CONSUMPTION POVERTY IN THE REPUBLIC OF KOSOVO

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1   Introduction

Poverty statistics are important to measure the success of economic policies in bringing greater and sustained prosperity for all citizens. A detailed assessment of the evolution of living standards allows the policy makers to maintain the poor on the agenda, to target interventions toward to the most vulnerable groups, and to monitor and evaluate projects designed to improve equity and reduce poverty.

This report provides an update of the poverty assessment for Kosovo that was published in April 2017. It is intended to be a concise and timely summary that highlights the key aspects of poverty and inequality in Kosovo, including trends and a detailed poverty profile. As is the case with previous poverty analysis, it focuses on absolute poverty. That is, compares living standards over time using an absolute poverty line that remains fixed over time, only adjusted for inflation, which is useful when evaluating the effects of policies and programs on the incidence of poverty. This absolute poverty approach is different from the relative poverty approach employed in EU countries, in which the poverty threshold changes when the median income of the country increases, and therefore is not fixed in real terms. Both the absolute and the relative approach provide useful and complementary information.

The report focuses on the dynamics of ***absolute consumption poverty*** in Kosovo during the 2012-2017 period. Consumption is used as the measure of individual well-being or welfare. Household consumption is calculated as the total value of a household's expenditure on food and nonfood items as recorded in the Household Budget Survey (HBS), a nationally representative survey conducted each year, including imputed values of any home-produced food items that were consumed by the household. In keeping with past practices in Kosovo, expenditures on consumer durable items and rent are excluded from the consumption measure. Consumption based living standards are assessed against a poverty threshold that is held fixed *in real terms* over time and space; the monetary value of the poverty line is updated annually to account for changes in prices[1]. Consumption is sometimes preferred to other monetary measures such as income, since it shows current actual material standard of living, tend to reflect long-term average wellbeing since it smoothes out irregularities, and it is less understated than income, given that it is easier to recall. The standard of living associated with a given value of total household consumption depends greatly on the size and demographic composition of the household. Therefore, household consumption is divided by the number of adult equivalents in the household to arrive at the welfare measure, which is consumption per adult equivalent.

The Kosovo HBS relies on a stratified two-stage sample design. The sampling frame was based on the data and cartography from the 2011 Kosovo Census[2]. In 2012, the HBS data collection methodology was changed. While prior to year 2012, households were required to record food and other expenditures for one month, since 2012 interviewed households were required to record food and other expenditures for two weeks. More specifically, from 8 randomly selected households from each enumeration area, 4 households participate in the survey during the first half of a month (first period) and 4 households participate in the survey in the other second half of the month (second period). Prior to year 2012, the reference period for recording non-food products was one month, which changed into three months period since 2012 (the reference period for own production of food remained the same, that is one month).

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[1] There are minor differences with respect to the previous published poverty estimates, since the CPI series for the period May 2002 to December 2006 has been revised and; also, the updated estimates take into account intra-year price variation. That is, quarterly consumer price indices are used to account for the fact that the surveys are conducted over the span of several quarters, so prices faced by households in different quarters may differ.

[2] More details can be found in Appendix 1.

Given these important methodological changes, poverty estimates from 2011 and previous years are not comparable to poverty estimates for the 2012-2017 period. Therefore, direct comparisons of poverty estimates presented in this report and previous publications for 2011 and earlier years should not be drawn. Also, starting in 2018 and with support from Eurostat and the World Bank, the Kosovo Statistical Office (KAS) started to collect household income using the Survey of Income and Living Conditions (SILC), with the objective of producing poverty and social statistics comparable with EU member countries. Going forward, poverty will be measured with a relative line, set as 60% of the median income, and the EU-SILC survey will allow the production of additional indicators, such as material deprivation and low-work intensity, monitored as part of the Europe 2020 strategy for reduction of poverty and social exclusion in the EU. While positive from a point of view of harmonizing statistical procedures with the European Union countries, the changes introduced will make difficult to compare poverty statistics before and after 2017 on account of the different type of welfare aggregate used.

The report is organized as follows. Section 2 describes the dynamics of poverty and inequality over the period 2012-2017. Section 3 presents a detailed poverty profile, examining how poverty is related to several individual and household characteristics.

2   Overall Poverty and Inequality Trends over the Period 2012-2017

Two poverty lines are used in the analysis that follows: a poverty line that is considered adequate to meet basic needs and a lower extreme poverty line[3]. These poverty lines reflect the cost of purchasing food and non-food items, so as prices rise, nominal poverty lines increase. After adjusting for inflation, the poverty line and extreme poverty lines in current prices are:

- 2012: €1.78 and €1.27 per adult equivalent per day
- 2013: €1.82 and €1.29 per adult equivalent per day
- 2014: €1.82 and €1.29 per adult equivalent per day
- 2015: €1.81 and €1.30 per adult equivalent per day
- 2016: €1.82 and €1.29 per adult equivalent per day
- 2017: €1.85 and €1.31 per adult equivalent per day

We use two measures of consumption poverty in this report: the poverty headcount ratio and the poverty gap index.

The poverty headcount ratio measures the percentage of the population whose consumption per adult equivalent is less than the applicable poverty line. Based on 2017 HBS, it is estimated that 18.0 percent of Kosovo's population lives below the poverty line, with 5.1 percent of the population living below the extreme poverty line (Figure 1). Comparing across years, it can be noted that the poverty rate fell by about 5.9 percentage points from 2012 to 2013, it increased by 3.7 percentage points from 2013 to 2014, it dropped again by 3.9 percentage points from 2014 to 2015, it decreased only by 0.8 percentage points between 2015 and 2016 and it increased again by 1.2 percentage points between 2016 and 2017[4]. Poverty and extreme poverty rates have been systematically higher in rural than in urban areas[5] (Figures 2 and 3).

