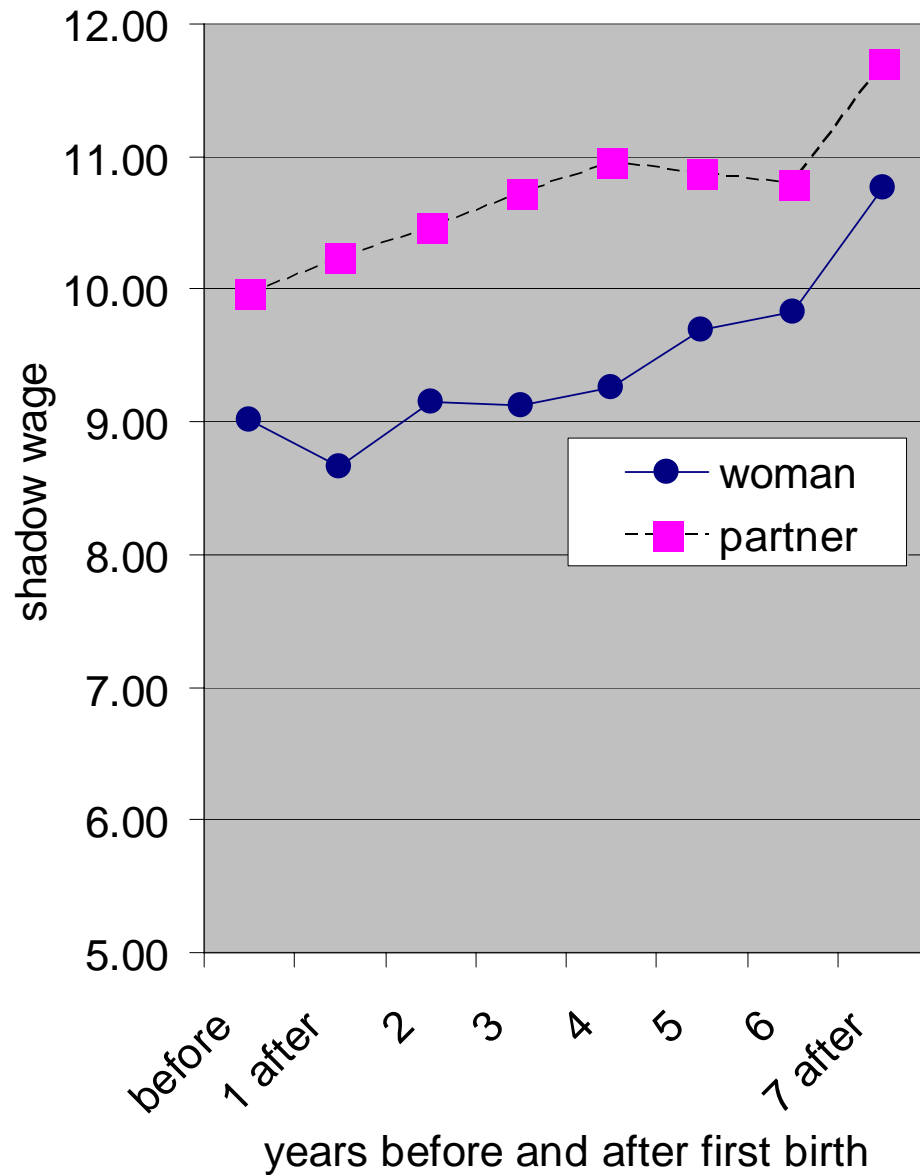
Human capital, all women with jobs at time of interview before first birth



Human capital, women employed before first birth, not employed at time of interview after first birth



Human capital, women employed before and for five annual interviews following first birth



Key hypothesis

- Hypothesis: A gendered division of domestic labour leads to a gender gap in wages.
- Initial difference in human capital between partners → gendered division of labour → diff'l in subsequent human capital formation
- To test this hypothesis, we use data from two surveys – *HoL* and *BHPS*

Data fusion

1. Home on-Line Study (HoL)

- 3 annual waves of household data (1999 - 2001)
- Interviews were conducted face to face in the first instance, and by telephone in subsequent waves.
- Interviewed respondents were invited to fill a week-long diary and return it by post
- Pooled sample of diary and survey data from adult respondents ($N = 2449$)
- Fusing diary data and survey data
- Parameter estimates for adjusting household panel survey data

