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MEASURING POVERTY AND INEQUALITY IN TURKEY, 2001

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1. Introduction

Traditionally, there have been two approaches to measure the poverty (Saunders 1998). The first is absolute poverty and the second is relative poverty. In absolute poverty approach, some criteria relating to income or consumption is set and households (or individuals) that fall under this criterion are classified as poor -- inability to meet very basic needs. In relative poverty, households are ordered by their income or consumption, and households falling a certain point are identified as poor- distance from the community norm. Recently, a new approach is added which is termed as subjective poverty. In subjective poverty (or felt poverty), the criterion is obtained from the individuals by asking at what income level they meet all their needs (Gordon et al 2000, Bradshaw 2001, Förster 1994).

The aim of this study is to calculate several measures of poverty and inequality in Turkey using a new survey data collected during 2001. There are mainly two reasons for selecting relative measures over the absolute ones. First, the qualitative research conducted to complement this survey suggested that use of the absolute poverty is not possible in the case of a country like Turkey. Qualitative research found numerous cases of households which were poorer than the official "poorest" households. Also, most absolute poverty measures impose an external criterion to be used in the calculation of the poverty line. We feel that using external criterion in the case of Turkey will basically reveal how Turkey stands vis a vis that criterion which does not do justice to mirror her structural characteristics.

One other difficulty in case of Turkey is the absence of studies that use data that reflect the true degree of poverty in the country. Almost all of the previous studies on poverty have used the 1994 Income and Consumption data collected by the State Institute of Statistics. It is crucial to remember that Turkey had a serious economic crisis in 1994, and the 1994 data were collected aftermath of that crisis. Ironically, the present data were also collected right after Turkey experienced two big economic crises in November 2000 and February 2001. Neither of the data can reflect the true nature of the poverty in the country since both carry the imprints of economic crises.

It is unfortunate that the relationship between poverty and inequality have not been given due consideration in the poverty literature, although both concepts were entertained on their own right. For most cases, indicating the division of income among population groups and its measurement have been thought as sufficient evidence to highlight inequalities in a society. This approach is legitimate as long as the focus is inter-group (between group) comparison of income shares of respective population groups. Probably what is equally important is to look at the income inequalities within each population group. The first 20 percent of the population may receive a very small fraction of the total income, but it is possible that people in this group receive quite different incomes from each other. Aggregating population and income in quantiles, deciles or percentiles hides such inequalities and it becomes quite difficult to investigate the depth of poverty which is as important as its extent (Sen 1992).

The selection of poverty and inequality measures was also guided by practical reason to compare with

previous poverty research on Turkey (Akder 1999; Dağdemir 1999; Dansuk 1996; Dumanlı 1996; Uygur and Kasnakoğlu 1998; Dumanlı ve Bulutay 2000; Erdoğan 1996, 2000; Özer 2001; Pamuk 2000; World Bank 2000; Sönmez 2001; DPT 2000) Two studies which seemed to have wider coverage in terms of measurements were taken as reference in particular. These are Erdoğan (1996, 2000) and Pamuk (2000). In the following sections of this study we calculated poverty line using *the low income measure* and then analyzed income inequalities between various population groups [1].

2. Sample and Data

The data set comprises the information collected through a survey [2] conducted within different parts of the country [3]. The sample used in this research represents 8000 observations and was drawn by State Institute of Statistics (SIS) in 2001. However, due to the unavailability of funds for the fieldwork, the original sample size of 8000 was cut half by using random selection within each province. The sample design is a multi-stage stratified cluster which allows comparisons by region and rural-urban places. The sample includes 63 provinces. There are 7 provinces in Mediterranean, 8 in Aegean, 10 in Marmara, 7 in Southeast, 8 in East, 11 in Central and 12 in Blacksea. The unit of analysis in this research is a household. Using 7 broad geographical regions, residential units in each region are divided into population strata such as places with 0-2,000 people, 2,001-5,000, 5,001-10,000, 10,001-20,000, 20,001-50,000, 50,001-100,000, 100,001-150,000 and places with more than 150,000 people. Clusters are formed by combining 30 households within each population strata. At the final stage, clusters are selected within each population stratum independently by using random selection technique. Clusters obtained this way are proportionate to their size in the population [4]. Considering the possible losses due to non-response, the sample size was determined as 4,300 [5].

