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THE EFFECT OF SURVIVOR’S BENEFITS ON WOMEN’S EMPLOYMENT: THE CASE OF TÜRKİYE

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ABSTRACT

Women's employment in Türkiye is far behind the male employment. Studies in the literature include hypotheses that female employment is lower than male employment due to reasons such as women's educational status, age, agricultural dissolution, family responsibilities, and institutional insufficiency of child and elderly care. However, there is scarcely any study measuring the effect of social assistances provided directly to women on women's employment and their engagement into the formal market. The aim of this manuscript is to investigate the effect of survivor’s pensions on labor force participation and social security of young women. With this study, the effect of survivor's pensions attached to the surviving daughter in the event of the death of breadwinner in the family on both women's employment and her formal engagement into the market is measured.

The survivor's pensions in Türkiye is based on the idea that the person who works actively insured in the family is a male individual, that male children must enter the labor market when they become adults, and that women do not necessarily work. Thus, women receive these pensions as a kind of women's pension almost throughout their lives. In order to discover exactly this, Income and Living Conditions Survey, 2017 data is utilized as the primary source and Social Security Institution 2020 data as the

secondary source. As a result, it has been concluded that the positive discriminatory practices applied to women in survivor's pensions are the aspects that prevents them from both employment and formal employment, and this side of them should be eliminated by other socio-economic policies.

Key words: Survivor's benefits, social security, employment, women.

ÖLÜM YARDIMLARININ KADIN İSTİHDAMINA ETKİSİ: TÜRKİYE ÖRNEĞİ

ÖZ

Türkiye'de kadın istihdamı erkek istihdamının oldukça gerisindedir. Literatürdeki çalışmalar; eğitim durumu, yaş, tarımsal çözülme, aile içi sorumluluklar, çocuk ve yaşlı bakımının kurumsal yetersizliği gibi nedenlerle kadın istihdamının erkek istihdamından düşük olduğuna dair hipotezler içermektedir. Ancak kadınlara doğrudan yapılan sosyal yardımların kadınların istihdama ve kayıtlı ekonomiye entegre olmalarına etkisini ölçen araştırma yok denecek kadar azdır. Bu makalenin amacı, ölüm aylığının genç kadınların işgücüne katılımı ve sosyal güvenliği üzerindeki etkisini araştırmaktır. Bu çalışma ile ailede çalışan kişinin vefatı halinde geride kız çocuklara bağlanan yetim aylıklarının hem kadınların istihdamlarına hem de kayıtlı istihdamlarına etkisi ölçülmektedir.

Hayatta kalanlar için emeklilik aylıkları, ailede aktif olarak sigortalı çalışan kişinin erkek olduğu, erkek çocukların yetişkin olduklarında işgücü piyasasına girmeleri gerektiği ve kadınların çalışmak zorunda olmadıkları anlayış ile düzenlenmiştir. Böylece kadınlar bu emekli aylıkları neredeyse hayatları boyunca bir tür kadın emekli geliri olarak almaktadırlar. Çalışmada Gelir ve Yaşam Koşulları Araştırması, 2017 yılı verisi birincil; Sosyal Güvenlik Kurumu 2020 verisi ise ikincil kaynak olarak kullanılmıştır. Sonuçta, kadınlara yetim aylıklarında yapılan pozitif ayrımcı uygulamaların onları kayıtlı istihdamdan alıkoyan özelliği olduğu ve bu durumun sosyo-ekonomik politikalarla düzenlenmesi gerektiği kanaatine varılmıştır.

Anahtar Sözcükler: Ölüm yardımları, sosyal güvenlik, istihdam, kadın.

INTRODUCTION

Employment among women in Türkiye is lower than the rate for their male counterparts. According to the recent statistics released by the Turkish Statistical Institute (TURKSTAT), the labor force participation rate for women between ages 15-64 in 2020 is 35%, while the rate for men in the same age range is 74.6%. Meanwhile, the unemployment rates are 12.6% among men and 15.3% among women (TURKSTAT, 2021). From these data, it is seen that female employment is extremely low compared to male employment; nonetheless, fewer unemployed women actively seek out jobs compared to unemployed men in Türkiye.

