Socio-Economic And Regional Decomposition Of Poverty In Iran

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ABSTRACT

This paper examines the distribution of poverty breakdown by the socio-economic and regional characteristics of households in Iran. The incidence, intensity and severity of poverty are higher in rural than urban areas in Iran. All poverty measures suggest a considerable poverty increase in rural areas during 1989-1994. Poverty was more pronounced amongst rural households, large households, single person households, those persons in households headed by people with low education or being illiterate, and those persons in households were its heads of household were unemployed or elderly. Regional decompositions show that although poverty was spread throughout the country, the intensity of poverty in some provinces such as Lorestan, Choharmohal-Bakhteyari and Kohkeloyeh-Boyerahmad, and Systan-Balochestan (which are residence of Lor, and Baloch people) was more pronounced. During the adjustment policy programme (1989-1994) poverty in almost all regions deteriorated.

1. INTRODUCTION

Poverty profile describes the sectoral patterns of economic changes on aggregate poverty. Macroeconomic swings benefit some groups and hurt others, and it is of the interest of policymakers to know who they are. Who are the poor? Which regions contributed more to the poverty profile? We can learn more from the statistical picture of poverty about the nature of poverty and prospects for future poverty reduction-- points policy-maker should know. Decomposition procedures have a major role in empirical analysis and can answer these questions. This paper examines the distribution of poverty breakdown by the socio-economic and regional characteristics of households in Iran. Its purpose is to provide an in-depth profile of poverty throughout Iran and to see how it changed during the implementation of adjustment policy programme started since 1989. To do this, we are using the micro-level data set of household expenditure survey conducted by the Statistical Centre of Iran (SCI) in 1989 and 1994. The former year was the initial year of the Islamic Republic's first five-year plan, and the latter was the year follow the plan's final year.

This paper is organised as follows. The following section will shortly describe the data set. Section 3 presents some standard analytical tools for decomposition and assessment of poverty alleviation policies. Section 4 compares the level of poverty in rural and urban areas. Section 5 provides a breakdown of poverty changes by socio-economic characteristics. Section 6 gives a regional poverty profile of the country. Section 7 gives a brief conclusion to the paper.

1. THE DATA

We draw on micro-data sets of SCI Budget Household Survey (SCIBHS) for the years 1989 and 1994. The SCIBHS is a nationally and regionally representative household survey carried out by SCI through the sample observations. The ultimate sampling unit is a household. Information for the SCIBHS was collected by personal interview over a 24 hour period for rural and a 48 hour period for urban for food items and month by month for non-food items throughout the year. The sampling methodology can be described as multi-stage random sampling with geographical stratification and clustering. The sample size for our analysis is as follows: the 1989 sample numbered 11,520 households—52% rural households and 48% urban households, the 1994 sample covered 19,909

households—39% rural households and 61% urban households. The distribution used is the personal equivalent normalised needs-adjusted expenditure (PENNE).[1]

In adjusting the data to the 1989 price levels we used a modified version of Iran's consumer price index (CPI) for rural and urban areas separately. The ordinary CPI is far from ideal for our purpose because there is particularly a problem with it in the case of the dual-prices system in those transitional economies implementing adjustment policy. Following this policy in which *coupon* prices gradually phased out (as has partially occurred in Iran since 1989), using ordinary CPI is not to be recommended because it fails to properly reflect the inflation which poor people experience. we have re-weighted the CPI so as to better reflect the consumption pattern of the poor. The difference in need is considered by defining different poverty line for different household types. For more detail see Mahmoudi (2001).

3 DECOMPOSITION: AIMS AND METHODS

Decompositions of poverty are important for reasons: (1) targeting, and (2) explaining the changes in poverty over time. Government and other agencies that seek to alleviate poverty often would like to be able to distribute their scarce resources in a most effective way to combat poverty across the country as a whole. One common way of doing this is to allocate welfare benefits to 'poor' households. If one has perfect information about household and their incomes or expenditures, then it is not difficult to determine which households should receive welfare benefits (perfect targeting). However, such perfect information is rarely feasible and it is always costly. One could ignore these information costs by providing welfare benefits to all households regardless of their income (no targeting). However, this involves large leakage that allows a large part of the poverty alleviation resources to be used in a way that does not directly reduce poverty. Intermediate between prefect targeting and no targeting is a kind of partial targeting whereby benefits are allocated to certain categories of households. The categories are based on households' socio-economic characteristics. Because there are often many poor households in each of the categories, it is not at all obvious how benefits should be allocated among the groups to minimise poverty.

