

Part-time Employment in Turkish Labour Market¹

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Türk İşgücü Piyasasında Yarı Zamanlı İstihdam

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Öz

Abstract

Bu çalışmanın iki amacı bulunmaktadır: ilk olarak yarı zamanlı çalışanların özelliklerine ilişkin güncel bir değerlendirme sunmak, ardından iki probit modeli ile 2005-2020 dönemi için Türkiye'de yarı zamanlı çalışma olasılığını etkileyen faktörleri araştırmak. İstatistikler, yarı zamanlı çalışanların payının giderek arttığını, yarı zamanlı çalışanların daha genç ve daha eğitilmiş hale geldiğini, yarı zamanlı çalışanların çoğunun 25-55 yaş arası kadınlardan ve evlilerden oluştuğunu göstermektedir. İki probit modelinin sonuçları, eğitimin çalışanların yarı zamanlı istihdamdan ziyade tam zamanlı istihdamda yer almasını sağladığını, ancak bu etkinin kadınlar için erkeklerde olduğu kadar belirgin olmadığını göstermektedir. Ancak, daha az eğitilmiş kadınlar için yarı zamanlı istihdam, tam zamanlı istihdam ile işsizlik arasında bir köprü görevi görmektedir.

The purpose of this paper is twofold: first to provide up-to-date assessment of the characteristics of part-time employees, then to explore the factors that affect the likelihood of working part-time in Türkiye for 2005-2020 period with two probit models. Statistics show that part-timers' share is steadily increasing, part-timers are getting younger and more educated, most part-timers are women between ages 25 and 55 and married. Results of two probit models show that, education enables employees to be a in full-time employment rather than in part-time employment yet, this effect is not as prominent for women as it is for men. However, for less educated women, part-time employment serves as a bridge between full-time employment and unemployment.

Anahtar Kelimeler: Çalışma Ekonomisi, Toplumsal Cinsiyet Ekonomisi, İş Sözleşmeleri, İşgücü Kompozisyonu

Keywords: Labor Economics, Economics of Gender, Labor Contracts, Labor Force Composition

Makale Türü: Araştırma Makalesi

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1. Introduction

Part-time employment and full-time employment always co-existed yet the definition, importance and legal protection of part-time employment received lesser attention and explored less by the scholars. Understanding and regulating growing worldwide demand of part-time employment is

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important for economists and decision makers as it is directly linked with the productivity, development and GDP of a country via utilisation of human capital.

In this section, we will try to present a literature review of part-time employment to understand the current state of the labour market in the world and in Türkiye, with a particular focus on employee characteristics and gender.

The phrase "part-time worker" refers to an employed person whose typical working hours are lower than those of equivalent full-time employees, according to the ILO Part-Time Work Convention, 1994 (No. 175) (ILO, 1994). Despite the variation in country policies and laws, usually part-time workers are defined as employees that work less than 30-35 hours per week. ILO Convention No. 175 (ILO, 1994) aims to define part-time employment and to grant that part-time employees have the same rights and protection those of comparable to full-time employees. Since 1994, only 20 countries have ratified the treaty but Türkiye is not one of them yet.

In Türkiye, part-time work was introduced into the legislation in 2003 with Article 13 of Law No. 4857. According to Article 6 of the Working Periods Regulation, Labour Law No. 4857 (Kanunu, 2003) part-time employment contract is defined as working hours that covers up to two-thirds of the equivalent work, done by a full-time employment contract. This law states three factors that separates part-time labour from other types of jobs (seasonal jobs, short term contract, etc): duration, continuity, and free will. Therefore, part-time employment can be redefined with these three elements, as a contract that consists regular voluntary working schedules with less working hours than the standard work week contract.

There are two sides of employment, one for the employee (supply side) and the other for employer (demand side). For the employee; hourly wage, working hours, schedule flexibility, job stability, working conditions, career and educational opportunities, discrimination policies, pension and other rights and protections in the workplace are the main topics that shape their decision. On the other hand, for the employer; experience, skillsets, long-term potential, loyalty and reliability of the applicant, legal and compliance requirements, cost of hiring and expectations on future economic conditions are the factors to be considered during the job creation and hiring processes. All these factors are important for supply and demand side and applies to all employment decisions. However, for the employee, working hours and schedule flexibility are the most important factors when deciding whether to work part-time or full-time. It is easier to obtain interviews and data on employee preferences on part-time work. On the other hand, if a new policy or law was not introduced, employers' preferences are harder to capture without a hard to obtain interviews, so many studies usually capture it indirectly. Therefore, there are fewer studies that explore the demand side of part-time employment empirically. One of the early empirical studies on demand side of part-time employment conducted by Montgomery (1988) which explores firm's relative demand for part-time and full-time employees yet it is mentioned that the findings were inconclusive due to unavailable data on firm's capital intensively, production efficiency and expected employee loyalty (Montgomery, 1988). Study of Carlin and Soskice (2009) shows that part-time employment was promoted by government-led reforms in Germany to cope with increasing unemployment among low skilled workers by creating a more flexible labour market (Carlin & Soskice, 2009). Euwals and Hogerbrugge (2006) analyse the supply and demand dimensions of part-time employment growth during the 1991-2001 period where the Dutch part-time policies were in force. Results of their study confirms that part-time employment growth was mostly driven by increased labour force participation of women and effect of labour demand factors were limited (Euwals & Hogerbrugge, 2006). Another conforming large-scale study of Delsen (1998) shows that most important factor for the growth of part-time

employment is supply side factors as the majority of part-time jobs in Europe, Japan and the United States are found to be voluntary (Delsen, 1998).

However, individual needs of potential employees change by gender, country, and time. Comprehensive study of Noon and Morrell, (2017) shows that on average one in every six employee is working part-time, and over seven out of ten part-timers are women in OECD countries in 1990's (Noon & Morrell, 2017). Patterson (2018) shows nearly twenty percent of Canadian employees were part-time workers and half of the part-timers were younger than 25 and quarter of part-timers were above the age of 55 where women were twice more likely to be part-timer than men in 2017 (Patterson, 2018). More importantly, the research of Higgins, Duxbury and Johnson (2000) shows that these estimates were roughly stable over last 20 years in Canada ((Higgins, Duxbury, & Johnson, 2000). A further study of Bosch, Deelen et al. 2010 shows that Dutch women have a strictly increasing propensity to work part-time and a decreasing propensity to work full-time if they are born after the 1950s and this trend would continue to be prominent unless there are serious social changes that would affect the preferences of women (Bosch, Deelen, & Euwals, 2010). Part-time employment of Türkiye compared with OECD and EU countries for the 2009 – 2016 period by the study of Akgeyik (2017) and the findings show that less educated, women, young and old people were which more likely to be in part-time work in Türkiye (Akgeyik, 2017). A broader study of Buddelmeyer, Mourre and Ward-Warmedinger (2005) uses multinomial logit regression to find out the determinants of part-time work in the EU for both men and women (Buddelmeyer, Mourre, & Ward-Warmedinger, 2005) and their results highlight that both men and women are significantly affected by household composition, their past labour market experience and country of residence when making their part-time employment decision (Buddelmeyer et al., 2005). Oncel and Dereli (2015) uses the Turkish Household Labour Force Statistics (HLFS) Micro Data Sets for the period 2005 to 2011 to understand the driving forces behind increased part-time working women during this period. Their results show that attaining a higher education level, not attending any courses or school, being older, being single and living in a province with a high employment rate decreases the probability of being a part-time worker for women (Duzgun Oncel & Eris Dereli, 2015).

Most of the literature up to now highlights that higher shares of part-time employees are women, and this gender composition is either stable in long periods of time and/or expected to grow. To understand the effect and magnitude of gender specific factors that drive the decision of labour market participation decision we needed an economic model. Akerlof and Kranton (2000) constructs a milestone framework based on game theory to explain how psychological and sociological concepts are shaping the economic outcomes in labour market. In their model men and women drive their utility from their identity function where the identity has prescriptions of appropriate activities for each gender. In their model "identity" affects the labour market decision through; one's own actions, outcomes of other people's actions, a person's choice to embrace many identities or not and changing social categories and behavioural norms. Therefore, if a women is identified by herself and others around her as the "home maker" rather than the "bread winner" (or vice versa) her labour market decision will be affected by these norms and expectations inevitably (Akerlof & Kranton, 2000). Booth and Van Ours (2009) tests the important gender identity hypothesis of Akerlof and Kranton (2000) by investigating the relationship between part-time work and family welfare for married or cohabiting Australian couples in 2001(Booth & Van Ours, 2009). Their analysis shows that women working part-time are more satisfied with working hours than those working full-time. Female partners' life satisfaction increases if their partner works full time. Male partners' life satisfaction is not affected by their partner's working hours, but is increased if they themselves work full time. The hypothesis "part-time work makes women happier" is tested by Gash, Mertens and Romeu Gordo (2010) and their

results show that, reductions in working hours lead to positive and significant improvements in women's self-reported well-being in general (Gash, Mertens, & Romeu Gordo, 2010).

