

Precarious Employment, Gender, and Parenthood from Midlife Onwards

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Abstract

In recent decades, progress in gender equality, including women's participation in the labor market, has stagnated. Concurrently, non-standard work arrangements, such as temporary contracts and part-time employment surged. Women, especially mothers, are more often engaged in non-standard jobs, characterized by its precarious nature due to instability and lack of labor protections. Research has primarily focused on mothers with young children, neglecting the impact of precarious work from midlife onward, and not distinguishing between parents and childless individuals. Our study examines the distribution of precarious work by gender and parenthood in midlife in Italy, a country with significant gender disparities in a dual labor market and minimal childcare support. Using data from the Survey on Household, Income, and Wealth we employ multistate life tables to estimate the accumulation of years in precarious employment from midlife onwards. Our findings indicate that Italian mothers not only work fewer years compared to men and childless women, but also spend a larger portion of their time in precarious employment. These disparities become even more pronounced when viewed relative to life expectancy decomposition across various labor force states. As the number of children increases for mothers, we observe a parallel increase in the years spent in joblessness, offset by a decrease in retirement years. This implies that mothers tend to have shorter working lives, spend more time in precarious employment, and difficulties in retiring due to fewer accumulated contributions. Men experience the opposite, with childless men having shorter working lives and limited retirement opportunities.

Introduction

In the last century, there has been a narrowing of gender roles between men and women in various aspects of life (Hochschild and Machung 2012), and particularly in labor force participation. More women, including mothers of young children, are now working outside the home and contributing to the economy (Goldin 2014). However, in recent decades, progress has slowed or stalled (England, Levine, and Mishel 2020), and gender inequalities in several labor market outcomes, as employment, wages, and occupation persist. These disparities are even more pronounced among mothers, and increase with the number of children (Baranowska-Rataj and Matysiak 2016; Cukrowska-Torzewska and Matysiak 2020; Doren 2019).

This transformation in gender roles is closely connected to the broader evolution of work over several decades. Globally, employment uncertainty has risen, making work unpredictable and risky for workers (Kalleberg 2009). Flexible and non-standard work arrangements, such as temporary contracts and part-time work, emerged and became increasingly common.

In Europe the increase in precarious work was often seen as a response to strict labor market regulations, as well as a strategy to address youth unemployment and enhance women's labor market participation. As of 2022, in Europe the 12.1 % of total employed people were temporary workers and 17.0 % of employed people worked part-time, with large gender differences. Of the employed women, 27.8% worked part-time, while among employed men, only 7.6% held part-time positions (Eurostat 2023).

Indeed, women are often more likely to be engaged in part-time, temporary, or non-standard employment, which is considered precarious due to its unstable nature and lack of labor protections. There is evidence that despite flexible work arrangements can effectively boost women's labor market participation, for example in Continental and Southern Europe, they often contribute to gendered labor market segregation (Barbieri et al. 2019), which in turn contribute to wage penalties for women (Bardasi and Gornick 2008).

On the one hand precarious work helps to increase the participation of individuals at risk of labor market marginalization, on the other hand contribute to perpetuating old forms of gender inequality, especially among parents (Weeden, Cha, and Bucca 2016). Mothers usually have more responsibilities when it comes to balancing work and family life, especially when they have unstable and insecure jobs.

Working in precarious jobs often involves unpredictable work schedules, as highlighted in (Luhr, Schneider, and Harknett 2022). These unpredictable schedules can create challenges in arranging childcare, disproportionately affecting mothers' ability to maintain their work and advance in their careers when compared to fathers. Moreover, precarious work may induce skills depreciation. Individuals in

precarious employment may not have access to training and development opportunities that are more readily available in secure employment (Booth, Francesconi, and Frank 2002). These disadvantages can further hinder individuals' ability to secure stable and well-paying jobs in the long term.

In fact, even when individuals transition to permanent positions later in their careers, they may continue to experience lasting disadvantages compared to those who followed a typical permanent career path. For example, Fauser (2020) study revealed that the wage gap between individuals who began in precarious work and those who followed a typical permanent career path continues to widen even after the transition to permanent employment.

As a consequence, precarious work is associated with economic insecurity, which can have long-term repercussions. It reflects the persisting inequalities that place women, and especially mothers, at a disadvantage in their social, economic futures.