The other advantage of poverty decomposition is to see which socio-economic groups or regions have benefited (or lost) over the specific period of time. This, for example, can show how the macroeconomic policies which have been implemented during the period affected socio-economic groups.

We will apply two standard methods for poverty decomposition in this paper. The first one is based on how a single aggregate poverty number can be decomposed to form a poverty profile. The second one concentrates on the two ways of decomposing changes in poverty over time: Aggregate poverty in any given year is a function of subgroup poverty and population shares. We can calculate the effect on poverty of changing elements of either of these.

3.1 POVERTY PROFILES

"Poverty profiles" are decompositions of an aggregate poverty measure, showing how the measure varies across sub-groups of society, such as regions of residence or sectors of employment. The class of P_α measures developed by Foster et al (1984) can greatly facilitate such poverty comparisons, as they are decomposable. This makes them a good tool for determining sources of poverty and changes in poverty over time. In other words, a key advantage is it that allows the breakdown of total poverty into components, and tells us how much of the overall poverty may be attributed to various population subgroups respectively. The same poverty line, *z*, is employed for different subgroups, and the deprivation of each individual in any of the subgroups is assessed on the basis of the common poverty line. Essentially the deprivation of each individual *i* depends on his income x_i relative to the poverty line *z*, and the poverty measure for each group is constructed from the individual deprivation measure free from any independence (Sen, 1997). Suppose we consider the population split into mutually exclusive sub-groups with populations n_j (j=1,...,k). Then, total population/sample size

[1] PENNE is equivalised household expenditure amongst person assuming equal share in the household.

(1) $$n = \sum_{j=1}^{k} n_j \, .$$

The analysis below relies on the feature of P_α to be decomposable across sub-units

(2) $$P_\alpha = \frac{n_1}{n} P_{\alpha 1} + \frac{n_2}{n} P_{\alpha 2} + ... + \frac{n_k}{n} P_{\alpha k} = \sum_{j=1}^{k} \frac{n_j}{n} P_{\alpha j}$$

which is simply the population-weighted of the sub-group poverty index, $P_{\alpha j}$. The $P_{\alpha j}$ gives, for each sub-group *j* containing n_j persons,

(3) $$P_{\alpha j} = \frac{1}{n_j} \sum_{i=1}^{q_j} \left(\frac{g_{ji}}{z} \right)^{\alpha}$$

where $g_{ji} = z - y_{ji}$, is the poverty gap for the *i*th person in subgroup *j*. This makes it possible to calculate the 'contribution' of each sub-group to national poverty or subgroup population share of poverty:

(4) $$S_j = \frac{m_j P_{\alpha j}}{P_\alpha}$$

where m_j is population share of sub-group *j*. The P_α class is subgroup consistent, i.e., if poverty increases (decreases) in any subgroup of the population, aggregate poverty will also increase (decrease). See Foster et al., (1984) and Foster and Shorrocks (1991).

3.2 CHANGES IN POVERTY OVER TIME

There is another method, which allows us to decompose a measured change in aggregate poverty into its constituent parts. Following Shorrocks (1999), we can exploit the additive decomposability of the P_α poverty measures to explore the factors underlying the observed changes in aggregate poverty during a specified period. Let $P_{\alpha,jt}$ be the poverty level of subgroup *j* at time *t* (*t*=1,2) with a population share of m_j at date *t*. From (6-3) it can be checked that the change in observed aggregate poverty is a sum of "pure" change in poverty within subgroup ($\Delta P_{\alpha,A}$) and change in poverty from change in distribution of people across subgroups ($\Delta P_{\alpha,B}$).[2]

(5) $$\Delta P_\alpha = \sum_{j=1}^{k} \left(m_{j2} P_{\alpha,j2} - m_{j1} P_{\alpha,j1} \right)$$

Based on Shapley value decomposition procedure (see Shorrocks, 1999, for details) (5) can be rewritten;

