

When Working Is Not Enough: Is There a Care Trap for Female Workers?

Michele Bavaro¹, Valeria Cirillo ^{2,3}

¹Department of Social Policy and Intervention and INET, University of Oxford (UK)

²Department of Political Sciences, University of Bari "Aldo Moro" (IT)

³Minerva - Laboratory on Diversity and Gender Inequality (IT)

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Caring Labor, Unpaid Work and Policy Implications

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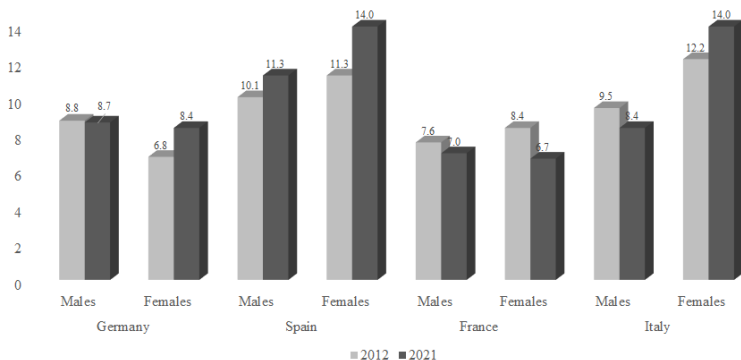
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Increasing in-work poverty of women in Europe



Source: In-work at-risk-of-poverty rate by sex (18-64 years old) - EU-SILC survey

► *In-Work Poverty* **'multidimensional concept'**:

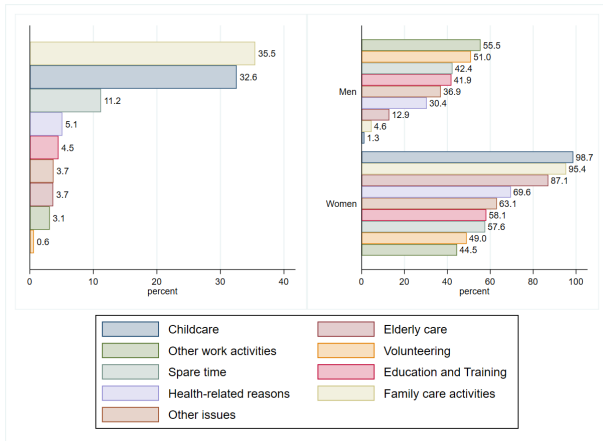
- (i) individual's occupation and characteristics (employment stability/ wage/intensity of work);
- (ii) demographic structure and occupational composition of the household (household income - number of earners);

► *In-Work Poverty* **gender-blind concept** (assuming equal sharing of resources in the household) → we focus on individual wage and work features

Motivation and background

- ▶ Increasingly employment rate of women in the Italian labor market, but **low-quality jobs** (non-standard occupations, low-wage jobs);
 - According to Italian administrative data, in 2017 the incidence of low-pay for women was about 41.4%, for men 24.9%: a gap of 16.6 percentage points that has never narrowed over the last 30 years (Bavaro, 2022);
- ▶ Crucial role of **part-time jobs** - about 32% of total female employment (74% of all part-time workers), 8% for males (15-64 years old, EU-LFS, 2021);
- ▶ Rising share of **involuntary part-time** of women: from 5.4% in 2000 to 19.6% in 2020 (as a proportion of total employment) and 64.5% (in 2020) as a proportion of part-time employment (OECD, 2021);
- ▶ Since a male 'breadwinner' family model still dominates, women are asked to prioritize domestic and care responsibilities with respect to formal employment:
 - **Gender gaps in care work**: asymmetric distribution of caregiving responsibility (already pronounced before the pandemic) (Addati et al., 2018);
- ▶ Need to explore how and to which extent unequal distribution of care work affects occupational transition of workers in order to design adequate policies.

Figure: What is the main reason that led you to work part-time? Overall and by gender



Source: Participation, Labour, Unemployment, Survey (2018) - INAPP microdata

- ▶ Childcare and family care activities among the main reasons for part-time (for women);
- ▶ Based on an analysis of 2019 data from 33 countries, representing 54% of the global working-age population, men's share of time spent in unpaid work as a proportion spent in total work was 19%, while for women this was 55% (WEF, 2021).

Aims, research questions and contribution

- ▶ **Aims:** to investigate how the care burden (and specifically childcare) may affect employment transitions of men and women, and by this way, income gaps increasing probabilities of in-work poverty (specifically part-time and low-paid jobs).

