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**SOCIAL TRANSFERS AND INCOME INEQUALITY
IN TURKEY: HOW IMPORTANT
IS THE GENDER DIMENSION?**

Cem Başlevent

Working Paper No. 1013

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Abstract

The main purpose of this paper is to carry out descriptive analyses to determine the extent to which social transfers and pension payments have an impact on income inequality and the incidence of poverty in Turkey. Our survey data allows us to carry out this research by identifying the amounts of various types of income received by households. Furthermore, the availability of the amounts of labor income and pension payments at the individual level allows us to distinguish between the incomes of male and female household members, which makes it possible to examine some gendered dimensions of the research question. Thus, the examination of the distributional impact of pension and social assistance programs in Turkey promises to be an interesting exercise that will provide valuable insights for not only for social scientists, but also for politicians and policy makers. Pension payments received by female household members reflect a strong attachment to the labor market in the past. Thus, our findings might also point to the importance of the continued economic activity of women in terms of social justice. Also, by quantifying the contribution of social transfers to inequality, we might produce concrete empirical evidence of whether social policies of the government have had an impact on political outcomes.

JEL Classifications: J3, H5

Keywords: Social Transfers and Pension Payments; Income Inequality; Poverty; Turkey

ملخص

الغرض الرئيسي من هذه الورقة هو إجراء تحليلات وصفية لتحديد مدى تأثير التحويلات الاجتماعية ومدفوعات المعاشات التقاعدية لها على عدم المساواة في الدخل وانتشار الفقر في تركيا. تسمح بيانات المسح لنا بتنفيذ هذا البحث عن طريق تحديد كميات من أنواع مختلفة من دخل الأسر. وعلاوة على ذلك، فإن توافر كميات من دخل العمل ومدفوعات المعاشات التقاعدية على المستوى الفردي يسمح لنا أن نميز بين دخل الذكور والإناث بين أفراد الأسرة، مما يجعله من الممكن دراسة بعض الأبعاد الجندرية في سؤال البحث. وهكذا، فإن دراسة الأثر التوزيعي لبرامج المعاشات التقاعدية والمساعدات الاجتماعية في تركيا يعد بأن يكون مثير للاهتمام ومن شأنه أن يوفر معلومات قيمة ليس فقط لعلماء الاجتماع، ولكن أيضا للسياسيين وصانعي السياسات. مدفوعات المعاشات التقاعدية من قبل أفراد الأسرة الإناث تعكس ارتباط قوي بسوق العمل في الماضي. وبالتالي، قد تشير النتائج التي توصلنا إليها أيضا إلى أهمية النشاط الاقتصادي المستمر للمرأة من حيث العدالة الاجتماعية. أيضا، عن طريق قياس مساهمة التحويلات الاجتماعية إلى عدم المساواة، قد تنتج الأدلة التجريبية دليلا ملموسا على ما إذا كان لهذه السياسة الاجتماعية للحكومة تأثير على النتائج السياسية.

1. Introduction

Even though income inequality in Turkey is still quite high according to developed-country standards, a sizeable improvement in the distribution of income has been cited among the reasons for political stability since 2002 which was the year the currently-ruling Justice and Development Party (*Adalet ve Kalkınma Partisi*, AKP) first came to power. The improvement in the income distribution resulted in a reduction in the Gini coefficient from 0.44 in 2001 to 0.40 in 2010.¹ In addition to high economic growth - especially prior to the global crisis of 2008/9 -, it has been argued that the AKP owes its long-lasting electoral success to extensive social security and assistance programs which have ensured a certain standard of living to a significant portion of low-income families.

The main purpose of the current study is to carry out descriptive analyses to determine the extent to which social transfers (i.e. pension payments and social assistance to poor households) have an impact on income inequality in Turkey. The survey data we work with allows us to carry out this research by identifying the amounts of various types of income received by households. The availability of the amounts of labor income and pension payments at the individual level will also allow us to distinguish between the incomes of male and female household members, which makes it possible to examine some gendered aspects of the research question. Thus, the examination of the distributional impact of pensions and social assistance programs in Turkey promises to be an interesting exercise that will provide valuable insights. However, as will be discussed below, some data inadequacies will limit our ability to fully measure the extent of the link between social transfers and income inequality.

1.1 The Turkish welfare regime

Since 2002, the governments formed by the AKP have mainly pursued neo-liberal economic policies which have lacked a strong effort to enhance industrial production and international competitiveness. Improvements in economic well-being have mainly been dependent on the availability of foreign financial investments which bring interest rates down and inflate asset prices, but do not result in substantial increases in employment figures. Employment growth in services has picked up in the past few years, but it has been offset by an increase in the labor force participation rate. Coinciding with the rapid growth of the adult population, this has meant that a growing number of Turkish people are now facing the risk of needing social assistance to meet their basic needs.

The neo-liberal economic policies of the past decade have, perhaps unexpectedly, coincided with increased public spending on social assistance. Significant improvements in health care services were made at the expense of putting strains on the national budget (Erol and Özdemir, 2014; Daştan and Çetinkaya, 2015). Nowadays, along with active workers registered in the social security system, the retirees, and their dependents, the rest of the population is also eligible for health care services provided by state-run medical institutions. Depending on the level of per capita household income, the latter group is covered by the General Health Insurance in return for making minor contributions, or even none at all (Karadeniz, 2012). At additional cost, all citizens can also receive treatment at private institutions.

