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IMPROVEMENT OF SOCIAL ASSISTANCE TARGETING IN ARMENIA

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Improvement of Social Assistance Targeting in Armenia

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Introduction

This paper was developed under the “Household Survey Project” of Economic Development and Research Center (EDRC)¹ in 2006. The Household survey was conducted within the contract of the Ministry of Labor and Social Issues of Armenia in the framework of the “Social Protection Administration Project” of the World Bank.

The goal of the project was to assist the efforts to increase the efficiency, better target and increase access to social assistance in Armenia, namely the Family Benefit System. The objectives were set to assess the needs of households and social services. The task was to assess the needs of households and social services, define priorities of thereof, develop alternatives for social assistance and adjust the *family poverty scoring formula*.

As a result of the project implementation:

- Statistical sample surveys of households in general and beneficiary households (under Family Benefit Program) in Armenia were conducted ,
- The statistical-analytical paper - “Poor Families and Social Transfers in Armenia” was prepared,
- The present policy recommendations paper was prepared – “Improvement of Social Assistance Targeting in Armenia”.

The paper analyzes the budgets for social services, poverty deficit and the efficiency of the Family Benefit System. It also thoroughly analyzes the poverty scoring formula and the indicators used by it. Policy recommendations were drawn along with a budget framework for them. Furthermore, recommendations are given for the improvement of the Family Benefit System organization and refinement of the poverty scoring formula.

Data Used

The analyses mostly used the data obtained through the household sample survey carried out by the EDRC during 2006 (Poor Families and Social Services in Armenia). The Survey was planned and conducted at two levels: the first sample covered all households in Armenia (sample size of 3800 households), whereas the second covered those households that were receiving Family Benefits as of April, 2006 (sample size of 700 households). The Surveys are representative of the households in Armenia for the breakdown of Yerevan, Large Cities (Gyumri and Vanadzor), Small Towns (all remaining towns), Large and Medium Villages (with population of more than 500) and Small Villages (less than 500)².

The analyses also used the database of the 2004 Household Survey carried out by the National Statistical Service. This survey represents Armenia broken down for Marzes, Yerevan, total for all the remaining cities and towns and total for the villages. The aggregate consumption is used for calculating poverty and poverty gap, whereas poverty line and extreme poverty line (food poverty line) were taken as recorded by the NSS as of 2004: AMD 19373 and AMD 12467 per capita respectively.

The paper also used the “Database on Household Social Vulnerability Evaluation” of the Ministry of Labor and Social Issues, as well as other statistical data and publications.

¹ For information on the EDRC, please visit www.EDRC.am

² See: “Poor Families and Social Services in Armenia”, Household Survey Report, EDRC, Yerevan 2006

Social Assistance and Poverty

Social Services

In 2005, the Law on Social Assistance and the Law on State Benefits were adopted: they attempted to regulate the social assistance sector in Armenia. The first Law defines the modes of social assistance, its principles, the rights and responsibilities of stakeholders³. The Law on State Benefits regulates the relations pertaining to one of the modes of social assistance defined by the Law on Social Assistance. It defined three types of state benefits: Family, Childbirth and for the care after a child under 2.

In general, the social assistance system in Armenia targets the following beneficiary groups:

- Poor households,
- Children,
- Unemployed,
- Veterans, military servants and families of killed during military service,
- Politically repressed,
- Refugees,
- Disabled,
- Elderly and age-pensioners, etc.

Public programs of social protection are mostly funded by the Government budget, while the State Social Insurance Fund implements the program of mandatory social insurance of Armenian citizens (age pension insurance).

The Social Security State Budget in Armenia is not very large: it is equivalent to 2% of the GDP. This is a rather low indicator as compared to Eastern European countries. In absolute terms, it totaled AMD 44 bln in 2005 which increase by 27% and reached AMD 60 bln in 2006 which was equivalent to 11.5% of the State Budget expenditures.

Public programs in social security funded by the Government in 2006 were implemented through 5 program areas that included more than 60 programs. The largest program areas are State Benefits to the Population (48%) and Pensions (30%).

	2005 actual	2006 program	2007 program	Growth rate, %		
	AMD bln			2006/2005	2007/2006	2007/2005
Total Social Security State Budget	44.1	55.9	64.4	26.6	15.2	45.8
State Governance	0.8	1.2	1.4	40.4	18.2	66.0
Pensions	14.4	17.1	18.3	18.7	7.3	27.4
State Benefits to the Population	22.0	27.0	28.1	22.7	3.8	27.4
Social Security Measures	3.9	4.7	5.8	21.3	23.8	50.2
Other Social Programs	3.0	5.9	10.8	94.0	82.7	254.5

Family Benefit Program constitutes the overwhelming majority of State Benefits. In the Pensions, programs on pensions to military officers, privates and families thereof and social pensions constitute the largest share in total (see Annexes).

³ The stakeholders are the Government of Armenia, The Ministry of Labor and Social Issues (as the authorized body for the sector), Provincial Governments, the Regional Centers of Social Services, the organizations that provide social services, Local Government, the beneficiaries.

We attempted to classify the public programs in social assistance per main beneficiaries (see Annexes). The majority of social programs are direct monetary transfers to beneficiaries (AMD 47 bln), about AMD 5 bln is spent on non-monetary transfers and services, another AMD 3.4 bln are spent on administration and program management (organizational or administrative expenses).

State Social Security System and its Beneficiaries (AMD bln)

	Direct Monetary Transfers	Non-monetary Transfers, Services	Administration and Management	Total
Total State Budget of Social Security	47,219	5,237	3,414	55,869.9
Poor Families	24,366	0	380	24,746
Children	2,578	1,415	6	3,999
Unemployed	10	766	23	799
Veterans, Military servants and families of those killed during service	15,723	15	5	15,743
Disabled and Elderly	3,468	2,849	139	6,457
Politically repressed, refugees, etc	1,074	172	30	1,275
State Governance and other non-classified	0	20	2,831	2,851

Source: 2006 Annual Budget Law, classification by EDRC experts.

Thus, the 85% of the social assistance budget is allocated for monetary transfers. The beneficiaries are the poor households (they take about 44% of the budget) and veterans, military servants and families of those killed during the war (about 28% of total). About 5% of funds are transferred as child benefits, 6% is transferred to the disabled (excluding those who receive Family Benefits).

State Social Security System and its Beneficiaries (% of total)

	Direct Monetary Transfers	Non-monetary Transfers, services	Administration and management	Total
Total State Budget of Social Security	85	9	6	100
Poor Families	44	0	1	44
Children	5	3	0	7
Unemployed	0	1	0	1
Veterans, Military servants and families of those killed during service	28	0	0	28
Disabled and Elderly	6	5	0	12
Politically repressed, refugees, etc	2	0	0	2
State Governance and other non-classified	0	0	5	5

Source: 2006 Annual Budget Law, classified by the EDRC experts.

Thus, the major social service is the monetary assistance. If the pension insurance expenditures for military servants⁴ are excluded, more than 50% of social security system in 2006 will be directed to the Family Benefits (AMD 24.4 bln). The Family Benefit program has the largest budget and the highest number of beneficiaries (about 140 thousand households) among all social programs.

Social Transfers and Poverty Reduction

According to the EDRC Household Survey⁵, 30.2% of households considered themselves poor in 2006 and 9.9% - extremely poor. In 2004, according to the household living standards survey⁶ of the NSS 29.5% of households (34.6% of total population) were poor and 5.2% (6.4% of total population) – extremely poor.

⁴ Military servants, unlike other citizens, do not participate in mandatory social insurance system; do not make contributions to the pension fund. They receive pensions directly from the Government budget instead of the State Social Insurance Fund.

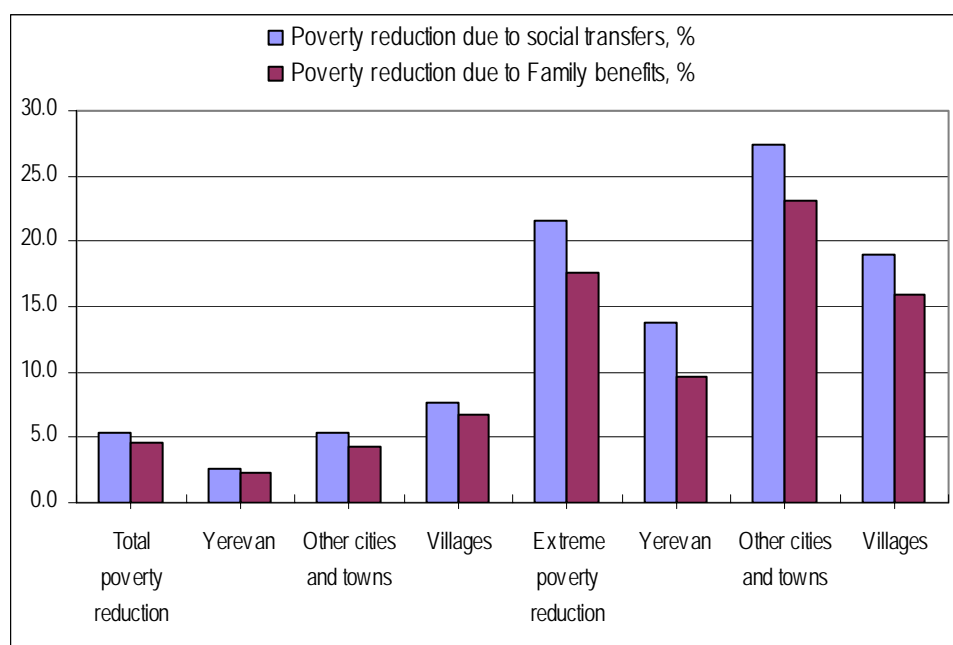
⁵ See: "Poor Families and Social Services in Armenia", Household Survey Report, EDRC, Yerevan 2006.

Nonetheless, only 16-17% of households in Armenia do receive Family Benefits. Family Benefits and other monetary social transfers have alleviated both poverty and extreme poverty.

If not the public transfers and monetary assistance in 2004, according to estimates poverty would reach 36.6%⁷ instead of the actual recorded 34.6%, whereas the extreme poverty would be 8.2% instead of 6.4%. I.e. as a result of public social assistance programs (excluding social pensions), in 2004, poverty decreased by 5.4% (2 percentage points) while extreme poverty decreased by 21.6% (1.8 percentage points). The major role in poverty reduction was played by the largest social program – Family Benefits Program (see Figure 1).

As a result of the Family benefits, poverty reduced by 4.6% (1.7 percentage points), whereas the extreme poverty – by 17.6% (1.4 percentage points). The reduction was prominently high in small and medium towns (by 23%) and in villages (by 16%).

Figure 1: Poverty Reduction as a Result of Social Programs



Social Budget and Poverty Deficit

As a result of analyses of the Household Survey database of the NSS, it was revealed that poverty gap in 2004 equaled 21.3%. This implies that on average each poor needed AMD 4129 monthly⁸ to reach the national poverty line. This would amount to AMD 54.5 bln in total. In other words, apart from all social programs and transfers, another AMD 55 bln would be required in 2004 for the poor in order to ensure that their expenses were sufficient not to be considered poor.

Total public social assistance and insurance programs have reduced the poverty deficit by 38%, while public benefits and other monetary assistance programs (excluding all pensions) reduced it by 12.7%.

Consequently, if there were no benefits and assistance programs implemented by the Government, poverty gap would equal 23.1%, while the poverty deficit would amount to AMD 62 bln⁹. This amount, i.e. the amount of additional

⁶ Integrated Household Survey on the Living Standards and Poverty in Armenia, National Statistical Service of RA

⁷ Calculations do not include social and other pensions: i.e. current expenditures do not include Family Benefits, single-time financial assistance and other benefits assuming that if there were no such benefits paid the expenditures of households would have been lower exactly with the same amount. Calculations by EDRC.