Several reasons behind the lagging female employment rate in Türkiye have been identified in the literature, including the gender gap in education, age, family responsibilities, gender roles, child care, and the socioeconomic status of the spouse (Yıldırım and Doğrul, 2008; Özkan and Özkan, 2010; Korkmaz and Korkut, 2012; Karacaoğlu and Ökten, 2015; Akgeyik, 2016; Üçler and Kızılkaya, 2014; Günay and Çelik, 2018; Aldan and Öztürk, 2019).

Additionally, agricultural structural changes since the 2000s, with their important influence on female labor market participation rates, have adversely affected women's employment in Türkiye. While Türkiye was known as a self-sufficient agricultural country until the 2000s, the state supports in agriculture began to decrease in the first decade of this century, and public economic enterprises which had agricultural inputs were privatized, allowing for increasing private sector dominance in agriculture. As a result, the share of agriculture in the economy of Türkiye and the share of women employed in that sector both decreased. Due to such structural transformation in agriculture, one and half million women have left agriculture-and employment, in general-since the 1990s (Yaman, 2015). The agricultural transformation caused migration from rural to urban areas, but a lack of job opportunities in cities to meet the employment demands of both men and women further diminished employment among the latter (Ecevit, 2013). Those women who did find work often had to accept temporary jobs or informal piece work in their homes (Koray, 2007).

Indeed, informal employment is one of the main problems for women's labor in Türkiye. Lordoğlu (2005) states that informal work rates are high in Türkiye and claims that this is a permanent feature of Turkish labor market. Not surprisingly, women have played a significant role in the informal employment sector since the 1990s. In particular, the perception that women's jobs are domestically related makes them open to informal work in every field (Lordoğlu, 2005). Traditional roles and responsibilities

such as housework, childcare, and the care of other people in the household are assigned to women within the family. Adding to structural educational inequalities and inequalities in job markets, the social roles and responsibilities of being mother, daughter, sister and wife further push women out of employment.

Other significant risks of women in the labor market are under-age work, deprivation of social security and economic protection with unpaid overtime, irregular or excessive working hours, abuse or even sexual harassment by employers. Kümbetoğlu et al. (2010) state that women have to accept precarious and unhealthy working conditions due to the risk of poverty and unemployment.

Lack of social security is the main risk factor for informal market employment. According to Alper (2018), social security is a right that provides an income transfer mechanism to save people and their family members from the damages of socioeconomic risks such as illness, disability, old age or unemployment. In a broad sense, it is a policy tool intended to keep people's welfare at a certain minimum standard (Alper, 2018). Survivor's insurance is the main tool of social security that protects beneficiaries from poverty in the case of death of the insured. Survival benefits are transferred mainly from deceased parents or spouses. According to Law No. 5510; for the beneficiaries to be entitled to a survivor's pension, at least 1800 days of old-age, invalidity and survivor's insurance contributions must be paid as a private sector worker, or by those with public servant status. Insured people must also have worked for at least 5 years and have paid a total disability, old age or survivor's insurance premium for a total of 900 days, excluding any borrowing periods that occurred while they held worker status. Moreover, in order for the working survivors of the insured to be paid this pension, all debts related to the deceased's pension and the survivors' own premiums must be paid. Survivor's pensions, death grants, and marriage and funeral allowances are the primary benefits provided by survivor's insurance in Türkiye (Yorulmaz, 2010). The survival pension, (the widow and orphan's pension) is paid to unmarried and unemployed children and spouses, as well as to the mother and father of the insured deceased⁵. Importantly, since female labor force participation is very low in Türkiye, and female life expectancy is globally higher than male life expectancy, this survival pension turns into a female social security benefit. The recent data from the Social Security Institution confirm that the recipients of survivor's pensions in Türkiye are mostly women (SSI, 2020). This fact motivated us to ask whether there is a link between employment status and the social security conditions of women with survivor's pensions. The average spouse and mother of the insured deceased do not

⁵ For the details of the official rules, see the Social Insurance and Universal Health Insurance Law number 5510.

have competing potential with the average daughter of deceased in the labor market due to education gaps and age. In other words, the daughters of the insured deceased, similar to their peers whose parents are still living, are the targets of the labor market, and they are probable agents of future increases in women's employment. Within these circumstances, this article explores the effect of survivor's pensions, specifically the orphan pension, on labor force participation of young women. Our study fills a gap in the literature by discussing the risk of orphan's pension being transformed from a social security net for young women into an obstacle preventing them from entering the workforce at an economically productive age. Additionally, we explore the risk of employed women working without collecting social security. To complete our analysis, we primarily examined the Income and Living Conditions Survey, 2017 micro data set and focused on never-married women aged 15-64. The secondary data source is the Social Security Institution database for the year 2020. This data is utilized for a registration-based descriptive analysis of survivor's pension recipients.