There is fair match between the sample and population distributions. Table 1 provides information on sample and population distributions of rural urban areas and of regions. Seemingly, serious differences between urban and rural distributions stems from the fact that rural in the sample includes only villages whereas rural is defined as places with populations of less than 20,000 in SIS statistics. When the households are reclassified according to this SIS criterion, the sample portion of rural households becomes 18 percent [6].

Table 1 Sample and Population Distribution Rural/Urban Places and of Regions, in

Percentages

Sample Population (2000¹)

| | | |
|--------------------|-------------------|-------|
| Urban ² | 83.1 | 70.6 |
| Rural | 16.9 ³ | 29.4 |
| Mediterranean | 12.1 | 12.86 |
| Aegean | 12.7 | 13.44 |
| Marmara | 30.7 | 25.74 |
| Southeast | 7.9 | 9.75 |
| East | 7.3 | 8.93 |
| Central | 17.5 | 16.83 |
| Black Sea | 11.7 | 12.48 |

¹ Estimation by the end of the year.

² Urban in Turkey is defined as places 20,000 and more population.

³ Includes villages only.

[1]Source: SIS, SPO

The total number of questionnaires completed were 4,307. For 80 percent of households, the interviews were held in the first address and substitutes were used for only 20 percent households. After cleaning and editing, 4,119 questionnaires remained for the analysis, which is little over than the initially targeted sample size of 4,000 [7].

The data has some limitations. Household surveys usually fail to pick up individuals who do not have residence, which also create serious measurement problems. However, estimates of the number of homeless suggest that this would not make a substantial difference to the results in terms of the overall distribution although it might somewhat affect measures of poverty. Despite daily observations that indicate increased

number of the poor, which is apparent in the number of street beggars, homeless families and the rampant incidence of theft, they are underrepresented in the sample since they do not have fixed addresses and records to take into account in sample selection. In fact, similar problems are valid for the other end of the distribution, where rich people often are hard to find to interview.

It is also the case that there were problems with the reporting of some important variables such as income. In general, there is a certain extend of under-reporting of incomes which is commonly encountered in household surveys. Under-reporting of capital and property incomes is often significant. The degree to which this is the case is difficult to judge and likely that it is concentrated in certain groups. It is observed that some of the families under the poverty line did not report their consumption correctly which created a false picture of positive saving for the poor household. Although it is shown that under-reporting of household incomes is small (Burniaux et al. 1998), there is no study reporting the impact of under-reporting for consumption on the calculation of poverty lines. In light of this information, household income was used both in determination of the poverty lines and measuring inequalities in this research.

The first relative poverty line measure uses total household income and takes the half median value as the poverty line. This measure will be termed as ‘The Low Income Measure’ (LIM).

3. Poverty Line: The Low Income Measure

Like any other measure, LIM has pros and cons. LIM is a purely relative poverty measure which is used in many international comparisons. It explicitly defines low income as being much worse off than average, and it is drawn at one-half the median income of an equivalent household.

The income unit is the household, which is defined as a group of persons sharing a set of common resources, and are not necessarily related by blood or marriage. Household disposable income is defined as total market income (income from labor and capital), plus income transfers from government, monetary and equivalents of non monetary assistance from persons and other institutions (from private charity and solidarity institutions and NGOs), less income taxes. Although household income is self-reported, it is cross-checked by adding all monetary incomes generated by the family members and equivalents of all non-

monetary income received by the household. In case the latter was bigger than the first, the later was used as the total household income. It should be noted that choice of income unit, households as opposed to individuals, is important since it affects the level of income inequality. An increase in the size of income unit lowers the degree of income dispersion.