Still the cultural norms around the world unite in one aspect of non-egalitarian share of chores and duties in maintaining households where women carry most of the load. Therefore, many studies considered household roles and care duties of women when analysing their labour market decisions. Bardasi and Gornick (2000) investigates female part-timers in five developed countries by using the Luxembourg Income Study (LIS) - Canada, Germany, Italy, the UK and the US - for the mid-1990s. Their generalized findings show that caregiving responsibilities in relation to young children and older dependents in a household affected women's part-time employment (Bardasi & Gornick, 2000). Del Boca (2002) finds that the likelihood of working and having children increases with the availability of child care and part-time jobs in Italy (Del Boca, 2002) where Connelly and Kimmel (2003) shows that price of child-care effects the mothers' both part-time and full-time employment decisions directly (Connelly & Kimmel, 2003).

Household and care duties might make part-time employment the only option to participate in labour force. When being a part-timer is the only option for a person, it can be either involuntary (due to market structure) or voluntary (personal circumstances). Cam (2012) finds that lower levels of educational and occupational attainment are associated with a greater probability of involuntary status for both men and women in UK (Cam, 2012). However, having a dependent child as a couple significantly reduces the likelihood of being involuntary among female part-time workers, while having the opposite effect for their male partner. His results for couples are in line with previous studies like Booth and Van Ours (2009) (Booth & Van Ours, 2009). Valletta and Van Der List (2015) shows that involuntary part-time work and unemployment rises during crisis and acts sticky afterwards in the USA (Valletta & Van Der List, 2015). Borowczyk-Martins and Lalé (2020) benefits from a recent USA dataset that covers a larger period and finds that involuntary part-timers are transfers from full-time jobs and the reverse transition is unlikely even after crisis (Borowczyk-Martins & Lalé, 2020).

Regardless of the being a voluntarily or involuntarily part-timer, another major problem of part-time employment is the quality of available part-time jobs as many jobs are either available full-time or part-time. Webber and Williams (2008) highlight that providing better quality jobs on part-time basis that have similar opportunities that of the equitable full-time work, would highly benefit all the mothers who use part-time work to handle work-family conflict (Webber & Williams, 2008). The quality of offered jobs are explored by Tilly (1996) who divides the part-timers in two categories "retention" and "secondary" workers by job quality using an index composed of seven factors (wages, fringe benefits, due process in discipline, hours flexibility, permanence, upward mobility, and control over the work process). His findings show that "retention" employees are highly educated, high waged and are mostly employed full-time but "secondary" employees that have low wages and high turnover rate are mostly employed part-time in the service sector (Tilly, 1996). Campbell and Chalmers (2008) finds that higher shares of part-timers in Australia are employed in Wholesale and Retail Trade sector (Campbell & Chalmers, 2008). Buddelmeyer, Mourre and Ward-Warmedinger (2004) shows that in 15 EU countries, part-time jobs are mostly created in the services sector (Buddelmeyer, Mourre, & Ward-Warmedinger, 2004). Fagan, Norman, Smith and Menéndez (2014) underlines that labour market mismatch between demand and supply of part-time work, and poor quality of available part-time jobs that are widely fulfilled by women can reinforce gender inequalities without the appropriate government policies in place which is the current situation in many countries (Fagan, Norman, Smith, & Menéndez, 2014). Also, OECD (2023) captures the current shares of part-timers in the world by gender. According to the OECD data, compared to part-timer women and men shares of EU 27 and of OECD Total, in Türkiye part-timer shares for both genders are lower. On the other hand, part-time

employment percentage is higher for women compared to men in general and Türkiye is no exception with 15.3 percentage for women and 6.2 percentage for men (OECD, 2023).

2. Data

Data set used in this paper has been constructed by using the pooled cross-sectional data sets from TUIK (Turkish Statistical Institute) Household Labour Force Statistics (HLFS) Micro Data Sets for the period 2005 to 2020. This data set represents the whole nation except for those who live in military barracks, special hospitals, orphanages, rest homes for the elderly, and university dormitories. HLFS provides detailed information on employment status, age, marital status, education, economic activity, occupation, job status, working hours, gender, experience, job search status, income, place of birth, region.

We only examine the population between the ages of 15 and 64 for our statistics and research. We concentrate primarily on the demographic and structural variables yet we construct additional variables that would categorise the population on the level of granularity that we would like to examine. Hourly wages are not directly available in these HLFS dataset, so we calculated hourly wages by using weekly gross earnings of the individual and average weekly hours worked. All income information has been converted to 2005 Turkish Lira value using the Inflation Calculator application of the Turkish Central Bank (<https://www3.tcmb.gov.tr/inflationcalc2/inflationcalc.php>) that it is based on the Turkish Consumer Price Index (CPI) announced by Turkish Statistical Institute (TUIK). Therefore, all monetary values obtained and interpreted in this paper represent 2005 Turkish Lira.

While creating additional variables, we prioritized that the variable is not affected by the changes in the questionnaires and can be used for the whole period. We have constructed a variable for education level of individuals ranging from 0 to 5 where this categorical dummy variable is 0 if the person is illiterate, 1 if, literate without a degree, 2 if Primary School graduate (minimum of 5 years of education), 3 if Secondary School graduate (minimum of 8 years of education), 4 if High School graduate (minimum of 11 years of education), 5 if College/University graduate (more than 12 years of education) or above.

3. Statistics for Turkish Part-time Employees

In this section, we will provide statistics of part-time employees by decomposing education levels, wages, student status (those who continue their education), age groups, employment types, marital status, employment sectors, household roles and individual reasons for being a part-timer by gender through the period of 2005-2020. We focus on the population of part-timers that are between the ages of 15 and 65 and employed outside the agricultural sector as agricultural part-timers are usually seasonal workers.

We find that share of women part-timers at least quadruples that of men through the 2005-2020 period. The share of total (all) part-timers increased from 3.7 percent to 5.2 percent after 2008 crisis and after that slightly increased until 2019 then jumped from 6.6 percent to 8.2 percent due to pandemic. The increase of total part-timer share after 2008 crisis is a result of a sharp increase in the part-timer women. On the other hand, as the pandemic changed the working conditions by the year 2019, the jump between years 2019-2020 resulted by the relatively similar increase of part-time workers for both genders. Initially 5% of women and 10% of men part-timers were also students. From 2008 to 2018 shares of student part-timers steadily increased for both genders. In 2008 economic crisis men's share declined from 12% to 9% while women's share nearly stayed constant at 6%. During the Covid pandemic (2019-2020) there is a dramatic decline for both genders. Previously we mentioned that share of women part-timers was higher than that of men's yet in opposite is true for student part-

timers as more men are continuing their education compared to women. This finding might also be related with the part-timers' age. Through the whole period young part-timers (younger than 25 years of age) share is on the rise for both genders except the 2008 crisis and pandemic years. Adult part-timers' (between ages 25 to 55) share and young part-timers' share compensate each other for both genders but this pattern is much more prominent among men. For both men and women adult part-timers account for the highest share through the period. Adult women part-timers' share fluctuates slightly within the 73%- 83% band range through the period. Adult women are more likely to be more family oriented due to domestic duties which is in line with the literature. Among the older part-timers (older than 55 years of age), men have higher shares compared to women. This finding is in line with the literature as mostly men are considered to be the main bread winners in Türkiye (İlkkaracan, 2012; Kagnicioglu, 2017). Also, widowed and divorced women are entitled to pensions of their late fathers as a positive gender discrimination by Social Insurance and General Health Insurance which might reduce their need to search for additional income.

Figure 1 below displays the part-time employees' employment type (waged, business owner, self-employed, unpaid family worker) percentages among men and women. x-axis shows the percentage and y-axis shows the years. Top graph displays the shares of waged, business owner, self-employed, unpaid family worker statuses among part-time working men and bottom graph displays the same shares for part-time employed women.

From Figure 1, we observe that during the whole period, waged employees had the highest share followed by self-employed and unpaid family workers where business owners had the least share among male part-timers. Also, we could see the same order of shares for women except the years 2009 and 2010. We observe that during the 2008-2009 economic crisis, share of waged employees declines and share of self-employed increases both for men and women. This affect was much more prominent for women as the share of self-employed exceeded waged women employees share only in 2009 and 2010. On the other hand, share of male unpaid family workers slightly increased and female share of male unpaid family workers slightly decreased overtime. Business-owners share nearly stayed constant and very low for both genders over the 2005-2020 period.