Data fusion

2. *British Household Panel Survey (BHPS)*

- Long-running household panel survey, containing around 5,500 households and over 10,000 individuals in the wave one (1991) sample
- 12 waves of data (1991 – 2002) are available
- “Stylised estimate” questions about normal weekly hours of paid and domestic work, and questions about participation in, and the distribution of, various unpaid work tasks within the household
- Rich background/ demographic info, e.g. employment status, lifecycle stages, marital status and so on

⇒ ‘Fusing’ time diary evidence from *HoL* with data from *BHPS*

- Adjusted data can be used to study the relationship between gender-time balances and subsequent wage differentials

Table 1. Data fusion regression model coefficients

(HoL 1999 – 2001, N = 2449) **p < .05

	Paid work	House work	Other unpaid	Sleep etc	Consump- tion	Total
Constant	336	17.2	-46.0**	675**	458**	1440
Housework	-1.48**	1.86**	.872**	-.719**	-.529	0
Paid work	5.29**	-.414**	-.806**	-1.46**	-2.61**	0
Age	-3.89**	.259	5.09**	-2.46**	.998	0
Age²	.001	.002	-.037**	.0308**	.00327	0
Woman	-15.56	-67.3**	69.8**	45.5	-32.4	0
Woman*age	-.085	4.29**	-2.48**	-1.35	-.374	0
(Woman*age)²	.005	-.0365**	.0111	.0143	.00636	0
Shop	11.0	1.72	12.3**	-14.7**	-10.3	0
Cook	5.78	19.3**	-16.5**	.782	-9.39	0
Clean	-19.0**	12.5**	18.5**	-12.3	.369	0
Wash	-2.34	4.94	2.25	7.05	-11.9	0
Parent	-204**	12.5	376**	-42.4	-141**	0
Emp*parent	.644**	-.322**	-1.92**	.786**	.807**	0
Age*parent	4.44**	.177	-5.75**	-.104	1.23**	0
Woman*parent	-4.54	-3.44	-18.2	23.437**	2.78	0
R	819	.748	.542	.421	.614	

Table 2. Imputing time-use data to *BHPS*

<i>BHPS</i>	Mins/day		stylished estimates imputed <i>BHPS</i> time use data					
	paid	domestic	paid	hsewk	othdom	slpetc	consp	total
1994	200	105	268	83	101	594	393	1439
1995	203	106	265	84	103	594	394	1440
1996	204	104	262	85	103	594	395	1439
1997	205	102	259	86	104	595	396	1440
1998	204	101	255	86	106	596	398	1441
1999	202	99	250	87	105	597	401	1440
2000	201	100	245	88	106	598	403	1440
2001	197	97	241	81	104	601	412	1439
2002	191	96	234	82	105	603	415	1439

Some further thoughts on data fusion

1. Include leisure activities

Leisure activities recorded in HoL (in all 3 waves) and BHPS (in each other wave from wave 6 onwards):

- How often do sports, keep fit, walk
- How often watch live sports
- How often go to cinema, concerts or theatre
- How often eat or drink out

Some further thoughts on data fusion

2. Explore the use of multistage modelling, e.g. Heckman's model

*No. of zero-time cases from the HoL pooled sample
($N = 2449$):*

	<i>N</i>
1. Paid work, study and travel	247
2. Housework (e.g. cooking & cleaning)	200
3. Other unpaid domestic work	113
4. Sleep and resting	0
5. Consumption and other activities	1

Further analyses

Unpaid work and wage differentials

- Cross-sectional analysis on the relationship between women's share of domestic work and the shadow wage differential
- Negative relationship between share of domestic work and wage – but, what is the causal process?

⇒ Panel analysis using *BHPS* data

Further analyses
Disentangling causal process using
longitudinal data

- Using fused diary and panel survey data
- Analysing changes in time-use on paid work and unpaid work
- *and, subsequent* changes in human capital and shadow wage

Further analyses

Regime effects on gender-balance/ wage diff'l links

- A given division of domestic labour may have varying effects on paid work participation, depending on regime provisions
- Cross-national comparisons of regime attributes, time-use patterns, and the wage differential using data of *MTUS* and *LIS*