1. LITERATURE REVIEW

There are few studies about the effects of survivor's benefits on women employment globally (Kaygusuz, 2015; Groneck and Wallenius, 2017; Sanchez-Marcos and Bethencourt, 2018), including Türkiye (Alper and others, 2015).

Kaygusuz (2015) assesses the influences of social security applications in the United States in terms of the labor supply, welfare and redistribution of wealth with a general equilibrium life-cycle model. In this study, the effects of some social security policies such as survivor's benefits, the progressive calculation of benefits, and taxable earnings caps affecting the employment and welfare of households are examined. He concludes that eliminating all social security policies increases both labor participation of married women and total welfare of households, by 5.5 % and 0.4 percentage points, respectively. Moreover, when only removing spousal and survivor's benefits, labor participation rises 4.7 percentage points among married women (Kaygusuz, 2015).

In the study by Groneck and Wallenius (2017), the employment supply impact of the pension system of the United States is examined according to marital status. The authors here use a dynamic structural life-cycle model to assess the impact of survivor's benefits in which single or married women have risk of marriage, divorce or death. In their model, they quantify survivor's pensions on employment through two stages; firstly, by removing the spousal benefits and survivor's pensions, and secondly by changing these payments to a minimum pension based on means tests. The results of the study show a 6.4 percentage point increase in employment among married women when spousal benefits and survivor pensions are removed. Similarly, supplanting these

benefits with a minimum pension has a significant effect on female labor by a rise of 1.8 percentage points (Groneck and Wallenius, 2017).

Sanchez-Marcos and Bethencourt (2018) evaluate the impact of spousal and survivor pensions in the US social security system on the employment rate of women via a full-life cycle model. In their model, the decisions of employment effect both current and future earnings, and families face uncertainty about revenues and probability of survival. In this case, the authors measure the impact of three policies on women's employment preferences: firstly, by abolishing the spousal benefit, secondly, by abolishing spousal benefits and survival pensions, and lastly, by broadening the working period from 35 to 40 years, all of which are considered when computing the amount of pension. They conclude that the removal of spousal benefits and survivor pensions has significant impacts on employment choices over women's lifetimes, particularly after age 40. When only spousal benefits are taken away; the employment rate of women increases 4 percentage points on average. In the case of the elimination of both spousal benefits and survival pension, there is an increase of 10 percentage points in the employment rates of women (Sanchez-Marcos and Bethencourt, 2018).

In Türkiye, a study on the link between survivor's pension and employment, Alper et al (2015) investigates the effect of survivor's pensions on the employment of women in the daughter category. The study calculates the background descriptive statistics of Social Security Institution data and includes in-depth interviews with female recipients of survivor's pension in Bursa. The authors conclude that these pensions have a negative effect on desire for employment, as formal work affects pension payments. They deduce that women who receive these pensions are obviously reluctant to work in formal status which may disqualify them from collecting their personal social security (Alper et al., 2015).

Within the scope of the welfare state, there are also studies measuring the effect of the unemployment benefits provided by most developed countries on the re-participation in employment of people receiving these benefits (Tatsiramos, 2006; Bratsberg et al., 2007; Bratsberg et al., 2014).

Bratsberg et al. (2007) analyze the life-cycle employment patterns of male immigrants who came from Pakistan, India, Türkiye and Morocco to Norway between 1971 and 2000. The sample is composed of 2553 immigrants born between 1936 and 1955, who arrived in Norway between 1971 and 1975 from the four countries mentioned above, and 28,720 native Norwegians as a control group in the same cohorts. Some 65% of the sample is under 54 years of age in 2000 and about 94% of immigrants and 3.2% of natives are married. This study finds that more than 95% of the migrant

group worked in the late 1970s and early 1980s, and these employment rates were even higher than in the native labor group. However, around 1982-1983 the employment rate in the migrant group began to decline sharply, and this rate fell to 50% in 2000, while the employment rate of the indigenous group declined more gently, to around 87% in the same period. To understand the economic condition of unemployed migrants, the study looks at unemployment benefits, disability pensions and social assistance payments in Norway. The results show that 73% of migrants were receiving social transfer or unemployment benefits, while the rate was 37% among native males. In addition, 44% of migrants were recipients of permanent disability pensions, while this rate among natives was 15%. In their conclusion, the authors state that the generous welfare system of Norway does not give enough incentive to migrants to work; on the contrary, the system compensates low earnings, and provides transfer payments for non-working spouses and children (Bratsberg et al., 2007).