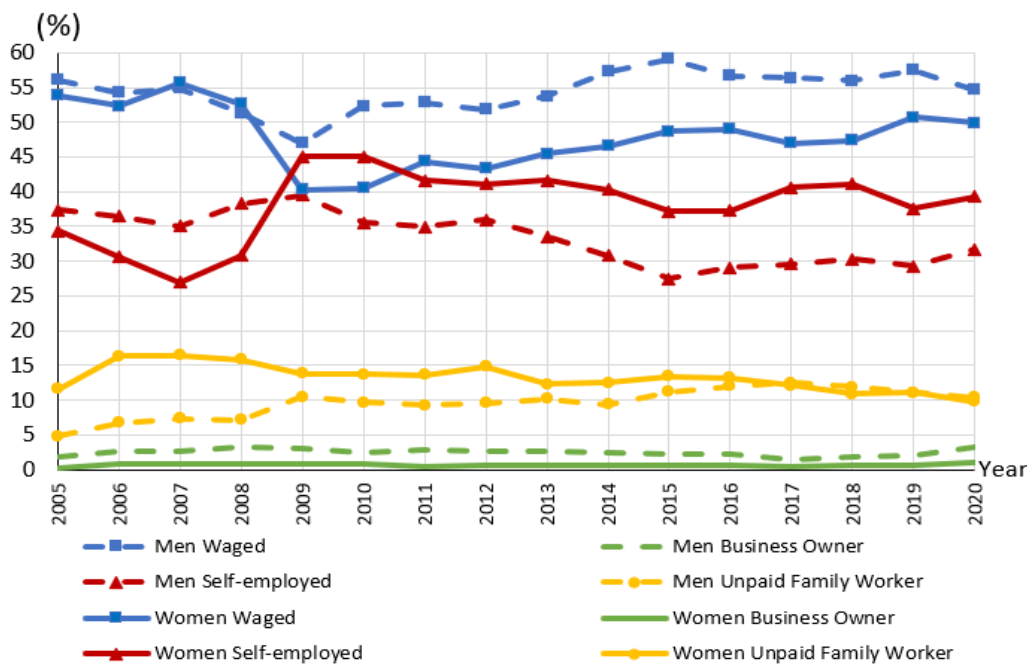


Figure 1: Shares of Part-time Employees by Employment Type and Gender

Figure 2 below displays shares of part-time employees by education levels and gender where x-axis shows years and y-axis shows the percentage. We observe that the share of primary school graduates accounted for 40% among men and 45% among women part-timers in 2005 and steadily declined until 2019 for both genders. By the end of the period primary school graduates still has the highest share among men with 29% and has the second highest share among women with 28% in 2020. Share of secondary school graduates among men and women part-timers are 15% and 10% respectively in 2005 and these shares have increasing trend until 2018 and reaches to 30% for men and 20% for women in 2018. From 2018 to 2020 secondary school graduates' share decline by 8% and 6% among men and women part-timers respectively. Share of high school graduate part-timers nearly stayed constant over the period with 20% and 15% for men and women respectively. From 2005 to 2018 Share of college graduates fluctuates between 15% and 22% among men and fluctuates between 18% and 23% among women. For both genders, share of illiterate and literate part-timers have low shares that does not exceed 7% during the whole period. During the pandemic, share of college graduates increase from 22% to 27% among men and a from 23% to 33% among women part-timers. These increases might be more related to new part-timers that used to work full-time before the pandemic. On the other hand, only primary school graduates' share increases during the pandemic among men which might indicate that risky and less skill intensive jobs are fulfilled by them.

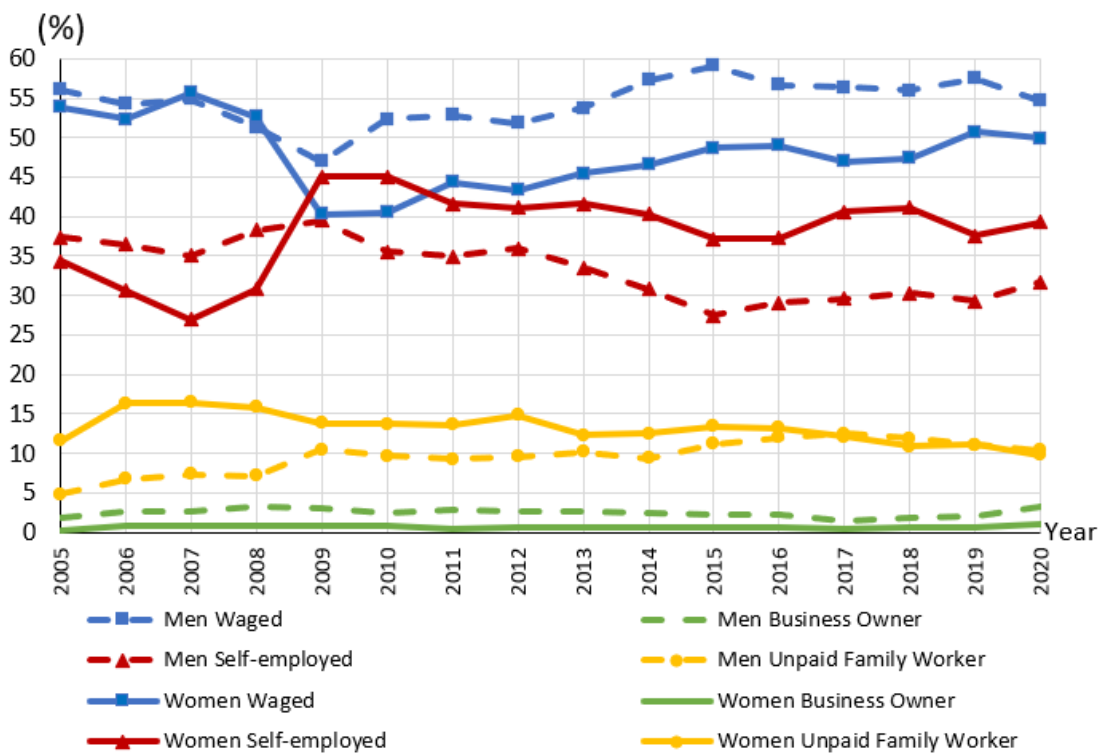


Figure 2: Shares of Part-time Employees by Education levels and Gender

Figure 3 below shows the shares of part-time employees that have or looking for another job by gender where x-axis shows the percentage, y-axis shows the years. Dashed lines represent men and solid lines represent women. We observe that the gender gap of having another job and of looking for another job got smaller between men and women compared to beginning of the period to the end. However, shares of men that are looking for another job and has another job are always higher than that of women all through the period.

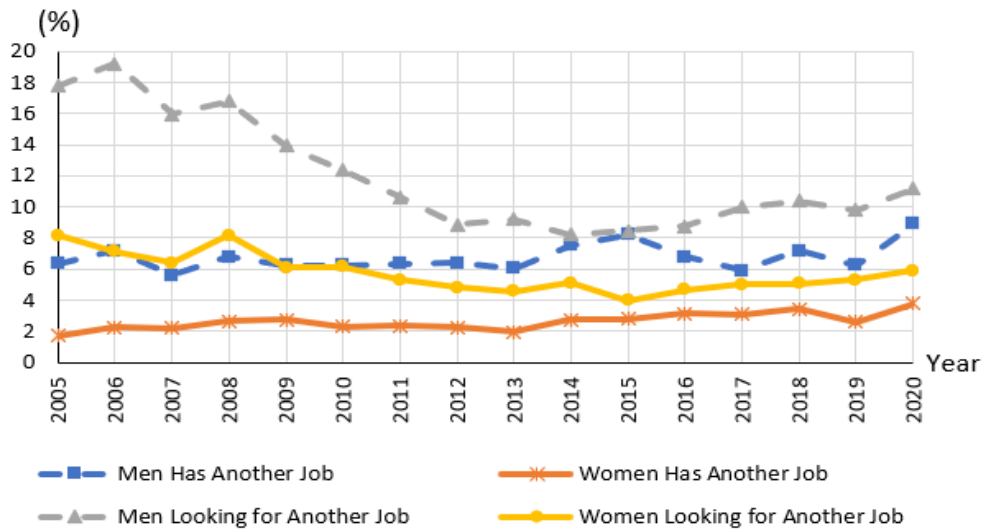


Figure 3: Shares of Part-time Employees That Have or Looking for Another Job by Gender

Figure 4 below shows part-time employees share by marital status and gender where the x-axis shows the percentage, y-axis shows the years, dashed lines represent men and solid lines represent women. Figure 4 shows that highest shares of part-timers are married women (%75- %85) and men (%55- %80) through the period. Second higher shares belong to single men (25% - 40%) and women (15% - 22%). Share of widows and divorced men’s share doesn’t exceed 5% through the period.

