



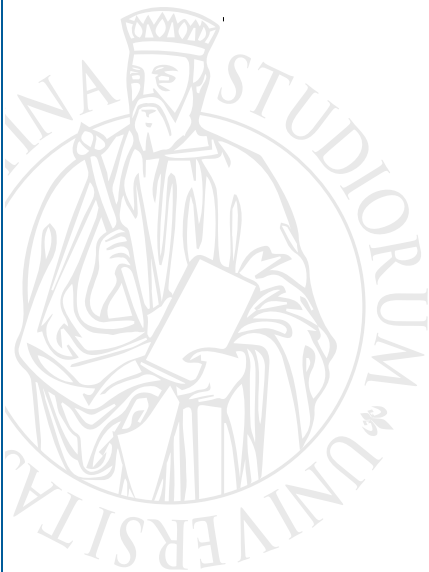
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**Employment uncertainty and
non-coresidential partnership in very-low
fertility countries: Italy and Japan**

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Employment uncertainty and non-coresidential partnership in very-low fertility countries: Italy and Japan

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Abstract

Having a partner is the initial step of any further family formation. Several studies have reported that growing labour market uncertainty has negative effects on both union formation and fertility; however, less is known about the previous step, that is, having a partner. Our study fills this gap in the literature by exploring the relationship between employment uncertainty and non-coresidential partnership status in two very-low fertility countries: Italy and Japan. We use two nationally representative surveys and examine the association between employment status and partnership status among 23–43-year-olds who have not had children and do not live with a partner (either cohabiting or married) based on logistic regression models.

Our results show that employment status matters for having a non-coresidential partner only for Japanese women, particularly those unemployed/inactive, those who do not know their contract type and those with a fixed-term contract. We interpret our findings as indicating that in Italy, employment status does not matter for starting a relationship for both men and women because employment uncertainty prevails among young Italians. Regarding Japanese women, unemployed/inactive and fixed-term contractors may have difficulty finding a partner with their desired earning capacity. This study is one of few studies focusing on non-coresidential partnership as the initial step of further family formation. It demonstrates that the decision to have a partner is different from the decision to form a union, at least in terms of the association with employment status.

Keywords: Non-coresidential partner; Employment uncertainty; Italy; Japan

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Introduction

In response to globalisation, labour-market flexibility has risen, heightening employment uncertainty in many countries. Employment uncertainty is a key negative driver of life-course events such as union formation. Several studies have found a generally negative relationship between employment (or, more broadly, economic) uncertainty and union formation, which is particularly strong among men and slightly changes according to the institutional context (e.g. Piotrowski et al. 2015 for Japan; Noguera et al. 2006 and Vignoli et al. 2016 for Italy; Kalmijn 2011 for various European countries). However, because previous studies mainly define a relationship as being married and/or cohabiting with someone as opposed to being single, they often combine those who do and do not have a partner into one category, namely, single. Therefore, while there is widespread evidence regarding how employment uncertainty relates to union formation – defined as starting a cohabitation or getting married – much less is known about the “previous step”, that is, the association between employment uncertainty and partnership status (i.e. having a non-coresidential partner or not).

Having a partner is the first step to building a stable union (e.g. a cohabitation and/or marriage); accordingly, studying the characteristics of partnered and unpartnered individuals before they enter into a stable union is crucial for understanding their future union trajectories. In addition, the link between employment uncertainty and having a non-coresidential partner is not straightforward. A stable employment condition could be a relevant prerequisite for finding a partner, making employment uncertainty a decisive factor in selecting individuals into partnership or singlehood. Alternatively, it may become a fundamental element only when couples decide to turn their relationship into cohabitation or marriage.

Studying the characteristics associated with having a partner is relevant for several reasons. First, the presence of a partner matters for well-being, possibly providing physical and emotional support, social networks and other resources (e.g. Perelli-Harris and Styrac 2018; Soons et al. 2009). Second, and more generally, having a partner is the first step to family formation. A major societal challenge in high-income countries is fertility decline below the replacement level, which will significantly impact future pension and health care systems. In particular, East Asian and Southern European countries (represented in this paper by Japan and Italy) have had persistently low fertility (i.e. with fertility rates below 1.5) and are thus called “very-low” fertility countries. Generally, delayed or foregone union formation has the worst effect on childbearing in countries characterised by a strong traditional link between marriage and fertility, as is the case of Southern Europe and East Asia (Sobotka et al. 2011). In fact, the lack of a (stable) partnership is one of the main obstacles to the realisation of fertility desires (Esteve et al. 2021; Testa 2007) and one of the key reasons for remaining childless in these “very-low” fertility countries (Berrington 2017; National Institute of Population and Social Security Research 2017). Despite the importance of having a partner, the factors connected to partnership status have received considerably less scholarly attention compared to union formation processes and fertility dynamics.