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[3] For a complete methodology on how poverty lines are estimated in Kosovo, see Appendix 2.
[4] All the changes are statistically significant at the 5 percent significance level.
[5] Household Budget Survey data is representative at national level and urban/rural disaggregation, but nor further sub-national levels. For this reason, this report does not present poverty estimates at sub-national levels (by district or region).

Figure 1: Poverty headcount and extreme poverty headcount, 2012-2017.
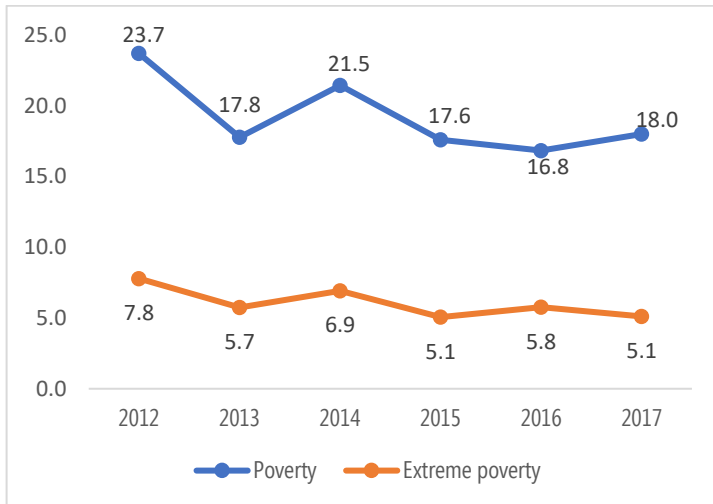
Source: Estimates based on 2012-2017 Household Budget Surveys.

Figure 2. Poverty headcount by location (%), 2012-2017
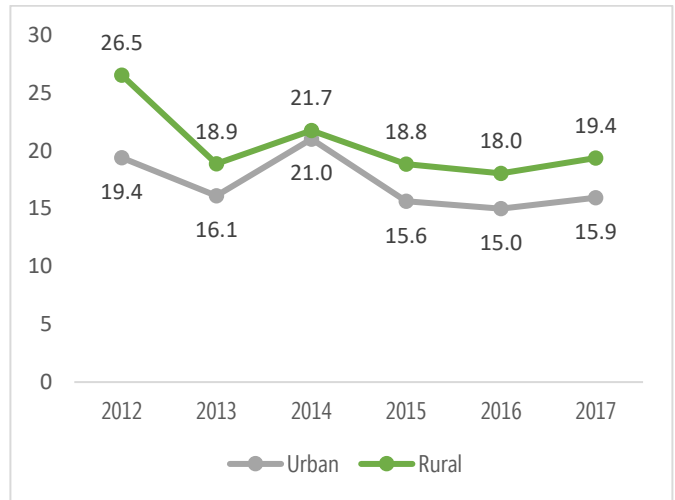
Source: Estimates based on 2012-2017 Household Budget Surveys.

Figure 3. Extreme poverty headcount by location (%), 2012-2017
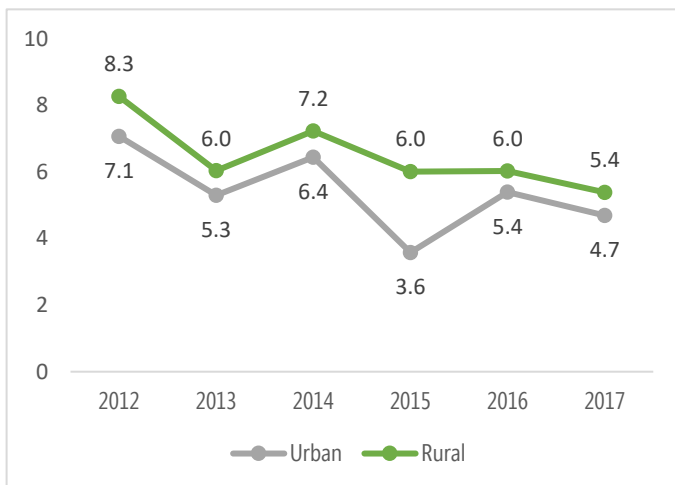
Source: Estimates based on 2012-2017 Household Budget Surveys.

The *poverty gap index* measures the extent to which individuals fall below the poverty line (the poverty gaps) as a proportion of the poverty line. It measures the depth or intensity of poverty. It takes into account both the percentage of the population below the poverty line as well as the size of the gap between the poverty line and the average consumption of those below the poverty line. Compared to the poverty headcount, the poverty gap has the advantage of detecting changes in welfare that occur below the poverty line, such as households becoming less poor, but not enough to cross the poverty line. The poverty gap declined from 2012 to 2013, it increased in 2014 and then declined again in 2015 (Figure 4). In more recent years, it has been relatively stable. A similar trend characterized changes of the extreme poverty gap. In all six years, the depth of poverty was greater in rural areas. On the other side, the depth of extreme poverty was higher in rural areas in almost all years, except for 2017. In fact, in 2017 the extreme poverty gap was higher in urban than rural areas.