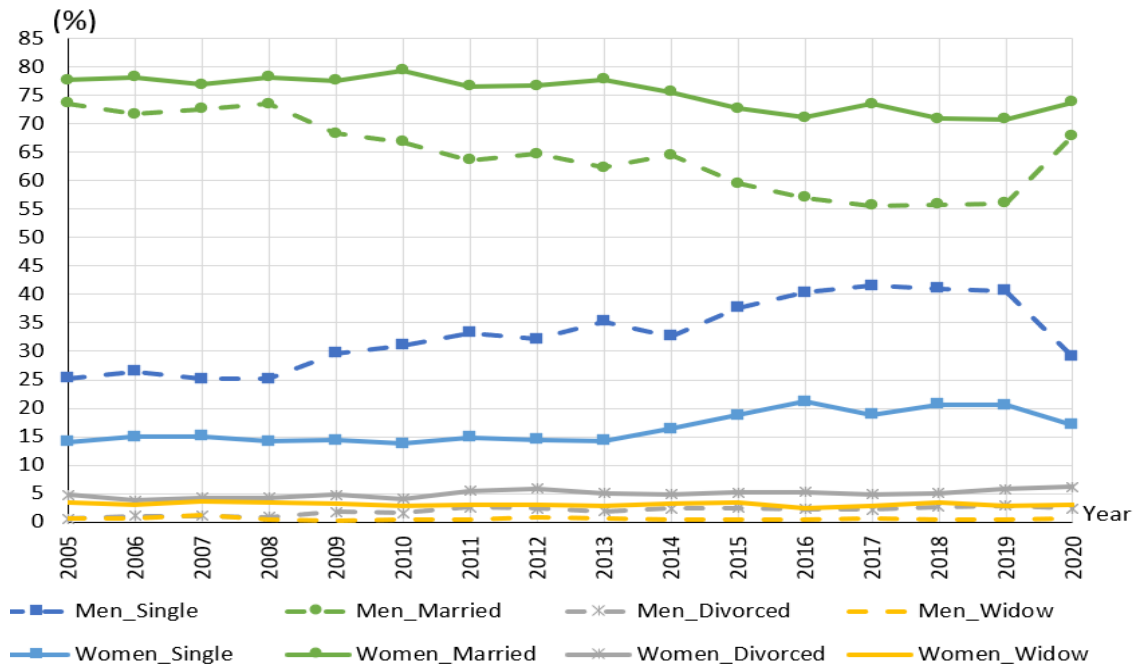


Figure 4: Shares of Part-Time Employees by Marital Status and Gender

In

Table 1 below we document the share of the reason for part-time employment by gender from 2009 ⁴to 2020 and provide 12-year average for each reason category by gender. This table clearly

⁴The data is only available from 2009 and onwards in the dataset.

shows that caring for children and/or adults in the family is considered a women’s duty in the society and no significant role shift can be observed during the period. Additionally, other familial /personal reasons account for 9.4% for women on average and is nearly the double that of men’s average. The most dominant part-time employment reason for both genders in **Hata! Başvuru kaynağı bulunamadı.** is the nature of the job. However, its share is always higher for women which might indicate particular part-time jobs might be female dominated which needs to be explored by sectoral decomposition.

Table 1: Part-time Employment Reason by Gender for 2009-2020 period.

Gender	Caring for children and/or adults in the family	Continuing education	Own illness/disability	Other familial /personal reasons	Unable to find a full a time job	Nature of the job
Women	12.6	8.3	2.0	9.4	8.9	59.0
Men	0.2	18.6	3.4	5.2	16.8	55.8

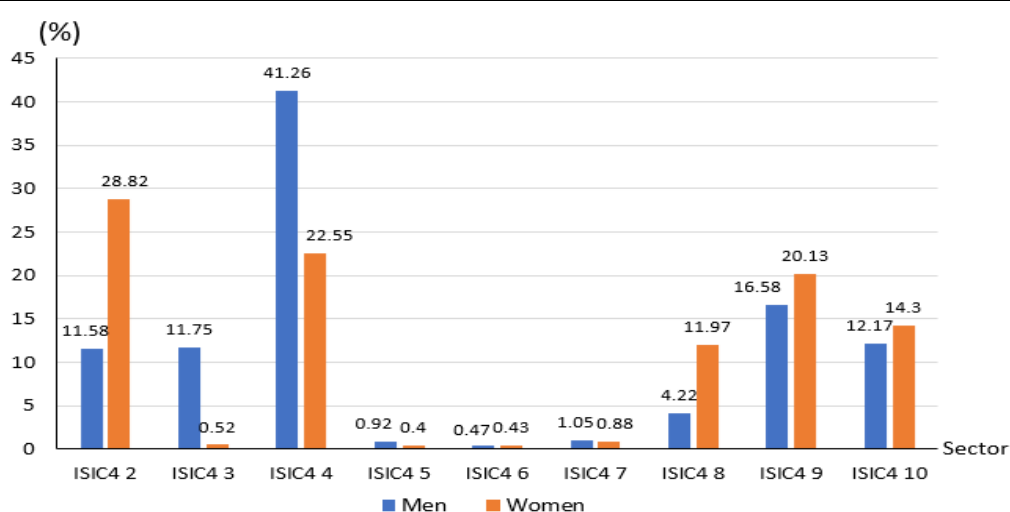


Figure 5: Average Shares of Part-Time Employees by ISIC4 Sectors and Gender

Figure 5 above displays the average shares of part-time employees by ISIC4 (ISIC Revision 4) sectors and gender where x-axis shows the sector and y-axis shows the percentage of part-timers. We observe that women part-timers’ highest share is in ISIC4 -2 sector (Mining and Quarrying, Manufacturing, Electricity, Gas, Steam and Air Conditioning and Water Production and Distribution, Waste Management and Treatment Activities). Highest share of men part-timers and second highest share of women part-timers work in ISIC4 -4 (Wholesale and Retail Trade; Motor Vehicle Repair, Transportation and Storage and Accommodation and Food Services). Men part-timers’ second highest share is in ISIC4 -3 sector (Construction) where female share is less than one percent. Less than one percent of part-timer women and men work in sectors ISIC4 -5 (Information and Communication), ISIC4 -6 (Financial Services and Insurance Services) and ISIC4 -7 (Real Estate). Higher share of women part-timers work in ISIC4 -8 (Professional, Scientific and Technical Services, Administrative and Support Services), ISIC4 -9 (Public Administration and Defence; Mandatory Social Security, Education, Human Health and Social Services) and ISIC4 -10 (Arts, Performance and Entertainment Services, Other Services, Activities for which Residents are Employers, International Organizations and Representation Activities) compared to share of part-timer men in these sectors⁵. Our findings are in line with the previous studies of (Buddelmeyer et al., 2004; Campbell & Chalmers, 2008; Giannikis & Mihail, 2011; Tilly, 1996;

⁵ ISIC4 -1 (Agriculture, Forestry and Fisheries) sector is not included in our data set.

Wadensjo, 2006; Zeytinoglu, Lillevik, Seaton, & Moruz, 2004) in terms of highest total share of part-time employment share in ISIC4 -4 which is services dominated.

In Table 2 below we document the share of part-time employees' household roles by gender through the period. Household roles are divided in six categories head of household, spouse, child of household, son/daughter in-law, parents (of head of household or spouse) and others. First column displays the years in the period, forthcoming six columns display the household roles for part-time employed men, and the last six columns display the household roles of part-time employed women respectively.

We observe that being the head of household is the dominant role for men and being the spouse is the dominant role for women from Table 4 below. Being the child in the household has an increasing trend for both genders but its' share is always higher for men which might be related to the higher marriage age for men. Share of other categories are relatively small and doesn't have a trend.

Table 2: Share of Part-time Employees' Household Roles by Gender

Gender	Household Role of Part-time Employee					
	Head of Household	Spouse	Child of Household	Daughter In-law	Parents	Other
Men	64.3	0.9	31.5	0.6	0.7	2.0
Women	11.9	69.2	15.1	1.0	1.6	1.2

Table 3 below shows the full-time and part-time employees average hourly wages⁶. Both part-timer and full-timer women earn higher average hourly wages than men. However, both for women and men part-timers' average hourly wages found to be higher than the full-timers which might indicate more qualified part-timers. (Clark & Van Der Werf, 1998) shows that higher hourly wages of part-timers than full-timers can be explained with employers' premium for their flexibility and (Williams & Calvert, 2002) shows that higher hourly wages could be attributed to the higher quality of work.

Table 3: Average Hourly Wages by Employment Type and Gender

Employment Status	Average Hourly Wages		
	All	Women	Men
Fulltime	4.02	4.17	3.97
Part-time	5.47	5.64	5.27

Table 4 below shows the mean years of education by employment status and gender. We observe that both full-timer and part-timer women are more educated than their male counterparts. Additionally, we see that full-timer women have the highest years of education among all where full-timer men have the lowest mean years of education. Furthermore, full-timer women were more educated than part-timer women yet it was the opposite for men.

Table 4: Average Years of Education by Employment Type and Gender

Employment Status	Mean Education		
	All	Women	Men
Fulltime	10.04	11.21	9.65
Part-time	10.35	10.52	10.15
ALL	10.05	11.19	9.67

⁶ Calculations are made only by including waged employees due to data availability.

4. Methodology and Analysis

4.1. Methodology

In the linear probability model, sometimes the predicted probability values might not lie between "0" and "1" which is the most evident problem when the dependent variable is binary. The probit model solves this issue by providing a conditional probability of an observation belonging to a particular category "0" or "1". In our probit model, if an individual (i) in the data set (Y_i) is part-time employed then takes the value 1 and if the individual is not employed part-time takes the value 0. The probability p_i of being a part-time employee over not being a part-time employee can be expressed as below:

$$p_i = \text{Prob}(Y_i = 1 | \mathbf{X}) = \int_{-\infty}^{x_i' \beta} (2\pi)^{-1/2} \exp\left(-\frac{t^2}{2}\right) dt = \Phi(\mathbf{x}_i' \beta) \quad (1)$$

Where Φ is the cumulative distribution function of a standard normal errors which ensures $0 \leq p_i \leq 1$, where x is a vector of factors that explain the change in part-time employment outcome. β is a vector of coefficients that reflects the effect of changes in x on the probability of being a part-timer.

