



PART I

ARMENIA – POVERTY SNAPSHOT  
OVER 2008-2018

## Chapter 1: Demographics and Migration

Although the decline of the permanent population of Armenia since the 1990's, driven by decreasing birth rates, rising mortality rates, and intensive population emigration, has stabilized somewhat in the 2000s, but the downward trend is still in place. The results of the censuses in 2001 and 2011 show that the number of permanent population has decreased by around 195 thousand or 6%. This is the product of the natural growth of population (the difference in the number of births and deaths) at around 126 thousand, and the net migration (the difference in the number of arrivals and departures) at around -330 thousand within the period between two censuses (2001-2011). In the period from 2012 to the beginning of 2019, the number of population has decreased by around 1.9%, thus constituting an average annual decrease of 0.2%.

### 1.1 Population Number Dynamics

Current estimates of population are achieved through the number of permanent population<sup>1</sup>, based on the results of the most recent Population Census 2011, and are updated on quarterly basis. As of January 1, 2019, permanent population of Armenia was 2965.3 thousand, that is less by 7.4 thousand compared to the beginning of 2018 (Table 1.1), which is the product of the natural population growth and the (estimated<sup>2</sup>) net migration.

**Table 1.1 – Armenia: Factors of Permanent Population Number Dynamics, 2012-2019**

	Population number, beginning of year (in thousands)	Natural growth	Net migration <sup>2</sup>	Total growth/ reduction (+, -)
2012	3 021.4	14.9	-9.4	5.5
2013	3 026.9	14.6	-24.4	-9.8
2014	3 017.1	15.3	-21.8	-6.5
2015	3 010.6	13.9	-25.9	-12.0
2016	2 998.6	12.4	-24.9	-12.5
2017	2 986.1	10.6	-24.0	-13.4
2018	2 972.7	10.8	-18.2	-7.4
2019	2 965.3			

Source: RA SC

Within permanent population as of the beginning of 2019, the share of urban and rural residents was 63.9% and 36.1%, respectively.

As of the beginning of 2019, permanent population in Armenia was comprised of 47.3% males and 52.7% females. At that, the average age of the population was 36.7 years with a gender difference of 3.9 years, i.e. average age of males was 34.6 years and that of females was 38.5 years.

<sup>1</sup>According to the results of Census 2011 (October 12-21, 2011), the number of permanent (*de jure*) population was 3,018,854, and that of current (*de facto*) population was 2,871,771.

<sup>2</sup> The estimates have been revised (adjusted) on basis of the findings of the Integrated Living Conditions Survey for the previous year and reflect the impact of migration processes; for detailed methodological clarifications please see <http://www.armstat.am/am/?nid=82&id=1547>.

**Table 1.2 – Armenia: Permanent Population, 1990-2019**

(As of the beginning of year)

Years	Total population (in thousands)	Share in total population, percent	
		Urban	Rural
1999	3232.1	65.3	34.7
2001*	3 213.0	64.3	35.7
2011*	3 018.9	63.3	36.7
2012	3 021.4	63.3	36.7
2013	3 026.9	63.3	36.7
2014	3 017.1	63.4	36.6
2015	3 010.6	63.5	36.5
2016	2 998.6	63.6	36.4
2017	2 986.1	63.7	36.3
2018	2 972.7	63.8	36.2
2019	2 965.3	63.9	36.1

Source: RA SC

Note: Asterisk (\*) denotes years of population censuses

**Natural movement of population** Economic, social, and political uncertainties in Armenia since 1990's affected in the population's reproductive behavior. Thus, in 2018 the total birthrate per 1.000 residents was 12.3 per mille against 12.6 per mille in 2017.

**Fertility rate** (Total fertility rate) in 2018 was 1.572 children per 1.000 females of fertile age (15-49 years) against 1.576 in 2017. This was significantly lower than the fertility rate 2.150 needed for mere replacement of population<sup>1</sup>. In 2018, the **gross** reproduction rate of population<sup>2</sup> was 0.745 and the **net** reproduction rate<sup>3</sup> was 0.716.

**Table 1.3 – Armenia: Fertility Rates by Age Groups, 1998-2018**

Years	Average number of births, per 1.000 women of relevant age							
	15-19	20-24	25-29	30-34	35-59	40-44	45-49	15-49
<b>Total 1998</b>	<b>40.4</b>	<b>137.2</b>	<b>73.3</b>	<b>32.5</b>	<b>14.4</b>	<b>3.6</b>	<b>0.3</b>	<b>43.5</b>
Urban	32.9	125.2	74.8	33.2	14.7	3.6	0.3	38.8
Rural	55.3	162.5	70.7	31.2	13.9	3.6	0.4	53.6
<b>Total 2008</b>	<b>24.7</b>	<b>110.8</b>	<b>86.1</b>	<b>40.4</b>	<b>14.2</b>	<b>2.6</b>	<b>0.2</b>	<b>45.6</b>
Urban	18.0	89.2	79.9	44.4	17.6	3.3	0.2	43.7
Rural	38.3	172.0	104.2	31.9	8.8	1.8	0.2	49.3
<b>Total 2017</b>	<b>21.1</b>	<b>110.5</b>	<b>97.1</b>	<b>56.1</b>	<b>25.1</b>	<b>4.7</b>	<b>0.5</b>	<b>49.5</b>
Urban	14.5	106.8	105.8	63.1	28.7	5.8	0.7	50.8
Rural	31.1	115.6	82.9	42.9	17.8	2.6	0.1	47.4
<b>Total 2018</b>	<b>19.0</b>	<b>109.2</b>	<b>98.2</b>	<b>57.0</b>	<b>25.5</b>	<b>5.1</b>	<b>0.5</b>	<b>48.5</b>
Urban	13.5	103.8	110.9	64.7	29.5	6.3	0.6	50.5
Rural	27.4	116.8	77.7	42.8	17.1	2.6	0.2	45.1

Source: RA SC

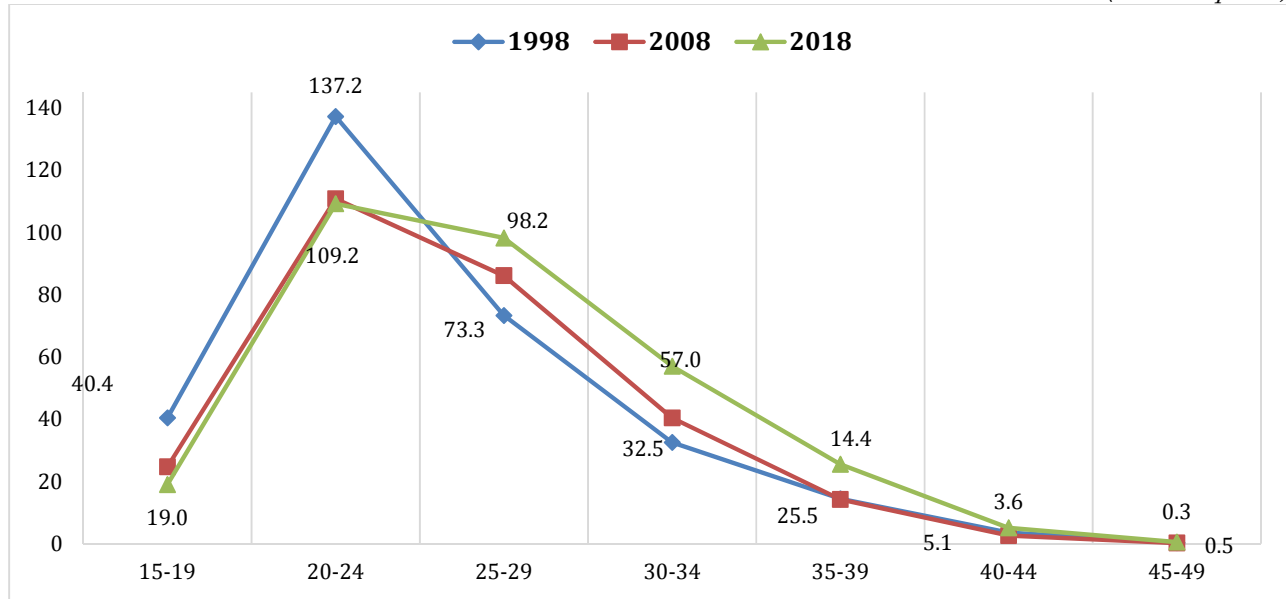
<sup>1</sup> Mere replacement is achieved when the cohort of children replacing their parents and the cohort of parents are equal in their absolute numbers.

<sup>2</sup> The average number of daughters that would be born to a female in fertile age provided that the birthrate for the given year remained unchanged.

<sup>3</sup> The average number of daughters that would be born to a female and live until the age of their mother at the moment of giving birth to them, provided that the female passed through her lifetime conforming to age-specific fertility and mortality rates of the given years.

**Graph 1.1 – Armenia: Dynamics of Fertility Rates by Age Groups, 1998-2018**

(Per mille points)



Source: RA SC

In 2018, the average age of mother at childbirth was 27.3 years and that at the first childbirth was 25.1 years against, respectively, 27.0 and 24.8 years in 2017.

By the sequence of birth, in 2018 the third and subsequent births comprised 22.6% of the total number of live births in the country, which comprised a 0.3 percentage point increase on the previous year (Table 1.4).

**Table 1.4 – Armenia: Birth Distribution by Sequence**

(Person)

Year	Total births	Including, by sequence of birth				
		First	Second	Third	Fourth	Fifth and more
1998	39 366	16 006	13 800	6 623	2086	851
2008	41 185	21 292	14 270	4 520	761	342
2010	44 825	21 954	15 881	5 683	929	378
2011	43 340	21 344	15 377	5 369	899	351
2012	42 480	20 453	15 481	5 352	874	320
2013	41 790	19 466	15 651	5 477	852	344
2014	43 031	19 548	16 051	6 171	929	332
2015	41 763	17 971	15 850	6 498	1 059	385
2016	40 592	17 711	15 032	6 454	1 040	355
2017	37 700	15 071	14 234	6 865	1 133	397
2018	36 574	14 492	13 811	6 817	1 086	368

Source: RA SC

In 2018, 32.5% of live births were to non-registered marriages (including extra-marital births), against 35.8% in 2008.

In 2018, the number of deaths decreased by 5.2% compared to the previous year, and the total mortality rate decreased by 0.4 per mille points down to 8.7 per mille. At that, the mortality rate in urban communities at 8.8 per mille was relatively higher than that in rural communities at 8.5 per mille.

**Table 1.5 – Armenia: Births and Deaths, 1998-2018**

	Birth						Death					
	In thousands			Per 1.000 residents			In thousands			Per 1.000 residents		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
1998	39.4	24.6	14.8	12.2	11.6	13.3	23.2	15.5	7.7	7.2	7.3	7.3
2000	34.3	21.4	12.9	10.6	10.3	11.4	24.0	15.7	8.3	7.5	7.5	7.3
2005	37.5	23.8	13.7	11.9	11.8	12.1	26.4	17.1	9.3	8.4	8.5	8.2
2007	40.1	25.5	14.6	12.9	12.9	13.0	26.8	17.2	9.6	8.6	8.7	8.6
2008	41.2	26.2	15.0	13.3	13.3	13.4	27.4	17.9	9.9	8.9	8.9	8.9
2009	44.4	28.3	16.1	14.5	14.5	14.5	27.6	17.5	10.1	9.0	8.9	9.1
2010	44.8	28.2	16.6	14.7	14.6	14.9	27.9	17.8	10.1	9.2	9.2	9.1
2011	43.3	27.6	15.7	14.3	14.4	14.2	28.0	17.8	10.2	9.2	9.3	9.1
2010	44.8	28.2	16.6	14.7	14.6	14.9	27.9	17.8	10.1	9.2	9.2	9.1
2011	43.3	27.6	15.7	14.3	14.4	14.2	28.0	17.8	10.2	9.2	9.3	9.1
2012	42.5	27.1	15.4	14.0	14.2	13.8	27.6	17.6	10.0	9.1	9.2	9.0
2013	41.8	26.8	15.0	13.8	14.0	13.6	27.2	17.4	9.8	9.0	9.1	8.9
2014	43.0	27.8	15.2	14.3	14.6	13.8	27.7	17.6	10.1	9.2	9.2	9.2
2015	41.7	27.1	14.6	13.9	14.2	13.4	27.9	17.7	10.1	9.3	9.3	9.3
2016	40.6	26.5	14.1	13.5	13.9	13.0	28.2	18.3	9.9	9.4	9.6	9.2
2017	37.7	24.6	13.1	12.6	13.0	12.1	27.1	17.4	9.7	9.1	9.2	9.0
2018	36.6	24.3	12.3	12.3	12.8	11.5	25.8	16.7	9.1	8.7	8.8	8.5

Source: RA SC

Note: For 2006-2011, rates are adjusted as per revised estimates of permanent population based on the results of the Census 2011.

The data of natural movement of population by Yerevan and regions see Table A1.1 in the Statistical Annex.

Within the structure of mortality in 2018, males comprised 50.6% and females comprised 49.4% against, respectively, 52.2% and 47.8% in 2008. Given the difference in mortality rates between males and females, their average life expectancy years also differ. In 2018, the average life expectancy rate was 72.4 years for males and 79.0 years for females. The corresponding indicators were 72.5 for males and 79.2 for females in urban communities, and 72.0 and 78.6 years in rural communities.

**Main causes of mortality:** Diseases related to blood circulatory system and malignant tumor accounting for more than two thirds of death records dominated in the structure of mortality.

**Table 1.6 – Armenia: Mortality Rates by Main Cause of Death, 2018**

Cause of death	Total number of deaths (person)		Mortality rate, per 100 000 population	
	Male	Female	Male	Female
<b>Number of deaths</b>	<b>13 021</b>	<b>12 730</b>	<b>926.8</b>	<b>813.9</b>
<i>Of which, by causes:</i>				
Blood circulatory system diseases	6 764	7 445	481.4	476.0
Malignant neoplasm	2 831	2 368	201.5	151.4
Endocrine system diseases	216	382	15.4	24.4
Exogenous reasons (accident, intoxication, injury etc.)	794	264	56.5	16.9
Respiratory system diseases	983	995	70.0	63.6
Digestive system diseases	640	577	45.6	36.9
Urogenital system diseases	174	172	12.4	11.0
Infectious and parasitic diseases	104	59	7.4	3.8
Other diseases	515	468	36.6	29.9

Source: RA SC

The difference between birth and death numbers constituted the natural growth of population, which was 10.8 thousand in 2018 against 10.6 thousand in 2017 (13.8 thousand in 2008 and 16.2 thousand in 1998). The natural growth of population in 2018 was 3.6 per mille constituting a 0.1 per mille point decrease from the previous year.

**Migration:** According to ILCS 2018, the share of households involved in external and internal migration processes made up 8.9%, with migrant members making up 10.9%.

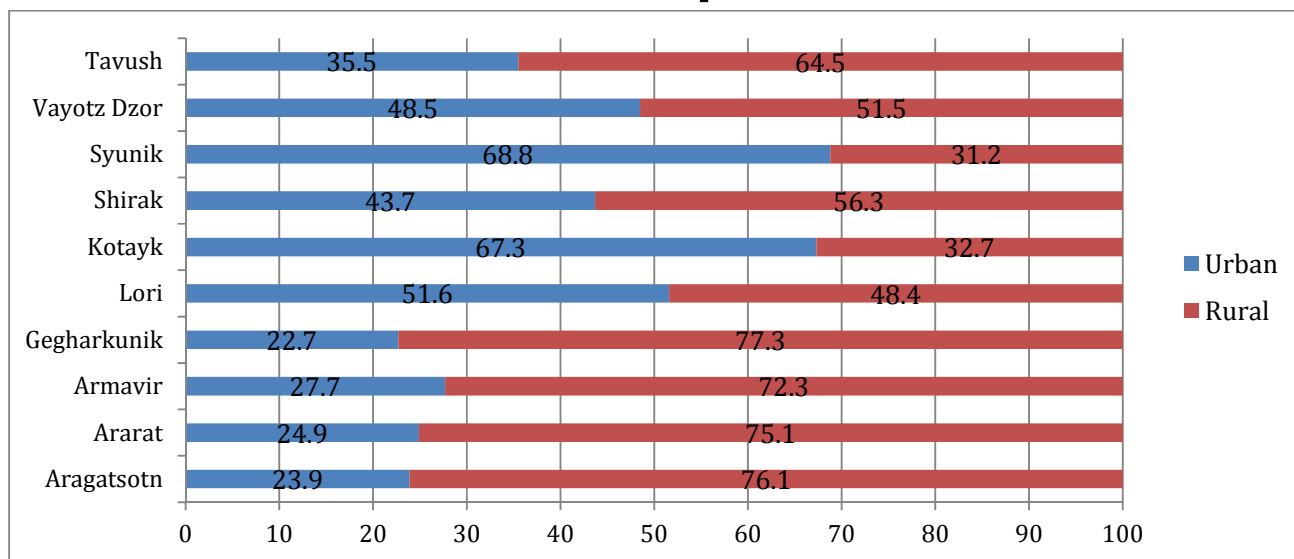
**Table 1.7 – Armenia: 2017-2018 Migration Involvement of Household Members, by Yerevan and Regions**

(Percent)

	Involvement in migration processes			Total
	Migrated and not returned	Migrated and returned	Arrived at location for the first time	
Yerevan	11.3	29.7	32.0	17.2
Aragatsotn	4.4	1.0	0.0	9.3
Ararat	7.5	9.4	0.0	7.7
Armavir	8.1	5.5	0.0	7.8
Gegharkunik	12.0	11.3	0.0	9.7
Lori	15.2	15.0	6.0	13.6
Kotayk	7.3	7.3	53.4	6.9
Shirak	21.9	10.9	5.2	17.8
Syunik	2.0	0.1	0.0	1.4
Vayotz Dzor	1.7	1.4	3.3	1.4
Tavush	8.7	8.4	0.0	7.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: ILCS 2018

**Graph 1.2 – Armenia: 2017-2018 Migration Involvement of Household Members by Regions and Urban/ Rural Population**



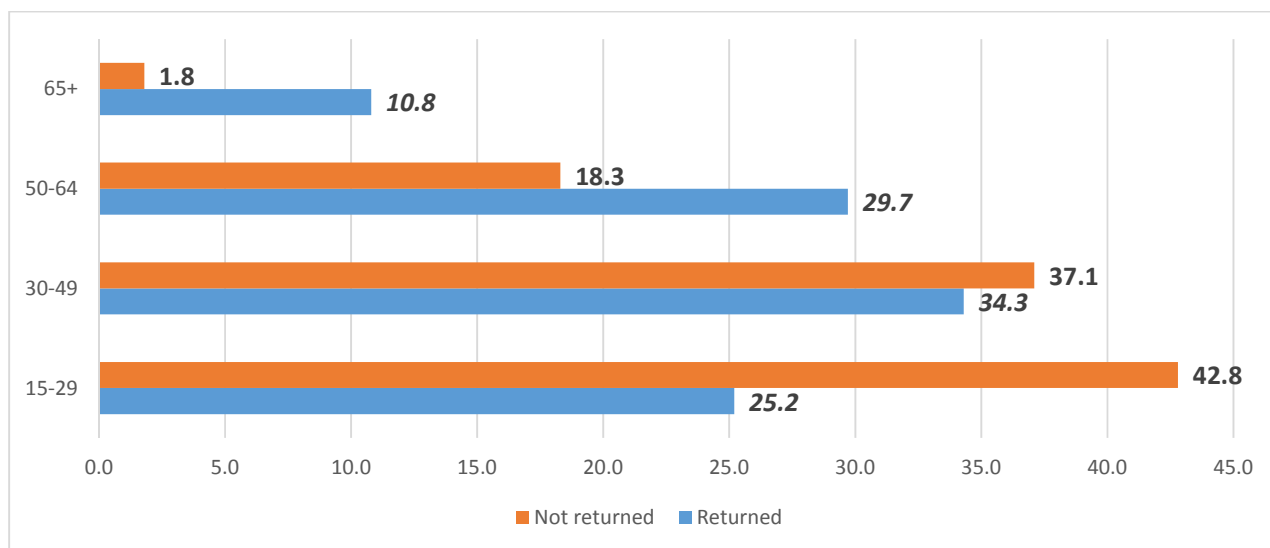
**Table 1.8 – Armenia: 2017-2018 Migration Involvement of Household Members by Gender and Urban/ Rural Population**

(Percent)

	Male	Female	Total	Urban	Rural
Returned	66.0	34.0	100	60.1	39.9
Not returned	91.3	8.7	100	44.2	55.8
Total	81.9	18.1	100	50.1	49.9

Source: *ILCS 2018*

**Graph 1.3 – Armenia: 2017-2018 Migration Involvement of Household Members Aged 15 and Above, by Age Groups**



Source: *ILCS 2018*

Among household members, who were involved in migration processes over the period of 2017-2018, 61% (around 137.7 thousand persons) were still absent from the household as of 2018 and resided either in other regions of the country, in Yerevan, in other communities within their region, or in another country; 38% (around 86.7 thousand persons) had returned from migration; and 1% (around 2.4 thousand persons) had arrived at the particular location for the first time.

**Table 1.9 – Armenia: 2017-2018 Migration Involvement of Household Members, by Involvement Status**

Involvement	Percent of total
1. Yes, migrated and not returned	60.7
2. Yes, migrated and returned after absence of less than 3 months	14.6
3. Yes, migrated and returned after absence of 3-12 months	18.6
4. Yes, migrated and returned after absence of 12 and more months	5.0
5. Arrived at the location for the first time	1.1
<b>Total</b>	<b>100</b>

Source: *ILCS 2018*

Among households with members, who were involved in external and internal migration processes over the considered period, as of 2018 10.9% were in internal migration in Yerevan and regions of Armenia, 8.5% in the Republic of Artzakh, and 80.6% were in interstate migration, of which the overwhelming 86.2% majority were involved in migration flows with the Russian Federation (Table 1.10).

**Table 1.10 – Armenia: 2017-2018 Migration Involvement of Household Members Aged 15 and Above, by Reasons for Migrating/Returning, and by Point of Destination/ Return, 2018**

(Percent)

Main reason for migrating/ returning	Point of destination/ departure							
	Yerevan	Regions in Armenia	Republic of Artzakh	Russian Federation	Other CIS country	European country	Other	Total
1. Need to/ search for work	3.2	1.9	1.4	89.8	0.5	2.0	1.2	100
2. Family circumstances	5.8	7.2	0.4	73.4	4.8	3.2	5.2	100
3. Residence	1.1	2.0	-	45.8	9.2	34.9	7.0	100
4. Private visit to friends/ relatives	0.7	8.7	-	71.2	0.8	15.1	3.5	100
5. Study/ training	68.8	14.5	1.5	3.2	0.9	6.8	4.3	100
6. Business	-	-	-	43.0	4.4	21.8	30.8	100
7. End of job	-	-	-	99.3	-	-	0.7	100
8. Other	2.7	14.3	56.8	8.5	0.7	7.0	10.0	100
<b>Total</b>	<b>5.9</b>	<b>5.0</b>	<b>8.5</b>	<b>69.5</b>	<b>1.5</b>	<b>6.2</b>	<b>3.4</b>	<b>100</b>

Source: *ILCS 2018*

Among household members, who were involved in migration processes and had returned as of 2018, 87% were absent for less than one year (including 38% who were absent for a period of three months or less), and 13% were absent for one year and more.



**Table 1.11 – Armenia: 2017-2018 Migration Involvement of Household Members Aged 15 and Above, Those Having Returned as of 2018, by Reasons for Returning and by Duration of Absence**

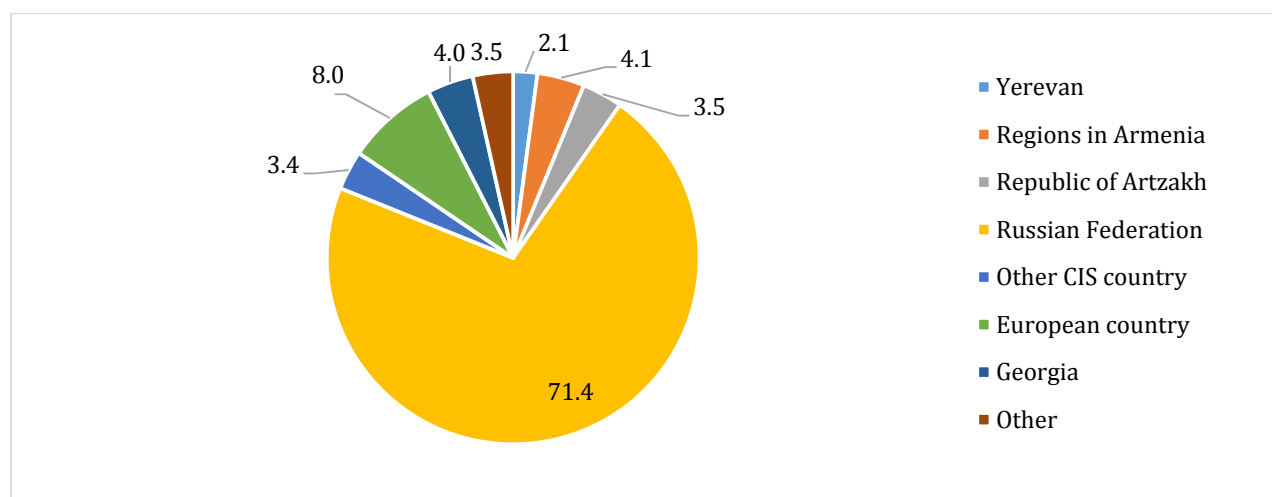
(Percent)

Main reason for returning	Duration of absence			Total
	<3months	4 -12 months	≥ 12 months	
1. Need to/ search for work	13.6	38.2	11.0	25.3
2. Family circumstances	23.1	11.9	15.1	16.6
3. Residence	0.6	2.1	35.5	5.9
4. Private visit to friends/ relatives	31.3	12.3	3.8	18.4
5. Tourism	12.7	2.3	-	6.0
6. Study/ training	3.1	3.1	0.8	2.8
7. Business	6.4	-	-	2.5
8. End of job	6.8	25.1	6.8	15.7
9. Other	2.4	5.0	26.9	6.8
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: *ILCS 2018*

Among household members, who had returned as of 2018, 6.2% returned from intra-country migration, 3.5% - from the Republic of Artzakh, 71.4% – from the Russian Federation, 3.4% – from other CIS countries, and 8.0% – from European countries.

**Graph 1.4 – Armenia: 2017-2018 Migration Involvement of Household Members Aged 15 and Above, Those Having Returned as of 2018, by Point of Return**



Source: *ILCS 2018*

**Table 1.12 – Armenia: 2017-2018 Migration Involvement of Household Members Aged 15 and Above, Those Not Having Returned as of 2018, by Duration of Absence**

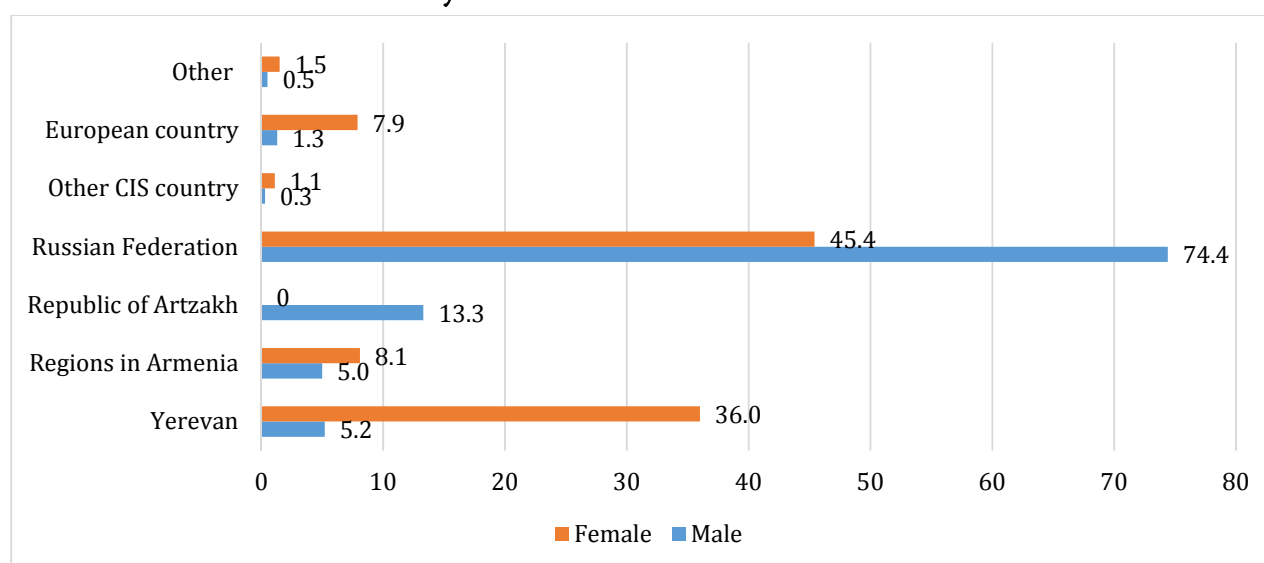
(Percent)

Main reason for migrating	Duration of absence			Total
	≤3months	4 -11months	≥ 12 months	
1. Need to/ search for work	71.8	83.5	56.5	77.1
2. Family circumstances	2.6	0.4	2.7	1.5
3. Residence	4.1	-	-	1.9
4. Private visit to friends/ relatives	5.2	0.9	-	2.8
5. Tourism	0.4	-	-	0.2
6. Study/ training	9.2	1.7	-	5.0
7. Other	6.7	13.5	40.8	11.5
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: *ILCS 2018*

Among household members aged 15 and above, who left the place of their permanent residence over the period of 2017-2018 and had not returned as of 2018, 45.1% were absent for less than 3 months, 51.2% – for 4-12 months, and 3.7% – for one year and more.