Among the few existing studies about the correlates of partnership status, employment uncertainty is deemed an important criterion for choosing a partner, possibly with different patterns and to different extents among men and women (e.g. Brinton et al. 2021; Castro-Martín et al. 2008; Liefbroer et al. 2015). Therefore, this study extensively analyses the association between employment uncertainty and partnership status among childless individuals by sex, comparing two very-low fertility countries: Italy and Japan. We argue that the comparison between Italy and Japan is particularly insightful because

the two countries share a set of similarities: they have had very low (and even lowest low) fertility rates over the last 30 years, and they are typically considered “traditional” societies, in which the male-breadwinner model prevails (León and Migliavacca 2013; Tsutsui 2016). Notwithstanding this, the Italian and Japanese labour markets display interesting differences in terms of unemployment rates and female participation (as we will discuss in the next paragraphs). Unravelling the possibly different relationships between employment instability and partnership-formation dynamics in the two countries may thus improve our understanding of the complex interconnections between the spheres of employment and family formation from a life-course perspective.

Background

Employment uncertainty and having a partner

Classical demographic theories about marriage argue that men’s economic resources associated with their employment conditions improve the feasibility of marriage (Dixon 1971; Easterlin 1980) and that men’s specialisation in market work mirrors women’s specialisation in nonmarket work (Becker 1973). Oppenheimer (1988) formulated another influential hypothesis, contending that uncertainty deriving from unstable employment careers – especially on the man’s side – jeopardises assortative mating, with negative consequences for marriage. However, Oppenheimer also suggests that as female labour-market participation increases and men’s employment uncertainty rises, men may assign a positive value to women’s earning power in the labour market.

There is ample evidence supporting the negative relationship between employment uncertainty and entry into marriage. For men, studies have revealed that unemployment or insecure employment is negatively associated with entry into marriage (Blossfeld et al. 2005; Bracher and Santow 1998; Kalmijn 2011; Kalmin and Luijkx 2005;

Oppenheimer 2003; Sassler and Goldscheider 2004; Schneider et al. 2019). Regarding women, studies have argued that the relationship between economic resources and entry into marriage is influenced by gender-egalitarian norms in society (Oppenheimer 1988; Sweeney 2002): if male-breadwinner-female-housemaker expectations are widespread in society, women who have many economic resources and a job with good prospects will be reluctant to get married because they have to give up their career for marriage. Studies conducting cross-national (Ono 2003) and cross-cohort (Fukuda 2013; Sweeney 2002) comparisons show that in societies with more gender-egalitarian norms, women's economic resources associated with their earnings or employment are positively associated with entry into marriage. Although these studies suggest that the gender-role expectations regarding marriage are converging, other research points out that the association between economic resources and entry into marriage is still weaker among women than among men (Shafer and James 2013).

In contrast with marriage, which aims for long-term relationships, cohabitation can be seen as a temporary stage in family formation. People may place less importance on employment conditions and future employment certainty when deciding whether to live together and postpone marriage to better (i.e. less uncertain) times (Oppenheimer 1988; Perelli-Harris et al. 2010). Some studies support these expectations: employment situations such as unemployment, inactivity or insecure employment contracts are less correlated with entry into cohabitation than entry into marriage for both men and women (Bracher and Santow 1998; Kalmijn 2011; Kalmin and Luijkx 2005; Oppenheimer 2003; Schneider et al. 2019). However, in line with the expectations of the Second Demographic Transition Theory (SDT; Lesthaeghe 2020; Van de Kaa 1987), recent evidence shows that cohabitation is gaining relevance as a family-arrangement alternative to marriage rather than a pre-marital experience in Europe (Di Giulio et al. 2019), but not in Japan

(Raymo et al. 2009). Nevertheless, cohabitation is not always a lifestyle choice: in some cases, it involves unstable relationships, in which the long-term commitment of marriage is obstructed by employment/economic uncertainty. According to this “pattern of disadvantage” narrative (Perelli-Harris and Gerber 2011), rather than being a choice that reflects new values, cohabitation is practised by the least educated and most socially disadvantaged individuals, while marriage remains a prerogative of the highly educated.

Few studies have examined the relationship between employment uncertainty and partnership status. For example, Liefbroer et al. (2015) demonstrated that unemployed people are less likely to have a non-coresidential partner, and Brinton et al. (2021) reported that most female participants in a qualitative survey wished to marry a man with a stable full-time job and an indefinite contract. However, other studies found no such association of employment uncertainty with having a partner among women (Castro-Martín et al. 2008) or a weaker correlation among women than among men (Ghaznavi et al. 2020), suggesting differences by sex. Thus, in this study, we analyse the association between employment uncertainty and partnership status focusing on gender differences in Italy and Japan.

