

**Labor force status and income disparity:
Evidence from Turkey**

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LABOR FORCE STATUS AND INCOME DISPARITY. EVIDENCE FROM TURKEY.

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Abstract

The nature of the informal sector is a much debated issue. Is working in the informal sector a choice or a constraint? What is the relation between informality and poverty? Theoretically, both are possible, and in this sense, the informal sector bears its own dualism (Fields, 1990, 2005). Consequently, the answer is an empirical issue. In this study, we aim at providing further information about the Turkish labor market using the 2003 and 2008 Household Budget Surveys (HBS) which allows combining income levels with labor force status. We compare income according to five labor force statuses: non-participant, unemployed, worker in the formal sector and worker in the informal sector (agricultural and non-agricultural), and relate findings to poverty. We investigate data to see whether observable heterogeneities in terms of income exist not only between the different statuses, but also within the informal sector.

Introduction

Most studies concerning the labor market in Turkey use the Household Labor Surveys (HLFS) as the main source of data. One important shortcoming of the HLFS is the lack of detailed information about the level and sources of income of both households and household members. In this study, we aim at providing further information about the Turkish labor market using an additional source of data, namely the 2003 and 2008 Household Budget Surveys (HBS).

Here we aim at comparing income¹ distributions according to labor force statuses, in order to see whether observable disparities (or heterogeneities) exist between the different statuses. We consider five labor force statuses: non-participant, unemployed, worker in the formal sector and agricultural and non-agricultural worker in the informal sector.

Heterogeneity implies segmentation. Among various sectoral approaches we will be focusing on the formal sector vs. informal sector dichotomy. Although, informality was first defined as merely a residual sector providing work to those who are unable to work elsewhere mainly due to high entry barriers into the formal sector, and sometimes who cannot afford to be unemployed (ILO, 1972). This view has come to be challenged and working in the formal sector was considered as a choice following a cost-benefit analysis taking into account a package of non-income job characteristics (eg. Maloney, 2003, 2004). In this sense, the labor market is not segmented but competitive. Fields (1990) has argued that the informal sector has its own “internal dualism”, i.e., that both types of

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¹ Economic welfare can be measured by either consumption or income. We have chosen to use the income approach. Note that the data in the HBS comprises annual income so that we believe our measurement is not affected by seasonality, neither is it affected by the reporting period. Moreover, the poor (that are better captured by the Turkish HBS) usually have a consumption level above their income level, indebtedness of poor households in poor households vs. positive savings of richer households is an important issue (for Turkey see Yükseler and Türkan, 2008). Recently the Turkish Statistical Institute has also started to report income-based poverty figures (TURKSTAT, 2009, 2010).

informal work can, and do usually, co-exist. According to this last approach the informal sector has an “upper-tier” and a “lower-tier” segment.

Economic activities in the lower tier correspond to the unattractive activities (also called “bad” or “precarious” jobs), a sector that is characterized by easy- or free-entry, whereas the upper tier includes attractive activities, hence can be considered as an alternative to the formal sector. Alternatively, given the low level of income of workers in the lower-tier segment, activities in this segment are considered as employment of last resort, or a safety net for the poor who cannot afford to be unemployed; a sector that is often characterized by disguised unemployment given the very low level of productivity, similarly to the traditional or stagnant sector qualifications. Symmetrically, activities in the upper-tier segment are considered as alternative to formal activities in several aspects, and in this respect working in the informal sector (or in its upper-tier) is voluntary, i.e., a choice (the competitive market hypothesis).

In a recent article Fields (2008) summarizes the literature concerning the different approaches related to labor market segmentation in developing countries, and gives the following definition: “labor market segmentation is said to exist if 1) Jobs for individuals of a given skill level differ in terms of their pay or other characteristics, and 2) Access to the more attractive jobs is limited in that not all who want the better jobs can get them.”

Here, we are more concerned with the household dimension of income, rather than the wage income as such, and using a HBS does not allow us to test for the asymmetry between job and individual skills, or give information on job satisfaction. Moreover, we are constrained by data availability: Turkish HBSs do not contain panel data, so that we cannot test for mobility, which is a major drawback in an empirical analysis of labor market segmentation. Hence, our approach does not fit the segmentation debate per se. We investigate the nature of income heterogeneity across labor force statuses and within the informal sector, and include the household dimension. Basically, our argument entails that if informal activity overlaps with poverty (poor workers are mainly informal workers), this gives indirect support for segmentation. If informal activity is also found in non-poor households, then this gives support for the internal segmentation (or dualism) of the informal sector. To this end, we divide our population into poor and non-poor groups, and analyze them in terms of their labor force status. This allows deriving the poor segment of the informal workers. If a majority of informal workers fall into the poor sub-group then this can be considered as an evidence for “crude” segmentation. However, if informal workers are distributed in both poor and non-poor sub-groups, then we have an argument for the dualism within informality, where lower-tier and upper-tier segments co-exist. In which case, only the lower-tier segment (workers that are informal *and* poor) can be considered to correspond to the segmented share of informality (informality as a safety net).

