"A Three–Year (2015–2017) Monitoring of External Migration Situation in Armenia through Sample Survey"Program

Methodology in 2017

Similar to the studies done in 2015 and 2016, this year methodology of the study has been based on multistage stratified and cluster sampling.

At the primary stage of sampling the research group has determined that:

Unit of observation is a household (hereinafter "HH").

Sample survey units:

the well-informed adult member (18 and more years old) of a HH available during the monitoring,[1] if the questions concern the whole HH, its minor members and those being abroad;

- **the adult members of a HH**, if the questions concern them **personally** and they will be available at the time of monitoring. Otherwise they may be replaced by the above-mentioned well-informed adult member.

2. **The sample size:** 2100 HHs,

At the end we will have filled in questionnaires for 2100 Households and also for all individuals in surveyed households (who were household members during 2014 to 2017 May 1). This gives us the representativeness not only for whole country but also at the level of Yerevan, other urban, and rural areas can be achieved. In 2016 survey we had results for 8424 individuals which is almost 0.3% of total population of Armenia.

3. **The units of the additional sample population** (the purpose of surveying them is to have more migrants in the list of the respondents) have been chosen in the same way as in the previous two studies, i.e. the HHs living to the right, to the left and in front of an already surveyed HH have been sampled. If their members are available and willing to answer the

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[1]When the survey was done in the dwelling place of the interviewers, the monitoring lasted one week, otherwise – one working day.

27 questions, only those of them will be surveyed, who, according to the study results, will

28 have. at least, one member that migrated after 2014[2].

29 4. **Units of additional sample population-**the same as in the case of the sample survey

30 mentioned above.

31 5. **The number of the main sample units in a cluster -**15[3] HHs.

32 6. **Total number of clusters -** 140 in the whole territory of the Republic of Armenia.

33 The sampling frame has been chosen based on the list of electricity consumers of the

34 Republic of Armenia[4].

35 **The stages of the sampling itself are described below.**

36 **The first stage.** Target population has been divided into separate groups,[5] thusthe lists of

37 clusters and the HHs that they consisted of have been obtained.

38 **The second stage**. Proportional distribution of the target population (2100 HHs) by 27

39 strata,[6]to define**the approxiate number ofthe HHs that willbe surveyed from the each**

40 **stratum.** In other words, proportional sampling has been applied (see Appendix, column 5).

41 **The third stage.**To define the number of clusters that will be sampled in each strata (see

42 Appendix, column 7), approximate number of theHHs in each stratumhas beendivided by15[7]

43 (see Appendix, column 6).

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[2] We plan to organize (as we organize every year before the field work) special trainings for supervisors and interviewers to explain them the sampling method, the replacing method, the method of choosing and interviewing neighbor dwellings, as well as, the details and tricky parts of questionnaire. And also we give both supervisors and interviewers written detailed Instructions of 2015-2017 Migration survey fieldwork.

[3] This value was discussed with our experts and decided as a compromise value by taking into account the dilemma between the budget and representativeness.

[4] During Soviet times the population of Armenia had 100% electrification. And in 90s it was strictly checked, so all HHs had to be registered abonents to receive electricity. So the list of electricity consumers includes all HHs in Armenia.

[5] Geographically «compact» distributed groups that consist of 150 units in average.

[6] These are large groups of HHs distributed by every urban and rural settlementin 10 marzes /provinces of the Republic of Armenia, and the districts of Yerevan (Malatia-Sebastia/Ajapnyak, Arabkir/Kanaker-Zeytun/Davtashen,Avan/Nor Nork/Nork Marash,Shengavit,Erebouni, Kentron and Sari Tagh).

44 **The fourth stage.** Random number generator has been used to choose the numbers that
45 will be assigned to the clustersthat will be sampled.

46 **The fifth stage.** The ratio of the number of the HHs in the chosen clustersby 15 has
47 determined the distance between the units that will be randomly sampled from each cluster.
48 Then, with the help of random number generator the numbers that will be assigned to the very
49 first HH in the sample for each cluster has been randomly chosen. The sum of the chosen units
50 and distance between them have been used to define the numbers that will be assigned to the rest
51 14 HHs of the sample. Finally, the same technique has been applied to choose reserve sample
52 that will replace the HHs of the cluster that have not been surveyed.