Country specific contexts

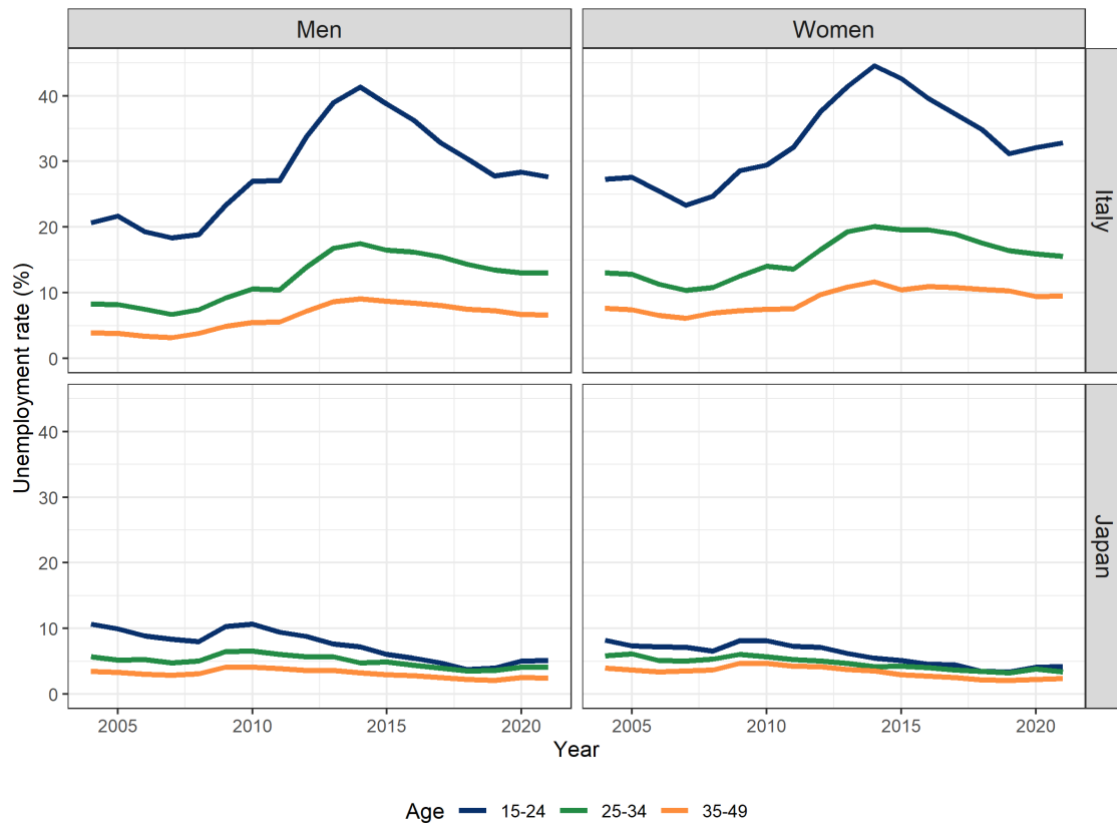


Figure 1: Trends in the unemployment rate between 2004 and 2021 in Italy and Japan

Source: Istat (Italy) and Labour Force Survey (Japan).

Italy

Starting in the late 1980s, the Italian labour market went through a strong deregulation process that increased notably the levels of uncertainty in individuals' employment careers. Several laws ("Treu Law", L.196/1997; "Biagi Law", L.30/2003) were promoted to foster new, flexible but less protective forms of employment, aiming to raise employment rates by creating additional jobs (see e.g. Barbieri and Scherer 2009). However, the few positive consequences of deregulation were limited to a brief "honeymoon effect" (Barbieri and Cutuli 2016), while the already existing division between insiders and outsiders in the labour market was reinforced among the young. In

sum, the “partial and targeted” labour-market deregulation (Esping-Andersen and Regini 2000) did not improve the employment statistics; instead, it increased precarious employment and raised the general level of uncertainty (Barbieri et al. 2015; Cutuli and Guetto 2013). Between 2002 and 2009, the share of temporary contracts in total employment grew by 31.9% in Italy (compared to 7.5% in the EU) and further rose by 14.7% after the Great Recession between 2009 and 2016 (compared to 5.2% in the EU; Eurostat 2019).