The marginal effects, which explains the partial change in probability, is used to interpret the relationship between a particular element and the probability outcome. These coefficients tie a one-unit change in the predictor to a change in the z-score or probit index. The marginal effects provide insights into how the explanatory variables change the predicted probability of being a part-timer.

4.2. Analysis

Preliminary tables, graphs and probability analysis are done by using MS Excel and STATA 16.0 programs. We are using two probit models. In the first model we explore the probability of an individual working part-time instead of working full-time for all individuals, for women and for men in three specifications respectively. In the second model we explore the probability of an individual working part-time instead of being unemployed for all individuals, for women and for men in three specifications respectively. We are trying to capture the factors that determine part-time employment by using both individual and country specific variables in the model. Yet we acknowledge that part-time employment is determined by several supply and demand factors where some of these factors are complex and hard to capture in a model. Included individual-level characteristics include: (i) sex; (ii) education level; (iii) age group; (iv) previous work experience; (v) having a household member working full-time; (vi) having a household member working part-time, (vii) marital status and (viii) employment type. Additionally, part-time employment also depends economic conditions of a country. Therefore, variables: (i) crisis08 and (ii) covid19 included to the models.

Table 5: Description of the Variables Used in the Models

Dependent Variables	Description
Part_pf	The dependent variable equals to 1 if the individual is working part-time instead of working full-time; if individual is working full-time, it is 0. (First specification of the first model)
Partw_pf	The dependent variable equals to 1 if the individual is a part-time working woman instead of working full-time; if she is working full-time, it is 0. (Second specification of the first model)
Partm_pf	The dependent variable equals to 1 if the individual is a part-time working man instead of working full-time; if he is working full-time, it is 0. (Third specification of the first model)
Part_pu	The dependent variable equals to 1 if the individual is working part-time instead of being unemployed; if individual is unemployed, it is 0. (First specification of the second model)

Partw_pu	The dependent variable equals to 1 if the individual is a part-time working woman instead of being unemployed; if she is unemployed, it is 0. (Second specification of the second model)
Partm_pu	The dependent variable equals to 1 if the individual is a part-time working man instead of being unemployed; if he is unemployed, it is 0. (Third specification of the second model)
Independent Variables	Description
women	A sex dummy variable that is equal to 1 if the individual is female; Otherwise, it is 0.
education_level	A categorical variable that takes a value of 0 if the individual is illiterate, 1 if literate, 2 if primary school graduate, 3 if secondary school graduate, 4 if high school graduate, 5 if graduated from college or above. The base category is illiterate.
age_group	A categorical variable that takes value 1 if the individual is younger than 25 years of age, 2 if between and equal to 25 to 55 years of age and 3 if older than 55 years of age. The base category is the first age group.
work_n_1	A dummy variable that is equal to 1 if the individual was employed in the previous year; Otherwise, it is 0.
owp	A dummy variable that is equal to 1 if the individual has a household member working part-time; Otherwise, it is 0.
owf	A dummy variable that is equal to 1 if the individual has a household member working full-time; Otherwise, it is 0.
marital_status	A categorical variable for marital status, that is equal to 1 if the individual is single, 2 if married, 3 if divorced and 4 if widow. The base category is single.
crisis08	A dummy variable that is equal to 1 if the year is 2009; Otherwise, it is 0.
covid19	A dummy variable that is equal to 1 if the year is 2020; Otherwise, it is 0.
Emp_type	A categorical variable for employment type, that is equal to 1 if the individual is a waged employee, 2 if a business owner, 3 if self-employed, and 4 if an unpaid family worker. The base category is waged employee.
*Household	Group of individuals who share a home, fulfilling their basic needs together, and take part in the upkeep and management of the household, whether they are related or not.

4. 2. 1. First Model

In the first model we explore the probability of an individual working part-time instead of working full-time in three specifications (for all, for women, for men) as listed below.

- First Specification:

$$Part_pf_i^1 = \alpha_1 women + \alpha_2 education_level + \alpha_3 age_group + \alpha_4 Work_n_1 + \alpha_5 owp + \alpha_6 owf + \alpha_7 marital_status + \alpha_8 crisis08 + \alpha_9 covid19 + \alpha_{10} employment_type + u_i \quad (2)$$

- Second Specification:

$$Partw_pf_i^1 = \alpha_1 education_level + \alpha_2 age_group + \alpha_3 Work_{n_1} + \alpha_4 owp + \alpha_5 owf + \alpha_6 marital_status + \alpha_7 crisis08 + \alpha_8 covid19 + \alpha_9 employment_type + u_i \quad (3)$$

- Third Specification:

$$Partm_pf_i^1 = \alpha_1 education_level + \alpha_2 age_group + \alpha_3 Work_n_1 + \alpha_4 owp + \alpha_5 owf + \alpha_6 marital_status + \alpha_7 crisis08 + \alpha_8 covid19 + \alpha_9 employment_type + u_i \quad (4)$$

First column of Table 6 shows the estimation results for the whole population where the probability of part-time employment with respect to full-time employment increases by being women, having a household member working part-time (owp), by being married, divorced or widow respect to being single, by being self-employed and unpaid family worker with respect to being a waged employee and by covid19 years. Being in more educated categories with respect to being illiterate, being in the second age group with respect to being in the youngest age category, having a work experience in the previous year, having a household member working full-time (owf), being a business owner with

respect to being a waged employee, and 2008 economic recession decreases the probability of part-time employment with respect to full-time employment for the whole population.

Second and third columns of Table 6 displays the second and third specification results for women and men respectively. There are few changes in terms of interpretation of independent variables coefficients for both women and men compared to the first specification. Only four independent variables coefficients' sign and significance changes from the first specification.

Age category 3 has significant and negative coefficient for women, and has a significant and positive coefficient for men where the coefficient is insignificant in the first column. Coefficient for married is positive in the first column but in the second column we observe that being married with respect to being single increases the probability of part-time employment for women, yet it decreases for men. 2008 economic recession only decreases the probability of part-time employment for men and its' coefficient is not significant for women.

Table 6: Probit Estimation Results (Probability of Working Part-time Instead of Full-time)

Variables	(1)	(2)	(3)
	Part_pf	Partw_pf	Partm_pf
Women	0.805*** [0.004]		
Literate	-0.169*** [0.015]	-0.064*** [0.020]	-0.321*** [0.023]
Primary School	-0.174*** [0.011]	-0.039*** [0.015]	-0.309*** [0.018]
Secondary School	-0.153*** [0.012]	0.046*** [0.016]	-0.339*** [0.019]
High School	-0.406*** [0.012]	-0.367*** [0.016]	-0.481*** [0.019]
College or above	-0.182*** [0.012]	-0.164*** [0.015]	-0.175*** [0.019]
Age group.2	-0.345*** [0.006]	-0.292*** [0.010]	-0.376*** [0.008]
Age group.3	-0.001 [0.009]	-0.237*** [0.016]	0.149*** [0.011]
Work_n_1	-0.265*** [0.004]	-0.225*** [0.007]	-0.243*** [0.006]
owp	0.540*** [0.006]	0.562*** [0.010]	0.541*** [0.007]
owf	-0.039*** [0.003]	-0.068*** [0.004]	-0.076*** [0.003]
married	0.074*** [0.005]	0.326*** [0.008]	-0.161*** [0.007]
divorced	0.053*** [0.011]	0.078*** [0.014]	0.078*** [0.018]
widow	0.203*** [0.016]	0.301*** [0.019]	0.107*** [0.036]
crisis08	-0.025*** [0.008]	-0.012 [0.012]	-0.027*** [0.010]
covid19	0.225*** [0.006]	0.127*** [0.009]	0.274*** [0.008]
business owner	-0.187*** [0.011]	-0.209*** [0.024]	-0.239*** [0.012]
self-employed	0.897***	1.455***	0.601***

	[0.004]	[0.007]	[0.006]
unpaid family worker	0.942***	0.921***	0.862***
	[0.007]	[0.010]	[0.011]
Constant	-1.514***	-1.092***	-1.150***
	[0.013]	[0.017]	[0.019]
Observations	1,790,007	439,237	1,350,770
Area under ROC curve	0.81	0.79	0.77
Correctly classified	94.44%	88.24%	96.79%

Probit models require larger sample size than OLS regression as they use maximum likelihood estimation techniques. However, despite using a large sample size if the outcome is rare, a probit model might become difficult to estimate. For our first model, both the area under the roc curve and the correct classification rate is high.

As the interpretation of probit estimations are typically restricted to the sign of the coefficients, below we provide the marginal effects that shows the average change in probability of dependent variable when an independent variable increases by one unit whereas all the other variables remain constant at their mean values. In other words, marginal effects allow us to interpret the independent variables' average magnitude of effects on the dependent variable when all other variables are hold constant at their mean values.