**Graph 1.5 – Armenia: 2017-2018 Migration Involvement of Household Members Aged 15 and Above, Those Not Having Returned as of 2018, by Point of Destination and Gender**



Source: *ILCS 2018*

Among household members aged 15 and above, who left the place of their permanent residence over the period of 2017-2018 for 3 months and more and had not returned as of 2018, 13.5% resided within the country (in Yerevan and regions), 12.0% – in the Republic of Artzakh, and 74.5% – in other countries, predominantly in the Russian Federation.

Among household members aged 15 and above, who were involved in interstate migration processes over the period of 2017-2018 for 3 months and more and had not returned as of 2018, around 70% were absent from the country for 3-12 months, and 30% – for one year and more.

According to the UN methodology, within the considered period (2017-2018) international migrants constituted 87% (around 75 thousand persons) of those household members who, by the record date, were absent from (had not returned to) the country for 3 months and more. Among them, short-term migrants with a duration of absence 3-12 months (except for those having left for recreation, visits to friends/relatives, holidays, business trips or medical treatment) comprised 65%, and long-term migrants with a duration of absence one year and more comprised 35%. According to survey findings, the average annual estimated number of household members, who were involved in migration processes over the period of 2017-2018 for 3 months and more and had not returned as of 2018, totaled around 20.5 thousand.

53.5% of migrant household members aged 15 years and above sent money and/ or goods to their families and/ or friends/ relatives within the 12 months preceding the survey.

## **1.2 Age Structure and Household Composition**

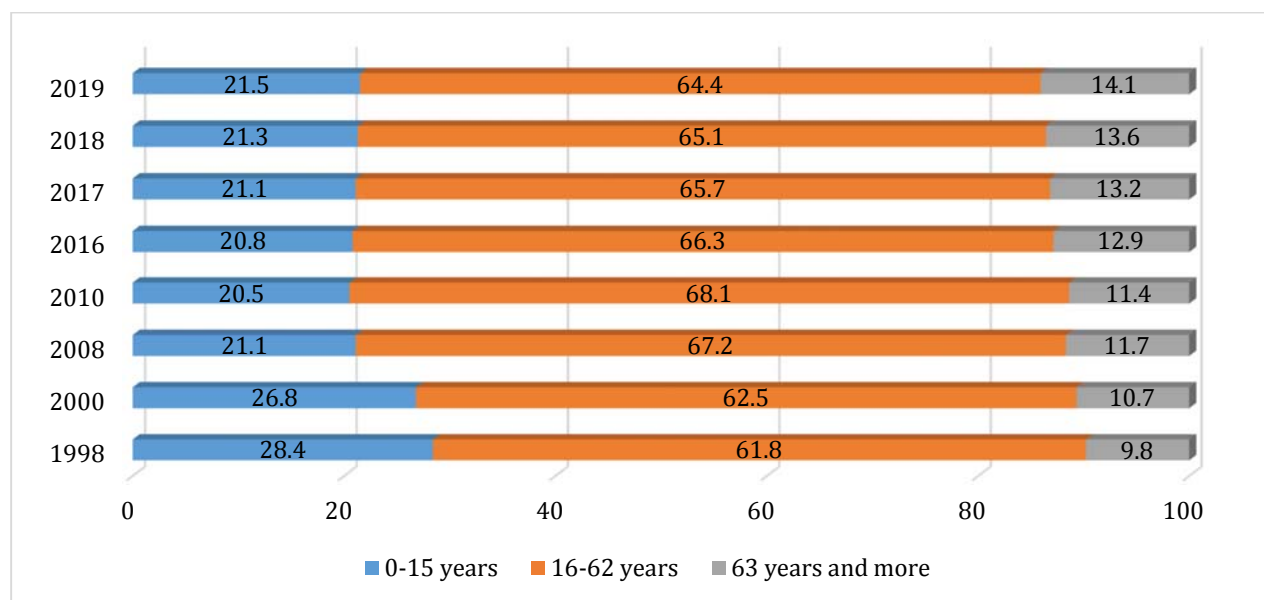
Age structure of the population of Armenia has significantly changed over the period of 1998-2018 due to both decreased birthrates, relatively high life expectancy at birth for both males and females, as well as by the expressly male-dominated emigration processes characteristic for Armenia (Graph 1.5).

The share of children below 16 dropped from 26.3% as at the Census 2001 to 20.2% as at the Census 2011. The share of working age population (16-62 years) increased from 62.1% in 2001 to 67.8% in 2011, while that of the population above the working age (63 years and more) increased, respectively, from 11.6% to 12.0%.

According to current records on the number of permanent population based on 2011 Population Census results, as of the beginning of 2019 working age population (16-62 years) constituted 64.4%, those below the working age (0-15 years) – 21.5%, and those above the working age (63 years and more) – 14.1% of the population. In Armenia, the share of the elderly and the underage (0-15 years) individuals in 2019 constituted 552 – against the previous year's 537 – per 1000 working age residents.

**Graph 1.6 – Armenia: Age Structure of Population, 1998-2019<sup>1</sup>**

*(As at the beginning of year)*



**Source:** RA SC

**Note:** <sup>1)</sup> The indicators are calculated for currently defined pension age groups.

According to survey findings, in 2018 the average number of household members was 3.6 per permanent population, with 3.4 in urban communities and 4.0 in rural communities; and the corresponding indicators per present population were 3.4, 3.2, and 3.6, respectively.

In 2018, the share of households with three or less members comprised more than half of the total number of households, against 38.2% in 2010 and 49.0% in 2017 (Table 1.13).

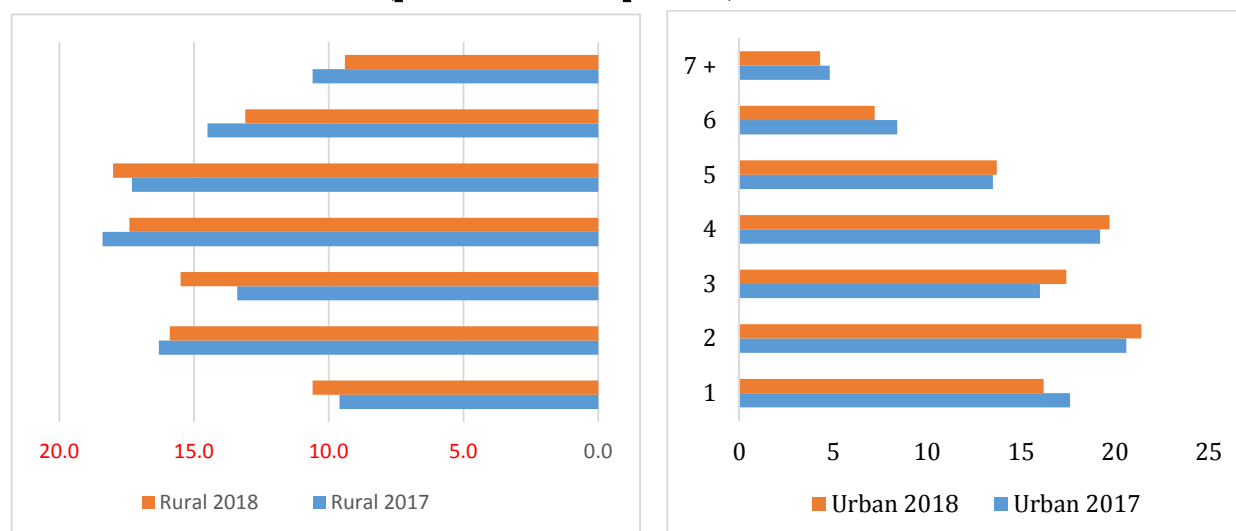
**Table 1.11 – Armenia: Households by Composition  
(per Permanent Population), 2010-2018**

Household composition	Percent of total						
	2010	2012	2014	2015	2016	2017	2018
Households, by number of members:	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1 member	10.0	10.9	12.9	14.1	13.8	14.8	14.3
2 members	14.0	16.1	17.1	17.7	17.4	19.1	19.5
3 members	14.2	15.0	14.1	15.2	15.7	15.1	16.7
4 members	21.0	20.6	19.8	19.2	19.7	18.9	18.9
5 members	18.0	16.5	15.7	15.4	15.2	14.8	15.2
6 and more members	22.8	20.9	20.4	18.4	18.2	17.3	15.4

**Source:** ILCS 2010-2018

Large households (with six and more members) mainly lived in rural communities – comprising a share of 22.5%, against those living in urban communities – comprising a share of 11.5%. In Armenia, the majority of urban households had four or less members; the share of such households was 74.7% in urban communities and 59.4% in rural communities.

**Graph 1.7 – Armenia: Composition of Urban and Rural Households  
(per Permanent Population), 2017-2018**



Source: *ILCS 2017-2018*

As in the previous years, in 2018 every 6 out of 10 households had no children below 16; the share of such households was 62.6% in urban communities and 56.5% in rural communities. Compared to the previous year, in 2018 there was a decrease in the share of households with 1 child (by 0.5 percentage points) and 4 children (by 0.2 percentage points), and an increase in the share of households with 2 (by 0.7 percentage points), 3 (by 0.1 percentage points) and 5 and more (by 0.1 percentage points) children (Table 1.14).

**Table 1.14 – Armenia: Households with Children below 16  
(per Permanent Population), 2010-2018**

Household composition	Percent of total						
	2010	2012	2014	2015	2016	2017	2018
Households, by number of children:	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1 child	19.9	18.5	18.1	17.3	17.0	16.3	15.8
2 children	20.0	18.2	18.5	20.3	19.2	17.1	17.8
3 children	5.3	5.0	5.2	4.4	5.2	5.0	5.1
4 children	1.0	0.7	0.8	0.7	0.7	0.8	0.6
5 and more children	0.4	0.4	0.2	0.2	0.2	0.2	0.3
No children	53.4	57.2	57.2	57.1	57.7	60.6	60.4

Source: *ILCS 2010-2018*

In 2018, the majority of households in the country, i.e. 65.7% were male-headed; female-headed households comprised 34.3% (respectively, 37.7% in urban communities and 27.8% in rural communities).

On average, each female-headed household accounted for 0.27 children below 16 years, and each male-headed household accounted for 0.46 children below 16 years in 2018.

In 2018, the number of registered marriages was 14 882, against 15 214 in 2017, 18 465 in 2008, and 11 365 in 1998. Compared to the previous year, the number of divorces in 2018 decreased by 3.0% down to 3 820 cases, and the total divorce rate remained unchanged at 1.3‰ per 1 000 population.

The average age of registered marriage in 2018 was 31.3 years for males and 27.7 years for females<sup>1</sup> against, respectively, 31.1 years and 27.5 years in 2017. The average age of the first marriage was 30.1 years for males and 26.8 years for females against, respectively, 29.9 years and 26.6 years in 2017.

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<sup>1</sup> It is worth of mentioning that both the average age of marriage and the average age of the first marriage are higher than the average age of mother at childbirth (27.3 years) and at the first childbirth (25.1 years). This reflects the fact that the estimates are based on the number of registered marriages, whereas registration itself occurs with certain delay after the child is born; besides, there are cases of second and further marriages registered at later ages.

## Chapter 2: Overview of Economic Developments in Armenia over 2012-2018

### 2.1 Macroeconomic Environment

The global economic crisis in 2008 hit the Armenian economy. Whereas the stable economic environment at the time, including the low level of debt, increasing level of savings and prudent fiscal positions safeguarded the economy against the initial influence of the global recession, the effects of the decline in external demand and capital inflows became visible since the fourth quarter of 2008, when the country experienced 5.9% economic recession and 6.9% annual GDP growth, as opposed to the two-digit growth of the GDP at 13.7% back in 2007.

Investments shrunk at a faster pace, and the sector of residential construction was the first among those suffering because of abrupt deterioration of the economic environment. Relevant economic indicators evidenced a deep recession of the economy in 2009. 14.1% downturn of the GDP in that year was followed by slow recovery since 2010 (year-on-year GDP growth comprised 2.2% in 2010 and 4.7% in 2011). There was a rather significant 7.2% growth of the GDP in 2012 as well; however, it still was not sufficient for achieving the level of economic activity in 2008.

In 2013<sup>1</sup> similar trends of economic development were observed, however at a slower pace (with 3.3% economic growth over the previous year) mainly due to the recession in the construction sector.

In 2014, despite the acceleration trends of economic growth in the first three quarters, the end of the year saw slower economic growth rates, resulting in 3.6% annual growth. Over the period 2015-2016 economic growth was mainly driven by slower growth in external demand, exchange rate devaluation, and slower increase of disposable income due to downsized inflows of monetary remittances from Russia. In 2017-2018, economic growth trends changed positively to 7.5% and 5.2%, respectively.

Substantial changes occurred in the structure of the GDP due to the promotion of agricultural supply, investments in industrial enterprises, modification of the tax policy, deferral of the payment of value added tax and increased salaries.

In contrast to the high growth rate in the construction sector as of 2008, which provided 39.1% of the GDP growth and comprised 25.3% share in the GDP structure, the significant drop in construction volumes in 2009 (by 41.6%), which made up 74.3% of the GDP decline, led to its decreased share in the GDP down to 18.6%. Compared to 2009, the 3.3% growth of construction in 2010 was followed by significant drops of 12.2% in 2011, 7.4% in 2013, 4.5% in 2014, 3.1% in 2015 and 14.1% in 2016. In 2017-2018, year-on-year economic growth was recorded in the construction sector by 2.8% and 0.8% respectively, which, however, had no effect on the background of recession dynamics over the previous years. As a result, the share of construction in GDP reduced to 9.4% in 2015, 7.3% in 2017 and 6.6% in 2018 (Table 2.1).

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<sup>1</sup> Starting from 2015, the SC calculates the GDP in accordance with the System of National Accounts 2008 (SNA 2008) international standard, also revising the 2012-2014 GDP figures accordingly. In this report, data on the 2013-2018 GDP and economic growth are calculated in accordance with the SNA 2008.

**Table 2.1 – Armenia: GDP Structure, Real Volume Indexes, and GDP Growth Contribution Shares through Production Method, by Large Groups of Economic Activity Classification (NACE, rev. 2), 2015-2018<sup>1</sup>**

Code under NACE, rev.2		GDP structure, percent				Real volume indexes relative to previous year, percent				GDP growth contribution share, percentage point			
		2015	2016	2017 <sup>0</sup>	2018 <sup>2</sup>	2015	2016	2017 <sup>0</sup>	2018 <sup>2</sup>	2015	2016	2017 <sup>0</sup>	2018 <sup>2</sup>
	<b>Domestic product (gross, at market prices)</b>	100.0	100.0	100.0	100.0	103.2	100.2	107.5	105.2	3.2	0.2	7.5	5.2
	Taxes on products (less subsidies)	10.6	10.0	10.3	10.6	94.9	96.3	109.7	108.0	-0.6	-0.4	1.0	0.8
	Added value (gross, at basic prices)	89.4	90.0	89.7	89.4	104.3	100.6	107.3	104.9	3.8	0.6	6.5	4.4
	Indirectly measured financial intermediation services	-1.8	-1.9	-1.8	-1.9	87.5	108.7	104.5	110.8	0.3	-0.2	-0.1	-0.2
A	Agriculture, hunting and forestry, fishing, fish breeding	17.2	16.4	15.0	13.7	113.2	95.0	94.9	91.5	2.4	-0.9	-0.8	-1.3
B + C + D + E	Industry, including energy sector	16.3	17.9	18.5	18.4	106.2	107.7	111.7	105.8	1.0	1.3	2.1	1.1
F	Construction	9.4	7.8	7.3	6.6	96.9	85.9	102.8	100.8	-0.3	-1.3	0.2	0.1
G + H + I + J + K + L + M + N + O + P + Q + R + S + T	Trade and services	48.3	49.8	50.7	52.6	101.0	103.4	110.4	109.4	0.4	1.7	5.1	4.7

Source: RA SC

6.3% economic growth in the industrial sector in 2013 was followed by 0.9% recession in 2014 mainly due to deteriorated performance in the supply of electricity, natural gas, steam and improved air, shaft and open-pit mining. Over 2015-2018, significant economic growth amounting to an average 7.8% was recorded in the industrial sector. Industrial, trade and service sectors contributed to the economic growth over 2017-2018. The growth in the industrial sector was driven by the processing industry and mining with, respectively, 11.8% and 25.7% contribution in 2017; and by the processing industry with 11.1% and the supply of electricity, natural gas, steam and improved air with 9.2% contribution in 2018.

The reduction in agricultural sector (12%), including the subsectors of forestry, fishing and fish breeding, due to unfavorable climatic conditions in 2010 was followed by certain growth over the next years. Compared to 2012, growth amounted 29.2% in 2015, with 18.4% share of the sector in GDP as of 2013. Over 2016-2018, this picture certainly changed in view of negative growth dynamics, which resulted in economic recession amounting, respectively, 5.0%, 5.1% and 8.5% with a decreased share of the sector in GDP down to 13.7% in 2018.

Along with the economic growth over 2012-2014, there was a noticeable increase of the level of final consumption in the economy relative to the GDP at an average 98.3%; however, this indicator slowed down over 2015-2018 to an average 91.7%.

Over the period of 2012-2014, the Armenian national currency depreciated relative to the US dollar and other foreign currencies, reflecting the reduction of private transfers and direct foreign investments.

<sup>1</sup> In accordance with the SNA 2008

<sup>2</sup> Preliminary data



**Table 2.2 – Armenia: Macroeconomic Indicators, 2015-2018**

	2015	2016	2017	2018 <sup>1</sup>
Nominal GDP (AMD billion) <sup>*</sup>	5 043.6	5 067.3	5564.5	6 005.1
Nominal GDP (USD million) <sup>*</sup>	10 553.3	10 546.1	11527.4	12 433.1
Real GDP growth (annual percentage change) <sup>*</sup>	3.2	0.2	7.5	5.2
Real GDP growth relative to 2012 (percentage change) <sup>*</sup>	10.4	10.7	19.0	25.2
USD/ AMD exchange rate (period average)	477.92	480.49	482.72	482.99
Unemployment rate (percent)	18.5	18.0	20.8**	20.5*
Average monthly nominal wages (AMD)	171 615	174 445	166004***	172 727**
Inflation (average annual)	3.7	-1.4	1.0	2.5
Consolidated budget expenditures (percent of GDP)	28.6	29.3	27.7	24.7
Consolidated budget deficit (percent of GDP)	4.8	5.5	4.8	-1.6

Source: RA SC

Notes: <sup>1</sup> Preliminary data

\* In accordance with the SNA 2008

\*\* Methodological basis: provisions of the 19<sup>th</sup> International Conference of Labor Statisticians

\*\*\* The source of information is the database of the State Revenue Committee

**Table 2.3 – Armenia: Aggregate Indicators of Consolidated Budget, 2012-2018**

(Percent of GDP<sup>1</sup>)

	2012	2013	2014	2015	2016	2017	2018
Total revenues and official transfers	22.9	24.2	24.4	23.8	23.8	22.9	23.1
Of which, taxes and duties	21.1	22.4	22.5	21.6	21.8	21.3	21.4
Total expenditures	24.3	25.7	26.3	28.6	29.2	27.7	24.7
Deficit	1.4	1.5	1.9	4.8	5.5	4.8	-1.6

Source: RA SC

Note: <sup>1</sup> Calculated in accordance with the SNA 2008

Over 2013-2018, the share of actual spending on social sectors within consolidated budget expenditures did not exceed its 2012 level at 50.3% (Table 2.4). It declined to 44.9% in 2013, raised to 47.6% in 2014, declined to, respectively, 46.7%, 46.3% and 45.3% over 2015-2017, and raised to 47.2% in 2018.

**Table 2.4 – Armenia: Actual Spending on Social Sectors within Consolidated Budget\*, 2012-2018**

(Percent of total consolidated budget expenditures)

	2012	2013	2014	2015	2016	2017	2018
Education	12.9	11.5	11.9	11.2	11.0	10.8	11.2
Health	6.2	5.5	6.1	6.0	6.0	5.4	5.4
Culture, information, sport, religion	2.8	2.2	2.3	2.7	2.3	2.3	2.3
Pensions**	19.8	17.6	19.4	20.0	20.0	19.7	21.4
Pensions, as percent of GDP	4.8	4.5	5.1	5.7	5.9	5.4	5.3
Other social programs	8.6	8.1	7.9	6.8	7.0	7.1	6.9
Total actual spending on social sectors within consolidated budget	50.3	44.9	47.6	46.7	46.3	45.3	47.2

Source: RA SC

Notes: \* Includes expenditure on social sectors from both state and local community budgets.

\*\* Includes health, disability, age and survivors' pensions

## 2.2 Economic Growth/ Recession and Poverty

The economic growth over the last years (2012-2018) has had certain positive impact on the poverty level.

Poverty-to-GDP elasticity has been used to demonstrate the macro/ micro interrelation between macroeconomic changes and poverty level dynamics.

Starting from 2015, ARMSTAT calculates the GDP in accordance with the System of National Accounts (SNA 2008) international standard, also revising the 2012-2014 GDP figures accordingly. In this report, data on the 2013-2018 GDP and economic growth are calculated in accordance with the SNA 2008.

The economic growth over 2013-2018 created prerequisites for improved living conditions and reduced poverty rate. Compared to 2012, GDP increased by 25.15% and poverty decreased by 27.47% thus producing a negative poverty-to-GDP elasticity coefficient over the 2013-2018 period. In 2018, for each percentage point of economic growth relative to 2012 the total poverty rate decreased by 1.09 percentage points (Table 2.5). The elasticity coefficient over the period 2013-2018 was higher in rural communities.

**Table 2.5 – Armenia: Poverty-to-GDP\* Elasticity Estimates, 2013-2018 (2012 = 100)**

	<i>(Percentage point)</i>
Total poverty reduction-to-GDP elasticity	-1.09
Urban poverty reduction-to-GDP elasticity	-0.93
<i>Yerevan poverty reduction-to-GDP elasticity</i>	-0.89
<i>Other urban poverty reduction-to-GDP elasticity</i>	-0.98
Rural poverty reduction-to-GDP elasticity	-1.33
Rural poverty reduction-to-agriculture value added elasticity	-5.10

**Source:** RA SC, ILCS

\*Calculated in accordance with the System of National Accounts (SNA 2008) international standard

## Chapter 3: Poverty Profile in Armenia over 2008-2018

### 3.1. Introduction

In 2018 year-on-year economic growth was rather significant at 5.2% but nevertheless lower than the same indicator for 2017 at 7.5%. Compared to 2017, consumer price index increased by 2.5%, thus exceeding the previous year's increase of 1.0%. In 2018, the poverty rate **estimate was 23.5%**, constituting a fall of 2.2 percentage points compared to 2017, and of 4.1 percentage points compared to 2008 (27.6%).

This report presents 2018 poverty profile in Armenia comparing it with pre-crisis data of 2008. The methodology adjusted in 2009 providing for the construction of the consumption aggregate and the poverty lines (through more detailed components and a three-tier method of poverty assessment) was used for 2008-2018 with the technical assistance of the World Bank.

#### 3.1.1. Main Concepts

A key indicator used to estimate the welfare and living standards of the population in a country is poverty rate. Poverty is manifested in different ways and touches upon various aspects of life: consumption, food safety, health, education, rights, including the right to vote, security, life and work of dignity.

Similar to previous reports, population welfare dynamics are described both in terms of material and non-material poverty.

Indicators of non-material poverty are poor health, low level of education or illiteracy, social disregard or banishment, vulnerability, inability to exercise rights and freedoms, i.e. practical impossibility to signal about one's problems. The main way to overcome non-material poverty is to upgrade access to educational, health care and social services through better targeting of free assistance and higher ability to benefit from paid services.

Under Sections 3.1-3.8 of this chapter, the report measures poverty by means of material (monetary) indicators. The main (official) approach to poverty measurement in Armenia is the **absolute** poverty by consumption based on the 2009 methodology. In that context, according to the World Bank definition, "**absolute poverty is the inability to ensure an acceptable minimum of certain living conditions.**" The chapter also reflects on relative poverty, international poverty rate in the countries of the region, multidimensional poverty, and social exclusions (see Sections 3.7-3.10).

**Consumption aggregate** is used as a welfare measure for assessing poverty in Armenia. International practice shows that consumption – in comparison with income – provides more accurate information and is less sensitive to short-term fluctuations, particularly in low and middle income economies. Income is less reliable, since interviewees often tend to hide or underreport income, and it is characterized by significant seasonality implications.

**Consumption aggregate** includes the following components: (a) cost of consumed food and non-food goods, including own production, aid from charitable organizations and other sources, and (b) estimated cost of durable goods.

The concept of *absolute poverty* is used for assessing monetary poverty in Armenia. The population is classified into the poor and the non-poor, based on their poverty status. The poor, in turn, comprise the moderate<sup>1</sup> (very) poor and, among them, the extremely poor.

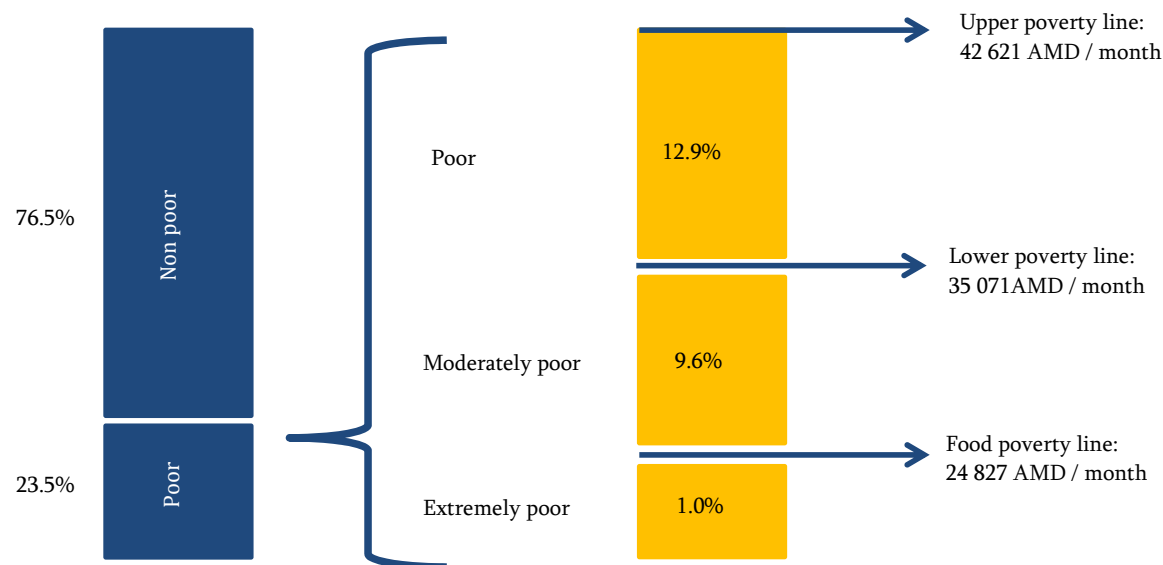
Poverty in Armenia has been assessed since 1996. Starting from 2009, the country uses a revised methodology developed with the assistance of the World Bank (poverty indicators estimated using three different methodologies are presented in Table A3.6 of Annex 2 and are not comparable).

The *poor* are defined as those with consumption per adult equivalent below the upper total poverty line; the *moderate<sup>1</sup> (or very) poor* are defined as those with consumption per adult equivalent below the lower total poverty line, whereas the *extremely poor* or the undernourished are defined as those with consumption per adult equivalent below the food poverty line.

In 2018, poverty rate was 23.5% constituting a fall of 2.2 percentage points compared to 2017. This means that every fourth person in the country was below the upper poverty line of AMD 42621.

The graph below depicts the three poverty lines using the 2009 Methodology in 2018 prices.

**Graph 3.1. Armenia: Poverty Rate and Poverty Lines, 2018**



Source: *ILCS 2018*

Although poverty rate is one of the indicators most often used for assessing poverty, it does not take into account the intensity of poverty, often called the poverty deficit, which shows how far below are the poor households from the poverty line.