Figure 4. Poverty gap index for full and extreme poverty line (%) 2012-2017
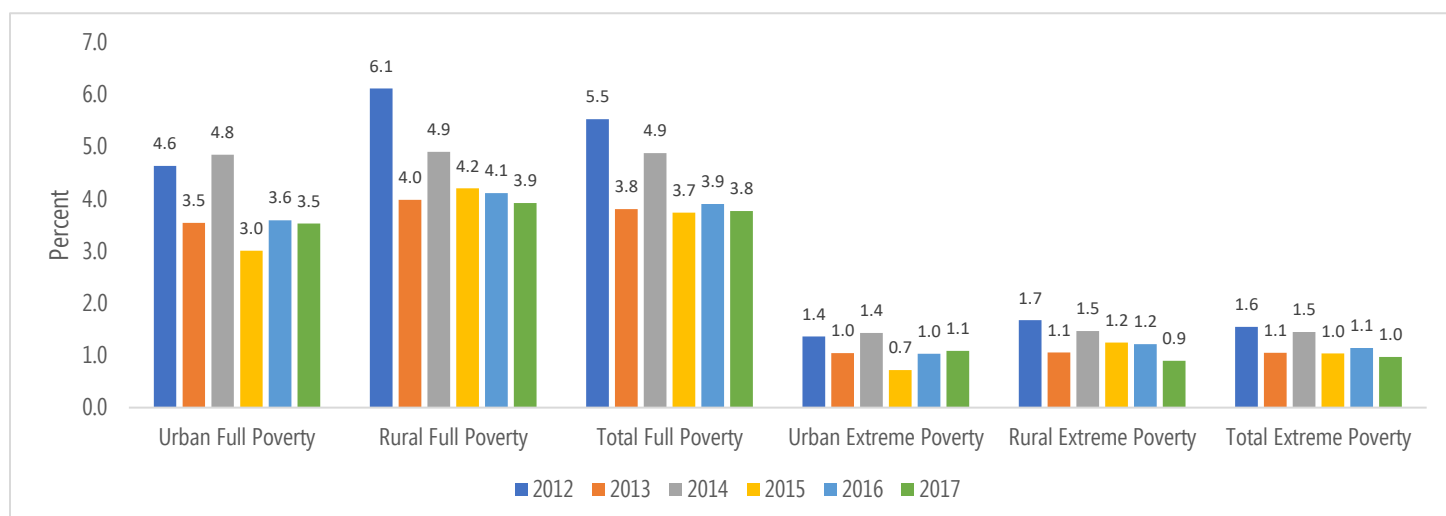
Source: Estimates based on 2012-2017 Household Budget Surveys.

The Gini coefficient is the most widely used summary statistic of inequality. A Gini coefficient equal to one means that the total consumption belongs to one person (perfect inequality) whereas as it approaches zero it means that the consumption is equally shared among people, i.e., consumption levels are equal across the population (perfect equality). Data provided in Table 1 show overall inequality declined from 2012 to 2013, it increased from 2013 to 2014, and then it declined again in 2015 and 2016. In 2017, however, the trend was reverted, and overall inequality increased. This means that over the whole period 2012-2017, inequality only declined slightly[6]; It is worth noting that over the six-year period, inequality in urban areas has been higher than in rural areas. Some reductions in inequality were observed in rural areas, but this was compensated by rising inequality in urban areas.

Table 1. Gini coefficient (%) 2012-2017

	2012	**2013**	**2014**	**2015**	**2016**	**2017**
Urban	26.2	23.5	26.0	24.4	24.0	27.8
Rural	25.6	22.6	22.4	22.0	22.1	23.2
Total	26.2	23.2	24.2	23.2	23.1	25.5

Source: Estimates based on 2012-2017 Household Budget Surveys.

3   Poverty Profile

This section examines the major facts on poverty and how poverty is related to geography, and household and individual characteristics. This profile is presented in two ways; first, by comparing poverty rates across different population subgroup, which tell us the likelihood that a person is poor given certain characteristics, such as age, sex, employment

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[6] Household surveys usually do not capture well the income of the very top of the income distribution (Hlasny and Verme (2013), van der Weide et al. (2016)), so the described inequality dynamics should be understood as referring to the country, except for this very top.

status, household size, etc.; second, by describing the characteristics of the poor, compared to the general population, or summarizing the incidence of certain characteristics (i.e educational level) for the poor, extreme poor and national.

Whilst about 60 percent of population lives in rural areas in 2017, nearly two-thirds of poor and the extremely poor people reside in rural areas (Table 2). The share of poor and extremely people living in rural areas have been relatively stable in recent years (2016 and 2017).

Table 2. Distribution of the poor by location (%), 2012-2017

	Year	Urban	Rural	Total
Distribution of the Population (%)	2012	39.8	60.2	100
	2013	39.4	60.6	100
	2014	39.8	60.2	100
	2015	39.0	61.0	100
	2016	39.5	60.5	100
	2017	39.2	60.8	100
Distribution of the Poor Population (%)	2012	34.4	65.6	100
	2013	36.3	63.7	100
	2014	39.3	60.7	100
	2015	34.4	65.6	100
	2016	35.9	64.1	100
	2017	35.2	64.8	100
Distribution of the Extreme Poor Population (%)	2012	34.8	65.2	100
	2013	35.2	64.8	100
	2014	37.2	62.8	100
	2015	27.3	72.7	100
	2016	37.0	63.0	100
	2017	36.3	63.7	100

Source: Estimates based on 2012-2017 Household Budget Surveys.

The pattern of poverty with respect to household size is reported in Table 3. Larger households tend to be poorer in Kosovo, as it is apparent that poverty rises smoothly with household size. In fact, in almost all years, the highest poverty rate was observed among households with seven and more members, except for the years 2015 and 2016, in which the poverty rates were higher among families composed by five members. On the contrary, poverty rates were lower among households composed by three or less members (Table 3).