In order to calculate one-half of the median, data were broken down by 7 regional variables and the half median was calculated for each region. These half median values were taken as the poverty line. Table 2 presents poverty line for regions, for urban and rural locations and for Turkey with descriptive statistics such as mean, standard deviation, percent of the total income, total income, percent of the total households and the number of households (N).

Table 2 Total HH Income (1000 TL) by Regions, Urban Rural Places and Poverty Line

| REGION | Descriptive Statistics | Total HH income | Poverty line |
|--------------------|------------------------|-----------------|--------------|
| 1 Mediterranean | Mean | 409,267.75 | |
| | Median | 300,000.00 | 150,000 |
| | Std. Deviation | 494,594.43 | |
| | % of Total Sum | 13.4% | |
| | Sum | 201,769,000 | |
| | % of Total N | 12.4% | |
| | N | 493 | |
| 2 Aegean | Mean | 320,886.60 | |
| | Median | 250,000.00 | 125,000 |

| | | | |
|--------------|----------------|-------------|---------|
| | Std. Deviation | 278,686.36 | |
| | % of Total Sum | 10.9% | |
| | Sum | 163,973,054 | |
| | % of Total N | 12.8% | |
| | N | 511 | |
| 3 Marmara | Mean | 458,130.10 | |
| | Median | 350,000.00 | 175,000 |
| | Std. Deviation | 503,599.23 | |
| | % of Total Sum | 36.7% | |
| | Sum | 554,337,418 | |
| | % of Total N | 30.4% | |
| | N | 1210 | |
| 4 South-East | Mean | 240,989.90 | |
| | Median | 200,000.00 | 100,000 |
| | Std. Deviation | 135,156.45 | |
| | % of Total Sum | 4.7% | |
| | Sum | 71,574,000 | |
| | % of Total N | 7.5% | |
| | N | 297 | |
| 5 East | Mean | 320,003.50 | |

| | | | |
|------------|----------------|-------------|---------|
| | Median | 250,000.00 | 125,000 |
| | | | |
| | Std. Deviation | 337,877.63 | |
| | | | |
| | % of Total Sum | 6.1% | |
| | | | |
| | Sum | 91,521,000 | |
| | | | |
| | % of Total N | 7.2% | |
| | | | |
| | N | 286 | |
| | | | |
| 6 Central | Mean | 378,682.70 | |
| | | | |
| | Median | 300,000.00 | 150,000 |
| | | | |
| | Std. Deviation | 293,431.89 | |
| | | | |
| | % of Total Sum | 17.9% | |
| | | | |
| | Sum | 270,000764 | |
| | | | |
| | % of Total N | 17.9% | |
| | | | |
| | N | 713 | |
| | | | |
| 7 Blacksea | Mean | 331,908.90 | |
| | | | |
| | Median | 300,000.00 | 150,000 |
| | | | |
| | Std. Deviation | 204,401.02 | |
| | | | |
| | % of Total Sum | 10.4% | |
| | | | |
| | Sum | 156,661,000 | |
| | | | |
| | % of Total N | 11.9% | |
| | | | |
| | N | 472 | |
| | | | |

| | | | |
|--------|----------------|---------------|---------|
| Urban | Mean | 397,905.15 | |
| | | | |
| | Median | 300,000.00 | 150,000 |
| | | | |
| | Std. Deviation | 407,847.81 | |
| | | | |
| | % of Total Sum | 87.2% | |
| | | | |
| | Sum | 1,316,270,236 | |
| | | | |
| | % of Total N | 83.1% | |
| | | | |
| | N | 3,308 | |
| | | | |
| Rural | Mean | 287,189.91 | |
| | | | |
| | Median | 200,000.00 | 100,000 |
| | | | |
| | Std. Deviation | 261,472.29 | |
| | | | |
| | % of Total Sum | 12.8% | |
| | | | |
| | Sum | 193,566,000 | |
| | | | |
| | % of Total N | 16.9% | |
| | | | |
| | N | 674 | |
| | | | |
| Turkey | Mean | 379,165.30 | |
| | | | |
| | Median | 300,000.00 | 150,000 |
| | | | |
| | Std. Deviation | 389,178.13 | |
| | | | |
| | % of Total Sum | 100.0% | |
| | | | |
| | Sum | 1,509,836,236 | |
| | | | |
| | % of Total N | 100.0% | |
| | | | |