Figure 6 below provides the marginal effects of all independent variables on the probability of being a part-timer with respect to being full-timer for the whole population (part_pf), for women (partw_pf) and for men (partm_pf) respectively. Figure 10 shows independent variables in the x-axis where significant coefficients are marked by a star and y-axis shows percentage points. When interpreting this figure, we need to keep in mind that these results are for the mean. Therefore, we can obtain different sign and magnitude for the coefficients compared to the previous table.

Figure 6 displays that for the first specification (part_pf), probability of being a part-timer is 8 percentage points higher for women, 2 percentage points lower for first (literate), second (primary school graduate), and third (secondary school graduate) education levels, 4 percentage points lower for fourth education level (high school graduate), 4 percentage points lower for second age group, 3 percentage points lower for previous year work experience, 5 percentage points higher for having a household member working part-time, 2 percentage points higher for widows, 13 percentage points higher for business owners, 14 percentage points higher for self-employed and 2 percentage points higher during covid19 on average with respect to the reference group of each independent variable.

Comparing the marginal effects for the second and third specifications produce the explanations below for the probability of being a part-timer instead of being a full-timer for women and men respectively. For education levels; probability of being a part-timer is 3 percentage points lower for literate men and 1 percentage points lower for literate women, 3 percentage points lower for both primary and secondary school graduate men, 6 percentage points lower for high school graduate women and 4 percentage points lower for high school graduate men.

Being in the second age group decreases the probability of being a part-timer by 5 percentage points for women and 3 percentage points for men. The probability of being a part-timer decreases by 4 percentage points for women in the third age category and increases by 2 percentage points for men.

Work experience in the previous year decreases the probability of being a part-timer by 4 percentage points for women and 2 percentage points for men. Having a household member working part-time increases the probability of being a part-timer by 10 percentage points for women and 4 percentage points for men. Having a household member working full-time decreases the probability of being a part-timer by 1 percentage point for women and has no effect for men. The probability of

being a part-timer increases by 5 percentage points for married women and decreases by a percentage point for men. Being divorced increases the probability of being a part-timer by a percentage point only for men. Being a widow increases the probability of being a part-timer by 5 percentage points for women and a percentage point for men. For employment type; the probability of being a part-timer decreases by a percentage point by being a business owner for men only, increases by 41 percentage points by being self-employed women and increases by 5 percentage points for self-employed men, increases by 22 percentage points by being unpaid family worker women and increases by 10 percentage points for unpaid family worker men. Finally, covid19 increases the probability of being a part-timer by 2 percentage points for both genders.

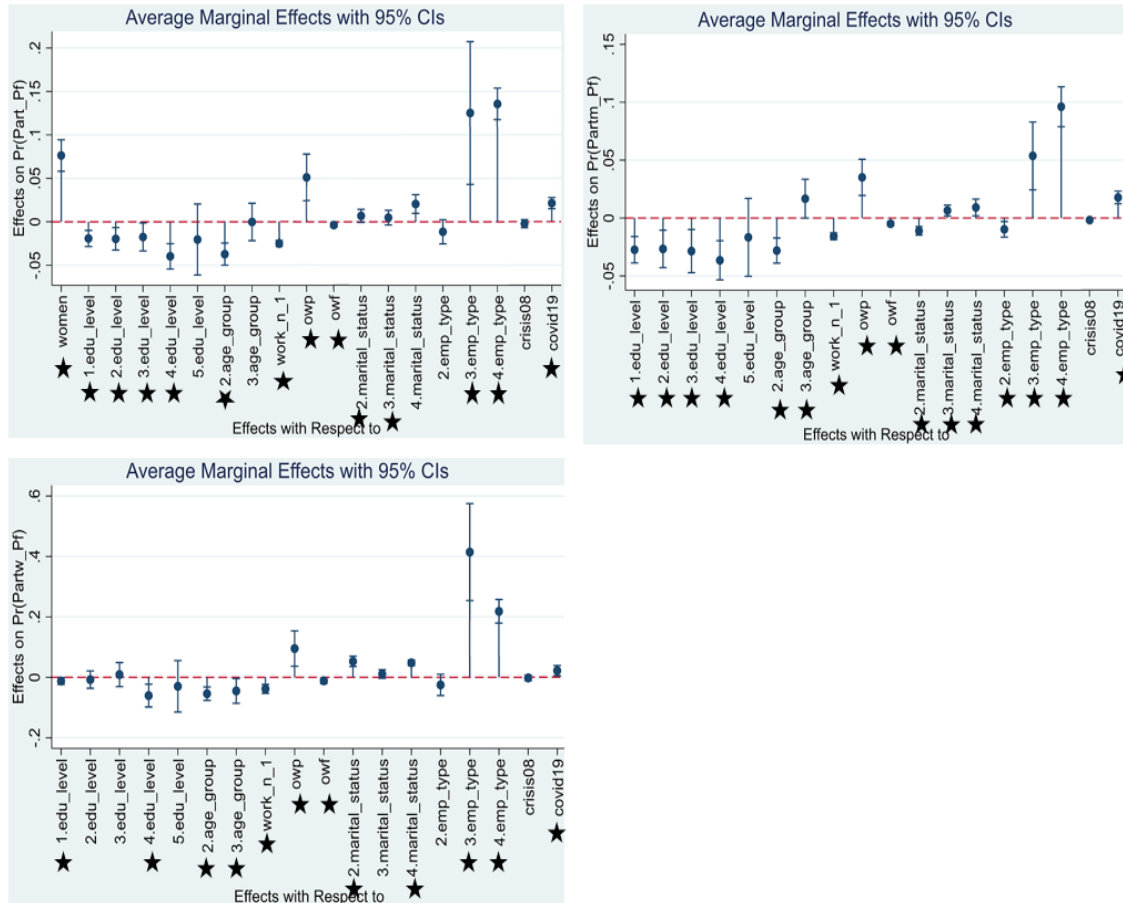


Figure 6: Average Marginal Effects for Part_pf, Partw_pf and Partm_pf for the First Model

4. 2. 2. Second Model

In the second model we explore the probability of an individual working part-time instead of being unemployed for all individuals, for women and for men in three specifications as listed below.

- First Specification:

$$Part_pu_i^1 = \alpha_1 women + \alpha_2 education_level + \alpha_3 age_group + \alpha_4 Work_n_1 + \alpha_5 owp + \alpha_6 owf + \alpha_7 marital_status + \alpha_8 crisis08 + \alpha_9 covid19 + u_i \quad (5)$$

- Second Specification:

$$Partw_pu_i^1 = \alpha_1 education_level + \alpha_2 age_group + \alpha_3 Work_n_1 + \alpha_4 owp + \alpha_5 owf + \alpha_6 marital_status + \alpha_7 crisis08 + \alpha_8 covid19 + u_i \quad (6)$$

- Third Specification:

$$Partm_pu_i^1 = \alpha_1 education_level + \alpha_2 age_group + \alpha_3 Work_n_1 + \alpha_4 owp + \alpha_5 owf + \alpha_6 marital_status + \alpha_7 crisis08 + \alpha_8 covid19 + u_i \quad (7)$$

Table 7: Probit Estimation Results (Probability of Being Part-Timer Instead of Being Unemployed)

Variables	(1)	(2)	(3)
	Part_pu	Partw_pu	Partm_pu
women	0.474*** [0.005]		
Literate	-0.208*** [0.018]	-0.159*** [0.052]	-0.176*** [0.041]
Primary School	-0.055 [0.082]	-0.029 [0.081]	0.041 [0.083]
Secondary School	0.082 [0.82]	0.022 [0.087]	0.220** [0.087]
High School	-0.241*** [0.015]	-0.517*** [0.075]	0.084 [0.103]
College or above	0.004 [0.015]	-0.267** [0.105]	0.434*** [0.129]
Age group.2	0.072*** [0.023]	0.217*** [0.026]	-0.096* [0.049]
Age group.3	0.614*** [0.061]	0.904*** [0.069]	0.518*** [0.071]
Work_n_1	-0.601*** [0.071]	-0.275*** [0.089]	-0.964*** [0.062]
owp	0.810*** [0.047]	0.723*** [0.042]	0.862*** [0.047]
owf	0.127*** [0.020]	0.115*** [0.015]	0.070*** [0.023]
married	0.610*** [0.035]	0.763*** [0.048]	0.524*** [0.037]
divorced	0.318*** [0.037]	0.299*** [0.045]	0.353*** [0.039]
widow	0.782*** [0.042]	0.728*** [0.053]	0.685*** [0.072]
crisis08	-0.177*** [0.037]	-0.091** [0.040]	-0.218*** [0.041]
covid19	0.144*** [0.042]	0.098** [0.047]	0.175*** [0.042]
Constant	-0.919*** [0.175]	-0.767*** [0.139]	-0.611*** [0.181]
Observations	391,463	160,296	231,167
Area under ROC curve	0.75	0.74	0.72
Correctly classified	76.31%	72.27%	82.90%

Table 7 above displays the first, second and third specifications of second probit model for all individuals, for women and for men in respective columns.

