Living Standards Measurement Study

Serbia 2002 - 2007

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Living Standards Measurements Study

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INTRODUCTION

This study aims to help address the issue of the appropriate use of statistical data in policy development in Serbia. Faced with enterprise restructuring, high unemployment and high levels of social exclusion, as well as the consequences of internal population displacement, the Government of Serbia (GoS) has recognized and acknowledged the need for fundamental reforms in social policy area and the collection of adequate data of social statistics. Reliable household data are scarce in Serbia, with the result that social policy making is put on a precarious basis. The exceptional circumstances of Serbia have left a legacy of immense complexity, in which social groups have become fractured and excluded. A statistically reliable basis for policy making, particularly in the social sphere, is a priority.

Data on poverty and living standards are seen as a part of information system to support decision making by the GoS and its line Ministries. The public is also keenly interested in poverty data. Therefore poverty data are also crucially important for strategic planning bodies within GoS, and for donors in assessing their strategies in support of the Poverty Reduction Strategy (PRS).

Poverty data will become part of EU accession agenda: social inclusion indicators (of which poverty is part) are facilitating coordination of social inclusion policies, periodic reporting and monitoring of progress in EU member states. EU's multidimensional characterization of poverty (including outcome indicators for health, education, labour market and access to safety nets) is already part of the PRS in Serbia, and that focus has to be maintained to meet these future demands.

At the time when the PRS was being prepared (2001-2002) the World Bank, together with other donors, facilitated collection of two Living Standards Measurement Studies (LSMS). Analysis of the LSMS data by the GoS and the World Bank poverty assessment team constituted the benchmark for PRS objectives. Based on the continued need for poverty data, DFID and the World Bank agreed to fund a further LSMS with the aim of comparing the results against the first two LSMS's and measure changes in poverty level, creating a time series of data.

The statistical system of Serbia has improved significantly over the previous period. Draft legislation has been prepared for endowing the RSO with mandate, accountability and right to monitor poverty trends in Serbia, identifying the most vulnerable groups of population and the main poverty risk factors. Data accessibility has improved and specifically the LSMS raw data files and accompanying documentation are available via the RSO website. In addition, the LSMS project process has further improved links between statistical authorities and data users.

This report provides a broad picture of the coverage of the LSMS survey and the potential for policy analysis using the data. It deliberately does not report every measure included in the survey but rather is intended to give the reader an understanding of the coverage and potential of the data for analysis. While it is largely descriptive, it is of interest to policy makers, researchers as well as a more general audience. This report is based on the LSMS data from years 2002, 2003 and 2007.

Acknowledgements and Attributions

This report was the result of the partnership of a joint Serbian and international team.

The team included Dragan Vukmirovic, Director of the Republican Statistical Office who provided strategic advice in the management of the survey; Dragana Djokovic Papic and Zoran Jancic who organised the fieldwork component of the survey; and Miroljub Kostic and Olga Music who were responsible for the data processing component. David Megill (US Census Office) who provided technical support for sampling and weighting, working with Mirjana Ogrizovic Brasanac and Predrag Canovic from the RSO. The team was supported by Rachel Smith-Govoni and Jelena Budimir. The production of tables was managed by Vladan Bozanic (RSO) with support from Sasa Dulic (National Employment Service) and Kosovka Ognjenovic (Economic and Social Policy Institute).

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Dragan Vukmirovic, PhD

Living Standards Measurements Study Serbia 2002 - 2007

Gorana Krstic

Poverty profile in Serbia in the period from 2002-2007

1

1. POVERTY PROFILE IN SERBIA IN THE PERIOD FROM 2002-2007

This Chapter presents results on the extent and profile of poverty in Serbia in 2007 as well as the changes that have occurred between 2002 and 2007. The poverty line for Serbia has been derived on the basis of the 2007 LSMS of Serbia. The methodology for deriving the poverty line and welfare aggregate is presented in Chapter 12.

1.1. Key poverty indicators

A considerable and continuous economic growth since 2000, along with a real salary increase (which exceeded the gross domestic product - GDP growth), and also the growth of pensions and other social transfers, as well as other citizens' incomes, especially the growth of foreign remittances, led to substantial poverty decline in Serbia in the 2002-2007 period. However, the stagnation in the number of the employed and a high unemployment rate have certainly down-sized the influence that the economic growth may have had on the poverty reduction had it been accompanied with an increase in employment and a decline in the unemployment rate.

According to the LSMS data, poverty in Serbia considerably decreased in the 2002-2007 period. The number of the poor was split in half in 2007 as compared to 2002 (Table 1). Thus, the key objective the Government had set in its Poverty Reduction Strategy to have the poverty in Serbia halved by 2010 was reached as early as 2007.

In 2002, 14 percent or approximately one million people were poor, compared to 6.6 percent or some 490 000 in 2007. The total number of the poor was thus decreased by more than 500 000. All persons whose consumption per adult equivalent was lower than the poverty line on average, which amounted to 5 234 and 8 883 dinar monthly per adult equivalent in 2002 and 2007 respectively, were considered poor. Extreme poverty was close to zero, given that only a negligible fraction of the population (i.e. Roma) had consumption below the food poverty line which equalled 2 764 and 4 138 dinars monthly per adult equivalent, in 2002 and 2007 respectively.

The remaining two poverty indicators, the depth and severity of poverty, which reflect the poverty distribution, also decreased in this period. The depth (gap) of poverty in 2007 amounted to 1.3 percent, which suggests that should the state deploy the funds in the amount of 1.3 percent of the poverty line for every person (the poor and those who are not poor) and allocate it to the poor (in addition to the funds already allocated to the most affected categories), poverty would be eliminated in theory, under the assumed perfectly targeted aid to the poor. The severity of poverty, the indicator which takes into account the fact that some of the poor are deeper in poverty than the others, i.e. further below the poverty line (giving them more weight), equalled 0.4 percent.

Table 1.1. Key poverty indicators in Serbia, 2002-2007
(standard errors are presented in brackets)

	2002	2007
Absolute poverty line per adult equivalent, in dinars	5 234	8 883
Percentage of the poor	14.0	6.6
	(0.74)	(0.61)
Depth of poverty, percent	3.0	1.3
	(0.20)	(0.17)
Severity of poverty, percent	1.0	0.4
	(0.08)	(0.07)

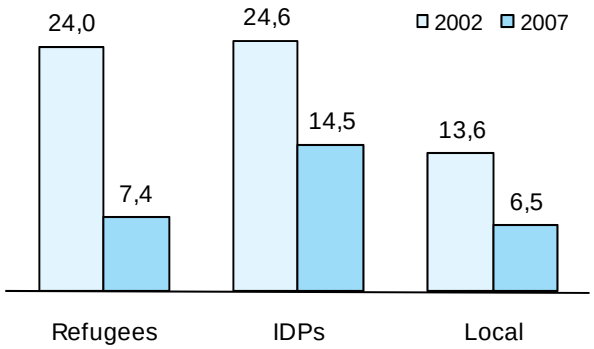
Source: LSMS 2002 and 2007.

However, it should be noted that the image of poverty is slightly worse than described, bearing in mind that the data do not fully cover refugees and IDPs persons and Roma people (or some 8 200 people in collective centres)[1], the categories of population which are certainly the most challenged ones as compared to the local population. Graph 1 may therefore serve only as an indicator as to what extent the poverty risk of such refugees and IDPs covered by the LSMS was higher compared to the rest of the Serbian population.

To expand the sample of refugees and IDP these categories encompassed all refugees and IDPs who had such a status at the time of the LSMS as well as such persons who had a status of the refugee since 1999, and have now declared themselves citizens of the Republic of Serbia.

The poverty index of refugees and IDPs covered by the LSMS, was substantially higher compared to the rest of Serbian population in 2002. However, it should be noted that these categories of population have also seen a considerable poverty decline in the 2002-2007 period, just as the rest of the population. The poverty decline was significantly higher among refugees than it was among IDPs making the poverty index nearly allign with the poverty index of the general population in 2007 (7.4 percent versus 6.5 percent). IDPs' poverty may be further analyzed according to the IDP LSMS Survey carried out in May and June 2007, on a sample of 1 962 households across Serbia, of which 259 households were Roma IDPs.

Graph 1.1. Percentage of poor - refugees, IDPs and local population 2002-2007



Poverty among the Roma was extremely high in 2007 (Table 2). Almost a half of the Roma population (49.2 percent) was poor. Nothwithstanding such a high percentage of the poor, there were 6.4 percent of extremely poor Roma. However, it should be taken into account that LSMS covered only those Roma people who were integrated into the general population (who may be better-off) while Roma from Roma settlements, who are potentially most severely affected groups, have not been covered by this survey. A comparision of Roma poverty in 2007 and 2002 was not possible given that LSMS of 2002 did not collect data on ethnicity.