| | | | |
|--|---|-------|--|
| | N | 3,982 | |
| | | | |

If the regions are compared in terms of mean income, Marmara ranks first, which is followed by Mediterranean, Central, Black Sea, East, Aegean and Southeast. Despite considerable differences in the mean incomes, there is less variation in their medians (see Figure 1).

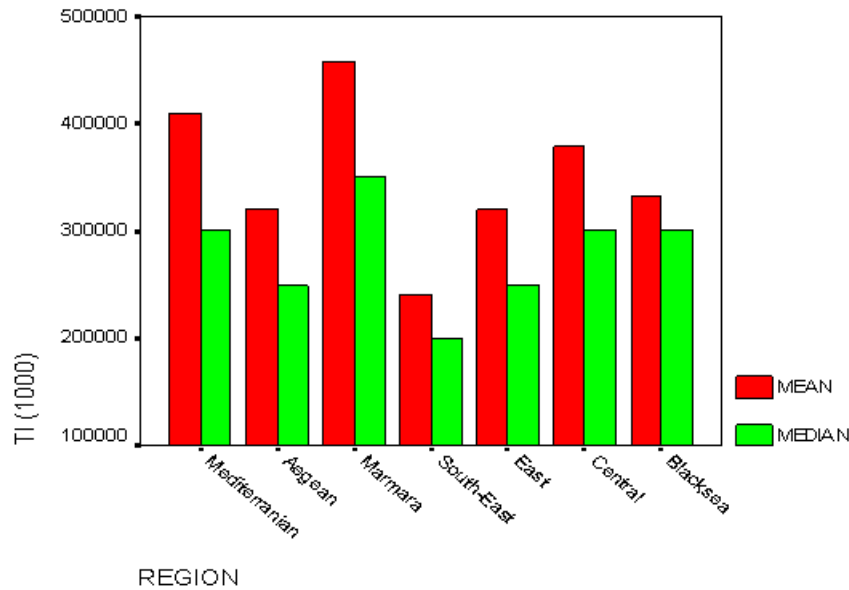


Figure 1 - Mean and Median Income by Region

Taking the half median value as the cutoff point, households were grouped into 5 categories as

1. households that had income less than half of the median income

- household that had income more than the half-median but less than the median
- households that had income between the median and twice median income
- households that had income between twice and three times the median income
- households that had income more than three times the median income.

Table 3 provides joint distribution of respondents below and above the poverty line within each region.

The percentages in the first column are the poverty rates, also called head count index expressed in percentages for corresponding locations. Southeast is the region with the highest concentration of poor whereas Marmara has the least. Interestingly enough, Eastern Turkey seems to have less poor people than the Aegean region. This may be related to the fact that the large portion of the poor have been migrating to the Southeast region and the Aegean region, notably Izmir. It seems that poverty has also migrated with the poor migrants.

Table 3 - Percent of HH Below the Poverty Line By Region and Location

| Region | Total HH income* | | | | | Total |
|--------------------|------------------|-------|-------|------|------|--------|
| | 1.00 | 2.00 | 3.00 | 4.00 | 5.00 | |
| 1 Mediterranean | 115 | 164 | 140 | 49 | 25 | 493 |
| | 23.3% | 33.3% | 28.4% | 9.9% | 5.1% | 100.0% |
| 2 Aegean | 146 | 193 | 140 | 19 | 11 | 509 |
| | 28.7% | 37.9% | 27.5% | 3.7% | 2.2% | 100.0% |
| 3 Marmara | 164 | 385 | 471 | 118 | 64 | 1202 |
| | 13.6% | 32.0% | 39.2% | 9.8% | 5.3% | 100.0% |
| 4 South-East | 102 | 136 | 53 | 3 | - | 294 |
| | 34.7% | 46.3% | 18.0% | 1.0% | - | 100.0% |