Along with successful health care policies involving a considerable expansion of public health insurance coverage, the central government has also expanded its social assistance programs toward vulnerable groups. The Ministry of Family and Social Policies was established in 2011 and became responsible for all issues concerning non-contributory social payments including in-kind aid and monthly payments to poor families, the elderly, the disabled, and the parents of small and school-aged children. In 2014, the cost of these programs – funded by the ministry's own budget the Social Assistance and Solidarity Fund – was around 20 billion Turkish Liras

¹ Using official data from four rounds of the Household Budget and Expenditure Survey, Filiztekin (2015) finds that the decline in equality came to a halt in 2007 and argues that a reversal in the trend may have begun.

(\approx 8 billion US dollars) which indicates a considerable increase in comparison to figures from a decade earlier when the amount of social assistance spending was deemed to be extremely low (Buğra and Adar, 2008). According to official figures, the share of social assistance expenditures in national income has gone up from around 0.5 percent in 2002 to 1.4 percent in 2014.²

According to Yazıcı (2012), the amount of social spending may not be the best indicator of welfare transformation, and one needs to look into the institutional arrangements through which welfare provision is organized. Since its rise to power, Yazıcı argues, the AKP governments have systematically promoted the private sector and voluntary initiatives, especially charity mobilized through non-governmental organizations and municipalities, as leading actors for poverty alleviation and the provision of social services. In fact, local administrations run by the AKP also provide in-cash and in-kind aid to poor households not only through their own budgets, but also through NGOs with Islamic affiliations. According to Pınarcıoğlu and Işık (2009), the AKP has attempted to open a new chapter in the Turkish welfare regime with the emergence of these new networks that complement the traditional forms of welfare provision involving the support of family and friends.

Buğra and Keyder (2006) draw attention to fact that municipal governments, whose Islamic ideological orientation has been useful in mobilizing civil initiatives toward providing social assistance, usually act only as ‘brokers in charity’ in channeling resources to destitute people. This charity brokerage might involve dubious liaisons with the individuals who contribute to municipal charity funds whereby authorities agree not to take action against some illegitimate activity of a business in return for the donation. Göçmen (2014) also points to the fact that religiously motivated welfare provisioning has played an increasingly important role in the Turkish welfare regime over the previous two decades. The author claims that, during a period in which the provision of social assistance by central and local state institutions has expanded, the rise of religiously motivated associations is not only a response to increasing liberalization and economic deregulation, but also an outcome of the rise of religion as a principle line of cleavage within the political sphere.

Also expressing a highly critical view, Eder (2009) claims that the result of the changing role of the state in welfare provision in Turkey has so far been the creation of immense room for political patronage, the expansion of state power, but no significant improvement of welfare governance. Elsewhere, Buğra and Candaş (2011) argue that the increase in public expenditures sustains clientelistic relations between political authorities and the poor, which brings us to the initial argument that political preferences in Turkey may be closely linked with the nature of the welfare regime. Unfortunately, the currently available micro data does not allow us test empirically the idea that individuals’ party choices are significantly affected by their views on the social policies of the ruling party or their reciprocity status. However, the income inequality analysis we undertake in the current study might provide some indirect evidence in this regard.

While much of the existing academic work contains a strong criticism of the current Turkish welfare regime on economic or ethical grounds, favorable views on the transformation welfare policies have gone through have also been voiced. Esen (2014) argues that the negative views put forth in the existing literature covering Turkey's social policies lack adequate empirical evidence. He also disagrees with the idea that Turkey's welfare regime is being shaped dominantly by the Islamist attitudes of the AKP. On the contrary, Esen argues that during the AKP era, Turkey has managed to secure strong welfare reforms in social security and labor law, expanded the coverage of services, and diversified welfare arrangements.

² A breakdown of the total amount of social assistance spending into various programs can be found in Başlevent (2015).

Esen (2014) also dismisses the view that the AKP has replaced the social state principle of the constitution with the mentality of philanthropy, arguing that the role of direct social assistances in the Turkish government's welfare policies is over-emphasized. Finally, from a gendered perspective, Esen notes that the government has implemented a series of incentives to support women's participation in the labor force (which is currently around 30 percent) such as social insurance premium incentives for those employers that prefer employing women, in-work welfare benefits, and positive discrimination for women with regard to the conditions that need to be met for retirement.

1.2 Social transfers and income inequality

One way of assessing the effectiveness of redistributive policies is to see whether they lead to considerable reductions in income inequality. Comparing pre-social-spending income inequality with the inequality level attained after the transfers, Immervoll et al. (2005), Whiteford (2008), and Fuest et al. (2010) find substantial redistributive effects of social benefits. In a cross-section of 28 countries, Wang et al. (2012) find that taxes and social benefits cause a major drop in the Gini coefficient (on average, by about 0.16), and social transfers account for 85 per cent of this reduction. According to Frick et al. (2000) and Jesuit and Mahler (2010), however, this approach is problematic because it neglects the fact that the pre-transfers distribution of income is not independent of welfare state policies. The reason is that the provision of social transfers might influence individuals' behavior in many ways such as creating a disincentive to engage in labor market work, which would lead to an increase of pre-transfers income inequality. Furthermore, Sinn (1995) argues that more social spending induces increased investment in risky assets and moral hazard effects. Therefore, more redistribution may result in not only more pre-transfers, but also more post-transfers inequality.