The *poverty gap* is counted with regard to the poor population and indicates the *poverty shortfall*, i.e. it shows the extent to which the average income<sup>2</sup> (or consumption) of the poor falls below the poverty line. The poverty gap (4.2% in 2018) also indicates that, if the country were to mobilize for each individual (both poor

<sup>1</sup> The term “very poor” has been substituted with the term “moderately poor”.

<sup>2</sup> In case of Armenia, consumption.

Poverty lines used in the calculation of poverty rates are provided in Table 3.3. Poverty line in 2018 was computed using the factual (or empirically determined) minimum food basket and the estimated share of non-food products for 2009 (see the *Methodological Clarifications*).

Taking into consideration the year-on-year inflation in 2018, poverty lines for 2004-2018 have been adjusted to enable comparison with the consumption aggregate counted in current prices<sup>1</sup>.

**Table 3.3 – Armenia: Nominal Poverty Line Dynamics, 2004-2018**  
(per Adult Equivalent, per Month) (Using 2009 Methodology)

(AMD)

	Poverty lines		
	Food or <b>extreme</b> poverty line	<b>Lower</b> poverty line	<b>Upper</b> poverty line
<b>2004</b>	12 651	20 704	25 386
<b>2005</b>	13 186	19 197	24 113
<b>2006</b>	13 810	19 972	25 011
<b>2007</b>	14 147	20 450	25 605
<b>2008</b>	17 644	24 388	29 903
<b>2009</b>	17 483	25 217	30 920
<b>2010</b>	19 126	27 410	33 517
<b>2011</b>	21 306	29 856	36 158
<b>2012</b>	21 732	30 547	37 044
<b>2013</b>	22 993	32 318	39 193
<b>2014</b>	23 384	33 101	40 264
<b>2015</b>	24 109	34 234	41 698
<b>2016</b>	23 313	33 418	40 867
<b>2017</b>	24 269	34 253	41 612
<b>2018</b>	24 827	35 071	42 621

Source: *ILCS 2004-2018*

In 2018, the total – both upper and lower – and the extreme poverty lines per adult equivalent per month were estimated AMD 42621 (or USD 88.2), AMD 35071 (or USD 72.6) and AMD 24827 (or USD 51.4), respectively.

In this report, poverty rate is construed in terms of upper poverty line indicators, and extreme poverty rate is construed in terms of the indicators for the population with consumption below the food poverty line.

**Factors behind poverty reduction:** Over 2008-2018, the key factor behind reduced poverty rate was the economic growth in 2018.

According to the international standard System of National Accounts 2008 (SNA 2008), year-on-year growth of the Armenian economy was 3.3% in 2013, 3.6% in 2014, 3.2% in 2015, 0.2% in 2016, 7.5% in 2017, and 5.2% in 2018. Compared to the post-crisis data since 2008, the economic growth in 2018 was the second highest after that in 2017 (5.2% and 7.5%, respectively).

ILCS 2018 results show that the average monthly real consumption of the entire population increased by 13.2% compared to 2008, and such increase was observed in all quintiles of consumption. At the same time, it should be noted that the growth of the economy has not been poverty-oriented since 2008.

<sup>1</sup> For details see the section *Methodological Clarifications*.

**Poverty by urban/rural communities.** Over 2008-2018, poverty rate in urban and rural communities decreased by 2.7 and 6.2 percentage points, respectively (Table 3.1). The capital city Yerevan had the lowest poverty rate in the country (19.9%), which was 1.5 times lower than in other urban communities. Comparison of 2008 and 2018 data shows that poverty in Yerevan fell by 0.2 percentage points, while in other urban communities which had the highest poverty rate it fell by 5.5 percentage points. In terms of urban/rural differences of welfare, majority of the poor (65.8%) were urban residents.

Extreme poverty in urban and rural communities decreased by 0.9 and 0.3 percentage points, respectively (Table 3.1) over 2008-2018. Extreme poverty was the lowest in rural communities (0.9%) and the highest in other urban communities (1.1%). Comparison of 2008 and 2018 data shows that extreme poverty fell by 1.1 percentage points in Yerevan (1.0%), more than 2.5 times – in other urban communities, and by 0.3 percentage points – in rural communities. The majority of the extremely poor (64.7%) are urban dwellers.

**Poverty by regions and in Yerevan:** Administrative division of Armenia comprises 10 regions and the city of Yerevan. Table 3.4 presents the key poverty indicators by regions and in Yerevan for 2018, as well as poverty rate dynamics over 2008-2018. The results of the Integrated Living Condition Survey conducted by ARMSTAT in 2008-2018 provide for statistical representativeness by regions and in Yerevan. Nevertheless, poverty rate indicators should be considered by taking into account standard deviation and confidence interval.

In 2018, poverty rate relative to the country average varied by regions and in Yerevan. Poverty rate in Shirak, Lori, Tavush and Armavir regions was higher than the country average. 42% of the population in Shirak region lives below the poverty line.

Poverty rate in 2018 was higher compared to 2008 in Armavir and Tavush regions. Over the same period, poverty rate decreased countrywide, including in Yerevan and all other regions.

Over 2008-2018, extreme poverty rate also decreased countrywide, both in Yerevan and in all regions except for Lori and Armavir regions. There was no extreme poverty in five regions.

**Table 3.4 – Armenia: Key Poverty Indicators, by Regions and in Yerevan, 2008 and 2018 (95% Confidence Interval in Curly Brackets)**

(Percent)

	2008		2018			
	Extremely poor	Poor	Extremely poor	Poor	Percent, poor population	Percent, total present population
Yerevan	1.1 {0.3;1.9}	20.1 {17.3;22.9}	1.0 {0.3; 1.7}	19.9 {16.6; 23.2}	27.6	32.6
Aragatsotn	0.5 {-0.3;1.3}	20.3 {13.9;26.7}	0.0 {0.0 ; 0.0}	16.2 {11.8; 20.5}	2.6	3.8
Ararat	1.6 {0.2;3.0}	31.3 {25.5;37.1}	0.0 {0.0 ; 0.0}	19.8 {12.0; 27.6}	7.8	9.2
Armavir	0.7 {0.1;1.3}	24.5 {19.7;29.3}	0.9 {-1.2; 3.0}	25.3 {20.0; 30.5}	10.7	10.0
Gegharkunik	0.4 {0.2;0.6}	32 {25.8;38.2}	0.0 {0.0 ; 0.0}	22.4 {15.5; 29.3}	5.7	5.9

Lori	2.8 {1.2;4.4}	34.2 {29.2;39.2}	3.1 {1.4; 4.9}	29.4 {24.2; 34.6}	11.2	9.0
Kotayk	2.1 {0.7;3.5}	39.5 {34.7;44.3}	0.0 {0.0 ; 0.0}	22.7 {15.9; 29.4}	10.1	10.5
Shirak	4.6 {2.0;7.2}	42.4 {37.2;47.6}	2.6 {0.5; 4.7}	42.2 {34.4; 50.0}	14.7	8.2
Syunik	1.3 {0.5;2.1}	20.3 {14.3;26.3}	0.0 {0.0; 0.0}	16.7 {8.9; 24.4}	2.9	4.1
Vayotz Dzor	1.9 {0.1;3.7}	21.1 {14.9;27.3}	1.6 {0.0; 3.2}	18.6 {14.3; 22.9}	1.5	1.9
Tavush	1.7 {0.3;3.1}	23.2 {18.0;28.4}	0.9 {-0.5; 2.4}	25.6 {19.6; 31.5}	5.2	4.8
<b>Total</b>	<b>1.6</b> <b>{1.2;2.0}</b>	<b>27.6</b> <b>{26.0;29.2}</b>	<b>1.0</b> <b>{0.6; 1.4}</b>	<b>23.5</b> <b>{21.5; 25.5}</b>	<b>100</b>	<b>100</b>

Source: *ILCS 2008 and 2018*

**Poverty rate sensitivity to changes in poverty line.** In comparison with total poverty rate, extreme poverty rate appears to be more sensitive to the changes in poverty line, which indicates a higher concentration of population around extreme poverty line compared to that around total poverty line. Table 3.5 presents the changes in poverty rate indicators relative to the changes in poverty line. A 5% increase in poverty line would result in 1.6-times higher extreme poverty and in total poverty higher by 13.2%. The changes in poverty rate are statistically significant (at 1% significance level), when poverty line is moved up or down by 5%, 10%, or 20%.

**Table 3.5 – Armenia: Changes in Poverty Rate with Respect to Changes in Poverty Line, 2018**

(Percent)

Changes in poverty line	Extremely poor	Poor
Unchanged, 0%	1.0	23.5
+5%	1.6	26.6
-5%	0.1	19.5
+10%	2.1	31.3
-10%	0.4	15.8
+20%	3.9	39.2
-20%	0.2	9.2

Source: *ILCS 2018*

**Poverty by consumption and income indicators.** Table 3.6 illustrates comparisons between consumption and income poverty in Armenia over 2008–2018. Income-based poverty estimates were lower than those based on consumption as welfare measure. At the same time, income-based extreme poverty was 4.4 times higher than consumption-based extreme poverty. The difference is mostly explained by higher inequality of income distribution compared to consumption distribution (see Table 3.17). In 2018, average monthly income per adult equivalent counted in 2008 prices exceeded consumption by 32.4%, whereas in 2008 it was below consumption by 1.0%.

**Table 3.6 – Armenia: Poverty Rate, by Consumption and Income Indicators, 2008-2018**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Monthly consumption per adult equivalent (AMD, in average national prices of 2008)	42870.2	40250.2	39459.3	40296.9	45583.0	44751.4	47622.0	47620.0	49754.4	47257.6	48547.9
Monthly income per adult equivalent (AMD, in average national prices of 2008)	42484.4	43824.7	44887.4	45326.1	49285.9	48418.2	54476.9	56692.5	61484.0	60761.9	63704.5
Income/consumption ratio	0.99	1.09	1.14	1.12	1.08	1.08	1.15	1.19	1.24	1.29	1.32
<b>Consumption-based poor (Percent)</b>											
Extremely poor	1.6	3.6	3.0	3.7	2.8	2.7	2.3	2.0	1.8	1.4	1.0
Poor	27.6	34.1	35.8	35.0	32.4	32.0	30.0	29.8	29.4	25.7	23.5
<b>Income-based poor (Percent)</b>											
Extremely poor	12.1	12.2	12.1	13.2	11.5	11.5	8.8	6.5	6.4	6.3	4.4
Poor	38.1	38.2	38.4	37.1	32.8	32.7	26.9	24.4	24.2	20.9	18.1

Source: ILCS 2008-2018

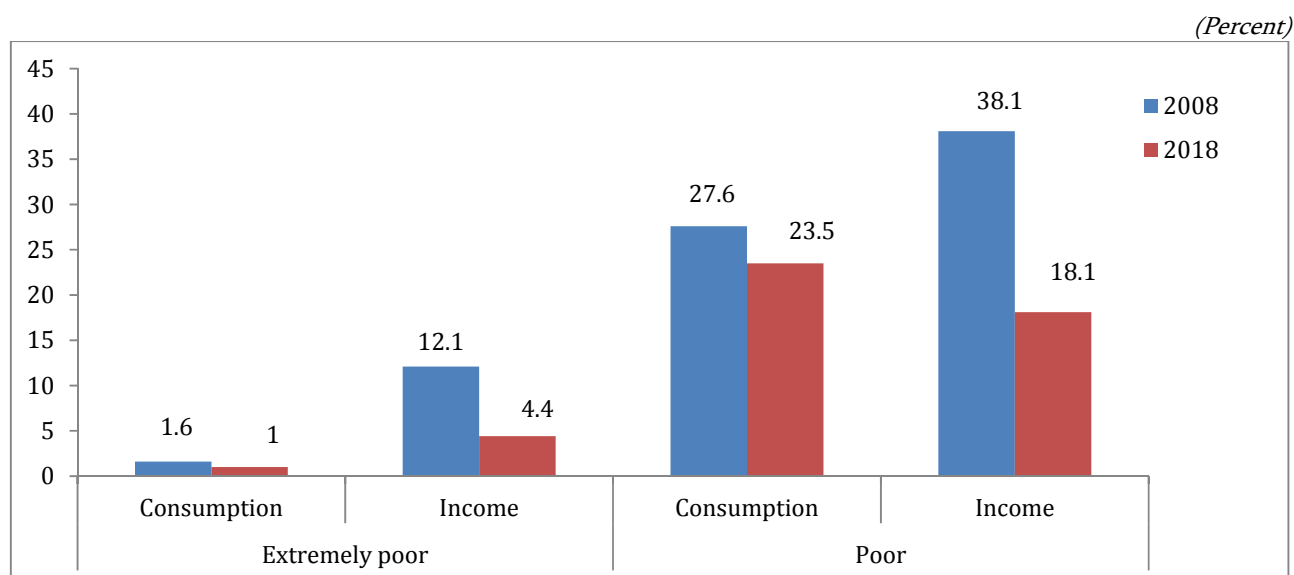
Note: Income is defined as total disposable income and includes monetary income, monetary value of consumption in kind, and consumed savings.

Gross comparison of indicators on consumption and income poverty in 2018 shows that more than half of individuals with their income below poverty line had consumption above that line (52.7%).

Among those assessed as income poor and extremely poor, only 47.3% and 6.0%, respectively, were assessed as consumption poor and extremely poor.

Considering those assessed as consumption poor and extremely poor, 27.3% and 30.2%, respectively were assessed as income poor and extremely poor.

**Graph 3.3 – Armenia: Poverty Rate, by Consumption and Income Indicators, 2008 and 2018**



Source: ILCS 2008 and 2018



**What would be the cost of overcoming poverty in 2018?** To overcome poverty, Armenia would need AMD 63.2 billion, or an amount equal to 1.1% of GDP, in addition to the resources already allocated to social assistance, assuming that such assistance would be efficiently targeted to the poor only (Table 3.7).

Eradication of extreme poverty would require around AMD 1.0 billion, or 0.02% of GDP, in addition to social assistance already channeled to the extremely poor and assuming efficient targeting.

International experience suggests that perfect targeting of social assistance is highly unlikely; therefore, the actual resources needed to overcome poverty would be significantly larger.

The **average shortfall of additional consumption** needed for the poor relative to the poverty line, in percentage expression, amounts to 17.7%.

**Table 3.7 – Armenia: Monetary Cost of Overcoming Poverty, 2018**

	Extremely poor	Poor
Average consumption by the poor (AMD, per adult equivalent, per month)	22 023	35 067
Poverty line (AMD, per adult equivalent, per month)	24 827	42 621
Additional consumption for the poor (AMD, per month)	2 804	7 554
Shortfall, percent of poverty line needed for the poor	11.3	17.7
GDP (AMD billion)	6005.1	
Required budget (AMD billion)	1.0*	63.2*
Required budget (percent of GDP)	0.02	1.1

**Source:** SC and ILCS 2018

**Note:** \* This figure is counted by multiplying the average annual number of resident population with the poverty rate and the additional annual consumption for the poor (Table 3.7 provides the additional monthly consumption for the poor).

### 3.3. Poverty and Economic Growth/ Recession Linkages

Overall, changes in the poverty rate are driven by changes in the average consumption of the total population and by the inequality of its distribution, where some households have more consumption than the others (see the methodology developed by *Datt and Ravallion (1992)*). The first component, that is consumption, shows the impact of the change in consumption on poverty provided that inequality of distribution remains unchanged, while the second component, that is consumption redistribution, shows the impact of distributional changes on poverty provided that consumption remains unchanged. Results of the analysis suggest that, in Armenia, 4.01 percentage point reduction of the total poverty over 2008-2018 was driven by both the consumption and redistribution components. In particular, the growth of the first component, i.e. the average consumption made poverty to fall by 35.57 percentage points, whereas the growth of inequality underlying the second component, i.e. the redistribution increased poverty by 31.52 percentage points. In other words, if consumption of all Armenian households were to grow at the same rate, in 2018 poverty would be lower than in 2008 by 35.57 percentage points. In contrast, slower growth in consumption of poor households at an unequal growth rate over time resulted in only 4.01 percentage point reduction of poverty. Hence, these two components jointly brought about a fall of the poverty rate. (Table A3.7).

**Table 3.8 – Armenia: Annual Consumption Growth Rates,  
by Urban/Rural Communities, 2008-2018**

(Percent)

Annual growth rate	Total	Yerevan	Other urban	Rural
Average growth rate (regular growth rate)	1.2	1.3	1.1	1.3
Average percentage growth rate	0.7	0.4	0.8	0.9
Average growth rate in the lowest quintile	0.4	0.1	0.7	0.4
Average growth rate for P(0), extreme poverty line	0.8	0.3	0.9	0.4
Average growth rate for P(0), general poverty line	0.5	0.1	0.7	0.5

**Source:** *ILCS 2008-2018*

**Note:** *Growth rates refer to consumption growth; P (0) denotes poverty rate (Foster, Green and Thorbecke, 1984)*

Economic growth in Armenia can be measured through various components of the distribution of the average consumption growth rate (*Ravallion and Cheng, 2002*). Table 3.8 shows that overall consumption grew faster than consumption of the poor (respectively, 1.2% and 0.5% per annum). A positive reality was that consumption of the extremely poor rose at a higher rate than that of the poor (respectively, 0.8% and 0.5% per annum).

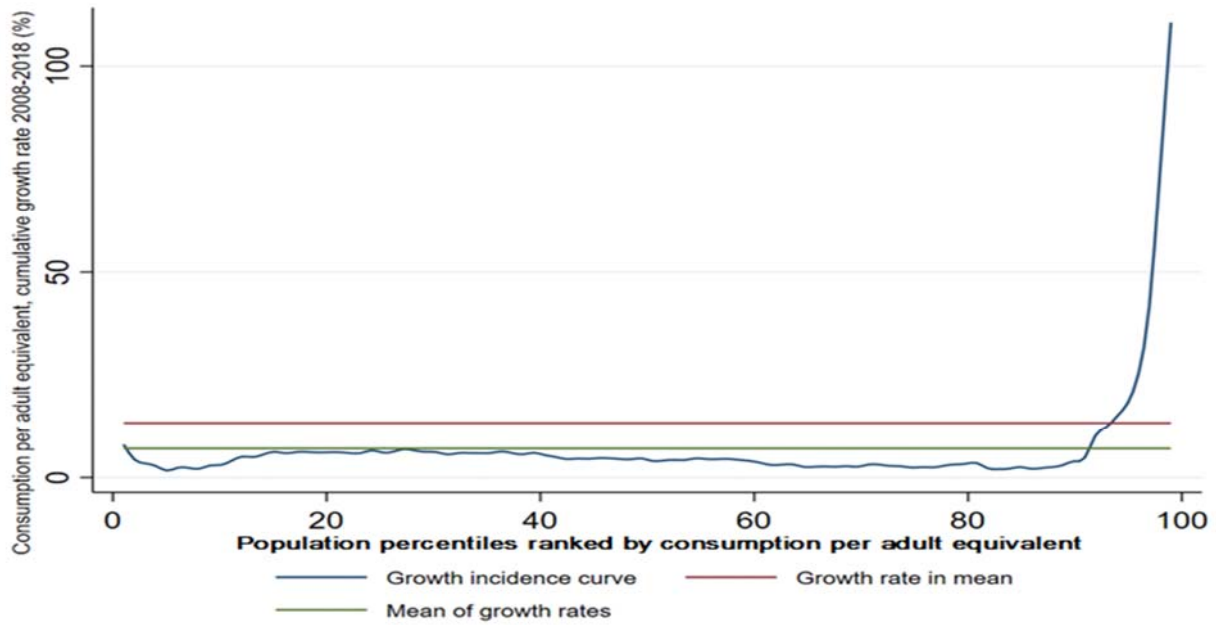
Compared to 2008, in 2018 poverty rate fell by 14.9% and extreme poverty rate fell by 37.5%.

In terms of urban/ rural distinction (Table 3.8), over 2008-2018 annual consumption of the poor grew by 0.5%; at that, such growth amounted only 0.1% in Yerevan and was higher in urban communities other than in Yerevan (respectively, 0.7% and 0.5% per annum), when compared with overall consumption of the poor. In the same period, consumption by the poor in rural communities grew by 0.5%.

As illustrated by the growth rate curves below, over 2008-2018 at national level all deciles had certain growth of consumption, which was not significantly different among the poorest first, as well as the seventh, eighth and ninth deciles (2.5%-3.4% over ten years). Population in the second to the fifth deciles had a growth of consumption over ten years ranging between 4.3% and 6.5%. In the same period, only the tenth (richest) decile had two-digit consumption growth rate (48%).

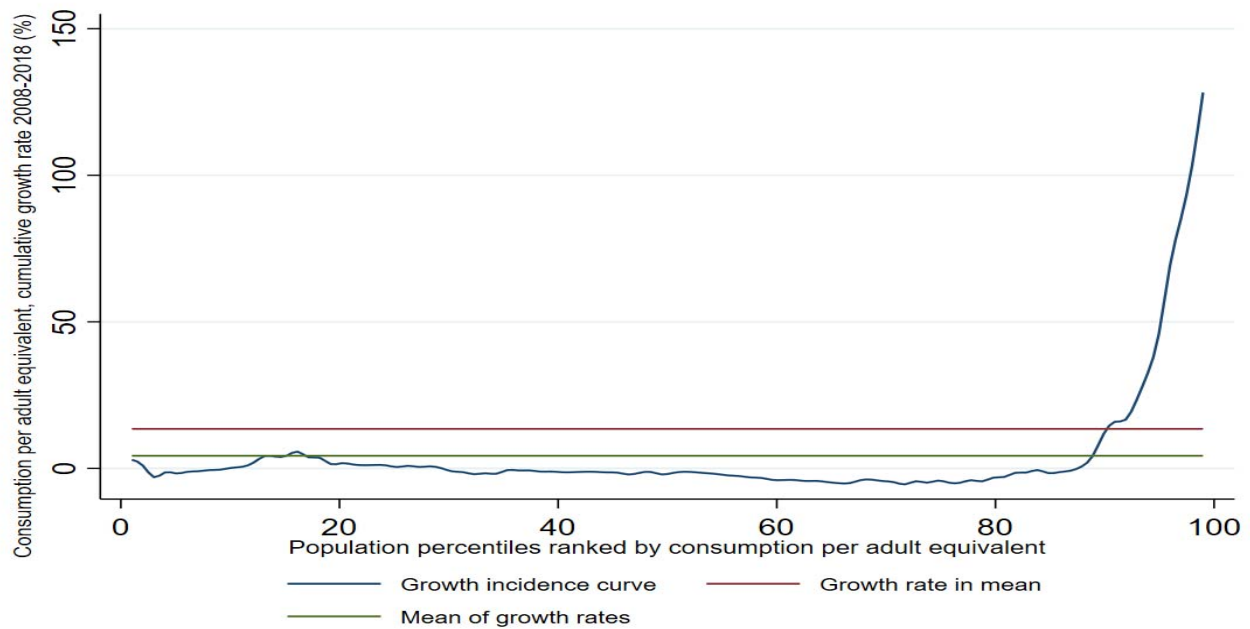
The poorest first decile in rural communities suffered the most because of the crisis (0.7% growth), whereas the richest tenth decile benefited the most in Yerevan (63% growth) and, to a lesser extent, in rural and other urban communities (respectively, 29% and 44%) (Graphs 3.4 to 3.7).

**Graph 3.4 – Armenia: Consumption Growth Curve, 2008-2018**



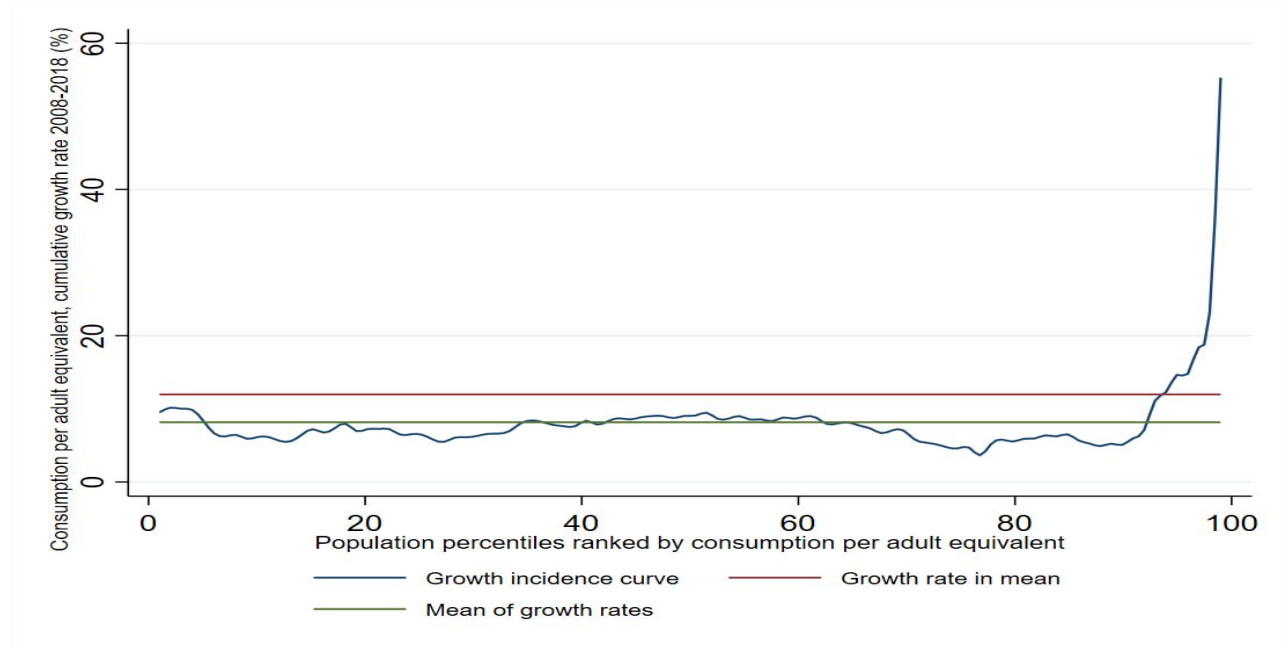
Source: *ILCS 2008-2018*

**Graph 3.5 – Armenia: Consumption Growth Curve in Yerevan, 2008-2018**



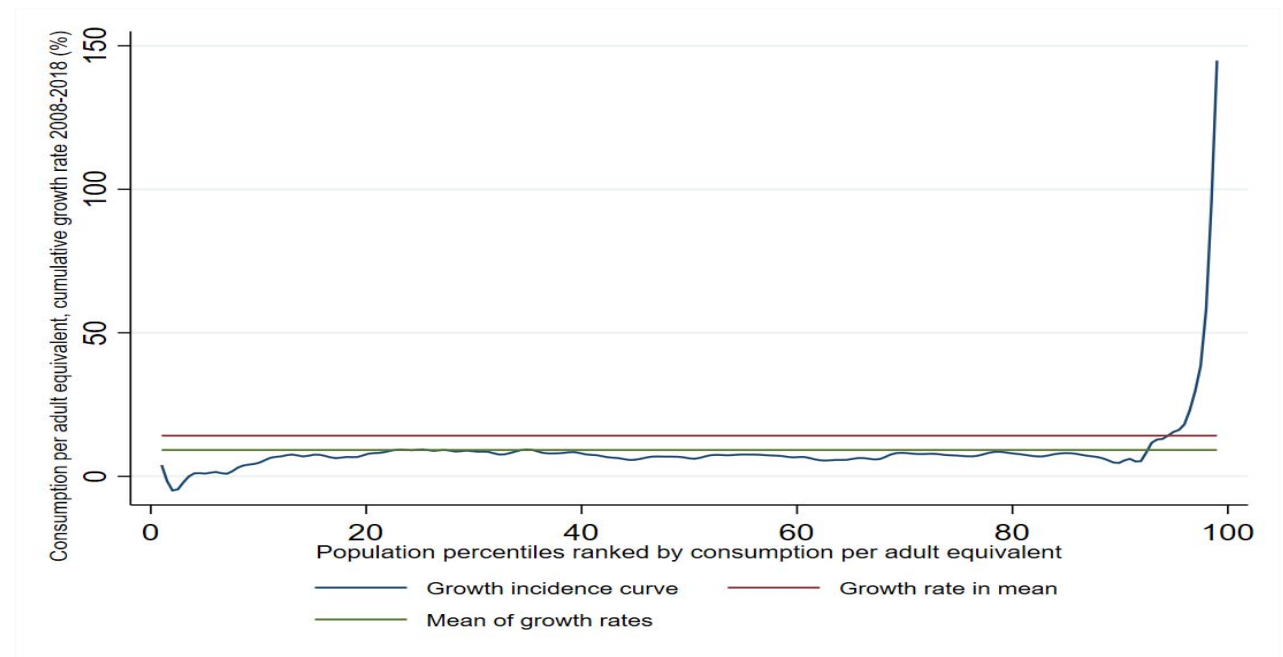
Source: *ILCS 2008-2018*

**Graph 3.6 – Armenia: Consumption Growth Curve in Other Urban Communities, 2008-2018**



Source: *ILCS 2008-2018*

**Graph 3.7 – Armenia: Consumption Growth Curve in Rural Communities, 2008-2018**



Source: *ILCS 2008-2018*

### 3.4. Structural Profile and Dynamics of Poverty over 2008-2018

The structure of poverty over 2008-2018 is the following:

- (a) There are no significant differences in the share of females and males among the poor both in 2008 and 2018 (there is a difference in poverty rate by household head's gender as shown in Table 3.13);
- (b) Poverty rate in children age groups of 0-5 and 6-9 years is higher than in other age groups. Poverty rate in 2018 is the lowest in the age groups of 50-54, 55-59 and 60-64 years (Table 3.9).