Table 1.2. Poverty index of Roma people and general population, 2007 (percent)
(standard errors are presented in brackets)

	Percentage of extremely poor	Percentage of the poor	Structure of the poor	Overall population structure	Poverty depth	Poverty severity
Roma	6.4	49.2	19.5	2.6	13.6	5.5
	(3.76)	(9.27)			(3.48)	(1.61)
Overall population, excl. Roma	0.1	5.4	80.5	97.4	1.0	0.3
	(0.07)	(0.49)			(0.12)	(0.05)
Total	**0.3**	**6.6**	**100.0**	**100.0**	**1.3**	**0.4**
	(0.12)	(0.61)			(0.17)	(0.07)

Source: LSMS 2007.

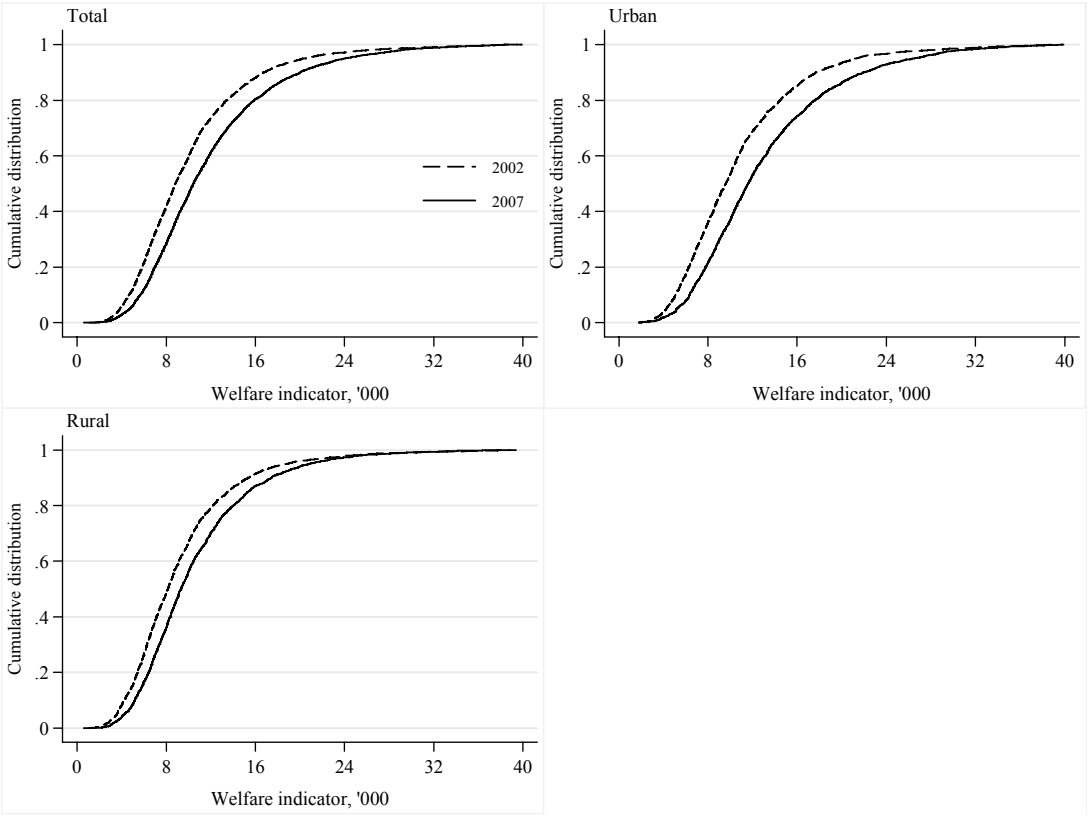
Absolute and extreme poverty of Roma respondents is far more evident when contrasted to the overall population. The poverty of Roma people is several times more wide-spread, and also deeper and more severe compared to the general population. The poverty of IDP Roma households may be subject to a separate analysis based on the previously mentioned IDP LSMS Survey.

1.2. Poverty sensitivity to change in poverty line

In this part, the subject of analysis is the function of cumulative consumption distribution in 2002 and 2007 to show whether the poverty line choice affects the poverty index assessments. The standard methodology used for assessing the poverty index sensitivity is the analysis of the function of cumulative consumption distribution as shown in Graph 2. The consumption is expressed in real terms, in 2002 prices.

The function of cumulative consumption distribution shows the share of population having the consumption lower than a level defined, i.e., the poverty index for different poverty lines. The vertical poverty line closer to y-axis would correspond to lower poverty index. Since the cumulative consumption curve in 2007 is shifted to the right and is always kept below the cumulative consumption in 2002, it is evident that the percentage of the poor population in 2007 for the same poverty line was lower than it was in 2002. The Graph shows that the change in poverty between 2002 and 2007 was not sensitive to the poverty line choice, regardless of the consumption level where the poverty line is defined. The same conclusion applies to the poverty assessments for urban and rural population, given that the function of cumulative consumption of the urban and rural population in 2007 is everywhere below the 2002 cumulative consumption.

Graph 1.2. Cumulative consumption distribution, 2002-2007



As an additional example of the assessed sensitivity of the poverty index and its change in the 2002-2007 period regarding the poverty line choice, Table 3 shows a relevant change in the poverty index as the poverty line increases and/or decreases by 5, 10 and 20 percent. Whether there is an increase or a decrease in the poverty line, it is evident that the percentage of the poverty index change is considerably higher compared to the percentage of the poverty line change. It points to a large concentration of population in proximity to the poverty line. Even though an increase in the poverty line would apparently increase the proportion of the poor population, the extent of the poverty index decline between 2002 and 2007 would remain almost unchanged compared to the actual poverty decline (approximately 52 percent versus 53 percent). On the other hand, a poverty line decline would reduce the proportion of the poor population, but the poverty reduction would still remain almost unaltered (approximately 56 percent versus 53 percent). These estimates confirm that the considerable poverty decline in the 2002-2007 period does not depend on the poverty line choice.

Table 1.3. Poverty index sensitivity to the change in poverty line, 2002-2007

	2002		2007		Percent change '07/'02
	Poverty index, percent	Percent change compared to the actual	Poverty index, percent	Percent change compared to the actual	
Actual, 8883 dinars	14.0	0.00	6.6	0.00	-53.03
+5 percent	16.3	16.19	7.8	17.70	-52.42
+10 percent	18.5	32.11	8.9	35.51	-51.82
+20 percent	24.1	71.65	11.8	79.63	-50.85
-5 percent	11.4	-18.54	5.0	-24.04	-56.20
-10 percent	9.9	-29.39	4.2	-35.83	-57.31
-20 percent	6.5	-53.40	2.9	-55.85	-55.50

1.3. Subjective poverty

In addition to poverty assessment defined according to consumption of population, which will be called "objective" poverty assessment, poverty is also based on a subjective assessment of LSMS respondents. To define subjective poverty, we used respondents' answers to the question about the minimum funds a household requires to cover its basic needs. In order to compare the relation between subjective and objective poverty, the poverty line defined according to consumption of population (5 234 dinars in 2002 and 8 883 dinars per adult equivalent per month in 2007) was applied to subjective assessment of respondents concerning the minimum amount required to cover basic needs.

Graph 1.3. Percentage of the poor population – subjective and "objective" assessments, 2002-2007

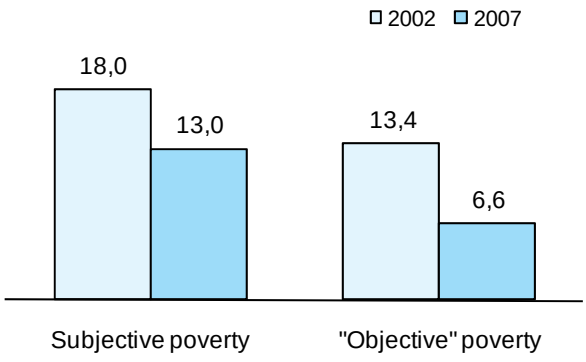


Table 1.4. Subjective evaluation of the current financial standing of households, 2002-2007

	2002	2007	Change
Very bad	23.5	15.4	-8.0
Bad	32.7	28.3	-4.4
Neither bad nor good	32.9	38.0	5.1
Good	8.4	15.9	7.5
Very good	1.0	1.5	0.4
Don't know	1.5	1.0	0.6
Total	**100.0**	**100.0**	

As in most countries, subjective poverty in Serbia was higher than the objective one in both years (Graph 3). In 2007, twice as many Serbians were subjectively poor compared to the objective assessment (13 percent compared to 6.6 percent respectively). However, the graph shows that subjective poverty also declined in the 2002-2007 period, although much less than the poverty measured according to the actual expenditures of population.