Another study, Bratsberg et al. (2014) examines long employment periods and social security performance for all immigrants to Norway from 1970 to 2012. This study focuses on migrant cohorts coming from distinct parts of the world for labor or family unification. In their sample, male or female migrants between 25 and 64 years old and have lived in the country for at least 5 years. The results of this study show a tendency of migrant offspring toward lower employment or wages and, like their parents, higher participation in disability benefits, particularly among those who come from low-income countries. The authors once again infer that generous social insurance applications may be a labor market barrier, or disincentivize work among migrants (Bratsberg et al., 2014).

On the other side of the argument, some studies show positive effects of transfer payments on employment. According to Tatsiramos (2006), though unemployment insurance payments have an adverse impact directly on unemployment duration, these payments have a positive effect indirectly on subsequent working duration in countries that have generous welfare facilities. The effect was larger among people receiving these benefits for at least 6 months in more generous northern countries, compared to the southern countries in the study of Tatsiramos (2006). Those who received unemployment benefits stay 2-4 months longer in the next job compared to people who did not have benefits (Tatsiramos, 2006).

2. DATA AND METHODOLOGY

2.1. Data Sources

The primary data source of this article is “Income and Living Conditions Survey, 2017”. In this survey, the total number of interviewed sample households is 24,498, and the non-response rate was 6.6% for all of Türkiye. The individual sample is 58,888 persons aged 15 and over, and the non-response rate is close to 0.24 % (TURKSTAT, 2017). Our analysis is based on interviews with 6,018 never-married women between the ages 15 and 64. Weighted data is used for descriptive and multivariate analyses. The studied (weighted) population corresponds 6,400,486 never-married women.

There are three questionnaires, the (1) Personal Register Form, (2) Personal Questionnaire, and (3) Household Questionnaire in Income and Living Conditions Survey Micro Data Set, 2017.

The Personal Questionnaire consists of questions aimed at household members 15 and over regarding their marital status, health, education, employment, plus income received in the reference year (2016). In this study we employed indicators from Personal and Household Questionnaires.

The secondary data source is the Social Security Institution database for the year 2020. This database covers all survivor’s pensions and survivor’s income recipients in Türkiye, according to the status of deceased in the social security system. Here, the data consists of age, sex, the relationship to the insured deceased, the payment amount for the survivor’s pension, the payment amount for survivor’s income benefit, the legal status of payments of survivor’s benefits in Act 5510, and the premium amount paid to the institution by survivors who are in the workforce. These variables are used for the descriptive analyses.

2.2. Methodology

Descriptive analysis of this article starts with basic tables of all survivor’s pensions and survivor’s income recipients based on registration data. Then, various descriptive analyses, including calculation of employment and unemployment rates, were carried out and compared based on survey data for never-married women aged 15-64 separately, based on whether or not women were receiving survivor’s pension. In addition, some crosstabs are taken among variables such as marital status, age, education level, region, status of home ownership and survivor’s pension. Descriptive statistics of the variables included in the analysis are shown as mean \pm standard deviation for continuous variables, and number of persons interviewed (N), (weighted) percentage (%) as well as corresponding population (weighted number) for categorical

variables.

In the second part of the analysis, two logistic regression models were conducted to measure the effect of the survivor's pension on the employment and unregistered work of the women. Logistic regression provides a scientific model which determines the relationship between dependent and independent variables. This regression model tests the relationship between discrete and continuous (independent) variables and those that have binary dependent variables. Moreover, Logistic Regression is a method used when dependent variables are binary, tertiary, ternary and quaternary. For these reasons, logistic regression analysis was used in this study to determine the relationship between binary dependent variables and independent variables (Korkmaz and others, 2012). The odds were calculated for the same set of independent variables: survivor's pension status, the level of education, age, number of pre-school children, income status, region of residence, and property ownership. In the first stage of analysis, the dependent variable is employment status determinants of working status of women. In the second stage, excluding non-working women in the sample, only working women are analyzed to determine the odds of working with or without drawing social security.

