CAPP*aper*

n. 177 | febbraio 2022

I would like to but I cannot.

The determinants of involuntary part-time employment: Evidence from Italy

Gianluca Busilacchi, Giovanni Gallo, Matteo Luppi

I would like to but I cannot. The determinants of involuntary part-time employment: Evidence from Italy[*]

Gianluca Busilacchi,[a] Giovanni Gallo,[b†] Matteo Luppi[c]

[a] *University of Macerata, Italy*

[b] *University of Modena and Reggio Emilia, Italy*

[c] *National Institute for Public Policy Analysis (INAPP), Italy*

Abstract

Over the last two decades, involuntary part-time (IPT) employment has become a more and more pressing issue in Europe, especially in the southern countries, where IPT today constitutes most part-time employment. The dualistic nature of voluntary and involuntary employment creates an opportunity to investigate this type of occupation by looking at the intersection between dualisation and gender. Using INAPP-PLUS data and Probit estimations, this paper aims to shed light on whether the determinants of IPT – at the individual, household and labour market levels – follow the trend of labour dualisation, compared to part-timers in voluntary arrangements. In particular, we aim to determine how dualisation related to these determinants varies according to gender and labour market structural changes. Our results confirm that individual and household characteristics count more than professional ones in determining IPT status, especially concerning the well-known gender differences. However, differentiating the analysis by workers' gender highlights interesting differences pointing at a growing polarisation for female workers driven not only by inequality in the work-family balance distribution but also by structural elements in the labour market.

[†] Corresponding author. Department of Economics "Marco Biagi", University of Modena and Reggio Emilia, Via Jacopo Berengario 51, 41121, Modena, Italy. E-mail addresses: giovanni.gallo@unimore.it (G. Gallo), gianluca.busilacchi@unimc.it (G. Busilacchi), m.luppi.ext@inapp.org (M. Luppi).

1. Introduction

Over the last two decades involuntary part-time (IPT) employment has become a more and more pressing issue in Europe. After the 2008 crisis, net job destruction coincided with an increase in precarious employment and under-employment in involuntary part-time work (European Commission, 2014). The latter has been notably prominent in the southern part of the continent, especially in Italy and Spain (Leschke, 2013; Fellini and Reyneri, 2018; Nicolaisen et al., 2019).

This growth in IPT occupations can be ascribed to a broad process of increasing stratification in the workforce, a noteworthy feature of most OECD economies since 1980. Rueda (2005; 2006; 2007) views this process as a growing polarisation between insiders and outsiders, and gives it the label 'dualisation.' In the dualisation approach, the consequences of deindustrialisation for work security, in terms of access, rights and entitlements, vary according to workers' labour market integration (Emmenegger et al., 2012; Prosser, 2016). However, the definition of this process in the labour force has not yet become definitive, and it varies if the focus is on outcomes or causes (Emmennegger et al., 2012), micro (Eichhorst and Marx, 2012) or macro perspectives (Palier and Thelen, 2010), or also among disciplines.

However, a common trait of the dualisation process is that it targets peripheral corners of the labour market, with the consequence of increasing precariousness only among specific categories of workers. In this regard, several studies indicate that the initial insider-outsider distinction, with outsiders often comprising the unemployed and non-standard workers (Rueda, 2007), disguises significant differences in labour market composition (Emmenegger, 2009; Marx and Picot, 2013). As a result, different labour market statuses, such as unemployment, part-time work and temporary contracts have been considered separately in analyses of dualisation (e.g. Burgoon and Dekker, 2010; Gelepithis and Jeannet, 2018). Indeed, Rueda's initial outsider-insider differentiation included involuntary part-timers among the outsiders.

Although a vast literature has taken into account the role of part-time work as a source of labour segmentation and gender inequality on the one hand and as a way to reconcile work and family on the other (see Nicoilasen et al., 2019), part-time work has not been given significant attention in the dualisation debate despite its crucial importance. Indeed, very few studies have analysed part-time work in the frame of the dualisation debate, and only a few of them (e.g. Rueda, 2005; Nicoilasen et al., 2019) explicitly consider voluntariness as the primary threshold differentiating insiders and outsiders in part-time employment (Barbieri et al., 2019).

In a recent study, Maestripieri and Leon (2019) find that in Italy and Spain, two dualised countries in Rueda's words, non-standards jobs and particularly involuntary part-time ones represent the dualised component of part-time employment. They show that in these countries part-time employment is at the heart of the process of differentiation between categories of workers with unequal access to social and employment rights, and involuntary part-timers are among the most exposed categories. Following this reasoning, in this work we assume involuntary part-time work to provide a privileged perspective from which to analyse the specific effect of labour market dualisation due to the net distinction between insiders and outsiders according to the voluntary or otherwise nature of employment. Furthermore, we believe Italy represents a well-suited case study for this analysis due to the dualised nature of its labour market (Barbieri and Cutuli, 2021) and the prominent growth in (involuntary) part-time employment (Fellini and Reyneri, 2018). Understanding the origins of and institutional pressures for labour market dualisation is beyond the scope of this work. Instead, we adopt a micro-perspective to depict the main drivers and determinants of dualisation among peripherical IPT workers paying particular attention to two dimensions, individual and

household determinants and job characteristic determinants, and more specifically to how these dimensions interact with gender. What we aim to assess is whether the determinants of involuntary part-time work – at the individual, household and labour market levels – follow the trend of labour dualisation compared to part-timers in voluntary arrangements. Furthermore, we aim to determine how dualisation related to this determinant varies according to gender and labour market structural changes. Involuntary part-time employment is the subject of the study and its determinants constitute the analytical strategy to assess the degree and characteristics of dualisation.

Therefore, the two research questions guiding our analysis are as follows. What are the main (micro) drivers/determinants of dualisation in involuntary part-time employment in Italy, and how did they evolve in the great economic crisis? How do the dualised profiles of involuntary part-time workers, particularly in relation to job and household determinants, vary according to gender?

While Italy is an emblematic case for analysis of this issue,[3] this study can also provide a benchmark for figuring out the prospects for the European labour market. As the Italian case suggests,[4] it is possible to expect that the positive trend of unemployment reduction and job creation experienced at the European level, especially in the first two quarters of 2021,[5] was in part prompted by demand for non-standard occupations. Furthermore, the potential structural labour market modification prompted by the COVID-19 outbreak in the medium and long run will impact the characteristics of the labour markets in most European countries. A recent scenario developed by the Bureau of Labor Statistics concerning the long-run impacts of COVID-19 in the US labour market highlights growing uncertainty connected to a potential increase in precariousness and non-standard jobs in several low-skilled occupations (Ice et al., 2021). Considering the high share of low-skilled workers among IPT workers (Tilly, 1996; Kauhanen and Natti, 2015; Warren and Lyonette, 2018), studying the evolution of IPT determinants in Italy provides elements to understand the impact of possible trends that the labour market will have to cope with in the near future. This article also advances the literature by conducting separate analyses for men and women, contributing to a small but growing evidence base on part-time employment among men (Belfield et al., 2017; Gardiner and Gregg, 2017; Nightingale, 2018; O'Dorchai et al., 2007).

The paper is structured as follows. Section 2 provides a literature review of IPT studies focusing on the determinants of IPT work to define the main drivers of dualisation in part-time employment. Section 3 discusses the case of Italy. Section 4 develops the main thesis of the paper and provides a description of both the data and methods adopted. Section 5 shows the results of our empirical analyses and Section 6 concludes.

2. Literature review

The background to this analysis lies at the intersection of dualisation and gender theories concerning part-time work, narrowing the focus on the specific dual nature of this kind of

---

[3] The IPT boost was one of the major negative side effects of the economic crisis in Italy (Fellini and Reyneri, 2019), with the total number of workers not decreasing in the period 2007-2018 while the total number of hours worked dropped despite workers' desired working hours being (apparently) unchanged.

[4] Around a third of the 3.3 million new job contracts registered in Italy in the first semester of 2021 were for part-time positions, often in involuntary arrangements (Cardinali, 2021).

[5] See data from European Labour Market Barometer. Link: https://www.pesnetwork.eu/2022/01/07/european-labour-market-barometer-14/.

occupation. Notably, while dualisation theory allows framing of the evolution of part-time employment, and especially its involuntary component, in a concrete approach related to long-lasting modification of the labour market, gender theory is an inescapable element in analysing this kind of occupation. Traditionally, as Nicolaisen et al. (2020) note, there have been two main types of explanation for why people work part-time. One is related to demand factors and emphasises the influence of market conditions, occupational structures and labour cost (O'Reilly and Fagan, 1998; Tijdens, 2002; Wielers et al., 2014). The other focuses on supply-related factors such as the employee's work-life balance and education, and the sharing of domestic responsibilities by couples (see, among others, Blossfeld and Hakim, 1997; O'Reilly and Fagan, 1998). Women have always been more inclined/exposed to part-time employment thanks/due to its role in easing the work-life balance (Nicolaisen et al., 2019). The dualisation approach views internal differentiation of part-time work between voluntary and involuntary arrangements through the lenses of labour market structural characteristics and worker features (Maestripieri and Leon, 2019; Rueda, 2005). This well-known background allows studying the phenomenon of the recent steady and steep increase in involuntary part-time work in Italy through the intersection of these theories. This section aims to identify the determinants of involuntary part-time work focusing on two dimensions: individual and household determinants; job characteristic determinants.

2.1. The dualised nature of part-time employment and its determinants

In general, part-time employment can be characterised as having a dualistic nature (Nicolaisen, 2020). On the one hand, in general terms it involves jobs characterised by a smaller number of working hours compared to a full-time equivalent job (with 30 hours a week usually considered the threshold), although they tend to not be "just a bit less of the same thing" (Hakim, 2001). Several studies have shown that this form of employment segregation has been used as a flexibilisation strategy to contain labour costs and to adjust labour to the economic cycle (Tijdens, 2002; Bredtmann et al., 2018) resulting in a growing share of bad part-time jobs characterised by lower hourly pay, scarce career prospects and segregation into manual and unskilled services. However, part-time jobs can also be 'good,' with the main differentiation compared to similar full-time equivalent employment concerning only a reduced working commitment and a more flexible schedule (Tilly, 1996; Blossfeld and Hakim, 1997; Bosch, 2006; Webber and Williams, 2008). On the other hand, the second element of dualisation is the individual 'degree of constraint' on the choice of part-time employment. Part-time jobs can represent "real" preferences or "accommodated" preferences (Gash, 2008). They can constitute a concrete option that matches an individual preference for fewer working hours or a forced solution given an impossibility of finding a full-time job as a result of either labour market mechanisms or reconciliation issues with personal commitments. Following this reasoning, the dualisation of part-time employment concerns both job quality and individual willingness.