Table 3. Poverty incidence by household size (%) 2012-2017

Household Size	2012	2013	2014	2015	2016	2017
1	14.2	7.0	10.3	7.8	8.7	7.9
2	11.5	7.9	9.6	8.1	7.2	8.4
3	8.2	10.4	8.5	5.9	5.7	9.7
4	15.6	15.0	15.4	12.1	12.6	14.3
5	21.4	18.3	19.0	20.5	20.3	14.8
6	22.5	17.5	21.8	20.2	19.7	19.8
7+	29.3	20.1	26.3	19.5	17.8	22.4
Total	23.7	17.8	21.5	17.6	16.8	18.0

Source: Estimates based on 2012-2017 Household Budget Surveys.

As shown in Table 4, large size households not only exhibit the highest poverty rates but also account for a large proportion of the poor population. In 2017, a substantial share of poor people lives in households with seven and more members (47.2 percent), a higher rate compared to previous two years (2015-2016).

Table 4. Poverty incidence and distribution of poverty by household size (%) 2012-2017

	Distribution of the Poor Population (%)					
Household Size	2012	2013	2014	2015	2016	2017
1	0.3	0.3	0.3	0.3	0.4	0.3
2	1.2	1.2	1.3	1.6	1.5	1.7
3	1.6	2.8	1.8	1.9	1.9	3.2
4	7.4	10.0	7.8	9.5	10.2	11.0
5	15.6	18.9	17.3	22.5	23.6	15.0
6	17.1	19.4	18.4	20.8	23.8	21.7
7+	56.9	47.3	53.1	43.4	38.6	47.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
	Distribution of the Population (%)					
Household Size	2012	2013	2014	2015	2016	2017
1	0.5	0.7	0.6	0.8	0.8	0.7
2	2.5	2.8	2.9	3.4	3.4	3.6
3	4.8	4.8	4.5	5.5	5.7	6.0
4	11.2	11.8	11.0	13.7	13.7	13.8
5	17.2	18.3	19.6	19.3	19.6	18.2
6	18.0	19.8	18.1	18.1	20.4	19.7
7+	46.0	41.8	43.3	39.1	36.5	38.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Estimates based on 2012-2017 Household Budget Surveys.

Consumption poverty is closely related to the main economic activities of the household members, especially employment status. In 2017, the lowest poverty rates are observed among households that primarily depend on public sector wage

employment, remittances from abroad, other household business and farming (Table 5). Conversely, the highest poverty rates are exhibited among households whose main source of income is social assistance. Although most of the poor are concentrated in households whose main income source comes from wages in the private sector (34.7 percent), around 11.8 percent of the poor reported income from social assistance as the main source of household income.

Table 5. Poverty headcount rate and distribution of the poor by main source of household income (%) 2012- 2017

	Poverty headcount Rate (%)						Distribution of the Poor Population (%)						Distribution of the Population (%)					
	2012	2013	2014	2015	2016	2017	2012	2013	2014	2015	2016	2017	2012	2013	2014	2015	2016	2017
Wages and salaries from public sector	14.1	8.1	13.1	7.6	5.7	7.0	13.5	10.7	13.4	11.6	8.3	9.5	22.7	23.5	22.0	26.8	24.4	24.4
Wages and salaries from private sector	20.9	17.9	18.9	18.1	16.6	20.3	20.9	30.6	28.7	25.3	27.4	34.7	23.7	30.5	32.5	24.6	27.8	30.9
Farming	40.2	11.7	22.9	13.2	10.7	13.0	10.2	4.2	4.8	4.5	4.3	2.5	6.0	6.4	4.5	6.0	6.7	3.5
Per diem work	30.4	31.9	37.1	33.8	30.0	29.3	13.0	14.3	13.5	14.2	13.7	10.1	10.2	7.9	7.8	7.4	7.7	6.2
Other household business	13.3	12.8	10.2	11.7	9.8	9.8	9.5	8.7	5.6	8.8	7.5	7.8	17.0	12.0	11.9	13.2	12.8	14.4
Pensions	34.3	21.7	25.1	27.8	22.4	29.3	7.9	8.6	10.4	13.7	10.9	15.3	5.5	7.1	8.9	8.7	8.2	9.4
Remittances from abroad	19.8	12.9	17.4	9.0	10.3	11.0	7.1	4.6	5.2	3.5	3.6	3.5	8.4	6.4	6.4	6.8	5.8	5.8
Social assistance – 1st Category	80.0	60.4	78.6	70.7	82.7	80.2	13.1	12.3	11.3	13.2	15.1	8.6	3.9	3.6	3.1	3.3	3.1	1.9
Total	23.7	17.8	21.5	17.6	16.8	18.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Estimates based on 2012-2017 Household Budget Surveys. The following categories are not reported due to small size (less than 2 percent of population): other remittances, social assistance – 2nd category, income from property, family pensions for families of martyrs and missing persons and war invalids, material benefits to families of children (0-18 years) with permanent disabilities, and other. The Category 'income from property' was included for the first time in the 2015 HBS questionnaire, and family pensions for families of martyrs and missing persons, war invalids, material benefits to families of children 0-18 years with permanent disabilities were included in the 2017 HBS questionnaire.

Female-headed households are more likely to be poor when compared to male-headed households; their poverty rate was higher in almost all years, except for 2017 (Figure 5). From 2012 to 2013, the poverty rate of female-headed households declined by 6.9 percentage points, then increased in 2014 by nearly 7.8 percentages points, it declined again by 3.5 percentage points in 2015 and continued to decline in 2016 and 2017 by 2.1 and 6.4 percentage points, respectively. These large apparent changes in the poverty rates of female-headed households should be treated with caution, because female-headed households represent only around 11.3 percent of total households.