(6) $$\Delta P_\alpha = \sum_{j=1}^{k} \frac{m_{j1} + m_{j2}}{2} \Delta P_{\alpha,j} + \sum_{j=1}^{k} \frac{P_{\alpha,j1} + P_{\alpha,j2}}{2} \Delta m_j$$

[2] Following Ravallion and Huppi (1991), these terms has been called "intrasectoral effects" and "population shift effects". However, these terms may not properly reflect the concept.

$$= \Delta P_{\alpha,A} + \Delta P_{\alpha,B}$$

This gives an exact decomposition of the two factors rather than including an "interaction effect" as included in the formula proposed by Ravallion and Huppi (1991). The "pure" changes in poverty within subgroup are simply the contribution of the gains to the poor within each sector to the change in aggregate in poverty, controlling for their base period population shares. The population shift effects are the contribution of changes in the distribution of population across sectors during the period.

4 IS POVERTY HIGHER IN URBAN OR RURAL AREAS?

This section presents some more detailed explanation on poverty comparisons and the contribution of the level and changes of these two areas to the national poverty.

Rural and urban consumption and poverty for 1994 are compared in Figure 1. A larger share of the rural population appears at the lower income levels, i.e., there is first order stochastic dominance in any case. Generally, at any given poverty line (fixed across both sectors) the proportion of the rural population deemed poor is higher than that of the urban population. Thus, not only changes in poverty incidence but also changes in intensity and severity were more pronounced in rural than urban areas.

The contribution of rural poverty (headcount ratio)(see equation 4) to the national poverty decreased from 47% in 1989 to 45% in 1994. The corresponding figures for urban areas were 52% and 54% (Table 1). The decomposition formula developed in section 3.2 can be used to divide aggregate changes in the poverty indexes into rise in poverty within categories or sectors, as opposed to movements of the population between sectors. It is the "pure change in poverty within subgroup" in equation (6), expressed as a percentage of the poverty changes in aggregate poverty. As the column 8 of Table 1 shows, the pure change contribution of rural and urban poverty (offsetting population shifts) rises, however, was 59 and 44 percent respectively. Poverty gap and the poverty sensitive measures show that, in spite of a decrease in the population share of the rural sector, its contribution to national poverty increased considerably. In other words, from the column 8 of Table 1 and according to these two measures respectively, 115 and 185 percent of poverty rise was due to a rise in "pure change in poverty within group" of rural areas. However, contribution of urban areas to the national poverty, according to these two measures, was negative. For more examples of poverty decomposition profiles, see the next section.