The Italian labour market is characterised by moderate-to-high unemployment rates (see Figure 1). Unemployment rates exhibit a similar trend between men and women, although women’s unemployment is generally higher than men’s. Women’s employment rates have increased over the last decades (from 35.1% in 1980 to 48.1% in 2016), but the percentage of working women remains relatively low compared to most other European countries (Alderotti 2022). The youth unemployment rate (age 15–24 years) is high and has risen remarkably during the Great Recession, from 18% (men) and 23% (women) in 2007 to 41% and 45% (respectively) in 2014, then dropping sharply again to approximately 30% for both sexes, as seen in Figure 1. In comparison, the unemployment rates for individuals aged 25–34 years and 35–49 years are much lower but have not recovered much yet after the sharp rise due to the Great Recession.

From a demographic point of view, Italy is well-known for its latest-late transition to adulthood (Billari et al. 2002). Union formation dynamics are characterised by a clear preference for marriage, which has a strong central role both as a major reason to leave the parental home and as a type of first union (Billari and Rosina 2004). Cohabitation began to spread in the country during the second half of the 1990s, along with the rise of marital instability and nonmarital fertility (Guetto et al. 2016). Nevertheless, the diffusion of cohabitation was slower than in the rest of Europe due to familial and social pressure

to marry and the prolonged lack of legal recognition of civil unions (Dalla Zuanna et al. 2005; Vignoli and Salvini 2014). Over the last few years, the popularity of marriage has been decreasing, accompanied by increasing diversity in union patterns, including living apart together (LAT) relationships (Régnier-Loilier and Vignoli 2018), and a slow process of secularisation (Pirani and Vignoli 2016; Vignoli et al. 2016). Finally, there is no recent evidence about partnership formation dynamics in Italy (apart from a few studies of dating among university students, e.g. Mogi and Vignoli 2021), but official statistics show that the share of single persons has more than doubled between 1996 and 2016, reaching 7.9% of the population (Istat 2016).

Japan

Japan's unemployment rate has historically remained very low compared to other high-income countries. The youth unemployment rate was halved from 10% in 2004 to 2021 for men and from 8% for women (Figure 1). The low youth unemployment rate results from the involvement of schools in matching students with employers (Ryan 2001). Most students apply for jobs and receive offers from employers before graduation. In this process, schools are heavily involved in matching students with employers (Brinton and Kariya 1998; Rosenbaum and Kariya 1989). Although the recession of the 2000s slightly weakened it, this school-to-work matching system persists (Brinton 2011).

The unemployment rates among individuals aged 25–34 and 35–49 years have been stable at a low level. However, employment insecurity among employed workers has grown since the late 1990s. For example, the number of contract workers and dispatched workers has increased especially among young people (Houseman and Osawa 2003; Osawa et al. 2013). These workers have fixed-term contracts with their employers and face a higher risk of losing their employment (Kambayashi and Kato 2016). Studies

have argued that the rise in employment insecurity leads young people to delay family formation (Piotrowski et al. 2015).

In addition to later and less marriage, people are less likely to be in a relationship. The percentage of never-married people who do not have a romantic partner increased from 50% to 70% among men and 42% to 60% for women between 1997 and 2015 (National Institute of Population and Social Security Research 2017). Some of these individuals do not want to be in a relationship (Ghaznavi et al. 2020), but there is little evidence regarding whether their share has increased. Studies also report that insecure employment is linked to not having a partner and not showing interest in romantic relationships (Ghaznavi et al. 2020).

Despite the decline in romantic relationships, people continue to value marriage strongly. Approximately 90% of unmarried people still want to get married in the future (National Institute of Population and Social Security Research 2017). The proportion of those who think that marriage is essential to a fulfilling life is not decreasing (Choe et al. 2014). Alternative partnerships such as cohabitation are not very prevalent, and cohabitation is primarily a transitory stage for couples planning to get married (Raymo et al. 2015).

Data and Methods

In this study, we use two different nationally representative surveys. For Italy, we employ the Family and Social Subjects survey carried out by the Italian National Statistical Office (Istat) in 2016. The survey is the most up-to-date data source for studying employment and partnership in Italy, and it includes retrospective information about individuals' employment, partnership and fertility histories in monthly detail. For Japan, we relied on the Japanese Life-course Panel Survey (JLPS) conducted by the Institute of Social

Science at the University of Tokyo. JLPS is a panel survey administered every year since 2007 and targeting individuals who were aged 20–40 years in 2007 (i.e. born in 1966–1986). These surveys are suitable for our research purposes as they both collect information on respondents’ non-coresidential partnerships and their past employment status.