Figure 5. Poverty by sex of head of household (%) 2012-2017
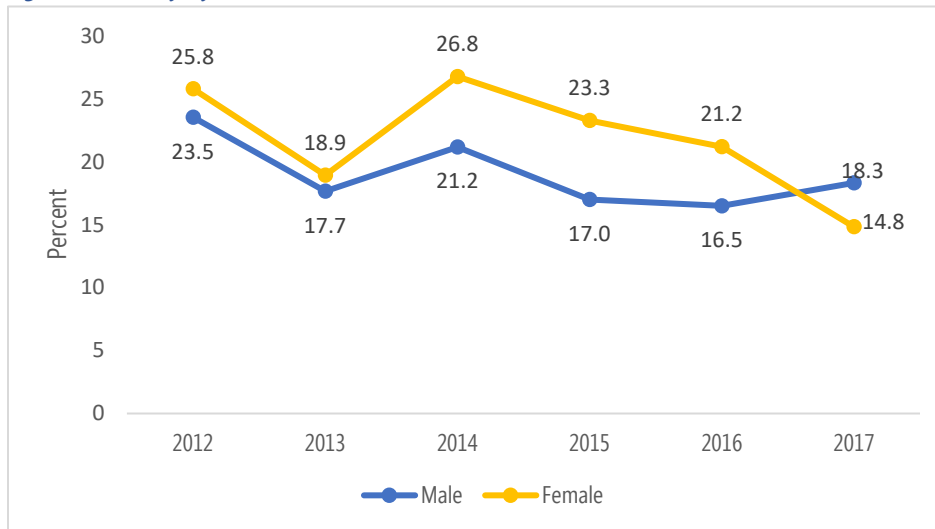
Source: Estimates based on 2012-2017 Household Budget Surveys.

Figure 6 presents the relationship between poverty and gender of individuals. In 2017, 18.9 percent of women in Kosovo lives in poverty in comparison to 17.2 percent of men, nearly a two-percentage point difference. Between 2012 and 2017, poverty rate declined more for men than for women (6.0 and 5.2 percentage points, respectively).

Figure 6. Poverty by sex of individual (%) 2012-2017
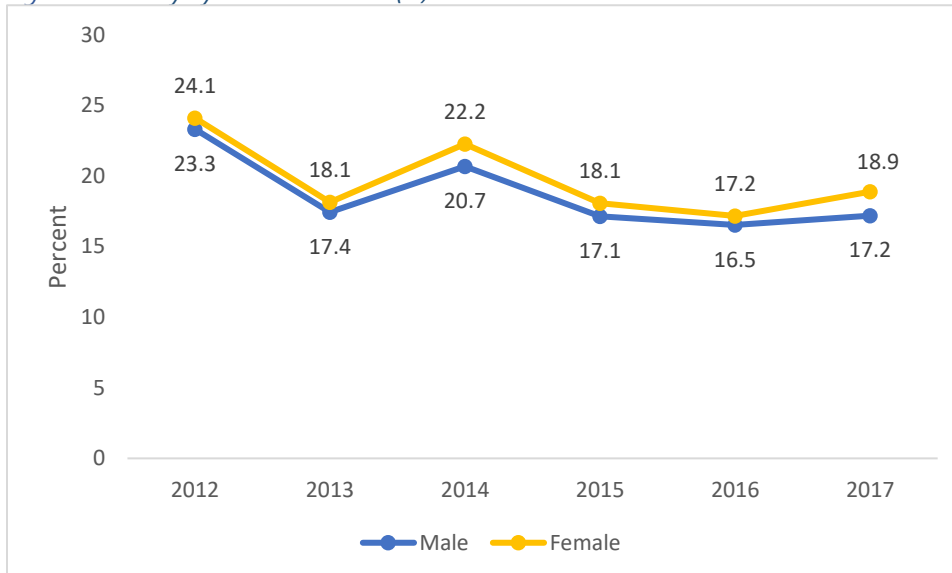
Source: Estimates based on 2012-2017 Household Budget Surveys.

Data from the HBS show a clear relationship between education and poverty incidence in Kosovo. Education affects the ability of individuals to move out of poverty, given that increases their chances of being employed, and once employed, it often increases the likelihood of being employed in jobs characterized by high productivity and high wages. Consistently across the period 2012-2017, less educated individuals tend to be poorer than more educated ones (Table 6). In 2017, the poverty rate of individuals who have not complete primary education is 21.5 compared to only 5.5 percent for those who have completed tertiary education. Further, most of the poor have only completed primary education or less (55.5 percent), 40.2 percent have completed secondary or vocational education, and only 4.3 percent of them have completed university degrees.

Table 6. Poverty headcount rate and distribution of the poor by highest level of education completed (aged 15 and above) (%) 2012-2017

	Poverty headcount Rate (%)						Distribution of the Poor Population (%)						Distribution of the Population (%)					
	2012	2013	2014	2015	2016	2017	2012	2013	2014	2015	2016	2017	2012	2013	2014	2015	2016	2017
Did not complete primary	37.0	21.2	30.1	22.8	27.4	21.5	17.8	12.8	17.0	14.2	5.2	3.9	10.8	10.2	11.1	10.3	3.0	3.1
Primary	25.2	20.0	22.0	18.7	20.0	21.6	45.7	46.6	41.7	40.5	53.1	51.6	40.9	39.3	37.2	35.7	42.2	40.0
Secondary or vocational	19.0	15.6	17.3	15.7	14.3	15.4	33.7	37.3	36.6	41.0	39.0	40.2	40.0	40.3	41.6	43.3	43.4	43.9
Tertiary	7.6	5.6	9.0	6.6	3.9	5.5	2.8	3.4	4.7	4.2	2.8	4.3	8.3	10.2	10.1	10.7	11.3	13.0
Total	22.5	16.9	19.6	16.5	15.9	16.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Estimates based on 2012-2017 Household Budget Surveys.