- ▶ **Research questions:**

RQ1) What is the probability of occupational downgrading (part-time and unemployment) in the short and medium run for women bearing childcare activities with respect to their male partners?

RQ2) What is the probability of occupational downgrading (low pay and unemployment) in the short and medium run for women bearing childcare activities with respect to their male partners?

RQ3) To what extent are part-time workers bearing childcare burden exposed to greater economic uncertainty relative to the rest of the workforce? (on-going research - future development of the paper)

Prior research

- ▶ Different stream of research and approaches have dealt with **gender disparities in labor market, working conditions and unpaid work (care activities)**:

- (i) **Quality of jobs and, more recently, in-work poverty**:

- Sociological contributions and statistical models highlighting gender gaps in the labor markets affecting labor outcomes, mainly wages: occupational segregation (Charles and Grusky, 2005), education, discrimination (Blau and Kahn, 2017); technology and human capital (Goldin, 1990; Geddes and Lueck, 2002; Greenwood et al., 2005).

- (ii) **Mainstream view of gender gaps in time use allocation**:

- differences in preferences: 'they did it, so they must have wanted to do it' (Stigler and Becker, 1977); female preferences for children (Gutiérrez-Domènech, 2008)
 - women's labor supply is less elastic than men's because women's mobility between jobs is limited by obligations of family care (Webber, 2016).

- (iii) **Radical contributions** focusing on the history of patriarchal and capitalist institutions crucial to interpret the persistent gender pay gap (Folbre, 2021a,b)

- **unequal bargaining power**: control variables included in models of wage determination are not the result of individual choices, rather structural inequalities;
 - **crucial role of institutions** established through processes of collective action.

Prior research

- ▶ We bring together:

- (i) **Feminist contributions** highlighting that women's tendency to devote more hours to unpaid care work (wrt men) due to institutional pressure to ensure activities such as family care not rewarded by market, although process of commodification of care (Folbre and Nelson, 2000);

- (ii) **Labor market studies** linking precarious forms of employment to occupational mobility, employment transitions and job downgrading (Dex et al., 2008; Berton et al., 2011; Dex and Bukodi, 2012; Picchio et al., 2021).

- ▶ This is crucial for Southern Europe and, specifically, Italy featuring:

- (i) traditional patriarchal family structure (Corsi et al., 2021)

- (ii) flexibilization of work linked to labor market reforms (Cirillo et al., 2017)

- (iii) increasing in-work poverty and high incidence of low-wage earners (Bavaro, 2022)

→ i.e., Part-time employment result of LM-related demand-side dynamics promoting marginal forms of employment in the peripheral labor force (e.g. women with care responsibilities) (Tijdens, 2002; Barbieri et al., 2019).

The AD-SILC database: a unique administrative source of information

- ▶ The **AD-SILC** micro dataset is constituted by linking two data sources:
 - IT-SILC 2004-17 - Italian waves of the Survey on Income and Living Conditions produced by Eurostat
 - Administrative archives from INPS - Italian National Social Security - collecting information on working careers and pensions
- ▶ **AD-SILC** allows to follow individuals over time and characterize couples with respect to childbirth over time
- ▶ Work related information (employment, type of contract, wage etc.) is taken from the administrative component of the dataset, while the rest of demographic information (household composition, education, childbirth etc.) derives from IT-SILC

The AD-SILC database: Sample selection

- ▶ We look at partners who have at least one offspring in the 2014-17 waves of IT-SILC.
- ▶ We build a sample of female-male couples ($n = 2454$) and study the event of first childbirth in a time span between 1995 and 2017.
- ▶ We look at couples' labor market conditions at childbirth by exploiting the information on working career provided by AD-SILC. In particular, we focus on unemployment, part-time and low-pay states. We look at short (1yr) and medium (3 yr) term transitions after childbirth.
 - **Unemployment** is defined using administrative data, the unemployed are those who have less than 12 working weeks during a year.
 - After having identified the main job (highest wage in case of multiple jobs within a year), we can distinguish between full and **part-time** jobs.
 - The **low pay** indicator is built using the national yearly threshold calculated for the universe of Italian workers in Bavaro (2022). Workers whose individual labor earnings are below the threshold are classified as low-paid.