We chose the 2010 wave for the Japanese data to collect the past employment history for the previous 3 years (as the panel started in 2007). Accordingly, for the sake of comparability, we selected for both countries individuals who were 23–43 years old at the time of the interview, who had not had any children and did not live with a partner (either cohabiting or married). The analytical sample is limited to this age range because the sample of Japanese data was restricted to the population born between 1966 and 1986. After removing respondents with missing values for the variables used (43 cases for Italy and 74 for Japan), the working sample is composed as follows: 1,606 women and 2,000 men for Italy; 638 women and 577 men for Japan.

Our main independent variable of interest is employment uncertainty measured by the respondent’s employment status (1: permanent contract; 2: fixed-term contract; 3: self-employed; 4: unemployed or inactive⁴; 5: employed but unknown contract term, hereafter ‘unknown’).⁵ The employment status is observed at the time of the beginning of the relationship for those who have a non-coresidential partner and one year before the

⁴ Although we acknowledge that unemployment and inactivity refer to different employment conditions, we were not able to separate the two categories due to limitations in the Italian data. However, we argue that being unemployed or inactive has similar socio-demographic effects on individuals, the central issue being whether a person is employed or not. Thus, non-employment and unemployment may be equally significant for family dynamics (Härkönen 2011).

⁵ In Japan, employment status is often measured by nominal status, namely, what a worker is referred to as in their workspace (e.g. Labour Force Survey). Most studies distinguish between regular (*seishain*) and non-regular (*hiseishain*) employees (e.g. Piotrowski et al. 2015). Therefore, we conducted a robustness check using nominal status as employment status in Japan (see Table A1 in Appendix).

survey for the others.^{6,7} The outcome is a partnership status (0: no partner; 1: having a non-coresidential partner).

To estimate the association between employment uncertainty and having a non-coresidential partner, logistic regression models are used controlling for age and age squared as continuous variables, gender, educational attainment at the time of the survey (1: low; 2: medium; 3: high; 4: in school), immigrant status (0: born in the country; 1: born outside of the country),⁸ parents' educational attainment measured as the highest educational attainment of the parents when both are available and as the only available one when one is missing (1: low; 2: medium; 3: high; 4: both missing), and previous experiences of entering into a union (either cohabiting and married). The descriptive statistics of these control variables are shown in Table A4 in the Appendix. We present the average marginal effects (AMEs) from the estimated results of the logistic regression models to effectively interpret the results (Long and Freese 2014).

⁶ The Italian retrospective data include information about the beginning of the current relationship and the beginning and end of each employment spell in monthly detail. While the Japanese survey asks about the length of the relationship in months, employment is only recorded each year of the survey. We identified the employment status at the beginning of the current (i.e. in 2010) relationship based on the employment status in the survey year closest to the beginning of the relationship. In addition, Japanese data cannot provide the employment status at the time of beginning the relationship for those with a relationship longer than 41 months (35.6%). Thus, for these individuals, we use the employment status in 2007, the year of the first wave, as an approximation. We performed the same analysis excluding the population in a long relationship as a sensitivity analysis, and the results exhibit a trend similar to that in our main model (see Table A2 in the Appendix).

⁷ We also measured the respondent's employment status in two other ways: 1) the employment status was observed at the beginning of the partnership for those in a partnership and 2 years before the interview for others; 2) the employment status was observed at the beginning of the partnership for those in a partnership and 3 years before the interview for others. These results are shown and discussed in Table A3 in the Appendix.

⁸ This information is not available for Japan. However, because the number of migrants in Japan is small (1.4 percent of the total population in 2015; Statistics Bureau of Japan 2016), the impact of immigrant status would not matter much in the association between employment uncertainty and having a non-coresidential partner in Japan.

Results

Descriptive findings

The distribution of employment status by sex in Italy and Japan is presented in Table 1. The most striking difference between the two countries is the share of permanent contractors and unemployed/inactive population. Permanent contractors are more common among both sexes in Japan (more than 50%) than in Italy (approximately 30%), whereas Italy has a higher share of unemployed/inactive population: 40% and 47% for men and women, respectively, compared to 11% and 7%, respectively, in Japan. Fixed-term contracts are more common among women in both countries, with a larger difference between men and women in Japan (approximately 10 percentage points [pp], compared to 1.6 pp in Italy). Conversely, self-employment is more common among men than among women in both countries.

Table 1: Distribution of employment status by sex in Italy and Japan

	Italy		Japan	
	Men	Women	Men	Women
Permanent	653 (32.63)	481 (29.97)	312 (54.07)	347 (54.39)
Fixed-term	279 (13.94)	250 (15.58)	70 (12.13)	141 (22.10)
Self-employed	276 (13.79)	127 (7.91)	45 (7.80)	15 (2.35)
Unemployed/Inactive	792 (39.58)	748 (46.60)	65 (11.27)	47 (7.37)
Unknown			85 (14.73)	88 (13.79)
Total	2,001	1,605	577	638

Note: Row percentages are shown in parentheses.