*Table 3.9 – Armenia: Poverty Rate, by Gender and Age Groups, 2008 and 2018*

(Percent)

Gender and age group	2008		2018			
	Extremely poor	Poor	Extremely poor	Poor	Percent, poor population	Percent, total population
<b>Gender</b>						
Females	1.7	27.3	1.1	23.6	55.2	55.0
Males	1.6	27.8	0.9	23.4	44.8	45.0
<b>Age groups (year)</b>						
0-5 (children)	1.9	32.0	1.4	31.5	10.0	7.4
6-9	1.8	30.3	2.3	29.5	6.8	5.4
10-14	1.5	29.7	1.0	27.3	7.6	6.6
15-17	2.3	32.4	1.8	27.8	4.2	3.6
18-19	0.7	26.1	1.2	26.0	1.8	1.6
20-24	1.3	26.0	0.9	24.4	5.7	5.5
25-29	2.1	27.0	0.7	22.1	6.8	7.2
30-34	1.1	25.7	1.0	24.2	7.8	7.5
35-39	1.9	27.6	1.3	24.2	7.1	6.9
40-44	1.9	29.3	1.1	25.2	6.6	6.1
45-49	1.9	25.7	1.1	21.5	5.3	5.8
50-54	1.2	22.2	0.7	18.3	4.8	6.2
55-59	0.7	21.7	0.4	18.9	6.2	7.7
60-64	1.3	24.8	0.6	18.6	5.4	6.9
65+	2.0	29.5	0.5	21.1	13.9	15.6
<b>Total</b>	<b>1.6</b>	<b>27.6</b>	<b>1.0</b>	<b>23.5</b>	<b>100.0</b>	<b>100.0</b>

Source: *ILCS 2008 and 2018*

- (c) Larger households with children are exposed to a higher poverty risk. The relative risk of poverty is a direct positive function of the household size (Table 3.10). An important factor behind poverty is the dependency ratio in large households. Larger households have more children and, therefore, a lower share of income earners compared to smaller households, which causes their consumption levels to be lower.

**Table 3.10 – Armenia: Poverty Rate, by Household Size, 2008 and 2018**

(Percent)

Number of household members	2008		2018			
	Extremely poor	Poor	Extremely poor	Poor	Percent, poor population	Percent, total population
1	0.9	17.2	0.1	6.9	1.4	4.9
2	0.8	19.0	0.3	11.7	6.7	13.4
3	1.0	18.8	0.3	16.9	11.2	15.6
4	0.9	23.6	0.4	21.9	19.4	20.8
5	1.9	30.3	2.0	28.9	25.8	21.0
6	2.8	34.7	1.1	29.8	16.6	13.1
7 and more	2.4	38.2	2.1	39.8	18.9	11.2
<b>Total</b>	<b>1.6</b>	<b>27.6</b>	<b>1.0</b>	<b>23.5</b>	<b>100</b>	<b>100</b>

Source: ILCS 2008 and 2018

- (d) In Armenia, households with three or more children below 6 years of age are exposed to a poverty risk (71.2%) around 3 times higher than the national average (23.5%) and higher than the risk pertinent to households with fewer children – for example, more than 2.8 and 2.0 times higher than households with, respectively, 1 child or 2 children. In case of households with 2 children poverty rate is around 1.5 times higher (Table 3.11). Nevertheless, these results should be treated with certain caution since they largely depend on assumptions regarding equivalence scales and economies of scale (*Lanjouw and Ravallion, 1995*).

**Table 3.11 – Armenia: Poverty Rate, by Number of Children (under 6 years of age) and of Elderly (over 60 years of age), 2008 and 2018**

(Percent)

Number of children and elderly	2008		2018			
	Extremely poor	Poor	Extremely poor	Poor	Percent, poor population	Percent, total population
<b>Number of children</b>						
0	1.5	25.4	0.7	20.5	61.1	70.0
1	1.9	31.3	1.4	25.6	22.1	20.3
2	1.6	34.4	1.6	36.4	13.1	8.5
3 and more	5.3	34.8	4.7	71.2	3.7	1.2
<b>Number of elderly</b>						
0	1.3	24.7	1.0	21.3	45.0	49.5
1	1.6	30.0	1.3	26.0	34.0	30.8
2 and more	3.0	33.9	0.3	25.0	21.0	19.7
<b>Total</b>	<b>1.6</b>	<b>27.6</b>	<b>1.0</b>	<b>23.5</b>	<b>100</b>	<b>100</b>

Source: ILCS 2008 and 2018

- (e) What is the poverty rate impact of adults (18 years and above), children (under 6 years) and elderly members (over 60 years) within a household?

In 2018, among all households in the country those composed of adults only (1, 2, 3 or 4 members) have the largest share (53.3%). Households comprised of 1 and 2 adult members only are exposed to a poverty risk lower than the national average.

Households consisting solely of elderly people are exposed to the lowest poverty rate compared to the national average (11.7% and 23.5%, respectively).

A household consisting of two adults and two children below 6 years of age is exposed to a poverty risk 1.6 times higher than the national average (30.8% and 23.5%, respectively) (Table 3.12).

**Table 3.12 – Armenia: Poverty Rate, by Household Composition, 2008 and 2018**

(Percent)

Household composition*	2008		2018			
	Extremely poor	Poor	Extremely poor	Poor	Percent, poor population	Percent, total population
1 adult, no children	1.5	18.7	0.2	14.6	2.1	3.3
2 adults, no children	0.9	20.5	0.5	14.6	8.1	13.0
2 adults, 2 children	-	25.4	0.0	30.8	2.2	1.7
Elderly people, no children, no adults	1.1	23.4	0.0	11.7	3.9	8.8
3 adults	1.6	25.9	1.0	26.7	24.4	21.5
4 adults	1.0	28.3	0.8	26.0	17.1	15.5
Other	2.4	31.9	1.4	26.2	42.2	36.2
<b>Total</b>	<b>1.6</b>	<b>27.6</b>	<b>1.0</b>	<b>23.5</b>	<b>100</b>	<b>100</b>

Source: ILCS 2008 and 2018

\* Adults are persons having reached the age of 18 and above, children are those below 6 years of age, and elderly are those above 60 years of age.

- (f) Female-headed households are more likely to be poor compared to male-headed households (in 2018, 28.0% versus 22.0%). Female-headed households in 2018 comprised 30% and 25% of, respectively, the poor population and the total population. Within female-headed households, those with children up to 6 years of age are exposed to a higher (1.6 times) risk of poverty compared to the national average (Table 3.13). The risk of poverty for such families in urban communities is higher than in rural communities (40.8% and 31.8%, respectively).

**Table 3.13 – Armenia: Poverty Rate, by Gender of Household Head, 2008 and 2018**

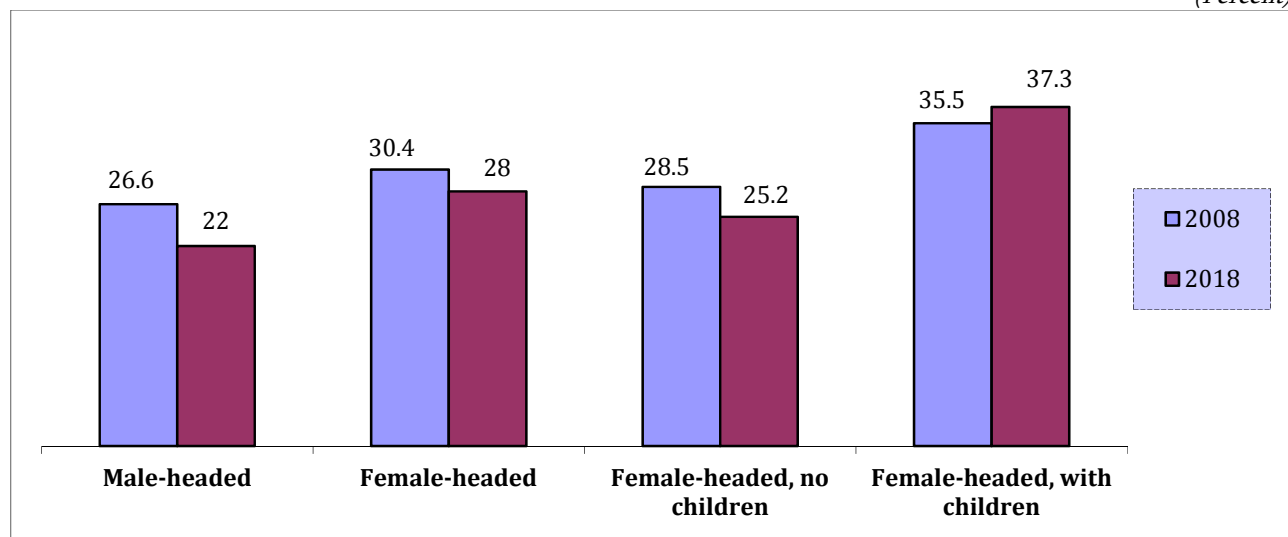
(Percent)

Gender of household head	2008		2018			
	Extremely poor	Poor	Extremely poor	Poor	Percent, poor population	Percent, total population
Male-headed	1.5	26.6	0.9	22.0	69.8	74.6
Female-headed, <i>including</i>	2.0	30.4	1.3	28.0	30.2	25.4
Female-headed, no children under 6 years of age	1.6	28.5	0.9	25.2	20.9	19.5
Female-headed, with children under 6 years of age	3.0	35.5	2.4	37.3	9.3	5.9
<b>Total</b>	<b>1.6</b>	<b>27.6</b>	<b>1.0</b>	<b>23.5</b>	<b>100</b>	<b>100</b>

Source: ILCS 2008 and 2018

**Graph 3.8 – Armenia: Poverty Rate, by Gender of Household Head, 2008 and 2018**

(Percent)



Source: ILCS 2008 and 2018

(g) People with higher education are less likely to be poor (Table 3.14). Poverty rate is the lowest among those with higher education – around 1.5 times lower than the national average for the population over 16 years of age, and 2.1 and 1.9 times lower than for those with elementary and primary or incomplete secondary education. Extreme poverty is the lowest among those with higher education compared with all other groups of educational levels, both in 2008 and 2018. Extreme poverty rate in 2008 and 2018 among people with higher education is the same – 0.4%. Persons with general secondary education comprise the largest group within the poor population (51%). Among the people over 16 years of age, this group faces difficulties in finding jobs.

**Table 3.14 – Armenia: Poverty Rate, by Educational Level, 2008 and 2018**  
(for Population over 16 Years of Age)

(Percent)

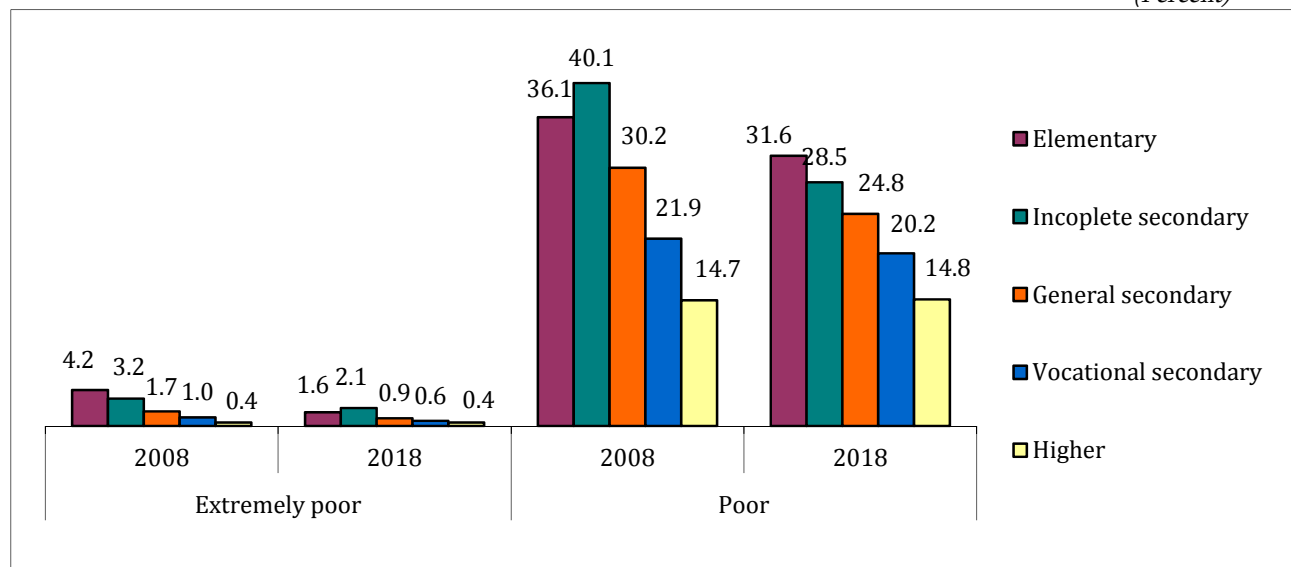
Educational level	2008		2018			
	Extremely poor	Poor	Extremely poor	Poor	Percent, poor (referenced population)	Percent, referenced population
Elementary and primary	4.2	36.1	1.6	31.6	1.9	1.3
Incomplete secondary	3.2	40.1	2.1	28.5	11.4	8.8
General secondary	1.7	30.2	0.9	24.8	51.3	45.4
Vocational secondary	1.0	21.9	0.6	20.2	20.5	22.3
Higher	0.4	14.7	0.4	14.8	14.9	22.2
<b>Total</b>	<b>1.6</b>	<b>26.6</b>	<b>0.8</b>	<b>22.0</b>	<b>100</b>	<b>100</b>

Source: ILCS 2008 and 2018



**Graph 3.9 – Armenia: Poverty Rate, by Educational Level, 2008 and 2018**  
(for Population over 16 Years of Age)

(Percent)



Source: ILCS 2008 and 2018

(h) Labor market participation is an important factor behind poverty rate. Specifically, the lack of employment increases the risk of falling into poverty or extreme poverty. This is evidenced by the fact that in 2018 poverty rate among households with no employed members is 30.2%, which is 8.2 percentage points higher than the national average for the people in the group 15-75 years (Table 3.15). Over the same period, extreme poverty rate among households with no employed members is 2.8%, which is 3.1 times higher than the national average.

**Table 3.15 – Armenia: Poverty Rate, by Number of Employed Household Members, 2008 and 2018**  
(for Population of 15-75 Years of Age)

(Percent)

Number of employed household members	2008		2018			
	Extremely poor	Poor	Extremely poor	Poor	Percent, poor (referenced population)	Percent, referenced population
No employed members	5.7	46.6	2.8	30.2	13.6	9.9
1 employed member	2.8	32.5	1.2	23.1	26.9	25.7
2 employed members	0.7	26.0	0.5	22.8	36.5	35.3
3 and more employed members	1.1	24.9	0.3	17.4	23.0	29.1
<b>Total</b>	<b>1.9</b>	<b>29.5</b>	<b>0.9</b>	<b>22.0</b>	<b>100</b>	<b>100</b>

Source: ILCS 2008 and 2018

(i) Over 2008-2018, poverty rate decreased both among population economically active in the labor market, that is the employed, and among the economically inactive population (that is those who are not employed and are not looking for employment) (Table 3.16).

Labor generates income and thus reduces poverty rate. Research data show that majority of the poor have no jobs, while a significant part of the non-poor are involved in some type of economic activity. Over 2008-2018, within the category of the population economically active in the labor market, poverty rate fell among the wage employed from 20.7% to 18.2%. A positive trend was the reduction of poverty rate by 27% among pensioners within the category of the economically inactive population, whereas among students it rose by 12%.

Within the economically active population (participants of the labor market), the unemployed faced the highest (35.5%) risk of poverty (Table 3.16). As already mentioned, over the period of 2008-2018 poverty rate among pensioners fell by 27%. However, pensioners living in Yerevan were exposed to lower poverty risk compared to those living in rural communities (1.2 times) and in other urban communities (1.3 times). There were no significant differences of extreme poverty rate among rural and urban pensioners (0.6% in Yerevan and 1.2% in rural communities).

**Table 3.16 – Armenia: Labor Force Participation and Poverty Rate, 2008 and 2018**  
(for Population of 15-75 Years of Age)

(Percent)

Labor Force participation	2008		2018			
	Extremely poor	Poor	Extremely poor	Poor	Percent, poor (referenced population)	Percent, referenced population
<b>Total population</b>						
Economically active	1.0	23.9	0.7	20.0	62.4	68.8
Employed	0.8	22.2	0.4	18.2	50.8	61.7
Wage employed	1.0	20.7	0.4	18.2	29.2	35.3
Self-employed	0.6	23.3	0.5	18.5	16.4	19.5
Other employed	0.4	27.2	0.6	17.0	5.2	6.9
Unemployed	2.1	32.6	2.8	35.5	11.6	7.1
Economically inactive	2.4	30.8	1.3	26.6	37.6	31.2
Pensioners	2.8	34.5	0.9	25.3	9.7	8.4
Students	1.5	22.4	1.3	25.0	6.9	6.1
Other economically inactive	2.7	33.1	1.5	27.7	21.0	16.7
<b>Yerevan</b>						
Economically active	0.6	17.6	0.5	17.3	59.9	65.1
Employed	0.5	15	0.4	15.5	47.8	57.7
Wage employed	0.6	16	0.4	15.0	37.1	46.4
Self-employed	-	7.1	0.5	18.0	10.5	10.9
Other employed	-	5.4	0.0	9.9	0.2	0.4
Unemployed	1.1	25.7	1.3	30.8	12.1	7.4
Economically inactive	1.7	22.3	1.5	21.5	40.1	34.9
Pensioners	2.8	27.4	0.6	21.8	12.6	10.8
Students	0.7	14.6	1.8	18.0	5.5	5.7
Other economically inactive	1.6	23.2	1.9	22.4	22.0	18.4
<b>Other urban communities</b>						
Economically active	1.8	31.2	0.7	26.0	54.3	59.8
Employed	1.3	28.1	0.5	23.2	39.1	48.4
Wage employed	1.3	27.1	0.5	23.2	30.5	37.7

Labor Force participation	2008		2018			
	Extremely poor	Poor	Extremely poor	Poor	Percent, poor (referenced population)	Percent, referenced population
Self-employed	1.5	30.5	0.4	22.3	7.1	9.1
Other employed	-	38.8	0.0	27.9	1.5	1.6
Unemployed	3.6	41.5	1.7	38.2	15.2	11.4
Economically inactive	3.6	38.6	1.2	32.5	45.6	40.2
Pensioners	3.3	40.7	1.1	28.7	12.6	12.5
Students	2.7	30.3	0.8	35.5	7.8	6.3
Other economically inactive	4.0	40.6	1.4	33.9	25.3	21.4
<b>Rural communities</b>						
Economically active	0.8	24.3	0.8	18.5	73.8	79.4
Employed	0.8	23.7	0.4	17.6	67.1	75.9
Wage employed	1.5	20.8	0.3	17.9	20.8	23.0
Self-employed	0.5	23.6	0.5	17.9	32.4	35.9
Other employed	0.5	27.3	0.6	16.3	13.9	17.0
Unemployed	*	*	8.6	37.6	6.7	3.5
Economically inactive	1.7	32.4	1.1	25.3	26.2	20.6
Pensioners	1.8	39.0	1.2	25.7	3.9	3.0
Students	1.3	24.2	1.2	22.6	7.1	6.2
Other economically inactive	1.9	35.3	1.1	26.7	15.2	11.3
<b>Total</b>	<b>1.9</b>	<b>29.5</b>	<b>0.9</b>	<b>22.0</b>	<b>100</b>	<b>100</b>

Source: *ILCS 2008 and 2018*

Note: The asterisk denotes that the indicator is based on less than 25 weighted cases.

### 3.5 Determinants of Consumption

This section examines factors that are closely associated with poverty and living conditions (conditional interrelations). Identification of these factors is an important step in developing economic and social policies aimed at overcoming poverty and preventing households from falling into poverty. The examined factors comprise: (i) characteristics of the household, including age composition, size, presence of migrant members, employment status of household members, and household location; as well as (ii) characteristics of the household head such as age, gender, education, employment status, and disability. These factors are used as explanatory (independent) variables in a simple regression model, where natural logarithm of consumption per adult equivalent represents the dependent variable.

Consumption per adult equivalent proved to be significantly dependent on the following factors:

#### *Household demographics*

- **Household size** had a negative impact on household consumption; both in 2008 and 2018 larger households, with all other characteristics being similar, had lower consumption (respectively, 21.3% and 32.2%).
- **Household head gender.** Over the considered period, female-headed households compared to male-headed households, with all other characteristics being similar, had lower welfare (respectively, 6.0% and 6.4%)

- **Age composition:** Both in 2008 and 2018, the share of children within the 0-5 and especially within the 15-18 age groups had a negative effect on consumption. The larger was the share of such children in the household, the lower was the consumption of the household relative to the base category (the share of those between 46-60 years of age), keeping the household size unchanged. The share of the elderly (61 years and above) in the household had a positive effect on consumption.

#### **Education**

- Consumption was higher for households headed by a person with higher education. Households headed by individuals with higher education had 18.3% more consumption in 2018 compared to those headed by individuals with elementary or incomplete secondary education (reference category).

#### **Migration**

- Households with members having migrated for work outside Armenia during the 12 months preceding the 2018 survey had higher (by 15.6%) consumption than those without such members.

#### **Labor market participation**

- In 2018, labor market status of household members had significant impact on household consumption. A larger share of unemployed members in a household resulted in lower (by 11.8%) household consumption relative to the share of wage employed members.

#### **Household location**

- Location plays an important role in explaining household welfare in Armenia. Location effects on consumption are assessed after controlling for all other characteristics of the households included in the model. In 2018, living standards of the households residing in any of the regions (except for two regions with limited impact on the outcome) were lower than those of the households living in Yerevan.

### **3.6. Consumption, Income, and Inequality in Their Distribution**

During the considered period (2008-2018), aggregate consumption and income inequality for the total population has increased. Inequality indicators measured by the Gini coefficient indicate that polarization of population in Armenia is deeper in terms of income distribution than that in terms of consumption distribution.

Consumption inequality measured by the Gini coefficient increased from 0.242 in 2008 to 0.298 in 2018. Aggregate income inequality, in turn, increased from 0.339 in 2008 to 0.360 in 2018.

**Table 3.17 – Armenia: Consumption and Income Inequality, 2008 and 2017-2018**

	Consumption			Income		
	2008	2017	2018	2008	2017	2018
Coefficient of variation	0.592	0.997	0.915	0.847	0.825	0.912
Gini coefficient	0.242	0.289	0.298	0.339	0.359	0.360
Theil average logarithmic deviation E(0)	0.096	0.204	0.209	0.201	0.232	0.249
Theil entropy index E(1)	0.110	0.145	0.154	0.215	0.224	0.222

**Source:** *ILCS 2008 and 2017-2018*

Other methods for assessing inequality, such as the Theil entropy index  $E(1)$  and the Theil average logarithmic deviation  $E(0)$  showed an increase in polarization of population in terms of income and consumption distribution over 2008-2018.

### 3.7. Relative Poverty

As described in Section 3.1, poverty in Armenia is estimated by comparing the consumption aggregate with the absolute poverty line. This methodology uses a cost of basic needs approach to count the poverty line and considers households below a certain absolute threshold to be poor.

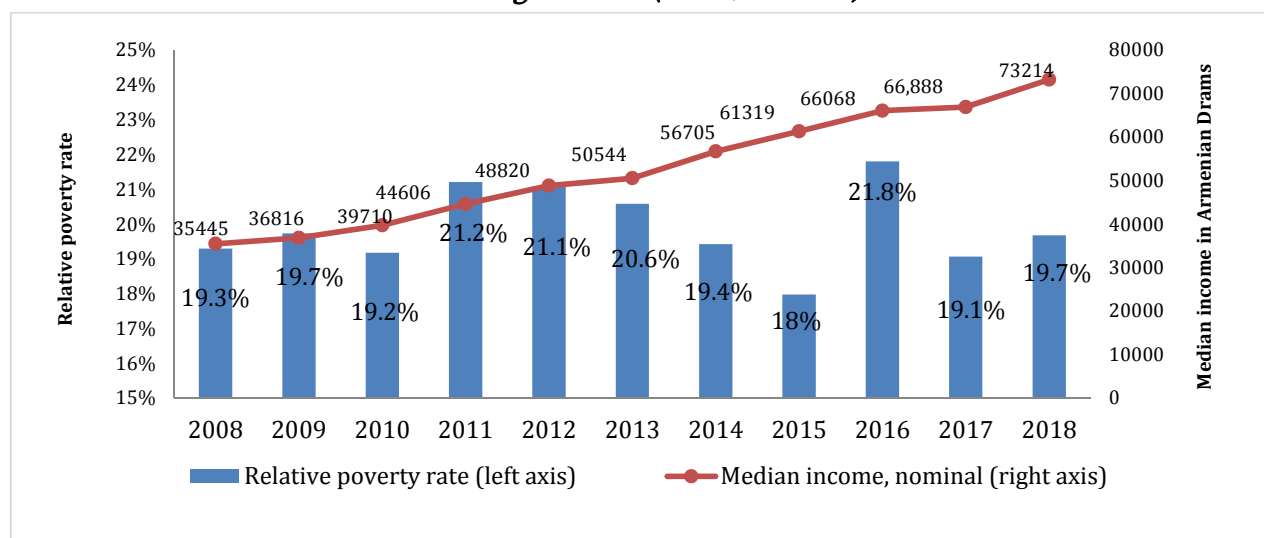
In contrast, the concept of relative poverty relates to a notion of social exclusion and considers households living on less than 60 percent of median income as poor. This methodology is widely used in the European Union countries and builds around the idea that poverty is no longer described as the inability to afford basic things in life but rather as the possibility for some groups to fall below the general living standards of the population. The relative poverty line is counted as a fraction of household median income for each year. Countries in the European Union typically use 60 percent of median income as relative poverty line and refer to it as the “at-risk-of-poverty threshold”. In 2018, relative poverty line in Armenia amounted to AMD 43929 or 103.1% of the upper absolute poverty line.

Relative poverty is construed differently from absolute poverty. The relative poverty rate captures inequalities in a society with a focus on the poor and the vulnerable. Generally speaking, an increase in relative poverty normally describes a situation where income growth rate for the households at the bottom of the welfare distribution is slower than for the households in the middle of the distribution. The concept of relative poverty is often heavily criticized because relative poverty rates also decrease when all households become poorer in absolute terms, and the income of the middle groups falls faster than that of the bottom groups (something that happened in many countries of the European Union due to the global economic crisis).

Graph 3.10 presents relative poverty trends in Armenia (blue bars) and the level of equalized household median income used for the poverty calculations (red line). The increase in relative poverty between 2010 and 2011 from 19.2% to 21.2% illustrates that household incomes in 2011 were more unequally distributed than in the previous year, i.e. a larger share of the population lived in households getting less than 60 percent of equalized median income. Equalized median income increased from AMD 44606 to AMD 66888 between 2011 and 2018, and the share of relatively poor households decreased from 21.2% to 19.7%.

Increasing relative poverty over 2015-2018 (from 18.0% to 19.7%) suggests that household incomes in 2018 were more unequally distributed from year to year, i.e. a larger share of the population lived in households getting less than 60 percent of equalized median income.

**Graph 3.10 – Armenia: Relative Poverty Measured at 60 Percent of Average Income and Equalized Average Income (AMD, nominal)**



Source: *ILCS 2008-2018*

### 3.8 International Poverty Rate in Armenia and Comparator Countries

#### Global update of international poverty line

Under its mandate to calculate key indicators on poverty and shared prosperity, the World Bank produces international poverty estimates comparable across countries and years. The guiding principle of international poverty estimates is to count the number of poor people in the world in terms of some absolute standard to measure progress on global goals set by the World Bank, the United Nations, and other development partners. While at the national level, poverty estimations that consider local patterns of consumption are more appropriate for country-specific analysis, underpinning policy dialogue or targeting programs to reach the poorest, the international poverty estimates allow for comparisons across countries with very different national poverty measurement methodologies.