Although the literature suggests that in IPT employment these two elements tend to overlap toward bad jobs resulting from "accommodated" preferences (Nicolaisen et al., 2019), in this article we put emphasis on the second dimension of the dualisation of part-time jobs, namely individual willingness. This choice results from two assumptions: a) since our aim is centred on the determinants of IPT work, a definition of this type of occupation based on a 'lack' of job quality could result in a biased analysis with reverse causality; b) limiting the definition of IPT jobs according to personal willingness allows us to gain a broader and more comprehensive analysis of the individual determinants of IPT work.

Another dualistic aspect of part-time work regards its gendered nature. Part-time work has predominantly interested female occupation (Beham et al., 2019). The crucial role of gender has long been widely recognised in research examining the background and implications of part-time employment (e.g. Rosenfeld and Birkelund, 1995; Blossfeld and Hakim, 1997; Gash, 2008; Webber and Williams, 2008; Beham et al., 2012; Gash et al., 2012; Wielers et al., 2014; Lyonette, 2015). Studies have highlighted the strategic role of part-time employment for women to achieve a better work-life balance, especially in countries where social policies and/or norms regarding the roles of men and women in society strongly support reduced working hours (especially among females) such as the Netherlands (Beham et al., 2019). However, part-time employment has also been recognised as an element of growing inequality concerning the division of unpaid (Stier and Lewin-Epstin, 2000) and paid labour (Biewen et al., 2018) especially in countries like Italy where policy support for the work-family balance is limited. Indeed, in southern European countries an increase in part-time employment might lead to an increase in female employment participation, but this trend determines gendered segregation and dualisation of the labour market (Barbieri et al., 2019). On the contrary, in countries where part-time work is culturally accepted as a strategy to solve the work-family conflict, part-time work seems to be less connected with segregation and dualisation (Wielers et al., 2014).

Looking at the intersection of the dualised nature of part-time employment and the gender perspective in a framework of the dualisation of the labour market allows understanding of how the individual and labour market determinants of IPT work lead to different relative labour market positions.

2.2. Individual and household determinants

An analysis carried out by Borowczyk-Martins and Lalé (2016) on the situation of involuntary part-timers using Current Population Survey (CPS) data, a primary source of labour force statistics on the US population, helps identify the crucial characteristics of these workers. The authors compare the individual socio-economic characteristics of three broad groups, namely part-timers, involuntary part-timers and the unemployed.[6] The descriptive analysis reveals an interesting convergence between the last two groups in terms of several characteristics such as gender, age distribution, education and marital status. Compared to voluntary part-timers, involuntary ones are more likely to be male, aged in their prime, with lower education levels and not in a couple. According to the CPS data, around 60% of the individuals who declared they worked in IPT status reported having a high school certificate or had stopped schooling before obtaining this grade, compared to 42% of those who voluntarily chose to work part time. More than a third of voluntary part-timers (37%) are between 16 and 24 years old, an age in which a reduced work commitment makes following alternative pathways – like education – easier. Although an important quota (30%) of involuntary part-timers are in the same age group, the majority are young adults or adults aged 25-54.

Concerning gender, an important perspective for the purpose of this paper, evidence indicates that among US employees the well-known strong unbalanced distribution toward female workers that characterises part-time employment is much less pronounced when IPT work is considered (Borowczyk-Martins and Lalé, 2016; Valletta et al., 2020). The CPS data show that

---

[6] In this study, IPT workers are defined as reporting working less than 35 hours a week with the involuntariness resulting from constraints originating on the demand side of the labour market. In particular, they are people who work part time because they were not able to "find full time work or because business is poor."

the 40% gender divide among voluntary part-timers drops to 10% when the focus is on IPT workers, with female workers still being the largest group (55.3%), but not much larger than the male group (44.7%). According to the Borowczyk-Martins and Lalé (2016), slightly less than two-thirds of involuntary part-timers are single, divorced or widowed, while among voluntary part-timers around half of them are. However, regardless of their gender an important share of IPT workers (Valletta et al., 2020) live in a couple and given the average age of this group of workers it is possible to assume that many of them live in a household with children of school age. Therefore, like part-time employment, IPT occupations are also driven by within-couple sharing of domestic labour and hence are strictly related to child-related care burdens (Blossfeld and Hakim, 1997; O'Reilly and Fagan, 1998). Following this line of reasoning, other household features related to the impossibility of reconciling work and family issues and the (un)fair distribution of family and work responsibilities between genders (Blossfeld and Hakim, 1997; O'Reilly and Fagan, 1998) need to be take into account. Several factors can be considered when analysing the impact of family issues on working careers, but evidence shows the importance of focusing on the relative (motherhood) earnings penalty (Dotti Sani, 2015) to account for different economic bargaining powers within the couple when reconciliation issues need to be addressed. Being the primary or secondary earner in a couple can influence career decisions in the medium and long term (Dotti Sani and Luppi, 2021), therefore affecting the possibility of being a full-time employee.

Another factor that seems to influence the probability of being in part-time employment is the worker's migration background. This stands out as an important element as migrants tend to be over-represented in part-time positions and work involuntarily as part-timers more often than natives do (Rubin et al., 2008; OECD, 2010).

2.3. Job characteristic determinants

Nicolaisen et al. (2019) propose a comprehensive typology of part-time workers by looking at both their voluntary vs involuntary nature and the quality of their working conditions (differentiating between "good, mixed and bad" jobs), thus identifying six typologies. The three categories most relevant for the purpose of this article (i.e. those connected to the involuntary nature of part-time jobs) are (*i*) *underemployed*, (*ii*) *precarious* and (*iii*) *marginalised* part-time occupations. Unlike the first typology, which are part-timers characterised by the same working conditions and social protection as full-time workers but who would like or need to work more hours, the other two typologies are part-time jobs marked by bad or very bad working conditions. This typology clearly highlights the connection between IPT work and dualisation, this relationship being at the core of our analysis. Indeed, while in the primary labour market good part-time work responds to a need to attract and retain core workers who for some reason cannot or will not enter in a full-time contract (see, e.g., Tilly, 1996; Blossfeld and Hakim, 1997; Webber and Williams, 2008), in the secondary labour market part-time jobs are offered with poorer conditions to increase the numerical and financial flexibility firms require to perform in the market (Atkinson, 1984; Tilly, 1996). This type of part-time employment is characterised by low-quality working conditions and social protection, and often by an exceptionally low number of contracted hours (Blossfeld and Hakim, 1997; O'Reilly and Fagan, 1998).

Clear examples of *precarious* and *marginalised* part-time occupations are in the first typology the German '*minijob*,' which is characterised by a mixed status in terms of working conditions and social protection (Pfau-Effinger and Reimer, 2019), and in the second category the UK so-called 'zero hours' contract, in which employers take on workers without guaranteeing any

specific amount of part-time work, resulting in a high risk of dualisation (Broughton et al., 2016). These considerations suggest that while 'good' part-time occupations and (temporarily) underemployed part-timers tend to be transversal to the job market, IPT jobs (especially if they present features of dualisation or precariousness) tend to be concentrated in specific segments of the workforce and industrial sectors.

Regarding the US labour market, Valletta and van der List (2015) point out that the prevalence of IPT work is especially high in certain service industries, notably the retail and leisure/hospitality sectors. Similarly, a not recent but still crucial analysis of the quality of part-time work in the UK (Lyonette et al., 2010) points in the same direction. In the UK, a high proportion of part-time workers were concentrated in the leisure and hospitality sectors, together with wholesale, retail, motor trade and other community, social and personal occupations. Additionally, beside industrial sectors, research suggests two further differentiations concerning the influence of structural elements on part-time employment: private vs public sectors, and large vs small enterprises. Europe-wide research undertaken by Anxo et al. (2007) found that in almost all the countries involved in the analysis there were higher levels of part-time working in the public sector than in the private sector, mainly driven by a higher share of women working in the public sector than in the private one. Concerning this differentiation, there are opposite findings. Anxo et al. (2007) in their study on several EU countries highlighted that larger numbers of part-time workers are found in large organisations. In contrast, using the UK Labour Force Survey Lyonette et al. (2010) found that smaller organisations (under 50 employees) overall represent the predominant type of firms employing part-time workers. Despite this difference between the UK and other European countries, research finds similarities among European countries regarding the types of organisations more likely to employ part-time workers. Overall, organisations are more likely to have part-time workers if they are large companies operating in the service sector. In fact, organisations with a high rate of part-time employment are concentrated in the following sectors: health and social work; education; other community, social and personal services; and hotels and restaurants (Anxo et al., 2007).

The international literature suggests that IPT workers tend to be young adults living in couples, often with a fragmented family history, poorly educated and with a high probability of having a migrant background. Furthermore, despite the lower probability of IPT workers being women compared to part-time employment in general, IPT work is still driven by the worker's share of household responsibility and being the second earner. Regarding labour market determinants, although the picture seems slightly divergent between the US and the European labour markets, IPT workers seem to be more prevalent in large (private) companies operating in specific sectors, such as healthcare, services and hospitality. Regarding the intersection between dualisation, gender and IPT work, it is essential to understand whether these determinants lead to a growing risk of dualisation, especially in terms of workers' degree of protection, and if this varies over time, but mainly how this risk varies according to gender.

3. IPT in Italy: a comparison with European countries and across populations

On average, in the OECD countries, 16.3% of part-time workers are involuntary and the share of IPT workers increased substantially between 2007 and 2016. There is, however, a considerable discrepancy between the countries contributing to this average. In countries like Germany, the Netherlands, the UK, the US and Norway, the levels of IPT work are well below 15% of all part-time employees and there was only a slight (or no) increase after 2007 (Nicolaisen et al., 2019). At the other end of the scale, in southern European countries like

Greece, Spain and Italy, which were hit harder by the economic crisis, more than half the part-time workers would like to work longer hours and the share of IPT work increased substantially in the same reference period (Nicolaisen et al., 2019).

The last two reports by the Italian National Council for Economics and Labour (CNEL) indicate that the primary effect of the Great Recession on the Italian labour market was a severe rise in IPT work (Fellini and Reyneri, 2018), rather than an increase in precarious full-time jobs. While the overall number of employees in 2018 was slightly higher than in 2008, the composition of the workforce was significantly different. In the post-recession phase, the new phenomenon which characterised the Italian labour market was an increase in part-time jobs, especially involuntary ones (Fellini and Reyneri, 2018). Similarly to other countries, in Italy this growth in IPT jobs mainly interested the tertiary sector (e.g. trade, hospitality, transportation and personal services), with a predominance of 'bad' occupations in terms of both remuneration and job mismatch. On average, in 2018 the monthly salary of involuntary part-timers employed in low-skill jobs, which constituted around 70% of overall IPT occupations, ranged between €580 and €760 (Fellini and Reyneri, 2019).

However, the tendency toward an increase in part-time occupations, both voluntary and involuntary, started before the Great Recession in Italy. As Figure 1 shows, although Italy can be considered a latecomer in terms of the expansion of part-time occupations (although with a marked catch-up with the growing European trend starting in 2004), the evolution of part-time jobs has followed a different path compared to the European average tendency. The growth in part-time jobs among Italian workers aged 15-64 appears to be particularly related to the sudden rise in part-time employment reported by females in the period 2003-2004 (Figure 1).