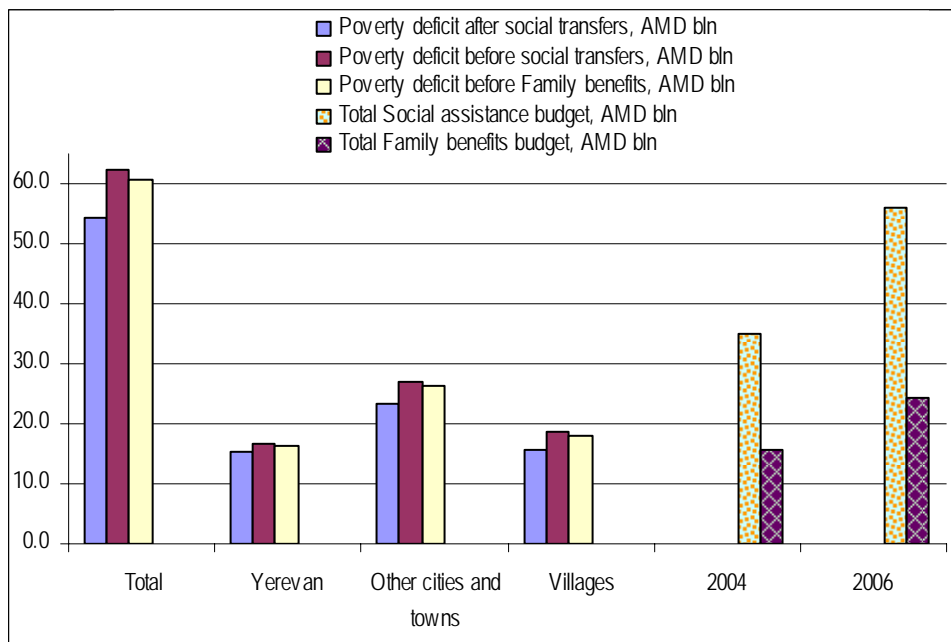
⁸ Poverty line is AMD 19373. Source: Armenia Social Snapshot and Poverty, RA NSS, Yerevan 2006.

⁹ Calculations do not include social and other pensions: i.e. current expenditures do not include incomes received as Family benefits, single-time financial assistance and other benefits.

expenditures required to get out of poverty (aggregate for all the poor) exceeds the total social security program budget¹⁰ by 70% or exceeds the Family benefit budget 3 times.

If we distribute the total Government funds spent on social security only to the poor, it would not suffice to eradicate poverty. Under perfect targeting, the total Family Benefit budget would be sufficient to fight poverty only in rural areas or only in Yerevan.

Figure 2: Poverty Deficit and Public Social Assistance Expenditures



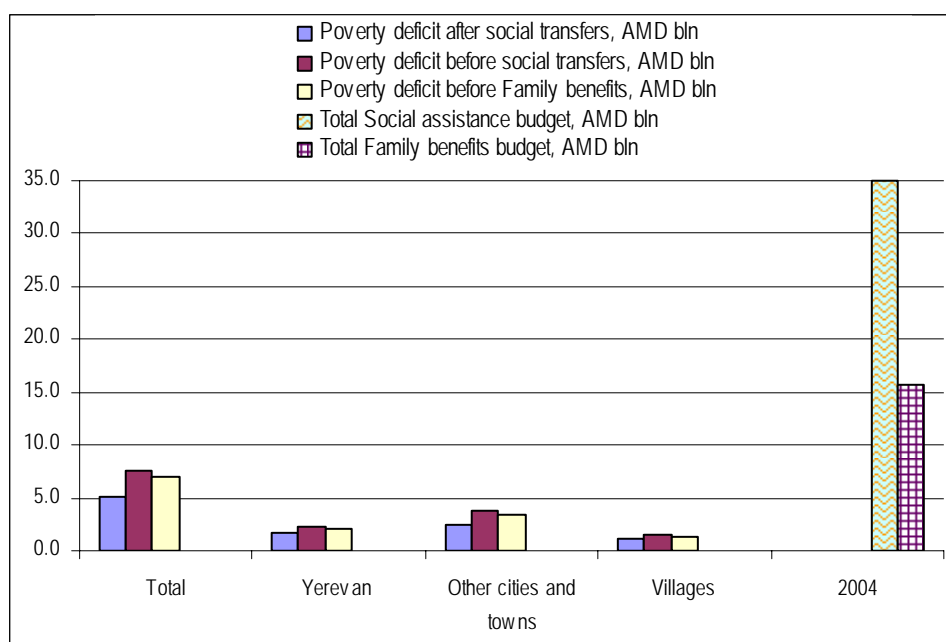
The amount of money required to overcome extreme poverty is much less and it is easily feasible to distribute through public Benefit Program. The extreme poverty gap is 17% which implies that AMD 5.2 bln would be needed to overcome extreme poverty. If no Family Benefits were ever paid the required amount would equal AMD 7 bln.

Thus, the amount of money needed in order to have everybody out of extreme poverty in 2004 was not very large. In order to do that (under perfect targeting situation) 44% of 2004 total Family Benefits budgets would suffice, which is equal to only 38% of 2006 Family Benefit budget.

Assuming that the total Family Benefit budget could have been distributed under perfect targeting in such a manner to overcome extreme poverty (i.e. benefits would have been paid only to the extremely poor and in a size to allow them to get over the extreme poverty line (or to cover extreme poverty gap)), the 2004 budget would still be sufficient to pay monthly AMD 2898 to each poor family, while the 2006 budget would allow paying AMD 5692 monthly.

¹⁰ This refers only to the Government budget and does not include the budget of the State Social Insurance Fund.

Figure 3: Extreme Poverty Deficit and Public Social Assistance Expenditures



Another example would be as follows: if benefits were distributed under perfect targeting (bottom-up, starting from the poorest) so that the poorest families cover their poverty gap, the 2004 budget would suffice for the poorest 3.9% of the total population to get over poverty (in this case poverty would equal 32.4%). Under the 2006 budget, the poorest 6.7% of the total population would get over poverty and poverty incidence would equal 29.6%.

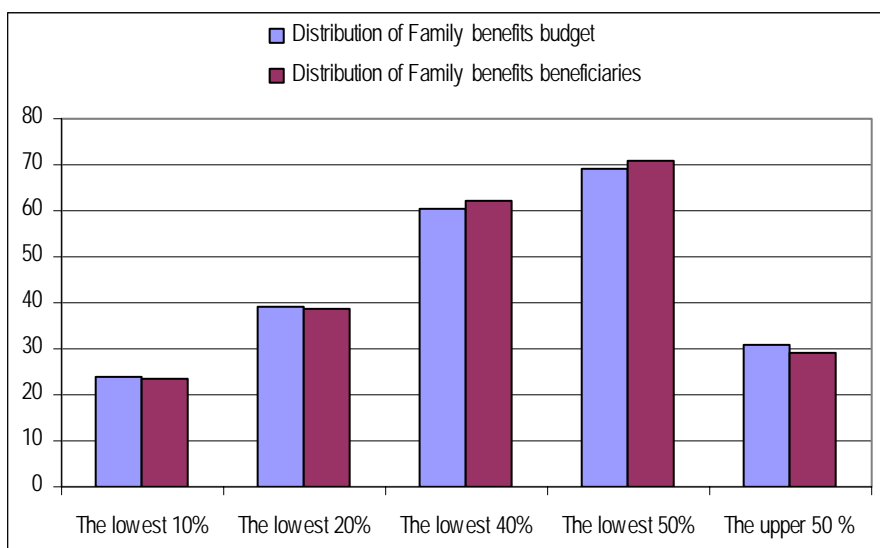
	Beneficiaries FB, % of total population	People that have overcome the poverty, % of total population	Minimum Expenditures, per capita AMD	Poverty Incidence, % of total population
Existing distribution system	14.7	1.7	2,732	34.6
Bottom-up distribution, 2004 budget	3.9	3.9	10,550	32.4
Bottom-up distribution, 2006 budget	6.7	6.7	11,972	29.6

Efficiency of the Family Benefit System

Larger funds are distributed to the poor than it would have been distributed if no targeting efforts were made, i.e. the system is *progressive*. The progressiveness of the system in the first decile equals 1.4, which implies that the lowest decile of the population (the poorest 10%) received from the Government 40% more under current restrictions and approaches than otherwise would have received if no distribution formula or mechanism was used or random distribution was chosen. The same indicator declines to 1.3 for the lowest 20%; while it further declines to 1.2 for the lowest 40%. Despite the system is progressive; it is, however, not efficient.

The number of beneficiary households of the Family Benefit System is twice as much as that of the extremely poor households in the country, while the total budget of Family Benefits distributed in 2004 is about two times of the extreme poverty deficit. Under such circumstances, nevertheless, 62% of extremely poor were not included in the system. Similarly, 76% of the poor were not included in the system. On the other hand, about 30% of Family Benefits are paid to the non-poor 50% of the population.

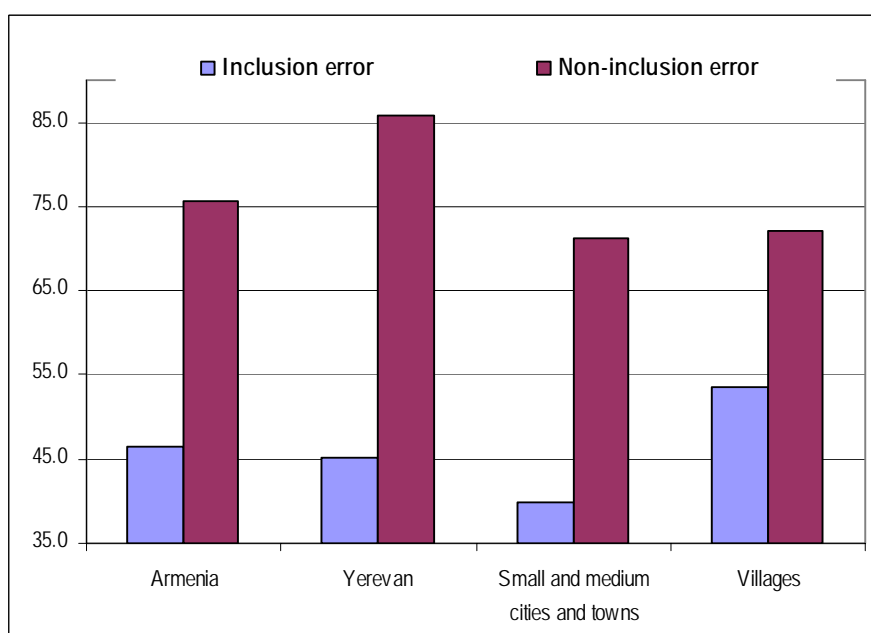
Figure 4: Family Benefit Budget and Distribution of Beneficiaries per Population Groups*



* The lowest 10% is the poorest decile per aggregate consumption, whereas the upper 50% is the wealthiest 50% of the population.

According to the survey of the beneficiary households under the Family Benefit Program¹¹ in 2006, 47% of these households considered themselves extremely poor, while 31% - poor. In fact, 22% of the beneficiary households considered themselves non-poor or wealthy.