Surely the causality is not straightforward: “individuals are poor because they are employed in the informal sector (an implication of the segmented labor market). Or alternatively, whether they are employed in the formal sector because they are poor(ly endowed) with characteristics that generate high returns in the formal sector (an implication of the “competitive labor market”, Günther and Launov, 2009). Nevertheless, if the coincidence between poverty and informal activity is important, then this can be a support for the existence of a lower-tier segment in the informal sector. Another argument can be related to the fact of being poor: to what extent can the state of being poor and poorly endowed be considered as given in labor market outcomes? In extension, the same question can be asked for a poor woman who chooses to work in the informal sector because she cannot find any childcare other than herself (flexible working conditions in certain informal activities)², or any poor who chooses to work in the informal sector because public pension and/or health system and/or unemployment insurance offered to low-income formal earners are considered as

² “[I]f the question of whether women are voluntarily in informal employment is to be meaningful, one must endeavour to understand the constraints under which these women choose” Kucera and Roncolato (2008).

insufficient³? The empirical outcome of the causality expressed above can easily go either way, but the question remains relevant in terms of social policy and labor market policy. Considering poverty and its implications on individual labor supply characteristics as given, so as to refrain from relating informality to poverty may tautologically underestimate the need for social policy (or any policy for that matter) targeting the informal poor workers⁴.

Overview of the data

The empirical literature (as summarized in Fields, 2008) points that in poorest countries (mostly in Africa) the lower tier's share is higher than the upper tier's, as opposed to richer developing countries (eg. Latin American countries) where the informal sector is found to be predominantly constituted by the upper-tier. Turkey is a relatively rich developing country where the issue of the working poor has been (explicitly or implicitly) related to poverty⁵, without being systematically related to the different labor force statuses considered here.

Our empirical investigation is based on the 2003 and 2008 HBSs. The HBSs are conducted regularly since 2002 in Turkey. In 2003, 25920 households are surveyed while it is less than 10000 for the remaining years. Accordingly 2003 HBS is the most representative and informative one among all Turkish HBSs. However, we also use the 2008 HBS as a number of changes have occurred since 2003 both in terms of informality and poverty (social policy). The HBS is the most detailed survey concerning income and expenditure structure of the households in Turkey. It allows us analyzing individuals and households both in terms of individuals' labor market status and their alternative income sources. As such, these surveys are mainly used to analyze inequality and poverty issues. In order to assess the reliability of the HBS in labor market analysis, we display (Table 1) some key indicators of the Turkish labor market according to HLFS and HBS. Unsurprisingly the HBS results are closer the HLFS for 2003 than for 2008, as 2003 is a more representative survey. Nevertheless, we have chosen to use both in order to have an idea of the evolution, naturally the weakness of the 2008 HBS in terms of labor force indicators should be bore in mind. For both years unemployment and informality remain an important issue. Most importantly, although informality has decreased, non-agricultural informal employment in total informal employment *and* in total employment has increased in both HLFS and HBS figures.

³ See Khamis (2009) for a recent study.

⁴ Regarding poverty, Maloney (2004) takes a different view: "Arguing that workers are voluntarily informal does not, of, course, imply that they are not living in poverty, only that they would not obviously be better off in the formal jobs for which they are qualified... many are simply making the best choices they can given their low level of education" (pp. 1160-1164). This returns us to the "'constrained voluntary nature" of purportedly voluntary informal employment" Kucera and Roncolato (2008). This also applies to the case where workers are considered to be voluntarily informal simply because they "do not have access to jobs in the regulated, formal sector" (Pratap and Quintin, 2006). As Jüttüing et al (2008) put it "It is clear that sometimes, from an individual perspective it makes sense to stay informal – but from a societal perspective it is clearly not." These clearly show that the purely "voluntary" nature of a choice is highly problematic from a policy-making perspective.

⁵ To name a few: Gürsel et al. (2000), TURKSTAT and the World Bank (2005), Gündoğan et al (2005), Dansuk et al (2007), Adaman et al (2007), Yükseler and Türkan (2008).

Table 1 Key indicators of labor market, Turkey, 2003 and 2008

		HLFS		HBS	
		2003	2008	2003	2008
	<i>In thousands</i>				
1	Non-institutional population	69479	69724	69196	69724
2	Population 15 years and over	48912	50772	49287	50827
3	Labor Force	23640	23805	23972	25361
4	Unemployed	2493	2611	2270	2140
5	Employed	21147	21194	21702	23221
6	Formal	10204	11974	9185	12166
7	Informal	10943	9220	12518	11055
8	<i>Agriculture</i>	6531	4406	6976	4679
9	<i>Non-agriculture</i>	4412	4815	5542	6376
10	Not in labor force (non-participant)	25272	26967	25315	25466
11	Population below 15 years	20567	18952	19909	18897
	<i>Ratios</i>				
3/2	Labor force participation rate	48,3%	46,9%	48,6%	49,9%
4/3	Unemployment rate	10,5%	11,0%	9,5%	8,4%
5/2	Employment rate	43,2%	41,7%	44,0%	45,7%
6/5	Formal employment share	48,3%	56,5%	42,3%	52,4%
7/5	Informal employment share	51,7%	43,5%	57,7%	47,6%
8/7	<i>Informal agricultural employment share</i>	59,7%	47,8%	55,7%	42,3%
9/7	<i>Informal non-agricultural employment share</i>	40,3%	52,2%	44,3%	57,7%

The rest of the paper is organized as follows. We first analyze individuals' income with respect to their labor force status: non-participant, unemployed, informal workers and formal workers. We compare non-equivalised personal income and equivalised household disposable income (using the OECD equivalence scale) of individuals, in order to see whether the latter is higher than personal income in which case household income constitutes a safety net. We then focus on poor at both individual and household levels. Here, having defined the relative poverty line as 50 percent of median equivalised household disposable income (EDI), we study the poor populations and compare them with the non-poor populations in terms of labor force characteristics and income structure⁶. This allows us to see to what extent unemployment and informality are involuntary (checking for the luxury unemployment and working poor hypotheses). Workers having an income below the relative poverty line are defined as the working poor. More importantly, if among all labor force statuses, the poor are predominantly constituted of informal workers, than we will have a case for the segmentation argument (formal vs informal); and if a significant share of informal workers are also found to have an income above the relative poverty level, than we will also have a case for the internal dualism argument. We also analyze vulnerability according to labor force statuses by investigating household structure (number of household members and their labor force status) and income structure.