A subjective evaluation of the current financial situation of households also points to the citizens' living standard growth, especially among the most affected groups (Table 4). The percentage of population who assess their cur-rent financial situation as "very bad" has been significantly reduced, from 23.5 percent in 2002 to 15.4 percent in 2007. The percentage of population who assess its financial state as "bad" was also reduced. On the other hand, in the same period the percentage of population who consider the household's financial situation as "good" and "very good" significantly increased.

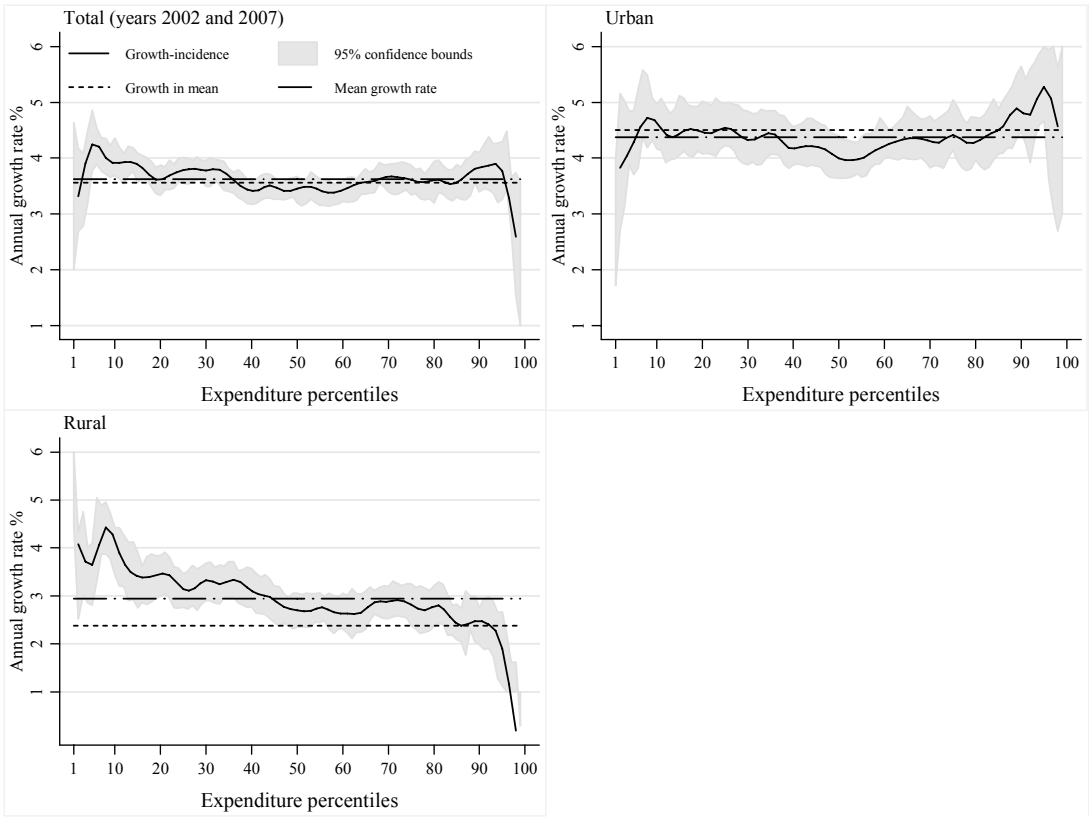
1.4. Growth incidence curve

In the first part, we have seen that consumption growth led to a considerable poverty decline. In this part, we will provide a more elaborate analysis as to how the benefit of aggregate growth of consumption was distributed compared to the initial consumption in 2002, or which categories of population had the largest benefit from the economic growth. In order to demonstrate that, we will define a curve featuring an annual real growth rate of consumption (y axis) by consumption percentiles (x axis), (growth incidence curve). That curve is presented in Graph 4, separately for Serbia, and separately for urban and rural areas.

The largest benefit from economic growth, i.e. consumption growth, was experienced by the poorest sectors of the population. The graph clearly shows that the consumption of the population with the lowest consumption has seen a faster growth than total consumption, which indicates that the changes in consumption distribution had a stronger positive effect on the poor, as well as on the population in the first three deciles, as compared to wealthier layers of the population. Middle-income population groups have benefited the least. In other words, the population has experienced a progress in all segments of consumption distribution, i.e. a con-sumption growth, but the poorer layers of population had relatively higher benefit from the consumption growth that the rest of the population. It is primarily due to a real increase in salaries, pensions and other social transfers in the observed period, which account for the largest part of income made by the poorest (see Graph 5.2 with income structure by deciles).

In rural areas, the poorest layers of population had the largest benefit from economic growth, i.e. from consumption growth. The growth incidence curve in the 2002-2007 period reflects a declining trend, which means that the consumption growth rate declines as the consumption of the population increases. Almost a half of the population in rural areas with the lowest consumption has seen an above-average consumption growth. It may be explained, inter alia, by the introduction of one-off aid to non-commercial farms in 2006 in the amount of 40 000 dinars to all household members who have agriculture as the sole source of revenue and who are over 55 years of age. The majority of such beneficiaries are coming from the areas that are less favourable for agri-cultural production[2], thus falling into the most affected categories of population.

Graph 1.4. Growth incidence curve (annual), 2002-2007



However, further analysis of main causes of rural poverty growth over 2002-2007 is required.

In urban areas, an above-average consumption growth was recorded among the poorest and the richest, whereas the middle-class has seen a below-average consumption growth. It indicates a less favourable position of the middle-class in this five-year period, which should otherwise be the leader of economic development.

1.5. Inequality

Inequality of consumption is analyzed in this part, as well as changes in consumption distribution which could have arisen as a result of unequal growth of consumption among different layers of population and different regions. The features of the consumption growth in different segments of distribution, in addition to Graph 4 in the previous part are presented in Table 5. The table shows the ratio of the chosen percentiles of consumption distribution (p10, p25, p50, p75, p90) as well as the Gini coefficient for total, urban and rural population, so that the features and the change in inequality in the 2002-2007 period may be more elaborately analyzed.

Inequality has slightly dropped in the lower half of consumption distribution (inequality measured by p50 and p25 ratio), while it slightly increased in the upper half of distribution (p75/p50). The Gini coefficient remained almost unchanged (29.3 in 2002 and 29.7 in 2007).

Inequality in the upper half of the distribution is somewhat lower than the inequality in the lower half of consumption distribution in 2002, while it was quite the opposite in 2007. Inequality in urban areas measured by the Gini coefficient was slightly lower compared to rural areas in 2002, whereas five years later the inequality in urban areas was higher compared to rural areas. It is a consequence of a moderate growth of inequality in urban areas and a moderate decline of inequality in rural areas between 2002 and 2007. A slight drop of inequality in rural areas was recorded in almost all segments of consumption distribution, while a small decline of inequality in urban areas was seen only in the lower part of consumption distribution.

However, notwithstanding the highlighted changes in the consumption distribution in the observed period, standard errors of the Gini coefficient show that inequality in Serbia remained unchanged in the 2002-2007 period. From the region-type perspective, it is only rural areas that feature a statistically significant inequality decline, whereas inequality in urban areas remained stable. Comparing the urban and rural areas, in 2002 there was no statistically significant difference between the inequality of their consumption, while rural areas had lower inequality of consumption in 2007 than urban areas.

The inequality of consumption, measured by the Gini coefficient, estimated at 29.7 in 2007, is somewhat higher that the average of selected Eastern European countries undergoing transition (Table 6). The Gini coefficient value for such countries ranges between 26.2 in Bosnia and Herzegovina to 31 in Romania.

Table 1.5. Inequality of consumption per adult equivalent in urban and rural areas
(standard errors are presented in brackets)

	Lower half of distribution		Upper part of distribution		Interquantile ratio	Decile ratio	Gini
	p25/p10	p50/p25	p75/p50	p90/p50	p75/p25	p90/p10	
Total							
2002	1.35	1.41	1.40	1.92	1.97	3.64	29.29
							(0.50)
2007	1.34	1.39	1.41	1.97	1.96	3.66	29.69
							(0.61)
Urban							
2002	1.34	1.43	1.39	1.87	1.99	3.57	28.38
							(0.50)
2007	1.34	1.39	1.43	1.99	1.98	3.70	29.53
							(0.67)
Rural							
2002	1.39	1.38	1.37	1.91	1.89	3.64	29.72
							(0.78)
2007	1.34	1.35	1.38	1.87	1.87	3.38	27.58
							(0.79)

Table 1.6. GDP per capita and Gini index for Serbia and selected countries

	GDP per capita (US$) 2004	Gini index (consumption)
Slovenia	16 115	28.4
Hungary	9 962	26.9
Croatia	7 724	29.0
Romania	3 374	31.0
Bulgaria	3 109	29.7
Serbia	**2 835***	**29.7**
Albania	2 439	28.2
Bosnia and Herzegovina	2 183	26.2

Source: Human Development Report, 2006, UNDP for selected countries. LSMS 2007 for Serbia.
* The data refers to 2006 according to EBRD (2007)..