Descriptive evidence by gender

	Male		Female		Difference	
	mean	s.e.	mean	s.e.		t
Age at childbirth	32.767	4.666	30.492	4.673	2.275***	16.608
State at childbirth: Unemployed	0.047	0.211	0.129	0.335	-0.082***	-9.993
State at childbirth: Part-time	0.026	0.16	0.191	0.394	-0.165***	-18.751
State at childbirth: Full-time	0.927	0.26	0.679	0.467	0.247***	22.314
State at childbirth: Low-paid	0.065	0.247	0.177	0.382	-0.112***	-11.852
State at childbirth: High-paid	0.888	0.316	0.694	0.461	0.194***	16.74
Education	2.531	1.035	2.59	1.049	-0.059	-1.943
Area of work: North	0.563	0.496	0.615	0.487	-0.052***	-3.611
Area of work: Center	0.232	0.422	0.216	0.412	0.016	1.336
Area of work: South	0.205	0.404	0.169	0.375	0.036**	3.125
Private employee	0.619	0.486	0.704	0.457	-0.085***	-5.878
Public employee	0.111	0.314	0.14	0.347	-0.029**	-2.866
Self-employed	0.270	0.444	0.156	0.363	0.114***	9.204
Observations	2,324		2,324			

- ▶ The number of **female-male couples** with first childbirth in the observed time span equal 2,324, for a total of 4,648 individuals. The employed individuals at childbirth are 4,239.

Unconditional employment transitions (1)

- s_t corresponds at the employment state (unemployed, U; part-time, PT or full-time, FT) at childbirth, s_{t+1} at the state one year later and s_{t+3} three years later.

s_t	Female			Male		
	s_{t+1}			s_{t+1}		
	U	PT	FT	U	PT	FT
U	0.078	0.019	0.029	0.025	0.002	0.022
PT	0.273	0.138	0.028	0.003	0.016	0.008
FT	0.077	0.060	0.554	0.029	0.006	0.889

s_t	s_{t+3}			s_{t+3}		
	U	PT	FT	U	PT	FT
	U	PT	FT	U	PT	FT
U	0.101	0.008	0.016	0.003	0.004	0.018
PT	0.054	0.108	0.022	0.008	0.009	0.009
FT	0.167	0.091	0.432	0.110	0.011	0.804

- **Dependent variable no.1 (Y):** probability of experiencing an occupational downgrading from full-time job to part-time or unemployment or from part-time to unemployment (1 and 3 years after childbirth).

Unconditional employment transitions (2)

- Different employment states: unemployed, U; low-paid, LP and high-paid, HP.

s_t	Female			Male		
	s_{t+1}			s_{t+1}		
	U	LP	HP	U	LP	HP
U	0.078	0.026	0.022	0.025	0.007	0.016
LP	0.055	0.067	0.069	0.015	0.036	0.029
HP	0.048	0.066	0.568	0.017	0.028	0.826

s_t	s_{t+3}			s_{t+3}		
	U	LP	HP	U	LP	HP
	U	LP	HP	U	LP	HP
U	0.101	0.009	0.016	0.030	0.003	0.016
LP	0.100	0.035	0.057	0.036	0.020	0.024
HP	0.121	0.082	0.480	0.082	0.063	0.726

- **Dependent variable no.2 (Z):** probability of experiencing an occupational downgrading from high-paid to low-paid job or unemployment or from low pay to unemployment (1 and 3 years after childbirth).

Empirical strategy

- ▶ **RQ1 - RQ2:** What is the probability of occupational downgrading in the short and medium run for women bearing childcare activities with respect to their male partners?

$$Prob(Y_{i,t+j}) = \alpha + \beta_1 FP_i + \gamma_1 A_{i,t} + \delta_1 SE_{i,t} + \eta_1 W_{i,t} + t + F_k + \epsilon_{1i}$$

$$Prob(Z_{i,t+j}) = \alpha + \beta_2 FP_i + \gamma_2 A_{i,t} + \delta_2 SE_{i,t} + \eta_2 W_{i,t} + t + F_k + \epsilon_{2i}$$

- ▶ Y_i and Z_i indicate alternatively the two dependent variables concerning the individual i at time $t + j$ (j can take alternative value of 1 or 3 - 1yr/ 3yr later with respect to childbirth at t);
- ▶ FP_i is a dichotomous variable taking value 1 if female partner in the couple;
- ▶ A_i includes individual characteristics (age at childbirth);
- ▶ SE_i represents socio-economic features (education, type of job in private, public sector or self-employed);
- ▶ W_i indicates for employees in the private sector specific workplace features (firm size and sector of activity);
- ▶ t indicates year of childbirth;
- ▶ F_k indicates geographical area of work at childbirth;
- ▶ ϵ_i is the idiosyncratic error term (clustered standard error by household).