| | | | | | | |
|-----------------|-------|-------|-------|------|------|--------|
| 5 East | 70 | 111 | 89 | 12 | 3 | 285 |
| | 24.6% | 38.9% | 31.2% | 4.2% | 1.1% | 100.0% |
| 6 Central | 156 | 238 | 218 | 68 | 30 | 710 |
| | 22.0% | 33.5% | 30.7% | 9.6% | 4.2% | 100.0% |
| 7 Black Sea | 98 | 182 | 155 | 27 | 7 | 469 |
| | 20.9% | 38.8% | 33.0% | 5.8% | 1.5% | 100.0% |
| Location | | | | | | |
| Urban | 626 | 1139 | 1131 | 267 | 129 | 3292 |
| | 19.0% | 34.6% | 34.4% | 8.1% | 3.9% | 100.0% |
| Rural | 225 | 270 | 135 | 29 | 11 | 670 |
| | 33.6% | 40.3% | 20.1% | 4.3% | 1.6% | 100.0% |
| Turkey | 851 | 1409 | 1266 | 296 | 140 | 3962 |
| | 21.5% | 35.6% | 32.0% | 7.5% | 3.5% | 100.0% |

* 1 Below the poverty line

2 Between the poverty line and the median.

3 Between the median and twice the median

4 Between twice the median and three times the median

5 More than three times the median

When people who have incomes above the poverty line but less than the region average are added to those under the poverty line (first two quantiles), the Southeast region ranks first with 81 percent, which is followed by Aegean (66.6 %), East (63.5 %), Blacksea (59.7 %), Mediterranean (56.6 %), Central (55.5 %) and Marmara (45.7 %). On both accounts, Marmara seems better off than all the other regions despite two devastating earthquakes lived in the region. Figure 2 gives the number of households under (group 1 and 2 combined) and above the median by region. As for urban rural differences in poverty, urban places have less poverty than rural places (19 % vs. 33.6 %, respectively).

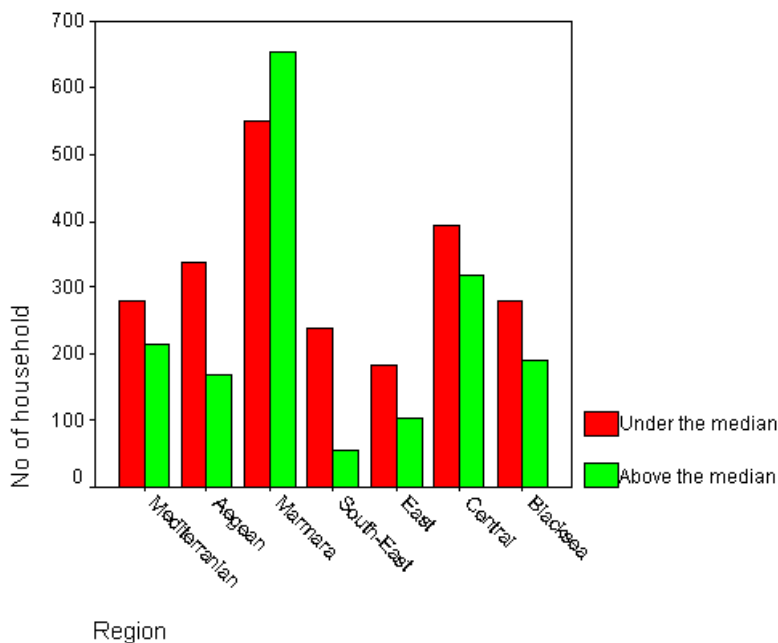


Figure 2 - Number of Households Under and Above the Median by Region

4. Inequalities: Inequalities Between Various Population Groups

It is not surprising to see the extremely unequal income distribution in the country which has not changed since the first income distribution conducted in 1963. Despite different methodologies employed, all