1.6. Poverty profile in Serbia

The poverty profile describes the poor population in Serbia according to different features such as the place of residence of households (location and region), market status of the head of a household and household members, demographic structure of households (e.g. sex, age, household size, number of children), as well as the size of farm owned by the household. A profile of the poor under these features is presented in this part, while part 7 analyses the net effects of these features on the household consumption. The poverty profile will be presented by using the LSMS data from 2007 and it will be compared to the estimates for 2002 obtained by using the same methodology for poverty assessment.

1.7. Regional poverty component

Poverty in Serbia is predominantly a rural phenomenon, as in many counties in transition. Poverty was much more present in rural areas than it was in urban areas in 2007 (9.8 percent versus 4.3 percent), as it was five years ago (Table 7). However, poverty in rural areas dropped more than in urban areas over 2002-2007 (8 percentage points versus 6.8 percentage points). Differences in poverty between urban and rural areas remained high over 2002-2007. The depth and severity of poverty in rural areas were considerably higher than in urban areas. In 2007, almost two thirds of the poor lived in rural areas (Table 8).

Serbia is a country with deep, lasting and growing regional disparities in economic development[3]. According to the recently adopted National Economic Development Strategy of the Republic of Serbia (2007), regional discrepancies in development in Serbia are among the largest in Europe[4], and they have even increased over the past years. The process of transition to a market economy has intensified the existing economic discrepancies among regions due to thee closing down of a number of large public companies, intensified restructuring and privatization. Apart from the traditionally underdeveloped Southern Serbia region, some new regions emerged with a low level of economic development (East Serbia and some parts of Central Serbia; regional centres of mining and industry in West Serbia).

Large regional discrepancies in poverty are in line with the existing discrepancies in their economic development. The poverty index ranged from 3 percent in urban area of Belgrade up to 18.7 percent in rural area of South East Serbia in 2007 (Table 8).

Belgrade where the most viable opportunities for economic development thrive is still in a much better position than the rest of the country. On the other hand, central Serbia (without Belgrade) is still the poorest region in Serbia. Vojvodina is still positioned between these two extremes, where the poverty index is slightly below the country's average (6.1 percent versus 6.6 percent respectively), yet with large discrepancies between urban and rural areas. Rural areas in Central Serbia and Vojvodina are faced with the largest poverty index (10.7 percent and 9.9 percent respectively).

Table 1.7. Key poverty indicators by settlement type, 2002-2007

	Poverty index, percent			Poverty depth, percent			Poverty severity, percent		
	2002	2007	Change	2002	2007	Change	2002	2007	Change
Urban	11.2	4.3	-6.8	2.1	0.8	-1.3	0.6	0.3	-0.4
Standard errors	0.86	0.63		0.21	0.16		0.08	0.07	
Rural	17.7	9.8	-8.0	4.2	2.0	-2.2	1.5	0.6	-0.9
Standard errors	1.28	1.18		0.37	0.34		0.16	0.13	
Total	**14.0**	**6.6**	**-7.4**	**3.0**	**1.3**	**-1.7**	**1.0**	**0.4**	**-0.6**
Standard errors	0.74	0.61		0.20	0.17		0.08	0.07	

Note: The changes in percentage points between 2002 and 2007.

Table 1.8. Poverty by regions in Serbia, 2002-2007

	Percentage of the poor			Structure of the poor, percent			Structure of overall population, percent		
	2002	2007	Change	2002	2007	Change	2002	2007	Change
Urban	11.2	4.3	-6.8	45.0	38.6	-6.4	56.4	58.5	2.1
Rural	17.7	9.8	-8.0	55.0	61.4	6.4	43.6	41.5	-2.1
Belgrade	10.8	3.1	-7.7	16.3	10.4	-5.9	21.1	22.3	1.1
Urban	9.3	3.0	-6.3	11.4	8.4	-3.0	17.2	18.3	1.2
Rural	17.2	3.3	-13.9	4.9	1.9	-2.9	4.0	3.9	-0.0
Vojvodina	12.4	6.1	-6.2	23.9	26.3	2.4	27.1	28.3	1.2
Urban	10.7	3.3	-7.4	11.7	8.1	-3.6	15.4	16.2	0.8
Rural	14.5	9.9	-4.6	12.1	18.2	6.0	11.7	12.1	0.4
Central Serbia	16.2	8.4	-7.8	59.9	63.4	3.5	51.8	49.5	-2.3
Urban	12.8	6.1	-6.8	48.5	57.1	8.6	42.3	41.0	-1.3
Rural	19.1	10.7	-8.4	69.1	67.3	-1.9	64.0	61.4	-2.7
West Serbia	16.5	8.4	-8.1	13.2	13.4	0.3	11.2	10.5	-0.7
Urban	15.8	4.0	-11.9	4.9	2.6	-2.3	4.3	4.2	-0.1
Rural	17.0	11.4	-5.5	8.3	10.9	2.6	6.8	6.3	-0.6
Šumadija	13.8	3.7	-10.1	17.0	9.4	-7.6	17.3	16.8	-0.5
Urban	10.4	2.5	-7.8	6.2	3.2	-3.0	8.5	8.5	0.0
Rural	17.1	4.9	-12.2	10.8	6.2	-4.6	8.8	8.3	-0.5
East Serbia	12.9	10.1	-2.8	8.6	13.2	4.6	9.3	8.6	-0.7
Urban	11.8	11.2	-0.6	3.7	6.9	3.2	4.4	4.1	-0.3
Rural	13.9	9.1	-4.8	4.9	6.3	1.4	4.9	4.6	-0.4
South-East Serbia	21.2	13.3	-7.9	21.2	27.3	6.2	14.0	13.5	-0.5
Urban	14.7	8.5	-6.1	7.0	9.3	2.3	6.7	7.2	0.5
Rural	27.2	18.7	-8.5	14.1	18.0	3.9	7.3	6.4	-0.9
Total	**14.0**	**6.6**	**-7.4**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**0.0**

Note: Changes in percentage points between 2002 and 2007.

Although poverty was reduced in all regions of Serbia, discrepancies within regions between the poverty in urban and rural areas remained high. The percentage of the poor population dropped across Serbian regions – mostly in rural areas of Belgrade and Šumadija and in urban areas of West Serbia, and to the lowest extent in urban areas of East Serbia (Table 8). As it was the case five years ago, rural population of South-East Serbia was the most challenged where 18.7 percent of population was poor in 2007.[5] Rural areas of that region have 6.4 percent of the population and 18 percent of the poor. Discrepancies in poverty of urban and rural areas within regions remained quite high. In 2007, Vojvodina and West Serbia are the regions where the largest discrepancy between the urban and rural poverty was recorded, while five years ago it was Belgrade and South-East Serbia.

Large regional discrepancies in the poverty index may be accounted for, among other things, by a slower pace of enterprise restructuring, higher unemployment rate and lower wages in Central Serbia as compared to Belgrade. According to LFS 2006, the unemployment rate (population between 15 and 64 years of age) significantly differed by regions in Serbia, and ranged from 17 percent in Belgrade up to 25 percent in Central Serbia.[6] The survey on wages by districts (World Bank, 2006) also points to significant regional gaps – wages were highest in Belgrade, whereas the lowest wages were recorded in majority of Central Serbia districts. In addition, farm income, which is inferior to wages as a source of livelihood, was more important source of income among the Central Serbia population than it was in Belgrade. A multivariable analysis of poverty in the following

part will show net regional differences in consumption, excluding the effect of education, status on the labour market of the household head and demographic features of the household.

Large regional discrepancies in Serbia indicate low labour mobility and a poor investment climate in many parts of the country. A poorly developed regional real estate market and inefficient communications systems, which hinder commuting between certain regions (with a lot of time spent), may result in poor labour mobility. The unemployed and the employed are often reluctant to move to regions with better employment perspective, due to the problems related to finding an appropriate accommodation, but also due to reallocation costs, risks of losing the social network and the real uncertainty of finding a job (World Bank, 2003).

1.8. Labour market status

Poverty is most widely spread in households with an unemployed head of household (Table 9). Their poverty index in 2007 was several times higher than the population average (19.7 percent versus 6.6 percent respectively). However, the population living in such households made up only 3.9 percent of the total population, i.e. 11.7 percent of the total number of the poor. Contrary to that, households with an employed household head had the lowest poverty risk, which is not surprising taking into account high salary growth in the 2002-2007 period. The population living in households with an inactive household head had the poverty index much above the average (8.1 percent versus 6.6 percent respectively) and accounted for almost a half of the poor.