International poverty estimates are based on the international poverty line and are useful for the purpose of international comparisons and cross-country benchmarking. Differences in purchasing power across countries, as well as in terms of the methodological approaches used to calculate national poverty lines and welfare aggregates make the use of national poverty rates for international comparisons difficult, thus providing a rationale for an international poverty line. This line complements national poverty lines and can help benchmark the situation in a particular country or its relative performance when it comes to poverty reductions efforts. However, national poverty lines should still be the preferred tool for the purpose of the in-country dialogue as they best capture the country context.

In 2017, the World Bank updated the methodology for calculating the international poverty line from PPP 2005 to PPP 2011<sup>1</sup>. Calculating international poverty estimates entails two steps: updating the international

<sup>1</sup> In 2015, a commission of experts, led by Sir Tony Atkinson, provided 21 recommendations to improve the existing poverty work conducted by the World Bank. The resulting report, known as the “Atkinson report”, recommend that the

poverty line and constructing internationally comparable welfare aggregates. For this purpose, the update uses the most recent findings from the International Comparison Program (ICP), which facilitates the calculation of 2011 Purchasing Power Parities (PPP). In 2005, an international poverty line of US\$1.25 2005 PPP a day was obtained as the average national poverty lines of the then poorest fifteen countries in the world. When expressed in 2011 prices, this line becomes US\$1.90 2011 PPP a day. For constructing internationally comparable welfare aggregates, the World Bank harmonizes information collected in local household surveys, maximizing comparability across countries for the construction of a common welfare aggregate. Welfare aggregates are adjusted, as well, by applying the new PPP factor obtained for each country, so that they all are expressed in terms of the same purchasing power.

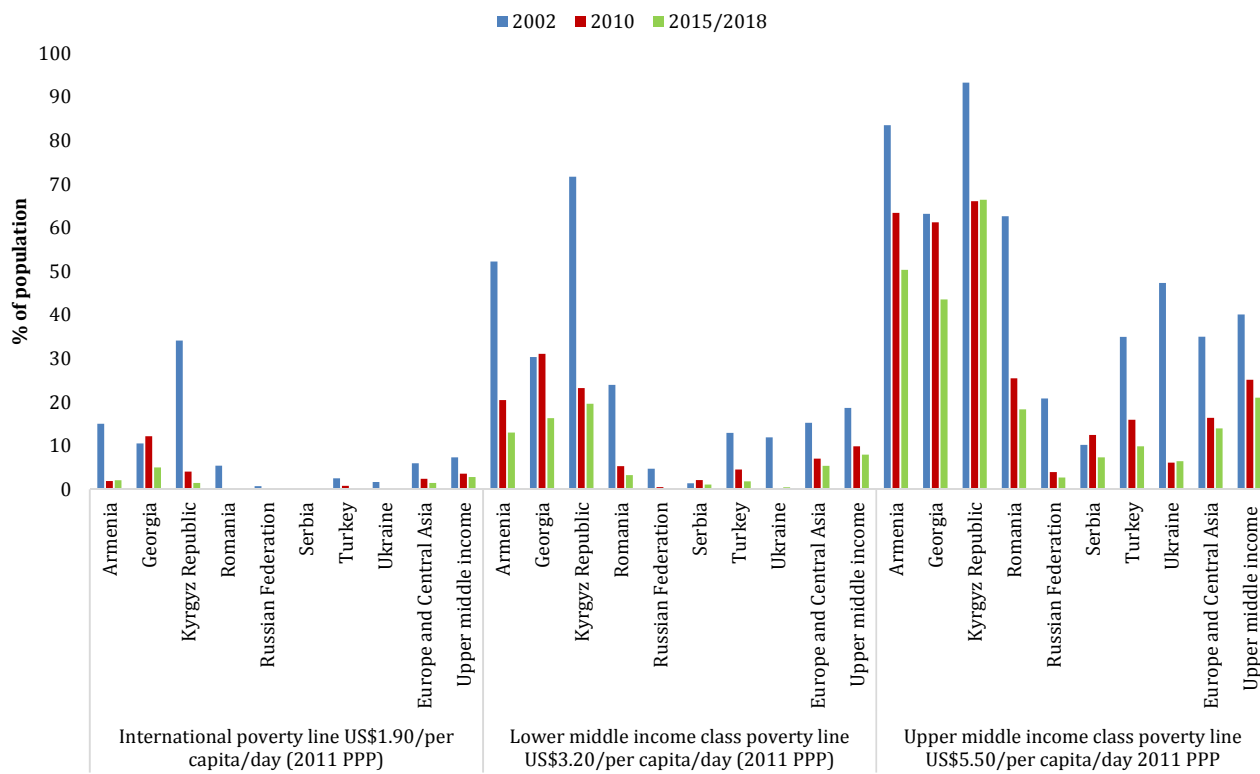
In addition to the international poverty line, the World Bank uses income class poverty lines which facilitate comparison between countries at similar stages of development. The income class poverty lines are defined for the lower middle income and upper middle-income countries and are based on the national poverty lines of the countries in each group. As such, they provide a more appropriate threshold to measure poverty for countries in the income class. The lines are defined at US\$3.2 a day for lower middle income countries and US\$5.5 for upper middle income countries using 2011 PPP, and the welfare aggregate is the same harmonized aggregate used for the international poverty line. The World Bank will report poverty estimates based on the income class lines and will stop reporting poverty estimates based on the regional poverty lines which had been used in the past to compare poverty rates and trends across countries within regions. The new income class poverty lines and the previously used regional poverty lines are defined using different groups of references and, hence, do not produce comparable poverty estimates.

The World Bank produces internationally comparable poverty rates for countries by applying the international and income class poverty lines. For countries in the Europe and Central Asia region, the World Bank uses the international poverty line and the poverty lines of US\$3.2/day 2011 PPP and US\$5.5/day 2011 PPP. Results are presented in Graph 3.11.

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World Bank will refer to the global poverty line at \$1.9 per day in 2011 PPP as international poverty line to avoid confusion around the monetary value of the line.

**Graph 3.11: Internationally comparable poverty rates, by purchasing power parity of US dollars, selected years 2002-2018**



**Source:** PovcalNet and ECAPOV calculations.

**Note:** Latest available years of data: Armenia (2018), Georgia (2017), Kyrgyz Republic (2017), Romania (2016), Russian Federation (2015), Serbia (2015), Turkey (2016), Ukraine (2016), Europe and Central Asia (2015), Upper middle income countries (2015).

Graphs 3.12 and 3.13 show the trend in poverty rate at the international poverty line, as well as at lower middle-income class and upper middle-income class poverty lines applying the 2011 ICP adjustments. Poverty at the international poverty line (US\$1.90 per capita per day) has fallen drastically since 2001 and remains very low, reaching 2.1 percent in 2018. The poverty rate at the lower middle-income class poverty line (US\$3.20 per capita per day) appears to be leveling off in the last few years. The poverty rate at the upper middle-income class poverty line (US\$5.50 per capita per day) remains largely unchanged in 2018 after an increase in 2017<sup>1</sup>.

<sup>1</sup> The poverty trends are consistent across the 2005 PPP and 2011 PPP series.

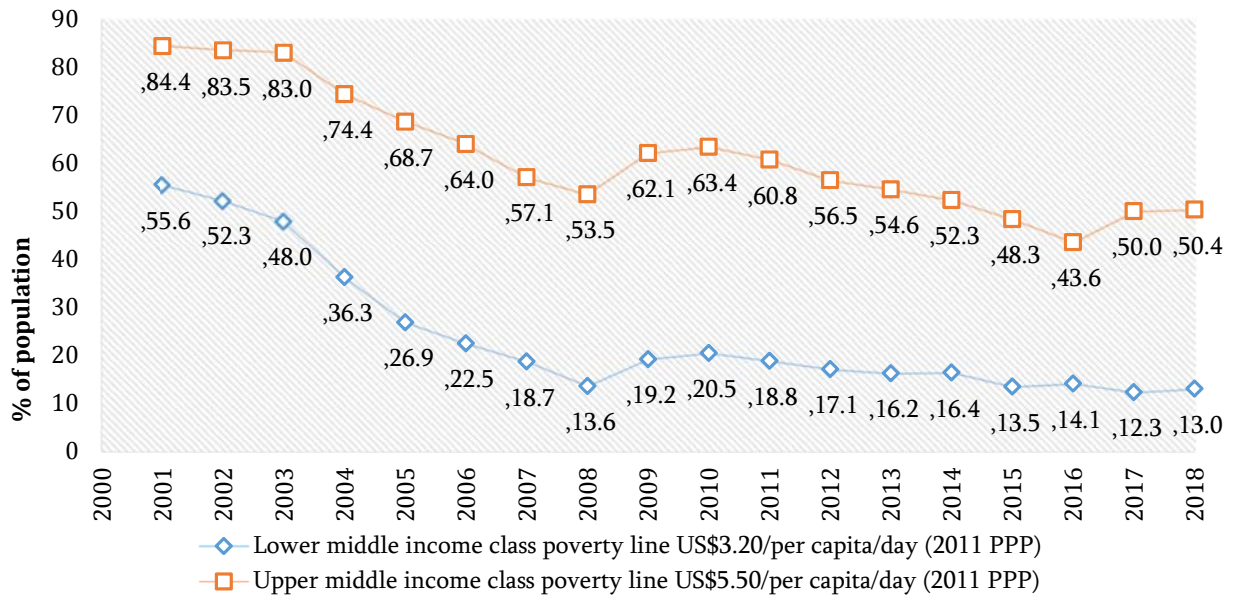


**Graph 3.12: Armenia poverty trend using the international poverty line**



Source: *ILCS 2001-2018*

**Graph 3.13: Armenia Poverty trend using the international middle-income class poverty line**



Source: *ILCS 2001-2018*

### 3.9 Multidimensional Poverty in Armenia<sup>1</sup>

Poverty has been described as a deprivation in wellbeing, a lack of key capabilities, and a type of “economic scarcity” of basic needs. A measure of multidimensional poverty captures the complexity, depth and persistence of poverty and offers important information to complement the analysis of monetary (consumption) poverty. The Armenian national measure for multidimensional poverty was launched in 2016 by the National Statistical Service of the Republic of Armenia and accompanied by a working paper and online interactive dashboard in 2017 (Martirosova et al. 2017).<sup>2</sup>

Monetary poverty in itself is multidimensional but does not describe all the aspects of wellbeing. By construction, good health and adequate education are dimensions not necessarily fully captured by monetary poverty. These two dimensions can be partly accounted for in household expenses, but pricing the value of public services is challenging. In addition, both health and education have additional values that might not be reflected by the cost of the goods consumed. In the same way, having a job has an intrinsic significance beyond the salary earned; it gives a sense of accomplishment and of belonging to the community and society. Having adequate and affordable housing and heating is not only important for the standard of living but relates to one’s self-worth. From a policy perspective, deprivations are areas of human development where gaps in endowment are often persistent over time; hence, deprivations can negatively influence the future capacity of a household to escape poverty and vulnerability. Deprivations selected for examining multidimensional poverty, are thus meant to complement analysis on monetary poverty with information that has a non-pecuniary value.

The national measure of multidimensional poverty is tailored towards the country context and reflects a series of consultations with stakeholders on how to describe the experience of poverty in the country. While this approach limits international comparability, the value-added of the national measure comes from the close alignment with deprivations as identified by Armenians themselves. For instance, increases in prices for gas and electricity required many households to allocate larger amounts to finance higher cost for heating; at the same time, the share of households which is now using wood or coal to heat their homes has increased substantially. In an environment where these circumstances shape the experience of poverty, the measure of multidimensional poverty includes a deprivation on “healthy heating”. This deprivation, not only emphasizes the importance of decent housing conditions, it also accounts for the negative implications of abovementioned mitigation strategies with regards to health and environment.

The selection of deprivations reflects the experience of poverty in Armenia and facilitates a discussion on policies for improving wellbeing. The five dimensions in the measure are *basic needs, housing, education, labor and health*. The measure builds on data from the Integrated Living Conditions Survey (ILCS) allowing for nationally representative temporal analysis that can be linked to monetary poverty. However, using the ILCS constrains the selection of deprivations to existing data. Table 3.18 summarizes the dimensions and indicators which allow for a subjective evaluation of deprivations.

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<sup>1</sup> This sub-section was developed jointly by the Statistical Committee and the World Bank.

<sup>2</sup> Martirosova, Diana; Inan, Osman Kaan; Meyer, Moritz; Sinha, Nistha. 2017. The many faces of deprivation: a multidimensional approach to poverty in Armenia. Poverty and Equity Global Practice Working Paper Series; no. 117. Washington, D.C.: World Bank Group.

*Table 3.18: Selected dimensions and indicators for a measure of multidimensional poverty*

<b>Deprivation</b>	<b>A household is deprived, if ...</b>
<b>Dimension: Basic needs</b>	
Extreme poverty	Not having access to minimum requirement of food (according to national poverty measurement methodology and FAO recommendations)
Life in dignity	Not having funds to buy, when necessary, food and/or cloths
Humanitarian aid	Being dependent on humanitarian assistance to ensure basic functioning of living
Remittance dependent	Being dependent on remittances to ensure basic functioning of living or being in extreme (food) poverty
<b>Dimension: Housing</b>	
Satisfaction of housing conditions	Not having access to adequate housing: housing conditions are evaluated as bad or very bad
Adequate housing	Not having access to adequate housing: available housing requires major repairs, is dump, slum, or old; adequate flooring and adequate walls
Overcrowding	Available housing floor space does not exceed 20 sq. meters per person adult equivalent
Healthy heating	Household uses wood, carbon or other heating means as primary source for heating
Centralized water system	No access (use) to centralized water system
Centralized sanitation and garbage disposal	No access (use) to centralized sanitation or garbage disposal system
Hot running water	No access (use) of hot running water
Quality of paid public services	Not satisfied in one third or more paid services (relative to all answered): water supply, sanitation, garbage collection, telephone, electric supply, post, banking, irrigation, public transportation
Access to transportation	Not having access to opportunities: no or poor transportation and road networks (all- year road)
<b>Dimension: Education</b>	
No secondary education	Present: all household member between the age of 15 years and 75 years have less than secondary education (vocational or professional)
Schooling enrollment rate	Future: at least one child of compulsory schooling age between 6 and 17 years is not attending school
Access to education services	Not having access to kindergarten, complete secondary school, primary (general) school in the neighborhood
Quality of education services	Not satisfied with education services
<b>Dimension: Labor</b>	
Labor market participation	More than half of household members in the working age population do not participate in the labor market
Long term unemployment	At least one household member is not working due to long term unemployment (structural)
Decent jobs	Not having access to decent jobs - employment status is own account worker
Underemployment	Not having access to a full position in the labor market (underemployment, and seasonal/occasional employment for all members)
<b>Dimension: Health</b>	
Termination of usual activity	At least one household member did terminate usual activities because of illness, injury, or bad health.

Affordability of health services	Not having funds to pay for required health services (excluding dentist) in a health care facility (in case of no or difficult access to free services), tests, examinations and procedures prescribed by a doctor
Access to health services	Not having access to health care facility, emergency ambulance services, pharmacies in the neighborhood
Quality of health services	Not satisfied with health services

**The measure of multidimensional poverty summarizes information on multiple deprivations and describes the complexity, depth and persistence of poverty.** As such, it not only captures the share of individuals living in households which experience a specific deprivation but it also looks into the count and overlap of deprivations which are experienced simultaneously by the same individual. By definition, all household members are deprived in a certain dimension (whether it be basic needs, housing, education, labor or health) if they report deprivations in more than one quarter of all weighted indicators within that dimension. For instance, all household members are deprived in terms of basic needs if the household “does not have sufficient funds to buy, when necessary, food and/or cloth” and if the household simultaneously “is dependent on humanitarian assistance to ensure basic functioning of living” (see Table 3.18). While, at an aggregate level, all household members are multidimensionally poor if they are deprived in more than one quarter of all weighted indicators.

**Table 3.19: Share of individuals living in households which are considered multidimensionally poor, by location**

(% of population)

	National level	Yerevan	Other urban areas	Rural areas
2010	41.2	32.6	37.2	52.8
2011	33.9	27.3	30.4	43.3
2012	31.3	25.1	30.1	38.3
2013	30.5	25.8	27.6	37.2
2014	31.9	28.5	31.6	35.2
2015	29.1	28.0	25.9	32.7
2016	27.8	28.0	24.7	30.3
2017	26.0	21.9	22.0	32.5
2018	23.6	18.4	22.1	29.2

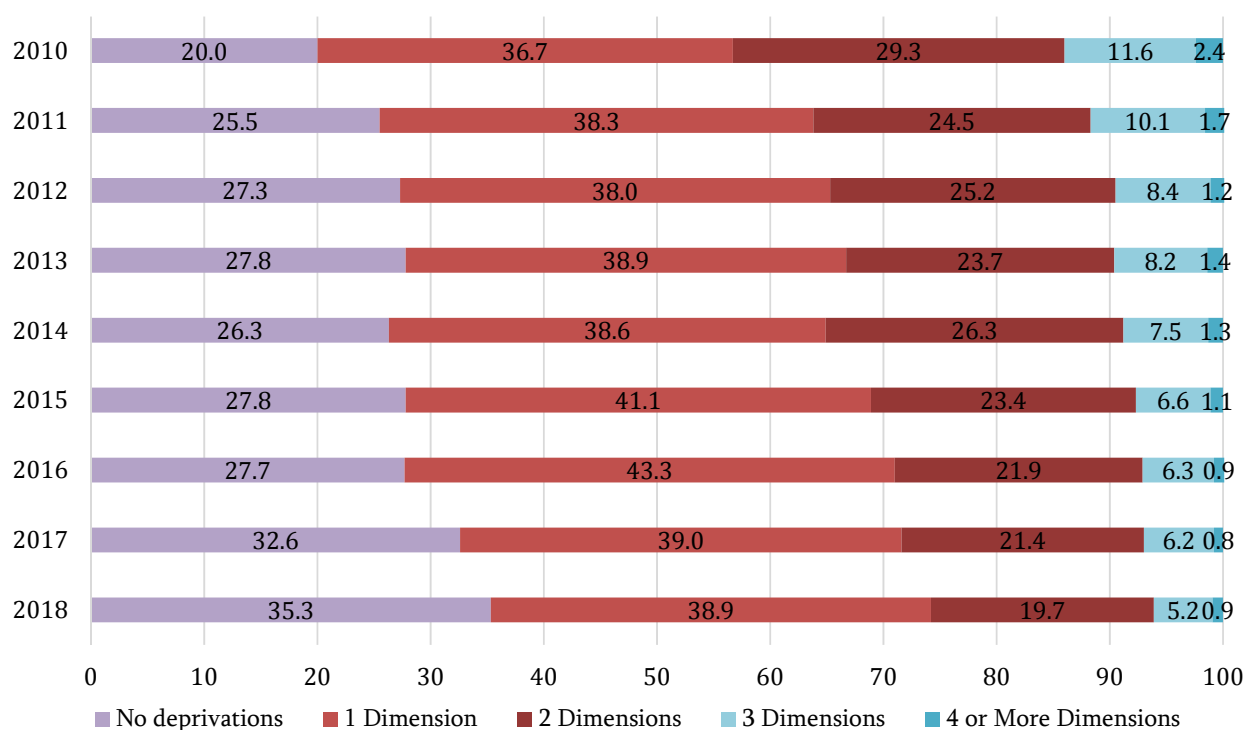
Source: *ILCS 2010-2018*

**Findings in Table 3.19 show a decrease in multi-dimensional poverty since the crisis year 2010.** At the national level, the share of the population which is multi-dimensionally poor fell from 41.2 percent in 2010 to 23.6 percent in 2018. Breaking down the share of the population being multidimensionally poor by location of residence offers useful insights and presents a different picture than that provided by monetary poverty. In 2010, 52.8 percent of rural population and 37.2 percent of those in non-Yerevan urban areas were multi-dimensionally poor; in contrast, 32.6 percent of the population in Yerevan was found to be so. During 2010-2018, multidimensional poverty declined. In 2018, it was 22.1 percent in other urban areas, 18.4 percent in Yerevan and 29.2 percent in rural areas.

Despite the positive development trend between 2010 and 2018 (with consumption poverty declining by more than 12 percentage points), a large majority of households still experiences deprivations in one or more dimensions. Graph 3.14 breaks down the entire population of Armenia into the percentage groups that experience no (or zero) deprivations or deprivations in 1, 2, 3, 4 or all 5 dimensions. These statistics focus on the intensity or depth of poverty. Between 2010 and 2018 the share of the population living in households which was not deprived in any of the five dimensions increased from 20.0 percent to 35.3 percent. Simultaneously, the share of the population being deprived in 2 or more dimensions decreased from 43.3 percent to 25.8 percent. Further analysis on differences in the source of deprivation by location of residence can help policy makers in identifying priorities to reduce the development gaps in all parts of Armenia.

**Graph 3.14: Share of individuals living in households experiencing deprivations, 2018**

(% of population)



Source: *ILCS 2018*

One in every four Armenian children and one in four Armenian females live in multidimensional poverty (Table 3.20). Females are overrepresented in multidimensional poverty, accounting for 55.0 percent of the Armenian population, but representing 58.3 percent of the multidimensionally poor. Together, women and girls living in multidimensional poverty comprise 13.7 percent of the national population. The lower poverty rate among males (21.9 percent) suggests the persistence of gender disparities in multidimensional poverty. Males living in multidimensional poverty make up 41.7 percent of the poor population or 9.8 percent of the total population. Children account for 24.9 percent of all cases of multidimensional poverty.

**Table 3.20 Disaggregation of multidimensional poverty for males, females and children, 2018**

(percent)

	Share in the total population	Multidimensional poverty rate	Share of poor population	Share of poor in total population
Male	45.0	21.9	41.7	9.8
Female	55.0	25.0	58.3	13.7
Children (ages 0 – 17)	23.0	25.5	24.9	5.9

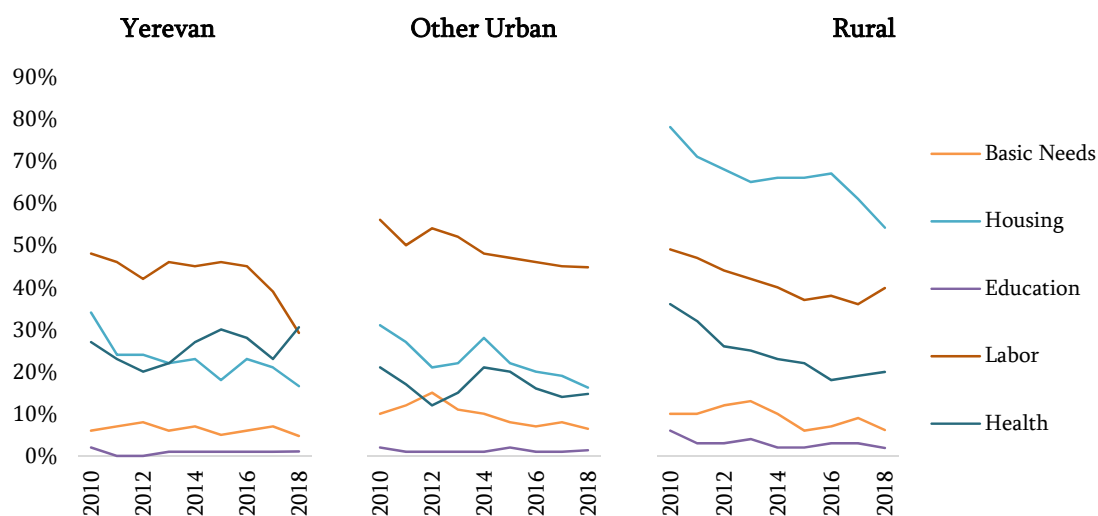
Source: ILCS 2018

Note: The poor population refers to multidimensional poverty

Graph 3.15 illustrates that the nature of multidimensional poverty differs systematically between the capital city Yerevan, other urban areas and rural areas in the country. In 2018, regional disparities were biggest for the dimension on housing. Most countries show large gaps in the availability of public infrastructure and housing conditions between urban and rural areas which do reflect differences in climate and geography. These gaps also link to higher cost in the provision of public goods and services in rural areas (and even outside the capital city) and are often rationalized in terms of cost-benefit analysis. Yet, the non-availability or limited access (in combination with non-affordability) heavily influence the experience of poverty in the country and illustrate how a focus on multidimensional poverty complements the analysis on monetary poverty.

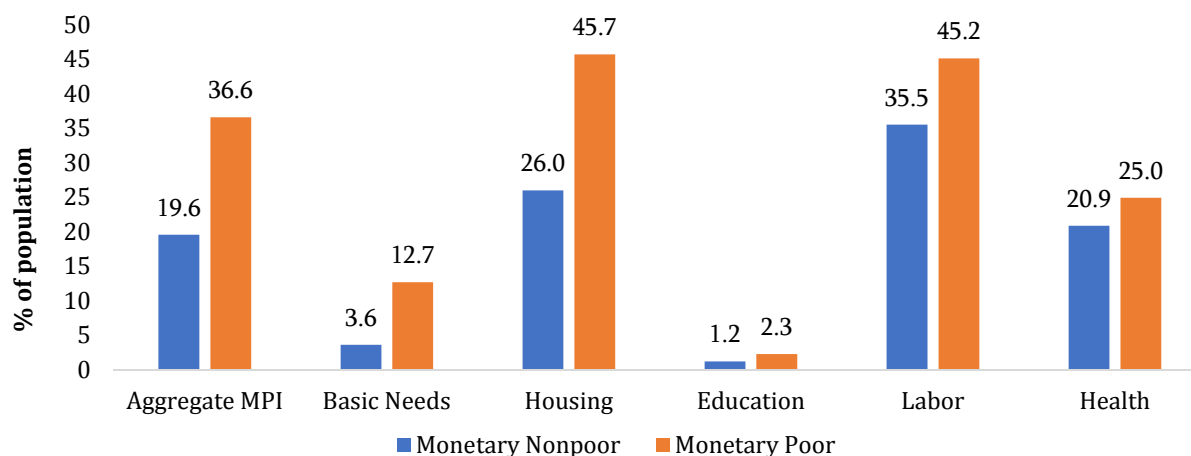
**Graph 3.15: Share of individuals living in households deprived in each of the five dimensions of multidimensional poverty, by location, 2018**

(% of population)



Source: ILCS 2018

**Graph 3.16: Share of individuals living in households deprived in Multidimensional Poverty, by monetary poverty status, 2018**



Source: *ILCS 2018*

Note: *Considering the upper national poverty line.*

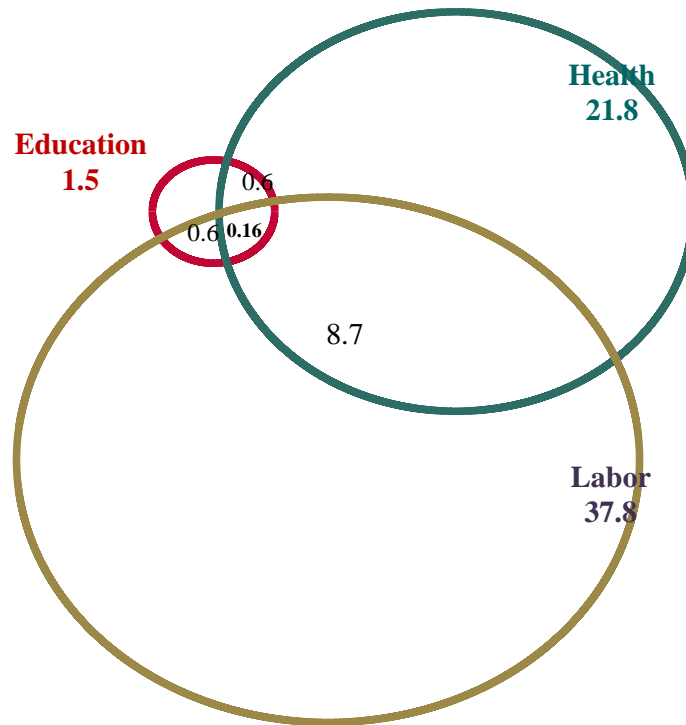
The dimensions on education and labor show systematic differences between households living in urban and rural areas. Even though the share of the population being deprived in the dimensions on education has decreased between 2010 and 2018, households in rural areas still show an inferior asset endowment. Also, the level and trend of deprivations in the dimension on labor differs largely by location.

The analysis on multidimensional poverty complements the findings on monetary poverty as well as illustrates that there are strong linkages between the two different concepts. Graph 3.16 shows that for all dimensions the share of households being deprived either in basic needs, housing, education, labor or health is higher among monetary poor households than monetary non-poor households. However, findings also highlight that among households that are not monetary poor (above the national poverty line), there is a large share of households reporting deprivations associated to one of the five dimensions. These numbers suggest that a large share of the population remains vulnerable to poverty as their insufficient endowment limits their functioning and capabilities.