income distribution studies have pointed out similar inequalities for Turkey, which is summarized in Table 4. Declining trend in inequalities between 1968 and 1987 reversed after 1987. For the year 2001, the data reveals that the poorest 20 percent of the population receives 6.0 percent of the total income, while the richest 19 percent receives 43.8 percent. It seems that in the last seven years, the share of the first three groups have increased somewhat which indicates a worsening inequality. However, the share of the fourth group also increased, and the share of the richest twenty percent experienced the highest decline in its share, which also indicates an improvement in income inequalities. In 2001, a household in the richest 19 percent makes 856 million TL/month on the average, which is 7.5 times more than the monthly income of the household in the poorest 22 percent (see Table 5).

Table 4 - Income Distribution by Quantiles, 1963-1994 (%)

| Household Percentage | DPT 1963 | AÜSBF 1968 | DPT 1973 | TÜSİAD D 1986 | DİE 1987 | DİE 1994 | DİE 2001 |
|----------------------|-------------|---------------|-------------|---------------------|-------------|-------------|-------------|
| 1. % 20 | 4.50 | 3.00 | 3.50 | 3.90 | 5.24 | 4.90 | 6.03 |
| 2. % 20 | 8.50 | 7.00 | 8.00 | 8.40 | 9.61 | 8.60 | 9.19 |
| 3. % 20 | 11.50 | 10.00 | 12.50 | 12.60 | 14.06 | 12.60 | 18.47 |
| 4. % 20 | 18.50 | 20.00 | 19.50 | 19.20 | 21.15 | 19.00 | 22.52 |
| 5. % 20 | 57.00 | 60.00 | 56.50 | 55.90 | 49.94 | 54.90 | 43.78 |
| Gini Coefficient | 0.55 | 0.56 | 0.51 | 0.46 | 0.43 | 0.49 | |

Source: Dansuk 1996, p.38. DPT: State Planning Organization (SPO), AÜSBF: Ankara University Political Science Faculty, TÜSİAD: Turkish Industrialists' and Businessmen's Association, DIE: State Institute of Statistics (SIS)

Table 5 - Income Distribution by Quantiles, 2001 (1000 TL)

The inequalities seem even gloomier when the analysis is performed on smaller brackets, such as 5 percent (Table 6) and 1 percent (Table 7). It is suffice to note that the poorest 5 percent of the population receives 0.66 percent of the total income while the richest 5 percent gets 19.19 percent of the total income. When compared with the corresponding percentages for 1994, some improvement is observed in the income share of the second group through sixth group. Households in the 9th, 11th and 12th also increased their share in the total income generated in the country. Increasing income share is also true for 14th through 16th groups along with 18th and 19th groups. Since the latter groups include the well-off and richest families in the country, there is also some degree of deterioration in the income distribution between 1994 and 2001. The average monthly household income in the richest 5 percent is 1.4 billion TL, which is 23.4 times more than

| | Mean HH Income | Number of household | | Income share | |
|---------|-------------------|------------------------|--------|---------------|--------|
| | | N | % | Sum | % |
| 1. 20 % | 113,794 | 800 | 20.09 | 91,035,000 | 6.03 |
| 2. 20 % | 197,055 | 704 | 17.68 | 138,727,000 | 9.19 |
| 3. 20 % | 296,723 | 940 | 23.61 | 278,919,712 | 18.47 |
| 4. 20 % | 443,976 | 766 | 19.24 | 340,085,764 | 22.52 |
| 5. 20 % | 856,307 | 772 | 19.39 | 661,068,760 | 43.78 |
| | | 3982 | 100.00 | 1,509,836,236 | 100.00 |

that of the household in the poorest 5 percent.