In this study, we aim to provide insights on how the distribution of precarious work varies among groups with different risks of labor market marginalization by estimating the accumulation of years spent in precarious employment over individual's lifetime. We take into account gender and parenthood to examine the differences in years of precarious work among mothers, fathers, and individuals without children, starting from midlife when the demands of childrearing diminish, and precarious employment becomes less of a voluntary choice.

The duration of employment in precarious jobs, as opposed to stable, well-paying jobs, holds significant implications on both individuals and societies. At the individual level, accumulated years of precarious work can have far reaching consequences, going beyond individuals' active years and continuing to reinforce inequalities. At the societies level, workforce with a significant share employed in precarious work may impact overall economic productivity and growth. Moreover, accumulated years of precarious work translate into reduced contributions to social welfare systems, potentially posing a threat to their financial sustainability. This is especially relevant in aging societies where retirement age-increasing reforms are implemented to mitigate the financial pressure of population aging on pension systems. With this backdrop, we focus on Italy, one of the world's oldest countries with high levels of pension expenditures, and a strong gendered division of labor and care responsibilities (Anxo et al. 2011; Solera 2009).

Indeed, in Italy the female employment rate between 15 to 64 years, according to last official data (ISTAT, Sept 2023) is below 53% (against 67% of EU average) and the gender gap is increasing and

above 18% points (against 10% of EU average), with wide differences by North/South (almost 63% against 34%) gradient and high educated women and low educated ones (almost 80% against 30%).

We estimate the average remaining lifetime spent in employment at age 40 by gender and parity over the period 2000-2016, using multistate life tables, by decomposing the remaining life expectancy at age 40 in years of: stable-employment, precarious-employment, joblessness and retirement. To better understand the differences in the distribution of accumulated years of precarious work, we estimate by gender and parity the lifetime risk of precarious work and the differences in the distribution of the transitions to joblessness for individuals in stable and precarious employment.

Data

We use data from the Survey on Household, Income, and Wealth (SHIW), which is conducted biennially by the Bank of Italy. SHIW is a nationally representative survey, and each wave includes approximately 8,000 households, comprising around 20,000 individuals. The survey design incorporates a panel component, which we leverage to gather information on labor force transitions over the years 2000 to 2016.

Outcome

The outcome is an indicator of an individual's labor force status, categorized into five distinct groups. Among these, four represent transient states: precarious employment, stable employment, joblessness, and retirement. The fifth category signifies the absorbing state, which is associated with death. These statuses are derived from individuals' self-reported labor force status.

Within the "employed" category, we include only those individuals who reported active employment at the corresponding wave. The "joblessness" category encompasses individuals who are unemployed, inactive, students, permanently disabled, homemakers, or in other non-working roles. The "retired" category comprises exclusively those who have retired, as well as an indicator related to contract type.

For those categorized as "employed," we further differentiate between "stable employment" and "precarious employment" based on the presence of part-time or fixed-term contracts, or both.

Covariates

Age, gender, marital status, the highest level of educational attainment, number of children and area of residence are the covariates used for modeling the transitions between states. Educational levels are aggregated based on the ISCED classification. Specifically, individuals with lower secondary education are categorized as "low-educated," those with a high school diploma fall into the "medium-educated" group, and those with at least a three-year university degree are considered "high-educated."

Marital status distinguishes between four categories: married, divorced, single, and widowed individuals. We include dummy variables for the area of residence, distinguishing the three macro-regions: North, Centre, and South. This is done to account for significant disparities in labor market conditions across these regions.

Methods

In this study, we use a multistate Markov chain approach to examine and summarize work trajectories and the relationship between gender, parity and precarious work. The Multistate life table is a well-established methodology, widely utilized in labor market research and demography (Dudel and Myrskylä 2017; Hoem 1977), and regarded as an extension of traditional event history analysis (Piccarreta and Studer 2019). Unlike traditional event history analysis, which mainly focuses on tracking transitions from an initial state to a final state, multistate models embrace the dynamic nature of the movement between states, that is allowing transition back and forth between multiple, distinct, and competing states., e.g. from precarious employment to joblessness and vice-versa. The full dynamic of the movements is captured by the transition probabilities from which we derive valuable insights into various quantities, including the average duration spent in a particular state. This allows us to estimate, for instance, the average duration of precarious employment or retirement. These measures, known as expectancies, are intuitive and well-known as they are the portion of life expectancy in each of the status-specific states, making them well-suited for assessing disparities and inequalities between different groups of individuals (Hayward and Lichter 1998). They provide a clear means to demonstrate the accumulation of (dis)advantages over time.