Deprivations in multiple dimensions often explain the persistence and complexity of poverty. The overlap of development gaps related to labor, education and health demonstrates how households which have limited access to education also suffer from low labor force participation and unemployment. Moreover, deficits related to labor markets often coincide with health problems. Graph 3.17 shows the overlap of deprivation across three dimensions in 2018. In total, 51.3 percent of the population was deprived in at least one of these dimensions. The majority, at 29.1 percent, was deprived only in the labor dimension while 8.7 percent was deprived in both labor and health. Only 0.16 percent of the population was deprived in labor, health and education at the same time, mainly driven by the overall low level of deprivation in the education dimension.

Figure 3.17 Overlap of Deprivations in Labor, Education, and Health Dimensions, 2018

(% of population)



Source: *ILCS 2018*

### 3.10 Human Opportunity Index for Armenia

Economic inequality has received renewed attention in recent years due to increasing share of income going to the top earners. The debate usually frames rising inequality to be unequivocally undesirable. A recent strand of research, however, differentiates between “good” and “bad” types of inequality. Inequality in outcomes is considered “good” if it arises out of differences in effort, choice, or talents. Differences due to predetermined circumstances such as gender, ethnicity, and race are considered “bad” (Barros et al. 2009; Ferreira and Gignoux 2011; World Bank 2005). Inequality of opportunity denotes the extent to which inequality in outcomes can be attributed to circumstances over which individuals have no control.

A focus on inequality of opportunities over inequality of outcomes is appealing for several reasons. The debate on inequality of outcomes is fraught with ideological, moral, and philosophical overtones which makes it hard to reach a consensus. Inequality of opportunity holds universal appeal as most people agree that everyone should have equal access to opportunities and that the accident of birth should not dictate one’s life outcomes. Beyond the fairness argument, equalizing opportunities is just as important for economic growth. Empirical studies show that societies with unequal access to opportunities have lower per capita income (Dabalen, et al., 2015; Grimm, 2011; Molina, Narayan, and Saavedra-Chanduví, 2013)



## **Measuring Inequality of Opportunity**

There are two main approaches to the study of inequality of opportunity. The first is the inequality of economic opportunity (IEO) method that extracts from an outcome variable (e.g., income or expenditure) the part of inequality that is due to circumstances outside the control of an individual. The method starts by defining a set of external circumstances. The population is divided into several “types” such that everyone of the same “type” shares the same set of circumstances. Inequality between types is considered unfair because it is attributable to circumstances alone.

The second method for analyzing inequality – Human Opportunity Index (HOI) – combines both the average level of coverage and inequality in access to basic goods and services that is agreed to be critical inputs to an individual’s income-generating capacity. Differential access to the services as a function of external circumstances leads individuals on divergent paths without any fault of their own. If in a society, access to adequate nutrition, quality education, and clean drinking water and sanitation differs based on one’s gender, place of birth, ethnicity, race, or parent’s socioeconomic status, then opportunity is said to be distributed unequally in the society.

The HOI is a product of two inputs: the coverage rate (C) and the dissimilarity index (D). The HOI is computed by “penalizing” the coverage rate with the difference in coverage rate across population types. Intuitively, the greater the dissimilarity index D, the more unequal the distribution of opportunities, and the lower the HOI.

HOI has been used primarily to measure the distribution of opportunities for children because circumstances are ‘truly’ beyond their control, whereas identification of circumstances for adults might be confounded with personal efforts. The methodology has nevertheless been adapted for access to good jobs, which depends on factors within one’s locus of control like education, experience, and skills, as well as on factors outside one’s control like gender, parent’s socioeconomic status, race, and ethnicity. HOI for good jobs would therefore partition total inequality into “good” inequality which is traced back to differences in human capital and effort, and “bad” inequality with its roots in disadvantage and discrimination.

## **Human Opportunity Index (HOI) Methodology**

The HOI of a given opportunity provides a scalar measure of the level of coverage in the society and how equitable the coverage is among groups with different circumstances. It is an inequality-sensitive coverage rate, where the index decreases or is “penalized” based on the extent to which groups in the population with different circumstances have different coverage rates. That is,

$$\text{HOI} = \text{Coverage} - \text{Penalty}$$

In countries where all circumstance groups have the same coverage, the penalty is zero. The HOI of a society may increase through three channels: change in the underlying external circumstances (composition effect), change in the overall coverage rate (scale effect), and change in the distribution of opportunities across circumstance groups (equalization effect). The maximum value the HOI can take is the average coverage rate for that service, and the HOI can be 1 only when access is universal.

The HOI can also be expressed as the coverage rate multiplied by a factor of equality as following:

$$H = \bar{p} * (1 - D)$$

Where  $\bar{p}$  is the average coverage of an opportunity and D is the dissimilarity index (D-index) calculated as following:

$$D = \frac{1}{2\bar{p}} \sum_{k=1}^m \alpha_k |p_k - \bar{p}|$$

where  $p_k$  is the coverage rate for group  $k$  (where each group is defined by a set of circumstances unique to that group),  $m$  is the number of mutually exclusive groups, and  $\alpha_k$  is the share of total population in group  $k$ . The D-index is a measure of the weighted average of the distance between group access and average access. D equals to 0 when coverage is the same across all circumstance groups. The D-index can be interpreted as the fraction of all opportunities that must be reallocated from groups with coverage rate higher than  $\bar{p}$  to groups with coverage rate lower than  $\bar{p}$  to achieve full equality of opportunity across all groups.

### *Defining the set of opportunities*

It is widely agreed that early-life access to basic goods and services in education, health, and basic infrastructure services is necessary for an individual to realize her full potential. Unequal access to such services due to circumstances beyond one's control is considered unfair. There is also a large body of empirical research to show that investments in early-life opportunities yield some of the highest economic returns, which makes the case for focusing on such inequality more compelling.

A comprehensive list of opportunities that should be available to a child to achieve her full potential would be exceedingly long, and the data requirement to support the analysis would be prohibitive. It is nevertheless possible to analyze inequality of opportunity for key indicators, and a process to select the indicators was recently completed in Armenia with the articulation of national multidimensional poverty index. Twenty-three deprivations across five dimensions – basic needs, housing, education, labor market, and housing – were identified to supplement the consumption poverty indicator. The selection of indicators followed a broad and inclusive consultation process with many stakeholders in the country. Thus, the indicators for multidimensional deprivation provide a natural starting point for the measurement of inequality of opportunity. Specifically, inequality of opportunity arises when children lack access to opportunity in human capital inputs along the following dimensions:<sup>1</sup>

- **Adequate housing:** Complaint about housing and environmental conditions
- **Healthy heating:** Not heating with central heating, electricity, natural gas, or liquefied gas.
- **Centralized water system:** No access to centralized water for every day of the month and every hour of the day.

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<sup>1</sup> The source questions in the Integrated Living Conditions Survey (ILCS) for each indicator is provided in the Annex.

- **Centralize garbage and sanitation:** No centralized sanitation compound, or disposal of household garbage using either rubbish evacuation system or dust-cart collection.
- **Quality of paid public services:** Not satisfied with public services.
- **Quality of transportation:** Access to roads with poor quality.
- **School enrollment:** At least one child of compulsory school age (6–17 years) not attending school.
- **Access to school:** No easy access to kindergarten, primary, or secondary schools.
- **Educational quality:** Not satisfied with education services.
- **Access to health services:** No easy access to health care facilities, emergency ambulance service, or pharmacies.
- **Quality of health services:** Not satisfied with health services.

Access to opportunity is defined in opposition to deprivation, i.e., a household has access to an opportunity if it is not deprived in an indicator. The relevant population group for access to basic opportunities is children under the age of 15, with two exceptions. School enrollment and educational quality is defined for children of compulsory school age (6-17 years).

As discussed earlier, circumstances are factors external to one's control, and for a society to have no inequality of opportunities, they should have no bearing on outcomes. Empirical studies from Africa, Latin America, and the South Caucasus region, however, have shown that exogenous factors do explain access to opportunities (Barros et al., 2009, Dabalen et al., 2015, Fuchs et al., 2018).<sup>1</sup>

Measuring inequality of opportunity in the labor market raises additional methodological issues. Since individuals have different level of human capital acquired through education and experience, not all inequality in access to good jobs is undesirable. Inequality due to differences in education and age (as a proxy for experience) is considered fair, while that due to circumstances is considered unfair. Therefore, in addition to circumstances, inequality of opportunity to access to decent jobs will also consider age and education, and the role of circumstances will be interpreted *net of skills and experience*.<sup>2</sup> Consistent with the multidimensional poverty framework, a worker is said not to have access to decent job if he/she is an own-account worker. Lastly, in addition to access to decent jobs, equality of opportunity to access to labor market participation and access to employment are analyzed.

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<sup>1</sup> The proposed set of circumstance for children are gender, age, location, sociodemographic characteristics of the household head (gender, age, level of educational attainment, and marital status), household demographics (household size, share of young children, children, and elderly among household members), consumption group (quintile), and other household socioeconomic characteristics (receiving family benefits or pensions, and having a household member employed in the public sector).

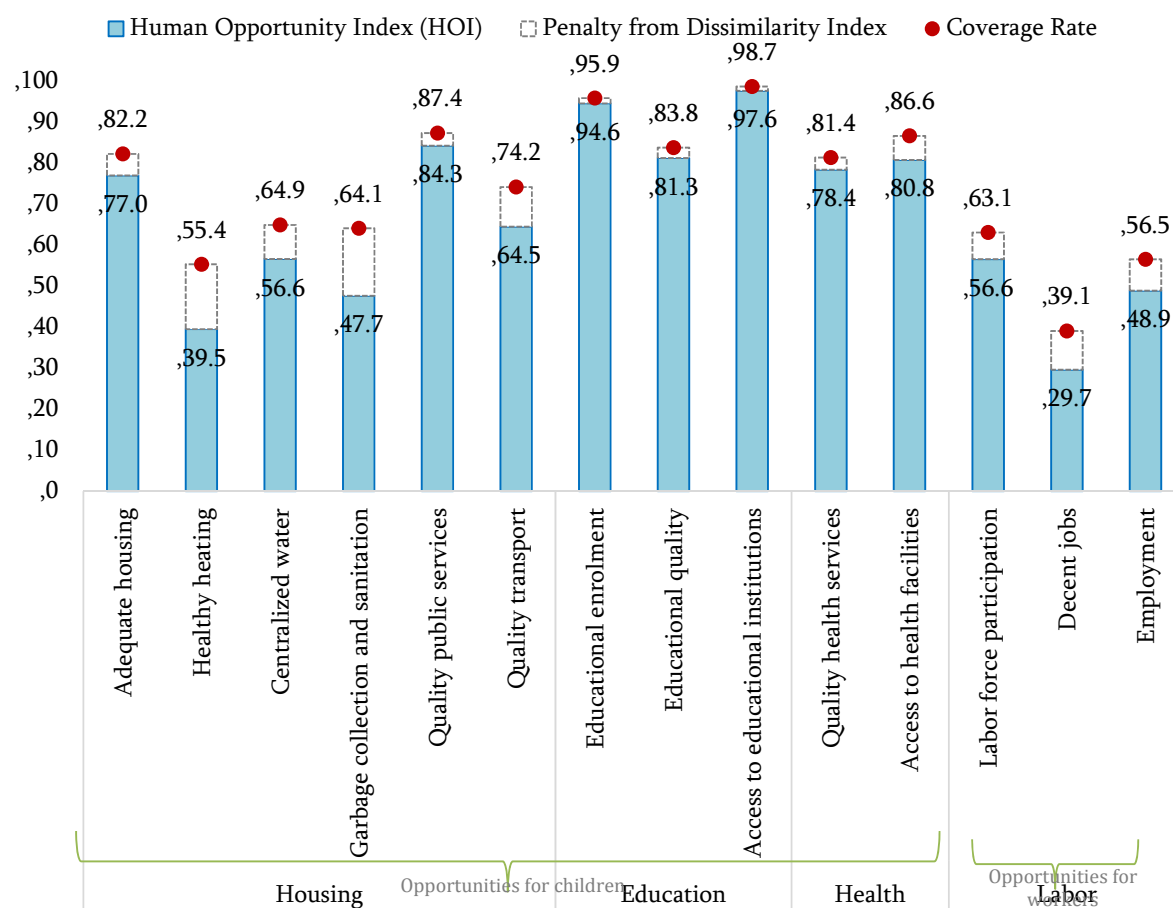
<sup>2</sup> The circumstances considered for access to decent jobs are gender, age, location, educational attainment, marital status, household demographics (household size, whether the household members include young children, children, or elderly), consumption group (quintile), and other household socioeconomic characteristics (receiving family benefits or pensions, and having a household member employed in the public sector).

## Inequality of Opportunity in Armenia

Focusing on the housing dimension, HOI is particularly low for healthy heating, and services like garbage collection and quality transport have large penalty factor due to their unequal distribution across circumstance groups. HOI varies significantly for two types of education opportunity – those related to access and enrollment and those related to quality. The HOI for school enrollment and access is 94.6 and 97.6 respectively, while the HOI for education quality is 81.3. Similarly, the HOI for access to health facilities is slightly higher than the HOI for quality of health services.

Of all the labor market outcomes, decent jobs have the lowest HOI (29.7) both because decent jobs are available to only a fraction of workers and the penalty for available jobs is large because they are unequally distributed across circumstance groups.

**Graph 3.18: Coverage, Dissimilarity, and Human Opportunity Index for children and workers**



Source: ILCS 2018

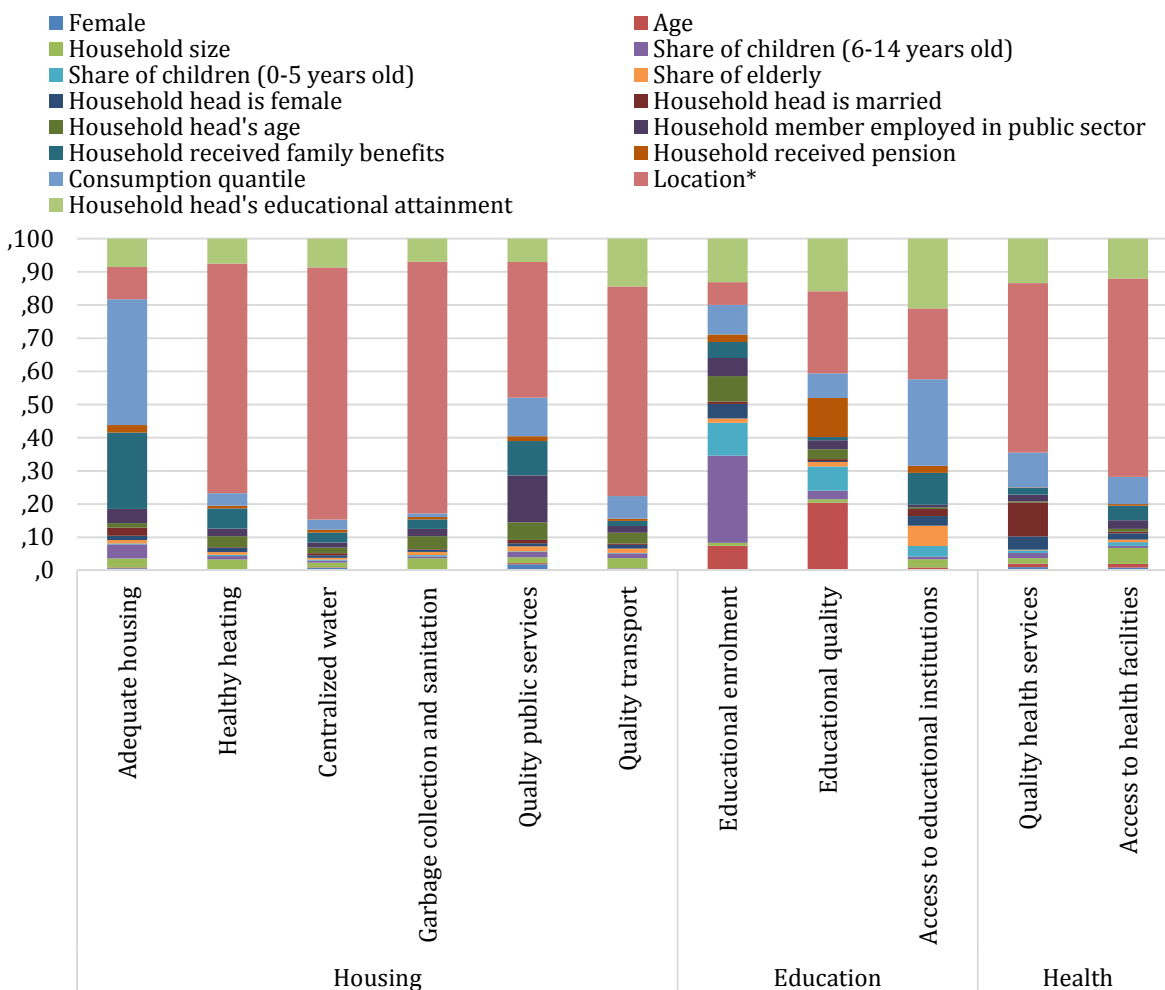
Note: Housing and Health opportunities are calculated for children 0-14 years old. Education opportunities consider children between 6 and 17 years old. Opportunities in labor consider only the working age population (15-75 years old).

To better understand the source of inequality, a decomposition method is applied to the Dissimilarity Index. The method estimates the relative contribution of each circumstance to the total estimated dissimilarity. A striking finding is that where one lives plays a prominent in access to opportunities (Graph 3.19). For some

opportunities, geography plays an overwhelmingly large role; location of residence explains approximately 70 percent or more of unequal access to healthy heating, centralized water, and garbage and sanitation. For the most part, inequality of opportunities is not a function of a child’s gender or age. Surprisingly, household’s living standard does not explain a significant share of unequal access for several indicators. If basic services are not available in a locality, having the financial means to pay for such services had they been available does not significantly increase access.

As discussed earlier, the HOI for labor market outcomes comprises both “fair” and “unfair” sources of inequality. Graph 3.20 shows that a large share of inequality in access to labor market participation, access to employment, and access to decent jobs can be attributed to “unfair” sources. In particular, marital status and location account for a significant fraction of inequality in access to labor force participation and employment, while location and access to public employment are important factors in explaining inequality in access to decent jobs.

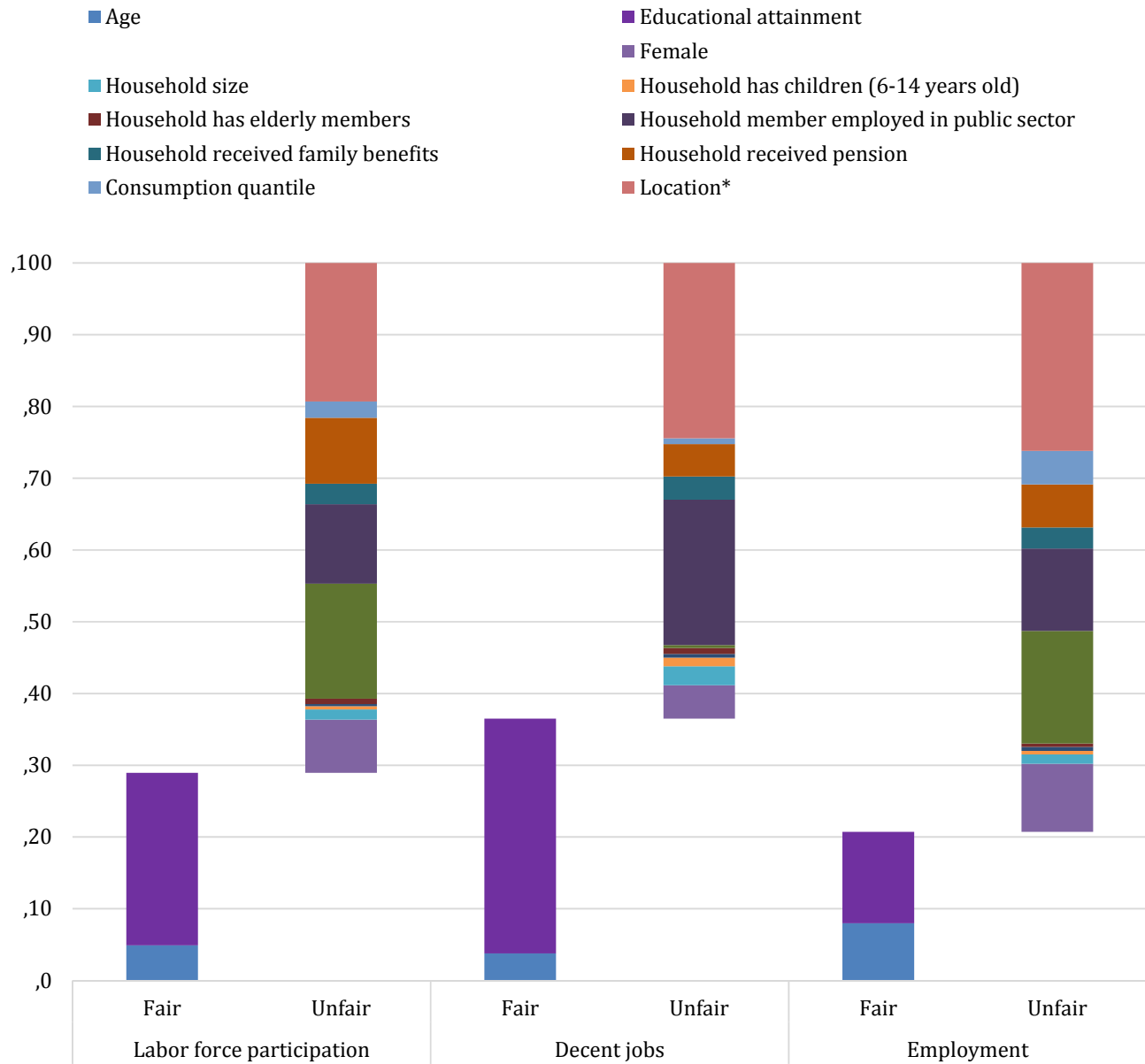
**Graph 3.19: Decomposition of Dissimilarity Index in opportunities for children**



Source: ILCS 2018

Note: Location variable refers to marz for quality of transport, access to education, and access to health institutions. It refers to Yerevan, other urban centers, and rural areas for the rest of the indicators.

**Graph 3.20: Decomposition of Dissimilarity Index in opportunities for labor market outcomes**



Source: *ILCS 2018*

Note: *Location variable refers to Yerevan, other urban centers, and rural areas.*

### 3.11. Social Exclusions in Armenia

According to the EU approach, material exclusion is the indicator, which reflects inability of the majority of people to obtain some desirable or even necessary goods to live an acceptable level of life. This indicator distinguishes between the people who cannot afford certain goods or services, and those who do not have such goods or services due to other reasons, for instance because they do not want or do not need them.

Within the scope of the twinning project “Strengthening of Armenia National Statistical System – II Phase”, since 2016 all households included in the ILCS fill in the social exclusions module questionnaire in order to develop statistics on social exclusions, and starting from 2018 all questions of that module are included in the ILCS questionnaire. In general, the study of social exclusions supplements the analysis of both monetary and multidimensional poverty, as well as demonstrates the explicit connections between these three different concepts. Findings of the ILCS 2018 demonstrate the level of material deprivation in Armenia.

Starting from 2019, the old set of nine indicators will no longer be used by Eurostat for country comparisons. Hence, a new set of 13 indicators will be used in 2019 onwards to ensure comparability with Eurostat. The deprivation prevalence (consisting of 13 indicators) will be counted as follows: the threshold of material deprivation is the presence of at least 5 out of 13 items, and the threshold of severe deprivation is the presence of at least 7 out of 13 items.

The EU will collect data on the revised indicators of deprivation starting in 2019.

Regardless of this circumstance, from 2019 onwards ARMSTAT will update its approaches according to the Eurostat methodology in order to maintain comparability.

The table below demonstrates the deprivation prevalence through 9 indicators.

**Table 3.21– Armenia: Key Nine Indicators of Social Exclusions, 2018**

Indicators	Percent
<b><i>Cannot afford</i></b>	
A one-week annual vacation away from home, including by staying at the second dwelling or at a friend's/relative's place (the whole household)	89
Unexpected expenses of AMD 45.000 paid from own resources (without borrowing or asking for financial assistance)	70
Meal with meat, chicken, fish (or vegetarian equivalent) every second day	67
A car	54
Adequate heating at home	42
Rent or mortgage fee for the main dwelling	35
A mobile phone	3
A washing machine	2
A TV set	0

Source: *ILCS 2018*

The deprivation prevalence (consisting of 9 indicators) is counted as follows: the threshold of material deprivation is the presence of at least 3 out of 9 items, and the threshold of severe material deprivation is the presence of at least 4 out of 9 items.

The table below illustrates material deprivation rate using different thresholds. Following Eurostat's definition, 69% of Armenians are materially deprived if Eurostat's threshold of material deprivation consisting of three

items is used. Considering the threshold that comprises at least four deprivations, the rate of severe material deprivation amounts to 48%.

Armenia has a rather high rate of severe material deprivation.

**Table 3.22 – Armenia: Social Exclusions: Household Distribution, by the Number of Deprivations, 2018**

Dimensions	Population, percent
One or more deprivations	94
Two or more deprivations	83
Three or more deprivations	69
<i>Eurostat's threshold of material deprivation</i>	
Four or more deprivations	48
<i>Eurostat's threshold of severe material deprivation</i>	
Five or more deprivations	24
Six or more deprivations	1
Seven or more deprivations	0
Eight or more deprivations	0
Nine or more deprivations	0

Source: *ILCS 2018*

Accordingly, ARMSTAT has computed the rate of material deprivation using different thresholds, which are used for international comparisons of severe material deprivation.

### ***Revised deprivation indicators***

The table below illustrates deprivation indicators revised by the EU, which will be used for data collection from 2019.

**Table 3.23 – Armenia: 13 New Indicators of Social Exclusions, 2018**

Indicators	Percent of deprived population, by indicator
<b><i>Cannot afford</i></b>	
At least a one-week annual vacation away from home (the whole household)	80
To replace worn-out furniture, including individual furniture items	74
To face unexpected expenses of AMD 45.000 paid from own resources (without borrowing or asking for financial assistance)	67
To have an evening out for leisure (sports, cinema, concert etc.) on regular basis (several times a year)	50
Meal with meat, chicken, fish (or vegetarian equivalent) every second day	57
A car	51
To spend a small amount of money each week on oneself (without having to consult	39



anyone)	
To get together with friends/ family/relatives for a dinner/ party at least once a month	35
Adequate heating at home	57
To timely repay rent or mortgage fees for dwelling	1
To replace worn-out (including old fashioned) clothes by some new, not second-hand ones	17
A mobile phone	0.5
Internet connection	23

Source: *ILCS 2018*

The data presented in the table below reflect the deprivation rate of the population by the specified number of indicators.