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[7]The number of the HHs that are to be surveyed in each cluster.

The HHs, which have not been surveyed for different reasons, have been replaced by the reserve sample HHs.[8] To keep settlement structure of the clusters as intact as possible, the 'closest address' approach has been used: the HHs in the reserve sample have been chosen so that they will be living as close as possible to the HHsthey replaced[9].

<mark>The fieldwork results as well as the replacements and their reasons are reported in the special fieldwork tables which usually are explained and given to all interviewers during the trainings, before they go to the field (see Appendix 2).</mark>

Margin of error is +/-2.1%, and confidence interval is 95% (n=2100, z=1.96, p=0.5

$$ME = z * \sqrt{p * (1 - p)/n}).$$

Chi square and Cramer's V tests of answers of the respondents by administrative-territorial distribution have been checked in accordance with the results of the study done in 2016. Thus, it has been revealed that there is a significant relationship (Asym. Sig.are less than 0,05). And the cases with the value lower than 5 are less than 20%.

The findings on the two questions, namely the one (B1.5) concerning HHs and the other (B2.5) related to HH members, are shown in the tables 1-6.

<mark>**Question B1.5 (QB1.5 Will migration have any impact on financial situation of your HH during next 3 years (from 1 to 5, where 1-main impact, 2-significant impact, 3-not so significant impact, 4-very insignificant impact, 5-No impact, -97-DK, -98 DA)**</mark>

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[8]Unavailability, long absence, refusal to participate in the survey, etc.

[9] <mark>The experience of past surveys showed that there is no need to sample additional clusters.</mark>

Table 1. Cross Tabulation QB1.5 by Settlement Type

Settlement Type		Question B1.5							Total
		-98	-97	1	2	3	4	5	Total
Yerevan	Count	121	2	23	64	54	22	494	780
	Expected Count	66.5	5.9	49.8	83.2	45.7	31.2	497.7	780.0
Rural	Count	27	8	56	87	33	29	435	675
	Expected Count	57.5	5.1	43.1	72.0	39.5	27.0	430.7	675.0
Urban	Count	31	6	55	73	36	33	411	645
	Expected Count	55.0	4.9	41.2	68.8	37.8	25.8	411.6	645.0
Total	Count	179	16	134	224	123	84	1340	2100
	Expected Count	179.0	16.0	134.0	224.0	123.0	84.0	1340.0	2100.0

Table 2. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.142E2[a]	12	.000
Likelihood Ratio	115.168	12	.000
Linear-by-Linear Association	43.243	1	.000
N of Valid Cases	2100		

a. 1 cells (4.8%) have expected count less than 5. The minimum expected count is 4.91

Table 3. Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	**Phi**	.233	.000
	Cramer's V	.165	.000
N of Valid Cases		2100	

Table 4. Cross Tabulation ==QB2.5== by Settlement Type

Settlement Type		Question B2.5			
		1	2	3	Total
Yerevan	**Count**	2809	30	41	2880
	Expected Count	2827.0	19.8	33.2	2880.0
Rural	**Count**	3022	15	18	3055
	Expected Count	2998.8	21.0	35.2	3055.0
Urban	**Count**	2438	13	38	2489
	Expected Count	2443.2	17.1	28.7	2489.0
Total	**Count**	8269	58	97	8424
	Expected Count	8269.0	58.0	97.0	8424.0

Table 5. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.536[a]	4	.000
Likelihood Ratio	22.536	4	.000
Linear-by-Linear Association	.459	1	.498
N of Valid Cases	8424		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.14

Table 6. Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	**Phi**	.051	.000
	Cramer's V	.036	.000
N of Valid Cases		8424	