In our models, individuals transition between various labor force states, including precarious employment, stable employment, joblessness, and disability, ultimately reaching an "absorbing" state, which signifies a state from which there is no return, such as death. These "absorbing" states differ from the other states, known as "transient" states, where transitions are possible. Collectively, these states constitute what we term the "state space." Our model's state space also account for the aging process, as it encompasses ages 40 to 74 in combination with each of the transient states. For example, an individual can be in a state like "aged 40 and in precarious employment" or "age 42 joblessness," among others. The follow-up period extends until age 74 since employment opportunities typically do not extend beyond this age.

Transition probabilities are estimated through discrete event history models, employing multinomial logistic regressions. The state at time "t+1" is dependent on the state at time "t" and age, education, marital status, number of children, and the macro-area of residence.

Age is modeled through a nonparametric smoothing spline. Education is interacted with the number of children since its impact on the transition probability is expected to vary depending on the number of children. We obtain our estimates by stratifying the sample by gender, thus implicitly interacting gender with all the variables in the models.

The estimated transition probabilities are used to form the transition matrices, separately by gender and the number of children. These transition matrices contain all the information we need to estimate our measures of interest, such as time individuals spend in different states (Kemeny and Snell 1983). We estimate confidence intervals using a percentile bootstrap method with 1000 replications (Cameron and Trivedi 2005), resampling individuals' records while preserving the survey's structure.

Results

The remaining life expectancy (LE) between the ages 40 to 74, can be expressed as the sum of years expected in precarious and stable employment, in inactivity and in retirement.

Table 1 presents the results for women while Table 2 those for men. The findings highlight a significant gendered association between expected years in employment and number of children. For Italian women, the expected duration of employment tends to decrease as the number of children increases. In contrast, Italian men who are fathers tend to have more favorable employment trajectories compared to men without children. Childless women expect to work 5 years longer than mothers of three or more children. The 5-year gap results from differences in stable employment between individuals without children and mothers. In fact, the expected years of precarious employment remain approximately 3 years for all women, regardless of their parity. On the contrary, childless men are expected to work about 16 years, that is, at least 3 years shorter than fathers. In the case of men, the years of precarious employment do not show a clear pattern.

However, it is worth to highlight the sharp increase in the prevalence of precarious employment with increasing parity as share of total employment, for women, as presented in Figure 1. While for childless women years of precarious employment represent approximately the 20% of their total expected years of employment, this figure increases for mothers with three or more children, reaching about 35%. Consequently, more than one third of the remaining employment years are expected to be spent in precarious work. In summary, our findings reveal that Italian mothers not only experience an employment gap, working fewer years compared to men and women without children, but they also tend to spend a relatively greater amount of time in precarious employment. These findings become even more pronounced when we analyze them within the broader context of the decomposition of life expectancy across various labor force states, rather than in isolation. As the number of children increases for mothers,

we observe an increase in the number of years spent in joblessness, while the opposite trend is observed for years of retirement. This suggests that mothers tend to have shorter working lives, more time spent in precarious employment, and face difficulties in retiring due to fewer accumulated contributions. The situation appears to be the opposite for men, where individuals without children tend to have shorter working lives and fewer opportunities for retirement.

At the time of the conference, we will delve deeper into the distinctions brought to light by the results presented, exploring variations based on education and area of residence.