Given that the living standard of the population does not only depend on the labour market status of the household head, but also on the employment level of all household members, it is necessary to consider the profile of employment of the entire household. Thus households were classified into three groups subject to the age and labour market status of all household members: households with no employed members (a household where none of the members of working age is employed), inactive households (members belong to one of the following categories: children under 15; persons aged 15-24 in the process of education or inactive; persons over 65 who are not working) and households with an employed member (a household with at least one employed member).

Table 10 shows that inactive households have the largest poverty index (12.2 percent), followed by the households with no employed member (11.1 percent). However, the largest proportion of the poor in Serbia lives in the households where at least one member is employed (67.6 percent), given that these households are the most numerous (81.4 percent). A detailed analysis of poverty and labour market status will be presented in Chapter 9.

Table 1.9. Poverty indicators according to the labour market status of the household head, 2007

	Percentage of the poor	Structure of the poor, percent	Structure of the overall population, percent
Active	5.6	51.6	60.5
Employed	4.7	39.9	56.6
Unemployed	19.7	11.7	3.9
Inactive	8.1	48.4	39.5
Total	**6.6**	**100.0**	**100.0**

Table 1.10. Poverty indicators according to the labour market status of household members, 2007

	Percentage of the poor	Structure of the poor, percent	Structure of the overall population, percent
Households with employed members	5.5	67.6	81.4
Households with no employed member	11.1	20.2	12.0
Inactive households	12.2	12.2	6.6
Total	**6.6**	**100.0**	**100.0**

1.9. Education and demographic features

The population with a college or university degree was not exposed to poverty risk. The share of the poor significantly declines as the education level of the household head increases (Table 11). The household whose head is uneducated or has incomplete primary school education recorded the largest poverty index of all education groups, which equalled 18.7 percent in 2007. Completing primary school reduces the risk of poverty to 10.3 percent. It is only these two groups that had the poverty risk above the population average, however, they accounted for as much as 71.3 percent of the poor. On the other hand, the population living in households whose head has a college or university degree had close-to-zero poverty index (0.7 percent and 0.6 percent respectively) and accounted for 1.7 percent of the poor. Similar relations between poverty and education also existed in 2002.

Gender of the household head does not significantly affect a household's poverty. Although households where the woman was head were more poverty-stricken in 2002, five years later such a difference in poverty is lost (Table 12). Namely, we may claim with 95 percent significance that in 2007 poverty in the households where a man is the head ranged from 5.4 percent to 8.1 percent, and poverty in households where a woman is the head ranged from 4.2 percent to 7.6 percent. Given that these two intervals overlap, there is no statistically significant difference between the poverty of households headed by men and women in 2007.

Senior people and children up to 14 years of age are more exposed to poverty risk than other age groups. The highest poverty risk still pertains to senior people (65+) and their status with respect to the population average remained almost unchanged (Table 13). Even though significantly lower percent of senior population was poor in 2007 as compared to 2002 (9.6 percent versus 19.9 percent), these people were still exposed to poverty risk over 40 percent higher than the population average. Senior people accounted for 17.4 percent of population and a fourth of the poor (25.3 percent). Financial standing of the poor was improved in almost all countries undergoing transition (Alam and others, 2005).

Table 1.11. Poverty according to education level of the household head, 2002-2007

	Percentage of the poor			Structure of the poor, percent			Structure of overall population, percent		
	2002	2007	Change	2002	2007	Change	2002	2007	Change
No school or incomplete primary school	25.8	18.7	-7.1	34.1	40.8	6.7	18.6	14.4	-4.2
Primary school	23.1	10.3	-12.7	32.6	30.5	-2.1	19.8	19.5	-0.3
Vocational or three-year secondary school	13.6	4.4	-9.2	19.7	12.0	-7.7	20.3	18.0	-2.4
Secondary or high school	5.4	3.2	-2.1	10.1	15.0	4.9	26.5	30.7	4.2
College	6.1	0.7	-5.4	2.8	0.8	-2.0	6.4	7.2	0.8
University	1.3	0.6	-0.7	0.7	0.9	0.2	8.4	10.3	1.9
Total	**14.0**	**6.6**	**-7.4**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**0.0**

Note: Changes in percentage points between 2002 and 2007.

Table 1.12. Poverty by gender of the household head, 2002-2007

	Percentage of the poor			Structure of the poor, percent			Structure of overall population, percent		
	2002	2007	Change	2002	2007	Change	2002	2007	Change
Men	13.5	6.8	-6.7	80.6	81.1	0.6	83.9	79.0	-4.9
	0.8	0.7		1.5	2.3		0.5	0.7	
Women	17.0	5.9	-11.0	19.4	18.9	-0.6	16.1	21.0	4.9
	1.3	0.9		1.5	2.3		0.5	0.7	
Total	**14.0**	**6.6**	**-7.4**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**0.0**
	0.7	0.6		0.0	0.0		0.0	0.0	

Note: Changes in percentage points between 2002 and 2007.

Table 1.13. Poverty by age, 2002-2007

	Percentage of the poor			Structure of the poor, percent			Structure of overall population, percent		
	2002	2007	Change	2002	2007	Change	2002	2007	Change
0-5	12.5	8.7	-3.8	4.5	6.8	2.3	5.0	5.1	0.1
6-14	14.3	9.5	-4.8	9.6	12.7	3.0	9.5	8.8	-0.6
15-19	14.8	6.2	-8.6	6.7	6.0	-0.7	6.4	6.4	0.0
20-24	13.4	4.5	-8.9	6.4	4.8	-1.7	6.7	7.0	0.2
25-29	11.1	5.0	-6.1	5.5	5.0	-0.5	7.0	6.7	-0.3
30-34	11.7	5.1	-6.6	5.3	5.1	-0.2	6.3	6.6	0.2
35-39	12.2	6.6	-5.6	5.7	6.0	0.3	6.6	6.0	-0.5
40-44	12.3	6.6	-5.8	5.9	6.6	0.7	6.8	6.7	-0.1
45-49	13.2	5.8	-7.4	7.5	6.3	-1.2	8.0	7.2	-0.8
50-54	10.8	3.5	-7.3	6.1	4.6	-1.5	8.0	8.8	0.8
55-59	13.1	5.3	-7.7	5.4	6.6	1.2	5.8	8.2	2.4
60-64	13.8	5.3	-8.5	6.3	4.1	-2.1	6.4	5.2	-1.2
65+	19.9	9.6	-10.3	25.1	25.3	0.2	17.7	17.4	-0.3
Total	**14.0**	**6.6**	**-7.4**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**0.0**

Note: Changes in percentage points between 2002 and 2007.

Table 1.14. Poverty by household type, 2002-2007

	Percentage of the poor			Structure of the poor, percent			Structure of overall population, percent		
	2002	2007	Change	2002	2007	Change	2002	2007	Change
Number of children 0-6 years of age									
No children	14.1	5.8	-8.3	78.2	68.1	-10.1	77.8	77.6	-0.2
1	11.9	6.3	-5.6	13.2	14.7	1.4	15.6	15.3	-0.3
2	16.7	12.7	-4.0	7.0	11.2	4.2	5.9	5.8	-0.1
3 and more	28.0	30.5	2.5	1.5	6.0	4.5	0.8	1.3	0.5
Household size									
1	17.6	7.0	-10.6	7.1	6.4	-0.7	5.7	6.0	0.4
2	14.4	6.7	-7.6	16.4	15.8	-0.7	16.1	15.4	-0.6
3	10.7	3.7	-7.0	14.7	10.5	-4.2	19.3	18.8	-0.5
4	11.3	4.9	-6.3	22.7	19.6	-3.1	28.2	26.2	-2.0
5	14.9	5.8	-9.1	14.9	13.9	-1.0	14.0	15.8	1.8
6	18.3	7.9	-10.4	13.0	13.6	0.6	9.9	11.3	1.3
7 and more	22.9	20.2	-2.7	11.2	20.2	9.0	6.8	6.6	-0.2
Total	**14.0**	**6.6**	**-7.4**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**0.0**

Note: Changes in percentage points between 2002 and 2007.

The following two categories who had above-average poverty index in 2007 were children between 6 and 14 and children up to 5. Their poverty index equalled 9.5 percent and 8.7 percent respectively and they accounted for 13.9 percent of the total and 19.5 percent of the poor population. The poverty of children up to 14 was the one least reduced compared to 2002. Other age groups had poverty index either on the average or below-average levels. However, it should be taken into account that these results depend on the assumptions used in defining equivalence scales and economies of scale (Lanjouw and Ravallion, 1995).

An increase in the number of small children in a household increases the poverty risk. Households without small children or with one small child (0-6 years of age) had a below-average poverty index (Table 14). A higher number of small children in a household imply higher poverty. Households with two small children had the poverty index which was almost twice as high as average (12.7 percent versus 6.6 percent), and households with three and more small children had the poverty index as high as 30.5 percent. However, this last group represents a small percent of the poor (6 percent). The largest part of the poor is made up of the households without small children, since they account for almost two-thirds of the poor.