Figure 5: Estimates of Inclusion Error and Exclusion Error of the Family Benefit System



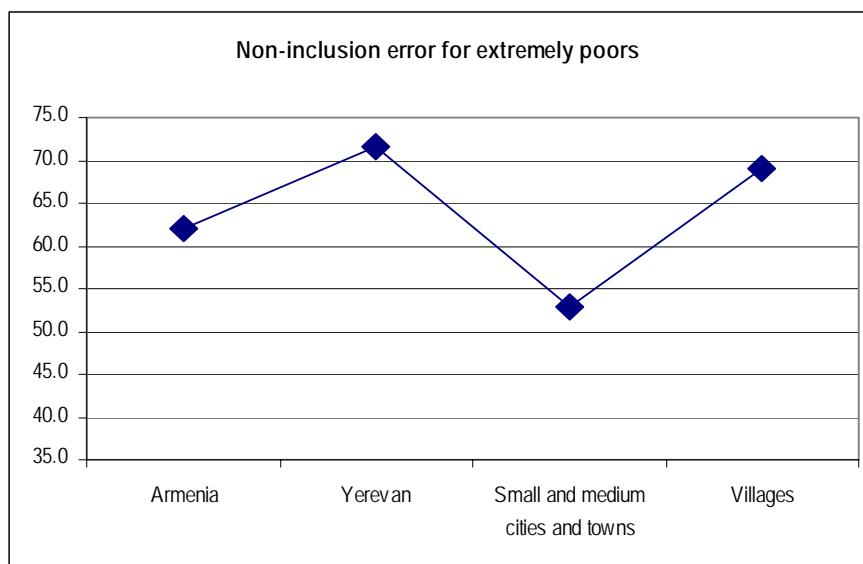
According to the 2004 Household living standards survey of NSS, about 18% of beneficiary households are extremely poor, 36% are poor, while 47% - non-poor.

Thus, the *inclusion error* in 2004 was 46.5%, while the *exclusion error* - 75.6%. The *inclusion error* is particularly high in rural areas – more than 53%. I.e. more than half of beneficiaries in villages are non-poor (see Figure 5). The *exclusion error* is high in Yerevan – 86%: i.e. 86% of the poor in Yerevan do not receive benefits.

If we assumed that the Family Benefit program is targeted solely to the extremely poor or its beneficiaries are those whose per capita expenses fall below the food poverty line, the *inclusion error* would equal 82.6%, while the *exclusion error* – 62%. In other words 62% of extremely poor households are not included in the program: the highest *exclusion error* is recorded in Yerevan and villages.

¹¹ See "Poor Families and Social Services in Armenia", Household Survey Report, EDRC, Yerevan 2006

Figure 6: Estimates of Exclusion Error for the Extremely Poor



Targeting Efficiency to Households with Children

The most general survey on income and expenditures of households in Armenia is the survey on living standards of households in Armenia regularly carried out by the NSS RA. However, the latest findings of these surveys are available for 2005 (those are preliminary) and have not been published yet. Those preliminary findings already show that the efficiency of the Family Benefit system has not improved since 2004, in particular, with regard to the impact of Family Benefits on poverty and extreme poverty reduction.

Regular amendments are made to the Family Benefit System, in particular, the base benefit and additional benefits paid per child are reviewed each year. Those amendments and/or changes can affect the system efficiency and the general coverage of beneficiaries. The only sources of data for 2006 are the databases of the Surveys: General Household Survey and the Targeted Survey of Beneficiary Households¹². The latter laid as a basis for the analyses and assessment of the overall system efficiency in 2006, and in particular, with regard to efficiency of targeting children in households.

The indicator of subjective self-assessment of extreme poverty was used for the assessment of the Family Benefit System efficiency. This indicator is determined on the subjective self-assessment of households on a certain level of living standards or welfare under given level of expenditures. As a result of possible exaggeration and different perception of welfare groups this indicator is expected to be higher than the extreme poverty determined under official methodology, which is the comparison of actual consumption expenditures and the food poverty line.

It is assumed that the beneficiaries of Family Benefit Program should live below or slightly above the food poverty line. In this regard, the self-assessment of extreme poverty can be a good proxy for the description of the Family Benefit System beneficiaries.

The analyses show that per capita consumption of households that consider themselves extremely poor (9.9%) is below the national poverty line, i.e. all of them are "poor" by the official methodology. At the same time, analyses show that the households self-assessed as extremely poor include all households who are "extremely poor" defined by official methodology (under the food poverty line). Thus, the self-assessed "extremely poor" households include all those households that would have been considered "extremely poor" under the official methodology (comparing the poverty line and consumption), as well as some of the "poor" households.

According to the Survey, by using the self-assessment of extreme poverty (hereafter – extremely poor or extreme poverty) one can see that the *inclusion error* of the Family Benefit System in 2006 equaled 77%, while the *exclusion*

¹² See "Poor Families and Social Services in Armenia", Household Survey Report, EDRC, Yerevan 2006

error – 65%. The exclusion error differs for the fact of having children in a household, while the inclusion error is not very dependent on that.

The Family Benefit System is the most efficient for the group of households with 3 children and the least efficient – for households with 1 child. In other words, both inclusion and exclusion errors are the least among households with 3 children and the highest – among households with 1 child (see the Table).

The exclusion error for households with 3 children is 29% which implies that only 29% of households with 3 children do not receive benefits. Meanwhile, 78% of extremely poor households with 1 child are not paid benefits.

Subjective Self-assessment of Extreme Poverty and the Efficiency of the Family Benefit System (according to the EDRC General Household Survey 2006)

Households groups per number of children	Breakdown of households	Extreme poverty	Breakdown of the extremely poor	Breakdown of beneficiaries	Beneficiaries *	Extremely poor that do receive benefits **	Not extremely poor that do receive benefits **	Extremely poor that do not receive benefits ***
No children	44.8	11.2	50.5	32.7	11.0	28.2	71.8	72.1
1 child	22.0	6.5	14.4	15.0	10.3	14.0	86.0	77.8
2 children	23.1	8.1	18.9	26.3	17.2	17.2	82.8	63.4
3 children	7.8	14.1	11.2	18.3	35.2	28.6	71.4	28.6
4 and more children	2.2	22.9	5.1	7.8	54.2	26.7	73.3	36.8
Total	100.0	9.9	100.0	100.0	15.1	23.1	76.9	64.6

* As share in the total for the same group of households, %

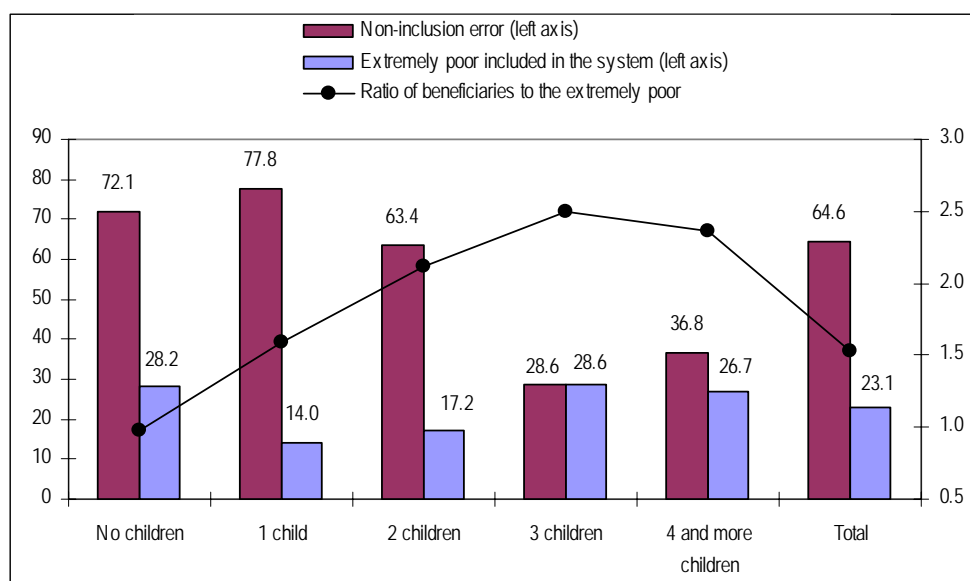
** As share in the beneficiary households in the same group of households, %

*** As share of the extremely poor households in the same group of households, %

Inclusion error for all groups is very high: i. e. large share of households that receive benefits are not extremely poor (see the Table). For example, 71% of beneficiary households with 3 children are not extremely poor, neither are 86% of beneficiary households with 1 child.

Exclusion error is small among the households with 4 and more children – 36.8%, however, benefits in this group are paid to more than each second household (to 54%). According to the analyses the inclusion error does not depend on the efficiency of targeting used for each group of households, but rather depends on the amount of benefits distributed to the same group. If large share of benefits budget is distributed to a given group, exclusion error decreases, although the share of the extremely poor among beneficiaries remains unchanged. Figure 7 depicts the curve showing the proportion of the beneficiary and extremely poor households in each group. The average national ratio is 1.5 which implies that the number of extremely poor households is two times more than the number of beneficiaries.

Figure 7: Efficiency Indicators of Family Benefit System (according to the 2006 EDRC Surveys)

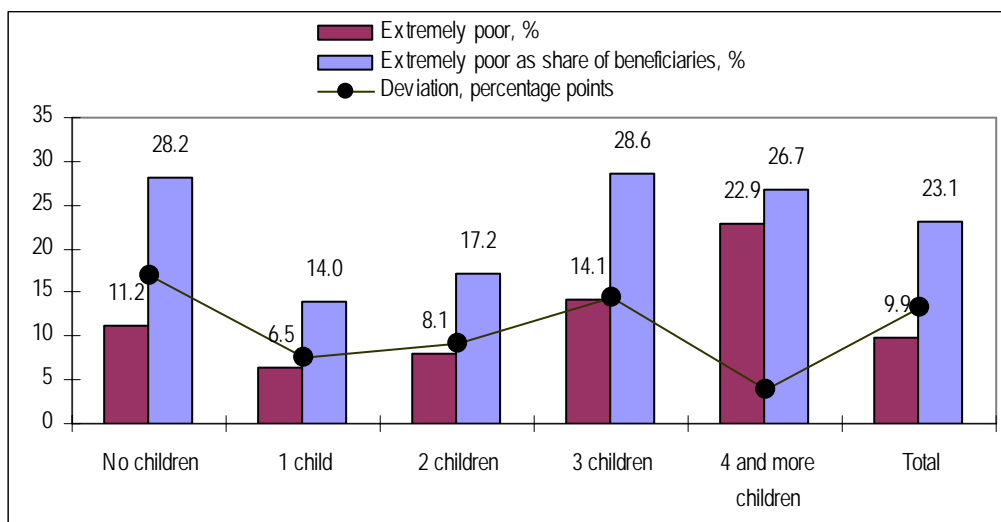


According to Figure 7, the ratio of beneficiary households to the extremely poor is indifferent to the indicator of extremely poor households included in the Family Benefit System (the share of extremely poor among beneficiaries); however, it is certainly negatively correlated to the exclusion error (extremely poor households not included in the system as share of total extremely poor households). As a whole, except for households with 1 or 2 children, the share of included extremely poor households is relatively stable – 27-28% irrespective of the number of beneficiaries as share of the extremely poor. If the ratio of beneficiaries to the extremely poor is high, then the exclusion error is small and vice versa. E.g. only 11% of households with 1 child receive benefits which are equal to the share of the extremely poor in this group (the coefficient is close to 1). As a result, 28% of beneficiaries are extremely poor; however 72% of the extremely poor are not included in the system. 14% of households with 3 children are extremely poor, but the number of beneficiaries is considerably higher (coefficient of about 2,5). Thus, again about 28% of the beneficiaries are poor, however, since the number of beneficiaries is 2.5 times more in this group, the inclusion errors is lower – 28%.

The formula targeting for households with 1 or 2 children is the worst: 14% and 17% respectively are extremely poor among beneficiaries in these two groups. If we compare this group with the group of households with no children, one can see that, apart from the fact that the inclusion of extremely poor is very low; the exclusion error is very high under circumstances when the ratio of beneficiaries to the extremely poor is much higher (see Figure 7).