Figure 2 shows the proportion of individuals who have a partner by employment status and sex in Italy and Japan. First, the Japanese have a lower proportion of

respondents with a non-coresidential partner than Italians, for both men and women and in any employment status, except for women with permanent employment and (slightly) self-employed women. Second, in Italy and Japan, the share of men with a permanent contract who have a non-coresidential partner is significantly lower than for other statuses (except Japanese self-employed), even compared to the unemployed/inactive group. Italian women and Japanese men exhibit a similar trend. Meanwhile, among Japanese women, permanent contractors have the largest proportion of individuals with a non-coresidential partner. This share gradually decreases among fixed-term and self-employed Japanese women, with the unemployed/inactive group displaying the lowest percentage.

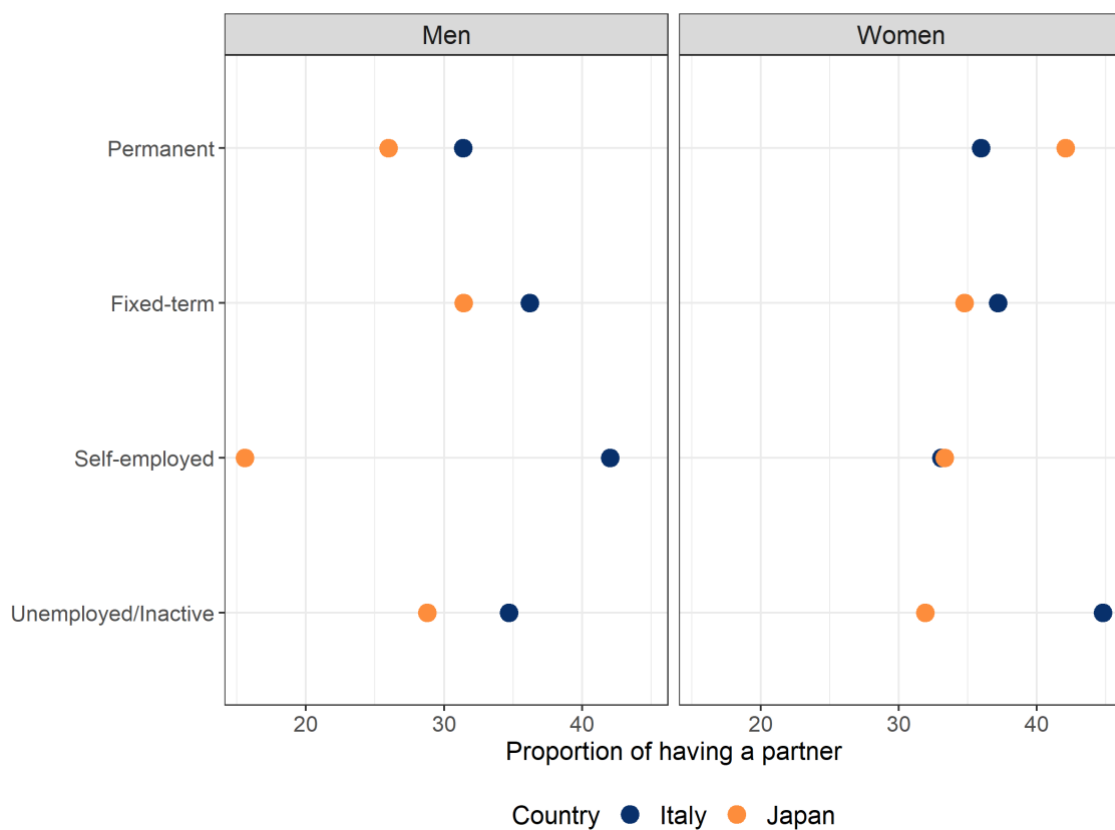


Figure 2: Proportion of individuals who have a non-coresidential partner by employment status and sex in Italy and Japan

Employment uncertainty and partnership status

Table 2 shows the AMEs of employment status on partnership status by sex and country, estimated via logistic regression models with the aforementioned control variables. In this study, the AME is the difference between the predicted probability of having a non-coresidential partner for those who have a permanent contract and those who are temporarily employed, self-employed, unemployed/inactive and do not know their contract status. For example, the AME of unemployed/inactive Italian men is -0.034, which means that the predicted probability of having a partner is 3.4 pp lower for an unemployed man than for a man with a permanent contract.