Marx et al. (2014) also discuss the inappropriateness of using a counterfactual pre-transfers distribution along with other theoretical and definitional issues that need to be kept in mind when evaluating the redistributive impact of the welfare state. For example, the distinction between social insurance and social assistance benefits is an important one that has also been discussed in, for example, Danziger et al. (1981) and Barr (2004). While the amount of the first type depends largely on contributions made by individuals in the past, and its redistributive impact may be small, the latter is typically means-tested (i.e. provided on the basis of an income test), and thus is expected to have a larger redistributive effect.

Making use of a cross-country panel data set and econometric techniques that try to solve the abovementioned methodological problems, Niehues (2010) finds that unemployment benefits and public pensions have a greater inequality reducing impact on the income distribution than the more targeted benefits which - as it turns out - do not significantly reduce income inequality. The author points to the positive (i.e. increasing) effect of social assistance programs on pre-transfers income inequality and attributes this finding to substantial disincentive effects of the kind discussed above. This result is especially relevant for Turkey as many experts and commentators argue – and even the Prime Minister is concerned – that many recipients of social assistance benefits choose to remain outside employment to maintain their eligibility for aid.

1.3 Functional income distribution

One key concept that describes our research is 'functional income distribution' which has grown out of an interest in how much of the income in a society goes to the owners of various factors of production. The downward trend in the share of labor income has been the main reason why scholars have been taken up this approach. Income inequality analyses that distinguish between different types (or sources) of income received by the units (i.e. households) that make up the population aim to identify which types of income (usually labor, non-labor, and transfer incomes) account for a larger share of household income and which ones contribute to inequality the most.

The literature on the contribution of various sources of income to inequality has shown that these sources differ not only in the magnitude of their contributions, but also in the degree of inequality in their own distributions (Cancian and Reed, 1998; Lerman, 1999). Going back to Fields (1979), it has usually been found that labor market earnings are relatively more equally distributed than non-labor income, and they have a smaller effect on inequality. Fräßdorf *et al.* (2011) have found that capital income makes a disproportionately high contribution to overall inequality in relation to its share in disposable income. Focusing on the gender aspect, Reed and Cancian (2001) find an equalizing effect of female earnings in the United States and criticize earlier studies on methodological grounds. Ding, Dong, and Li (2009) also report an equalizing effect of female earnings in China, despite the prominence of assortative mating (i.e. positive correlation between spouses' earnings) as elsewhere in the world.

Empirical studies on functional income distribution in Turkey have also been conducted using official data sets. Silber and Özmucur (2000) make use of the 1994 HIDS and find that income from primary jobs are relatively more equally distributed, but different patterns are observed when the sample is broken down by employment status. The TÜSİAD (2000) report written by a team led by Seyfettin Gürsel also uses the same survey data, and finds entrepreneurial (i.e. self-employment) income and income from financial assets to be the two major contributors to total inequality, each making up around 47 percent.

Using data drawn from the Turkish Statistical Institute's (TUIK) 1994 Household Income Distribution Survey and the 2003 and 2008 Household Budget Surveys, Başlevent (2010) focuses on four main subcomponents of household income, namely labor market earnings of female and male members (received by regular and casual wage and salary workers as well as self-employed individuals), non-labor income (income from financial assets and real estate as well as transfer payments), and imputed rents (self-reported figures for the annual amount of rent households would have paid if they had rented their homes). The problem with the Başlevent paper is that pension payments, social assistance benefits, and income from financial assets and real estate are all lumped together as non-labor income. Kaya and Şenesen (2009) is another study on Turkey where the distinction between male and female earnings is made. The authors find that the gender discrepancy in earnings constitutes a rather large chunk of the Gini coefficient for disposable income and wage-income distributions. Finally, the TÜSİAD (2014) report written by Öner Günçavdı, Raziye Selim, and Aysin Bayar finds that wage and self-employment incomes combine for over 80 percent of total household income while income received from financial assets contributes a disproportionately large amount to inequality.

2. The Data

In the empirical work, we use data drawn from the 2013 Survey of Income and Living Conditions (SILC) conducted by the Turkish Statistical Institute, TUIK. The income figures provided in the SILC data include after tax in-cash and in-kind payments resulting from primary and secondary jobs (and jobs previously held during the past year), as well as income from non-labor sources such as interest and rent incomes, dividends, and transfers. Also reported are imputed rents which were shown in Dayıoğlu and Başlevent (2006) to have a non-negligible negative contribution to income inequality in Turkey. Since the point of our exercise is to rank households with respect to their standards of living, all of these figures will be included in the total incomes of the households.

According to the 2013 SILC, the working age population of Turkey is 55.6 million. About 69 percent of this population resides in urban areas (i.e. in administrative units with populations of more than 20,000). The focus of the current study will be on the earnings in this sub-population due to the dominance of agricultural activities – which are characterized by seasonal and unregistered employment and work without pay in family-owned businesses – in rural areas. The SILC data set allows us to distinguish between several types of income received by

individuals aged 15 and above during the reference period of the 2013 SILC, which is the year 2012. The two types of income representing labor market earnings are ‘wage and salary’ and self-employment (i.e. employers and own-account work) income. Retirement payments (including survivor benefits), and disability allowances are the two types of income received by inactive individuals. While almost all men in our sample receive retirement payments in return for their own contributions, more than half of the women in this category are receiving survivor benefits.