In summary, one should first note that the share of extremely poor in all groups of beneficiary households is much higher than their share in all households in the same group

Figure 8: Efficiency Indicators of Family Benefit System (according to the 2006 EDRC Surveys)



9.9% of all households are extremely poor, however 23% of beneficiaries are extremely poor (see Figure 8). This implies that the system is progressive or more resources are diverted to the poor under the current formula and methodology than otherwise would have been distributed with no targeting at all. The system is relatively more progressive for households with no children and with 3 children. For households with 4 children, the share of extremely poor in the beneficiary households is the lowest as compared to the actual extremely poor households; nonetheless, the system is still progressive for this group. Thus, the efficiency of targeting differs depending on the number of children in a household and, furthermore, no trend of efficiency change along with the increase in the number of children in a household has been identified. In particular, the inclusion error does not change depending on the number of children, while, the exclusion error does.

Summary

The social security budget in Armenia mostly includes direct monetary transfer programs. The main beneficiaries of the social security system are poor families. Large share of the social assistance budget is directed to those families thorough Family Benefit Program.

Poverty deficit in Armenia is much larger than the state budget of transfers that target it. This is a normal situation since it is never appropriate to cover the entire poverty deficit solely from transfers from the government budget.

The major role in reducing poverty should be given to non-monetary transfer programs; however, their amounts currently are very low in Armenia.

Monetary transfers first should target at overcoming extreme poverty. The resources required for this task, i.e. to cover the extreme poverty gap, are much less and can be deemed affordable.

The Family Benefits System, under current approximation method (formula) is progressive, i.e. or more resources are diverted to the poor under the current formula and methodology than otherwise would have been distributed with no targeting at all. As a result, both poverty and extreme poverty is alleviated due to benefits. In 2004, poverty decreased by 2 percentage points, while extreme poverty – by 1.8 percentage points. The “price” for such reduction was that 30% of the benefits budget was distributed to the non-poor 50%. These results cannot be evaluated as satisfactory, nor the system – efficient, particularly when the benefits budget is more than 2 times higher than the extreme poverty deficit, while the actual number of beneficiaries is more than two times of the number of extremely poor households in Armenia.

According to the analyses of 2004 data, the *inclusion error* is 47%, while the *exclusion error* – 76%. Inclusion error is particularly high in villages – more than 53%, or more than half of beneficiaries in villages are not poor. The exclusion error is the highest in Yerevan (86%): about 86% of the poor in Yerevan do not receive benefits. More than 72% of the extremely poor in Yerevan and 68% of them in villages do not receive benefits.

According to the Surveys carried out by the EDRC in 2006, 9.9% of households consider themselves extremely poor. This is much higher than the expected indicator under official statistics. 65% of these households are not included in the Family Benefit System, while 77% of included households did not consider themselves extremely poor.

The efficiency of the system does not significantly depend on the number of children in a household or their absence. In particular, inclusion of non-extremely poor in the system, in almost all groups, is high. The exclusion error is the least among households with 3 children. It is also low in households with 4 and more children. However, the latter is explained not by the efficiency of the targeting method, but rather by the fact that every 2nd household having 4 and more children and every 3rd household with 3 children (at least) receives benefits.

The system is the least efficient in groups of households with 1 or 2 children: both inclusion and exclusion error is high.

As a whole, the inclusion error is very high, whereas the possible reduction of the exclusion error for households with many children (which are not many in Armenia) is explained by large number of beneficiaries in these groups.

Poverty Scoring Formula

Overview

The Family Benefit System is the largest social assistance program in Armenia which distributes monetary transfers to the poorest households.

The system targets the poor households; however, it is well-known that revealing and scoring poverty is not an easy task. This task is particularly relevant and difficult in a situation with high levels of shadow economy, as well as lack of adequate information technologies for access and sharing of information on employment and other incomes and possession of assets and existing negative traditions, etc. These problems are not short-term, and many years will still be needed before one can facilitate finding and evaluating the “real” poor.

Currently, the Family Benefit System uses an approximation method to determine if a household is poor or not. This method was first introduced 10-15 years ago for the distribution of humanitarian assistance under “Paros System”. In 1999, the reforms of social assistance system collected all types of social assistance into a single mechanism – Family Benefit System. Subsequently, the decision was taken to apply already used methodology of the “Paros System” for the new Family Benefit System.

Under the current system, a household which considers itself poor needs to apply to the respective regional center of social service in order to be included in the system and receive benefits. A social passport is created for each applicant household. According to the information contained in the passport poverty score is calculated: the score is the decisive parameter to be included or rejected¹³. The poverty score also affects the size of the benefit to a certain extent.

The basis for poverty scoring is the social status of each household member, if there are any disabled in the households, income levels, etc.

The poverty score is calculated on the basis of 12 indicators. Depending on the nature of each of the indicators, we have divided those indicators into 3 groups: 1) risk factors creating poverty, 2) additions and 3) constraints.

Poverty Risk Factors

1. Average scores for a household calculated on the basis of the social status of each member - P_{avg}
2. Number of disabled in a household: K_{nh}
3. Household income: K_{in}

Additions

4. Area/settlement: K_r
5. Housing conditions: K_{hs}

Constraints

6. Own car,
7. Transactions with real estate that have resulted in the improvement of housing conditions,
8. Entrepreneurship activities,
9. International trade transactions,
10. Usage of inter-city distance telephone services,
11. Electricity consumption,
12. Subjective assessment by the inspector or the agency.

The major component of the poverty scoring formula is *the Poverty Risk Factors group*. The indicators of this group determine the score depending on the social-demographic parameters of the household and per capita income level.

In addition to the above factors, another opportunity is given to a particular household to be included in the system. The formula contains differentiation of households depending on the place of living (community) and housing conditions. I.e. two households with similar socio-demographic parameters and income levels may be assigned different poverty scores.

¹³ In this paper, we refer to “inclusion to the system” as being accepted to receiving monthly Family benefits.

The group of indicators under "Additions" increase the scores determined by Risk factors, which is an attempt to reduce the *exclusion error* of the system.

Constraint indicators unambiguously determine if a given household, regardless of its demographic, social and other specifics or calculated scores, can be included in the system or not. In fact, *Constraint* parameters aim at reducing the *inclusion error* of the system.

Thus, the overall score of an applicant household is calculated as product of the above three scores. If the score is not 0 and is above the set threshold (currently – 33.01), the household is included into the system of benefits. The size of the benefit is determined as follows: base benefit amount plus extra benefit for each child. The base benefit and the extra benefit per child may vary for high-mountainous and close-to-border communities, as well as depending on the poverty score of a household.

"Poverty Risk Factors" Group

As it was noted this group of indicators is the most important in determining the poverty score, therefore it is extremely important to discuss these indicators in detail. 3 indicators are included in this group: household income, number of household members not capable of working and the average score of respective social groups.

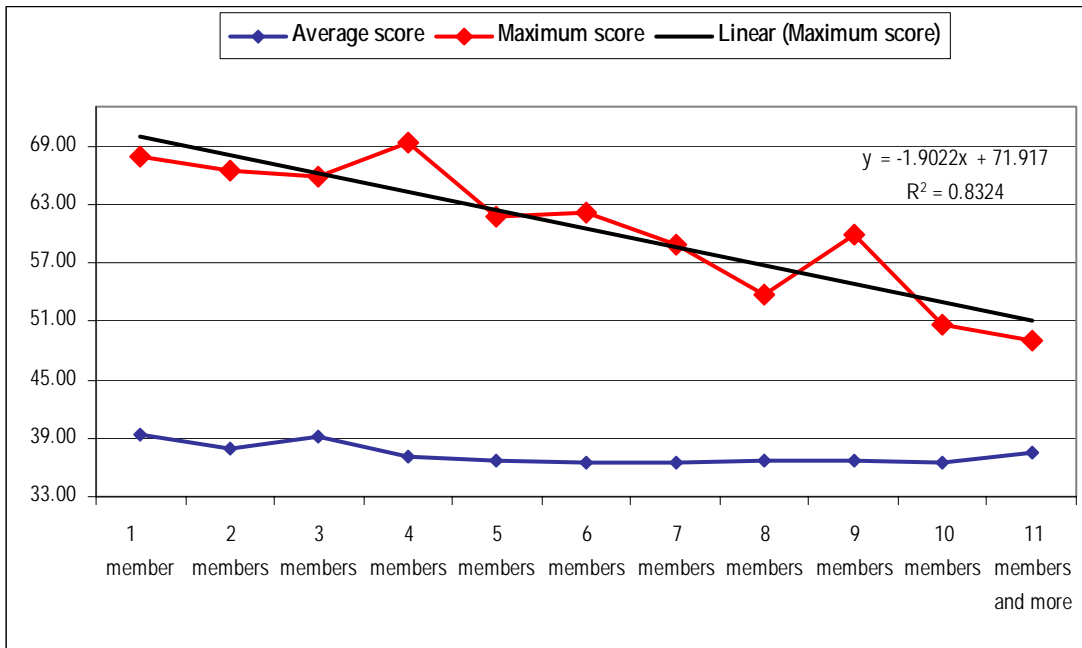
Average household poverty score

An important role is given to the P_{avg} score calculated on the basis of scores corresponding to the social groups of each household member. First, the scores of individual members are calculated; second, the average is calculated for the entire household. The members that do not belong to any socially vulnerable group are assigned a score of 20, while others are assigned the respective scores. If a household member belongs to several groups, than the scores of all groups are added up, however, the largest score is taken entirely, while the second largest – by 30%, and all the rest – by 10%.

There are 16 social groups defined with the lowest score of 22 and the highest – 50.

Code	Title of social groups	Scores assigned to each group
H-11	Disabled, group 1	48
H-22	Disabled, group 2	39
H-33	Disabled, group 3	28
H-44	Disabled children	45
A-55	Children under 2	35
A-66	Children from 2 to 18	33
M-23	Child with one parent	43
E-56	Child without both parents	50
M-45	Single mother's child	26
A-34	Child of divorced parents	26
S-12	Student (under 23, government funded)	22
H-00	Pregnant woman	30
G-99	Unemployed	22
K-88	Age pensioner	34
K-87	Single, non-working pensioner	36
K-86	Elderly pensioner	39

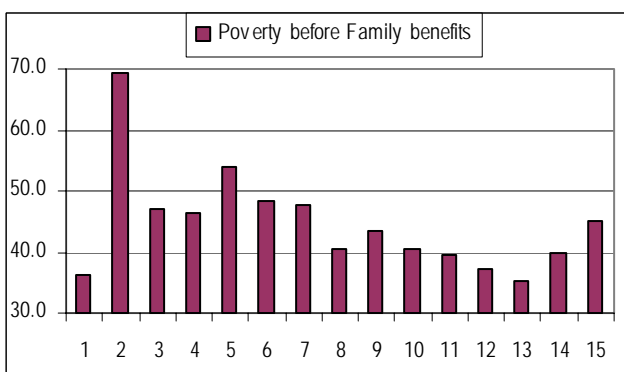
Under the eligibility threshold score of 33.01, households with many members and many children age left out of the system. Along with the increase in the number of household members the maximum score decreases.

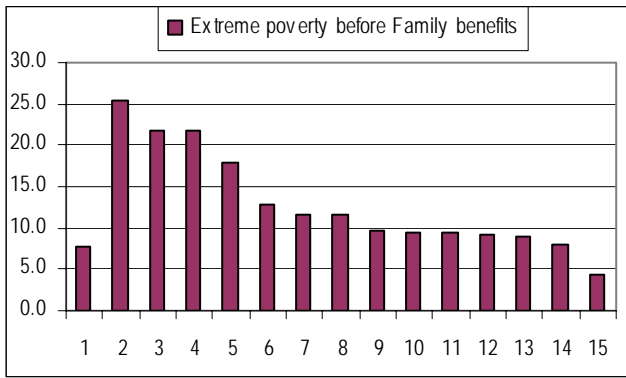


In general, the scores assigned to social groups do not correspond to the poverty incidence and gap.