FIGURE 1 ***CUMULATIVE DISTRIBUTION OF CONSUMPTION AMONGST PERSONS IN RURAL AND URBAN AREAS OF IRAN, 1994***

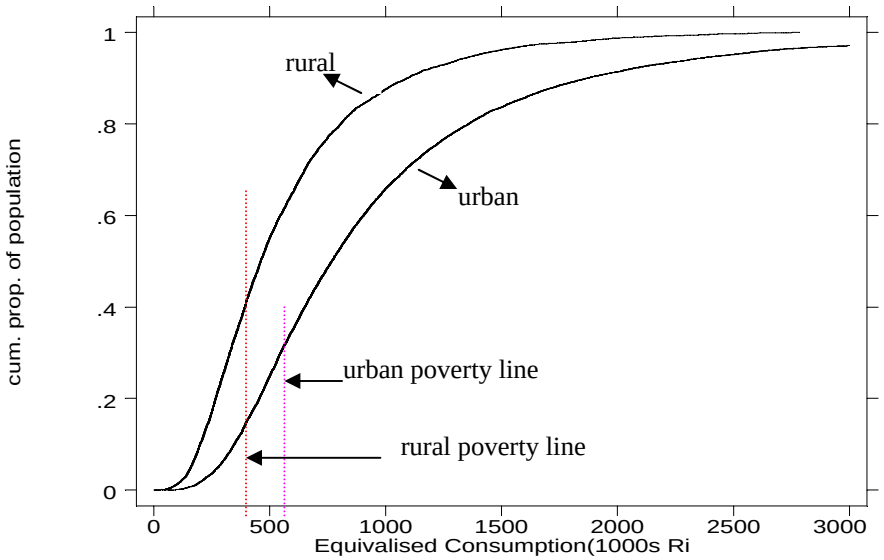


TABLE 1 ***DECOMPOSITION OF POVERTY BY AREAS (URBAN/RURAL)***

		Population share		Poverty changes %	Contribution to National Poverty (S_j)		Pure change in poverty within subgroup (percentage)	Contribution from changes in population shares (percentage)
		1989	1994	1989-1994	1989	1994	($\Delta P_{\alpha,A}$)	($\Delta P_{\alpha,B}$)
Headcount Index (P_0)	National	100.0	100.0	4.50	100	100	103	-3.0
	Rural	45.7	42.3	5.96	47	45	58	-28
	Urban	54.3	57.7	3.56	53	55	45	25
Poverty Gap Index (P_1)	National			1.32	100	100	101	-1
	Rural			3.45	43	47	115	-30
	Urban			-0.32	57	53	-14	29
Poverty Sensitive measure (P_2)	National			0.47	100	100	100	0.0
	Rural			1.98	40	49	185	-37
	Urban			-0.71	60	51	-85	37

Source: author's calculations from SCIHBS, 1989,1994.

5 A BREAKDOWN OF POVERTY CHANGES BY SOCIO-ECONOMIC CHARACTERISTICS

Decomposition of poverty based on socio-economic characteristics can help to understand which parts of the population have higher levels of poverty and to what extent the socio-economic groups gain or lose during a period of time or under a specific macroeconomic policy or structural change. In other words, the results presented in this section give us a better idea of who the poor were and which groups had the highest incidence of poverty. In order to pursue this theme, we need, first, a dissaggregation of the data into subgroups of interest. In this regard, the sample subdivided into mutually exclusive and collectively exhaustive subgroups characterised by (i) educational qualification of the head of household, (ii) economic status of head of household, (iii) household size, and (iv) household type.

5.1 DECOMPOSITION OF POVERTY BY EDUCATIONAL QUALIFICATION OF HEAD OF HOUSEHOLD

We now turn to decomposition of poverty by some characteristics of head of household. Table 2 presents decomposition of poverty in terms of the qualification of the head of household. According to all the three poverty measures, it appears that more education is associated with less poverty. For example, in 1994 about 50.26 percent of persons in households headed by an illiterate person were in poverty while only 3.97 percent of persons in households headed by a higher educated (Bachelor and more plus religious study) were in poverty.

Looking at the headcount index, there was an increase in poverty for all qualification groups between 1989 and 1994, but by more for less qualified people. In spite of the 8.37 percent increase in poverty for illiterate people between 1989-94, the contribution of this group to national poverty decreased from about 66 to 55 percent. This is because about ten percent of the population in this group moved to other groups, i.e., the better off illiterate heads of households became literate. In other words, it is interesting to note that while the proportion of illiterate heads of households decreased considerably between 1989-1994, according to all the three poverty measures, poverty amongst this group considerably increased. This may indicate that only some of non-poor illiterate people found a chance to be literate and shift from this group and therefore poor illiterate people were the losers during this period of time. Column 9 of Table 2 also indicates 84 percentage of headcount ratio changes was due to a rise in pure poverty within group (excluding contribution from changes in population shares). The poverty gap index also shows

an increase in poverty (except for the final group which shows a reduction from 1.25 to 0.00). The distribution sensitive measure also indicates an increase in poverty for those households for which the qualification of its heads of household was *Rahnama* (middle class) and less. On the other hand, it shows a decrease for those households that their heads' qualification was secondary or more. To sum up, illiteracy is closely associated with higher poverty risks and, therefore, improving education can help considerably to get people out of poverty.

5.2 DECOMPOSITION OF POVERTY BY EMPLOYMENT STATUS OF HEAD OF HOUSEHOLD

Table 3 presents poverty decompositions by employment status of the head of household. We have grouped the households by economic status of the head of household using four groups, namely: employed and aged over sixty, unemployed and aged over sixty, employed and aged under sixty, unemployed and aged under sixty.

As expected, about half of persons in households with unemployed head who were elderly (over sixty years old) were poor in 1989 and the lowest figure belongs to persons in the households whose heads were employed and under sixty. By looking at figures of other groups in Table 3, we can see that both factors of age and unemployment contributed to more poverty.