Relative income and labor force status

In Turkey, the existence of informal economic activity (what is also called underground, irregular, shadow, hidden, black or by another term) is a major issue with consequential implications. Like its name, there is not a unique definition of the phenomenon. Besides the definitions based on

⁶ Throughout the analysis we will be focusing on *relative* income poverty (cash and in-kind income). The emphasis is important, because *absolute* poverty (using alternative measures) in Turkey has been decreasing, with the exception of "complete poverty (food + non-food)" in rural areas which has increased in 2009 (TURKSTAT, 2011).

registration, researchers use also other definitions based on level of organization, on size, on conformity to fiscal and other regulations, on capital intensity and so on.⁷

Our definition of informal employment is the same as TURKSTAT: undeclared employment, i.e., individuals who are not registered to any social security institution due to main job. We use the standard ILO definition for the unemployed.

We define five types of labor status among the working age population: non-participants, unemployed, agricultural and non-agricultural informal workers and formal workers. First, we construct and compare their total non-equivalised individual incomes. Then, by merging individual data with household data we derive equivalised household disposable income (using the modified OECD equivalence scale⁸) according to labor force status at the individual level. We then compare incomes relatively to the formal employed, and compare unemployed's income relatively to other labor force status. Results are given in table 2.

Table 2 Relative incomes and labor force statuses

Labor force status	2003		2008	
	Share of income relative to formal	Share of unemployed's income relative to other LFS	Share of income relative to formal	Share of unemployed's income relative to other LFS
Non-equivalised individual income (mean income)				
Non-participant	13%	68%	16%	106%
Unemployed	9%	100%	17%	100%
Informal, agriculture	24%	36%	26%	66%
Informal, non-agriculture	59%	15%	57%	30%
Formal	100%	9%	100%	17%
Equivalised household disposable income by individual (mean income)				
Non-participant	71%	74%	74%	82%
Unemployed	53%	100%	61%	100%
Informal, agriculture	45%	117%	45%	135%
Informal, non-agriculture	68%	78%	69%	88%
Formal	100%	53%	100%	61%
Equivalised household disposable income by individual (median income)				
Non-participant	74%	78%	77%	82%
Unemployed	58%	100%	63%	100%
Informal, agriculture	50%	116%	47%	135%
Informal, non-agriculture	67%	87%	71%	89%
Formal	100%	58%	100%	63%

Source: HBS

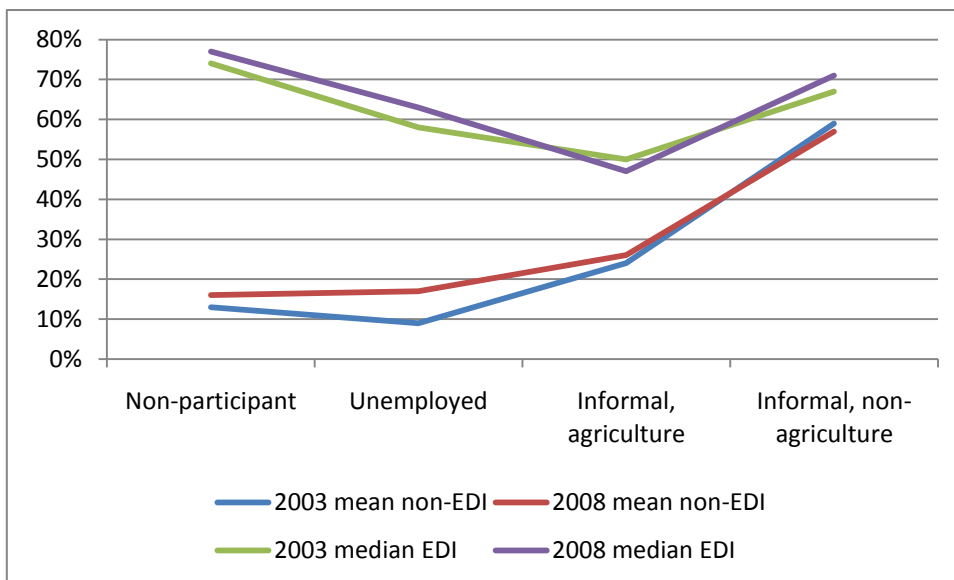
Population 15 years and over

A great majority of the non-participants and the unemployed have no personal income. Accordingly the median value of (non-equivalised) personal income for these individuals is zero. Hence, we give only the mean values of non-equivalised individual incomes. Overall, considering the labor force, the income gap with respect to formal workers is the greatest for the agricultural informal workers, then for the unemployed. As regards informal workers, the relative median EDI relatively to formal workers of agricultural informal workers deteriorates, whereas that of non-agricultural informal workers slightly improves; however, less than unemployed's (figure 1).

⁷ For different definitions see for example Schneider and Enste (2000), Mead and Morrison (1996), and Thomas (1992).

⁸ The scale (provided in the database) assigns a value of 1 to the adult household head, of 0.5 to each additional adult member and of 0.3 to each child (14 years old and below).