First column of Table 7 shows the estimation results for the whole population. First estimation results show that probability of part-time employment with respect to being unemployed increases by being women, by being in the older age categories with respect to the first age group (younger than

25 years of age), by having a household member working part-time (owp), by having a household member working full-time (owf), by being married, divorced or widow with respect to being single and by covid19 pandemic. On the other hand, probability of part-time employment with respect to being unemployed decreases by being literate, by being high school graduate with respect to being illiterate, by having a work experience in the previous year and 2008 economic recession.

Second and third columns of Table 7 displays the second and third specification results for women and men respectively. Being in the oldest age group with respect to base category, having a household member working part-time (owp), having a household member working full-time (owf), being married, divorced or widow with respect to being single and covid19 pandemic increases the probability of part-time employment with respect to being unemployed both for women and men. Being literate with respect to base category, having a work experience in the previous year and 2008 economic recession decreases the probability of part-time employment with respect to being unemployed both for women and men. On the other hand, being a high school graduate and being collage or above educated decreases the probability of part-time employment only for women but being a secondary school graduate, being educated collage or above increases the probability of part-time employment only for men. Additionally, being in the second age group increases the probability of part-time employment for women, yet decreases the probability of part-time employment for men with respect to being in the first age group.

As mentioned before, probit models require larger sample size than OLS regression because they use maximum likelihood estimation techniques. However, despite using a large sample size if the outcome is rare, a probit model might become difficult to estimate. For our second model the outcome is scarce compared to the first model, still the area under the roc curve and correct classification rate is acceptable.

Figure 7 below provides the average marginal effects of all independent variables on the probability of being a part-timer with respect to being unemployed for the whole population (part_pu), for women (partw_pu) and for men (partm_pu) respectively. Figure 7 shows independent variables in the x-axis where significant coefficients are marked by a star and y-axis shows percentage points.

Figure 7 displays that for the first specification, probability of being a part-timer is 13 percentage points higher for women, 6 percentage points lower for literate, 7 percentage points lower for high school graduates, 2 percentage points higher for second age group, 19 percentage points higher for third age group, 17 percentage points lower for individuals with work experience in the previous year, 23 percentage points higher for having a household member working part-time, 4 percentage points higher for having a household member working full-time, 17 percentage points higher for married, 8 percentage points higher for divorced, 23 percentage points higher for widows and 4 percentage points higher for covid19 period on average with respect to the base category of each variable.

Comparing the marginal effects for the second and third specifications produce the following explanations for the probability of being a part-timer instead of being unemployed for women and men respectively. For education levels; probability of being a part-timer is 5 percentage points lower for literate women and 3 percentage points lower for literate men, 5 percentage points higher for secondary school graduate men, 17 percentage points lower for high school graduate women and percentage points higher for college or above educated men. The probability of being a part-timer increases by 7 percentage points for women in the second age group but decreases by 2 percentage points for men. Being in the third age category increases the probability of being a part-timer by 31 percentage points for women and 15 percentage points for men. Which might either indicate older and poorer women are working part-time to escape poverty or the nature of their part-time jobs are gendered jobs like cleaning and caring.

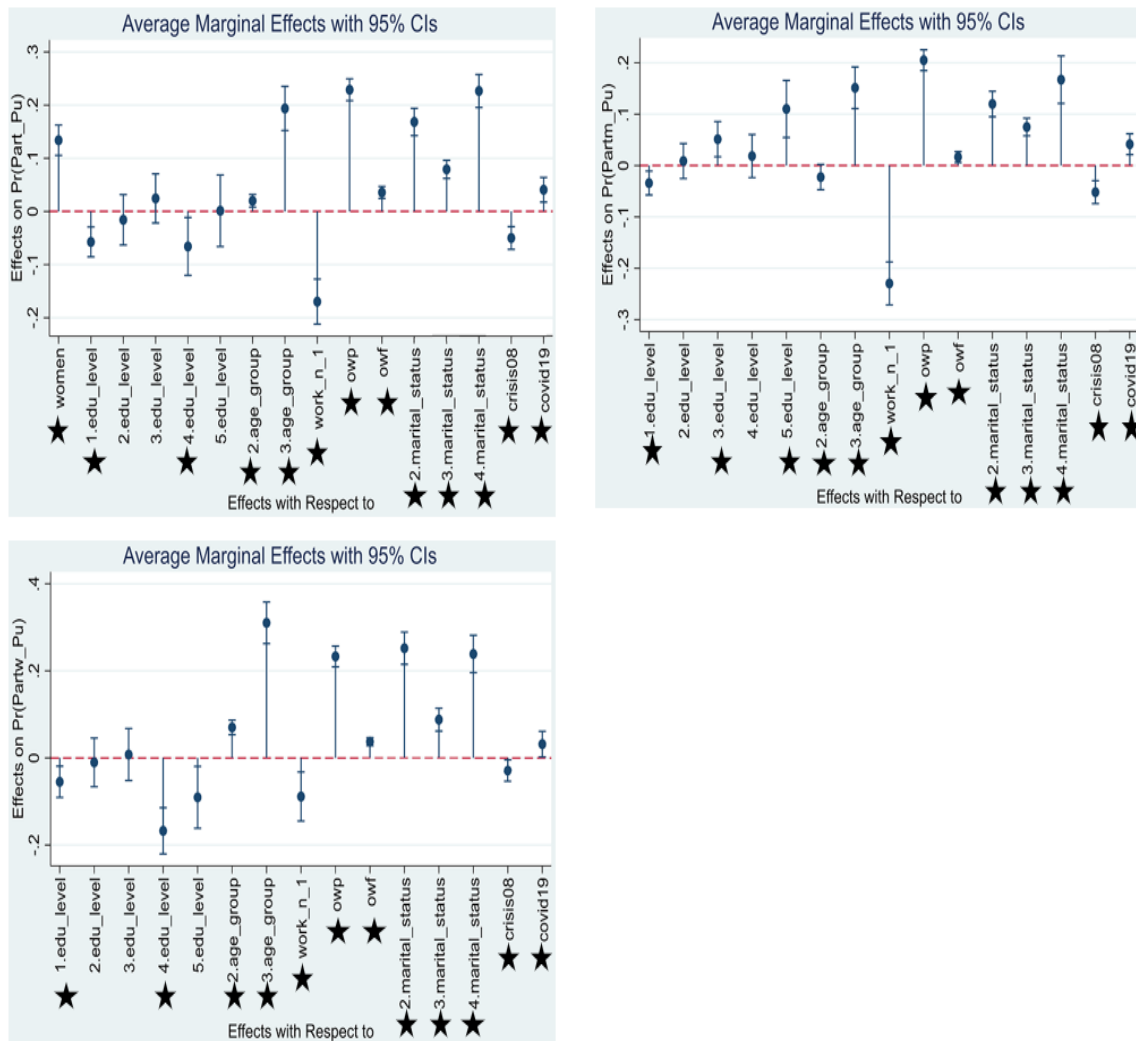


Figure 7: Average Marginal Effects for Part_pu, Partw_pu and Partm_pu for the Second Model

Figure 7 above displays that having work experience in the previous year decreases the probability of being a part-timer by 9 percentage points for women and 23 percentage points for men. Having a household member working part-time (owp) increases the probability of being a part-timer by 22 percentage points for both genders. Having a household member working full-time (owf) increases the probability of being a part-timer by 4 percentage points for women and 2 percentage points for men. Higher marginal effect of having a household member working part-time might be related to the household members low education levels or more people working in a household due to lower household income. The probability of being a part-timer increases by 25 percentage points for married women and increases by 12 percentage points for married men. Being divorced increases the probability of being a part-timer by 9 percentage points for both genders. Being a widow increases the probability of being a part-timer by 24 percentage points for women and 17 percentage points for men. Finally, crisis08 decreases the probability of being a part-timer by 4 percentage points but covid19 increases the probability of being a part-timer by 3 percentage points for both genders.

5. Results and Discussion

The probit analysis we conducted to explore the probability of an individual working part-time instead of working full-time and instead of being unemployed provides the following outcomes.

Combining the results of two analysis shows that being women, increases the probability of being a part-timer in both models. Therefore, we can say that part-time employment definitely serves as a bridge between full-time employment and unemployment for Turkish women.

In general, education acts as a preventative factor for part-time employment with respect to full-time employment for men where this effect was not as prominent for women. Women with high school education or above are more likely to be unemployed with respect to being a part-timer, yet they are more likely to be in full-time employment with respect to part-time employment compared to less educated women. This finding might be related to childcare and/or domestic duties where the part-time income might not be enough for compensating their role at home so they either have to go into full-time employment or keep searching for a full-time employment. Also, this finding might indicate less sophisticated part-time job spectrum for more educated employees. Married women are more likely to be a part-timer than a full-timer where married men are more likely to be a full-timer than a part-timer which shows the traditional gender roles are in place. Özkanlı (2001) previously suggested implementing policies such as free and cheap child care to increase very low female labour force participation rate in Türkiye in 2000's (Özkanlı, 2001). Our findings indicate that his suggestion is still valid for current Turkish labour market due to current gender, age and marital status composition.