In spite of a decrease in poverty amongst persons in households with unemployed head regardless of the age of their heads of household, poverty amongst persons in households with employed head increased between 1989 to 1994. For example, the poverty rate of households whose heads were employed and under sixty, increased from 29% in 1989 to 35% in 1994 (about six percent). The contribution of this group to national poverty in terms of headcount ratio increased from 57.1 percent in 1989 to 68.29 in 1994. The changes due to rise in pure poverty within subgroup belonging to this group was also 101.22 percent. The poverty gap index and the poverty sensitive measure also confirm the headcount index changes and all differences are statistically significant.

That is to say, while the incidence of poverty was very high for persons in households with unemployed head, the increase in national poverty was not necessarily due to lack of social safety net to unemployed and elderly people or lack of jobs. As column 9, 16, 22 of Table 3 show, the contribution of persons in households with unemployed head to the national poverty rise was even negative. It can, however, be explained by the deterioration of living standards of persons in households with employed head who were mainly working in the public sector. For example, the small increases in salary and wages could not compensate for the high inflation rate that people experienced since 1989. Since 1989 when adjustment policy was implemented a majority of public employees has had second or third job. This means that even by sacrificing leisure, they could not maintain their standard of living in terms of income.

Tables 2-7 are available from author.

5.3 Decomposition of poverty by household size

Table 4 contains information about the extent of poverty by household size and subgroup contributions to the aggregate increase of poverty during 1989-1994. Table 4 also provides information on each household size contribution to aggregate poverty changes.

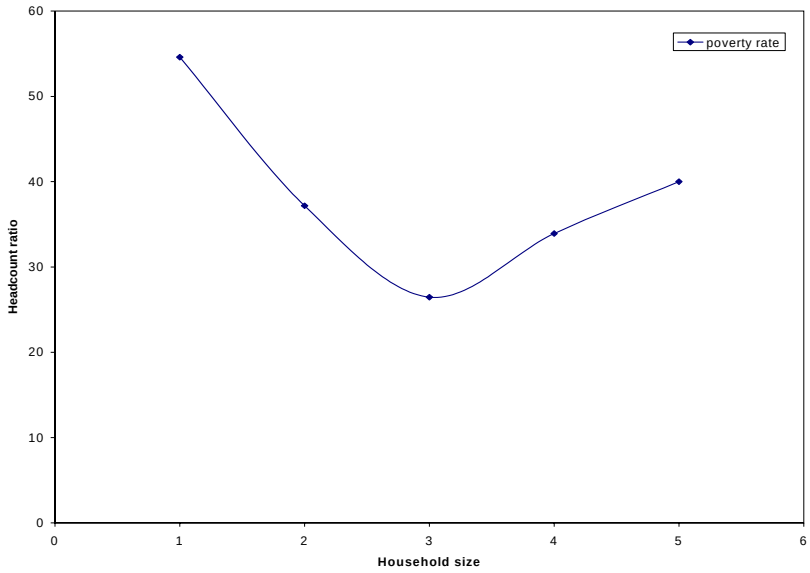
It appears that, according to all three poverty measures, the shape of poverty trend by household size is U-shaped in Iran, i.e. the extent of poverty is large for small and very large households. See Figure 2. This is consistent with the socio-economic situation of the country. The high figures belonging to single households, of course, involve a small percentage of the population. Since almost everybody marries at an early age in Iran, it can be said that most single persons are those who have lost their partners by war, accident and so on. The second highest figures belong to the households of 10 or more persons. This indicates that the two extreme household sizes are the poorest sections of the population. The household size of two has also shown a high figure of poverty. This is because this size of household includes two types of vulnerable people: (i) those who are teenagers and lost their parents and (ii) those who are elderly and their children have left them. The lowest figure of poverty belongs to households of size 3 to 5, which means a couple with one or two children can better afford their expenses. This

category includes the rich and the middle class of the population that usually tend to have fewer children (i.e. one or two).

The rise in poverty among household size of 6-9 clearly had largest influence on aggregate poverty changes. During 1989-1994 poverty amongst single persons household size fell slightly and amongst persons in 2-person household size decreased from 37 to 30 percent, but poverty amongst persons in household size of 6 and more considerably increased. All differences are statistical significant. As column 8 shows, the contribution of household size 6 and more to national poverty rate was 72 percent, which clearly means that the poor people are mostly concentrated in this category.