Figure 1 Equivalised and non-equivalised household disposable income by individual (share of income relative to formal workers)



Poverty and labor force status

We now analyze poor vs non-poor individuals in terms of their labor force status (Table 3). We consider the totality of the population using individual data and define relative poverty line as 50 percent of median equivalised household disposable income, where household disposable income and OECD equivalence scales are imported from household data to individual data. Until recently, based on HBSs, TURKSTAT has been measuring relative poverty on the basis of household consumption expenditure (using household data) as the population living below 50 percent of median equivalised household consumption expenditure. According to this measure, relative poverty rate is respectively 15,51 and 15,06 percent for the years 2003 and 2008. Recently, based on the Income and Living Conditions Surveys (data available for the years 2006-2008) the relative poverty rate defined as 50% of equivalised household disposable median income, has been assessed to 16,7% based on household data (TURKSTAT, 2010). Here, based on individual data of the HBS, relative poverty rate defined 50% of equivalised household disposable median income has been estimated as 16,8 and 18,4% for the years 2003 and 2008 (see share of total poor in total population in table 3)⁹.

The main results as given in table 3 can be summarized as follows. The share of working poor defined as the share of poor workers (formal and informal) in total labor force has increased from 13,3 to 14,2 percent, whereas the share of poor unemployed in total labor force has remained stable, around 2 percent. Within the working poor population, informal agricultural employment has the highest share followed by informal non-agricultural and formal employment. Following the ongoing deruralization process total agricultural employment (nearly all informal) has decreased between 2003 and 2008. However, poor informal agriculture has decreased less than the non-poor informal agriculture. Share of poor informal agricultural and poor formal employment has increased, among poor workers, among total poor population and among total population. Non-participants' share in poor population and total population has also increased, however it slightly decreased for the non-poor population. As regards informality, share of informal poor in total informal employment was 23,2 and 27,8 percent in 2003 and 2008. If we can roughly overlap income heterogeneity with labor force status heterogeneity, than almost one third of informality in 2008 can be qualified as the "lower tier" segment.

⁹ Relative poverty rate defined as 50% of equivalised household disposable median income is estimated as 17% in 2003 according to OECD (2008) which gives the figures until 2004.

Three further remarks need to be made. First, even if the share of the poor unemployed is considered as stable (in poor population, in total population and total labor force), the increasing share of the non-participants probably masks part of the discouraged workers (notwithstanding the disparities in unemployment ratios between the HLFs and the HBSs, see table 1). Second, the increase in the share of poor formal workers is an important issue that we cannot handle here however needs to be further examined¹⁰. Third, the fact that poor agricultural informal employment has decreased less than the non-poor segment shows that excluding agriculture in assessing the segmented nature of informality is misleading. If part of informal employment is to be considered as a last resort solution, then agricultural employment needs to be taken into account. In effect, in such a framework poor informal agricultural employment needs to be considered as part of the hidden part of the unemployment iceberg.

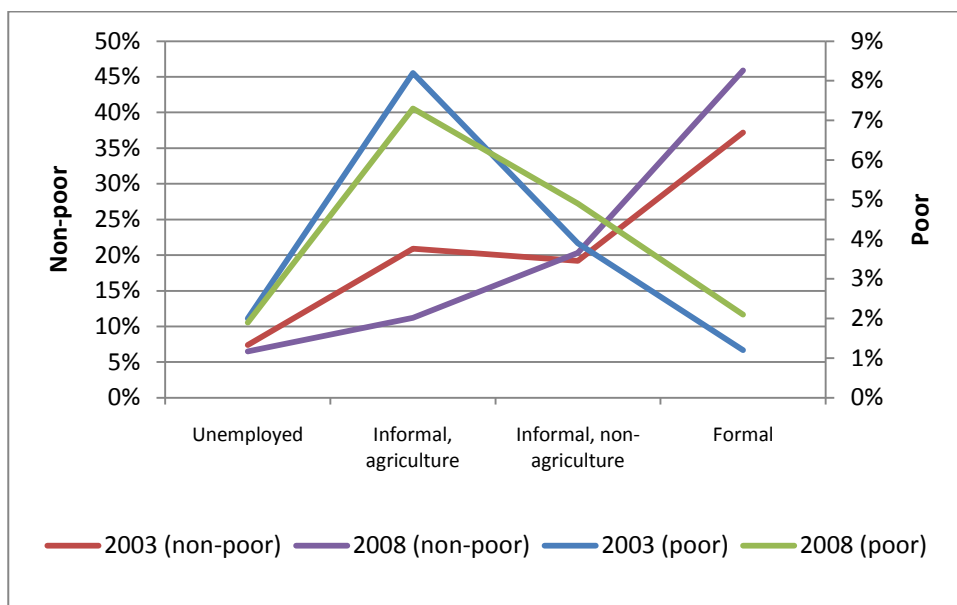
Table 3 Poverty and labor force status (individual data), in millions

Labor force status	2003	2008	2003	2008	2003	2008
	Poor		Share in poor population (%)		Share in total population (%)	
Non-participant	3176899	3740776	27,4	29,2	4,6	5,4
Unemployed	484092	488237	4,2	3,8	0,7	0,7
Informal, agriculture	1960465	1842187	16,9	14,4	2,8	2,6
Informal, non-agriculture	946490	1233335	8,2	9,6	1,4	1,8
Formal	278206	520526	2,4	4,1	0,4	0,7
Below 15 years	4747054	5001865	41,0	39,0	6,9	7,2
Total poor	11593206	12826926	100,0	100,0	16,8	18,4
	Non poor		Share in non-poor population (%)		Share in total population (%)	
Non-participant	22137806	21725464	38,4	38,2	32,0	31,2
Unemployed	1785573	1651636	3,1	2,9	2,6	2,4
Informal, agriculture	5015675	2837144	8,7	5,0	7,2	4,1
Informal, non-agriculture	4595062	5142291	8,0	9,0	6,6	7,4
Formal	8906504	11645621	15,5	20,5	12,9	16,7
Below 15 years	15161738	13894643	26,3	24,4	21,9	19,9
Total non-poor	57602359	56896799	100,0	100,0	83,2	81,6
Total population	69195565	69723725			100	100
Total labor force	23972067	25360976				
Poor in total labor force			Share within poor labor force			
Unemployed	2,0%	1,9%	13%	12%		
Informal, agriculture	8,2%	7,3%	53%	45%		
Informal, non-agriculture	3,9%	4,9%	26%	30%		
Formal	1,2%	2,1%	8%	13%		
Non poor in total labor force			Share within non-poor labor force			
Unemployed	7,4%	6,5%	9%	8%		
Informal, agriculture	20,9%	11,2%	25%	13%		
Informal, non-agriculture	19,2%	20,3%	23%	24%		
Formal	37,2%	45,9%	44%	55%		
Working poor (poor informal and formal workers in labor force)	13,3%	14,2%				