Table 14 also indicates that the households with six and more members are still the poorest ones since their poverty index is above the population average and it was the highest one when compared to other demographic groups. In 2007, they accounted for 17.9 percent of total population and 33.8 percent of the poor. Poverty among the households with seven and more members dropped the least in the 2002-2007 period and their status with respect to the population average has worsened.

An important element for explaining poverty in the households with several members is the dependency ratio. This measures household members not of working age (children and senior citizens) who are supported by employed members. Households with several members have more children, which makes the contribution of the working members smaller than it is the case with the households with fewer members, thus resulting in their lower consumption level. Consequently, households with three or four members are in a more favourable position that the others. It was also evident in 2002. Majority of these households are the households with employed adult members less exposed to poverty risk (although most of them have one or two children) as shown in Table 10. Nevertheless, as it has been already mentioned, all these results should be carefully interpreted since they largely depend on the assumptions made in defining equivalence scales and economies of scale.

1.10. Land ownership

Land ownership has not served as a protection from poverty for a number of households in rural areas, yet, households with large farms were prone to significantly lower poverty risk. Households in rural areas that do not own land or have small holdings (smaller than 1 hectare) are faced with the highest poverty risk (around 13 percent). These two groups accounted for 71 percent of the poor in 2007 (Table 15). The risk then declines with the size of land holdings. Households with holdings exceeding 1 hectare faced a below-average poverty risk, and the lowest poverty risk pertained to those households with holdings larger than 3 hectares. In the 2002-2007 period, poverty declined the most in such households which had 1 - 3 hectare holdings. The average holding size in rural areas was approximately 2.3 hectares.

In addition to small-sized and fragmented holding with the average of 7 plots per holding, there are numerous restrictions in terms of the agricultural sector productivity growth, and consequently for the growth of agricultural revenues in rural areas, which could protect the population in rural areas from poverty, such as: obsolete agricultural equipment (average age of some 20 years), a lack of irrigation systems, difficult access to financing, undeveloped infrastructure, etc. According to the opinion of small rural households, key restrictions of their development consist of the following: non-agricultural employment opportunities, increased access to loans and better organized market (the Government of the Republic of Serbia, 2007).

1.11. Consumption determinants

The poverty profile presented in the previous part describes the categories of population which were most exposed to poverty. For instance, it may be a person with a low education level who lives in a rural area, and has a poorly paid seasonal job in the agricultural sector. In order to assess the net effect any of the aforementioned features (education, location, labour market status and the like) upon poverty, i.e. on the population consumption, regression analysis is used. Therefore, this part will analyze the factors affecting the living standard and poverty, the identification of which may be ex-tremely useful in managing the economic and social policy aimed at reducing poverty and preventing the emergence of new poverty. This analysis reveals the poverty-related factors without uncovering cause-and-effect relations. The factors being analyzed are the same ones as those which were the subject of analysis in the poverty profile, such as: household features (age structure, size, location, ownership and size of arable land) and the features of household heads (gender, age, education and labour market status). These factors are used as independent variables in a simple linear regression, where the dependent variable is the consumption per adult equivalent. Separate regression analysis of urban and rural areas has been undertaken and the results are presented in Table 16.

Table 1.15. Poverty by land size in rural areas, 2002-2007

	Percentage of the poor			Structure of the poor, percent			Structure of overall population, percent		
	2002	2007	Change	2002	2007	Change	2002	2007	Change
0 ha	20.1	13.2	-6.8	41.9	48.3	6.4	36.2	35.6	-0.6
<1 ha	19.1	12.4	-6.7	21.4	23.0	1.6	19.6	18.2	-1.5
1-3 ha	21.1	7.4	-13.8	26.4	17.9	-8.5	22.9	23.7	0.8
Over 3 ha	8.9	4.7	-4.2	10.3	10.7	0.5	21.3	22.5	1.2
Total	**17.7**	**9.8**	**-8.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**0.0**

Note: Estimates in percentage points between 2002 and 2007.

Table 1.16. Regression of consumption, 2007

	Urban		Rural	
	Coefficient	Standard errors	Coefficient	Standard errors
Household features				
Logarithm of the household size	-0.073	*0.05*	-0.145***	*0.05*
Logarithm of the household size ^{2}	-0.052**	*0.03*	0.009	*0.03*
Share of children 0-6 years of age in a household	(dropped)		(dropped)	
Share of children 7-16	0.073	*0.10*	0.049	*0.11*
Share of adult men	0.283***	*0.10*	0.112	*0.11*
Share of adult women	0.166*	*0.10*	0.154	*0.12*
Share of the senior citizens (>=60)	0.001	*0.10*	-0.152	*0.12*
Regions				
Belgrade	(dropped)		(dropped)	
Vojvodina	-0.083***	*0.02*	-0.145***	*0.04*
West Serbia	-0.142***	*0.03*	-0.257***	*0.04*
Šumadija	-0.059**	*0.03*	-0.112***	*0.04*
East Serbia	-0.167***	*0.03*	-0.125***	*0.04*
South East Serbia	-0.198***	*0.03*	-0.265***	*0.04*
Farm size				
0 hectare	(dropped)		(dropped)	
<1 hectare	0.007	*0.03*	-0.043*	*0.03*
1-3 hectare	0.077*	*0.04*	0.090***	*0.02*
Over 3 hectares	0.144***	*0.05*	0.228***	*0.03*
Household head features				
Logarithm of the household head age	-0.272***	*0.05*	0.018	*0.06*
Gender				
Male	(dropped)		(dropped)	
Female	0.046**	*0.02*	0.017	*0.03*
Education				
No school or incomplete primary	(dropped)		(dropped)	
Primary school	0.064*	*0.04*	0.105***	*0.03*
Technical and three-year secondary school	0.244***	*0.04*	0.314***	*0.03*
Secondary and high school	0.324***	*0.03*	0.357***	*0.03*
College	0.520***	*0.04*	0.569***	*0.05*
University	0.683***	*0.04*	0.611***	*0.06*
Labour market status				
Employed	(dropped)		(dropped)	
Unemployed	-0.270***	*0.04*	-0.252***	*0.05*
Inactive	-0.008	*0.02*	-0.037*	*0.02*
_cons	10.802***	*0.17*	9.666***	*0.22*
No. of observations	2 954		2 581	
Adjusted R2	0.290		0.228	

Note: .01 - ***; .05 - **; .1 - *;

The assessed factors which significantly influenced the consumption per adult equivalent are the following: the size and demographic composition of households, also location, farm size; education and gender of the household head, labour market status of the household head.

Household size had an adverse effect on the household's consumption: larger households had lower consumption, being similar in all other characteristics.

Increased share of adult men and women in households had a positive effect on the consumption in urban areas. With the increased share of adult men in a household, assuming the unaltered household size, consumption per adult equivalent grows with respect to reference category (share of children up to 7 years of age). The same effect on the consumption, but smaller scale, is observed among adult women. The share of other age groups has not significantly influenced the consumption of households in urban areas. In rural areas, the age structure did not have a significant effect on household consumption.

The location of a household plays an important role in explaining consumption. Whether urban or rural areas are concerned, persons who live in Belgrade (reference variable) had the largest consumption compared to other regions in Serbia, whereas citizens in South East Serbia had the lowest, under the assumption of other factors being the same. In urban areas, the most affected citizens were those living in South East Serbia given that their consumption was 18 percent lower compared to those living in Belgrade. The situation was similar in rural areas, except that the differences in consumption between the most prosperous and the most chal-lenged region in Serbia were somewhat more acute. In rural areas, persons who live in South East Serbia had the consumption per adult equivalent 23 percent lower than those living in Belgrade. According to these results, it may be inferred that regional discrepancies in consumption are much lower than those shown by the poverty profile (Table 8). The same conclusion has been derived by using the data from HBS 2006 (Krstić and Sulla, 2007).

Farming a larger agricultural land significantly increases the household consumption. People who live in households that farm lands exceeding 3 hectares were in a much more favourable position than others. Their consumption per adult equivalent in urban areas was 15 percent higher compared to such persons with no farmland and 26 percent higher in rural areas.

Consumption was substantially higher in households whose head has a college or university degree. In urban areas, persons living in households whose head have a college or university degree had 68 percent and 98 percent higher consumption, respectively, compared to those whose head had no school or incomplete primary school (reference variable). In rural areas, these two categories had 77 percent and 84 percent higher consumption respectively. These results comply with the results of regression of employees' wages according to which wages of highly educated are significantly higher compared to lower educational profiles, under the assumption of other aspects of the employees being the same (World Bank, 2006).

The gender of a household head in urban areas had a significant effect on the household consumption, under the assumption of the factors being the same. In urban areas, persons living in house-holds where a woman is the head had higher consumption compared to those where a man is the head (by 4.7 percent). In rural areas, the gender of the household head had no significant effect on consumption.