Analyses show that individual income is highly correlated with survivor's pension. Therefore, instead of the woman's individual income, household income is included in the analysis as an independent variable since the latter affects employment decisions.

The limits and categories of the age variable are determined according to the intervals in which employment was concentrated in Türkiye in 2018.

The number of people who benefit from survivor's income is relatively lower than people who benefit from survivor's pension, and the survivors are mostly not aware of whether their salaries are considered income or pension. Those receiving survivor's income benefits who were interviewed in the "Income and Living Conditions Survey, 2017" are most likely to express their income as a survivor's pension. For this reason, we consider both revenues as survivor's pensions and recoded accordingly for the analyses of this article.

In this study, statistical analyses are done using the Statistical Package for Social Sciences (SPSS) (Version 21) program. The results of the analyses are evaluated at the level of $\alpha = 0.05$ significance.

3. RESULTS

Results of this article cover descriptive statistics of the Social Security Institution's official records 2020 and Income and Living Conditions Survey 2017, as

well as regression analyses of the Income and Living Conditions Survey 2017.

3.1. Introducing Survivor's Pension Recipients: Descriptive Analyses of Social Security Institution's Official Records

This section presents the basic frequencies and percentages for survivor's pensions and survivor's income paid by the Social Security Institution in 2020 to different rights holders. Table 1 shows the number of survivor pensioners and income recipients according to the status of the insured deceased persons at work.

Table 1. Distribution of Number of Survivor Pensioners by Status of Deceased Insured Persons at Work and Relationship to Insured Persons, 2020

Survivor Pensioners							
Status at work	Husband	Wife	Son	Daughter	Father	Mother	Total
Worker	41,724	1,372,994	121,189	623,864	3,999	19,915	2,183,685
Self-employed	12,769	670,726	34,291	278,474	257	2,216	998,733
Public Servants	15,535	373,124	28,715	276,159	9,450	16,676	719,659
Total number of pensioners	70,028	2,416,844	184,195	1,178,497	13,706	38,807	3,902,077

Data source: Social Security Institution, 2020.

There are 3,902,077 people collecting survivor's pensions in 2020 according to Social Security Institution statistics. The number of wives and daughters are relatively higher than other beneficiaries (sons, husbands, and parents) in all three statuses at work. Never-married women, the target group of this article, are included in these statistics under daughter status as in Table 1.

Table 2. Distribution of Number of Survivor Pensioners by Age and Relationship to Insured Persons, 2020

Ages	Survivor Pensioners						
	Husband	Wife	Son	Daughter	Father	Mother	Total
0-14	0	45	66,857	64,156	0	7	131,065
15-25	6	1,246	92,432	167,182	3	6	260,875
26-64	22,733	799,447	22,535*	700,121	4,449	11,937	1,561,222
65+	47,289	1,616,106	2,371*	247,038	9,254	26,857	1,948,915
Total number of pensioners	70,028	2,416,844	184,195	1,178,497	13,706	38,807	3,902,077

Data source: Social Security Institution, 2020

* Sons aged 26 and older can receive survivor's pension only if they are disabled.

When we look at the age distribution of survivor pension recipients in Table 2, it is seen that the group consists of mostly women. While never-married women receive this pension under daughter status regardless of their age, young men with son status leave this pension after a certain age to enter the labor market, according to registers of Social Security Institution. The fact that sons in the active working age are much fewer in number than daughters indicate that these men are in the job market, as seen in the table above. There is a tendency among sons over age 25 to quit receiving survivor's pensions, 25 being the last age at which pensions are paid to young men because they are typically still in education, whereas daughters continue to take this salary for years longer, during the active working periods of their lives. When we consider that marriage is common in Turkish society while divorce still is rare even it has an increasing trend recently, it can be said that most of the beneficiary daughters are women who have never been married.

Unlike orphan's pension, though the conditions for receiving a spousal pension are equal, it is observed that most of the beneficiaries of this pension are women and male spouses receiving pensions are very few compared to female spouses. This is another indication that women are much less engaged in formal employment than men in Türkiye.