Table: Average marginal effects of occupational downgrading (Y) one year after childbirth (columns 1 and 3) and three years later (columns 2 and 4), conditional on being employed at childbirth

	Full sample		Private employees	
	(1)	(2)	(3)	(4)
	b/se	b/se	b/se	b/se
Female partner	0.145***	0.219***	0.175***	0.280***
	(0.010)	(0.013)	(0.013)	(0.017)
Low-secondary	0.004	0.002	-0.001	-0.018
	(0.016)	(0.020)	(0.019)	(0.024)
Upper-secondary	0.000	-0.019	0.019	-0.002
	(0.013)	(0.017)	(0.016)	(0.020)
Tertiary	-0.033**	-0.057***	-0.009	-0.034
	(0.015)	(0.020)	(0.020)	(0.027)
Center	0.008	0.031**	0.001	0.027
	(0.011)	(0.016)	(0.014)	(0.019)
South	0.036***	0.071***	0.034**	0.084***
	(0.013)	(0.017)	(0.017)	(0.021)
Age at childbirth	-0.005***	-0.010***	-0.005***	-0.007***
	(0.001)	(0.002)	(0.002)	(0.002)
Public sector	-0.041***	-0.031		
	(0.014)	(0.020)		
Self-employed	-0.044***	-0.033**		
	(0.012)	(0.016)		
Firm size			-0.018***	-0.038***
			(0.006)	(0.007)
Year dummy at childbirth	YES	YES	YES	YES
Sector dummies (12 digit)			YES	YES
N	4,239	3,898	2,600	2,375
Wald chi2	307.19	402.44	259.18	398.51
Pseudo R2	0.122	0.110	0.160	0.178

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table: Average marginal effects of occupational downgrading (Z) one year after childbirth (columns 1 and 3) and three years later (columns 2 and 4), conditional on being employed at childbirth

	Full sample		Private employees	
	(1)	(2)	(3)	(4)
	b/se	b/se	b/se	b/se
Female partner	0.122***	0.158***	0.143***	0.187***
	(0.010)	(0.013)	(0.012)	(0.016)
Low-secondary	0.018	0.024	0.029	0.014
	(0.016)	(0.020)	(0.018)	(0.023)
Upper secondary	0.003	-0.012	0.021	0.019
	(0.013)	(0.016)	(0.015)	(0.019)
Tertiary	-0.017	-0.043**	0.014	-0.003
	(0.015)	(0.019)	(0.019)	(0.026)
Center	0.032***	0.046***	0.030**	0.032*
	(0.012)	(0.015)	(0.014)	(0.018)
South	0.078***	0.122***	0.072***	0.137***
	(0.014)	(0.017)	(0.016)	(0.021)
Age at childbirth	-0.005***	-0.011***	-0.005***	-0.007***
	(0.001)	(0.002)	(0.001)	(0.002)
Public sector	-0.022	0.012		
	(0.015)	(0.020)		
Self-employed	-0.018	0.014		
	(0.012)	(0.016)		
Firm size			-0.022***	-0.041***
			(0.006)	(0.007)
Year dummy at childbirth	YES	YES	YES	YES
Sector dummies (12 digit)			YES	YES
N	4,239	3,898	2,600	2,375
Wald chi2	320.76	338.10	275.04	321.09
Pseudo R2	0.157	0.093	0.228	0.171

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Robustness check - Recursive bivariate probit estimations

- ▶ Occupational downgrading and low-paid jobs are very much related;
- ▶ Need to account for correlated errors $\epsilon_{1,i}$ and $\epsilon_{2,i}$, inducing endogeneity;
- ▶ Models share most of covariates, we apply a recursive bivariate probit (Coban et al., 2022);

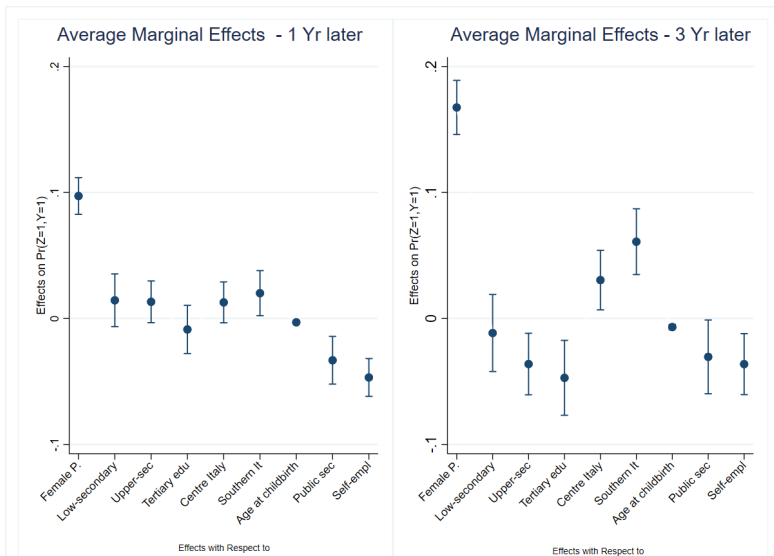
$$Eq.1 : Prob(Y_{i,t+j}) = \alpha + \beta_1 FP_i + \delta_1 SE_{i,t} + \gamma_1 A_{i,t} + \eta_1 W_{i,t} + F_k + \epsilon_{1,i}$$