Population above the average levels of Poverty and Extreme Poverty

	Classification, in descending order	Poverty before Family Benefits, %	Extreme Poverty before Family Benefits, %
Total population	1	36.3	7.8
Children of single mothers	2	69.2	25.4
Disabled under 18	3	47.2	21.8
Children of divorced parents	4	46.4	21.7
Registered as unemployed	5	54.0	17.9
Do not have a job	6	48.4	12.8
Children with one parent	7	47.6	11.6
Disabled, group 3	8	40.6	11.6
Children of 0-6 years	9	43.3	9.7
Children under 17	10	40.6	9.4
7-17 years	11	39.5	9.3
Disabled, group 2	12	37.1	9.3
Disabled, group 1	13	35.3	8.9
0-2 years	14	39.7	8.1
Complete orphans	15	45.0	4.5





Household income

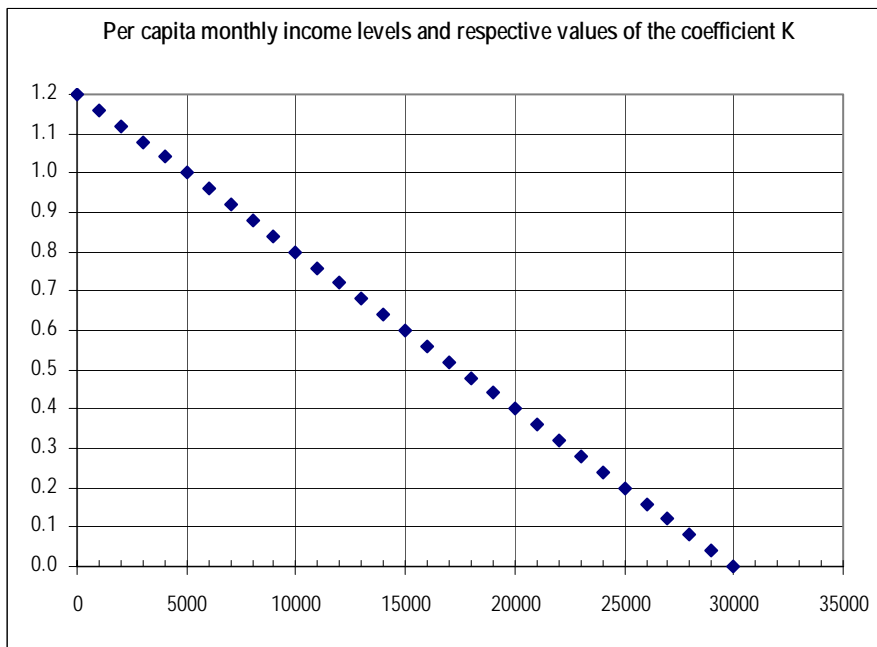
This indicator in the formula (K_{in}) is determined as follows:

$$K = 1.2 - 0.04 \times \frac{\sum_{j=1}^d S_j}{1000 \times n}$$

Where n is the number of household members, j represents the household members that earn income, d is the number of household members earning money, while S is the income of the household member without Family Benefits.

The lowest logical value for K_{in} is 0, while the highest is 1.2. The coefficient of the household income may be evaluated the highest if the household does not have any income. Once the income exceeds per capita AMD 5000 the probability of being included in the system decreases. As soon as per capita income amounts AMD 30 000, the coefficient K_{in} equals 0 and the family is assessed as non-poor and is rejected.

Other things being equal, the probability of inclusion or the poverty score increases if per capita income of a household falls below AMD 5000. The max growth rate of the probability is 20%.



According to the analyses of the NSS Household Living Standards Survey database, there are almost no families who spend less than AMD 5000 per capita (0.1% or 1200 households maximum before Family benefits). This implies that the number of households with income of less than AMD 5000 per capita is insignificant¹⁴. It appears that the K_{in} coefficient

¹⁴ Expenditures of those who have income of AMD 5000 per capita cannot be coger than their income, .e. they cannot save (although can acumulate debt): Therefor the nuber of tose with income of less than AMD 5000 will be equal or less than the numbr of tose spending less than AMD 5000.

does not work as a factor increasing the probability of inclusion for low-income households. In fact, it limits the inclusion opportunities (for households with more than per capita income of AMD 5000).

The Table below summarizes the necessary minimum scores calculated for all components (other than income) for a household to be eligible for inclusion in the system (i.e. the total score to pass the minimum of 33.0) under different per capita income levels. If a household does not earn any income, then the score (income exclusive) shall be minimum 27.5 in order to be eligible. If the household income is AMD 12 000 (extremely poor household), the score assigned for the rest of parameters shall be minimum 45.8, while under income of AMD 16 000 (20% below the national poverty line) the minimum score for the rest of parameters should be 58.9.

In fact, under per capita income of AMD 19 000, the income coefficients - K_{in} reaches its actual maximum value of 0.44: under this income level a household has no chance to be included in the Family Benefit system.

The required score for other parameters in order to be included in the system (to achieve the score of 33.0)

Cases	Per capita income of a household, AMD	Income coefficient K	Minimum score of a household for the rest of parameters
Case 1	0	1.20	27.5
Case 2	1000	1.16	28.4
Case 3	2000	1.12	29.5
Case 4	3000	1.08	30.6
Case 5	4000	1.04	31.7
Case 6	5000	1.00	33.0
Case 7	6000	0.96	34.4
Case 8	7000	0.92	35.9
Case 9	8000	0.88	37.5
Case 10	9000	0.84	39.3
Case 11	10000	0.80	41.3
Case 12	11000	0.76	43.4
Case 13	12000	0.72	45.8
Case 14	13000	0.68	48.5
Case 15	14000	0.64	51.6
Case 16	15000	0.60	55.0
Case 17	16000	0.56	58.9
Case 18	17000	0.52	63.5
Case 19	18000	0.48	68.8
Case 20	19000	0.44	75.0
Case 21	20000	0.40	-
Case 22	21000	0.36	-
Case 23	22000	0.32	-
Case 24	23000	0.28	-
Case 25	24000	0.24	-
Case 26	25000	0.20	-
Case 27	26000	0.16	-
Case 28	27000	0.12	-
Case 29	28000	0.08	-
Case 30	29000	0.04	-
Case 31	30000	0.00	-

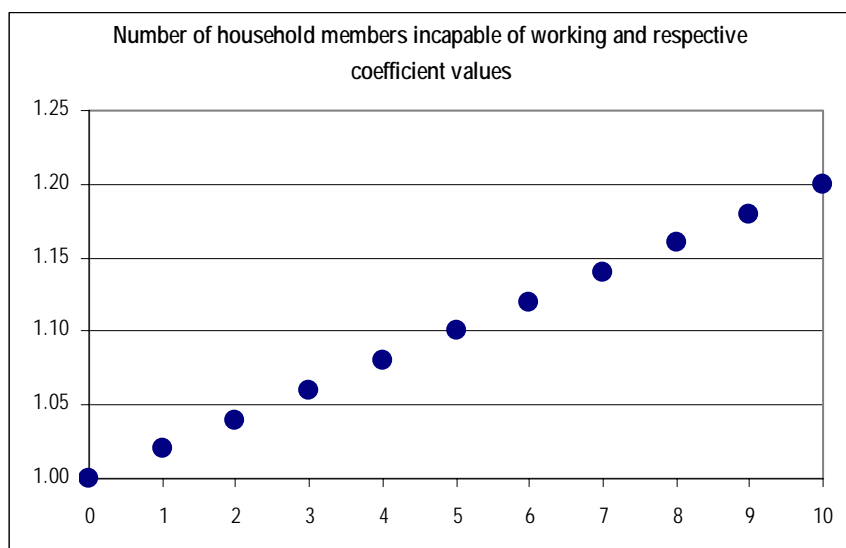
Household members not capable of working

This indicator is included in the formula as coefficient K_{hh} which is determined as follows.

$$K_{hh} = 1.00 + 0.02 * m$$

Where m is the number of household members who cannot work: children, disabled of 1st and 2nd category and age pensioners.

The minimum value for this coefficient is 1 when it does not affect the poverty score. The minimum value of this coefficient appears when there are no household members who cannot work. In all other cases the value of this coefficient increases, thus, increasing the overall poverty score.



The maximum value of K_{hh} depends on the size of the household or, in particular, the number of children. In Armenian reality, the maximum expected number of non-working members can equal 10 which results in the value of the coefficient equal 1.2. In other words, the difference in the scores assigned to a household without any members who cannot work and a household with 10 such members, other things being equal, is 20%. Nonetheless, the average value of this coefficient is much lower than that. According to the results of household survey among households receiving Family Benefits, 11% of such households do not have any members who cannot work, 84% of them have less than 3 such members and only 2% of these households have more than 5 such members. The values for this coefficient fall in the range of 1.0-1.08 which shows that this coefficient usually does not have significant impact.

Number of Those Who are Unable to Work and K_{hh} Coefficient

Household breakdown per number of members unable to work (children and those above 63 years)	Share in total, %	Cumulative share, %	K_{hh} coefficient
No members incapable of working	11	11	1.0
1 household member incapable of working	31	42	1.02
2 household member incapable of working	23	66	1.04
3 household member incapable of working	19	84	1.06
4 household member incapable of working	10	94	1.08
5 household member incapable of working	4	98	1.10
6 and more household member incapable of working	2	100	1.12-1.2

“Additions” Indicators Group

Two indicators are used in this group. The first group of indicators describes the parameters of the living area – K_r . Each settlement/community has the coefficient values of 1, 1.03 or 1.05. 182 communities are determined where households, as compared to households in other communities, have higher chances for inclusion by either 3% or 5%. The coefficient of 1.03 is assigned to towns and cities (except for 2 villages).

Except for Yerevan, Ashtarak, Ararat, Artashat, Masis, Vedi, Vagharshapat, Armavir, Metsamor, Abovyan and Tsakhkadzor, all towns and cities (total 37 towns and cities) have significant coefficients: thus the households are

differentiated for the distance of their communities from the capital. Other things being equal, households in the towns and cities far from Yerevan have 3% higher chances (for Meghri and Agarak, the chances are 5% higher) than households from other communities. In fact, for the majority of cities and towns the minimum eligibility score is in reality 32.05 against and not 32.05.

The rural communities in that list (145 villages), except two of them, are eligible for the coefficient of 1.05. About 40% of villages are small villages (population of less than 500). About half of them are located on valleys, the rest – pre-mountainous and mountainous. The number of high-mountainous villages is not much. In fact, for those 145 villages, the effective eligibility score goes down from 33.01 to 31.43.

The second indicator in this group is the indicator describing the housing conditions reflected by the coefficient of K_{hs} . The coefficient can have values from 1 to 1.2. The lowest coefficient is assigned for households that live in houses or apartments. The most usual values are 1.02-1.07 except for the cases when households live in “temporary homes given after a disaster”. For the latter, the coefficient equals 1.7. Thus, a household that lives in such temporary houses, needs only a score of 27.50 for the rest of parameters in order to be included, while for the homeless and those without permanent housing – 30.85, those who live in dorms – 32.04.

“Constraint” Indicators Group

This group of indicators is very important since it allows for reducing the inclusion error. I.e. these indicators are used for verifying or checking the “real” eligibility of households that have already passed the eligibility threshold score, so that other poor families are not left out. These indicators should be subjective whilst effective. Currently, 7 indicators are included in this group, including the assessment of the regional social service inspector. All of those indicators are assigned values of either 0 or 1: *eligible* or *not eligible*.