Table 3. Average Age of Female Survivor Pensions and Survivor's Income Recipients, 2020

	Mother or Wife	Daughter
Mean Age	69.07	47.61
Median Age	70.00	50.00
Std. Deviation	12.30	19.76

Furthermore, the mean and median age of the women who receive survivor pensions or income under mother or wife status are 69.07 and 70.00 according to the data of the Social Security Institution for 2020, as seen in Table 3. Also, the mean and median age of women receiving pension or income under daughter status is 47.61 and 50.00, respectively.

3.2. Comparison of Women Who Receive Pension with Those Who Do Not: Descriptive Analyses of Income and Living Conditions Survey, 2017

We start our analyses by comparing the age structure of all women who receive pensions with those who do not. Table 4 includes all women aged 15 and over in order to reflect the distribution of women who receive pensions from both their husbands and parents. A statistically significant difference was found between women receiving survivor's pension and non-recipient women by age. The share of older cohorts is higher among recipients mainly because of widowed women. Moreover, the rate of receiving a survivor's pension increases after the age of 25, as shown in Table 4.

Table 4. Age Distribution of Women in Age 15+ by Survivor's Pension (percent)

Age	Survivor's Pension	
	Not Receiving Pension	Receiving Pension
15-19	10.8	1.6
20-24	10.3	1.3
25-49	52.2	12.7
50-64	18.6	30.7
65+	8.1	53.8
Total	100.0	100.0
Number	27,374	2,979
Corresponding total population (weighted number)	27,309,626	2,934,697

Analyses from this point forward focus on women of active working age (15-64) who receive pensions from their parents, therefore the analysis here is of never-married women. We compared women according to their level of education, home ownership and household income. Table 5 shows that the rate for receiving a pension increases among women with an education level below high school, while the rate of receiving such a pension starts to decrease among high school graduates.

Table 5. Education Status of Never-married Women aged 15-64 by Survivor's Pension (percent)

Education Status	Survivor's Pension	
	Not Receiving Pension	Receiving Pension
Illiterate / Literate but not graduated	7.9	15.1
Primary school	3.4	22.1
Primary education	45.0	25.4
High School	23.5	22.4
Higher education and above	20.2	15.1
Total	100.0	100.0
Number	5,746	272
Corresponding total population (weighted number)	6,138,458	262,029

Results reveal that women mostly live in their own homes, or do not pay rent for accommodation, whether they receive a survivor's pension or not (Table 6).

Table 6. Home Ownership of Never-married Women aged 15-64 by Survivor's Pension (percent)

Home Ownership	Survivor's Pension	
	Not Receiving Pension	Receiving Pension
Owner	61.8	65.7
Tenant/Lodging	26.1	16.0
Unpaid (not owner)	12.1	18.3
Total	100.0	100.0
Number	5,746	272
Corresponding total population (weighted number)	6,138,458	262,029

Furthermore, 73.6% of women who receive a survivor's pension live in households with an annual income of less than 50,000 Turkish liras according to the Income and Living Conditions Survey, 2017, as in Table 7.

Table 7. Household Income of Never-married Women aged 15-64 by Survivor's Pension (percent)

Household Income in 2016 (TRY)	Survivor's Pension	
	Not Receiving Pension	Receiving Pension
0-25,000	19.4	32.2
25,001-50,000	42.3	41.4
>50,000	38.3	26.4
Total	100.0	100.0
Number	5,746	272
Corresponding total population (weighted number)	6,138,458	262,029

3.3. The Determinants of Employment Status of Women: Regression Model for Risk of Employment

The first regression model explores the determinants of employment status of women. The dependent variable is employment status with categories of working or not working.

The result of the logistic regression analysis in Table 8 shows that receiving survivor's pension, as well as education status, age, house ownership, household income and region, are significant determinants of employment status of women.

Being a pension recipient decreases the risk of employment. Women who receive survivor's pension are 0.4 times less likely to work than those who do not receive survivor's pensions.