¹⁰ A possible explanation may be the expansion of employment subsidies over the period under study. Betcherman et al. (2010) have investigated the issue; their results imply that the policies have provoked formalization rather than expanding economic activity (an indirect measure for job creation). Currently another debate is evolving around the implementation of a regional minimum wage. Admitting that such a demand-side policy would be less costly, more conducive to job creation and possibly reduce unemployment, given the tendency of formal employment to increase among the poor, the question of whether this would be a solution to the working poor problem (in terms of relative poverty) remains legitimate.

Non-agricultural informal poor in total non-agricultural informal	17,1%	19,3%
Total informal poor in total informal	23,2%	27,8%

Figure 2 Distribution of total labor force according to labor force status



Income structure according to labor force status and poverty

Table 4 gives the EDIs by labor force status on the basis of poor vs non-poor dichotomy. First, despite an increase in the relative poverty rate, revenue distribution has improved overall as the share of revenue of the poor has increased from 4 to 5 percent¹¹.

Looking at the order of median EDIs according to status, from 2003 to 2008 the situation has not changed regarding the non-poor population; median EDIs in increasing order are: informal (agriculture), unemployed, below 15 years, informal (non-agriculture), non-participant, and formal.

In the case of the poor population, the order was: below 15 years, informal (agriculture), unemployed, non-participant, informal (non-agriculture), and formal in 2003, and in 2008 the order became identical to the non-poor population. The main reason being that median EDI of agricultural informal workers and that of the unemployed increased less than the rest of the population, and that of the non-participants increased more than the rest of the population. Considering the population as a whole (poor and non-poor), those for whom median EDI has increased less are: poor agricultural informal workers, poor unemployed and non-poor formal workers. Those for whom it increased most are: non-poor unemployed, poor non-participants and non-poor children.

Turning back to our problematic, the information given in table 3 and table 4 can be summarized as follows. The share of poor unemployed in the labor force is stable but its median EDI increase is relatively very low, and is contrasted with the relatively large increase of the non-poor unemployed's median EDI. Non-agricultural informal workers' median EDI has increased at similar paces for both poor and non-poor segments (and close to average increases of other populations). However, the share of poor non-agricultural informal workers in labor force has increased more than that in the non-poor segment. Although agricultural informal workers' share in labor force overall decreased, it decreased less in the non-poor segment, and continues to constitute the large

¹¹ This trend is consistent with the one depicted by OECD (2008) for the earlier period.

majority of the poor labor force. Moreover, the median EDI that increases the least is that of the poor agricultural informal workers’.

The population that left agricultural activity among the non-poor is higher compared to the poor segment, so that leaving agriculture for the non-poor segment appears to be more of a choice. In other words, those among the poor that remained in agriculture were those that could not afford leaving agricultural activity. All the more so that unemployment among poor has become less of an option as their median EDI is one of the least increasing among the total population. Within the poor population the agricultural informal workers’ (whose median EDI increase is the lowest among the whole population), the share of transfers from government¹² in their total equivalised household income has increased. By 2008, the share of government transfers are very important for the poor agricultural informal workers, and the share of government transfers in total government transfers attributed to this part of the population among the total poor population is high. These transfers seem more and more crucial for their survival, all the more so that the sectoral mobility is admittedly low for this population.

As to the non-agricultural informal poor, their share in total labor force has increased more than its non-poor segment, even more so within the poor labor force (table 3 and figure 2). As to their median EDI it has increased at an average rate, similarly to their non-poor segment, so that the dichotomy in terms of median EDI within non-agricultural informal employment has remained stable, albeit an increase in its employment share.

The analysis in terms of income structure within labor force statuses gives the following results (table 4, figure 3 and 4). Overall for the totality of the poor population:

- i) The share of transfers from government has increased by 6,6 percentage points, and within total governments it has increased by 2,6 percentage points, and the increase in this share has been greater for all statuses relatively to the non-poor population,
- ii) The share of other transfers (non-public transfers) has also increased by 2,5 percentage points; so that the poor population has benefitted from greater public and non-public social support.
- iii) The weight of transfers from government differs according to labor force status, as regards poor population: it is greatest for the non-participants, followed by the unemployed, informal agricultural workers, formal workers and informal non-agricultural workers in 2008, this structure reflects the fact that most of these transfers come from social security scheme (pensions and survivors’ benefits).
- iv) Complementarily, the share of employment income in total household income decreases for all the population however it decreases more for the poor segment.
- v) The increase in the share of government transfers in total equivalised household income reveals that non-agricultural informal employment, then informal agricultural employment and then the unemployed are more and more dependent on these transfers. The share of government transfers in poor non-agricultural informal employment has increased from 2,7 to 10,6 percent, the largest increase among the totality of the population.

¹² Government transfers here cover both contributory and non-contributory payments. More specifically, analyses on non-contributory social assistance programs in Turkey show that they do not constitute a significant incentive to become or stay informal (World Bank, 2010). Moreover, the share of non-contributory social assistance expenditure in total government expenditures is still low (Kamu Harcamaları İzleme Platformu, 2010).