As we separated the pure effects within subgroup to the population shifts effects, column 9 of Table 4 also shows that over 94 percent of the increases in the national headcount index belong to persons in household size of 6 to 9. The corresponding figure for the distribution-sensitive poverty measure is 124 percent. The second most important contribution comes from the household size of 10 or more. Also noteworthy is that the contribution of population shift among various household sizes to the aggregate poverty rose were negative for the headcount and the poverty sensitive measures (-10.85 and –18.45 respectively) and was nil for the poverty gap index.

Figure 2 Poverty rates by household size



5.4 **DECOMPOSITION OF POVERTY BY HOUSEHOLD TYPE**

To shed more light on the relationship between poverty and household structure, we turn now to the partition of poverty by household type. The chosen household types are; 1 adult; 2 adults and head of household age over sixty; 2 adults without children and head of household age below sixty; 2 adults, 3 children and head of household age below sixty; and 2 adults, 4 and more children and head of household age below sixty. Individuals were grouped according to the household type to which they belong. About half of single adults were in poverty in 1994. A household with two adults whose head of household was age over sixty also had a similar situation to the single adult. Table 5 shows that persons in households comprising a couple without children whose head of household age are under sixty had the lowest proportion of poor (poverty rate) amongst all other categories (i.e., 18 and 15 percent in 1989 and 1994 respectively). By looking at the other household types, as the number of children increases, poverty increased. Therefore, in the case of household type, the U-shaped poverty trend also keeps to persist. The only change is that the minimum point of the curve changed to the household of couple without children whose heads were under sixty.

Table 5 also suggests that all three measures show an increase in the poverty of single persons, household of two adult whose heads were over sixty, and households with 3 or more children, but there was a reduction in poverty of household of couple without children. The contribution of households with three or more children to national poverty was about 75.1 and 78.3 percent in 1989 and 1994 respectively. The percentage of "pure change in poverty rate within group" rise for household with 3 or more children was also 105.8. The poverty gap ratio and the poverty sensitive measures obtain similar figures and all poverty changes are statistically significant (except the increases in poverty gap and distribution sensitive measures for household type of "adult 2 and age over sixty").

6 REGIONAL DECOMPOSITION OF POVERTY CHANGES

Targeting may be a viable way to allocate resources for poverty alleviation in developing countries. The rationale for targeting poverty alleviation programs on the basis of geography is the existence of large differences in living standards between geographic areas and the concentration of poverty in some areas. These disparities arose because of large differences in the price and quality of housing, the quality of physical infrastructure, socio-economic characteristics of the population, and the quality of public services and biases in government policies which perpetuate the cycle of poverty. Thus targeting transfers to poor regions can be an administratively simple poverty alleviation policy.

We have grouped the provinces of the country into nine groups in two ways, (i) geographical and (ii) ethnicity (Table 6 and 7). As Table 6 presents, the poorest region in 1989 was the group of middle-2 including Lorestan, Choharmohal-Bakhteyari and Kohkeloyeh-Boyerahmad provinces, and the second poorest region was the North-east group, i.e., Khorasan province and the least poor region was Tehran. The poverty changes between 1989 and 1994 indicate that poverty fell off for only these two poorest regions (middle-2 and Northeast) and all other regions experienced an increase in poverty. This may suggest that the regional targeting polices were right but the government failed to control simultaneously the negative effect of adjustment policies on other regions. In terms of poverty gap and poverty sensitive measures the Southeast region (i.e., Systan-Balochestan and Kerman) shows a decrease as well. On the other hand, although the poverty gap index maintains the poverty ordering, but in terms of the distribution sensitive measure the poorest region in 1989 was the South-east. The figures also show a considerable poverty rise for northern and southern regions.

The capital province of Iran, Tehran, had the lowest poverty amongst other regions. Although there was a slight increase of poverty rate for this province, in terms of poverty gap and the poverty sensitive measures it had no significant poverty changes and its pure poverty change contribution to the national poverty was only about one percent.

Table 7, which regroups the provinces defined in terms of ethnicity, indicates the highest poverty rate in 1989 belong to the *Lor* provinces. The second poorest ethnic population was *Baloch*. The contribution of these two to the national poverty was 12.87 and 2.14 percent in 1989 respectively. According to all poverty measures, the differences of poverty figures between 1989 and 1994 show a decrease amongst these two ethnic populations (except a slight increase of headcount ratio for the *Baloch* one). Their percentage contributions of the "pure change in poverty within group" to the national poverty, for instance, the distribution sensitive measure, were 17.31 and 18.58 respectively. Poverty in the *Kord* and Arab provinces rose the most between 1989-1994.