Table 8. Logistic Regression Model for the Determinants of Employment Status of Never-married Women aged 15-64

		B	S.E.	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Education Status	Illiterate / Literate but not a graduate			4	0.000			
	Primary school	.134	.006	1	0.000	1.143	1.130	1.157
	Secondary school	-.052	.004	1	0.000	.949	.941	.957
	High school	.241	.004	1	0.000	1.272	1.262	1.283
	Higher education	1.058	.004	1	0.000	2.879	2.856	2.903
Pension	Survivor's Pension (Receiving)	-.836	.006	1	0.000	.433	.429	.438
Age	15-19			3	0.000			
	20-24	1.262	.003	1	0.000	3.534	3.513	3.555
	25-49	1.813	.003	1	0.000	6.131	6.092	6.170
	50-64	1.000	.007	1	0.000	2.718	2.681	2.756
Home Ownership	Owner			2	0.000			
	Tenant/Lodging	.523	.002	1	0.000	1.688	1.680	1.696
	Unpaid use (not owner)	.157	.003	1	0.000	1.170	1.163	1.178
Household Income (TRY)	0-25000			2	0.000			
	25001-50000	.409	.003	1	0.000	1.505	1.496	1.514
	>50000	.985	.003	1	0.000	2.679	2.662	2.696
Region	East			4	0.000			
	West	.698	.003	1	0.000	2.009	1.998	2.020
	Central	.123	.004	1	0.000	1.131	1.122	1.139
	South	.208	.004	1	0.000	1.231	1.221	1.240
	North	.472	.004	1	0.000	1.604	1.590	1.617
	Constant	-3.345	.005	1	0.000	.035		
a. Variable(s) entered on step 1: Illiterate / Literate _but_ not_ a _graduate, survivor's pension, age_15-19, owner, 0-25000, east.								

The results show that the probability of working generally increases as the education level of women increases. Women who are primary school graduates are 1.2

times more likely to work, while women who are secondary school graduates are 0.95 times less likely to work, but high school graduates are 1.3 times more likely to work, and higher education graduates are approximately 3 times more likely to work than the illiterate or non-graduate group.

Age is another significant determinant for employment. Comparing the women aged 15-19, women aged 20-24 are 3.5 times more likely to work; women aged 25-49 are approximately 6 times more likely to work and women aged 50-64 are 2.7 times more likely to work.

Considering the effect of home ownership, women living in a tenant or lodging are 1.7 times more likely to work than women who have their own properties. When the effect household income is examined, it is seen that the probability of working increases as household income increases.

Region also determines the risk of working. While women living in the west and north are 2 and 1.6 times more likely to work than women living in the east, respectively; there is lower but significant difference between women living in the south or the middle region compared to those living in the east.

3.4. The Determinants of Working with Social Security: Regression Model for Risk of Secured Work

Another hypothesis of the study is that women who receive survivor's pensions are more inclined to work informally than women who do not. In order to test this hypothesis, the second phase of the analysis tests the factors affecting women's social security with logistic regression analyses. In this regard, we focus on never-married working women aged 15-64 in order to determine the odds of working with or without collecting social security.

Results in Table 9 confirm that receiving a survivor's pension, as well as education status, age, home ownership, household income and region are significant determinants of working without collecting social security.

Table 9. Logistic Regression Model for the Determinants of Working with Social Security of Never-married Women aged 15-64

		B	S.E.	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Education Status	Illiterate / Literate but not a graduate			4	0.000			
	Primary school	1.169	.013	1	0.000	3.219	3.138	3.301
	Secondary school	1.329	.009	1	0.000	3.776	3.713	3.839
	High school	2.543	.009	1	0.000	12.723	12.508	12.943
	Higher education	3.918	.010	1	0.000	50.282	49.344	51.238
Pension	Survivor's Pension (Receiving)	2.492	.014	1	0.000	.083	.081	.085
Age	15-19			3	0.000			
	20-24	.383	.006	1	0.000	1.467	1.450	1.484
	25-49	.921	.007	1	0.000	2.512	2.479	2.545
	50-64	-.987	.017	1	0.000	.373	.360	.386
Home Ownership	Owner			2	0.000			
	Tenant/Lodging	.302	.005	1	0.000	1.353	1.339	1.367
	Unpaid use (not owner)	.241	.008	1	0.000	1.273	1.253	1.293
Household Income (TRY)	0-25000			2	0.000			
	25001-50000	.599	.007	1	0.000	1.820	1.795	1.845
	>50000	1.479	.007	1	0.000	4.389	4.326	4.452
Region	East			4	0.000			
	West	1.031	.006	1	0.000	2.803	2.768	2.839
	Central	.974	.009	1	0.000	2.648	2.600	2.697
	South	.324	.008	1	0.000	1.383	1.360	1.406
	North	-.251	.256	1	0.327	.778	.472	1.285
	Constant	-3.110	.392	1	0.000	.045		
a. Variable(s) entered on step 1: Illiterate / Literate _but_ not _a_ graduate, survivor's pension, age_15-19, owner, 0-25000, east.								