Table 6 - Income Distribution by 5 Percentiles, 2001

| | Mean Income (1000 TL) | Number of household | | Income share | | |
|-------|-----------------------------|------------------------|------|------------------|------|---------------------------|
| | | N | % | Sum (1000 TL) | % | % in 1994 ¹ |
| 1. 5% | 61,454 | 163 | 4.09 | 10017000 | 0.66 | 0.69 |
| 2. 5% | 101,926 | 216 | 5.42 | 22016000 | 1.46 | 1.15 |
| 3. 5% | 128,418 | 196 | 4.92 | 25170000 | 1.67 | 1.40 |
| 4. 5% | 150,364 | 225 | 5.65 | 33832000 | 2.24 | 1.62 |
| 5. 5% | 168,918 | 196 | 4.92 | 33108000 | 2.19 | 1.83 |
| 6. 5% | 199,046 | 327 | 8.21 | 65088000 | 4.31 | 2.04 |

| | | | | | | |
|--------|-----------|------|--------|------------|--------|--------|
| 7. 5% | 213,690 | 87 | 2.18 | 18591000 | 1.23 | 2.26 |
| 8. 5% | 233,404 | 94 | 2.36 | 21940000 | 1.45 | 2.49 |
| 9. 5% | 253,832 | 292 | 7.33 | 74119000 | 4.91 | 2.74 |
| 10. 5% | 283,353 | 53 | 1.33 | 15017712 | 0.99 | 2.99 |
| 11. 5% | 300,752 | 339 | 8.51 | 101955000 | 6.75 | 3.28 |
| 12. 5% | 343,078 | 256 | 6.43 | 87828000 | 5.82 | 3.59 |
| 13. 5% | 374,379 | 87 | 2.18 | 32571000 | 2.16 | 3.97 |
| 14. 5% | 404,013 | 259 | 6.50 | 104639422 | 6.93 | 4.43 |
| 15. 5% | 457,337 | 167 | 4.19 | 76375342 | 5.06 | 4.97 |
| 16. 5% | 500,000 | 253 | 6.35 | 126500000 | 8.38 | 5.65 |
| 17. 5% | 546,185 | 138 | 3.47 | 75373477 | 4.99 | 6.53 |
| 18. 5% | 613,009 | 212 | 5.32 | 129958000 | 8.61 | 7.84 |
| 19. 5% | 751,244 | 221 | 5.55 | 166025000 | 11.00 | 10.17 |
| 20. 5% | 1,441,355 | 201 | 5.05 | 289712283 | 19.19 | 30.34 |
| Total | 379165 | 3982 | 100.00 | 1509836236 | 100.00 | 100.00 |

¹ Source: DPT 2001, p.17

Table 7 - Income Distribution by One Percentile, 2001

| | Mean Income | Number of | Number of |
|--|----------------|-----------|-----------|
| | | | |

| | (1000 TL) | household | | household | |
|---------|-----------|-----------|--------|------------------|--------|
| | | N | % | Sum (1000 TL) | % |
| 1. 1% | 29,000 | 30 | 0.75 | 870,000 | 0.06 |
| 2. 1% | 50,317 | 41 | 1.03 | 2,063,000 | 0.14 |
| 3. 1% | 67,733 | 45 | 1.13 | 3,048,000 | 0.20 |
| 4. 1% | 84,000 | 39 | 0.98 | 3,276,000 | 0.22 |
| 5. 1% | 95,000 | 8 | 0.20 | 760,000 | 0.05 |
| | | | | | |
| 96. 1% | 884,222 | 45 | 1.13 | 39,790,000 | 2.64 |
| 97. 1% | 983,763 | 59 | 1.48 | 58,042,000 | 3.84 |
| 98. 1% | 1,110,278 | 18 | 0.45 | 19,985,000 | 1.32 |
| 99. 1% | 1,342,073 | 41 | 1.03 | 55,025,000 | 3.64 |
| 100. 1% | 3,075,534 | 38 | 0.95 | 116,870,283 | 7.74 |
| | | 3982 | 100.00 | 1509836236 | 100.00 |

Similarly, dividing population into one percent groups (first 5 and the last 5 groups are given), it is seen that the poorest 1 percent receives 0.06 percent of the total income while the richest 1 percent gets 7.74 percent of the total income. Household in the richest one percent makes on the average 106 times higher monthly income than a household in the poorest 1 percent.