4 of those indicators refer to the possession of assets and ability to earn income. In particular, those indicators are:

1. Possession of a car (coefficient equals 0 if a household has registered a new car number since 1998),
2. Acquisition of real estate (coefficient equals 0 if the household has improved its housing conditions through a real estate purchase),
3. Entrepreneurship or business activities (coefficient equals 0 if any of the household members is partner or founder to any enterprise (LLC, partnership, CJSC, OJSC) or is a depositor or is engaged in entrepreneurship activities),
4. Foreign trade activities or receiving in-kind transfers from abroad (0 if any of the household members has paid custom duties for import or export of goods).

These indicators are quite objective and easy to use if we assume that the beneficiaries of the system should be the poorest households. Furthermore, there are two other indicators that indirectly reflect the income level of a household: use of distant telephone services and electricity consumption.

5. Use of distant call services: K_{tel} coefficient

If average paid bills for distant calls in three consecutive months within a year exceed 50% of declared income (but not less than AMD 1000 per month) or a monthly payment equals AMD 5000 and above, the coefficient K_{tel} is assigned a value of 0.

6. Electricity consumption: K_{el} coefficient

If the electricity consumption of a household in summer months exceeds the set threshold, then this coefficient is assigned a value of 0.

In fact, this is one of the most important coefficients in determining poverty: it allows for identifying those households that are not sufficiently poor from the perspective of the Family Benefit System and reducing the inclusion error and thus, making the system better targeted.

The analyses and studies revealed that the current thresholds for electricity consumption are too high. Although they were set in February, 2005, they do not reflect the real consumption levels in poor households. In other words, not only the poor, but also wealthy households can spend less than the set threshold during summer months. The thresholds are: AMD 3900 for a 1-member household, AMD 5200 for 2-members' households, AMD 6500 for 3 people, AMD 7800¹⁵ for 4 people and so on. In reality, poor households spend much less even in winter months¹⁶. The current threshold implies average monthly 156 kWt.h for 1-person household, 208 kWt.h - for 2 people, and 260 kWt.h for - 3 people and so on.

On the other hand, we also found out that the constraint on electricity consumption was no longer used in the last two years. The reason is that the electricity company does not provide the data on household consumption. Not using the electricity consumption constraint seriously undermines the efficiency of the overall formula and considerably increases the risk of inclusion error.

Summary

The formula needs certain adjustments and amendments. First it is necessary to adjust the social groups and their scores. K_{in} is very inefficient and it is, in fact, a constraint factor and increase exclusion error. Due to this indicator, those households whose income are not official and can be left undisclosed are often easily accepted into the system, whereas those who receive income from official sources (pensions, etc) are left out of the system even with a slight increase in income. Although the impact of the coefficient that shows that a household lives in temporary house is very strong – 20%, which is considerably higher than the score assigned to homeless and people not having a permanent place to live.

The differentiation between Yerevan and areas around it and the rest of the country is too strict. The coefficient K_r grants privileges to a number of villages, while other villages were treated as usual, although the villages with privileges do not have distinct specifics. Therefore, the approach is not comprehensive and sometimes even can be evaluated as unfair.

The thresholds of electricity consumption need to be reviewed and adjusted: currently they are too loose and easily allow for inclusion of non-poor. The inclusion error is largely dependant on the electricity consumption thresholds and can also be explained by not using other constraint parameters. K_{el} coefficient is not being used during the last years. If it is not used, the current formula of poverty scoring becomes very inefficient and containing corruption risks.

In some cases, the formula seems to restrict the entry of the poor. For example, usually households with many children are subject to higher risks of being poor; however a household with 5 or 6 children in Masis Town cannot be included in the system without fraud. If parents that are able to work have 5 children they need to declare less than AMD 4390 per capita income per month which is 3 times lower than the extreme poverty line (for 6 children – AMD 5240), otherwise the scores will not suffice to reach 33.01.

If these households lived in a temporary house (provided them after a disaster), e.g. in Gyumri, they would be eligible for additions due to K_r and K_{hs} coefficients that would the ceilings for per capita income in order to still be eligible for inclusion. However, this is still very worrisome, since for 5 children the appropriate per capita income level is still below the extreme poverty line and equals AMD 9274, while for 6 children – AMD 9962.

The general approach should be *opening the entry into the system from bottom while strictly closing the door from above*. I.e. more households and risk groups should be allowed to enter, while strong constraints and restrictions should be left out the "fake" beneficiaries from the system.

¹⁵ Calculated at daytime tariff.

¹⁶ The conclusion bases on surveys and "Assessment of Heating conditions in Urban Settlements" household survey report (EDRC, 2005).

Policy Improvement Directions

Definition of Principles

Development of Armenia and poverty eradication in the long run largely depends on the existence of efficiently operating institutions, as well as efficient cooperation and high levels of social capital. Good governance and high quality human resources are the major resources for economic growth expansion. In this regard, the social policy is deemed extremely crucial not only as a tool to reduce poverty, but also to assist the economic development and address long run challenges.

In other words, social policy cannot be only passive, which is to redistribute small transfers in a general environment of tax payment delinquency in order to alleviate social pressures. The need for a pro-active social policy increases. The social assistance system, education and healthcare programs should contain development elements and derive from the main challenges that a country is facing.

It is necessary to clearly delineate between short-term and long-term policy objective and programs directed towards the attainment of those objectives. Currently, those objectives differ greatly and mutually exclusive. Short-term objectives mostly target individuals that have found themselves in difficult situation and address the social security provision of households. Those are very urgent and crucial objectives; however implementation of the described programs does not ensure the desired progress in achieving long-term objectives. The long-term objectives mostly refer to the security, economic, social and national development of the country. In this regard, the beneficiaries are not an individual (or a household), but rather the entire society.

The social policy today mostly targets the short-term objectives: protect those who are in need with the services that they need to be provided. In fact, the system is trying to ensure the minimum level of expenditure for poor households. Little importance is given to the development of capacities and opportunities among the poor to solve problems on their own. The present programs merely alleviate the social tension and reduce shocks, however do not counteract the social crisis in the society, do not contribute to the confidence building and the development of a sound society.

On the other hand, poor households, even under the public social assistance system, are not able to get out of poverty, but rather they reproduce poverty. Thus, the social assistance system in Armenia is directed towards alleviating the everyday problems of the poor and does not contribute to the long-term objective of eradicating poverty in the country, leaving this problem to be addressed by other areas of public policy.

There is a need for reviewing the national social strategy and policy principles. We recommend differentiating two layers of beneficiaries: first, households or individuals that have found themselves in difficult situations and second, the society which is in a difficult situation. Protecting the households does not necessarily imply protecting the society. Nonetheless, the society as a whole needs protection. Targeting of society by the social policy should imply feedback and counteraction to demographic problems and building of a necessary social environment.

Beneficiaries of the Family Benefit System

The major type of social assistance in Armenia is provision of monetary transfers/benefits, while the main program implemented towards this end is the Family Benefit System. The Family Benefit System targets the poorest households. It is viewed as a short-term passive social measure that aims at supporting those who cannot benefit from the economic growth. The Family Benefit System is the main tool of poverty reduction strategy. Nevertheless, non-monetary transfers should start playing an important role in combating poverty, while the Family benefits can contain development elements.

In 2006, the Government renamed the "Poor Family Benefit Program" into "Family Benefit Program". In particular, the word "poor" was deleted which implies not only changing the title, but also the essence. I.e. the public program of monetary assistance targets the households, but not necessarily, the poor households. Similar systems of public

assistance in the world target more the young families. It is not surprising that the Family Benefits System, apart from the poor households, also targets other households that need certain types of assistance.

The current Family Benefit System, one can guess, is a compensation for the insufficient provision of pensions, disability and unemployment benefits and other commitments of the government, for selected number of individuals or households. Thus, not only the poor should be beneficiaries of the Family Benefit System, but also, e.g. households with many children. I.e. a public program should support those households that need it, as well as those households that the country needs. The problem of budgetary constraints is that it requires a balanced trade-off between those two objectives.

There are many poor households in Armenia; however the international experience has shown that not all poor households can be considered beneficiaries of monetary assistance. In fact, that is not an efficient option: it can restrain the incentives to overcome poverty by households on their own. Those social (non-monetary) services shall be available to all those poor to help them to overcome poverty.

Extremely poor households that cannot afford minimum food expenses shall be the main beneficiaries of the Family Benefit System. The share of these households in the total is 6%. Nonetheless, many households spend just above the food poverty line, however are subject to the same risks, both health and living. Thus, the Family benefit, to the extent it targets the poor, shall ensure minimum living conditions today and physical health for tomorrow. All other problems and basic human rights shall be separated and addressed by another assistance program or a separate component under the Family Benefit Program.

According to the 2006 Survey, 9.9% of the households consider themselves extremely poor. Those are the extremely poor households and some of poor households calculated by per capita expenditures and poverty lines. We believe that the Family benefit, as a program targeting poverty, should include about 10% of households: in particular, 5-6% of the extremely poor and about the same number of poor households (although, non-extremely).

In case all improvements and refinements to the scoring formula are made, fewer resources will be required for targeting the poorest 10%, than currently spent from the Budget. The achieved savings can be directed to another component of the Family Benefit System which will address another objective (long-term). The program can pursue a long-term policy objective: create healthy and young society and counteract the reduction in the population. In this regard, the households with many children can be the beneficiaries.

Policy Recommendations

Policy development as a whole shall derive from the strategic objectives. Therefore, it is first necessary to develop the national social strategy or concept, which will be a participatory process and should base on national priorities and current challenges. Before that, as it is already obvious, some problems can be addressed or some policies can be improved. Certain issues became apparent as a result of our studies. Today, the main social service is the Family benefit, which needs reforming and improvement. In particular, it can be improved in two aspects: policy and program.

In the *policy dimension*, improvements imply reviewing the objectives and targets, as well as organization of the Family Benefit System. In the *program dimension*, improvements refer to the efficient implementation and management of the Family Benefit System. In more details, the first dimension refers to the objective and essence, whilst the second – to the method, in particular, the poverty scoring formula.

Based on the above approaches, the main policy recommendation is to review and modify the philosophy of the Family Benefits System. In practice, we recommend dividing the system into two components: 1) Assistance to Poor Households and 2) Assistance to Households with Many Children.

I.e., we recommend paying Family benefit both to poor households and households with many children. In order to ensure that, first, on the program level, the system needs to be more efficient: to that end, the next section describes the recommendations on improving the poverty scoring formula. On the other hand, it should be clear which poor households shall become beneficiaries of the system. Our recommendation is that those should be extremely poor

households, as well as households which make only about the food poverty line. This is approximately 10% of households: their monthly per capita income does not exceed AMD 15000.

Technically, the program is recommended to be organized as follows.

- Potential beneficiaries of the first component will be households with 0-2 children, as well as households with 3 children in the age of 10-18. For the first component, we recommend continuing using the existing methodology, i.e. the poverty scoring formula with recommended refinements and adjustments.
- For the second component, we recommend using the category targeting method: the beneficiaries will be the families with 3 children with at least one of them in the age group of 0-10, and families with 4 and more children. No formula needs to be used for this category. If needed, restrictions can be used depending on the income level, however, not less than per capita AMD 50 000 per month.

Beneficiaries of the second component – almost all families with many children - as a rule are poor; therefore, such an approach will allow avoiding any exclusion error, reduce distortions, as well as will simplify management. This, apart from poverty reduction, will also support the demographic development and assist young and healthy families. Under the recommended scenario of benefit size, the underlying objective was to encourage having the 3rd child in families.

Budget calculations of this program and the general framework are presented in one of the following sections: this allows stating that the recommendation is sustainable from the fiscal perspective.

Recommendations on Refinement of Poverty Scoring Formula

Regardless of the fact of whether suggested reforms and improvements will take place or not, in policy dimensions, the suggested improvements, in program dimensions, must be realized. The analysis show that the exclusion errors are too high in Family Benefit System, i.e. a vast part of extremely poor households does not receive Family benefits. The main reason of it is the bad operating or not full-fledged used scoring formula.