[Figure 1 approximately here]

At the beginning of the century, IPT jobs already represented an important share of part-time employment in Italy (33.3%), a value almost double that reported by the Eurozone as a whole (18.9%) (Figure 2). In the following years, and especially during and after the economic crisis, the share of IPT work in part-time employment dramatically rose, reaching an incidence steadily higher than 65% from 2014 onwards (except for a slight reduction in the period 2016-2017). Apart from Spain, which presented a similar behaviour except for a turnaround in 2018, other European countries reacted to the economic crisis differently. Indeed, while a general rising trend of IPT work marked by different intensities is detectable until 2014, in the following years (with some countries beforehand, like Germany and the UK, and some afterwards, like France) a progressive reduction in this type of occupations occurred (Figure 2).

[Figure 2 approximately here]

Figure 3 clearly shows the exceptional increase in IPT occupations in Italy in the last two decades and how this increase has similarly affected both female and male part-timers. Male IPT workers increased in number by 28.7 percentage points (p.p.) from 2004 to 2019, whereas IPT work grew by 27.6 p.p. among females in the same period. It should be noted that the relative increase in the IPT share of total part-time employment is, however, higher among female workers than male ones: 83% and 61% respectively. In addition, Figure 3 highlights that women constitute by far the largest group among IPT workers: in the 15 years considered,

women have never been less than two-thirds of total IPT workers. This is easily explained by considering the different 'attraction' of part-time occupation between genders. In 2019, more than 30% of women were employed part time, whereas this share was below 10% among men (Figure 1). Therefore, even considering the lower female participation in the labour market – in 2019 female workers constituted around 42% of the total labour force in Italy (data provided by the National Institute of Statistics, or Istat)[7] – in absolute terms the number of total female workers in part-time employment was around three-times higher than that of men. In conclusion, even if women are the majority of IPT employees in Italy, it is more likely for a man to be an IPT worker than a voluntary part-time worker.

[Figure 3 approximately here]

A further crucial element in the Italian IPT landscape which also shares a thread of similarity with the trend in gender distribution concerns territorial differences. During the last two decades, the highest growth in IPT occupations in total part-time employment concerned the territorial areas in which the phenomenon was less present in 2004 (Figure A.1).

Considering how severe the impact of COVID-19 is and will be (in the short and medium terms) on the (Italian) labour market, it is of primary importance to detect the individual determinants of IPT and how they changed after the last economic crisis impacted the national economy before the pandemic: the Great Recession.

What are the individual determinants that explain this phenomenon in Italy and how did they change over the last decade and, more particularly, how do they diverge in terms of gender?

Our main hypothesis is that the IPT work determinants derive from a combination of workers' individual and household features and their professional sector and status, characteristics which engender limited bargaining power that negatively affects workers' earnings. We expect that workers with more bargaining power in the job market, like those with a degree and high skills, enjoy more freedom of choice in fulfilling their preferences than workers in a weaker position who cope with a greater degree of constraints. In other words, our hypothesis is that, as the literature suggests, Italian IPT workers are, in average terms, in a more dualised condition compared to voluntary part-timers and that their dualisation is detectable by the determinants of IPT.

Furthermore, in bigger firms and in more structured sectors (such as manufacturing and financial and professional services) IPT workers are less likely to be found than in the personal care and service industry, and in small firms.

At the same time, it is possible to assume that individual features impact preferences regarding the number of working hours. As the literature indicates, reconciling work and family life issues constitutes, especially for women, a major shove toward part-time employment since this solution tends to be the outcome of an individual/household strategy (Wielers et al., 2014). However, the embeddedness of this solution in the cultural acceptance of part-time work in different societies could limit women's perception of the involuntariness of their choice (ibidem). At the same time there are differences in different societies of the part-time outcome in terms of segregation and dualisation (Barbieri et al., 2019). In this regard, we hypothesise that, considering the familialism tradition in Italian culture and the Italian welfare state (Ferrera,

[7] Link: http://dati.istat.it/.

1996; Saraceno and Keck, 2010) and women's disadvantage in the labour market (Barbieri, 2011), female IPT workers are at a higher risk of dualisation compared to female PT workers than male IPT workers compared to male PT workers. Female IPT workers are characterised by limited bargaining power compared to their male counterparts.

4. Data and methods

Our analysis relies on a pooled cross-sectional dataset from the Participation, Labour and Unemployment Survey (PLUS) conducted by the Italian National Institute for the Analysis of Public Policies (INAPP). These data provide reliable statistics on labour market phenomena which are rare and are more marginally explored than the much better known Eurostat Labour Force Survey, such as on intergenerational mobility, IPT and educational mismatch. The INAPP-PLUS survey also contains information on a wide range of standard individual characteristics and a number of characteristics related to professions and firms for at least 35,000 individuals in each wave. A dynamic computer-assisted telephone interview (CATI) approach was used to distribute the questionnaire to a sample of residents aged 18-74 selected through stratified random sampling of the Italian population.[8] The INAPP-PLUS datasets provide individual weights to account for non-response and attrition issues, which usually affect sample surveys. Similarly to other empirical studies relying on the same dataset (see, among others, Clementi and Giammatteo, 2014; Filippetti et al., 2019; Bonacini et al., 2021), all descriptive statistics and estimates reported in this analysis are weighted using these individual weights.

We use five waves of the INAPP-PLUS survey: one before the crisis (2006), one during the crisis (2011), and three after the crisis (2014, 2016 and 2018).[9] From the initial samples of individuals, we select those who were both employed and aged between 18 and 64. Then, among the observations satisfying these criteria we focus on individuals declaring they have part-time employment. The INAPP-PLUS survey asks part-timers the following question:

Why do you have a part-time employment…?
1. By your choice or convenience; 2. Because your employer requested it.[10]

We consider those who replied that they had this type of employment because their employer requested it to be involuntary part-timers. As we cannot interpret missing values in any clear direction, we decide to drop observations not responding to this question. Our final sample consists of 1,997 observations in the 2006 sample, 2,151 in the 2011 one, 3,555 in the 2014 one, 3,413 in the 2016 sample and 3,160 in the 2018 one.

---

[8] The stratification of the INAPP-PLUS survey sample is based on population strata by NUTS-2 region of residence, degree of urbanisation (i.e. metropolitan or non-metropolitan area), age group, sex and employment status (i.e. employed, unemployed, student, retired or other inactive status). One of the key elements in this dataset is an absence of proxy interviews: in the survey only survey respondents are reported to reduce measurement errors and partial non-responses.

[9] It should be noted that two further INAPP-PLUS waves are available for the years 2008 and 2010. Nonetheless, we decided to exclude them from our analysis because some variables are missing. The 2008 wave does not provide the variable of the number of children in the household but just their presence (i.e. household with children or without). The 2010 wave, it does not provide the variable regarding marital status. However, making the necessary changes to the model specification, as a sensitivity analysis we replicated the econometric analysis on these two waves and the results overall confirm our main findings. More details are available on request.

[10] In line with the literature on the dualisation of part-time work, this question allows framing IPT work based on individual will.

The econometric analysis regarding the determinants of the probability of having part-time employment involuntarily[11] is developed through estimation of Probit models which present the following specification for each observation i:

$$IPT_i = \beta X_i + \gamma Z_i + \varepsilon_i,$$

where the dependent variable IPT is a dummy equal to 1 if the part-time job is involuntary and 0 otherwise (i.e. voluntary part-time), X is a vector of exogenous covariates (i.e. gender, age, citizenship, education level, marital status, employment status of the partner, number of children, presence of disabled family members, tenure status, municipality size and macro-region of residence) and Z is a vector of additional covariates (i.e. job relationship tenure, occupation skill level, type of employment contract, firm size and activity sector) which may suffer potential endogeneity bias as they are strongly related to the characteristics of the profession of the part-time employment. A detailed description of the variables used in our analysis is presented in Appendix A (Table A.1). We label the specification only containing the vector of covariates X Model 1, and the one also including potentially endogenous covariates in the vector Z Model 2.

The core idea of our econometric analysis consists in testing the presence of a dualistic nature of the IPT phenomenon in Italy (and how it changed over time) by looking at the statistical significance of relevant covariates suggested in the literature and included in the models. In particular, dualisation can be detected by looking at the job relationship tenure and type of contract. Finally, to explore the extent of gender heterogeneity in our main results, we replicate the above-presented econometric analysis running separate regressions for males and females on the probability of involuntarily having a part-time job (rather than voluntarily). In this case, we focus on the main (I)PT 'gender-related' factors such as marital status, presence of underage children and partner's occupational status.

5. Results

5.1. Descriptive statistics

For the sake of brevity Table 1 only shows the composition of two samples (the 2006 and 2018 ones) and focuses on involuntary part-timers presenting a number of individual, household and labour characteristics.

[Table 1 approximately here]

Both in 2006 and 2018 those who accept part-time employment involuntarily are mainly female and young (i.e. aged below 35). However, as expected, while female part-timers tend to accept this type of employment contract more voluntarily than male ones, the opposite occurs among young workers. It should be noted that the shares of involuntary part-time cases of these two

---

[11] In this article, we do not explore the determinants of the probability of having part-time employment in general regardless of whether it is involuntary. Nonetheless, some elaborations by the authors on the 2018 sample highlight that females have – *ceteris paribus* – a higher probability of having a part-time job (+26%), whereas the opposite is the case for those who have a university degree (-13%). In addition, the probability of having part-time employment increases among the young, those living in urban areas or in the south of Italy, and those with two or more underage children.

categories of workers decrease by 2018, thus after the economic crisis. In contrast, the share of graduate workers rose by 2018 among involuntary part-timers.

Part-time employment is clearly accepted more voluntarily by those who are married and have a partner with an occupation both in 2006 and 2018, but living with one or (especially) more children and caring for a household member with a disability only engender a reduction in the number of involuntary part-timers in 2018. Conversely, home ownership seems to lead to accepting part-time employment more voluntarily only in 2006. Regarding territorial differences across the country, the preliminary statistics show that IPT work is slightly more frequent among part-timers living in metropolitan areas and in the centre of Italy, and it is particularly frequent among those living in the southern regions.

As for labour characteristics, Table 1 shows that part-time employment tends to be accepted more voluntarily by individuals with medium-high occupation skill levels or an open-ended contract in both 2006 and 2018. When looking at company size and the economic sector in which part-timers are employed instead, there are differences between before and after the economic crisis. IPT work is more frequent among those working in the public sector in 2006, while it is the opposite in 2018. Moreover, workers only tend to accept part-time employment in services related to production more voluntarily in 2018. Finally, workers with IPT status tend to report much shorter tenure in the same firm and, at parity of hours a week worked (on average), lower annual gross labour income. Regarding the job relationship tenure, it should be noted, however, that individuals experiencing IPT status would probably not like to remain in the same firm over time, in contrast with those voluntarily working as part-timers.