Receiving a survivor's pension significantly decreases the risk of working with social security coverage: working never-married women aged 15-64 who receive a survivor's pension are 0.1 times less likely to work with social security coverage than those who do not receive a pension.

Education is another determinant of working with security coverage. Comparing the least-educated group, primary school graduates are 3.2 times, secondary school graduates are 3.8 times, high school graduates are 13 times and higher education

graduates are 50 times more likely to work with social security coverage.

The age increase outside the age range of 50-64 increases the probability of women working with social security. Women aged 20-24 and 25-49 are 1.5 and 2.5 times more likely to work with social security than those aged 15-19, respectively.

Home ownership of women partially affects their registered employment under social security. Women living in tenant or lodging are 1.4 times more likely to work with social security than those living in their homes. Moreover, there is significant association between women's free accommodation in their home and them taking up employment with social security coverage.

By contrast, when household income is analyzed, a significant relationship is seen between household income and women's registered employment under social security. Women whose annual household incomes are between 25,001 and 50,000 Turkish liras, are 1.8 times more likely to work while receiving social security than women in households with an annual income below 25,000 Turkish liras. In addition, women living in households with an annual income of 50,001 Turkish liras and above are 4.4 times more likely to work while receiving social security than women in households with an annual income below 25,000 Turkish liras.

Finally, the relationship between the region where women live and the possibility of working while drawing social security is partially significant. The probability of women living in the west and central locations to join the workforce while drawing social security is respectively 2.8 and 2.6 times higher than those living in the east. There is also significant difference but lower between living in the south and living in the east.

CONCLUSION

Survivor's pensions are given after the death of the insured to provide economic security to their dependents and are calculated and paid based on the insured's contributions during their working life.

Due to the low participation of women in the labor force and even lower participation among those who collect social security, combined with the higher life expectancy of women compared to men, most survivor's pension recipients are women who collect benefits as either the insured deceased's spouse or daughter in Türkiye. The fact that there is no age restriction for the pension paid to daughters further increases the share of women among those receiving survivor's pensions.

Our analyses of the most recent (2020) registry data of the Social Security Institution show that 93% of 3,902,077 pension recipients are women. Among all

pension rights holders, 2,416,844 receive a pension as wives, 1,178,497 as daughters, 184,195 as sons, 70,028 as husbands, and 52,513 as parents.

Orphan's pensions are paid to daughters on the condition that they do not work and do not get married. Daughters usually represent potentially economically active women; however, the orphan's pension transforms into an obstacle for paid employment. Results of this article explore and compare the demographic and employment-related characteristics of pension recipients and non-recipients among never-married women in economic active ages and confirms both lower employment and personal social security chance of pension recipients.

Analyses reflect that daughters who receive this pension do not enter employment for years longer than sons, encompassing the most economically active years of their lives, while sons quit the pension in favor of work after age 25.

Multivariate regression models based on Income and Living Conditions Survey data show that survivor's pension as well as other income-related determinants, including home ownership and household income, plus the socio-demographic determinants of age and education status, are significant for the risk of women participating in formal or informal employment.

As a result of our analysis, it is found that women who receive survivor's pensions are 0.4 times less likely to work than those who do not receive survivor's pensions, and women who receive a survivor's pension are 0.1 times less likely to work with social security than those who do not receive this pension.

In conclusion, although a survivor's pension is too low for women to use as a living allowance, it is observed that such pensions cause them to be excluded from formal employment for the sake of keeping those inadequate income sources. These pensions are far from a living wage for many beneficiaries, yet they mortgage the future of women by pushing them to remain unemployed or engaged in informal work. The support provided by the public in the event of the loss of their parents should not prevent them from working while collecting social insurance; on the contrary, further measures should be taken to encourage them to work. Otherwise, young women may be doomed to eke out an existence on social transfers like this and spend their lives outside employment in passive living arrangements. The literature on the subject can be developed by conducting similar studies on other permanent cash transfers offered by the public.

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