Table 2: Average marginal effects of partnership status by employment status and sex for Italy and Japan (estimated via a logistic regression model with all control variables)

	Italy		Japan	
	Men	Women	Men	Women
Employment status (Ref: Permanent)				
Fixed-term	0.027 (0.424)	-0.023 (0.546)	0.007 (0.910)	-0.090 (0.056)
Self-employed	0.101 (0.004)	-0.032 (0.502)	-0.094 (0.154)	-0.075 (0.553)
Unemployed/Inactive	-0.034 (0.182)	-0.000 (0.990)	-0.048 (0.404)	-0.178 (0.007)
DNK/NA			-0.064 (0.206)	-0.118 (0.033)

Note: p-values are shown in parentheses.

Neither Italian men nor Italian women show prominent differences in the probability of having a partner between those with a permanent contract and those with other employment statuses, except for self-employed men. Self-employed Italian men are 10 pp more likely to have a non-coresidential partner than their counterparts with a permanent contract. The remaining AMEs for Italy are in line with the previous literature

about employment uncertainty and fertility (see e.g. Alderotti et al. 2021), indicating a negative relationship between temporary employment and having a partner among women and a negative relationship between unemployment/inactivity and having a partner among men.

Further, the association between employment status and partnership status among Japanese men has low statistical precision, whereas Japanese women exhibit a clear trend whereby those without a permanent contract are less likely to have a non-coresidential partner. Particularly, unemployed and inactive individuals have an almost 18 pp lower predicted probability of having a non-coresidential partner than permanent contractors. Additionally, Japanese women who do not know their contract type and those who are unemployed/inactive follow a similar trend, and their predicted probability is 12 pp lower than the reference category. Lastly, Japanese female respondents with a fixed-term contract show a 9 pp lower predicted probability of having a non-coresidential partner.

Discussion

This study examined the association between employment status and having a non-coresidential partner in Italy and Japan, two very-low fertility countries. Several studies have demonstrated that growing labour-market uncertainty has negative effects on both union formation (e.g. Vignoli et al. 2016) and fertility (e.g. Alderotti et al. 2021). However, the initial step of family formation, having a partner, has received less attention. The present study contributes to filling this gap in the literature.

Our results indicate that employment status matters for having a partner only among Japanese women. Particularly, Japanese women who are unemployed/inactive, do not know their contract type or have a fixed-term contract have a lower probability (18 pp, 12 pp and 9 pp, respectively) of having a non-coresidential partner than their

counterparts who have a permanent contract. This suggests that it is difficult for these women to find an “attractive” partner. Matsuda and Sasaki (2020) contend that female non-regular employees, a category that almost corresponds to fixed-term employees, have fewer opportunities to meet a potential partner in their workplace. Japanese women place more importance on a future marital partner’s earning capacity than men do (National Institute of Population and Social Security Research 2017). Because workers in workplaces with a higher share of fixed-term employees are paid less and have fewer opportunities for promotions (Yu 2013), they are less likely to meet a potential partner with their desired earning capacity in their workplace. The lack of places to meet partners may explain why unemployed/inactive or fixed-term employees are less likely to have a partner than those with permanent employment.

The finding that Italian self-employed men are the only group with a higher likelihood of having a non-coresidential partnership than permanent workers is in line with the results reported by Vignoli et al. (2016). Their study also showed that permanently employed and self-employed men have very similar probabilities of entry into marriage. Therefore, self- and permanently employed men are not only the most likely to enter into a stable union, but, taking a step back, they are also the most likely to have a partner before beginning a coresidential union.

However, among other groups, Italian men and women and Japanese men do not display any statistical differences between permanent contractors and other statuses, except for self-employed Italian men. We interpret the lack of statistical associations between employment status and non-coresidential partnership in Italy and among Japanese men as indicating that employment status does not matter for starting a relationship in Italy because precarious contracts and unemployment/inactivity spells are extremely common among youth. Thus, people do not require their future partners to be

already settled in the labour market at the time of starting a partnership. As shown by the existing literature (e.g. Vignoli et al. 2016), employment security plays a role later in the life course, affecting the decision to start a cohabitation and/or get married. Put differently, considering the high proportion of unemployed/inactive individuals at the beginning of a partnership in Italy, it can be inferred that people understand the job market situation well and accept it. This hypothesis is partly confirmed by the high mobility of young Italians in and out of the labour market: in our analytical sample, among unemployed and inactive Italians at the beginning of their partnership, 26% of men and 16% of women had found a job (of any type) one year later and 45% for men and 35% for women did three years later (see Table A5 in the Appendix). Although Japanese men display a similar trend, we refrain from speculating about these results because of the small number of cases.