For improvement of poverty scoring formula here we present the following suggestions based on analysis made in framework of "Household Survey Project" conducted within the contract of the Ministry of Labor and Social Issues of Armenia, and partially presented in this paper. The created databases allow making more detailed analysis. Here we present, in our opinion, the most important and necessary suggestions.

Suggestions on social groups:

- We suggest removing "Students" (S-12) from social groups list. Poverty in families with students is very low and the Family benefit cannot cover the expenditures associated with education programs, especially in higher education. S-12 group refers to the students that study free-of-charge, i.e. the Government pays for their education: this group already receives assistance from the Government. Thus, having this group in the list distorts both targeting and fairness (equity) principles of social assistance.
- We also recommend remove the group of "Single non-working age pensioners" (K-87). This group, in fact, is not necessary since age pensioners are included either in "Age pensioners" (K-88) or "Elderly age pensioners" (K-86) groups which already are assigned high scores and single pensioners will be included in the system.
- We suggest merging "Single mother's child" and "Child of divorced parents" for simplicity reasons.
- We recommend lowering the age from 21 to 18 in the groups of "Children with one parent" and "Complete orphans".
- We also recommend re-defining the group A-55 "Children under 2" to have it as "Children under 3" and, respectively, adjust the group A-66 to "Children of 3-18 years". At the same time, we suggest including the group H-00 (Pregnant women starting from 20th week) in the group of A-55.
- We recommend increasing the scores to be assigned for groups A-55 and A-66 (children): this will also affect the scoring of families that have Disabled children, Single mother's children, Divorced parents' children and parentless children.

- Furthermore, we recommend reducing the scores for Elderly age pensioners, Disabled of 1st and 2nd groups (K-86, H-11, H-22).

For the proposed social groups and scores assigned to each of them, please, see Annex.

Recommendations on other parameters of the formula

- We already have substantiated in our analyses that the coefficient assigned to income (Kin) is not efficient and reduces the chances of extremely poor to be included in the benefit system. We recommend redefining the income parameter as a restriction: i.e. if per capita income exceeds the set income level, than the coefficient equals 0, otherwise – 1. As the threshold for per capita income (Kin) we recommend setting AMD 15 000 per month. This is only slightly higher than the extreme poverty line. The described approach allows avoiding non-inclusion errors; however, the issue of inclusion errors due to fraud still remains valid.
- We recommend re-setting the coefficient for living in a shelter/temporary house (Khs) from 1.2 to 1.1. This is extremely high as compared to other categories; furthermore, it is no longer valid.
- The coefficient that describes the impact of the area/region where the family lives in (Kr) is recommended to set based on categories described in the Overview and Classification of Communities in Armenia¹⁷. In particular, we recommend assigning a coefficient of 1.05 to all communities up to categories 17 and 18, i.e. all pre-mountainous, mountainous and high-mountainous communities with less than 500 population that are located at more than 151 km distance from Yerevan. For all other rural communities should be assigned the coefficient of Kr equal 1.0.
- We recommend decreasing the thresholds for electricity by diversifying it for apartments connected to natural gas supply system. It is necessary to take measures to regularly receive the data on electricity consumption. The analyses of this information should be performed centrally.
- The indicator of using international phone calls should also include calls to mobile, intra-national and international bills. The current threshold for these services of AMD 5 000 also seems quite high and needs to be adjusted to AMD 3 000. Decreasing this threshold is also very crucial.

Budgetary Framework

The Poverty Reduction Strategy Paper states that the Family Benefit System will spend about 1.3 -1.2% of the GDP in 2006-2009. In absolute terms, the 2006 budget for Family benefits exceeds what was planned in the PRSP, however it is below the targeted as % of GDP. Taking into account the current high growth rates and PRSP target indicators, we recommend a quite realistic and conservative scenario.

We recommend using 1.1% of the GDP for Family benefits which are lower than the initial PRSP target under 6% growth and 3% inflation rates. As a result, the budget for Family benefits can reach AMD 34.6 bln in 2008 and AMD 41 bln - in 2010.

	2004 actual	2005 actual	2006 expected	2007 forecast	2008 forecast	2009 forecast	2010 forecast
Nominal GDP, AMD bln	1,908	2,244	2,637	2,879	3,144	3,432	3,747
Real GDP Growth, %	10.5	14.0	13.0	6.0	6.0	6.0	6.0
GDP Deflator, %	6.3	3.2	4.0	3.0	3.0	3.0	3.0
Family Benefits Budget as % of GDP	0.8	0.9	0.9	0.9	1.10	1.10	1.10
Family Benefits Budget, AMD bln	15.8	20.0	24.4	26.4	34.6	37.8	41.2

Mere distribution of such large funds to the poor would be very inefficient and risky. If part of it is allocated to the new proposed component of the Family Benefit System, we believe that the society will benefit more.

¹⁷ See EDRC, Yerevan 2006

We recommend dividing the Family Benefit System into two components: 1) Family benefits to poor households and 2) Family benefits to families with many children. AMD 10 bln shall be directed to the first component and about AMD 25 bln – to the second component. The recommended policy scenario is summarized below.

	Coverage	Number of Households	Coverage, %	Number of Beneficiaries	Monthly Benefit Size, AMD	Annual Budget, AMD mln	Budget breakdown
<u>Families with 3 children</u>							
No children of 0-10 years	According to the formula	12	5.5	0.7	25000	200	2.3
<u>Families with 2 children</u>							
2 children of 0-10 years	According to the formula	72	5.5	4.0	17000	808	9.1
1 child of 0-10 years	According to the formula	43	5.5	2.3	17000	479	5.4
No children of 0-10 years	According to the formula	66	5.5	3.6	17000	737	8.3
<u>Families with 1 child</u>							
	According to the formula	172	5.5	9.4	12000	1359	15.4
<u>No children</u>							
Single elderly	According to the formula	46	90.0	41.4	7500	3724	42.1
Non-capable of working	According to the formula	304	5.6	17.1	7500	1543	17.4
Total for Component 1: according to the Formula		714	11.0	79	9,389	8,851	100.0
<u>Families with 5 and more children</u>							
Total (to all households)		3	100.0	2.5	49000	1470	6.0
<u>Families with 4 children</u>							
Total (to all households)		15	100.0	14.6	35000	6121	24.9
<u>Families with 3 children</u>							
Total (to all households)		61	100.0			0	0.0
3 children of 0-10 years	Total (to all households)	12	100.0	11.7	35000	4914	20.0
2 children of 0-10 years	Total (to all households)	15	100.0	14.8	30000	5320	21.6
1 child of 0-10 years	Total (to all households)	23	100.0	22.6	25000	6774	27.5
No children of 0-10 years	According to the formula	12	-	0.0	-	-	-
Total for Component 2: according to the Number of Children		78	84.5	66	30,998	24,599	100.0
Total		792	18.3	145	19,266	33,450	136.0
Planned budget						34,600	
Savings or Adjustment reserve						1,150	

Bibliography

- Armenia Statistical Yearbook, RA National Statistical Service, Yerevan 2004-2006
- Economic Database, Economic Development and Research center (EDRC), online, http://www.edrc.am/project.html?cat_id=38
- The Law on 2006 Government Budget, Official Bulletin # 77(449), December 2005
- Government of Armenia Decree on "Approving the Medium-Term Expenditure Frameworks for 2007-2009" Official Bulletin # 35(490), June 2006
- The Draft Law on 2007 Government Budget, <http://www.parliament.am>
- "Simplified Budget", Economic Development and Research center, EDRC, Yerevan 2005-2006
- "Public Programs in Social Insurance and Social Security: 2006 Simplified Budget" Economic Development and Research center, (EDRC) Yerevan, 2006
- Poverty Reduction Strategy Paper, Armenia, adopted by the Government Decree, Official Bulletin 47(282), September 2003
- "Instructions on regulating the procedures of assigning Family benefits and its payment", USAID/Armenia Social Reforms Program, Yerevan 2005
- "Simple Survey of the Living Standards of the Disabled Included in the Poverty Scoring System", RA National Statistical Service, Yerevan 2003
- "Armenia Social Snapshot and Poverty" Statistical Report, RA National Statistical Service, Yerevan 2006
- "Poor Families and Social Services in Armenia" Report on the Statistical Household Survey, Economic Development and Research center, (EDRC) Yerevan, 2006
- Economic Policy and Poverty periodical, Volumes 1-3, Economic Development and Research center, (EDRC) Yerevan, 2003-2006
- "Armenia Social Trends" Informational-analytic periodical, UN Development Program, 2003-2005
- A.Sahakyan, B.Nahapetian, A.Hovanesyan, A.Posarac, "The Formula of Targeted Social Aid in Armenia as Developed on The Basis of Statistical Analysis Methods", Yerevan, 2000
- Branko Milanovic, "Social transfers and Social Assistance: An Empirical Analysis Using Latvian Household Survey Data", WB, Policy Research Working Paper 2328, April 2000
- Christiaan Grootaert, "Poverty and Social Transfers in Hungary" WB, Policy Research Working Paper 1770, May 1997
- Christiaan Grootaert, Jeanine Braithwaite, "Poverty Correlates and Indicator-Based Targeting in Eastern Europe and the Former Soviet Union", WB, Policy Research Working Paper 1942, July 1998
- David Coady, Margaret Grosh, John Hoddinott, "Targeting of Transfers in Developing Countries: Review of Lessons and Experience", WB, IFPRI, 2004
- Edmundo Murrugarra, "Public Transfers and Migrants' Remittances: Evidence from the Recent Armenian Experience", WB, Economists' Forum Vol. 2 (2002)
- Louise Fox, March 2003, "Safety Nets in Transition Economies: A Primer", Social Safety Net Primer Series, World Bank Institute
- Martin Ravallion, "A Poverty-Inequality Trade-off?" WB, Policy Research Working Paper 3579, April 2005
- Peter Lanjouw, Martin Ravallion, "Poverty and Household Size" WB, Policy Research Working Paper 1332, August 1994
- WB Report No. 19385-AM, June 1999, "Improving Social Assistance in Armenia"
- WB Report No: 27192-AM, November 2003, "Armenia: Poverty Assessment", Volume I: A Summary of Findings

Tables and Annexes

Table 1: Poverty incidence and gap, Armenia, 2004

	Poverty	Breakdown of the poor	Poverty gap	Extreme poverty	Breakdown of extreme poverty	Extreme poverty gap
Total	34.6	100.0	21.3	6.4	100.0	17.1
Yerevan	29.2	26.8	22.4	6.1	30.2	18.9
Other urban areas	43.9	38.8	23.5	9.2	43.9	17.7
Rural areas	31.7	34.4	18.0	4.4	25.9	13.8

Tables 2: Poverty incidence and gap without social assistance programs¹⁸, 2004

	Poverty	Breakdown of the poor	Poverty gap	Extreme poverty	Breakdown of extreme poverty	Extreme poverty gap
Total	36.6	100.0	23.1	8.2	100.0	19.4
Yerevan	30.0	26.1	23.7	7.0	27.4	20.9
Other urban areas	46.4	38.7	25.9	12.6	47.4	20.5
Rural areas	34.3	35.2	19.5	5.4	25.1	15.9

Table 3: Poverty incidence and gap without Family benefits program, 2004

	Poverty	Breakdown of the poor	Poverty gap	Extreme poverty	Breakdown of extreme poverty	Extreme poverty gap
Total	36.3	100.0	22.7	7.8	100.0	18.9
Yerevan	29.9	26.2	23.1	6.7	27.5	20.7
Other urban areas	45.9	38.7	25.5	11.9	47.1	19.9
Rural areas	33.9	35.1	19.3	5.2	25.4	15.0

Table 4: Poverty and extreme poverty deficits in 2004 (expenditures required for overcoming poverty and extreme poverty) as share in total budget expenditures in 2004-2007

	Annual deficit, AMD bln	As % of Social Assistance Budget				As % of Family Benefits Budget			
		2004	2005	2006	2007	2004	2005	2006	2007
Poverty Deficit, 2004									
After all measures of social assistance	54.5	155.7	123.4	97.5	88.7	345.1	278.4	223.7	206.1
Before Family benefits	60.8	173.7	137.7	108.8	98.9	384.9	310.5	249.5	230.0
Before Family and other social benefits	62.4	178.4	141.4	111.7	101.6	395.3	318.9	256.2	236.1
Before all measures of social benefits and pensions	88.0	251.6	199.4	157.6	143.3	557.6	449.8	361.5	333.1
Extreme Poverty Deficit, 2004									
After all measures of social assistance	5.2	14.8	11.7	9.3	8.4	32.8	26.5	21.3	19.6
Before Family benefits	6.9	19.9	15.7	12.4	11.3	44.0	35.5	28.5	26.3
Before Family and other social benefits	7.5	21.5	17.1	13.5	12.3	47.7	38.5	30.9	28.5
Before all measures of social benefits and pensions	15.8	45.3	35.9	28.4	25.8	100.3	80.9	65.0	59.9

¹⁸ Does not refer to the provision of age pensions, i.e. the current expenditures are calculated excluding Family benefits, single time financial assistance and other benefits.