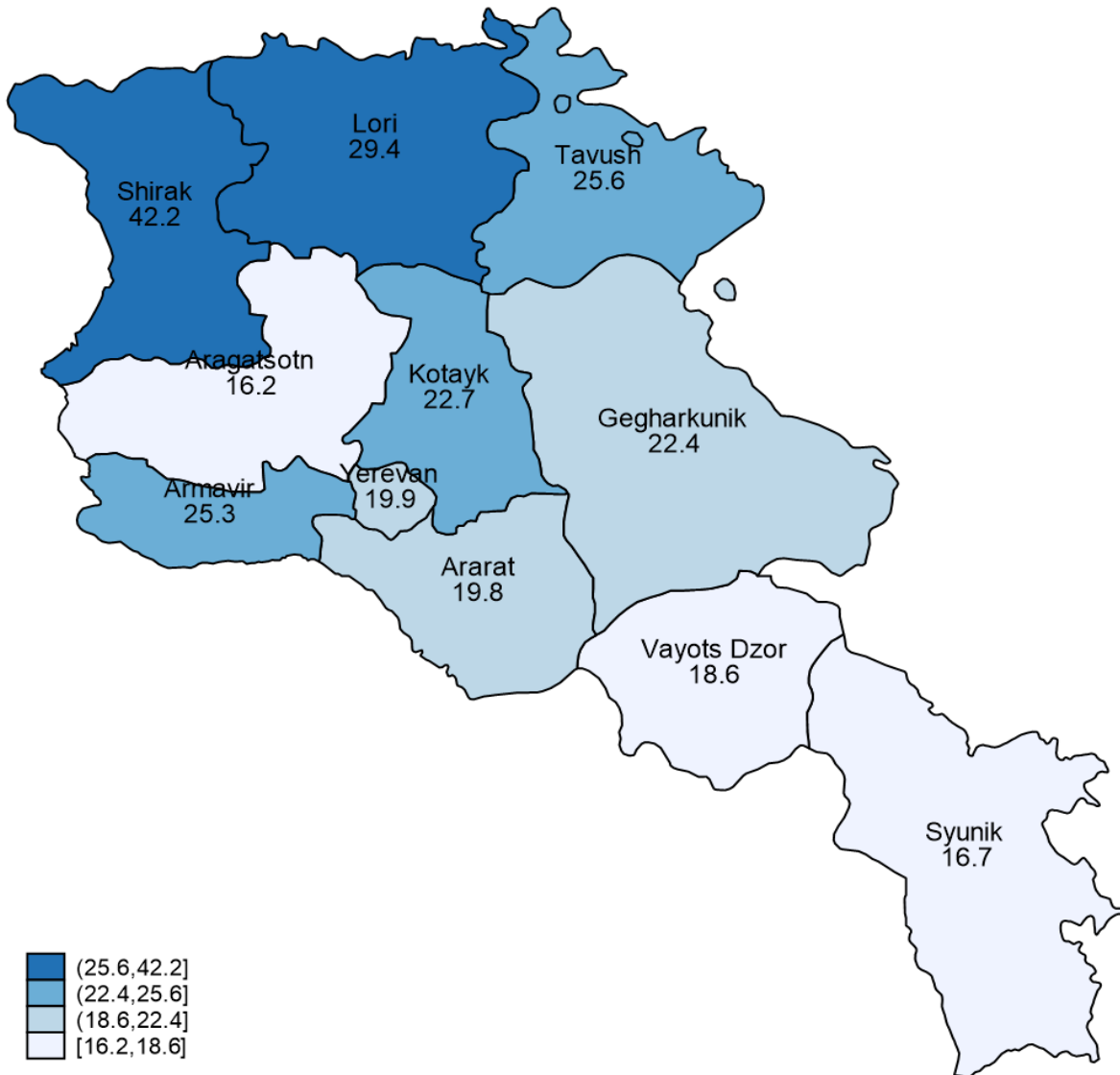
**Table 3.24 – Armenia: Share of Households Deprived by at Least the Specified Number of Indicators, 2018**

	Percent in the population
Deprived by 1 or more indicators	96
Deprived by 2 or more indicators	91
Deprived by 3 or more indicators	84
Deprived by 4 or more indicators	76
<b>Deprived by 5 or more indicators</b>	<b>64</b>
Deprived by 6 or more indicators	51
<b>Deprived by 7 or more indicators</b>	<b>38</b>
Deprived by 8 or more indicators	25
Deprived by 9 or more indicators	15
Deprived by 10 or more indicators	8
Deprived by 11 or more indicators	2
Deprived by 12 or more indicators	0.1
Deprived by 13 or more indicators	0

Source: *ILCS 2018*

Deprivation threshold revised by Eurostat will include 5 or 7 and more indicators out of the selected set of 13 (accordingly, 64% and 38%).

Map 1 – Armenia: Poverty Rate by Consumption Aggregate,  
Across Regions and in Yerevan, 2018



Source: *ILCS 2018*

## Annex. Construction of access to opportunities, ILCS 2018

Opportunities	Population of interest	Original variable names in database
<b>Dimension: Housing</b>		
Access to decent housing conditions	Children	c16_1, c16_2, c16_3, c16_4, c16_5, c16_6, c16_7, c16_8, c16_9, c16_10, c16_11, c16_12, c16_13, c16_14
Access to healthy heating	Children	c12_1
Access to centralized water system	Children	c9, c10, c11_1, c11_2
Access to centralized garbage disposal and sanitation	Children	c8_3, c15
Access to decent-quality public services	Children	l1_row, l1_1
Access to decent transportation opportunities	Children	c30_1_1, c30_2_1
<b>Dimension: Education</b>		
Access to educational enrolment	Children	e2_7, age
Access to educational quality	Children	l1_row, l1_1
Access to educational institutions	Children	c29_5_3, c29_6_3, c29_7_3
<b>Dimension: Health</b>		
Access to quality health services	Children	l1_row, l1_1
Access to health facilities	Children	c29_1_3, c29_2_3, c29_3_3
<b>Dimension: Labor</b>		
Access to labor force participation	Working age population	age, d1_4, d2_9, d2_10, d2_5
Access to employment	Working age population	age, d1_4, d2_9, d2_10, d2_5
Access to decent jobs.	Working age population	age, d1_4, d2_9, d2_10, d2_5, d1_5, d2_8

## Chapter 4: Poverty in Rural Communities

In 2018, poverty rate in rural communities was lower than the national average (21.3% against 23.5%) (Chapter 3; Table 3.1, Table 4.1).

63.7% of rural households that owned land or livestock in 2018 reported income from their agricultural activities. 90.3% of rural households were engaged in plant cultivation and 58.4% in livestock breeding activities. At that, 57.1% of rural households were engaged in both plant cultivation and livestock breeding simultaneously.

### 4.1 Poverty Rate Dynamics in Rural Communities

Compared with 2008, poverty rate in 2018 was lower by 6.2 percentage points in rural communities and 2.7 percentage points in urban communities. There was a difference in poverty rates at 21.3% in rural communities and 24.9% in urban communities (Table 4.1; Graph 4.1).

**Table 4.1 – Armenia: Poverty Rate Dynamics in Rural and Urban Communities, 2008 and 2018**

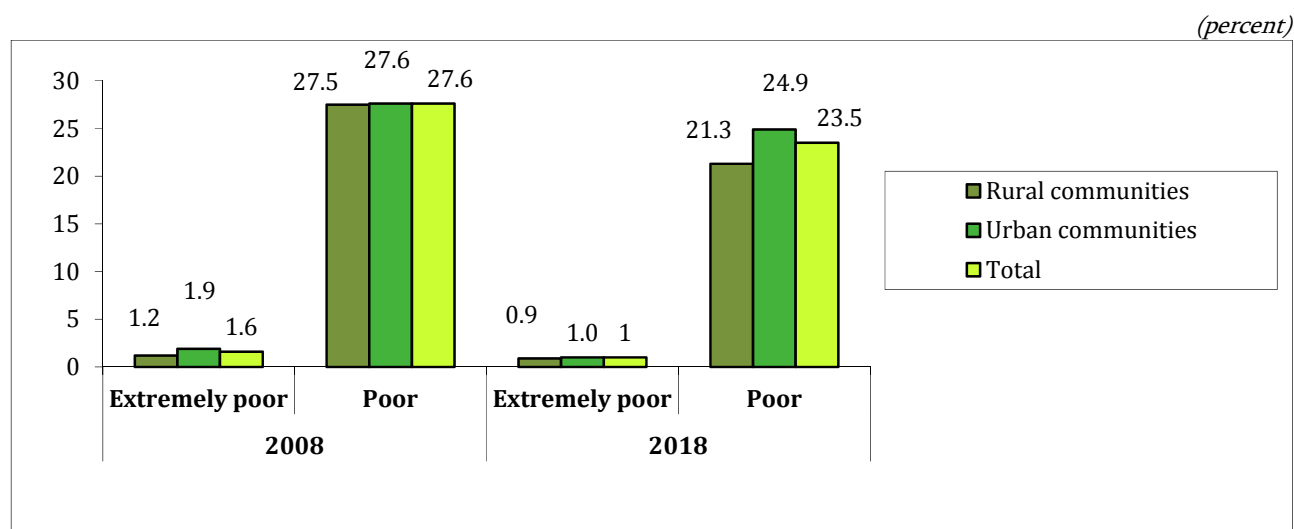
*(percent)*

	2008		2018		2018 / 2008 change (percentage points)	
	Extremely poor	Poor	Extremely poor	Poor	Extremely poor	Poor
Rural communities	1.2	27.5	0.9	21.3	-0.3	-6.2
Urban communities	1.9	27.6	1.0	24.9	-0.9	-2.7
<b>Total</b>	<b>1.6</b>	<b>27.6</b>	<b>1.0</b>	<b>23.5</b>	<b>-0.6</b>	<b>-4.1</b>

Source: *ILCS 2008 and 2018*

In 2018, as much as 0.9% of rural population and 1.0% of urban population was extremely poor. Over the period of 2008-2018, extreme poverty rate decreased by 0.3 percentage points in rural communities and by 0.9 percentage points in urban communities.

**Graph 4.1 – Armenia: Poverty Rate, by Urban and Rural Communities, 2008 and 2018**



Source: *ILCS 2008 and 2018*

## 4.2. Gross Income and Consumption (Consumption Aggregate) of Rural Households over 2008-2018

Over the period of 2008-2018, the average gross income in comparable prices increased in rural communities 1.5 times (Table 4.2).

On average, in 2018 only 30.9% of the gross (per capita) household income in rural communities was generated through agricultural activity (sales of agricultural products and livestock, consumption of own production food) against 38.8% in 2008, 35.6% in 2009, 29.4% in 2010, 32.4% in 2011, 30.8% in 2012, 30.9% in 2013, 28.5% in 2014, 25.6% in 2015, 25.4% in 2016 and 26.8% in 2017(Chapter 6, Table 6.2). At the same time, the share of income from hired employment increased from 29.6% in 2008 to 32.1% in 2018. The share of income from self-employment increased (from 4.1% to 6.6%).

Within the composition of gross income, the share of state transfers, that is pensions and social assistance, increased from 17.3% in 2008 to 19.8% in 2018. Within gross income, the importance of remittances from relatives residing outside Armenia as a source of income for rural households increased, from 6.6% in 2008 to 9.3% in 2018. The share of remittances from relatives residing in Armenia decreased by 0.3 percentage points (from 0.7% in 2008 to 0.4% in 2018) (Chapter 6, Table 6.2).

Table 4.2 presents the changes in monthly income and consumption of rural population over the period of 2008-2018, expressed by quintile distribution of per adult equivalent consumption. In general, the average consumption of rural population over 2008-2018 increased by 16.6%, whereas the average income increased 1.5 times. Real income increased in the second, third, fourth and fifth quintiles of consumption. In the fifth quintile the increase was as high as 2.3 times.

Income decreased in the poorest first quintile by 27.8%. At the same time, real consumption increased in all consumption quintiles.

**Table 4.2 – Armenia: Gross Income and Consumption Aggregate of Rural Population in 2008 and 2018, by Quintile Groups\* (per Adult Equivalent, per Month, on average Prices of 2008)**

(AMD)

	Quintile groups of consumption aggregate*					Average
	I	II	III	IV	V	
<b>Consumption per adult equivalent</b>						
<b>2008</b>	23 335	30 780	38 164	46 672	69 418	41 691
<b>2018</b>	24 854	34 164	41 714	51 081	91 187	48 615
<b>Gross income per adult equivalent</b>						
<b>2008</b>	30 663	36 036	41 639	45 090	60 239	42 745
<b>2018</b>	22 142	36 894	50 868	68 879	137 852	63 338
<b>Change between 2008 and 2018 (Percent)</b>						
<b>Consumption</b>	6.5	11.0	9.3	9.4	31.4	16.6
<b>Income</b>	-27.8	2.4	22.2	52.8	128.8	48.2

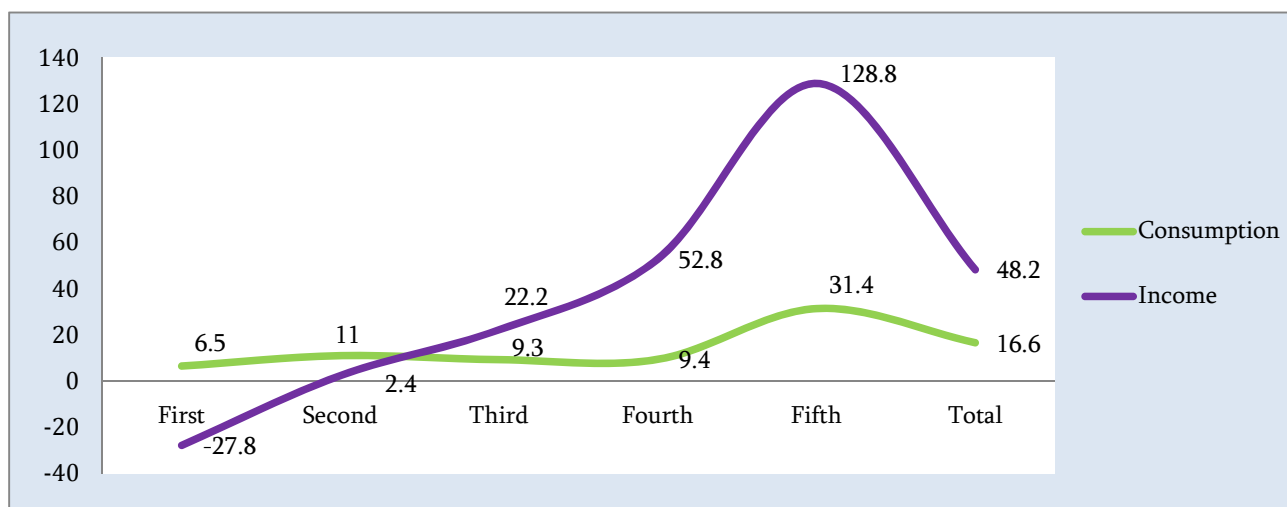
Source: ILCS 2008 and 2018

Note: \* The distribution into quintile groups of consumption aggregate was done for rural population

Over the period of 2008-2018, due to the changes in household income within various quintiles the average income of rural households increased 1.5 times, while growing real consumption in all quintiles resulted in 16.6% increase of average consumption by rural households.

Graph 4.2 – Armenia: Difference in Consumption and Gross Income of Rural Households, 2008 and 2018

(percent)



Source: ILCS 2008 and 2018

### 4.3. Poverty Profile in Rural Communities for 2018

According to available data, the underdeveloped condition of both physical infrastructures and financial opportunities (roads, irrigation systems, availability of facilities for the processing, storage, and preservation of agricultural products, access to finance etc.) is one of the key factors impeding rural development in Armenia. Hence, poverty rate is higher among households, which are deprived of land or own only a small piece of land, have limited access to irrigation, lack or very limited access to agricultural machinery or production capacities, and limited sources of financing.

**Geographical location:** As in earlier years, rural population living in the regions less favorable for agricultural activity tended to be poorer. In 2018, poverty rate was higher in communities located at 1700 m and higher meters above the sea level (Table 4.3).

Table 4.3 – Armenia: Poverty Rate in Rural Communities, by Geographical Location, 2008 and 2018

(percent)

	Total		Including, above sea level					
			Up to 1300 m		1300-1700 m		1700 m and higher	
	2008	2018	2008	2018	2008	2018	2008	2018
Non poor	72.5	78.7	77.5	81.1	71.8	77.4	67.3	74.3
Poor (excluded the extremely poor)	26.3	20.4	21.9	18.5	26.4	20.9	31.2	24.6
Extremely poor	1.2	0.9	0.6	0.5	1.8	1.6	1.5	1.1

Source: ILCS 2008 and 2018

**Availability of land:** Land ownership plays an important role in the reduction of rural poverty. 5.2% of landless households living in rural communities were exposed to the highest risk of poverty (24.8%). Among owners of land, poverty rate varies between 14.3% and 20.4% (Table 4.4).

**Table 4.4 – Armenia: Poverty Rate in Rural Communities, by Availability and Size of Land, 2008 and 2018**

(percent)

Size of land (hectare)	2008		2018			
	Extremely poor	Poor (excluded the extremely poor)	Extremely poor	Poor (excluded the extremely poor)	Percentage share in poor population	Percentage share in rural population
0	0.5	21.4	0.9	24.8	7.3	5.2
Up to 0.2	1.1	24.3	0.4	17.8	31.0	31.0
0.2 – 0.5	0.9	20.9	0.4	14.3	13.8	17.1
0.5 – 1	1.7	20.5	0.8	14.8	14.9	17.9
More than 1	0.5	28.2	1.0	20.4	33.0	28.8
<b>Total, rural communities</b>	<b>1.4</b>	<b>24.4</b>	<b>0.7</b>	<b>17.8</b>	<b>100</b>	<b>100</b>

Source: ILCS 2008 and 2018

In 2018, access to and use of land among rural households was as follows: 90.5% of households fully or partially used their land, 4.3% failed to use their land, while the other 5.2% had no land.

**Land quality:** The household survey does not provide sufficient information on the quality of land; therefore, availability of watering is regarded as an indicator of land quality, as it preconditions harvest and fertility outcomes. According to survey findings, 59.2% of households engaged in land cultivation irrigated their land. Meanwhile, as shown in Table 4.5, the share of irrigated land constituted only 26.8% of cultivated land.

**Table 4.5 – Armenia: Cultivated Land, by Watering Method, 2018**

(percent)

Share of cultivated land, which has:	Total cultivated land	Including	
		Adjacent to house	Non adjacent to house
Irrigation water (waterway/ channel)	26.8	55.7	21.7
Drinkable water or deep-water well	3.3	20.6	0.1
Natural sources only (rivers etc.)	0.9	3.3	0.5
Both irrigation and drinkable water or deep-water wells	0.2	0.8	0.1
Both irrigation and natural sources (rivers, runlets, lakes etc.)	0.0	0.0	0.0
Other combinations of watering methods	-	-	-
Collected rainwater, snowmelt water	0.4	2.4	0.0
Rainwater only	68.4	17.2	77.6
<b>Total land</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: ILCS 2018

The share of cultivated land that rural households are able to irrigate is presented in the table below. Particularly, only 51.7% of land was irrigated up to 75-100%, whereas 31.4% was irrigated up to 25% only.

**Table 4.6 – Armenia: Irrigated Land, by Share in Cultivated Land and by Household Poverty Rate, 2018**

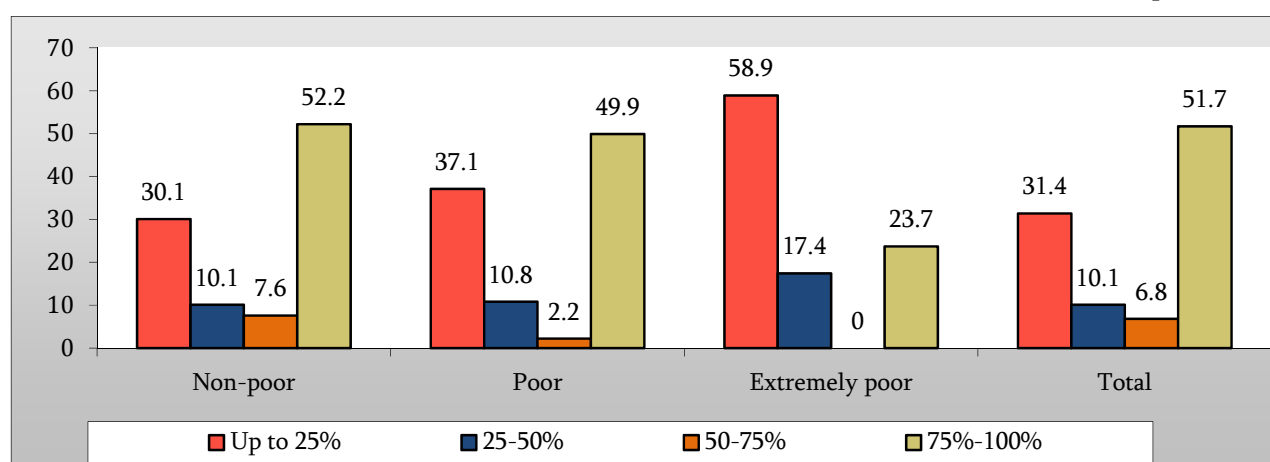
(percent)

Share of irrigated land in total cultivated land	Non poor	Poor (excluded the extremely poor)	Extremely poor	Total
Up to 25%	30.1	37.1	58.9	31.4
25-50%	10.1	10.8	17.4	10.1
50-75%	7.6	2.2	-	6.8
75%-100%	52.2	49.9	23.7	51.7
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: *ILCS 2018*

**Graph 4.3 – Armenia: Irrigated Land, by Share in Cultivated Land and by Household Poverty Rate, 2018**

(percent)



Source: *ILCS 2018*

The proportion of fertile land irrigated up to 75-100% was the largest in Ararat Valley (Ararat and Armavir regions) and the smallest in Lori, Shirak and Tavush regions. No land was irrigated to that extent (75-100%) in Syunik region (Table 4.7).

**Table 4.7 – Armenia: Irrigated Land, by Share in Cultivated Land and by Regions, 2018**

(percent)

	Up to 25%	25-50%	50-75%	75%-100%	Total
Aragatsotn	24.8	7.5	4.5	63.2	100
Ararat	11.4	8.3	8.3	72.0	100
Armavir	5.6	7.0	14.0	73.4	100
Gegharkunik	43.1	13.9	2.7	40.4	100
Lori	67.4	16.3	4.1	12.2	100
Kotayk	35.1	7.0	10.5	47.4	100
Shirak	74.6	8.7	0.8	15.9	100
Syunik	79.1	20.9	-	-	100
Vayotz Dzor	10.1	18.2	5.1	66.5	100
Tavush	54.5	13.6	4.6	27.3	100
<b>Total</b>	<b>31.3</b>	<b>10.2</b>	<b>6.8</b>	<b>51.7</b>	<b>100</b>

Source: *ILCS 2018*



According to ILCS 2018 data, among rural households, which fully or partially (in conjunction with other methods) irrigated their land, 76.2% were members of a water user association. 72.6% of non-member households responded that such associations did not exist in their village, whereas 23.4% did not wish to join a water user association, and the other 4.0% referred to other reasons.

According to survey findings, 65.0% of households received irrigation water in sufficient quantities and in time, 19.8% – in sufficient quantities, but not in time, 4.6% – in time, but not in sufficient quantities, and 10.6% of households received irrigation water neither in sufficient quantities nor in time.

The most important reasons identified for disruptions in irrigation water supply included technically deficient waterlines (31.6%), pump breakdowns (17.8%), problems with the local network (16.5%), overdue payments (11.4%) etc.

92.9% of households made a full or partial payment for used irrigation water, while 7.1% of households failed to make any payment, of which 44.2% failed to pay due to the lack of money, 12.6% – due to irregular, in terms of timing, supply of irrigation water, and 11.6% – for not having received the necessary quantity of irrigation water.

As part of the survey, households were inquired about the operation of irrigation systems during the agricultural seasons in the past two years (for 2017, the respective indicators were compared with those of 2016). As stated by 19.8% of respondents, operation of the irrigation system changed during the 2017 agricultural season, as compared to 2016, and 61.6% of the respondents were of the opinion that it had improved significantly or to a certain extent.

Among the respondents, 9.6% were of the opinion that the sizes of land changed during the 2017 agricultural season, as compared to 2016, and 21.8% of them believed that it was upsized significantly or to a certain extent, and the rest (78.2%) thought that it was downsized.

**Access to agricultural machinery:** Most agricultural machinery possessed and used by rural households was rather old, aged 6 and more years. In 2018, the respondents did not report the lack of 6 defined types of agricultural machinery out of a total of 10 with a period of use up to 2 years (Table 4.8).

**Table 4.8 – Armenia: Availability of Agricultural Machinery for Households Engaged in Land or Livestock Farming, by Period of Use, 2018**

		<i>(percent)</i>			
	<b>Total</b>	<b>Up to 2 years</b>	<b>3-5 years</b>	<b>6-10 years</b>	<b>More than 10 years</b>
Tractor, mini-tractor	100	9.5	11.6	11.7	67.2
Truck	100	1.2	7.5	26.7	64.6
Grain harvesting machine	100	-	-	-	100.0
Tractor trailer	100	-	-	51.8	48.2
Tractor mowing-machine	100	4.5	10.2	25.0	60.3
Fodder harvesting machine	100	-	-	19.3	80.7
Seed separator	100	-	-	-	-
Tractor seed-drill	100	-	-	17.8	82.2
Tractor plough	100	4.6	16.1	1.9	77.4
Cultivator	100	-	9.0	22.9	68.1
<b>Total</b>	<b>100</b>	<b>3.1</b>	<b>7.8</b>	<b>22.5</b>	<b>66.6</b>

Source: ILCS 2018

Naturally, non-poor households had better opportunities to acquire or rent agricultural machinery than poor households. Among households in possession of agricultural machinery, within the 12 months preceding the 2018 survey only the extremely poor did not acquire any machinery items. Among households in possession of agricultural machinery, 85.5% were non-poor and 14.5% were poor households (excluding the extremely poor households).

Both poor and non-poor households were able to use all types of agricultural machinery, except for the seed separator (Table 4.9).

**Table 4.9 – Armenia: Availability of Agricultural Machinery for Households Engaged in Land or Livestock Farming, by Poverty Rate, 2018**

*(percent)*

	Total	Non-poor	Poor (excluding the extremely poor)	Extremely poor
Tractor, mini-tractor	100	84.0	16.0	-
Truck	100	91.3	8.7	-
Grain harvesting machine	100	48.0	52.0	-
Tractor trailer	100	95.1	4.9	-
Tractor mowing-machine	100	67.8	32.2	-
Fodder harvesting machine	100	80.7	19.3	-
Seed separator	-	-	-	-
Tractor seed-drill	100	91.1	8.9	-
Tractor plough	100	84.2	15.8	-
Cultivator	100	91.7	8.3	-
<b>Total</b>	<b>100</b>	<b>85.5</b>	<b>14.5</b>	<b>-</b>

Source: *ILCS 2018*

**Access to agricultural lending or borrowing.** According to ILCS 2018 data, 11.4% of surveyed households received loans or borrowed funds for engaging in agricultural activity; among them, 97.9% were rural households and 2.1% were urban households. In the mentioned group of households, 99.7% received loans from banks (including loans funded under government programs or projects of international organizations) and 0.3% borrowed funds from friends, parents, relatives or other sources.

In 2018, as much as 13.4% of surveyed rural households received loans or borrowed funds for engaging in agricultural activity. Among them, 99.7% were able to use services of banks (including loans funded under government programs or projects of international organizations), of which 85.5% were non-poor, 14.1% were poor, and 0.4% were extremely poor households. More detailed data on rural households, by poverty rate, are presented in Table 4.10.

**Table 4.10 – Armenia: Access to Agricultural Lending or Borrowing for Rural Households, by Poverty Rate, 2008 and 2018**

(percent)

	Non poor		Poor (excluding extremely poor)		Extremely poor	
	2008	2018	2008	2018	2008	2018
<b>Total lending or borrowing, including from:</b>	13.3	13.8	7.6	11.6	1.5	7.8
▪ Banks (including loans funded under government programs or projects of international organizations)	79.6	100.0	86.5	97.5	65.9	100.0
▪ Friends and relatives	19.6	-	12.2	2.5	-	-
▪ Other sources	0.8	-	1.3	-	34.1	-

Source: *ILCS 2008 and 2018*

On average, in 2018 the key reasons for non-cultivation of land included unprofitability of agricultural activity, lack of access to irrigation and lack of funding as indicated by, respectively, 22.2%, 19.1%, and 16.1% of respondents. Other key reasons for non-cultivation of land include farmer's poor health and age, remoteness of land and poor quality of soil, which account for, respectively, 13.8%, 10.5% and 9.9% of responses. The reasons for non-cultivation of land, by quintile groups, are presented in Table 4.11.

**Table 4.11 – Armenia: Reasons for Land Owners Not to Cultivate Land, by Quintile Groups, 2018**

(percent)

Reasons for non-cultivation	Quintile groups of consumption aggregate*					
	I	II	III	IV	V	Total
Remoteness of land	9.9	10.6	13.6	9.0	9.3	10.5
Poor quality of soil	12.3	10.7	8.1	7.5	10.7	9.9
Non irrigated land	19.3	20.6	15.6	17.4	22.7	19.1
Unprofitable business	22.5	20.3	21.5	22.1	25.2	22.2
Lack of funding for cultivation	21.7	18.3	15.5	14.3	10.0	16.1
Farmer's illness, age	8.8	12.4	17.6	19.1	11.4	13.8
Other	5.5	7.1	8.1	10.6	10.7	8.4
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: *ILCS 2018*

Note: \* The distribution into quintile groups of consumption aggregate was done for rural population

Rural households indicated certain difficulties encountered during the most recent agricultural season. The most frequent key difficulties included, in descending order of significance, lack of labor force (19.0%), lack of access to agricultural machinery (14.3%), dealing with resellers (12.0%), lack of wholesale and retail markets (11.6%), problems with the sales of products (11.5%), transportation of products to the market (4.4%), remuneration of work (4.0%), payments for irrigation (2.7%), acquisition of young plants or seeds (2.6%), lack of seeds (0.4%) and other problems (17.5%).

#### 4.4. Rural Road Infrastructure and Transportation Means

The impact of infrastructure on rural communities appears to be mostly predictable: rural households residing near hard-surface roads and in the vicinity of markets are better off.

According to ILCS 2018 data, 43.5% of rural households had some type of transportation means – a passenger car, a truck or another vehicle. Within the 12 months preceding the survey, these households spent on average AMD 182 thousand on fuel, AMD 123 thousand on maintenance (including the cost of spare parts and labor), and AMD 42 thousand on traveling by bus, fixed-run taxi, and taxi.

ILCS 2018 findings also revealed that, during a typical month, a rural household usually used transportation means and spent their time to work outside the community – 19.7 days, to sell agricultural products – 5.3 days, to purchase fertilizers and seeds – 1.5 days, and on other purposes – 3.5 days. Table 4.12 demonstrates how rural households assessed the quality of road infrastructure and transportation means.