Slight or no differences appear instead when comparing involuntary part-timers and the total sample of part-timers in terms of citizenship, municipality size, the number of working hours and gross employee income (especially in 2006).

5.2. Econometric analysis

The estimation results in Table 2 confirm most of the preliminary findings presented above, but some noteworthy changes in the IPT determinants occur over time.[12] Specifically, in a first stage looking at the estimated coefficients for Model 1, female and graduate workers always report – *ceteris paribus* – a lower probability of being hired involuntarily with a part-time contract (however, the effect is non-significant in 2006). Interestingly, female workers had the lowest chance of being in part-time employment involuntarily during the economic crisis (2011) and just afterwards (2014). Being aged 36 or above significantly (at the 1 percent level) reduces the probability of IPT only from 2016, while being an Italian citizen engenders a significant negative effect on the dependent variable in 2006 and 2016.

[Table 2 approximately here]

Regarding the roles played by marital status and the partner's occupational status in willingness to have part-time employment, being married (with respect to being single, divorced or

---

[12] Since the part-time status of the work relationship is self-declared in the INAPP-PLUS survey, as a sensitivity analysis we tried to reproduce our main analysis on a sample of part-timers with the maximum number of working hours a week being restricted to 35. The results of this sensitivity analysis, shown in the Appendix (Table A.3), overall confirm the robustness of our main findings.

widowed) does not appear to have any effect on the dependent variable (except in 2014), while being married and having an employed partner significantly decreases the probability of IPT working over time. The number of children in the household gradually increases the negative effect on the dependent variable starting from the economic crisis, confirming that part-time employment is accepted more voluntarily if the worker also needs to carry out some childcare tasks. Table 2 shows that the presence of a disabled family member only decreases the probability of IPT work status in 2018. In contrast, living in an owned house, and so having a certain level of household wealth, always seems to make part-time employment more acceptable or at least less involuntary for workers, even though this effect slightly decreases over the period analysed. Living in central (except in 2006) and (especially) southern regions determines *ceteris paribus* a higher probability of IPT work status than living in the north-west of Italy. Instead, municipality size has no significant effect on the dependent variable.

When additional (potentially endogenous) covariates related to individuals' occupations are included in the model specification (Table 2, Model 2 columns), our main results remain overall the same expect that being Italian and being aged over 51 now respectively significantly increase the probability of IPT work status in 2018 and in the period 2011-2014. Additionally, workers living in a metropolitan area now report a greater significant probability of being hired involuntarily with a part-time contract in 2006, while living in the south of Italy no longer has a significant effect in the same year.

As for the new covariates, the estimation results reveal that an additional year spent in the same firm reduces the probability of IPT working status by approximately 1%, while the probability is higher – *ceteris paribus* – for those with a low level of skills (significantly from 2014) or a fixed-term or other (atypical) contract. Except for those who work for big firms (i.e. 200 or more employees), who always present a greater probability of IPT working status than those working for very small firms (i.e. less than 5 employees), the effects related to company size are quite unstable over time. Other company-size levels have no significant coefficients for 2006 and 2016, working for a medium-sized company (i.e. 15-199 employees) has a positive effect on the dependent variable during the economic crisis and in 2014 (in this case, only part-timers in firms with at least 50 employees), while workers in the public sector and for medium-size companies seem to accept part-time employment more voluntarily in 2018. Finally, compared to those working in the agriculture sector, workers employed in industry and construction have a significantly lower probability of having IPT working status until 2011, but the effect of working in construction is reversed in 2014.

In conclusion, the results of the econometric analysis overall confirm our main hypothesis of the existence of a dualistic nature of the IPT work phenomenon in Italy. Indeed, most of the independent variables included in the models significantly affect the probability of IPT working status and these determinants also appear to be quite stable over time.

5.3. Gender heterogeneity in IPT work determinants

The heterogenous effects on IPT working status by worker gender shown in Table 3 for Model 1 estimations (and in Table A.2 in the Appendix for Model 2 ones), highlight three noteworthy considerations.

[Table 3 approximately here]

First, several determinants of IPT working status observed in the main analysis are mostly only related to females, while they are generally non-significant for male workers. In particular, marital status, partner's occupational status and the number of children in the household rarely determine significant effects on the dependent variable for male workers (the estimates of Model 2 add occupational skill level to these variables. See Table A.2).[13] As these variables overall reduce the probability of IPT working status among female workers, our results underscore that women's willingness to accept part-time employment (and female participation in the labour market generally) is still strongly linked to the presence/necessity of a partner in Italy, with few or no changes in the period analysed.

Second, male and female workers report opposite effects on IPT working status of the presence of a child in the household and of being married with an unemployed partner. Specifically, male workers tend to 'suffer' a part-time contract more if they have an unemployed partner (a significant coefficient for 2006) or a child (with respect to having no child, with significant coefficients for 2011 and 2018), whereas the same situation often determines a lower probability of females being hired involuntarily as part-timers.

Finally, while occupation skill level and the type of employment contract (especially a fixed-term contract) often appear of importance in explaining IPT working status among male workers (Table A.2), the effects of these job characteristics on the probability of IPT are more stable and statistically significant for female workers. This is particularly true when looking at other job characteristics such as company size and the sector of activity.

Therefore, focussing on gender aspects of IPT employment reveals that the dualistic nature of this phenomenon can be mainly attributed to female workers. Moreover, our analysis also shows that the observed dualisation among female workers is not only related to household characteristics but also to factors strictly connected to the type of employment and other job characteristics.

6. Conclusion

IPT work is a phenomenon of growing importance, especially in countries like Italy and Spain, but it can severely affect the European labour market in the case of a long economic crisis.

This paper has provided a deep analysis of the determinants of IPT work, focusing on both socio-demographic and professional ones at the individual and household levels to understand the role of dualisation of part-time employment and its intersection with gender.

The country-uniqueness of the information collected in the INAPP-PLUS survey and the emblematic importance of the case of Italian IPT work strengthen the significance of the results described in the paper and the relevance of analysing IPT work from a broader perspective.

The main outputs of the econometric analysis are in line with the literature on IPT work and with the hypothesis that IPT employment reveals the dualised traits of the PT workforce, and that IPT status is related to the 'degree of constraint' that individual willingness in labour choices has to face, which depends on a combination of worker characteristics such as individual and household features and labour market status. The results of our research on the Italian case show that the former set of features seem to prevail in explaining the voluntariness of part-time status, and among these the worker's gender appears to be one of the most crucial

---

[13] Note that the scarce statistical significance of coefficients in the estimates for males might be related in this case to the small number of observations.

variables. Indeed, the role of labour characteristics in determining IPT working status is less than those of individual and household features, which in turn are expected to mainly drive individuals' expectations. Indeed, when expectations of personal fulfilment attached to work are high as a response to cultural expectations and/or individual/household preferences, there is a greater risk of being forced into a part-time position (rather than choosing it). When personal fulfilment does not only depend on work outcomes, IPT work is instead less frequent. Our results show that women aged 36 or over with children or with a high education level face a low degree of constraint and tend to choose part-time jobs voluntarily, while men in the same situation (especially those with only one child) tend to suffer IPT working status. Interestingly, our estimates suggest that women tend to accept a part-time job more willingly than men even when relevant factors at the family level are controlled for like marital status or the number of children. However, our analysis has revealed that the dualistic nature of part-time employment can be mainly attributed to female workers. Indeed, when comparing voluntary and involuntary part-time work, female IPT workers result to be at a greater risk of dualisation, especially concerning atypical positions, with respect to their male counterparts.

These considerations emphasise the importance of gender-role models in influencing the willingness of individuals in the labour market. In fact, women are more likely to choose part-time jobs because the preference for work-family reconciliation is not equal across genders.

Our findings lead to a conclusion that IPT work has internal consistency, suggesting that this kind of work matters in the study of working behaviours and of the labour market in general. The results suggest that IPT work should be considered a separate segment of labour markets with respect to voluntary part-time and full-time occupations. Furthermore, the intersection between gender and dualisation confirms that even within IPT employment the more general inequalities of the Italian labour market are replicated.

The main findings of our econometric analysis confirm the dualistic nature of IPT in Italy, with a significant role of female participation in the labour market. This result contrasts with opposite findings on countries where female participation in the labour market has different features (Barbieri et al., 2019; Wielers et al., 2014). In both cases and more generally, it is possible to assume a relationship between the structure of dualisation in the labour market and the determinants of IPT work. Dualisation increases the possibility of having IPT working status in the short run, and having IPT working status pushes towards a more dualised structure in the long run.

In conclusion, considering the expected profound changes in working structure related to the COVID-19 pandemic, which will probably remain in the long run (Baert et al., 2020; Brynjolfsson et al., 2020), we believe that our results can inform policymaking on preventing a further expansion of IPT occupations, particularly in economic activity sectors more exposed to future changes.

References

Atkinson J. (1984). Manpower strategies for flexible organisations, *Personnel management*, 16, 28-31.

Anxo D., Fagan C., Smith M., Letablier M.T., Perraudin C. (2007). *Part-time work in European companies: establishment survey on working time 2004-2005*. Dublin: European Foundation for the Improvement of Living and Working Conditions.

Baert S., Lippens L., Moens E., Sterkens P., Weytjens J. (2020). The COVID-19 crisis and telework: A research survey on experiences, expectations and hopes. *GLO Discussion Paper*, 532.

Barbieri P. (2011). Italy: No Country for Young Men (and Women): The Italian Way of Coping with Increasing Demands for Labour Market Flexibility and Rising Welfare Problems. In Blossfeld H.P., Buchholz S., Hofäcker D., Kolb K. (Eds.), *Globalized Labour Markets and Social Inequality in Europe*. London: Palgrave Macmillan, pp. 108-145.

Barbieri P., Cutuli G., Guetto R., Scherer S. (2019). Part-time employment as a way to increase women's employment: (Where) does it work?. *International Journal of Comparative Sociology*, 60(4), 249-268.

Barbieri P., Cutuli G. (2021). Italy: Labour market de-regulation, unemployment risks and temporary employment growth. Lessons from the past for the present COVID-19 crisis. *Stato e mercato*, 2, 177-199.

Beham B., Präg P., Drobnič S. (2012). 'Who's got the balance? A study of satisfaction with the work-family balance among part-time service sector employees in five Western European countries'. *The International Journal of Human Resource Management*, 23(18), 3725-3741.

Beham B., Drobnič S., Präg P., Baierl A., Eckner J. (2019). Part-time work and gender inequality in Europe: a comparative analysis of satisfaction with work–life balance. *European Societies*, 21(3), 378-402.

Belfield C., Blundell R., Cribb J., Hood A., Joyce R. (2017). Two Decades of Income Inequality in Britain: The Role of Wages, Household Earnings and Redistribution. *Economica*, 84(334), 157-179.

Biewen M., Fitzenberger B., de Lazzer J. (2018). The role of employment interruptions and part-time work for the rise in wage inequality. *IZA Journal of Labor Economics*, 7, 10.