7 CONCLUSION

The incidence, intensity and severity of poverty are higher in rural than urban areas in Iran. All poverty measures suggest a considerable poverty increase in rural areas during 1989-1994. From these three poverty measures respectively, 59, 115, 185 percent of national poverty rise was due to a rise in pure change in poverty for rural areas. Although the poverty rate for urban areas increased according to the headcount ratio and the poverty gap ratio but according to the poverty sensitive measure it shows a slight decrease.

we found that there is an inverse relationship between education and poverty and illiterate individuals constitute an important part of the poor population. we also found that although the level of poverty amongst unemployed was very high but the contributions of poverty level and poverty changes both indicate that the poor is to a great extent amongst employees. The shape of poverty trend in terms of household size and household type is

U-shaped. In sum, poverty was more pronounced amongst rural households, large households, single person households, those persons in households headed by people with low education or being illiterate, and those persons in households were its heads of household were unemployed or elderly.

Regional decompositions show that although poverty was spread throughout the country, the intensity of poverty in some provinces such as Lorestan, Choharmohal-Bakhteyari and Kohkeloyeh-Boyerahmad, and Systan-Balochestan (which are residence of *Lor*, and *Baloch* people) was more pronounced. During the adjustment policy programme (1989-1994) poverty in almost all regions deteriorated.

The question is to what extent these factors are associated with high levels of poverty related to each other? Illiteracy, a tendency towards large households and unemployment, are mostly rural phenomena in Iran. In addition, there is an inverse relationship between illiteracy and household size and also between illiteracy and unemployment. See cross tabulation of these factors in Mahmoudi (2001, p119-121). For instance, as a reason for the high level of poverty, the Lor and Baloch have the highest illiteracy rates and as theirs is a nomadic culture[3], they tend to have more children. We can see a high percentage of illiteracy in these two regions, i.e. middle-2 (Lor residence) and East-south (Baloch residence) and also that most of illiterate and less educated people are living in rural areas.

The reason for the rise of poverty during 1989-1994 is explained by the factors mentioned above, especially illiteracy and large household size. The largest contribution for the rise of poverty during this period belonged to the group of household whose heads were employed and aged under sixty (101.2 %). It should be stressed that this group had the lowest figure of poverty amongst all the groups. This is because, for example, the small rise in their wages and salary did not compensate the high inflation rate that people had been experiencing since 1989. But, for instance, the contribution of unemployed and elderly to the change in poverty, because of receiving financial support, was in fact negative (-4.0%). The other factor that explained the increase in aggregate poverty change between 1989 and 1994 was a rise in poverty among illiterate people. That is, the contribution of a rise in poverty among illiterate people to the aggregate poverty change was about 84, 121, and 170 percent, according to all three poverty measures, P_0, P_1 and P_2 respectively. The rise in poverty among large household sizes (6-9) also had the largest influence on aggregate poverty changes. Over 94 percent of the rise in national headcount ratio belonged to persons in household size 6 to 9. The corresponding figures for the change in poverty gap and the distribution sensitive measures were 105 and 124 percent respectively. As stated earlier, these characteristics are mostly rural phenomena. The main contribution of the rise in national poverty was explained by the poverty change in rural areas rather than urban ones. That is, according to the three poverty measures, P_0, P_1 and P_2, the contribution of the rise in aggregate poverty changes amongst rural people were 58, 115 and 185 percent respectively. One can see those characteristics which were leading in the poverty profile also explained the rise in poverty during the period of 1989-1994. In other words, these basic factors (i.e. illiteracy and large household size and living in rural areas) played an important role in the poverty profile as well as poverty changes. This indicates that along with an effort to make a considerable reduction to the inflation rate, policy-makers should target the level of development in rural areas, improve and expand the level of socio-economic factors, such as education, health care and creating more employment opportunities for the low income peoples.

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[3] Similar to people in rural areas nomads are driven by both economic reasons such as need for working hands and social problems, i.e. the more male offspring for both prestige and security.

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