The labour market status of the household head significantly influences the household consumption. Households where an unemployed person is the head had considerably lower consumption than those with an employed head: 24 percent and 22 percent in urban and rural areas, respectively, under the assumption of other aspects being the same. This feature is evident even if other factors of the household head are not kept the same (see Table 11 in poverty profile). Inactivity of the household head in urban areas had no significant effect on consumption, whereas in rural areas the consumption of such households was 4 percent lower.

1.12. Conclusion

1. A macroeconomic stability and a considerable and continuous economic growth since 2000 were prerequisites for poverty reduction in Serbia. However, the economic growth was achieved with no employment growth, which certainly attenuated the effect the economic growth may have had upon poverty reduction had the employment growth and unemployment decline been achieved.

2. The total number of the poor halved in from 2002-2007. The share of the poor in the overall population dropped from 14 percent in 2002 to 6.6 percent in 2007, thus reducing the number of the poor by more than 500 000. The greatest benefit from economic growth was enjoyed by the poorest layers of population, since the average consumption growth among the most vulnerable categories was higher than the consumption growth of remaining population. This could be primarily accounted for by a real increase in salaries, pensions and other social transfers in the 2002-2007 period, which make up the largest part of income among the poorest. Middle-income population groups have benefited the least.
3. Even though poverty was significantly re-duced, the poverty profile remained almost un-changed compared to 2002. The most affected categories still remain the population from rural areas of South East Serbia, the uneducated and the unemployed, elderly people (65 and over), as well as households with two and more small children (aged 0-6). A new category in 2007 that was more challenged than the population average was children up to 14, although they had an average (children 6-14) or below average (0-5) poverty index five years ago.
4. Analysis of the poverty profile in Serbia shows relatively large regional discrepancies in poverty rates, as well as strong links between poverty and unemployment and education. Despite a considerable economic growth, there are still some isolated areas which had a small benefit from economic growth with a high concentration of the poor, such as the rural areas in South East Serbia. Regional discrepancies between urban and rural areas within the same region remained high, as well as regional dis-crepancies between the poorest (rural areas of South East Serbia) and the wealthiest region in Serbia (urban areas of Belgrade). The results of multivariable poverty analysis for 2007 indicate lower regional differences than the ones recorded according to the poverty profile. It proves that poor regions are mostly populated by people of lower educational profile, the households with a large number of supported members and with other features that make them particularly prone to poverty. Therefore, the prospects of the population from poorer regions, who decide to migrate to more prosperous regions in Serbia, could be highly uncertain and unclear. As a result of that, it is especially important for the National Poverty Reduction Strategy to put an emphasis on the reduction of regional disparities within a sustainable growth targeting the poor.
5. Labour market status affects poverty. The highest poverty risk was experienced by inactive households, as well as households with no em-ployed members. However, the largest part of the poor in Serbia lives in the households where at least one member is employed, given that such households are the most numerous ones.
6. Poverty is strongly correlated with education. The highly educated population was not exposed to poverty risk (close-to-zero poverty index), and they accounted for a mere 1.7 percent of the poor. This indicates that education pays off since the labour market rewards education with a considerable wage advantage for its highly educated workers compared to others.

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Endnotes, Part 1

[1] These groups which are not integrated in the general population were not covered by this survey.

[2] See: The second report on the implementation of the poverty reduction strategy, The Serbian Government, 2007, p. 132.

[3] Recently adopted Strategy of Regional Development in the Republic of Serbia (2007) has set an objective to reduce regional disproportions on the district level measured by the index of development challenge from the current 1:7 to 1:3 by 2012. The index of development problems is a composite index comprising different indicators pertaining to the field of economy, demography, education, infrastructure and environmental protection.

[4] The ratio of the most developed and the least developed municipality in Serbia, measured by the index of development problems equalled 1:15 in 2005.

[5] Within South-East Serbia, the Jablanica district was the most affected one, and the index of its development problems was 7 times lower than that of Belgrade. See the Regional Development Strategy of the Republic of Serbia 2007-2012, 2007, p. 89.

[6] See Communication on the Labour Force Survey, no. 59, March 2007, Republican Statistical Office.

Natasa Mijakovac

Income and expenditure 2

2. INCOME AND EXPENDITURE

2.1. Welfare aggregates

Two aggregates can be used to measure living standards, i.e. the welfare of the population: household expenditure and household income. Household expenditure represents a more reliable measure of the welfare of the population, because of its stability, scope and balance over an extended time period, whereas household income is susceptible to short-term fluctuations. The quality of data received through this survey from households is of great importance when selecting the measure of financial welfare (expenditure or income). The drawback of using income as a measure of welfare is that households avoid declaring their income, in particular for incomes arising from unregistered businesses, i.e. informal activities, which is not the case for expenditure from these sources (the reason being the distrust of households in confidentiality of the survey). Both theoretical and practical reasons give precedence to the use of expenditure aggregates over income to measure welfare.

2.2. Definition of aggregate income

Aggregate income includes income (earnings) from employment, pensions, receipts from social insurance, cash receipts from abroad, income from agriculture, income in kind, other income, as well as the value of the imputed rent and depreciation and amortization of permanent assets.

Revenues (earnings) from employment comprise the earnings from the main job, from an additional job and other earnings from employment, such as: outstanding salary payments, financial allowances against commuting costs and time spent on business trips in the country and abroad, retirement severance pays, rewards, one-off financial supports, and the like.

Pensions include all types of (national) pensions: old-age, disability and family pensions.

Revenues from social insurance imply the benefits such as child allowances, allowances for care and assistance by a third person, family financial support payments, alimony, parent's (maternal) allowances and other social benefits. This group of income also includes the benefits against financial support for the unemployed and temporarily unemployed persons, as well as temporary benefits paid to displaced persons.

Cash receipts from abroad comprise foreign pensions or parts thereof and monetary gifts from relatives and friends living abroad.

Income from agriculture has been calculated as a difference between the amount of revenues and expenses from agricultural activity. The income from agriculture encompasses the income from land rent, lease of agricultural machines, revenues from crops, cattle and poultry, and farming products. The income from agriculture also includes the in-kind component of food– the food produced or received as gift in farms. Expenses comprise all the costs necessary for the conduct of agricultural activities, such as: purchase of seed, fertilizers, stock-cattle feed, fuel and lubricants, veterinary services, payment of labour force, land rent, lease of agricultural machines and depreciation of agricultural machines[1].

Income from agriculture calculated in this way is compared with subjective assessments provided by households (respondents) regarding the amount of generated annual income, where the higher amount is taken as the final amount of income from agriculture. Comparison is made because of the complex method of computing that amount. Since the income from agriculture is calculated for a one-year period, there is a possibility that certain households may underestimate the value of the reported income due to insufficient or missing documentation. Likewise, in case the calculation of the income from agriculture shows a negative balance, it is deemed that a household failed to generate any income from this activity.

Income in kind - the in-kind component of income comprises the value of self-made products and gifts received in-kind and consumed in a household. The value of the in-kind component of income is expressed in local retail prices.

Other revenues include financial support for education and health services provided to household members, monetary gifts from relatives and friends in the country, receipts from interest, dividends, insurance policies, games of chance, renting of residential and business premises, etc.

Aggregate income does not contain revenues from the sale of shares, residential and business area, land, cars, agricultural machines, etc.

Imputed rent and amortization/depreciation of permanent assets comprise the value of the imputed rent for the owners of apartments/houses and the value of amortization/depreciation of permanent assets.

2.3. The structure of income

The monthly income of an average household in Serbia in 2007 amounts to 43 569 dinars. The largest share in the total household income is attributed to earnings from employment - 49.4 percent, to be followed by pensions that account for 20.9 percent. A considerably larger share of income (earnings) from employment in total income is recorded in urban households - 56.4 percent, as compared to households in other areas where such a share accounts for 38.2 percent. Comparing the income structures of urban and other households, it is notable that the contribution of pensions is also significantly higher in urban households - 23.2 percent.

Income from agriculture and in kind income are expected to have a substantially higher share in the income of the households in other areas – 14.9 percent and 13.3 percent, respectively, which mostly deal with agricultural production (farms). In aggregate, these revenues account for almost one third of the entire income of the households in other areas and have almost a double share in the total income of an average Serbian household. Likewise, the cash receipts that these households receive from abroad usually have a considerable share in their income.

If we analyze the household income structure as described in the HBS 2006, (taking into account the methodological differences between these two surveys), we can see that the largest share in total income is recorded in the earnings from employment, followed by pensions. The structure of total income of the households in urban and other areas also shows the same results as in LSMS 2007.