Blossfeld H.-P., Hakim C. (1997). *Between equalization and marginalization: women working part-time in Europe*, Oxford: Oxford University Press.

Bonacini L., Gallo G., Scicchitano S. (2021). Working from home and income inequality: risks of a 'new normal' with COVID-19. *Journal of Population Economics*, 34(1), 303-360.

Borowczyk-Martins D., Lalé E. (2016). How Bad Is Involuntary Part-time Work?. *IZA discussion paper series*, 9775.

Bosch G. (2006). Working time and the standard employment relationship. In Boulin J.-Y., Lallement M., Messenger F., Michon F. (Eds.). *Decent working time: new trends and new issues*. Geneva: ILO, pp. 41-64.

Bredtmann J., Otten S. Rulff C. (2018). Husband's Unemployment and Wife's Labor Supply: The Added Worker Effect across Europe. *ILR Review*, 71(5), 1201-1231.

Brynjolfsson E., Horton J., Ozimek A., Rock D., Sharma G., Yi Tu Ye H. (2020). Covid-19 and remote work: An early look at U.S. data. *NBER Working Paper*, 27344.

Broughton A., Green M., Rickard C., Swift S., Eichhorst W., Tobsch V., Magda I., Lewandowski P., Keister R., Jonaviciene D., Ramos Martín N.E., Valsamis D., Tros F. (2016). *Precarious employment in Europe. Part 1: patterns, trends and policy strategy*. Brussels: Policy Department A of the Directorate-General for Internal Policies, European Parliament.

Burgoon B., Dekker F. (2010). Flexible Employment, economic Insecurity and Social Policy Preferences in Europe. *Journal of European Social Policy*, 20, 126–141.

Cardinali V. (2021). Il ruolo del part time nelle nuove attivazioni contrattuali di uomini e donne nel I semestre 2021, *INAPP Policybrief*, 24.

Clementi F., Giammatteo M. (2014). The labour market and the distribution of earnings: an empirical analysis for Italy. *International Review of Applied Economics*, 28(2), 154-180.

Dotti Sani G.M. (2015). Within-Couple Inequality in Earnings and the Relative Motherhood Penalty. A Cross-National Study of European Countries, *European Sociological Review*, 31(6), 667-682.

Dotti Sani G.M., Luppi M. (2021). Absence from Work after the Birth of the First Child and Mothers' Retirement Incomes: A Comparative Analysis of 10 European Countries, *Work, Employment and Society*, 35(3), 470-489.

Eichhorst W., Marx P. (2012). Whatever works: dualization and the service economy in Bismarckian welfare states. In Emmenegger P., Häusermann S., Palier B., Seeleib-Kaiser M. (Eds.). *The Age of Dualization: The Changing Face of Inequality in Deindustrializing Societies*. Oxford: Oxford University Press, pp. 73–99.

Emmenegger P. (2009). Barriers to entry: insider/outsider politics and the determinants of job security regulations. *Journal of European Social Policy*, 19(2), 131–146.

Emmenegger P., Häusermann S., Palier B., Seeleib-Kaiser M. (2012). *The Age of Dualization: The Changing Face of Inequality in Deindustrializing Societies*. Oxford: Oxford University Press.

European Commission (2014). *Employment and social developments in Europe 2014*. Brussels: Directorate-General for Employment, Social Affairs and Inclusion, European Commission.

Fagan C., Norman H., Smith M., Menéndez M.C.G. (2013). *In Search of Good Quality Part-Time Employment*. Geneva: International Labour Office.

Fellini I., Reyneri E. (2018). Intensità del lavoro, evoluzione dell'occupazione, polarizzazione, in CNEL (Ed.), *XX Rapporto mercato del lavoro e contrattazione collettiva 2017-2018*, Roma: CNEL.

Fellini I., Reyneri E. (2019). Intensità del lavoro, evoluzione dell'occupazione, polarizzazione, in CNEL (Ed.), *XXI Rapporto mercato del lavoro e contrattazione collettiva 2018-2019*, Roma: CNEL.

Ferrera M. (1996). The "Southern Model" of Welfare in Social Europe. *Journal of European Social Policy*, 6(1), 17-37.

Filippetti A., Guy F., Iammarino S. (2019). Regional disparities in the effect of training on employment. *Regional Studies*, 53(2), 217-230.

Gash V. (2008). Preference or constraint? Part-time workers' transitions in Denmark, France and the United Kingdom. *Work, employment and Society*, 22(4), 655-674

Gardiner L., Gregg P. (2017). *Study, Work, Progress, Repeat? How and Why Pay and Progression Outcomes Have Differed across Cohorts*. London: Resolution Foundation.

Gelepithis M., Jeannet A.-M. (2018). The Political Consequences of Outsider Labour Market Status in the United States: A Micro-Level Study. *Social Policy & Administration*, 52, 1019-1042.

Hakim C. (2001). A sociological perspective on part-time work. In Blossfeld H.-P., Hakim C. (Eds.). *Between Equalization and Marginalization: Women Working Part-Time in Europe and the United States of America*. Oxford: Oxford University Press, pp. 22-70.

Hakim C. (2002). Lifestyle preferences as determinants of women's differentiated labor market careers. *Work and Occupations*, 29(4), 428-459.

Kauhanen M., Jouko N. (2015). Involuntary Temporary and Part-time Work, Job Quality, and Well-being at Work. *Social Indicators Research*, 120(3), 783-799.

Leschke J. (2013). Has the economic crisis contributed to more segmentation in the labour market and welfare outcomes? An analysis of EU countries (2008-2010). *Revue Française des Affaires Sociales*, 4, 1-19.

Lyonette C., Baldauf B., Behle H. (2010). *Quality part-time work: a review of the evidence*, London: Government Equalities Office.

Lyonette C. (2015). Part-time work, work–life balance and gender equality. *Journal of Social Welfare and Family Law*, 37(3), 321-333.

Maestripieri L., León M. (2019). So close, so far? Part-time employment and its effects on gender equality in Italy and Spain. In Nicolaisen H., Hanne C.K., Ragnhild S. (Eds.). *Dualisation of Part-Time Work*, Bristol: Policy Press, Bristol University Press, pp. 55-83.

Marx P., Picot G. (2013). The Party Preferences of Atypical Workers in Germany, *Journal of European Social Policy,* 23, 164-178.

Nicolaisen H., Hanne C.K., Ragnhild S.J. (2019). Introduction. In Nicolaisen H., Hanne C.K., Ragnhild S. (Eds.). *Dualisation of Part-Time Work*, Bristol: Policy Press, Bristol University Press, pp. 1-31.

Nightingale O. (2018). Looking beyond Average Earnings: Why Are Male and Female Part-Time Employees in the UK More Likely to Be Low Paid Than Their Full-Time Counterparts?. *Work, Employment and Society*, 33(1), 131-148.

O'Dorchai S., Plasman R. Rycx F. (2007). The part-time wage penalty in European countries: how large is it for men?. International Journal of Manpower, 28(7), 571-603.

OECD (2010). *OECD Employment Outlook 2010. Moving beyond the job crisis*. Paris: OECD.

O'Reilly J., Fagan C. (1998). *Part-Time Prospects: An International Comparison of Part-Time Work in Europe, North America and the Pacific Rim*. London: Routledge.

Palier B., Thelen K. (2010). Institutionalizing dualism: complementarities and change in France and Germany. *Politics & Society*, 38, 119–148.

Pfau-Effinger B., Thordis R. (2019). Why do women work in 'Minijobs' in Germany? Explanation with supply and demand side factors. In Nicolaisen H., Hanne C.K., Ragnhild S. (Eds.). *Dualisation of Part-Time Work*, Bristol: Policy Press, Bristol University Press, pp. 245-264.

Prosser T. (2016). Dualization or liberalization? Investigating precarious work in eight European countries. *Work, Employment and Society*, 30(6), 949-965.

Rosenfeld R.A., Birkelund G.E. (1995). Women's Part-Time Work: A Cross-National Comparison. *European Sociological Review*, 11, 111-134.

Rubin J., Rendall M.S., Rabinovich L., Tsang F., Van Oranje-Nassau C., Janta B. (2008). *Migrant women in the European labour force: Current situation and future prospects*. Cambridge: RAND Europe.

Rueda D. (2005). Insider-Outsider Politics in Industrialized Democracies: The Challenge to Social Democratic Parties. *American Political Science Review*, 99, 61-74.

Rueda D. (2006). Social Democracy and Active Labour Market Policies: Insiders, Outsiders, and the Politics of Employment Promotion. *British Journal of Political Science*, 36, 385-406.

Rueda D. (2007). *Social Democracy Inside Out*. Oxford: Oxford University Press.

Saraceno C., Keck W. (2010). Can we Identify Intergenerational Policy Regimes in Europe?. *European Societies*, 12(5), 675-696.

Stier H., Lewin-Epstein N. (2000). Women's Part-Time Employment and Gender Inequality in the Family. *Journal of Family Issues*, 21(3), 390-410.

Tijdens K.G. (2002). Gender Roles and Labor Use Strategies: Women's Part-Time Work in the European Union. *Feminist Economics*, 8(1), 71-99.

Tilly C. (1996). *Half a Job: Bad and Good Part-Time Jobs in a Changing Labor Market*. Philadelphia: Temple University Press.

Valletta, R.G., van der List C. (2015). Involuntary part-time work: Here to stay?, *FRBSF Economic Letter*, 19.

Valletta, R.G., Bengali L., ì van der List C. (2020). Cyclical and Market Determinants of Involuntary Part-Time Employment. *Journal of Labor Economics*, 38(1), 67–93.

Warren T., Lyonette C. (2018). Good, Bad and Very Bad Part-time Jobs for Women? Re-examining the Importance of Occupational Class for Job Quality since the 'Great Recession' in Britain. *Work, Employment and Society*, 32(4), 747-767.

Webber G., Williams C. (2008). Mothers in "good" and "bad" part-time jobs: different problems, same results. *Gender & Society*, 22, 752-777.

Wielers R., Münderlein M., Koster F. (2014). Part-Time Work and Work Hour Preferences. An International Comparison. *European Sociological Review*, 30(1), 76-89.