**Table 4.12 – Armenia: Quality of Roads and Transportation Means as Assessed by Rural Households, 2018**

	Total	Bad	Average	Good	Excellent
Intra-community roads	100	62.8	33.5	3.7	0.0
Roads linking with regional centers, towns, markets	100	10.1	66.3	23.6	0.0
Buses, minivans, other transportation means	100	11.5	61.9	24.2	2.4

(percent)

Source: ILCS 2018

The data in Table 4.12 shows that most of rural households, i.e. 62.8% assessed the condition of intra-community roads as bad.

10.1% of rural households assessed the condition of roads linking with regional centers, towns and markets as bad.

The quality of transportation means (buses, minivans, and other vehicles) was assessed as bad by 11.5% of rural households.

Accessibility of socio-economic infrastructures for rural households is presented in the table below.

**Table 4.13 – Armenia: Distance to Nearest Service Facilities in Rural Communities, 2018**

Service facilities	Total	Up to 1 km	1-3 km	4-5 km	6-10 km	10 km and more
Medical station	100	73.7	25.1	0.1	0.6	0.5
Hospital	100	2.7	10.9	11.5	32.0	42.9
Drugstore	100	35.5	18.4	7.6	14.9	23.6
Community administration	100	75.0	24.4	0.5	0.1	0.0
Preschool facility	100	58.5	22.3	5.9	6.6	6.7
Secondary school	100	74.6	22.8	1.7	0.8	0.1
Agricultural market	100	0.4	7.6	8.2	29.4	54.4
Bank/ financial institution	100	0.4	10.4	10.5	32.1	46.6

(percent)

Source: ILCS 2018

In rural communities the average distance to the nearest agricultural market was 16.0 km, to a bank/ financial service provider – 12.4 km, to a hospital – 11.7 km, to a drugstore – 6.5 km, to a kindergarten – 2.7 km, to a secondary school – 1.0 km, to a medical station – 0.8 km, and to the community administration – 0.7 km.

Rural households spent on average 26 minutes to reach an agricultural market, 22 minutes – a bank/ financial service provider, 19 minutes – a hospital, 15 minutes – a drugstore, 12 minutes – a kindergarten, and 10 minutes – a secondary school, a medical station and the community administration.

Majority of rural households did not make use of a car or bus/ minivan to reach certain service facilities (e.g. a medical station, the community administration, a secondary school, a preschool facility). However, in order to reach service facilities such as a hospital, a bank, an agricultural market or a drugstore, most of rural households made use of a car or a bus. More detailed data on this are presented in Table 4.14.

**Table 4.14 – Armenia: Transportation Means Used for Reaching Service Facilities in Rural Communities, 2018**

*(percent)*

Service facilities	Total	Car	Bus/ minivan	Other (on foot, by taxi, carriage, bicycle, motorcycle, horse, donkey)
Medical station	100	10.1	1.4	88.5
Hospital	100	65.7	18.5	15.8
Drugstore	100	27.1	22.8	50.1
Community administration	100	7.5	1.2	91.3
Preschool facility	100	12.1	17.8	70.1
Secondary school	100	7.5	3.2	89.3
Agricultural market	100	40.8	53.1	6.1
Bank/ financial institution	100	40.2	53.9	5.9

Source: *ILCS 2018*

## Chapter 5: Child Poverty

### 5.1. Child Poverty

This chapter provides an estimate of consumption-based child poverty, material and housing deprivation, as well as reflects on the role of social protection benefits in mitigating poverty.

In 2018, 1.5% of children below 18 lived in extreme poverty and 29.2% lived in poverty. At that, extreme poverty and poverty rates in Armenia were 1.0% and 23.5%, respectively (Table 5.1). Hence, in comparison with the entire population, children were exposed to a higher risk of both total and extreme poverty. 23.9% of the households with children below 18 received family benefits in 2018. At that, 34.7% of poor households, 55.6% of extremely poor households, and 22.7% of non-poor households were beneficiaries of family benefit.

The data for 2018 depict minor gender differences in child poverty rates; thus, 28.6% of girls and 29.8% of boys were poor (comprising 29.2% of all children). In terms of household location, the extreme poverty rate among children living in urban communities was 1.7% compared to that at 1.3% among children living in rural communities; and the total poverty rate for the same categories was 31.2% and 26.4%, respectively.

**Table 5.1 – Armenia: Child Poverty Rates, 2018**

*(Percent)*

	Children below 18	Including		Population headcount (for comparison)
		Girls	Boys	
Extreme poverty	1.5 (0.4) {0.6; 2.5}	1.8 (0.6) {0.5; 3.1}	1.3 (0.4) {0.4; 2.1}	1.0 (0.2) {0.6; 1.4}
Total poverty	29.2 (1.0) {26.9; 31.6}	28.6 (1.4) {25.4; 31.9}	29.8 (1.2) {27.0; 32.5}	23.5 (0.9) {21.5; 25.5}

Source: *ILCS 2018*

This chapter presents 2018 child poverty in Armenia comparing it with pre-crisis data of 2008. Table 5.2 provides an overview of the dynamics in child poverty rates over 2008-2018; particularly, poverty and extreme poverty rates in 2018 were lower than the respective indicators of 2008 (by 0.6 and 0.1 percentage points, respectively).

Table 5.2 – Armenia: Dynamics of Child Poverty Rates, 2008-2018\*

(Percent)

	Extremely poor	Poor	Non-poor
2008	1.6	29.8	70.2
2009	3.8	35.7	64.3
2010	3.7	41.4	58.6
2011	4.7	41.9	58.1
2012	3.3	36.2	63.8
2013	3.3	37.3	62.7
2014	3.3	34.0	66.0
2015	2.5	33.7	66.3
2016	2.0	34.2	65.8
2017	2,1	30,8	69,2
2018	1.5	29.2	70.8

Source: *ILCS 2008-2018*

\* For consistency reasons, the indicators for 2008 have been recalculated as per the methodology used in 2009.

Average poverty rates reflect the substantial dependence on various household characteristics. Child poverty rates significantly vary depending on the number of children in the household, the age group of the youngest child, as well as on the characteristics of the household head such as gender, educational level and employment status. There is also significant variation by the share of employed household members and by household location.

**Children in larger families are more likely to be poor.** 38.2% of children in families with 3 or more children below 18 are poor (compared to 29.2% total child poverty rate), and 2.7% of children in large families are extremely poor (compared to 1.5% extreme child poverty rate) (Table 5.3).

**Children in age groups 0-5 are more likely to be poor.** Children in families where the youngest child is 5 years old or younger are exposed to a higher risk of poverty. 32.8% of children in such families are poor, compared to the child poverty rate of 21.4% in families where the youngest child is 15-18 years old. Analysis using the extreme poverty line shows that extreme poverty rate is the highest among families where the youngest child is 0-5 years old (1.8%) and the lowest among families where the youngest child is 15-18 years old (0.6%).

**Children in female-headed households are more likely to be poor.** 22.5% of all children live in female-headed households; among them, 35.6% are poor, compared to the 27.4% child poverty rate in male-headed households where 77.5% of all children live.

**Marital status of the household head is another important predictor of child poverty.** Children in households with a single (never married), widowed or divorced head are more likely to be poor (35.5%) than those in households with married or cohabiting heads (27.4%).

**Living in a household where the head has higher educational level reduces the risk of poverty.** Children living in households where the household head has no education or has primary education only (43.5%), incomplete secondary education (46.2%), general secondary education (33.1%) or vocational secondary education (25.4%) are substantially more likely to be poor than those in households where the head has tertiary education (15.3%). Children living in households, where the head has incomplete secondary education, are exposed to the highest risk of extreme poverty.

**Employment status of the household head is another crucial predictor of child poverty.** Children in households where the head has done any profitable work within the past 7 days are at the lowest risk of poverty in terms of both total and extreme poverty. Thus, 25.1% of children with a working head of household are poor, compared to that of 36.8% among children with a non-working head of household. It is worth of mentioning that 35.3% of all children live in households where the head does not work.

**The number of adult household members in employment also appears to affect child poverty rates.** Children in households with no employed adults aged 19-60 years are exposed to the highest risk of poverty (48.8%). The lowest risk of extreme child poverty (0.6%) is observed in households where not only adults are employed. It is worth of mentioning that almost half of all children (43.5%) live in households where not all adults aged 19-60 years are employed.

**Table 5.3 – Armenia: Poverty Rates, Gaps and Composition,  
by Type of Household, 2018**

*(Percent)*

	Extreme child poverty rate	Total child poverty rate	Poverty gap	Percentage share, poor children	Percentage share, all children
<b>Number of all children (below 18 years)</b>					
One	0.9	20.6	3.2	14.6	20.7
Two	1.1	27.4	4.9	46.3	49.3
Three or more	2.7	38.2	8.6	39.1	30.0
<b>Gender</b>					
Girl	1.8	28.6	5.6	48.0	48.0
Boy	1.3	29.8	5.7	52.0	52.0
<b>Age of the youngest child</b>					
0-5	1.8	32.8	6.4	49.5	44.2
6-14	1.4	27.2	5.3	45.0	48.4
15-18	0.6	21.4	3.0	5.5	7.4
<b>Number of adults (19 – 60 years)</b>					
None/ one	0.9	29.1	4.8	11.0	11.0
Two	1.3	27.5	5.3	51.3	54.7
Three	3.0	30.5	6.3	18.0	17.2
Four or more	1.2	33.7	6.4	19.7	17.1
<b>Number of retired adults</b>					
None	1.4	27.1	5.3	61.6	66.3



	Extreme child poverty rate	Total child poverty rate	Poverty gap	Percentage share, poor children	Percentage share, all children
One	2.3	32.5	6.4	26.3	23.7
Two or more	0.7	35.6	6.3	12.1	10.0
<b>Number of adults with disability</b>					
None	1.5	28.7	5.5	87.3	88.8
One or more	1.6	33.3	6.8	12.7	11.2
<b>Gender of household head (by present population headcount)</b>					
Male	1.4	27.4	5.4	72.6	77.5
Female	1.9	35.6	6.4	27.4	22.5
<b>Marital status of household head</b>					
Married/ cohabiting	1.5	27.4	5.4	69.0	74.2
Single/ widowed/ divorced	1.7	35.5	6.6	31.0	25.8
<b>Educational level of household head</b>					
Elementary and primary	3.4	43.5	6.8	1.8	1.3
Incomplete secondary	4.4	46.2	10.1	14.4	9.2
General secondary	1.7	33.1	6.6	56.0	50.1
Specialized secondary	0.7	25.4	4.3	18.2	21.1
Tertiary	0.7	15.3	2.7	9.6	18.3
<b>Employment status of household head</b>					
Not worked in the past 7 days	3.1	36.8	7.5	44.5	35.3
Worked in the past 7 days	0.7	25.1	4.6	55.5	64.7
<b>Employment status of adult household members (19-60)</b>					
No adult works	7.8	48.8	11.4	13.5	8.1
Not all adults work	1.1	34.3	6.5	51.0	43.5
All adults work	1.0	22.7	4.2	28.0	36.0
Not only adults work	0.6	17.7	2.8	7.5	12.4
<b>Total</b>	<b>1.5</b>	<b>29.2</b>	<b>5.6</b>	<b>100</b>	<b>100</b>

Source: *ILCS 2018*

**Child poverty rates substantially vary across regions.** Table 5.4 presents data on child poverty rates for Yerevan and 10 regions of the country. The differences across regions are significant both in terms of extreme and total poverty. Extreme child poverty rates vary from the lowest 0.0% (in Aragatsotn, Ararat, Gegharkunik, Kotayk and Syunik regions) to the highest 4.2% (in Lori region). A similar pattern is observed for total child poverty rates, which are the lowest at 15.4% in Aragatsotn region and the highest at 46.0% in Shirak region.

**Table 5.4 – Armenia: Poverty Rates, Gap and Composition, by Regions, 2018**

(Percent)

	Extreme child poverty rate	Total child poverty rate	Poverty gap	Percentage share, poor children	Percentage share, all children
Yerevan	1.8	24.9	5.0	23.5	27.6
Aragatsotn	0.0	15.4	1.9	2.2	4.1
Ararat	0.0	28.0	4.3	10.0	10.4
Armavir	1.8	28.7	6.6	10.8	11.0
Gegharkunik	0.0	31.7	4.5	5.6	5.1
Lori	4.2	38.4	8.3	12.2	9.3
Kotayk	0.0	28.1	4.4	11.7	12.2
Shirak	3.4	46.0	10.6	14.5	9.3
Syunik	0.0	20.6	3.1	2.7	3.8
Vayots Dzor	1.4	21.8	3.3	1.4	1.8
Tavush	1.9	29.6	5.3	5.4	5.4
<b>Total</b>	<b>1.5</b>	<b>29.2</b>	<b>5.6</b>	<b>100</b>	<b>100</b>

Source: *ILCS 2018*

## 5.2. Material Deprivation

To complement the analysis of consumption-based poverty, this section analyses material deprivation of children in Armenia. Material deprivation is measured as the lack of durable goods in households. The analysis covered the following 9 durable goods: refrigerator, washing machine, mobile telephone, vacuum cleaner, video player, photo camera, audio system, car, and personal computer. The choice of these goods reflects the fact that at least 10% of all households in the 2009-2018 Integrated Living Conditions Surveys owned them. Nonetheless, it is not clear whether the households that lack these items cannot afford them or choose not to have them.

When compared with all children, poor children are significantly more likely to live in households lacking any of the above-mentioned durable goods. Children in extremely poor households are the most likely to lack all of these items. For example, while 22.7% of all children live in households without a vacuum cleaner, 33.3% of poor and 52.1% of extremely poor children live in households lacking this item. Likewise, while 25.5% of children live in households without a personal computer, the same indicator for poor and extremely poor children is 45.7% and 71.7%, respectively.

**Table 5.5 – Armenia: Durable Goods Lacked, 2018**

(Percent)

	All children	Poor children	Extremely poor children
Refrigerator	2.1	4.3	3.1
Washing machine	2.2	4.8	4.7
Mobile phone	0.1	0	0
Vacuum cleaner	22.7	33.3	52.1

	All children	Poor children	Extremely poor children
Video player	80.7	86.9	92.3
Photo camera	68.9	75.5	88.7
Audio system	66.8	75.7	95.8
Car	54.5	80.3	100
Personal computer	25.5	45.7	71.7

Source: *ILCS 2018*

There are noticeable differences in deprivation rates between poor and non-poor children. 4.6% of all children live in households not lacking any of the listed durable goods, while the respective indicator is 2.2% for poor children and 0% for extremely poor children (Table 5.6). However, to achieve a deprivation rate that is comparable with the estimated consumption-based child poverty rate of 29.2% the deprivation threshold is drawn at lacking 5 or more of the listed items. This results in 22.1% of all children experiencing material deprivation. Material poverty rates among poor and extremely poor children are higher at 40.4% and 72.5%, respectively.

Table 5.6 – Armenia: Number of Durable Goods Lacked by Households, 2018

(Percent)

	All children	Poor children	Extremely poor children
0 (all 9 are present)	4.6	2.2	0
1	13.9	5.8	0
2	14.0	9.0	0
3	21.8	16.1	11.9
4	23.6	26.5	15.6
5	13.2	20.0	30.5
6	6.9	15.4	36.5
7	1.7	4.4	5.0
8	0.3	0.6	0.5
9	-	-	-

Source: *ILCS 2018*

A limitation for this methodology is that the items included in the simple count index may not be of equal importance to the households' welfare, whereas ILCS 2018 provides no information about the desirability or importance of these durable goods. Furthermore, there is no information on whether the item is lacked because the household cannot afford it or choose not to have it. Using the prevalence weighted deprivation index helps to partially remedy this gap based on the assumption that households are relatively more deprived if they lack an item that most other households have. For example, lacking a refrigerator carries less weight than lacking a personal computer because more households have a refrigerator rather than a personal computer. Each score of 1 given for a lacked item is multiplied by the proportion of children in the weighted sample who live in households owning this item. The scores are then summed across all items and divided by the total number of items, i.e. 9, for each household. The resulting score is multiplied by 100 to establish a continuous

variable that ranges from 0 (presence of all items) to 100 (lack of all items that all other households own).

**On average, prevalence weighted deprivation score is higher among poor children.** The average score for all children is 10.2, but for poor and extremely poor children it constitutes 12.7 and 15.4, respectively (Table 5.7). This suggests that poor children live in households lacking the items usually owned by other households.

**Table 5.7 – Armenia: Average Prevalence Weighted Deprivation Score and Deprivation Rates, 2018**

(Percent)

	All children	Poor children	Extremely poor children
Average	10.2	12,7	15,4
Standard deviation	5,7	6,3	4,7

Source: *ILCS 2018*

### 5.3. Housing Deprivation

Housing problems can adversely affect children’s health, safety, education and social development. ILCS 2018 included questions about housing, such as the number of utility services and rooms in use, as well as questions about housing problems and perceived quality of dwelling conditions.

**Poor children often live in accommodation lacking important housing amenities.** Children in poor households are consistently more likely to live in dwellings without essential housing amenities<sup>1</sup>, such as hot running water, centralized gas supply, landline telephone, and bathtub or shower (Table 5.8). It is worth to mention that currently landline telephones are supplanted by mobile phones owned by 99.9% of households. On the other hand, in comparison with all children, extremely poor and poor children are more likely to live in dwellings without any of the below specified amenities (Table 5.8).

**Table 5.8 – Armenia: Housing Amenities Lacked or Not in Working Order, 2018**

(Percent)

The house lacks:	All children	Poor children	Extremely poor children
Centralized water supply	2.4	3.6	0.9
Running hot water	13.9	25.6	40.8
Connection to sewerage system	30.3	29.7	27.4
Centralized gas supply	13.9	23.6	33.3
Bathtub or shower	7.7	14.7	16.0
Kitchen	2.7	7.2	0.7
Landline telephone	77.1	76.1	97.3

Source: *ILCS 2018*

<sup>1</sup> The amenity is either not available or not in working order.

**In comparison with all children, poor children are more likely to lack many of the housing amenities.** Only 15% of all children live in houses with all of the listed amenities, while the same indicator for extremely poor children is 0% (Table 5.9). Children in extremely poor households are more likely to lack 1 amenity out of the 7 (53%) and 4 amenities out of the 7 (17%). At the same time, the lack of all 7 amenities was reported in relation to children living in all, poor and extremely poor households (0.2%, 0.4% and 0%, respectively). To achieve a housing deprivation rate that is comparable with the consumption-based child poverty rate in 2018 (29.2%), the deprivation threshold is drawn at lacking 2 or more amenities. This results in 33.3% of all children lacking a minimal number of housing amenities. The corresponding rates for poor and extremely poor children are substantially higher at 43.1% and 47.0%, respectively.

**Table 5.9 – Armenia: Number of Household Amenities Lacked or Not in Working Order, 2018**

*(Percent)*

	All children	Poor children	Extremely poor children
0	15.0	18.4	0
1	51.7	38.5	53.0
2	17.7	16.9	10.6
3	7.7	11.0	12.0
4	3.5	5.4	16.7
5	3.0	5.8	7.0
6	1.2	3.6	0.7
7	0.2	0.4	0

Source: *ILCS 2018*

Poor and, especially, extremely poor children are also more likely to live in substandard housing conditions. In comparison with all children, those in consumption-based poor households are generally more likely to live in dwellings with reported housing problems (Table 5.10). For example, 66.1% of poor children and 87.8% of extremely poor children live in households that report poor heating, compared to the relevant indicator at 50.8% for all children. Then, 30.7% of poor children and 42.0% of extremely poor children live in households that report dampness, compared to the relevant indicator at 25.0% for all children. Some housing problems, such as noisy neighbors and surroundings, heavy traffic and industrial pollution are reported in relation to less than 10% of both all children and children living in poor and extremely poor households.

**Table 5.10 – Armenia: Housing Problems Reported, 2018**

(Percent)

		All children	Poor children	Extremely poor children
1.	Insufficient living space	32.0	42.5	57.8
2.	Noisy neighbors and surroundings	4.2	5.7	0.0
3.	Poor lighting	8.4	12.9	13.1
4.	Poor heating	50.8	66.1	87.8
5.	Dampness	25.0	30.7	42.0
6.	Leaking roofs	15.1	19.1	43.0
7.	Dilapidated walls and floor	23.0	37.8	70.8
8.	Broken frames and doors	19.7	34.1	54.7
9.	Heavy traffic	3.8	4.3	17.8
10.	Industrial pollution	4.0	5.0	0.0
11.	Frequent breakdowns of elevator	20.3	18.4	80.7
12.	Poor water supply	13.0	14.2	13.6
13.	Poor garbage disposal	20.5	25.4	22.3
14.	Poor maintenance of public areas and yards of multi-apartment buildings	32.1	37.9	61.6
15.	Lack of green zones	30.2	34.8	52.2

Source: *ILCS 2018*

Moreover, in comparison with all children, poor children are also more likely to live in households reporting more of the housing problems. Thus, 0% of extremely poor children, 0.4% of poor children and 0.2% of all children live in households that do not report any of the 11-15 housing problems above (Table 5.11).

Children in extremely poor households are less likely to live in households reporting only 1 to 3 housing problems, while they are more likely to live in households reporting 5 and 8 housing problems. 1.3% of all children, 3.7% of poor and 1.6% of extremely poor children live in households reporting 9 or more problems. To achieve a housing deprivation rate comparable with the consumption-based child poverty rate in 2018 (29.2%), the deprivation threshold is drawn at households reporting 4 or more housing problems (30.7%). This results in 46.5% of poor children and 68.8% of extremely poor children having a housing deprivation problem.

**Table 5.11 – Armenia: Number of Housing Problems Reported, 2018**

(Percent)

Number of Housing Problems	All children	Poor children	Extremely poor children
0	15.8	9.3	8.5
1	20.4	16.1	0.0
2	19.7	15.5	6.7
3	13.4	12.6	16.0
4	11.1	13.7	8.2
5	8.5	13.4	20.8
6	5.4	8.0	3.5
7	2.6	4.7	14.4
8	1.8	3.0	20.3
9	0.6	1.5	1.6
10	0.2	0.8	0.0
11-15	0.5	1.4	0.0

Source: *ILCS 2018*

**Poor children are more likely to live in subjectively substandard housing conditions.** While 22% of all children live in households that describe their dwelling conditions as bad or very bad, 33% of poor children and 59% of extremely poor children live in such households. At the same time, 59% of all children live in households with satisfactory housing conditions, while 55% of poor children and 41% of extremely poor children live in such households. In comparison with all children, poor children are 1.7 times less likely to live in households with housing conditions described as good or very good, while extremely poor children have not reported living in such households.

**Table 5.12 – Armenia: Respondents’ Subjective Assessment of the Quality of Housing Conditions, 2018**

(Percent)

	All children	Poor children	Extremely poor children
Good or very good	19.8	11.6	0.0
Satisfactory	58.7	55.4	41.3
Bad or very bad	21.5	33.0	58.7

Source: *ILCS 2018*

**Poor children are more likely to live in overcrowded accommodation.** The average number of rooms (excluding kitchens, bathtubs and toilets) per person in the primary dwelling is greater for all children (0.63) in comparison with that indicator for poor children (0.57) or extremely poor children (0.52). If the threshold is drawn at 0.43 or fewer rooms per person, the overcrowding rate for all children is 19%, compared to the same indicator at 28% for poor children and 37% for extremely poor children (Table 5.13).

**Table 5.13 – Armenia: Average Number of Rooms per Person and Overcrowding Rates, 2018**

	All children	Poor children	Extremely poor children
Average number of rooms per person (SD)	0.63 (0.23)	0.57 (0.19)	0.52 (0.16)
Overcrowding rate (Percent)	18.9	27.6	37.3

Source: *ILCS 2018*

16% of non-poor children, 27% of poor children and 37% of extremely poor children live in overcrowded accommodation (Table 5.14).

**Table 5.14 – Armenia: Overcrowding Rates, by Poverty Status, 2018***(Percent)*

	Non-poor children	Poor children (excluding extremely poor children)	Extremely poor children
Not overcrowded	84.5	73.0	62.7
Overcrowded	15.5	27.0	37.3

Source: *ILCS 2018*

Note: The correlation between overcrowding status and poverty status is statistically significant at  $p < 0.001$

## 5.4. Role of Social Protection Benefits in Poverty Mitigation

### 5.4.1. Old age pensions

**Old-age pensions make a difference to average child poverty rates.** 42.3% of all children live in households where at least 1 person is reported to receive old-age pension. Table 5.15 shows the difference that pensions make to consumption-based child poverty rates. If pensions were deducted from total monthly household expenditure and the remaining amount was brought into equivalent terms, the extreme child poverty rate would increase from 1.5% to 10.8%, while the total child poverty rate would go up from 29.2% to 41.5%. Hence, pension income makes significant difference to extremely poor households. The extreme poverty rate would increase 7.2 times if pension income were not counted in consumption. This analysis assumes that pension income is entirely consumed by households.

**Table 5.15 – Armenia: Child Poverty Rates with and without Old-Age Pension Income, 2018***(Percent)*

Threshold	Child poverty rate	
	<i>With pension</i>	<i>Without pension</i>
Extreme poverty line	1.5	10.8
Total poverty line	29.2	41.5

Source: *ILCS 2018*



Old-age pension income can make a difference as to whether a child is poor or not (relevant only to households, which have a member receiving old-age pension). Table 5.16 shows the difference that old-age pensions can make to children in poor (and old-age pension beneficiaries) households. If pensions were deducted from their household consumption, 23% of children not considered as extremely poor would have been classed as extremely poor. At the same time, 44% of children not considered as poor would have been classed as poor if pension income were deducted from their household consumption.

**Table 5.16: Armenia – Child Poverty Rates with and without Old-Age Pension Income (for Old-Age Pension Beneficiaries Households), 2018**

*(Percent)*

	Lifted above extreme poverty line (with pension)	Lifted above total poverty line (with pension)
Below extreme poverty line (without pension)	22.5	
Below total poverty line (without pension)		43.5

Source: *ILCS 2018*

#### 5.4.2. Family benefits

Family benefit income makes a difference to average child poverty rates. 23.9% of all children live in households in receipt of family benefits. Table 5.17 shows that family benefit income makes a difference to the extreme and total child poverty rate. If family benefits were deducted from the total household expenditure, the extreme child poverty rate would increase from 1.5% to 7.0%, whereas the total child poverty rate would go up by 4.5 percentage points, from 29.2% to 33.7%. This suggests that family benefit income is very important for extremely poor and poor households.

**Table 5.17 – Armenia: Child Poverty Rates with and without Family Benefit Income, 2018**

*(Percent)*

Threshold	Child poverty rate	
	<i>With family benefit</i>	<i>Without family benefit</i>
Extreme poverty line	1.5	7.0
Total poverty line	29.2	33.7

Source: *ILCS 2018*

Family benefit income can also make a difference as to whether a child is poor or not (relevant only to households in receipt of family benefit). Table 5.18 shows the re-calculated poverty rates for children in family benefit recipient households, which are not considered as poor. If family benefit income were deducted from their household consumption, 24% of children not considered as extremely poor would have been classed as extremely poor. At the same time, 37% of children not

considered as poor would have been classed as poor if family benefit income were deducted from their household consumption.

**Table 5.18 – Armenia: Child Poverty Rates with and without Family Benefit Income (for Family Benefit Recipient Households), 2018**

*(Percent)*

	Lifted above extreme poverty line (with family benefit)	Lifted above total poverty line (with family benefit)
Below extreme poverty line <i>(without family benefit)</i>	23.6	
Below total poverty line (without family benefit)		37.4

Source: *ILCS 2018*

### 5.4.3. *Childcare Allowances*

**Childcare allowance income does not make a difference to average child poverty rates.** According to survey findings, only 2.5% of all children live in households in receipt of childcare allowance. Table 5.19 shows the difference that childcare allowance income makes to average child poverty rates. The extreme and total child poverty rates would remain almost unchanged if childcare allowances were deducted from household consumption, which is indicative of the very low number of childcare allowance beneficiary households.

**Table 5.19 – Armenia: Child Poverty Rates with and without Childcare Allowance Income, 2018**

*(Percent)*

Threshold	Child poverty rate	
	<i>With childcare allowance</i>	<i>Without childcare allowance</i>
Extreme poverty line	1.5	1.7
Total poverty line	29.2	29.3

Source: *ILCS 2018*

**Childcare allowance income does not make a difference as to whether a child is poor or not (relevant only to households in receipt of childcare allowance).** If childcare allowance income were deducted from their household consumption, none of the children not considered as extremely poor would have been classed as extremely poor. At the same time, none of the children not considered as poor would have been classed as poor if childcare allowance income were deducted from their household consumption.

Given the small number of families in receipt of childcare allowance, it is not surprising that childcare allowance income does not make a difference to average child poverty rates.