Table 5: Poverty and extreme poverty deficits in Armenia, 2004

	In AMD bln	As % of GDP	As % of Government Budget Expenditures	As % of Social Assistance Budget	As % of Family Benefits Budget	Per one non-poor, AMD
Poverty Deficit	54.5	2.9	16.3	155.7	345.1	26248
Yerevan	15.4	0.8	4.6	43.9	97.3	21490
Other urban areas	23.3	1.2	7.0	66.7	147.8	42823
Rural areas	15.8	0.8	4.7	45.1	100.0	19346
Extreme Poverty Deficit	5.2	0.3	1.6	14.8	32.8	2496
Yerevan	1.7	0.1	0.5	4.9	10.9	2418
Other urban areas	2.4	0.1	0.7	6.8	15.0	4340
Rural areas	1.1	0.1	0.3	3.1	6.9	1332
<i>Before Family Benefits</i>						
Poverty Deficit	60.8	3.2	18.2	173.7	384.9	29280
Yerevan	16.2	0.9	4.9	46.4	102.8	22694
Other urban areas	26.4	1.4	7.9	75.5	167.3	48462
Rural areas	18.1	1.0	5.4	51.9	114.9	22240
Extreme Poverty Deficit	6.9	0.4	2.1	19.9	44.0	3348
Yerevan	2.1	0.1	0.6	6.0	13.3	2931
Other urban areas	3.5	0.2	1.0	9.9	21.9	6337
Rural areas	1.4	0.1	0.4	4.0	8.9	1717
<i>Before Family and Other Social Benefits</i>						
Poverty Deficit	62.4	3.3	18.7	178.4	395.3	30067
Yerevan	16.7	0.9	5.0	47.8	105.9	23383
Other urban areas	27.1	1.4	8.1	77.5	171.8	49792
Rural areas	18.6	1.0	5.6	53.0	117.6	22750
Extreme Poverty Deficit	7.5	0.4	2.3	21.5	47.7	3627
Yerevan	2.2	0.1	0.7	6.4	14.1	3113
Other urban areas	3.8	0.2	1.1	10.7	23.8	6900
Rural areas	1.5	0.1	0.5	4.4	9.8	1893

Source: RA NSS, 2004 Household survey data, EDRC database, author's calculations.

Table 6: Households included in the Family Benefit Program

	Poor	Non-poor	Total	Extremely poor	Non-extremely poor	Total
Included	7.7	6.7	14.3	2.5	11.8	14.3
Non-included	23.7	61.9	85.7	4.1	81.6	85.7
Total Armenia	31.4	68.6	100	6.5	93.5	100
Included	3.6	3.0	6.6	1.5	5.1	6.6
Non-included	22.1	71.3	93.4	3.8	89.5	93.4
Total Yerevan	25.7	74.3	100	5.4	94.6	100
Included	11.4	7.6	18.9	4.6	14.4	18.9
Non-included	28.3	52.8	81.1	5.1	75.9	81.1
Total Other Urban areas	39.7	60.3	100	9.7	90.3	100
Included	8.2	9.4	17.6	1.5	16.1	17.6
Non-included	21.1	61.3	82.4	3.2	79.2	82.4
Total Rural areas	29.2	70.8	100	4.7	95.3	100

Table 7: Groups of population and poverty indicators

	Poverty		Extreme Poverty		Poverty gap		Extreme poverty gap	
	2004	Before Family benefits	2004	Before Family benefits	2004	Before Family benefits	2004	Before Family benefits
Total Population	34.6	36.3	6.4	7.8	21.3	22.7	17.1	18.9
18 and above years	33.3	34.7	6.0	7.1	21.2	22.4	16.9	18.5
Under 17 years	38.1	40.6	7.4	9.4	21.5	23.3	17.5	19.7
0-2 years	39.5	39.7	7.3	8.1	21.3	22.4	17.9	19.6
0-6 years	41.8	43.3	7.9	9.7	21.4	22.6	18.1	19.0
7-17 years	36.7	39.5	7.1	9.3	21.6	23.6	17.2	20.0
48-63 years	30.2	31.3	5.2	6.1	21.0	21.9	15.5	17.7
64-74 years	32.3	34.7	5.8	6.8	21.1	22.3	17.4	19.2
Age pensioners of 75 years and above	33.0	33.0	3.5	5.2	17.6	20.5	16.6	19.9
Single age pensioners	16.7	26.9	3.2	5.7	15.2	23.8	13.9	29.3
All groups of age pensioners	31.1	33.5	5.4	6.7	20.8	22.2	17.3	19.6
Disabled, 1 st category	32.2	35.3	4.8	8.9	22.7	24.4	17.2	18.4
Disabled, 2 nd category	33.1	37.1	7.7	9.3	23.0	23.9	16.8	18.8
Disabled, 3 rd category	38.3	40.6	10.7	11.6	24.1	25.3	17.3	18.9
Disabled, below 18	45.0	47.2	7.8	21.8	24.0	29.3	20.2	14.6
Children without one parent	42.7	47.6	6.1	11.6	20.5	25.2	14.3	20.4
Children of single mothers	66.5	69.2	9.1	25.4	26.3	34.3	34.3	27.8
Children of divorced parents	44.1	46.4	15.8	21.7	28.7	34.1	22.1	24.2
Complete orphans	40.3	45.0	4.5	4.5	20.9	23.8	35.9	75.0
Pregnant women (20 weeks and more)	31.0	31.0	6.4	6.4	20.1	21.0	11.2	15.6
Unemployed (want to work, do not have job)	47.2	48.4	11.0	12.8	24.0	25.4	18.3	20.2
Registered as unemployed	51.6	54.0	12.8	17.9	25.3	28.8	21.8	23.8
Students (under 23, publicly financed)	11.5	13.3	0.6	2.5	19.3	20.3	9.6	15.2
Students (under 23, self-financed)	6.2	7.0	0.3	0.7	13.9	14.0	26.3	16.3

Table 8: 2006 Social security and social insurance budget programs

	Total budget, AMD bln	Type of social services	Major beneficiaries	Number of beneficiaries	Monthly budget per 1 beneficiary, AMD
Pensions, of which:	17,052				
Pensions to military officers and their families	10,049	Transfers	Veterans and military servants	36,094.0	23,200
Pensions to privates and their families	2,462	Transfers	Veterans and military servants	16,847.0	12,179
Social pensions (including to the disabled)	3,261	Transfers	Age Pensioners	44,923.0	6,050
Compensation to those damaged hurt during work or who acquired "professional" diseases	53	Transfers	Disabled	966.0	4,531
Compensation of difference between pensions and pensions assigned under Laws and GoA Decrees, monthly financial assistance	154	Transfers	Age Pensioners	n.a.	n.a.
Compensation for employment years from the State budget, as prescribed in Article 45, p. 6 of the Law on Pensions	1,073	Transfers	Other and politically repressed	n.a.	n.a.
Public benefits to the population, of which:	27,034				
Family benefits and single-time financial assistance	24,358	Transfers	Poor households	132,400.0	15,331
Monthly benefits to those who take care of children under 2 and in partially paid vacation	218	Transfers	Children	7,800.0	2,328
Pregnancy and Childbirth benefits	1,094	Transfers	Children	5,963.0	15,291
Single-time benefit for childbirth	1,265	Transfers	Children	35,728.0	35420*
Financial assistance to the unemployed for entrepreneurship and creation of workplaces	10	Transfers	Unemployed	n.a.	n.a.
Partial compensation of salaries to the employer for employment of individuals from vulnerable groups	24	Other	Disabled	n.a.	n.a.
Organization of work skill rehabilitation for the disabled without and employment record or with employment record of less than 1 year	5	Other	Disabled	n.a.	n.a.
Organization of professional trainings for the unemployed without and employment record or with employment record of less than 1 year	60	Other	Unemployed	n.a.	n.a.
* Single-time payments					
Social Security measures, of which:	4,720				
Total for programs of less than AMD 50 mln (23 programs)	309				
Total for programs of more than AMD 50 mln, of which:	4,411				
Postal services for the distribution of Family benefits and financial assistance under social assistance services	292	Other	Poor households	n.a.	n.a.
Paid voluntary works under Employment services	700	Other	Unemployed	8,830.0	6,606
Distribution services of humanitarian assistance (food)	55	Other	Poor households	n.a.	n.a.
Assistance to graduate orphans under the services to families, women and children	324	Other	Children	687.0	39,345
Free-of-charge provision and repair of prosthetic and orthopedic items under the service provided to the disables	650	Other	Disabled	12,898.0	50361*
Capital renovation of other assets	116	Other	Elderly	n.a.	n.a.
Assistance to elderly houses for the provision of 24-hour care of the elderly under the services to the elderly	951	Other	Elderly	1,000.0	79,216
Assistance to the Social service center for the elderly for the provision of social services to the single elderly at home under the services to the elderly	64	Other	Elderly	1,200.0	4,478
Assistance to the Artmed rehabilitation center for the medico-social rehabilitation and disability expertise under the services to the elderly	52	Other	Disabled	407.0	10,668
Assistance to Norq informational center for the introduction of the Social security card system, database maintenance under social insurance and social security services	133	Other	Other	n.a.	n.a.
Assistance to orphanages under the Ministry of Social and Labor Affairs for the 24-hour care after children under services to families, women and children	955	Other	Children	935.0	85,077
Assistance to social care centers for social care after children under services to families, women and children	119	Other	Children	200.0	49,743

* annual amount

Other Social programs, of which:	5,894				
Total for programs of less than AMD 50 mln (6 programs)	57				
Total for programs of more than AMD 50 mln, of which:	5,838				
Single-time social insurance benefits to the disabled during the defense of Armenia and families of those who were killed	130	Transfers	Veterans and military servants	n.a.	n.a.
Honorary payments to veterans	1,054	Transfers	Veterans and military servants	n.a.	n.a.
Funeral and related expenses of those who were killed during military service or military trainings	187	Transfers	Families of those who were killed	n.a.	n.a.
Provision of concessional long-term loans to the politically repressed for housing construction	150	Other	Politically repressed	n.a.	n.a.
Financial assistance to the veterans of WWII, disabled under Law HO-258, as well as to the families of those killed at military service	1,841	Transfers	Veterans and military servants	n.a.	n.a.
World Bank Social system administration project	1,476	Other	Other	n.a.	n.a.
Compensation of deposits frozen at ArmSavings Bank as of June 10, 1993 to eligible depositors	1,000	Other	Elderly	n.a.	n.a.

n.a. – not available