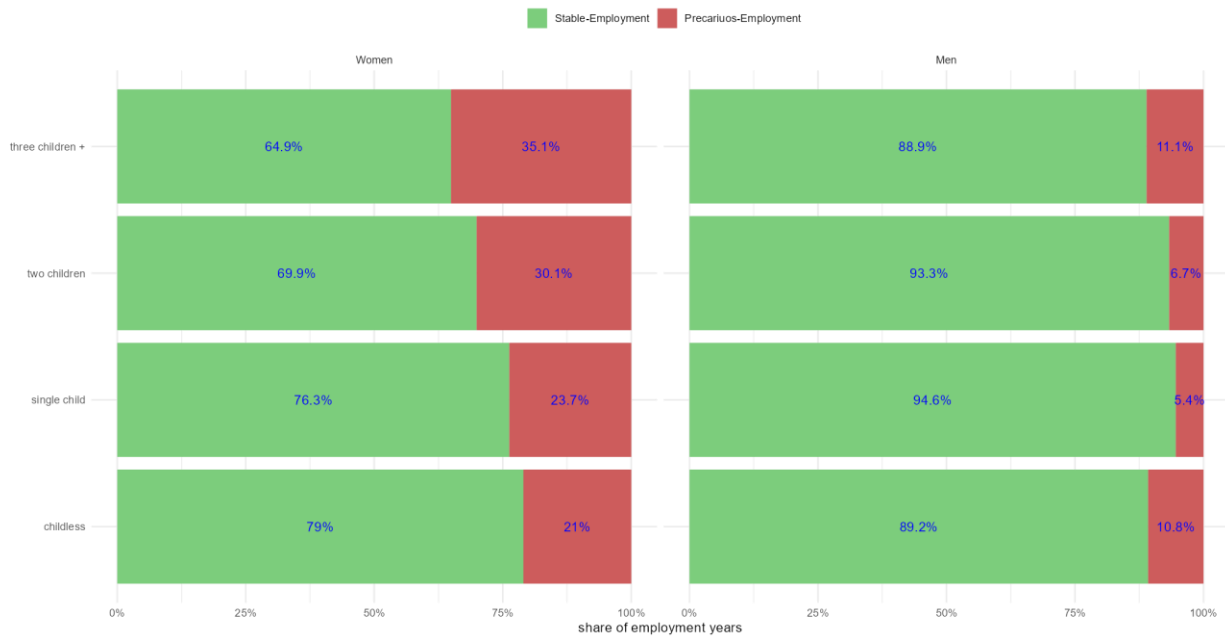
Table 1 - Women Life Expectancy and 95% CI at age 40 to 74, by labor force status and number of children - Italy, 2000-2016

Status	children	2.5%	expectancies	97.5%
Stable employment	Childless	10.3	11.3	12.4
	1	9.5	10.3	11.1
	2	7.8	8.3	8.9
	3+	5.2	5.9	6.6
Precarious employment	Childless	2.5	3.0	3.6
	1	2.8	3.2	3.6
	2	3.2	3.6	4.0
	3+	2.7	3.2	3.7
Joblessness	Childless	5.0	5.7	6.5
	1	7.7	8.5	9.2
	2	10.7	11.4	12.1
	3+	13.9	14.9	15.8
Retirement	Childless	13.9	14.7	15.6
	1	12.1	12.8	13.5
	2	10.5	11.0	11.5
	3+	9.9	10.5	11.2
Life expectancy	Childless	34.7	34.8	34.9
	1	34.6	34.8	34.9
	2	34.1	34.3	34.6
	3+	34.3	34.5	34.7

Table 2 - Men Life Expectancy and 95% CI at age 40 to 74, by labor force status and number of children - Italy, 2000-2016

Status	children	2.5%	expectancies	97.5%
Stable employment	Childless	13.4	14.2	15.1
	1	18.8	19.7	20.6
	2	17.9	18.5	19.1
	3+	16.1	17.0	17.8
Precarious employment	Childless	1.4	1.7	2.0
	1	0.9	1.1	1.4
	2	1.1	1.3	1.6
	3+	1.6	2.1	2.6
Joblessness	Childless	2.7	3.2	3.7
	1	0.3	0.7	1.2
	2	0.8	1.1	1.4
	3+	1.3	1.7	2.2
Retirement	Childless	13.1	14.2	15.2
	1	11.4	12.4	13.4
	2	12.3	12.9	13.5
	3+	12.0	12.6	13.3
Life expectancy	Childless	32.3	33.3	34.2
	1	33.2	34.0	34.7
	2	33.4	33.8	34.3
	3+	33.0	33.4	33.9

Figure 1 - Distribution of precarious and stable employment as share of total employment, by gender and number of children - Italy 2000-2016



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