The number of other household members that work part-time increases the probability of part-time employment with respect to full-time employment for both genders yet this effect is stronger for women which might be related to the need to compensate for the lack of full-time income in a household. Also, being self-employed and being unpaid family worker increases the probability of part-time employment with respect to full-time employment much more for women with respect to being a waged employee. This finding indicates that working as a waged employee (which is more likely to be a more stable part-time job and income than other part-time jobs) should be encouraged for women by relevant policies.

Also, during the Covid-19 pandemic the demand of part-time employment increased. We observe that probability of part-time employment increases with respect to full-time employment equally for both genders. However, probability of part-time employment with respect to unemployment decreases more for men during 2008 economic recession compared to women.

Having a work experience in the previous year decreases the probability of part-time employment with respect to full-time employment and with respect to unemployment which might indicate inconsistent nature of part-time jobs in Turkish labour market. Buddelmeyer et al. (2005) explores the transitioning role of part-time employment in EU and find that part-time employment is used as an apparatus to transition into full-time work by less than 5% but mostly used as a remedy for unemployment (Buddelmeyer et al., 2005). Visser (2002) suggests that countries with lower LFPR (Labour Force Participation Rate) like Italy, Greece and Spain to follow Dutch labour market model that has the highest rate of female part-timers and variety of part-time jobs in EU (Visser, 2002). Offering increased variety of part-time jobs might be a remedy for Türkiye to increase LFPR via increased women part-timers which would reduce the increasing unemployment rates and would encourage more educated women to participate in the labour force.

On the other hand, last two reports of ILO underline the global hardship in the labour markets with higher unemployment rates. As 2022 and 2023 ILO reports expect significant decline in employment growth under difficult labour market conditions they show it will have detrimental effect on social justice too (ILO, 2022, 2023). We found increasing share of Turkish part-timers that are younger than 25 years of age and overall part-timers got more educated during the 2005-2020 period. To benefit from a younger and more educated labour force without creating additional tax and insurance burden on the employers there should be appropriate policies in place. In light of the findings of Wadensjo

(2006), we suggest part-time retirement policies that might encourage older employees to work part-time till retirement which would provide the employers a chance to restructure and rejuvenate the work force by employing younger and more educated part-timers in Türkiye too (Wadensjo, 2006).

6. Future Directions for Research

In Türkiye individuals can receive housing, education, family, health, child, poverty, unemployment and disability benefits. However, our study is just a prediction without taking the social benefits into account due to data unavailability. Having the data on benefits would highlight the importance of transitioning from unemployment to part-time jobs in terms of the reduction on public spending. We suggest to repeat the study with the data that would provide information about the benefits at individual or household level when dataset is available.

Statement of Research and Publication Ethics

This study has been prepared in accordance with the rules of scientific research and publication ethics of TUIK Letter of Undertaking for the Use of Micro Data Not Limited for Dissemination.

Authors' Contributions to the Article

This study is derived from PhD dissertation titled "Women in the Turkish Labour Market", prepared by Sevi Sertkaya under the supervision of Etem Hakan Ergeç at Medeniyet University, Institute of Graduate Studies, Doctoral Program in Economics. The contribution of the first author to the article is 80% and the contribution of second author is 20%.

Conflict of Interest Statement

The authors declare that they have no conflict of interest.

References

- Akerlof, G. A., & Kranton, R. E. (2000). Economics and identity. *The Quarterly Journal of Economics*, 115(3), 715-753.
- Akgeyik, T. (2017). Ülke Örnekleri ile Türkiye’de Yarı Zamanlı Çalışmanın Görünümü. *SGD-Sosyal Güvenlik Dergisi*, 7(2), 33-62.
- Bardasi, E., & Gornick, J. C. (2000). *Women and part-time employment: Workers' choices' and wage penalties in five industrialized countries*. Retrieved from
- Booth, A. L., & Van Ours, J. C. (2009). Hours of work and gender identity: Does part-time work make the family happier? *Economica*, 76(301), 176-196.
- Borowczyk-Martins, D., & Lalé, E. (2020). The ins and outs of involuntary part-time employment. *Labour Economics*, 67, 101940.
- Bosch, N., Deelen, A., & Euwals, R. (2010). Is Part-time Employment Here to Stay? Working Hours of Dutch Women over Successive Generations. *Labour*, 24(1), 35-54.
- Buddelmeyer, H., Mourre, G., & Ward-Warmedinger, M. (2005). Part-time work in EU countries: labour market mobility, entry and exit.
- Buddelmeyer, H., Mourre, G., & Ward-Warmedinger, M. E. J. A. a. S. (2004). The determinants of part-time work in EU countries: empirical investigations with macro-panel data.
- Cam, S. (2012). Involuntary part-time workers in Britain: evidence from the labour force survey. *Industrial Relations Journal*, 43(3), 242-259.
- Campbell, I., & Chalmers, J. J. T. I. J. o. H. R. M. (2008). Job quality and part-time work in the retail industry: An Australian case study. 19(3), 487-500.
- Carlin, W., & Soskice, D. (2009). German economic performance: disentangling the role of supply-side reforms, macroeconomic policy and coordinated economy institutions. *Socio-Economic Review*, 7(1), 67-99.
- Clark, G., & Van Der Werf, Y. (1998). Work in progress? the industrious revolution. *The Journal of Economic History*, 58(3), 830-843.
- Connelly, R., & Kimmel, J. (2003). Marital status and full-time/part-time work status in child care choices. *Applied Economics*, 35(7), 761-777.
- Del Boca, D. (2002). The effect of child care and part time opportunities on participation and fertility decisions in Italy. *Journal of population Economics*, 15, 549-573.
- Delsen, L. (1998). When do men work part-time? In *Part-time prospects: An international comparison of part-time work in Europe, North America, the Pacific Rim*. . London: Routledge.
- Duzgun Oncel, B., & Eris Dereli, B. (2015). Why Do Women Prefer Part-Time Employment In Turkey? *Topics in Middle Eastern and North African Economies*, 17.
- Euwals, R., & Hogerbrugge, M. (2006). Explaining the growth of part-time employment: Factors of supply and demand. *Labour*, 20(3), 533-557.
- Fagan, C., Norman, H., Smith, M., & Menéndez, M. C. G. (2014). *In search of good quality part-time employment*.
- Gash, V., Mertens, A., & Romeu Gordo, L. (2010). Women between part-time and full-time work: The influence of changing hours of work on happiness and life-satisfaction.
- Higgins, C., Duxbury, L., & Johnson, K. L. (2000). Part-time work for women: Does it really help balance work and family? *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, 39(1), 17-32.
- İlkkaracan, İ. (2012). Why so few women in the labor market in Turkey? *Feminist economics*, 18(1), 1-37.

- ILO. (1994). Part-Time Work Convention, (No:175). Retrieved from https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C175
- ILO. (2022). Dünyada İstihdam ve Sosyal Görünüm Eğilimler 2022. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-ankara/documents/publication/wcms_834656.pdf
- ILO. (2023). Dünyada İstihdam ve Sosyal Görünüm Eğilimler 2023. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-ankara/documents/publication/wcms_868387.pdf
- Kagnicioglu, D. (2017). The role of women in working life in Turkey. *WIT Transactions on Ecology and the Environment*, 226, 349-358.
- 4857 Sayılı İş Kanunu, 10 C.F.R. § 25135 (2003).
- Montgomery, M. (1988). On the determinants of employer demand for part-time workers. *The Review of Economics Statistics*, 112-117.
- Noon, M., & Morrell, K. (2017). *The realities of work: Experiencing work and employment in contemporary society*: Bloomsbury Publishing.
- OECD. (2023). Part-time employment rate (indicator) (Publication no. doi: 10.1787/f2ad596c-en). Retrieved 12 July 2023, from OECD
- Özkanli, Ö. (2001). Women's employment in Turkey-trends and prospects. *HÜ İktisadi ve İdari Bilimler Fakültesi Dergisi*, 19 (2), 123–141. In.
- Patterson, M. E. (2018). Who works part time and why? In: Statistics Canada Ottawa, ON.
- Tilly, C. (1996). The good, the bad, and the ugly: Good and bad jobs in the United States at the millennium. *New York: Russell Sage Foundation*.
- Valletta, R. G., & Van Der List, C. (2015). Involuntary part-time work: Here to stay? *FRBSF Economic Letter*.
- Visser, J. (2002). The first part-time economy in the world: a model to be followed? *Journal of European Social Policy*, 12(1), 23-42.
- Wadensjo, E. (2006). Part-time pensions and part-time work in Sweden.
- Webber, G., & Williams, C. (2008). Mothers in “good” and “bad” part-time jobs: Different problems, same results. *Gender and Society*, 22(6), 752-777.
- Williams, J., & Calvert, C. T. (2002). Balanced Hours: Effective Part-Time Policies for Washington Law Firms: The Project for Attorney Retention, Final Report. *Journal of Race, Gender, Social Justice*, 8(3), 357.