5. Conclusion

The results of this study should be interpreted carefully since the data were collected just after Turkey has experienced two big earthquakes and two economic crises. The data collected in 1994 by State Institute of Statistics were also collected during the time of crises. So, important datasets for income distribution and poverty studies collected recently cannot reflect the true picture of the country. It is also important to note that the definition of rural in this study is different from the earlier studies which use the SIS definitions. Keeping these important reservations in mind, some important tendencies can be highlighted with respect to poverty and income distribution in Turkey.

Contrary to expectations, some improvements are observed in the income of the poorer groups since 1994, causing more equal income distribution. It seems that the recent crises lived at the end of 2000 and at the beginning of 2001 affected the richer sections of the society more than the middle and poor sections. In real terms, the Turkish economy became smaller experiencing the worst negative growth in the republican era. During the two economic crises, the share of the poorest 20 percent in the GNP increased relative to the share of richer groups. Despite these improvements, considerable income inequalities remain in the income distribution.

Due to the decreasing income inequalities in general, differences among regions seem to have lessened. Relatively sharper differences among regions in 1994 tended to decrease, making the regions look alike [8]. One of the interesting findings of this study is to highlight intra-group income inequalities for groups formed by using the poverty line. In line with expectation, the richest group had the highest inequality. However, what is surprising is the existence of the second highest inequality in the poorest group. This goes against the general belief that all poor are similar. Contrary to expectation, they do not make up a homogeneous group.

The analysis indicated that the income inequality among rural dwellers are slightly higher (one point on Gini coefficient) than the inequality among urban dwellers. Among the regions, the highest income inequality is found in Mediterranean and Marmara followed by Aegean, all of which are relatively more developed than the others. In fact, there is as much inequality in East and Central regions as Aegean. Lowest inequality prevails in Blacksea and Southeast regions.

To conclude, calculation of poverty line is important for policy makers. The manner in which poverty is conceptualized and measured has two significant implications for policies aiming to reduce poverty. First, the conceptualization and measurement of poverty will determine the number of Turkish people who are identified as living in poverty. Second it has also implications for the types, characteristics, and success of policies to reduce poverty and its negative effects on various aspects of life. Presently, Social Solidarity Fund targets 6 percent of the poorest families in Turkey, and this study indicates that this percentage should be larger.

ENDNOTES

[1] In a longer version of this paper, same calculations are carried out using food consumption. This version is available on request.

[2] Data collection instrument was questionnaire. There were seven modules in the questionnaire each of which probed a different issue. These modules were Household Roster (two sub modules), Characteristics of household (two sub modules), Consumption (two sub modules), Income and employment (two sub modules.), Savings, Access to services (four sub modules), Perception of wealth and income.

[3] A copy of the questionnaire can be requested from the author.

[4] The initial size of the sample selected with this technique was 8000 households. Given the budget of the research, the sample size reduced to 4000 by way of resampling. Clusters were isolated from their respective stratum information and assigned random numbers. 50 percent of them were selected randomly.

[5] Each household has a substitute in case no one was found at home at the first address. Addresses from 1997 population count administrative division were used in the sample.

[6] It should be noted that this exercise of reclassification carries certain amount of error stemming from the difference between population figures for 2000 census and 1997 population count.

[7] Non-response rate was negligible despite the fact that no incentives provided for the respondents. However, 296 cases were eliminated during data editing and cleaning phase. Most of the eliminated questionnaires had the problem of too many missing answers and inconsistent information given by the respondents.

[8] One should note that there are substantial cost of living differences between regions.

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