Appendix

[Table A.1 approximately here]

[Table A.2 approximately here]

[Table A.3 approximately here]

[Figure A.1 approximately here]

Tables

Table 1. Part-time worker descriptive statistics

Characteristics	2006				2018			
	Involuntary part-time		Total sample		Involuntary part-time		Total sample	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Female	0.732	0.443	0.831	0.375	0.688	0.463	0.768	0.422
Aged 18-35	0.461	0.499	0.368	0.482	0.399	0.490	0.286	0.452
Aged 36-50	0.436	0.496	0.513	0.500	0.381	0.486	0.459	0.498
Aged 51-64	0.104	0.305	0.119	0.324	0.220	0.414	0.255	0.436
Italian	0.983	0.129	0.991	0.093	0.977	0.150	0.977	0.148
University degree	0.084	0.277	0.086	0.280	0.137	0.344	0.156	0.362
Not married	0.470	0.499	0.305	0.461	0.599	0.490	0.460	0.498
Married, partner unemployed	0.184	0.388	0.157	0.364	0.099	0.299	0.096	0.294
Married, partner employed	0.345	0.476	0.538	0.499	0.302	0.459	0.445	0.497
No children	0.130	0.337	0.127	0.333	0.533	0.499	0.394	0.489
One child	0.383	0.486	0.373	0.484	0.173	0.379	0.193	0.395
Two children	0.389	0.488	0.431	0.495	0.243	0.429	0.330	0.470
Three or more children	0.098	0.298	0.069	0.254	0.050	0.219	0.083	0.276
Presence of disabled	0.133	0.340	0.135	0.341	0.081	0.273	0.101	0.301
Home ownership	0.438	0.496	0.649	0.477	0.826	0.379	0.869	0.337
Metropolitan area	0.393	0.489	0.325	0.468	0.344	0.475	0.322	0.467
North-West	0.275	0.447	0.301	0.459	0.228	0.419	0.292	0.455
North-East	0.120	0.326	0.242	0.429	0.183	0.387	0.244	0.429
Centre	0.235	0.424	0.221	0.415	0.249	0.432	0.223	0.416
South	0.370	0.483	0.235	0.424	0.341	0.474	0.241	0.428
Job relationship tenure	5.2	6.2	8.2	8.1	8.2	9.2	11.4	10.6
High skill level	0.049	0.215	0.043	0.204	0.089	0.285	0.104	0.306
Average skill level	0.379	0.485	0.466	0.499	0.319	0.466	0.423	0.494
Low skill level	0.573	0.495	0.490	0.500	0.591	0.492	0.473	0.499
Open-ended contract	0.646	0.479	0.797	0.402	0.672	0.470	0.780	0.414
Fixed-term contract	0.296	0.457	0.173	0.378	0.287	0.452	0.195	0.396
Other contract	0.059	0.235	0.030	0.170	0.041	0.199	0.025	0.157
1-4 employees	0.250	0.433	0.237	0.425	0.260	0.439	0.220	0.414
5-14 employees	0.212	0.409	0.232	0.422	0.227	0.419	0.223	0.416
15-49 employees	0.141	0.348	0.145	0.352	0.177	0.382	0.181	0.385
50-199 employees	0.094	0.292	0.121	0.326	0.091	0.288	0.109	0.311
200 or more employees	0.120	0.325	0.097	0.296	0.100	0.301	0.091	0.287
Public sector	0.183	0.387	0.168	0.374	0.145	0.352	0.178	0.382
Agriculture	0.026	0.160	0.017	0.128	0.016	0.127	0.013	0.115
Industry	0.066	0.249	0.108	0.311	0.070	0.256	0.098	0.297
Construction	0.012	0.110	0.019	0.135	0.010	0.101	0.015	0.122
Services – Production	0.162	0.369	0.160	0.366	0.099	0.299	0.144	0.351
Services – Distribution	0.275	0.447	0.279	0.448	0.271	0.445	0.249	0.432
Personal services	0.224	0.417	0.187	0.390	0.269	0.443	0.211	0.408
Social services	0.233	0.423	0.232	0.422	0.263	0.441	0.270	0.444
Number of working hours	23.1	8.0	23.2	6.8	25.3	10.0	25.2	8.8
Gross employee income	11,412	4,361	11,949	4,414	15,362	19,340	16,721	18,978
Observations	814		1,997		1,548		3,160	

Table 2. Determinants of IPT status. Probit marginal effects

Variables	Model 1					Model 2				
	2006	2011	2014	2016	2018	2006	2011	2014	2016	2018
Female	-0.051	-0.170***	-0.161***	-0.103***	-0.083**	-0.039	-0.205***	-0.146***	-0.104***	-0.072**
Aged 36-50	0.026	-0.070*	-0.020	-0.122***	-0.144***	0.048	0.013	0.042	-0.030	-0.061*
Aged 51-64	-0.027	-0.063	0.048	-0.120***	-0.107***	0.007	0.131*	0.168***	0.037	0.018
Italian	-0.362***	-0.121	-0.084	-0.176*	0.062	-0.338***	0.049	-0.028	-0.083	0.176**
University degree	-0.078	-0.075*	-0.082***	-0.102***	-0.103***	-0.104**	-0.103**	-0.034	-0.057**	-0.044*
Married, partner unemployed	0.033	-0.085	-0.133***	-0.058	-0.011	0.061	-0.065	-0.085***	-0.041	-0.004
Married, partner employed	-0.137**	-0.170***	-0.145***	-0.208***	-0.151***	-0.102*	-0.129**	-0.085*	-0.154***	-0.119***
One child	-0.006	-0.111**	-0.141***	-0.068*	-0.063**	-0.056	-0.095*	-0.110***	-0.077*	-0.037
Two children	-0.046	-0.162**	-0.229***	-0.142***	-0.134***	-0.082	-0.141**	-0.210***	-0.158***	-0.097***
Three or more children	0.040	-0.131*	-0.180***	-0.175***	-0.196***	-0.005	-0.148**	-0.190***	-0.193***	-0.168***
One disabled family member	0.041	0.040	-0.031	-0.008	-0.117***	0.047	0.016	-0.050	-0.006	-0.104**
Home ownership	-0.245***	-0.115**	-0.115***	-0.132***	-0.169***	-0.220***	-0.099*	-0.058*	-0.094***	-0.116***
Metropolitan area	0.086	0.035	-0.016	0.017	-0.002	0.097*	0.016	0.027	0.036	0.012
North-East	-0.160***	0.027	-0.059*	-0.031	0.008	-0.161***	0.003	-0.072**	-0.032	-0.006
Centre	-0.009	0.130*	0.155***	0.126***	0.175***	-0.023	0.102	0.117***	0.087**	0.142***
South	0.158**	0.226***	0.259***	0.251***	0.278***	0.100	0.192***	0.215***	0.222***	0.245***
Job relationship tenure						-0.011***	-0.014***	-0.011***	-0.010***	-0.007***
Average skill level						-0.057	-0.028	-0.008	-0.015	0.001
Low skill level						0.066	0.116	0.188***	0.151***	0.165***
Fixed-term contract						0.231***	0.193***	0.193***	0.139***	0.186***
Other contract						0.366***	0.250***	0.141*	0.160***	0.264***
5-14 employees						-0.045	0.015	0.002	0.046	-0.059
15-49 employees						-0.069	0.167***	-0.017	0.002	-0.080**
50-199 employees						-0.062	0.140**	0.098**	0.025	-0.095**
200 or more employees						0.162***	0.205***	0.089**	0.091**	0.043
Public sector						-0.012	-0.013	-0.022	-0.022	-0.140***
Industry						-0.210**	-0.255*	0.051	-0.024	-0.128
Construction						-0.413***	-0.306*	0.215*	0.034	-0.147
Services – Production						-0.083	-0.083	-0.010	0.061	-0.067
Services – Distribution						-0.203*	-0.126	0.010	0.055	0.011
Personal services						-0.181	-0.103	0.082	0.079	0.038
Social services						-0.120	0.086	0.118	0.076	0.085
Observations	1,997	2,151	3,555	3,413	3,160	1,997	2,151	3,555	3,413	3,160
Pseudo R2	0.162	0.136	0.150	0.179	0.159	0.237	0.220	0.221	0.230	0.229
Log-likelihood	-1,277,000	-1,586,000	-1,833,000	-1,849,000	-1,996,000	-1,163,000	-1,432,000	-1,681,000	-1,734,000	-1,830,000

Notes: Standard errors are clustered by Italian province; *** p<0.01, ** p<0.05, * p<0.1.

Table 3. Determinants of IPT status by gender. Probit marginal effects (Model 1)

Variables	Male workers					Female workers				
	2006	2011	2014	2016	2018	2006	2011	2014	2016	2018
Aged 36-50	0.264**	0.100	0.072	-0.049	-0.052	-0.029	-0.106***	-0.054**	-0.144***	-0.167***
Aged 51-64	0.048	-0.278**	0.040	-0.142**	-0.085	-0.050	-0.024	0.027	-0.121***	-0.125**
Italian	-0.248**	-0.438*	0.019	-0.040	-0.020	-0.384***	-0.069	-0.091	-0.185	0.090
University degree	-0.067	-0.003	-0.132***	-0.128***	-0.130***	-0.098*	-0.090**	-0.065**	-0.092***	-0.099***
Married, partner unemployed	0.256**	-0.015	0.026	0.019	0.012	-0.038	-0.099*	-0.165***	-0.094*	-0.033
Married, partner employed	0.231	-0.257*	-0.065	-0.024	0.000	-0.198***	-0.137***	-0.164***	-0.240***	-0.181***
One child	-0.130	0.194**	-0.145	0.040	0.140***	0.002	-0.182***	-0.148***	-0.104**	-0.126***
Two children	-0.072	-0.106	-0.212**	-0.104	-0.031	-0.043	-0.199***	-0.235***	-0.160***	-0.176***
Three or more children	-0.077	0.013	-0.091	-0.278*	-0.176	0.068	-0.151**	-0.183***	-0.176***	-0.230***
One disabled member	-0.158	0.171	-0.146*	0.098	-0.020	0.062	0.012	-0.009	-0.044	-0.145***
Home ownership	-0.534***	0.112	-0.062	-0.164***	-0.082	-0.205***	-0.181**	-0.119***	-0.115***	-0.202***
Metropolitan area	0.100	0.033	-0.002	0.016	-0.026	0.077	0.031	-0.012	0.003	0.011
North-East	0.012	0.185*	-0.043	0.033	-0.051	-0.173***	0.018	-0.062**	-0.045	0.015
Centre	0.012	0.349***	0.112*	0.103	0.195***	-0.012	0.095	0.148***	0.118***	0.140***
South	0.235***	0.427***	0.172***	0.203***	0.191***	0.098	0.181***	0.266***	0.244***	0.294***
Observations	313	394	654	628	607	1,684	1,757	2,901	2,785	2,553
Pseudo R2	0.163	0.224	0.067	0.112	0.078	0.152	0.109	0.129	0.165	0.168
Log-likelihood	-211,863	-218,982	-344,548	-355,150	-436,833	-1,034,000	-1,309,000	-1,472,000	-1,473,000	-1,520,000

*Notes: Standard errors are clustered by Italian province; *** p<0.01, ** p<0.05, * p<0.1.*