We are aware of several limitations to this paper. First, the data do not provide a complete history of employment and partnership. Neither the employment history over 3 years for Japan nor the history of past partners for those who did not have a partner at the time of the survey for Italy is available, which hinders the use of event-history models. Second, selection into unemployment/inactivity or fixed-term employment may affect the results. If those who do not prefer having a partner are more likely to remain unemployed or in fixed-term employment, for example, the negative association between employment uncertainty and having a partner will be overestimated. These limitations hinder the causal interpretation of the results.

Understanding the determinants of partnership formation is vital, especially in high-income countries characterised by low fertility, because the formation of a stable union is fundamental to starting a family and finding a partner is the initial step. Although mainly descriptive, our findings will hopefully foster further research on the role of employment (or other potential determinants) in starting a non-coresidential partnership

to provide a clearer and more comprehensive understanding of the processes leading to family formation.

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Appendix

Table A1: Average marginal effects of partnership status by nominal status and sex for Japan (estimated via a logistic regression model with all control variables)

	Men	Women
Nominal status (Ref: Regular employment)		
Non-regular employment	-0.020 (0.662)	-0.092 (0.024)
Self-employed	-0.088 (0.183)	-0.070 (0.578)
Unemployed/Inactive	-0.042 (0.464)	-0.174 (0.009)

Note: p-values are shown in parentheses.

Table A2: Average marginal effects of partnership status by employment status and sex for Japan, excluding individuals in a partnership longer than 42 months (estimated via a logistic regression model with all control variables)

	Men	Women
Employment status (Ref: Permanent)		
Fixed-term	-0.015 (0.782)	-0.065 (0.166)
Self-employed	-0.077 (0.205)	-0.090 (0.446)
Unemployed/Inactive	-0.084 (0.098)	-0.095 (0.149)
Unknown	-0.073 (0.122)	-0.094 (0.085)

Note: p-values are shown in parentheses.

Table A3: Average marginal effects of partnership status by employment status (measured at the beginning of the partnership for those in a partnership and 2 years before the interview for the others) and sex for Italy and Japan (estimated via a logistic regression model with all control variables)

	Italy		Japan	
	Men	Women	Men	Women
Employment status (Ref: Permanent)				
Fixed-term	0.042 (0.243)	-0.016 (0.687)	0.023 (0.703)	-0.079 (0.104)
Self-employed	0.111 (0.002)	-0.049 (0.310)	-0.087 (0.218)	-0.057 (0.670)
Unemployed/Inactive	-0.059 (0.021)	-0.026 (0.385)	-0.073 (0.164)	-0.222 (0.000)
Unknown			-0.074 (0.149)	-0.157 (0.003)

Note: p-values are shown in parentheses.

Table A3 (cont.): Average marginal effects of partnership status by employment status (measured at the beginning of the partnership for those in a partnership and three years before the interview for the others) and sex for Italy and Japan (estimated via a logistic regression model with all control variables)

	Italy		Japan	
	Men	Women	Men	Women
Employment status (Ref: Permanent)				
Fixed-term	0.049 (0.180)	-0.004 (0.921)	-0.006 (0.907)	-0.073 (0.118)
Self-employed	0.112 (0.002)	-0.023 (0.647)	-0.088 (0.196)	-0.079 (0.525)
Unemployed/Inactive	-0.070 (0.007)	-0.033 (0.278)	-0.070 (0.164)	-0.214 (0.000)
Unknown			-0.015 (0.792)	-0.036 (0.550)

Note: p-values are shown in parentheses.

Table A4: Descriptive statistics of the variables used in this analysis

	Italy		Japan	
	Mean/Prop.	SD	Mean/Prop.	SD
Having a partner	0.37		0.33	
Employment status				
Permanent	0.31		0.54	
Fixed-term	0.15		0.17	
Self-employed	0.11		0.05	
Unemployed/inactive	0.43		0.09	
Unknown			0.14	
Sex	0.56		0.53	
Age	31.26	6.19	31.24	5.87
Education				
Low	0.26		0.24	
Middle	0.34		0.29	
High	0.19		0.37	
In school	0.21		0.10	
Parental education				
Low	0.55		0.44	
Middle	0.29		0.13	
High	0.14		0.33	
Both missing	0.02		0.09	
Experience of cohabitation or marriage	0.17		0.14	
Total cases	3,606		1,215	

Table A5: Proportion of individuals with a job (permanent, fixed-term or self-employed contract) among those who were unemployed/inactive at the beginning of the partnership

	1 year after	2 years after	3 years after
Italy			
Men	69 (26.2)	86 (38.7)	86 (45.3)
Women	50 (15.7)	80 (27.0)	88 (34.9)
Japan			
Men	11 (57.9)	12 (75.0)	10 (76.9)
Women	12 (80.0)	8 (80.0)	5 (83.3)

Note. Proportions are shown in parentheses.