An important shortcoming of the survey in relation to our purposes is that some payments made by the government within social assistance programs are lumped together with the income types listed above. First, regular payments received by the elderly (aged 65 and above) who are in need of financial support are recorded under ‘retirement and old-age income’ which mostly consists of payments made to retirees and their survivors. According to 2014 figures published by the Ministry of Family and Social Policies, more than half a million people are beneficiaries of financial support program for the elderly, and it would have been quite useful to identify those people. Secondly, individuals who receive monthly payments in return for spending a certain amount of time looking after disabled family members are recorded under the category of wage and salary workers. The official figure puts the number of such individuals above 400 thousand in 2014. Finally, the disability income item includes invalidity allowances and payments received by war veterans alongside social assistance payments to people with disabilities.

As the discussion above implies, our inability to identify individuals receiving social assistance benefits and treat their earnings separately implies that our findings regarding the impact of social assistance programs on income inequality are most likely to be biased downward. However, an even more significant limitation of the SILC is that it provides no information on the amount of General Health Insurance premiums paid by the state on behalf of poor families and elderly individuals. According to 2014 figures, each month, around 9 million individuals benefit from this service. Given that the amount of money spent by the Ministry of Family and Social Policies on health insurance premiums corresponds roughly to one-third of its budget, the lack of this information is probably the main reason why the SILC cannot reflect true magnitude of the Turkish welfare state.

Another key feature of the SILC is that unlike labor market incomes and retirement payments which are recorded at the individual level, the remaining types of non-labor income (such as rental income and income from financial assets) and in-kind and cash transfers from various social assistance programs are recorded at the household level. This precludes us from identifying whether the household is eligible for social assistance due to simply having a per capita household income below a certain level or the presence of, for example, a female member who has recently given birth or is currently enrolled in schooling. This could be considered as another inadequacy of the data in terms of uncovering the gendered aspects of the links between social protection and income inequality. On the plus side, the SILC data allows us to distinguish between the labor market, retirement, and disability incomes of male and female household members, making it possible to a certain extent to examine the gendered dimensions of the research questions.

3. Empirical Work

Our empirical work is divided into two parts. The aim of the first part is conduct an individual level analysis to demonstrate how the different types of income (recorded at the individual level by the SILC) are distributed among the recipients. The second part involves a household level analysis the main purpose of which is to present the key patterns regarding household income inequality and how the different types of income contribute to it. Given the methodological problems with the measurement of the impact of social programs on income inequality, we

refrain from making pre- and post-transfer comparisons and rely on more standard decomposition techniques that are presented below.

3.1 Individual level analysis

The figures presented in Table 1 are meant to display which types of income are the most commonly received and how they are distributed among the recipients in the sub-population of ages 15 and above. It turns out, as expected, that the most commonly received type is wage and salary income. Sixty percent of working age males and 25 percent of females have received some wage and salary income in the year 2012. Both the mean and median figures reveal that self-employment earnings are typically higher than wage and salary earnings and that men earn more than women. According to Gini coefficient figures, the most unequally distributed type is self-employment income. The especially high figure among females (Gini=0.71) points to the heterogeneity in the type of activities classified under self-employment. Apparently, this category contains both women engaging in modest home-based activities and full-time working professional women whose annual earnings exhibit a great deal of variation. Another clue that this might be the case is that the rate of informality is much higher among self-employed women in comparison to men (See Table 2). Among wage and salary workers, on the other hand, the rates of informality for male and female workers are not very different.

Despite recent improvements, informality (i.e. employment without being registered with the Social Security Institution) continues to be a major problem in the Turkish labor market. Informal jobs that do not provide any social security (i.e. eligibility for public health services and retirement payments) are characterized not only by low wages, but also by inferior working conditions. Başlevent and Acar (2015) find that the gender difference in the rate of informality is present even when the sectoral composition of employment and basic personal characteristics of the employed are controlled for. This means that informality is an important gendered aspect of social protection in Turkey. In the empirical work, we will report figures on the incidence of informal employment in income quintiles to demonstrate the link between informality and well-being. However, we will refrain from making strong gendered statements regarding the social protection of individuals based on their informality status because many informally-employed women have indirect access to social security benefits as an insured person's wife or daughter.³

Part of the gap between annual male and female earnings presented in Table 1 has to do with the fact that men have a stronger attachment to the labor force in terms of the intensity and constancy of work. The 'average months of employment' figures (for those who spent at least 1 month of 2012 in employment) presented in Table 3 show that in comparison to women, men have spent 1.5 more months of the year in employment. The gender difference is similar among those who are *currently* wage and salary workers and in self-employment. If the distinction is made between full-time and part-time employment, we find that both male and female workers have worked for longer amounts of time in full-time jobs in 2012, but women have spent more time in part-time employment than men (See Table 4). This pattern is consistent with the finding that 16 percent of female workers report part-time working status in their current jobs as opposed to only 3.5 percent of men (See Table 5). Another way of observing the gender difference in the intensity of work is to look at the average normal weekly hours of work in the main job. The figures presented in Table 6 show that men's weekly hours of work are much higher than women's. The difference is nearly 10 hours overall, 7 hours among wage and salary workers, and 22 hours among the self-employed.