Table 7 presents information at the individual level on the relationship between poverty and a person's main economic activity, limited to persons 15 years of age or older. In 2017, the highest rates of poverty are found among unemployed individuals and those employed occasionally, 25.5 and 19.6 percent, respectively. Regarding the distribution of the poor population, it can be noted that more than one-third of poor adults are unemployed persons and about 16.8 percent are pupils/students. From 2016 to 2017, the poverty rate among pensioners and unemployed individuals increased by 2.6 percentage points, and it increased by 0.6 percentage points among full-time workers. On the contrary, the sharpest decline in poverty rates were recorded for occasionally employed workers (4.0 percentage points), followed by pupils/students (1.4 percentage points).

Table 7. Poverty headcount rate and distribution of the poor by main activity of individuals (15 years and above) (%), 2012-2017

	Poverty headcount Rate (%)						Distribution of the Poor Population (%)						Distribution of the Population (%)					
	2012	2013	2014	2015	2016	2017	2012	2013	2014	2015	2016	2017	2012	2013	2014	2015	2016	2017
Employed, full time	12.2	9.3	12.1	9.3	8.3	9.0	8.7	9.9	10.8	9.7	10.0	10.0	16.1	18.1	17.4	17.2	19.0	18.7
Employed, occasionally	32.3	29.0	29.9	25.4	23.6	19.6	6.2	6.6	5.6	4.7	4.7	3.9	4.3	3.9	3.7	3.1	3.2	3.4
Farmer	34.3	12.3	16.7	7.0	7.5	9.4	5.0	2.3	2.0	1.2	1.5	1.0	3.3	3.2	2.4	2.8	3.2	1.8
Other self-employed	11.0	11.3	8.1	10.4	13.9	16.6	2.1	2.5	1.6	2.6	3.4	5.4	4.3	3.7	3.9	4.2	3.9	5.5
Pupil/Student	22.1	17.6	17.1	16.0	18.0	16.6	16.6	19.3	15.1	16.6	19.6	16.8	17.0	18.5	17.3	17.2	17.3	16.9
Retired	22.8	12.0	14.9	13.9	11.6	14.2	11.1	8.1	8.8	10.0	8.7	10.6	11.0	11.4	11.5	11.9	11.9	12.5
Unemployed	28.3	24.3	27.6	23.6	22.9	25.5	28.4	32.1	37.0	37.8	34.9	37.4	22.6	22.3	26.3	26.5	24.2	24.6
Housekeeper	22.4	16.9	20.1	16.4	15.2	14.6	17.3	16.3	14.6	13.8	13.8	11.5	17.4	16.2	14.2	13.9	14.4	13.3
Disabled	39.1	24.4	41.5	28.0	37.8	30.7	2.0	1.6	2.9	2.4	2.7	2.0	1.2	1.1	1.4	1.4	1.1	1.1
Total	22.5	16.9	19.6	16.5	15.9	16.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Estimates based on 2012-2017 Household Budget Surveys. The following categories are not reported due to small size (less than 2 percent of population): employer, part-time employed workers, unpaid family workers, and other.

Figure 7 presents information on the incidence of poverty among children. Children are defined as any person aged between 0 (a baby of less than one year) and up to and including 18 years of age. Children are more likely than others to be in poverty. In 2017, the overall poverty rate among children is 22.8 percent, 4.8 percentage points higher than the poverty rate among the whole population. From 2012 to 2017, the aggregate poverty rate among children decreased by 4.5 percentage points, which represents a lower decline compared to the poverty reduction among the whole population (5.7 percentage points).

Figure 7. Poverty headcount by location for overall population and children aged 0-18 years (%) 2012-2017
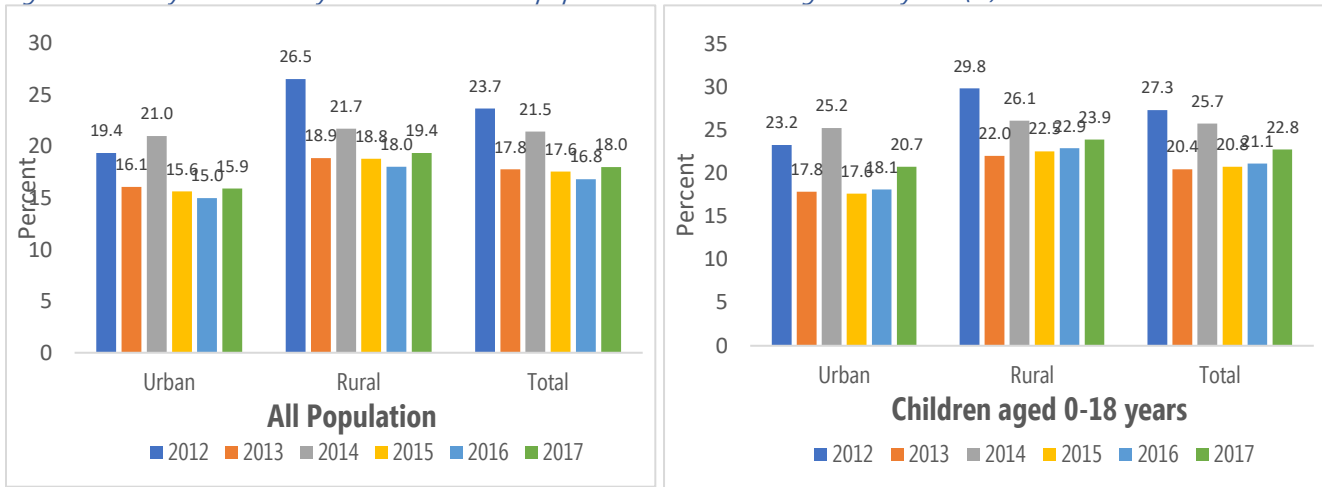
Source: Estimates based on 2012-2017 Household Budget Surveys.