Table 4 Annual EDI (YTL) and income structure by labor force status, poor vs non-poor (individual data)

Labor force status	Distribution of EDI	Median EDI	Employment income	Property income	Transfers from government	Other transfers	Imputed rent	Share of government transfers in total government transfers
2003								
Poor								
Non-participant	1,1%	1129	64,4%	1,6%	12,6%	7,2%	14,2%	1,0%
Unemployed	0,2%	1129	63,7%	1,7%	14,9%	6,2%	13,5%	0,2%
Informal, agriculture	0,7%	1108	80,4%	0,4%	5,4%	2,3%	11,5%	0,3%
Informal, non-agriculture	0,3%	1154	81,3%	0,9%	2,4%	2,8%	12,6%	0,1%
Formal	0,1%	1340	82,2%	0,9%	2,7%	2,2%	12,0%	0,0%
Below 15 years	1,7%	1094	77,6%	0,6%	4,5%	5,2%	12,1%	0,5%
<i>Total</i>	<i>4,1%</i>	<i>1122</i>	<i>74,3%</i>	<i>0,9%</i>	<i>7,1%</i>	<i>5,0%</i>	<i>12,7%</i>	<i>2,1%</i>
Non-poor								
Non-participant	37,5%	3752	53,6%	7,5%	23,3%	2,9%	12,8%	61,8%
Unemployed	2,4%	3145	52,1%	6,6%	24,4%	3,9%	13,0%	4,1%
Informal, agriculture	6,1%	2943	76,1%	1,8%	14,7%	1,3%	6,1%	6,2%
Informal, non-agriculture	7,7%	3558	70,4%	5,0%	13,5%	1,2%	9,9%	7,4%
Formal	19,6%	4702	80,3%	4,3%	5,8%	0,7%	8,9%	8,1%
Below 15 years	22,6%	3241	78,6%	3,5%	6,5%	2,2%	9,3%	10,3%
<i>Total</i>	<i>95,9%</i>	<i>3616</i>	<i>67,7%</i>	<i>5,3%</i>	<i>14,5%</i>	<i>2,0%</i>	<i>10,5%</i>	<i>97,9%</i>
2008								
Poor								
Non-participant	1,5%	2687	52,8%	0,9%	20,4%	9,0%	16,9%	2,1%
Unemployed	0,2%	2422	53,5%	0,5%	17,6%	9,4%	19,1%	0,2%
Informal, agriculture	0,7%	2375	64,7%	1,4%	15,2%	6,2%	12,6%	0,7%
Informal, non-agriculture	0,5%	2634	73,0%	0,6%	7,0%	3,9%	15,4%	0,2%
Formal	0,2%	3107	72,6%	0,7%	10,6%	2,0%	14,0%	0,2%
Below 15 years	1,9%	2469	67,1%	0,7%	9,7%	8,1%	14,4%	1,3%
<i>Total</i>	<i>5,0%</i>	<i>2554</i>	<i>62,8%</i>	<i>0,8%</i>	<i>13,7%</i>	<i>7,5%</i>	<i>15,2%</i>	<i>4,7%</i>
Non-poor								
Non-participant	35,7%	8372	50,1%	6,9%	24,1%	3,2%	15,6%	56,8%
Unemployed	2,4%	7592	55,7%	4,9%	21,7%	3,1%	14,5%	3,4%
Informal, agriculture	3,5%	6547	63,6%	2,9%	22,6%	2,1%	8,7%	5,2%
Informal, non-agriculture	8,2%	8066	65,2%	3,8%	16,2%	1,8%	13,0%	8,8%
Formal	23,8%	10147	76,5%	3,6%	7,6%	1,1%	11,2%	11,8%
Below 15 years	21,3%	7599	76,0%	3,2%	6,5%	2,2%	12,0%	9,2%
<i>Total</i>	<i>95,0%</i>	<i>8334</i>	<i>64,5%</i>	<i>4,8%</i>	<i>15,2%</i>	<i>2,3%</i>	<i>13,2%</i>	<i>95,3%</i>

Note: Income structure is given according to equivalised household income, not equivalised household disposable income.