³ Studies dealing with informal employment in Turkey include Aydın *et al.* (2010), Bulutay and Taştı (2004), Dereli (2007), Kan and Tansel (2014), Levent *et al.* (2004), Tansel (1997, 1999, 2001), Togan (2001), and Tunali and Ercan (1998). Extensive lists of relevant papers written in Turkish can be found in Ela (2013) and Fidan and Genç (2013).

The information presented in Tables 7a, 7b, and 7c is meant to provide a better understanding of the characteristics of individuals receiving the four types of income that the SILC distinguishes between. These figures confirm that labor market earnings are mainly received by males. The relatively high share of female recipients in the case of retirement payments is not really surprising if we recall that this category includes the survivors of deceased retirees. With respect to age, we find that the largest share of recipients is in the 25-34 age group in the case of wage and salary incomes, and in the 35-44 age group in the case of self-employment incomes. Married individuals, those with primary school degrees, and household heads make up the largest group of income recipients among the wage earners, the self-employed, and the retired. Those receiving disability income, on the other hand, are more likely to be illiterate, never-married, and the child of the household head. The figures obtained after the sample is disaggregated by gender reveal that, in comparison to men, women in paid work are younger and more educated. Around half of the women receiving retirement income are widowed and are classified as household heads, a result which is consistent with the earlier observation that the share of women receiving survivor benefits is more than half.

3.2 Household level analysis

Having presented numerous stylized facts about the types of income received by individuals, we now turn to a household level analysis the main purpose of which is to observe the extent of inequality in total household incomes. In addition to the income types examined earlier, the household incomes which we base our analysis on include imputed rents, returns to financial assets, rental income from real estate ownership, unemployment benefits, income received from social assistance programs and relatives, and other types of income such as alimony payments that add up to only a small portion of household incomes in Turkey.

Before the household incomes are entered into an inequality analysis, they need to be adjusted for household size and composition using an ‘adult equivalence scale’ so that they more accurately reflect the material well-being of the households. In line with common practice, we use the ‘Eurostat’ or the ‘modified OECD’ scale that distinguishes between adults and children to obtain the effective number of adults (or adult equivalents) in the household. Under this scale, the number of adult equivalents in the household is calculated by counting the first adult in the household as 1 person and each other adult as the equivalent of 0.5 adults. The children (i.e. ages less than 15 years) are counted as 0.3 adults. In the remainder of our empirical work, the income figures on which the households’ rankings and the inequality measures will be based will be the amounts obtained after the raw income figures are divided by the number of adult equivalents.

Having obtained the equalized household incomes and sorted the households according to those adjusted income figures, we first look at the mean values of several variables in income quintiles to have a better idea of what kind of households are placed towards the bottom or the top of the income distribution. According to figures presented in Table 8, larger households are more likely to be found in the lower end of the distribution. The average household size declines from 4.6 to 2.8 from the bottom to the top quintile. Similarly, the average number of children per household declines from 1.6 to 0.5. The rate of homeownership is found to be 56 percent in the bottom quintile as opposed to 74 percent in the top quintile. Interestingly, female-headed households are not worse-off than male-headed ones. In fact, the share of female-headed households is the largest in the top quintile (15.8 percent).

The share of households with one or more informally-employed members reveals a strong association between informality and well-being. While nearly half of the households in the bottom quintile have a member who is in informal employment, the corresponding figure for the top quintile is 16.1 (which, actually, is also quite large).

Another exercise we carry out using the quintile assignments of households is to look at how each subcomponent of income is allocated among the income quintiles. According to figures presented in Table 9, households in the top quintile receive almost 47 percent of total household income. With figures above 60 percent, the share received by the top quintile is the largest in the case of rental and financial income, female self-employment income, and female wage and salary income. Households in the bottom quintile, on the other hand, receive only 2 to 3 percent of these types of income. The highly unequal distribution of female labor market earnings is primarily a reflection of the low female participation rate especially among those with low levels of schooling. It also demonstrates how closely household well-being is linked with female labor market activity in the case of Turkey.

The bottom quintile also receives only a small portion of retirement payments while the retirement incomes of both males and females is quite evenly distributed across the remaining four quintiles. This pattern implies that retirement serves as an effective social protection mechanism as it turns out to be highly unlikely that a household receiving a retirement benefit will fall into poverty (at least in relative terms). As would be expected, income from social assistance programs is received mainly by households in the bottom quintile. However, the non-negligible presence of recipients even in the top quintile casts some doubt on the efficiency of those programs in terms of providing aid only to those in need.

3.2.1. Contribution of income types to household income inequality

Examination of the distribution of the various types of income into income quintiles provides only a rough idea on which sources enhance inequality and which ones work against it. In order to quantify the contributions of these ‘factors’ to household income inequality, there are several decomposition techniques that can be used. The technique developed in Shorrocks (1982) is a relatively simple one that considers all of the components simultaneously and measures their “proportionate contributions”. The formulation is based on the covariances between the values of the factors and total income, and it is independent of the choice of the measure of inequality. Jenkins (1995) has shown that if the coefficient of variation (CV) - which is defined as the ratio of the standard deviation to the mean of a variable - is used as the inequality measure, proportionate contributions can be written in terms of (i) factors’ correlations with total income, (ii) factors’ shares in total income, and (iii) factor inequalities measured by the CV. Using this measure, the proportionate contribution of a factor, say F_k , is given by

$$\rho_k \times [\text{mean}(F_k) / \text{mean}(\text{total income})] \times [\text{CV}(F_k) / \text{CV}(\text{total income})],$$

where ρ_k is the correlation coefficient between F_k and total income. As defined, the sum of the proportionate contributions is 100 percent, with positive values implying a positive impact of the factor on overall inequality. The results presented below are based on this formulation and have been obtained using the program by Jenkins (1999) written for software package STATA.