Appendix 1. The Target Population and the Sample of the Study

Strata	Target population			Sample			
	HH		Cluster Unit	HH's share	Cluster		The confirmed number of HHs
	Thousand	% in total			Estimated	Confirmed	
1.	2.	3.	4.	5. (=3.*4./100)	6. (=5./15)	7.	8. (=7.*15)
Mashtots	73,3	9,4	488	198	13,2	13	195
Arabkir	62,1	8,0	414	168	11,2	11	165
Nor Nork	49,1	6,3	327	133	8,8	9	135
Shengavit	36,2	4,7	241	98	6,5	6	90
Erebouni	32,6	4,2	217	88	5,9	6	90
Kentron	25,2	3,2	168	68	4,5	5	75
Sari Tagh	8,9	1,1	59	24	1,6	2	30
Total in Yerevan	**287,4**	**36,9**	**1914**	776	51,7	**52**	780
Aragatsotn (urban settlements)	9,9	1,3	56	27	1,8	2	30
Ararat (urban settlements)	18,0	2,3	117	49	3,2	3	45
Armavir (urban settlements)	24,1	3,1	158	65	4,3	4	60
Gegharkunik (urban settlements)	18,5	2,4	121	50	3,3	4	60
Lori (urban settlements)	45,6	5,9	299	123	8,2	8	120
Kotayk (urban settlements)	40,5	5,2	265	109	7,3	7	105
Shirak (urban settlements)	40,5	5,2	266	109	7,3	7	105
Syunik (urban settlements)	23,0	3,0	158	62	4,1	4	60
VayotsDzor (urban settlements)	5,7	0,7	38	15	1,0	1	15
Tavush (urban settlements)	13,8	1,8	90	37	2,5	3	45
Total in the urban settlements of marzes/provinces	**239,6**	**30,8**	**1568**	647	43,1	**43**	645
Aragatsotn (rural settlements)	23,6	3,0	146	64	4,2	4	60
Ararat (rural settlements)	43,4	5,6	270	117	7,8	8	120
Armavir (rural settlements)	37,9	4,9	239	102	6,8	7	105

Gegharkunik (rural settlements)	29,5	3,8	184	80	5,3	5	75
Lori (rural settlements)	25,1	3,2	159	68	4,5	5	75
Kotayk (rural settlements)	32,3	4,2	206	87	5,8	6	90
Shirak (rural settlements)	21,9	2,8	136	59	3,9	4	60
Syunik (rural settlements)	10,5	1,3	65	28	1,9	2	30
VayotsDzor (rural settlements)	8,1	1,0	51	22	1,5	1	15
Tavush (rural settlements)	18,6	2,4	117	50	3,3	3	45
Total in rural settlements of marzes/provinces	**251,0**	**32,3**	**1573**	678	45,2	**45**	675
Total	**777,9**	100,0	**5055**	2100	140,0	140	2100

Appendix 2. Summary of the address list of the HH of the main and the reserve samples and the monitoring results

Shirak				Marz ID	07	Group leader ID		05	S. Avetisyan
City of Gyumri				Cluster ID	2564	Interviewer ID			

The Main Sample							Monitoring Results								
							The Main HH		Right HH		Left HH		Front HH		
№	ID	HH №	Street	Building/ House	Apt.	Name, Surname	RC	NL	RC	NL	RC	NL	RC	NL
1.															
2.															
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															
11.															
12.															
13.															
14.															
15.															

							Results of the monitoring							

Shirak				Marz ID	07	Group leader ID	05	S. Avetisyan
City of Gyumri				Cluster ID	2564	Interviewer ID		

Results of the monitoring

№	ID	HH №	Street	Building/ house	Apt.	Name, Surname	Main HH		Right HH		Left HH		Front HH	
							RC	NL	RC	NL	RC	NL	RC	NL
1.														
2.														
3.														
4.														
5.														
6.														
7.														
8.														
9.														
10.														
11.														
12.														
13.														
14.														
15.														

Codes of Results

1	Completed survey: **non-migrant**	10	The HH is abroad (the date of the departure is unknown)
2	Completed survey: **returned migrant**	11	HH's refusal to answer
3	Completed survey: **migrant that is abroad**	12	The HH member's refusal to answer
4	Completed survey: **returned migrant that is abroad**	13	The adult/informed member is absent /unavailable
5	The address has not been found	14	Inconvenient situation for filling out the survey
6	No one lives at this address	15	It is impossible to conduct survey in Armenian
7	No information on the HH has been obtained	16	The neighbor HH did not have a migrant member in 2014-

			2017
8	The HH is in Armenia, but unavailable during the survey	**17**	There is no neighbor HH
9	The HH is abroad having left the country in the period between 2014-2017 (the number of the HH members should be mentioned)	**18**	Other