Variable	Description
Dependent variables	
Involuntary part-time (IPT)	Binary variable taking the value of 1 for those having a part-time job involuntarily and 0 for those having a part-time job voluntarily
Control variables	
Female	Binary variable taking the value of 1 for females and 0 for males
Aged 36–50 Aged 51–64	Binary variables representing the age group of individuals. The reference category is 'Aged 18-35'
Italian	Binary variable taking the value of 1 for those who are Italian citizens and 0 otherwise
University degree	Binary variable taking the value of 1 for those who have a University degree and 0 otherwise
Not married Married, partner unemployed Married, partner employed	Binary variables representing a combination of the individual's marital status and the occupational status of the partner. The reference category is 'Not married'
One child Two children Three or more children	Binary variables representing the number of children in the household. The reference category is 'No children'
Presence of disabled	Binary variable taking the value of 1 for those having a household member with disability and 0 otherwise
Home ownership	Binary variable taking the value of 1 for those living in an owned house and 0 otherwise
Metropolitan area	Binary variable taking the value of 1 for those living in a municipality with more than 50 thousand inhabitants and 0 otherwise
North-East Centre South	Binary variables representing the Italian macro-region of residence. The reference category is 'North-West'
Job relationship tenure	Continuous variable representing the number of years employed in the same firm.
Average skill level Low skill level	Binary variables representing the occupation skill level defined using the ISCO-08 classification. We define as 'High skill level' workers who reached the first two ISCO levels (i.e. managers and professionals), as 'Average skill level' those who reached the third and fourth ISCO levels (i.e. technicians, associate professionals and clerical support workers) and as 'Low skill level' those reporting a ISCO level from the fifth one onwards. The reference category is 'High skill level.'
Fixed-term contract Other type of contract	Binary variables representing the type of employment contract. The reference category is 'Open-ended worker.'
5-14 employees 15-49 employees 50-199 employees 200 or more employees Public sector	Binary variables representing the firm size. The reference category is '1-4 employees.' Note, working in the public sector is included here because it represents a further (residual) category of the same variable capturing the firm size.
Industry Construction Services – Production Services – Distribution Personal services Social services	Binary variables representing the sector of activity for employees. The services sector is split into four categories according to the purpose. The reference category is 'Agriculture'.

Table A.2. Determinants of IPT status by gender. Probit marginal effects (Model 2)

Variables	Male workers					Female workers				
	2006	2011	2014	2016	2018	2006	2011	2014	2016	2018
Aged 36-50	0.348***	0.139	0.064	0.001	0.013	-0.013	-0.041	0.019	-0.050	-0.076*
Aged 51-64	0.345***	-0.090	0.060	-0.031	0.044	-0.040	0.154**	0.164***	0.030	-0.002
Italian	-0.227	-0.265	0.046	-0.174	-0.061	-0.381***	0.058	-0.017	-0.058	0.219**
University degree	-0.141	0.022	0.017	-0.091**	-0.061	-0.112**	-0.119**	-0.058*	-0.050*	-0.045
Married, partner unemployed	0.202**	-0.016	0.010	0.028	0.093	0.006	-0.120**	-0.113***	-0.081	-0.050
Married, partner employed	0.147	-0.259*	-0.128	-0.004	0.088	-0.148***	-0.099**	-0.093**	-0.187***	-0.163***
One child	-0.218*	0.220***	-0.112	0.045	0.139***	-0.025	-0.167***	-0.115***	-0.112**	-0.100***
Two children	-0.170	-0.075	-0.190*	-0.134	-0.069	-0.052	-0.175***	-0.209***	-0.172***	-0.131***
Three or more children	-0.187	0.134	-0.099	-0.275*	-0.204	0.032	-0.170**	-0.186***	-0.193***	-0.196***
One disabled household member	-0.135	0.222	-0.146**	0.061	0.022	0.060	-0.004	-0.035	-0.037	-0.132***
Home ownership	-0.526***	0.072	-0.064	-0.119**	-0.036	-0.177***	-0.147**	-0.048	-0.066*	-0.154***
Metropolitan area	0.101	0.006	0.010	-0.013	-0.028	0.085*	0.025	0.032	0.034	0.025
North-East	0.021	0.109	-0.038	0.039	-0.104	-0.172***	-0.018	-0.073**	-0.051	0.007
Centre	-0.028	0.317***	0.125**	0.072	0.140**	-0.018	0.047	0.107***	0.075*	0.116***
South	0.254***	0.372***	0.166***	0.190***	0.162***	0.041	0.150***	0.207***	0.203***	0.258***
Job relationship tenure	-0.018***	-0.011**	-0.001	-0.003	-0.006***	-0.008**	-0.013***	-0.013***	-0.011***	-0.007***
Average skill level	-0.091	0.174	0.112	0.101	0.069	-0.006	-0.074	-0.042	-0.071*	-0.002
Low skill level	0.023	0.173	0.301***	0.144	0.132*	0.110	0.127*	0.127***	0.126***	0.181***
Fixed-term contract	0.232***	0.074	0.125***	0.171***	0.224***	0.226***	0.189***	0.195***	0.096**	0.153***
Other contract	0.368***	-0.024	0.028	0.109*	0.285***	0.324**	0.300***	0.179**	0.175**	0.219***
5-14 employees	-0.142	0.058	-0.024	0.102*	-0.045	-0.031	0.045	0.026	0.023	-0.053
15-49 employees	0.084	0.001	-0.034	0.096	-0.125	-0.079	0.221***	0.014	-0.032	-0.057
50-199 employees	-0.054	0.074	0.051	-0.003	-0.170*	-0.038	0.179***	0.122**	0.040	-0.076
200 or more employees	0.325***	-0.028	0.020	0.173***	0.010	0.099	0.254***	0.114*	0.049	0.054
Public sector	0.001	-0.083	0.043	0.036	-0.075	-0.010	0.075	-0.023	-0.039	-0.153***
Industry	-0.142	0.095	0.227	-0.135	-0.044	-0.184	-0.398**	-0.048	0.069	-0.140
Construction	-0.781***	-0.020	0.212	0.003	-0.390**	-0.156	-0.396**	0.129	0.017	-0.057
Services – Production	-0.221***	0.234	0.118	-0.045	-0.043	-0.016	-0.197	-0.060	0.118	-0.041
Services – Distribution	-0.322***	0.246	0.130	-0.029	0.019	-0.137	-0.294*	-0.038	0.096	0.004
Personal services	-0.282***	0.151	0.098	-0.132	-0.080	-0.120	-0.226	0.065	0.168	0.085
Social services	-0.186*	0.287	0.023	-0.114	-0.040	-0.061	-0.055	0.105	0.153	0.128
Observations	313	394	654	628	607	1,684	1,757	2,901	2,785	2,553
Pseudo R2	0.383	0.291	0.149	0.187	0.182	0.212	0.215	0.213	0.226	0.241
Log-likelihood	-156,152	-200,204	-314,368	-324,859	-387,415	-960,531	-1,154,000	-1,329,000	-1,365,000	-1,388,000

Notes: Standard errors are clustered by Italian province; *** p<0.01, ** p<0.05, * p<0.1.

*Table A.3. Determinants of IPT status (employees who worked less than 35 hours per week). Probit marginal effects*

Variables	Model 1					Model 2				
	2006	2011	2014	2016	2018	2006	2011	2014	2016	2018
Female	-0.032	-0.201***	-0.169***	-0.078**	-0.080**	-0.032	-0.226***	-0.153***	-0.085**	-0.068**
Aged 36-50	0.016	-0.060	-0.019	-0.124***	-0.129***	0.035	0.013	0.046	-0.031	-0.048
Aged 51-64	-0.028	-0.082	0.054	-0.118***	-0.109**	-0.015	0.075	0.178***	0.034	0.014
Italian	-0.368***	0.023	-0.027	-0.314***	0.036	-0.348***	0.148	0.028	-0.221*	0.146
University degree	-0.070	-0.082*	-0.063*	-0.094***	-0.101***	-0.086*	-0.117**	-0.023	-0.060**	-0.062**
Married, partner unemployed	0.000	0.095	-0.128***	-0.078*	-0.006	0.045	0.103	-0.079**	-0.058	0.008
Married, partner employed	-0.142**	-0.107**	-0.146***	-0.226***	-0.160***	-0.102*	-0.071	-0.083*	-0.173***	-0.123***
One child	-0.014	-0.207***	-0.137***	-0.079**	-0.058*	-0.057	-0.173***	-0.100**	-0.086**	-0.031
Two children	-0.037	-0.252***	-0.233***	-0.146***	-0.131***	-0.067	-0.228***	-0.209***	-0.161***	-0.092**
Three or more children	0.024	-0.215***	-0.164***	-0.170***	-0.182***	-0.019	-0.235***	-0.170***	-0.186***	-0.159***
One disabled household member	0.069	0.040	-0.029	-0.002	-0.131***	0.070	0.014	-0.052	0.001	-0.119**
Home ownership	-0.227***	-0.164**	-0.107***	-0.134***	-0.171***	-0.205***	-0.139*	-0.053*	-0.095***	-0.115***
Metropolitan area	0.110**	0.031	-0.011	0.019	0.005	0.118**	0.013	0.031	0.040	0.021
North-East	-0.175***	-0.005	-0.046	-0.023	0.002	-0.178***	-0.029	-0.058*	-0.025	-0.014
Centre	-0.023	0.082	0.160***	0.127***	0.179***	-0.031	0.052	0.125***	0.088*	0.143***
South	0.170**	0.193***	0.260***	0.249***	0.279***	0.114	0.161***	0.213***	0.218***	0.243***
Job relationship tenure						-0.010***	-0.012***	-0.011***	-0.010***	-0.007***
Average skill level						-0.005	-0.042	-0.015	-0.015	-0.013
Low skill level						0.126	0.116	0.187***	0.132***	0.144***
Fixed-term contract						0.221***	0.187***	0.187***	0.138***	0.188***
Other contract						0.405***	0.194**	0.123	0.160***	0.276***
5-14 employees						-0.060	0.017	0.014	0.051	-0.069
15-49 employees						-0.093	0.155**	-0.008	0.011	-0.083**
50-199 employees						-0.057	0.161**	0.097**	0.040	-0.107**
200 or more employees						0.140**	0.170**	0.085*	0.078	0.036
Public sector						-0.008	0.014	-0.017	-0.028	-0.127**
Industry						-0.082	-0.230	0.023	-0.034	-0.130
Construction						-0.283**	-0.273	0.130	-0.010	-0.137
Services – Production						0.044	-0.008	-0.039	0.031	-0.072
Services – Distribution						-0.085	-0.091	-0.015	0.035	-0.001
Personal services						-0.065	-0.052	0.045	0.065	0.043
Social services						0.002	0.119	0.102	0.068	0.085
Observations	1,904	1,860	3,307	3,149	2,865	1,904	1,860	3,307	3,149	2,865

Pseudo R2	0.164	0.151	0.144	0.180	0.155	0.239	0.226	0.216	0.227	0.225
Log-likelihood	-1,200,000	-1,321,000	-1,707,000	-1,703,000	-1,816,000	-1,093,000	-1,204,000	-1,563,000	-1,606,000	-1,665,000

*Notes: Standard errors are clustered by Italian province; *** p<0.01, ** p<0.05, * p<0.1.*