All of the different types of income presented earlier are treated as separate factors in our decomposition analysis. However, we are primarily be interested in the impact of the incomes of female household members and contributions of retirement benefits and social assistance income. In the case female incomes, for instance, we want to observe whether the impact is positive (i.e. dis-equalizing), a finding which would suggest that the involvement of women in the labor market is concentrated among the high-income families. The proportionate contribution figures are presented in the second-to-last column of Table 10. Most of these figures are positive, meaning that the income type in question is positively correlated with total household income. It turns out that about two-thirds of the households have a male wage and salary earner, but the incomes of these members account for about one-fourth of total inequality. Considering the fact that the share of this factor in total income is 37 percent, the proportionate contribution is small in relation to its magnitude.

The only factors with a negative proportionate contribution are social assistance payments and disability incomes of males and females. However, since the share of these factors in total income is very small, their impact on overall inequality is only marginal. This finding is in line with the Jesuit and Mahler (2004) assertion that redistribution is more strongly related to the size of a social program than to its target efficiency. The contribution of female labor market earnings to inequality are not only positive, but also larger in magnitude than male earnings after they are divided by their respective shares in total income. According to these ‘per-unit contribution’ figures given in the last column of Table 10, the contribution of female self-employment earnings is especially large. This is consistent with our earlier observation that female labor market earnings are highly concentrated in the top quintile. As would be expected, the per-unit contribution of rental and financial income is also quite large. The proportionate contribution of this type is nearly 18 percent despite the fact that its share in total income is only 7 percent. Apparently, the wealth distribution, which is known to be highly unequal, is having a considerable impact on the income distribution as well.

In interpreting the contribution figures, we should keep in mind that a positive proportionate contribution does not necessarily mean that the income type in question makes income inequality worse than it would have been in its absence. The retirement payments of both males and females, for example, have positive contributions, but they have small per-unit contributions, which means that inequality would have been even larger if no retirement payments existed (holding everything else constant). Furthermore, if we were able to separate the old-age payments made within social assistance programs from those made to retirees and survivors, we would have probably found that the former type of income has a negative proportionate contribution, i.e. an unambiguous equalizing impact on income distribution.

The finding that unemployment benefits have a large positive per-unit contribution is an unexpected one. However, if one takes into account the current situation in Turkey that only those with strong prior attachments to the labor force, e.g. the formally and regularly employed, are eligible for these benefits, the finding is not that surprising. If the conditions for receiving unemployment benefit are relaxed by the government, we are eventually likely to see a change in this pattern.

Yet another interesting finding from a social protection perspective is that the income source labelled here as ‘family assistance’ amounts to a much larger share of total income than ‘social assistance’ does. While the share of the former type (received by nearly 18 percent of households) is 2.7 percent, social assistance (received by 8 percent of households) accounts for only 0.2 percent of total income. This finding suggests that inter-household transfers between relatives play a non-negligible role in enhancing social justice. Considering the importance of traditional socio-cultural norms, a key element of which is strong family ties, this finding does not come as much of a surprise in the context of a predominantly Muslim society. Our finding is also in line with assertion made in Grütjen (2008) that the most significant common trait of the welfare regimes in Turkey is the consideration of the family as a main institution of welfare.

4. Conclusion

The main objective of this study was to observe the redistributive effect of social transfers in Turkey to help assess the idea that these transfers have had a considerable impact on political outcomes. During a period in which employment opportunities have been limited, increased social spending by the government has indeed been seen by many as a key factor in the Justice and Development Party’s electoral success. A decomposition analysis which yielded the proportionate contributions of various income types revealed that the redistributive effect of social assistance payments is unambiguously positive, i.e. they alleviate income inequality. The same was true of the disability incomes of males and females. However, since these three income types combined for only 0.5 percent of total household income, their impact on overall

inequality – as measured by their proportionate contributions – was quite small. The contributions of retirement and unemployment benefits, on the other hand, were positive, meaning that the correlation of these factors and total household income is positive. Given that more than half of unemployment benefits and about a third of retirement payments are currently received by households in the top quintile, it might take quite a while for these sources to have an equalizing impact on Turkey’s income distribution.

Due to the fact that some types of social benefits are lumped with some other income types and also that some benefits – such as health insurance premiums paid by the state – are not recorded at all, the Survey of Income and Living Conditions we utilized here was actually not very suitable for finding a reliable answer to our main research question. The redistributive effect of what is generally agreed upon as social assistance in the Turkish context is probably quite larger than our findings suggest. Taking into account the socio-economic importance and the political relevance of the topic, the Turkish Statistical Institute might consider revising the survey so that it can provide more insights regarding the links between social spending and income inequality.