Figure 8 presents information on the incidence of extreme poverty among children (aged between 0-18 years old). Children are more likely than others to be in extreme poverty. Their overall poverty rate in 2017 is 7.2 percent, compared to 5.1 percent among the whole population. From 2012 to 2017, the extreme poverty rate for children decreased by 2.5 percentage points.

Figure 8. Extreme poverty headcount by location by overall population and children aged 0-18 years (%) 2012-2017
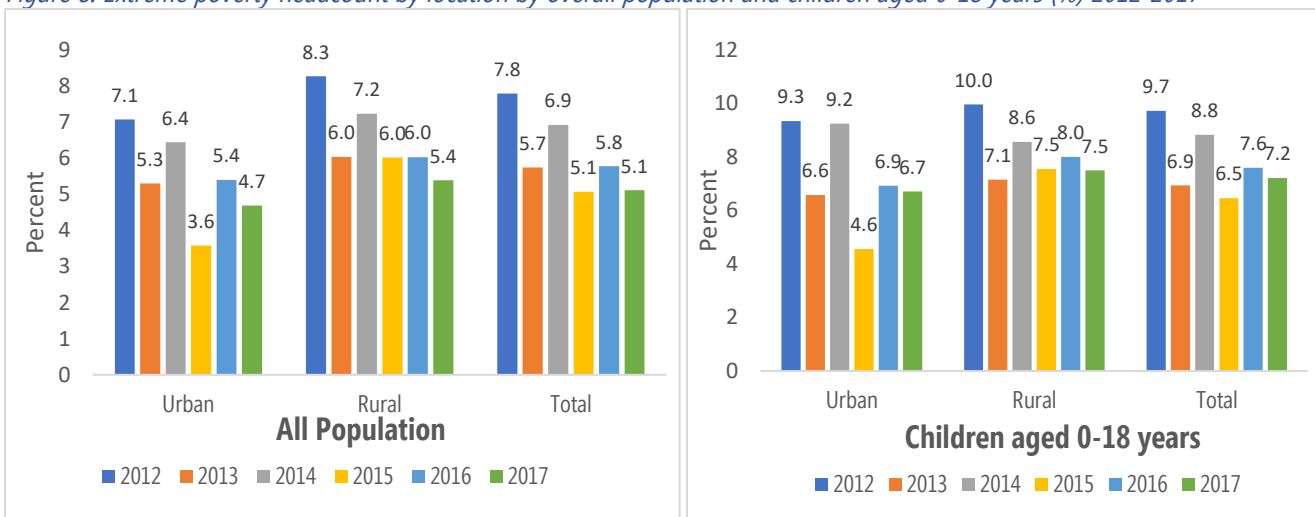
Source: Estimates based on 2012-2017 Household Budget Surveys.

Tables 8 and 9 present poverty and extreme poverty rates among different household types. Overall, the higher the number of children in the household, the higher the poverty rate. This trend is observed in both poverty and extreme poverty. In 2017, the poverty rate among households with three or more children is 2.5 times the poverty rate among households without children, and 1.5 times the aggregate poverty rate.

Table 8. Poverty rate by household type (%) 2012-2017

	2012	**2013**	**2014**	**2015**	**2016**	**2017**
No children	15.4	10.9	12.1	10.0	9.8	10.7
With one child	15.9	15.0	17.6	17.3	13.9	13.0
With two children	21.1	15.9	18.1	17.4	16.7	16.1
With 3 or more children	30.4	22.4	28.7	21.6	21.9	26.3
Total	23.7	17.8	21.5	17.6	16.8	18.0

Source: Estimates based on 2012-2017 Household Budget Surveys. Children are defined as any person aged between 0 (a baby of less than one year) and up to and including 18 years of age.

Table 9. Extreme poverty rate by household type (%) 2012-2017

	2012	**2013**	**2014**	**2015**	**2016**	**2017**
No children	4.9	3.2	3.8	2.9	3.1	2.0
With one child	3.3	4.6	4.3	4.5	3.9	3.3
With two children	7.5	4.0	5.8	4.0	5.3	4.9
With 3 or more children	10.5	8.0	9.9	7.1	8.3	8.0
Total	7.8	5.7	6.9	5.1	5.8	5.1

Source: Estimates based on 2012-2017 Household Budget Surveys. Children are defined as any person aged between 0 (a baby of less than one year) and up to and including 18 years of age.

Appendix 1. Methodological Annex: Sample Design and Weights Computation

Summary of Sample design for the 2012-2017 Household Budget Surveys

Kosovo was subdivided into enumeration areas (EAs), which are relatively small operational segments defined for the census enumeration. A total of 4,626 EAs were defined for Kosovo, and these were used as the primary sampling units (PSUs) selected at the first sampling stage for the HBS. The overall average number of households per EA in the sampling frame was 67; the average size of the urban EAs (103 households) was almost twice that for the rural EAs (53 households). One census enumerator was responsible for enumerating the households and population in each EA. KAS used the 2011 Census data to compile a sampling frame of EAs that was used for selecting the HBS sample. Kosovo is divided geographically into seven regions. KAS uses these seven regions for stratifying the sampling frame and for reporting the results from their household surveys. Each region is divided into municipalities, which are further subdivided into towns or localities. The EAs were defined within the smallest administrative units. Each EA was classified as urban or rural, and this classification was used for defining sampling strata within each region.