Figures

Figure 1. Part-time employment as share of total employment by gender and country
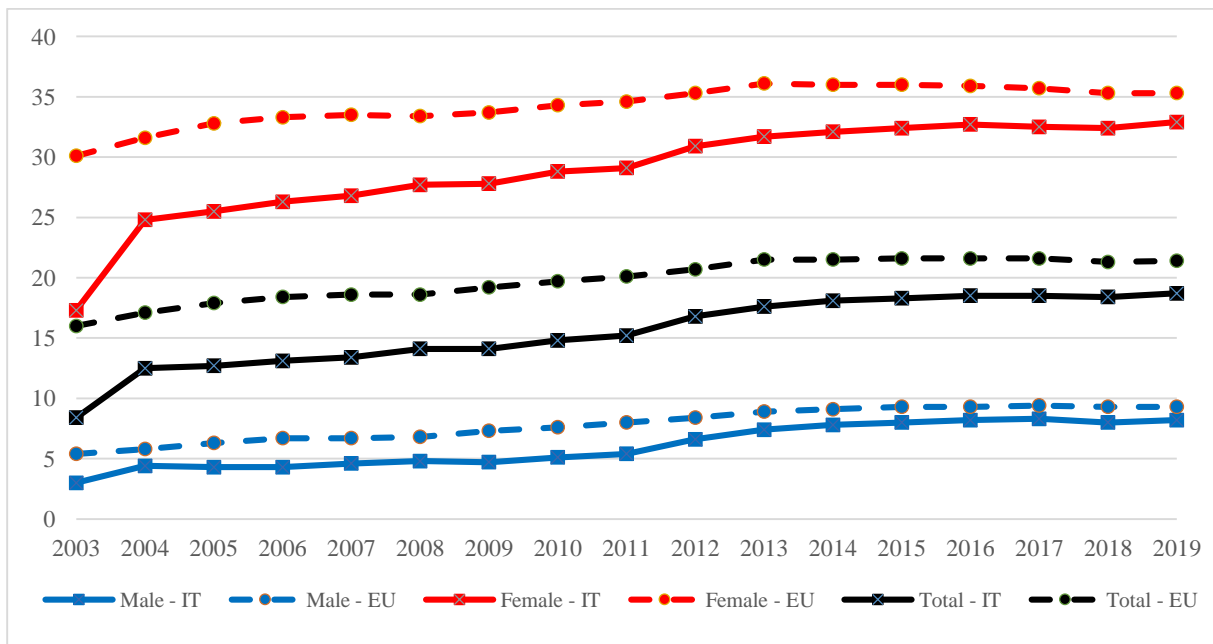

Notes: EU stands here for the 19-country eurozone, which consists of Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia and Spain. Total employment refers to the population aged 15-64. Source: Elaborations by the authors of Eurostat data.

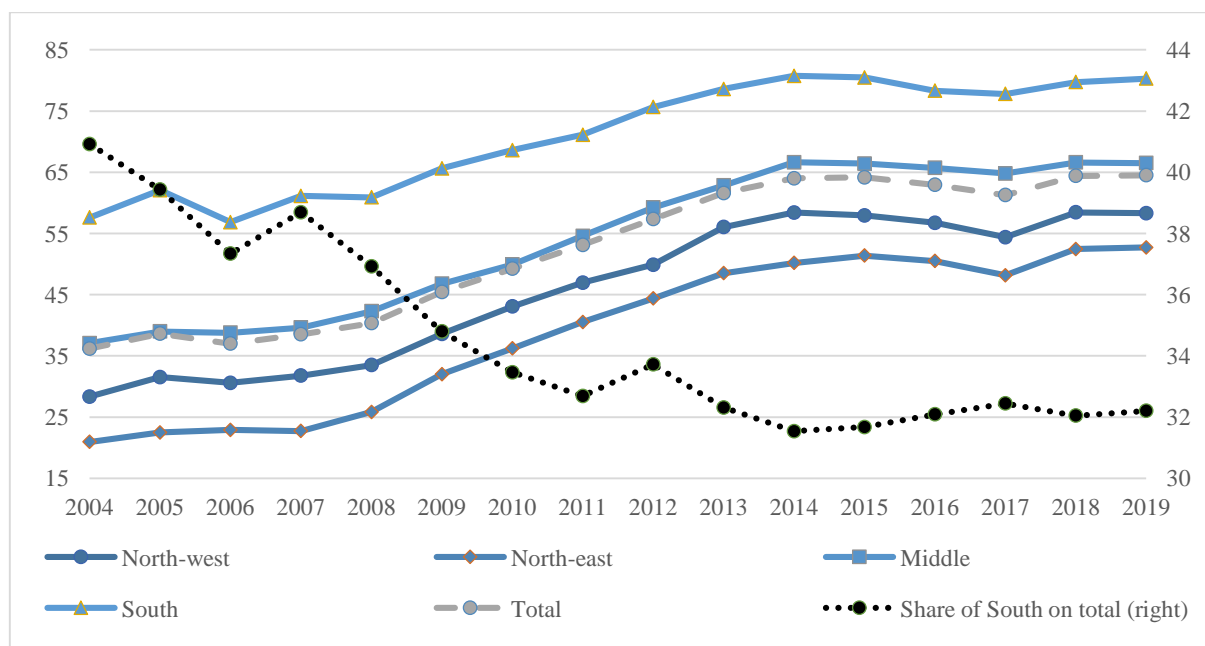*Figure 2. Involuntary part-time employment as share of part-time employment by country*
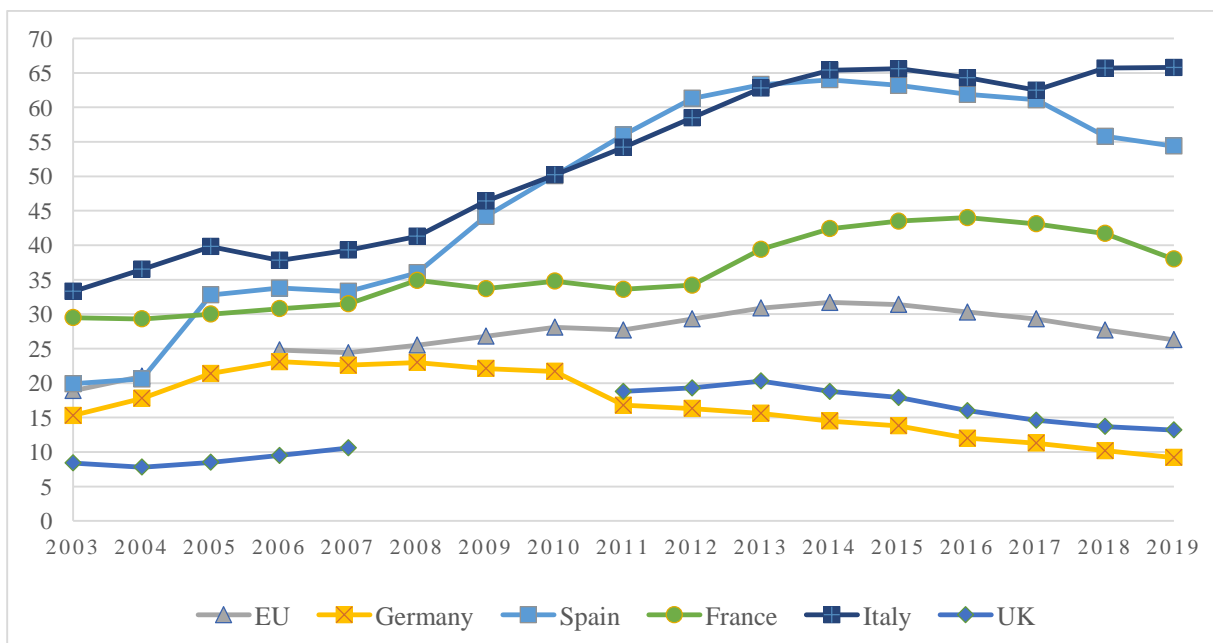
Notes: EU stands here for the 19-country eurozone, which consists of Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia and Spain. Part-time employment refers to the population aged 15-64. Source: Elaborations by the authors of Eurostat data.

Figure 3. IPT employment as share of part-time employment by gender in Italy
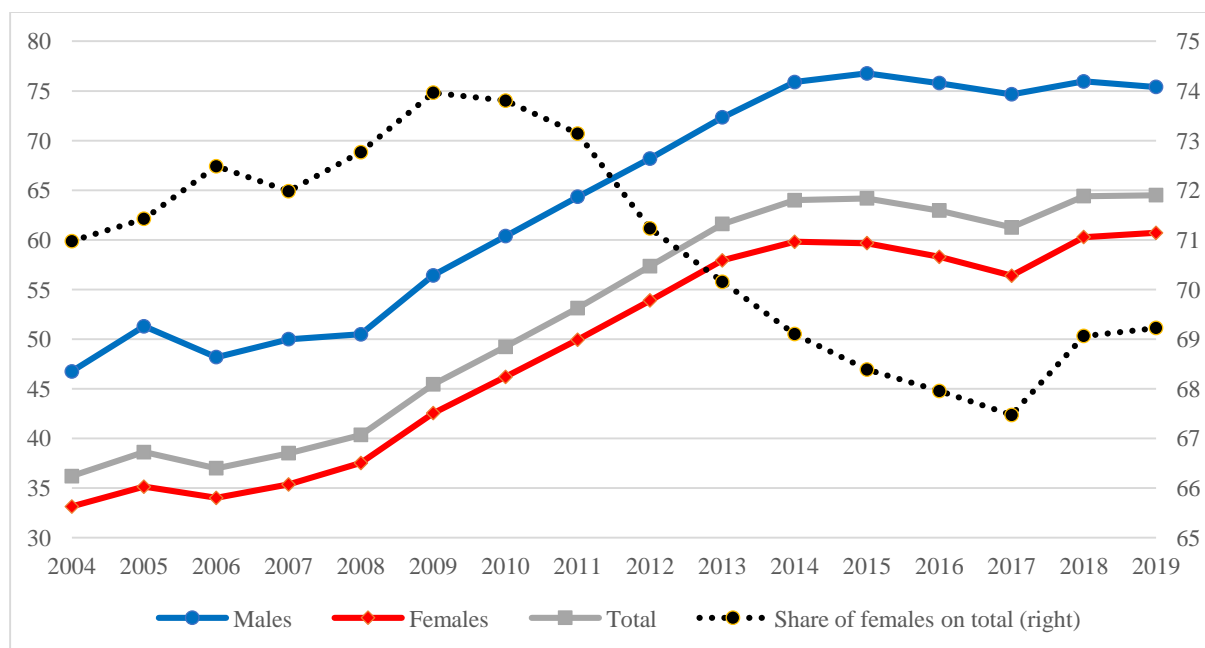
Notes: Part-time employment refers to the population aged 15-74. Source: Elaborations by the authors of Istat data.

Figure A.1. IPT employment as share of part-time employment by macro-region in Italy

Notes: Part-time employment refers to the population aged 15-74. Source: Elaborations by the authors of Istat data.