One issue that can be tackled is the underreporting of social assistance income. By our calculations, the total amount of disability income reported in the SILC (close to 1.7 billion TL in 2012) is roughly the same as the amount reported in the statistical bulletins of the Ministry of Family and Social Policies. However, the total social assistance income reported in the survey is much smaller than what the administrative data suggests. A more detailed inquiry into the in cash and in kind assistance received by households should be useful in capturing a larger proportion of state-funded aid that ranges from free textbooks to all students in primary and secondary education to financial support to families that have members in compulsory military service. As far as health insurance premiums paid by the state are concerned, the respondents will most probably not be able report the amount of the aid, but a survey item may question whether the household head took the ‘income test’ (which is a precondition for getting that service) and what the outcome of the test was. The amount of premium paid by the state can then be determined by TUIK (or the researcher working with the data).

The currently available survey data is also not conducive to uncovering the link between social spending and political outcomes. Surveys that inquire about both political preferences and access to social assistance would definitely be instrumental in finding out how much the incumbent parties benefit from greater social spending. These findings, in turn, might give rise to discussions on whether the political gains are large enough to cover the cost of alienating some higher-income voters as well as the social and economic costs associated with the disincentives to work among the recipients.

Data limitations also precluded us from examining the gendered aspects social protection programs to a fuller extent. The main reason for this was that much of social assistance benefits are recorded at the household level. The patterns relating to pension payments – as well as labor market incomes – revealed, however, that in comparison to male incomes, female incomes are more concentrated in the top income quintiles. Our interpretation of this finding is that women who can stay in employment until the retirement age are ensured a certain amount of economic well-being. Increased labor market activity of women who come from low-income families – provided that it is in the formal sector – would lead to social protection not only during employment, but also after retirement. Therefore, one thing the government can do is to encourage women to remain active until they are eligible for retirement.

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Table 1: Summary Statistics of Earnings by Income Type and Gender

		Income type			
		Wage and salary	Self-employment	Retirement	Disability
Share of recipients (%)	Overall	42.2	8.9	17.4	0.8
	Male	59.8	14.4	20.8	1.1
	Female	24.8	3.5	14.0	0.6
Mean among recipients (TL)	Overall	15,530	20,719	11,090	4,732
	Male	16,674	23,403	12,368	5,046
	Female	12,830	9,997	9,231	4,124
Median among recipients (TL)	Overall	12,000	12,480	10,400	3,600
	Male	13,000	15,000	11,000	3,900
	Female	9,600	3,240	9,000	3,000
Gini coefficient among recipients	Overall	0.435	0.562	0.260	0.299
	Male	0.407	0.519	0.215	0.314
	Female	0.494	0.709	0.307	0.245

Table 2: Rate of Informality in Current Jobs by Income Type and Gender (%)

	All employment	Wage and salary	Self-employment
Overall	23.2	19.0	42.5
Male	21.3	17.4	37.4
Female	28.6	23.2	68.3

Table 3: Average Months in Employment in 2012 by Current Income Type and Gender

	Overall	Wage and salary	Self-employment
Overall	10.1	10.1	11.1
Male	10.6	10.4	11.4
Female	9.1	9.2	9.8

Table 4: Average Months in Employment in 2012 by Job Type and Gender

	All employment	Full-time employment	Part-time employment
Overall	10.1	10.3	7.8
Male	10.6	10.6	7.7
Female	9.1	9.3	7.9

Table 5: Share of Part-Time Work in Current Jobs by Current Income Type and Gender (%)

	Overall	Wage and salary	Self-employment
Overall	6.8	4.1	11.8
Male	3.5	2.5	5.7
Female	15.7	8.7	42.8

Table 6: Average Normal Weekly Hours of Work in Main Job by Income Type and Gender

	All employment	Wage and salary	Self-employment
Overall	51.7	51.3	57.0
Male	54.3	53.1	60.7
Female	44.7	46.4	38.8

Table 7a: The Distribution of the Recipients of Income Types into Broad Categories (% shares)

		Income type			
		Wage and salary	Self-employment	Retirement	Disability
Gender	Male	70.3	80.0	59.3	65.9
	Female	29.8	20.0	40.8	34.1
Age group	15-24	17.9	3.3	1.9	11.2
	25-34	35.0	23.5	1.1	25.4
	35-44	28.0	32.2	2.8	24.1
	45-54	14.9	24.3	27.6	17.5
	55+	4.2	16.7	66.7	21.9
Marital status	Married	67.3	85.7	66.1	41.1
	Never-married	28.3	8.7	4.9	45.0
	Widowed	0.8	2.3	24.4	6.7
	Divorced	3.6	3.3	4.5	7.2
Education	Illiterate	1.7	2.6	12.4	39.3
	Literate	3.3	3.6	7.8	11.2
	Primary	27.2	45.2	42.1	28.1
	Secondary	18.5	15.7	9.9	8.5
	High school	12.3	9.6	7.3	7.5
Relationship to household head	Vocational	12.6	9.7	8.0	4.3
	Higher educ.	24.5	13.6	12.5	1.2
	Head	50.8	72.3	74.4	37.1
	Spouse	17.4	16.2	12.3	8.3
Relationship to household head	Child	28.3	9.6	4.0	41.9
	Parent	0.1	0.8	6.1	3.4
	Other	3.4	1.2	3.3	9.3

Table 7b: The Distribution of the Recipients of Income Types (% Shares, Male Workers Only)