At the time of the 2011 Census, KAS was not able to conduct the census enumeration in three municipalities in the North (Leposaviq, Zubin Potok and Zveçan) as well as part of the municipality of Mitrovica, which have a high concentration of Serbian population. For this reason the final results from the 2011 Kosovo Census exclude the households and population in those areas. However, KAS had previously defined EAs for those areas, and these EAs had been listed in 2008 (in the case of a master sample of 1,000 EAs for the national household surveys) or in 2009 (for the remaining EAs). Therefore, KAS was able to use the previous information for the EAs excluded in the 2011 Census, to complement the frame for the rest of Kosovo with census information. A total of 257 EAs in the Northern municipalities are in the frame with information from the 2008/09 listing. These EAs are integrated with the EAs for the rest of Kosovo with information from the 2011 Census, for a total of 4,626 EAs in the combined frame.

The HBS primary sampling units (PSUs) are taken from LFS sample. At the first stage a sample of 300 EAs was selected with PPS within each stratum (region, urban/rural) and at the second stage a sample of 12 households was selected in each sample EA which means 8 are used as regular households and 4 as reserve households.

General methodology for calculating the weights

In order to ensure that the HBS sample estimates represent the population the data must be multiplied with the sample weight. The basic weight for each household in the sample is equal to the inverse of its selection probability (it's calculated by multiplying the probabilities at each stage of sampling). The weight of one household is attached to the data on the household in the database. Selection probabilities are based on a two-stage sample design. At the first the sample of EAs was selected with the probability proportional to the size within each stratum (region, urban / rural), and at the second stage a sample of 8 households was selected in each sample EA. Based on this sample design, the probabilities of selection for the households in each sample
EA can be expressed as follows:

$$p_{hi} = \frac{n_h x M_{hi}}{M_h} \, x \, \frac{m_{hi}}{M_{hi}} \, ,$$

nh = number of sample EAs selected in stratum h for the HBS

Mhi = total number of households in the sampling frame for the i-th sample EA in stratum h

Mh = total number of households in the sampling frame for stratum h (that is the cumulated measure of size for the stratum)

mhi = number of sample households selected in the i-th sample EA in stratum h

The basic sampling weight is calculated as the inverse of this probability of selection. Based on the previous expression for the probability the weight can be calculated as follows:

$$W_{hi} = \frac{M_h}{n_h x m_{hi}},$$

where:

W_{hi} = basic weight for the sample households in the i-th sample EA in stratum h

It is important to adjust the basic weights for the sample households to take into account the nonresponse of households in each sample EA. Since the weights are calculated at the level of the sample EA, it is advantageous to adjust the weights at this level. The final weight (W'hi) for the sample households in the i-th sample EA in stratum h can be expressed as follows:

where:

$$W_{hi}^{'} = W_{hi} x \ \frac{n_h}{n_h^{'}},$$

where:

$n_h^{'}$ = number of sample EAs with completed interview in stratum h for the HBS.

Since 2013 to 2017, there the final weights have been calculated using the adjustment factor.

For example, for the 2015 HBS weights the adjustment factor was calculated as follows:

$$A_{HBS} = \frac{H_{2014}}{\hat{H}_{2015}},$$

where:

H_{2014} = total number of households for Kosovo from the last year (2014)

$\hat{H}_{2015} = \sum_h \sum_i W_{hi}^{'} x n_{hi}$, = weighted estimate of households of Kosovo from 2015 HBS data for adjusted for nonresponse

n_{hi} = number of households in the i-th sample EA of stratum h in the 2015 HBS data.

For example, the final 2015 HBS weights were calculated by multiplying the basic weight adjusted for nonresponse by this household adjustment factor, as follows:

$$W_{hi}^{''} = W_{hi}^{'} x A_{HBS},$$

where:

$W_{hi}^{''}$ = final adjusted weight for the sample households in the i-th sample EA in stratum h.

Appendix 2. Methodology for Estimating Poverty Lines

The *poverty line* is defined as the monetary value of *the minimum consumer basket*, which represents the amount of goods and services that meet the needs of *the minimum level* of living standards formed (actually expressed) in society The poverty line in Kosovo was estimated in 2002 using the cost of basic needs method (Ravallion, 1994) and represents the sum of food and non-food components.
The food component represents the cost of a calorie intake of 2100 kilocalories per person per day, and the non-food component includes the cost of other essentials for clothing and shelter, etc.

Food Component
- A food basket of 2,100 calories was estimated with the unit price information from the HBS.
- As a reference population, caloric structure of the 3th, 4th and 5th population deciles from the HBS was used. Food poverty line: €0.93 per adult equivalent per day (in 2002 prices)

Non-Food Component
- To calculate the non-food component, the average share of non-food consumption in their total expenditure for households whose expenditure is closed to the poverty line was estimated. This food share is about 60.3 percent.
- Complete Poverty line (including food and non-food component): €1.41 per adult equivalent per day (in 2002 prices)

The absolute poverty line remains fixed over time – adjusted only for inflation. To estimate absolute poverty, the 2002 poverty line must be updated over time to account for changes in prices so that it reflects the same set of basic food and non-food needs. For example, to obtain the food and complete poverty lines in 2012 prices, we adjust the 2002 food and complete poverty lines using the corresponding food and total CPI.

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