Figure 3 Income structure and median EDI by labor force, poor population

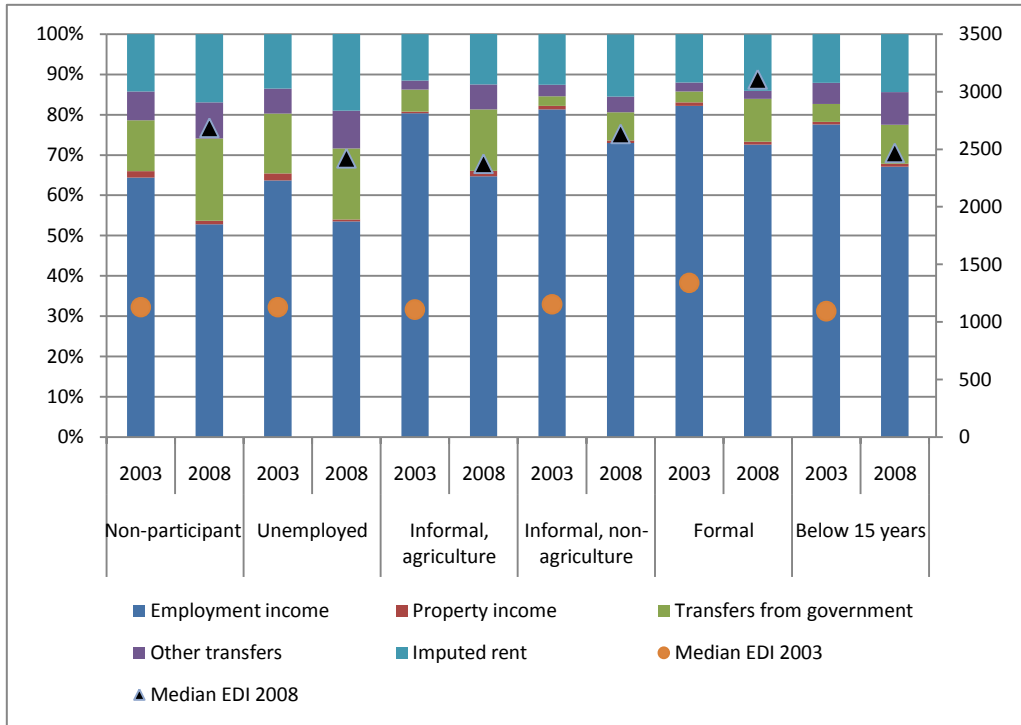
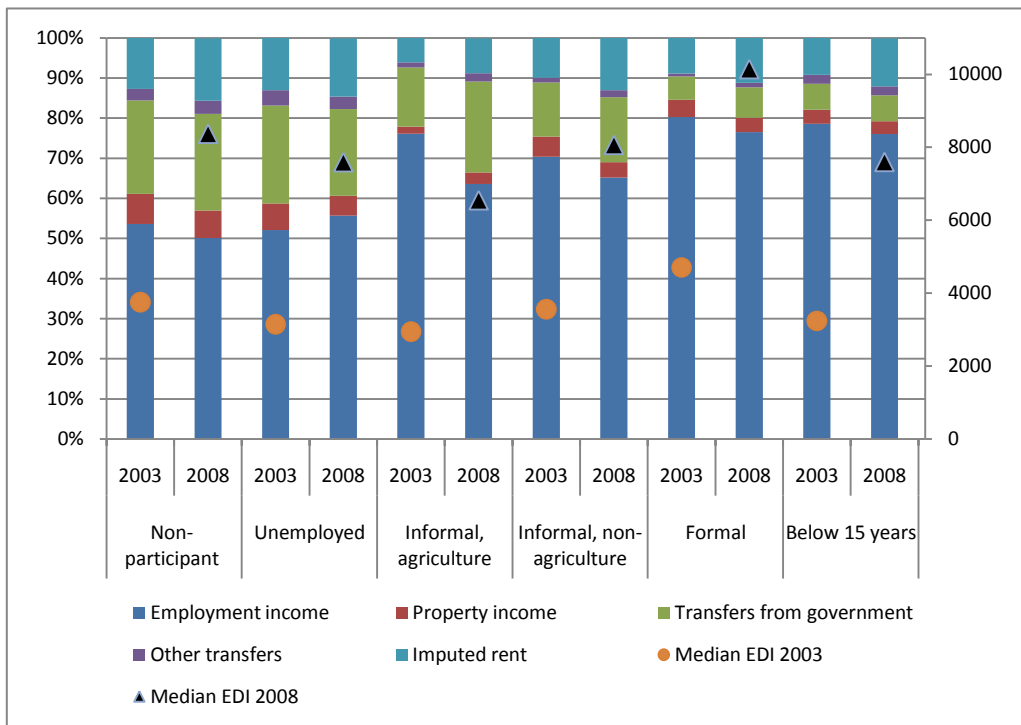


Figure 4 Income structure and median EDI by labor force, non-poor population



Household structure – labor force status of household members

Table 5 gives the labor force characteristics of households according to EDI deciles, based on *household data*. Among general comments, household size is larger in poorest deciles, as such the number of unemployed, informal workers (agricultural and non-agricultural), formal workers and children per household is highest among them. The average number of non-participant members by household is relatively evenly distributed; however it is lesser among the richer deciles.

The average household size has decreased, relatively more among poorer households. In conformity with the findings above, the average number of informal agricultural workers by household has overall decreased, and the decrease has been less among the poor, despite the larger decrease in their total household members. Hence, the poorest households continue to have the greatest number of agricultural workers. Non-agricultural informal household members has overall increased, and mostly for the middle deciles. However, their average number per household remains the highest among the poorest deciles. Households with the greatest number of formal workers are among richer deciles, however the number of formal workers has increased most among the poorest deciles.

Table 5 Household deciles and household members' characteristics

Household deciles by EDI	Average number of household members by decile						Total
	Non-participant	Unemployed	Informal, agriculture	Informal, non-agriculture	Formal	Below 15 years	
2003							
1	1,56	0,24	1,02	0,47	0,11	2,43	5,82
2	1,54	0,21	0,70	0,43	0,30	1,68	4,87
3	1,60	0,16	0,56	0,38	0,43	1,50	4,63
4	1,60	0,16	0,41	0,33	0,48	1,22	4,20
5	1,65	0,13	0,36	0,31	0,52	1,06	4,02
6	1,55	0,12	0,33	0,31	0,58	0,96	3,87
7	1,55	0,11	0,27	0,28	0,65	0,90	3,75
8	1,49	0,10	0,23	0,28	0,71	0,80	3,60
9	1,36	0,07	0,18	0,27	0,80	0,67	3,35
10	1,21	0,05	0,10	0,25	0,91	0,69	3,21
<i>Total</i>	<i>1,51</i>	<i>0,14</i>	<i>0,42</i>	<i>0,33</i>	<i>0,55</i>	<i>1,19</i>	<i>4,13</i>
2008							
1	1,52	0,23	0,83	0,49	0,14	2,13	5,35
2	1,46	0,16	0,44	0,47	0,42	1,59	4,53
3	1,56	0,15	0,36	0,38	0,53	1,24	4,21
4	1,51	0,13	0,23	0,36	0,62	1,03	3,88
5	1,53	0,11	0,17	0,40	0,66	0,97	3,84
6	1,53	0,11	0,20	0,34	0,73	0,87	3,79
7	1,42	0,10	0,19	0,33	0,82	0,77	3,62
8	1,41	0,12	0,08	0,30	0,88	0,71	3,50
9	1,25	0,04	0,08	0,27	1,00	0,69	3,34
10	1,12	0,07	0,05	0,23	1,04	0,61	3,12
<i>Total</i>	<i>1,43</i>	<i>0,12</i>	<i>0,26</i>	<i>0,36</i>	<i>0,68</i>	<i>1,06</i>	<i>3,92</i>