		Income type			
		Wage and salary	Self-employment	Retirement	Disability
Age group	15-24	16.5	3.1	1.0	8.4
	25-34	34.1	22.0	0.2	29.3
	35-44	28.4	31.3	0.9	23.7
	45-54	16.4	25.1	30.8	19.1
	55+	4.6	18.5	67.1	19.5
Marital status	Married	70.2	87.6	90.7	47.9
	Never-married	27.4	9.3	1.9	41.5
	Widowed	0.3	1.0	5.3	2.6
	Divorced	2.1	2.1	2.2	8.0
Education	Illiterate	1.0	1.4	3.7	29.2
	Literate	3.1	3.4	6.1	11.4
	Primary	28.4	44.3	49.8	34.1
	Secondary	20.6	16.8	11.4	9.5
	High school	12.2	10.0	7.4	8.4
Relationship to household head	Vocational	13.8	10.1	8.3	5.6
	Higher educ.	21.0	14.1	13.4	1.7
	Head	67.3	85.8	92.9	49.3
	Spouse	1.6	2.1	1.4	1.0
Relationship to household head	Child	28.3	10.6	2.1	41.0
	Parent	0.1	0.6	2.5	1.2
	Other	2.6	0.8	1.1	7.5

Table 7c: The Distribution of the Recipients of Income Types (% Shares, Female Workers Only)

		Income type			
		Wage and salary	Self-employment	Retirement	Disability
Age group	15-24	21.1	3.9	3.1	16.6
	25-34	37.0	29.6	2.5	17.8
	35-44	27.2	35.8	5.4	24.9
	45-54	11.4	21.2	22.9	14.4
	55+	3.2	9.5	66.1	26.4
Marital status	Married	60.6	78.1	30.5	27.8
	Never-married	30.4	6.3	9.4	51.7
	Widowed	2.1	7.4	52.3	14.9
	Divorced	7.0	8.1	7.9	5.7
	Illiterate	3.4	7.3	25.1	58.9
Education	Literate	3.7	4.3	10.3	10.9
	Primary	24.3	49.1	31.0	16.4
	Secondary	13.5	11.5	7.8	6.4
	High school	12.7	8.1	7.2	5.6
	Vocational	9.6	8.1	7.6	1.9
	Higher educ.	32.7	11.7	11.1	0.0
Relationship to household head	Head	11.9	18.2	47.6	13.4
	Spouse	54.6	72.5	28.1	22.5
	Child	28.1	5.6	6.7	43.7
	Parent	0.1	1.2	11.2	7.7
	Other	5.3	2.5	6.5	12.8

Table 8: Means of Various Household Characteristics by Income Quintiles

	Bottom	2 nd	3 rd	4 th	Top	All
Household size	4.6	3.7	3.4	3.1	2.8	3.5
No. of children	1.6	0.9	0.6	0.5	0.5	0.8
Home owners (%)	55.5	69.1	74.7	76.8	74.2	70.1
Female head (%)	13.2	13.7	17.9	16.7	15.8	15.5
Informal Empl. (%)	47.8	36.9	33.1	24.9	16.1	31.5

Table 9: Allocation of Subcomponents of Income into Income Quintiles (% shares)

	Bottom	2 nd	3 rd	4 th	Top
Male wage and salary	9.0	13.0	15.2	21.3	41.5
Female wage and salary	2.6	5.6	10.0	17.0	64.8
Male self-employment	5.4	7.4	10.9	16.6	59.7
Female self-employment	3.3	5.5	7.8	17.5	66.0
Male retirement	4.5	15.5	23.0	26.5	30.5
Female retirement	3.2	9.0	19.1	29.9	38.9
Male disability	21.0	27.0	26.2	18.6	7.2
Female disability	33.3	18.3	27.0	16.1	5.0
Imputed rents	7.9	14.0	19.1	23.7	35.4
Rental and financial	2.3	5.2	9.8	16.5	66.3
Unemployment benefits	4.8	8.7	10.5	18.9	57.1
Social assistance	64.8	19.6	6.0	4.5	5.1
Family assistance	12.0	14.4	18.9	22.0	32.7
Other	6.6	7.3	6.7	10.4	68.9
<i>Total Income</i>	<i>6.5</i>	<i>10.9</i>	<i>14.9</i>	<i>20.9</i>	<i>46.8</i>

Table 10: The Contribution of Subcomponents of Income to Household-Level Inequality

	Share of households receiving factor (%)	Share of factor in total income (%)	Coefficient of variation for factor	Proportionate contribution of factor to inequality (%)	Per-unit contribution of factor
Male wage and salary	65.7	36.7	1.4	24.9	0.7
Female wage and salary	30.1	12.9	2.6	15.0	1.2
Male self-employment	18.3	12.2	4.0	24.9	2.0
Female self-employment	4.7	1.4	11.4	4.0	2.8
Male retirement	27.0	10.1	2.0	3.3	0.3
Female retirement	17.0	6.2	2.9	2.9	0.5
Male disability	1.4	0.2	10.9	-0.03	-0.2
Female disability	0.7	0.1	14.5	-0.02	-0.3
Imputed rents	70.1	9.2	1.1	4.6	0.5
Rental and financial	41.3	6.7	4.5	17.7	2.6
Unemployment benefits	3.5	0.4	14.2	0.5	1.2
Social assistance	8.3	0.2	5.9	-0.1	-0.5
Family assistance	17.6	2.7	4.5	0.7	0.3
Other	8.0	1.0	11.1	1.6	1.6

Notes: The figures reported here are based on amounts adjusted by the adult equivalence scale. The per-unit contributions reported in the last column are obtained by dividing the proportionate contributions by these shares. (Total income, Gini: 0.395)