$$Eq.2 : Prob(Z_{i,t+j}) = \alpha + \beta_2 Y_{i,t+j} + \delta_2 SE_{i,t} + t + F_k + \epsilon_{2,i}$$

- ▶ Y_i is the probability to experience an occupational downgrading from full-time job to part-time or unemployment or from part-time to unemployment;
- ▶ Z_i indicates the probability of occupational downgrading from high-paid to low-paid job or unemployment or from low pay to unemployment for each individual i .

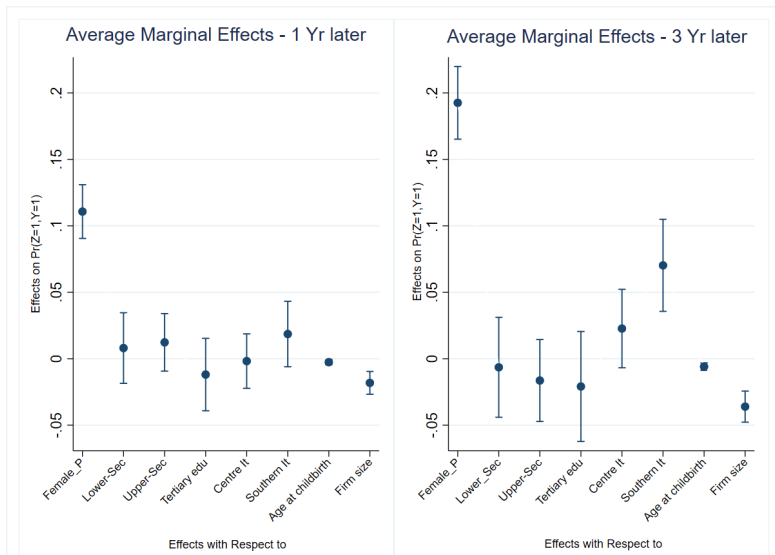
Linking forms of occupational downgrading (I)

Figure: Average marginal effects on joint probabilities of occupational downgrading (full sample)



Linking forms of occupational downgrading (II)

Figure: Average marginal effects on joint probabilities of occupational downgrading (employed in private sector)



Discussion

- ▶ After childbirth, women experience higher probability of occupational downgrading - from 14% in the short run to 21% three years after childbirth - compared to their male partners;
- ▶ Occupational downgrading occurs also in terms of wage loss since women one year after childbirth experience on average 12% higher probability of incurring in a low-paid job or being unemployed compared to men (14% in the medium run).
- ▶ Several crucial aspects need to be considered for future research:
 - (i) women are not an homogeneous group;
 - (ii) market purchase of care services (highly correlated to average wage);
 - (iii) multiple care activities (dependent individuals in the household);
 - (iv) migration background (intersectional inequalities);
 - (v) different bargaining power in the household according to marital status;
 - (vi) homosexual couples;
 - (vii) involuntary part-time;
 - (viii) macroeconomic conditions, economic cycle and aggregate demand (bargaining power of workers with respect to employers);
 - (ix) accounting for workplace heterogeneities (unionization rate, specific work-life balance programs, second-level bargaining policies).

Conclusions

- ▶ Need to consider social value of care work ('common good')
- ▶ So far, care work penalizes women careers increasing the probability of occupational downgrading, low-paid jobs and unemployment;
- ▶ Need to design adequate policies since as Folbre (2021a) states:

'The disadvantages women continue to experience in the labor market cannot be blamed on their own choices. Nor can they simply be attributed to inherent trade-offs between paid work and family care'.

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Thank you for your attention!
Grazie

Michele Bavaro (michele.bavaro@spi.ox.ac.uk)
Valeria Cirillo (valeria.cirillo@uniba.it)