Conclusion

Although, unemployment is seen as one of the major issues of the Turkish labor market, we argue that it is only the visible part of the iceberg, and that the hidden part is constituted by the existence of the working poor in the informal sector who cannot afford to be unemployed.

Overall, the unemployed's relative median EDI has improved more than the informal workers'. Moreover, among the latter, agricultural informal workers' median EDI relatively to formal workers' has worsened. The analysis based on individual data, opposing poor vs non-poor population reveals that i) the working poor are mainly constituted of informal workers, ii) their share of working poor in total labor force has slightly increased (one percentage point) where the share of formal employment has also slightly increased, iii) this increase has been the result of an absolute increase of the share of poor non-agricultural informal employment and poor formal employment, likewise their non-poor segment has also increased, iv) agricultural informal employment has decreased in both its poor and non-poor segments however the poor segment has decreased less so that agricultural employment continues to constitute an important survival strategy for the poor. The analysis in terms of median EDI shows that relatively to the overall average increase, the increase has been particularly low in the case of the poor unemployed and poor agricultural informal employment; and that the median EDI of poor non-agricultural informal employment has been average. Finally, household members' characteristics imply that vulnerability is also persistent as the poor are still more dependent on household income (larger household size), with a greater number of working members relatively to non-poor households.

Fighting against unemployment and informality surely necessitates reforming the labor market regulations which are high in terms of the standard criteria (World Bank, 2006 and 2009). Typically, decreasing social contributions, i.e., decreasing the brut minimum wage, or as recently debated, implementing a regional minimum wage may be an option to decrease costs and add flexibility. This may decrease unemployment and informality. However, two issues remain. First, having shown that a non-negligible share of unemployment and informal employment is involuntary implies that these measures are condemned to be insufficient and inadequate.¹³ More importantly, given the vulnerability characteristics of these households which include dependency on irregular work earnings and the importance of these earnings in constituting the household income which itself is crucial for the poor as a safety net, points to the necessity of adopting proper social transfers other than labor market reforms and programs, different mechanisms of cash transfers may be possible (Tabor, 2002)¹⁴. Second, even in the case where formal employment can be created, this may increase the number of formal workers among the working poor, so that these debates need to be tackled without neglecting the poverty dimension.

Jütting and de Laglesia (2009) suggest a "three-pronged strategy" in the presence of a segmented labor market in terms of informal activity, that includes recommendations aiming at ameliorating labor supply *and* demand: "i) to offer incentives to become formal to those who earn in the upper tier in the informal sector, ii) to make available the necessary means (legal, financial, social) to those who are excluded from the formal labor market (lower tier) to enable them to become more productive, while in parallel helping them improve their risk management through offering basic

¹³ "In most developing nations, large numbers of poor people make their living from agriculture or informal sector activities from which earnings are irregular. This makes it difficult to enforce statutory schemes that rely on regular, mandatory contributions." Tabor (2002), or even worse "high levels of employment may not reduce poverty if the increase in jobs is brought about through a reduction in real wages. Instead, the consequence may be an increase in the so-called 'working poor' and potential trade-offs between unemployment reduction and poverty alleviation" Agénor (2005).

¹⁴ Buğra and Keyder (2006) and Buğra (2007) give cash transfer suggestions for poverty alleviation in the case of Turkey. As argued in Buğra (2007) this is all the more important that there is a tendency of filling the gap with informal/non-public community-based redistributive mechanisms. In this respect, the increase in "other transfers" (non-government transfers) is meaningful and should be examined in greater detail.

social services and fostering institutions for social security; and iii) to promote the creation of formal jobs for all workers”.

Obviously, in a larger perspective this is the outcome of the interactions between long-run macro-policies and labor market transformations (Buğra and Keyder, 2006; Buğra, 2007) that is also observed elsewhere than Turkey (Agénor, 2005; Agénor et al, 2008). Consequently, there may be a wide range of policy recommendations for fighting against unemployment and informality in the long run as recently stated by the MILES framework developed by the World Bank¹⁵. However, with an optimistic view, even if regular (and formal, and decent) employment generating macroeconomic policies are adopted these effects are likely to be felt only in the long run, so that even in the short and medium run social policies are needed. With a pessimistic view, the social policies are even more crucial to relieve the negative effects of some of the ongoing macro policies, on the labor market.

¹⁵ “Recognizing the need to formulate a labor market paradigm for developing countries, the World Bank has been in the past years actively involved in building an operationally and policy relevant framework to help countries design a comprehensive labor market strategy to create more and better jobs – the MILES framework. The framework is multi-sectoral by its very design, focusing on five areas considered critical for employment creation (hence the acronym MILES): **M**acroeconomic policies, **I**nternational investment climate, institutions and infrastructure, **L**abor market regulations and institutions, **E**ducation and skills, and **S**ocial Protection (social insurance and social safety net programs).” World Bank (2008).

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