Taking into account the amount of average income and its structure per territory, it can be concluded that the highest average income is recorded in households in the City of Belgrade – 47 787 dinars, (9.7 percent higher than the Serbian average), while the lowest income is characteristic for the households in the South-East Serbia – 38 938 dinars (10.6 percent lower than the average).

The characteristic of household income in the City of Belgrade is that its largest share comes from earnings from employment – 58.7 percent, which is considerably higher than the comparable share as far as the households in East Serbia are concerned (40.9 percent).

Table 2.1. Average monthly income and household income structure in Serbia, 2007

	Average income in dinars			Structure in percent		
	Total	Urban areas	Other areas	Total	Urban area	Other areas
Total	**43 569**	**44 041**	**42 859**	**100.0**	**100.0**	**100.0**
Earnings from employment	21 480	24 902	16 340	49.4	56.4	38.2
Pensions (old-age, family, disability)	9 092	10 205	7 423	20.9	23.2	17.3
Benefits from social insurance	933	837	1 078	2.1	1.9	2.5
Cash receipts from abroad	887	560	1 377	2.0	1.3	3.2
Income from agriculture	2 980	717	6 376	6.8	1.6	14.9
Income in kind	3 227	1 567	5 719	7.4	3.6	13.3
Other income	1 217	1 440	882	2.8	3.3	2.1
Imputed rent and amort./deprec. of permanent assets	3 753	3 813	3 664	8.6	8.7	8.5

Table 2.2. Average monthly income and income structure in Central Serbia, Belgrade and Vojvodina, 2007

	Central Serbia					City of Belgrade	Vojvodina
	total	Western Serbia	Šumadija	Eastern Serbia	South-Eastern Serbia		
Average monthly income in dinars	**41 946**	**41 650**	**43 194**	**44 250**	**38 938**	**47 787**	**42875**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Earnings from employment	44.8	46.3	44.7	40.9	46.1	58.7	48.2
Pensions (old-age, family, disability)	20.5	18.0	21.0	21.0	21.8	21.7	20.7
Benefits from social insurance	2.3	1.9	2.2	2.3	2.9	1.3	2.6
Cash receipts from abroad	2.9	2.2	2.7	6.5	1.1	1.1	1.5
Income from agriculture	9.4	11.5	9.1	9.1	8.2	1.6	7.3
Income in kind	9.6	10.1	9.6	10.0	9.0	3.5	7.3
Other income	2.1	1.7	2.5	1.7	2.1	3.8	3.1
Imputed rent and amort./deprec. of permanent assets	8.4	8.3	8.2	8.5	8.8	8.3	9.3

Income from agriculture and in kind expenditure have the largest share in the income structure of households in West Serbia, while for households in East Serbia the share of cash receipts from abroad is three times higher than average. Social benefits have the largest contribution to the income structure of households in South-East Serbia, where the income is generally the lowest.

The nominal growth of average household income for the 2002 – 2007 period was 95.4 percent however, due to the increase in living costs, which amount to 70.4 percent in the same period, the real growth recorded the value of 14.7 percent. The greatest nominal and real increase was for income from social insurance benefits and pensions, while the greatest decrease was for income in kind, income from agriculture and cash receipts from abroad.

Table 2.3. Comparison of average household income in Serbia, 2002 – 2007

	Average monthly income in dinars		Percentage of growth /decline		Income structure in percent	
	2002	2007	Nominal	Actual	2002	2007
Total	**22 299**	**43 569**	**95.4**	**14,7**	**100.0**	**100.0**
Earnings from employment	9 839	21 480	1 18.3	28.1	44.1	49.4
Pensions (old-age, disability and other)	3 594	9 092	1 53.0	48.5	16.1	20.9
Benefits from social insurance	301	933	2 10.0	82.1	1.3	2.1
Cash receipts from abroad	665	887	33.4	-21.7	3.0	2.0
Income from agriculture	2 415	2 980	23.4	-27.6	10.8	6.8
income in kind	2 872	3 227	12.4	-34.1	12.9	7.4
Other income	562	1 217	1 16.5	27.0	2.5	2.8
Imputed rent and amort./deprec. of permanent assets	2 051	3 753	83.0	7.4	9.2	8.6

In the five-year period, the structure of average household income changed. These changes indicate a higher share of income from employment and pensions by some 5 percent, while the share of the in-kind component of income and the income from agriculture has reduced. During this period, the data showed a slightly increased share in social insurance benefits.

income structure for the 10 percent poorest households significantly differs from the income structure of an average household. The basic characteristics of the income earned by the poorest are that, beside the income (earnings) from employment, the basic sources of available funds for such households are pensions and income in kind. The income (earnings) from employment constitutes only 29.6 percent of total income of the poorest households. In the 10 percent poorest households, the largest contribution to total household income comes from social insurance benefits, which account for 6.9 percent.

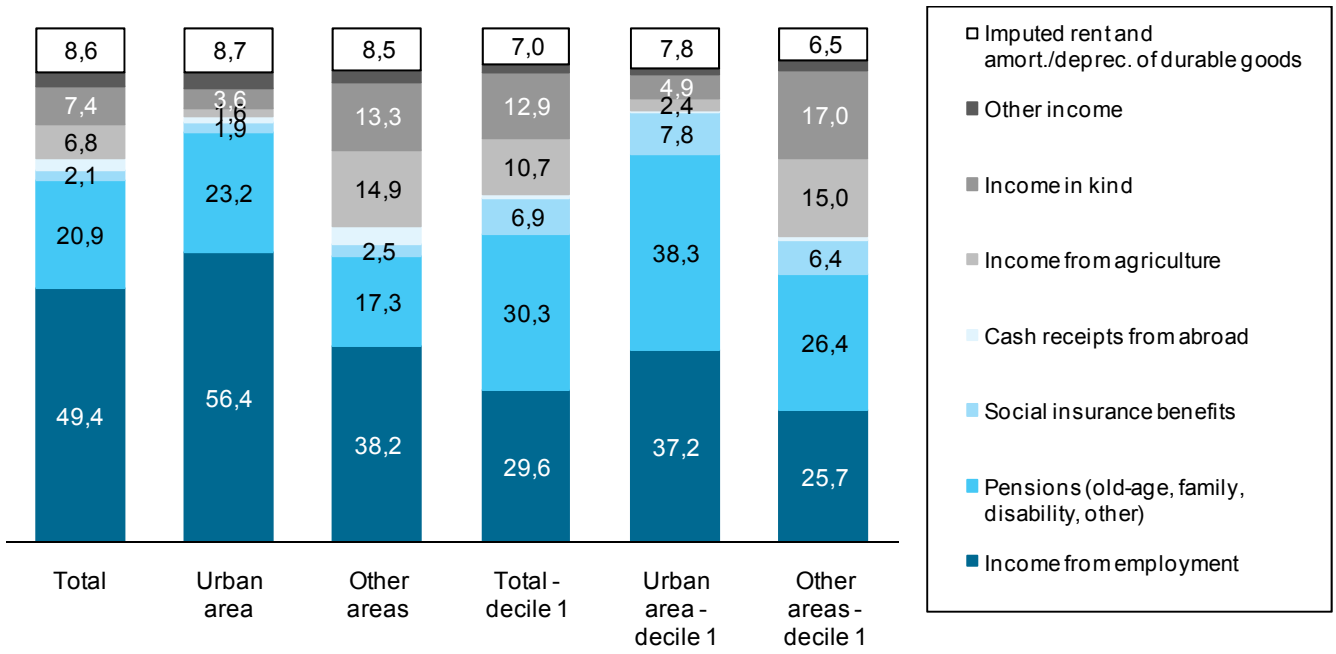
The income structure for households in the lowest decile in urban and other areas differs by the amount of pensions, income from agriculture and income in kind. The contribution of pensions accounts for 38.3 percent in the households in urban areas, while such contribution in other households is 24.4 percent. Income from agriculture is a significant income source for rural (other) households and participates with 15.0 percent in the total income structure. The share of income in kind is almost three times higher in the households in other areas, and accounts for 17.0 percent.

Analyzing the aggregate income structure for the households by deciles of expenditure per expenditure unit, we can identify a positive correlation between expenditure growth and the share of the income from employment in total household income. The share of income from employment ranges from 29.6 percent, which is the percentage recorded in the lowest decile households, to 60.2 percent, as recorded for the highest decile households.

The income structure of the households with a low standard of living is characterized by a high share of income from pensions. In 40 percent households with the lowest expenditure rate, almost 1/3 of income is made up from pensions, while in the highest decile households only 12.0 percent of income is from pensions.

The high share of the income from agriculture and income in kind in total income is also characteristic for the lowest decile households (23.6 percent). This share is almost 2.5 times larger than in the households located in the highest decile of expenditure (8.7 percent).

Graph 2.1. Household Income Structure



Graph 2.2. Cumulative overview of household income structure by deciles of consumption, in Republic of Serbia, 2007

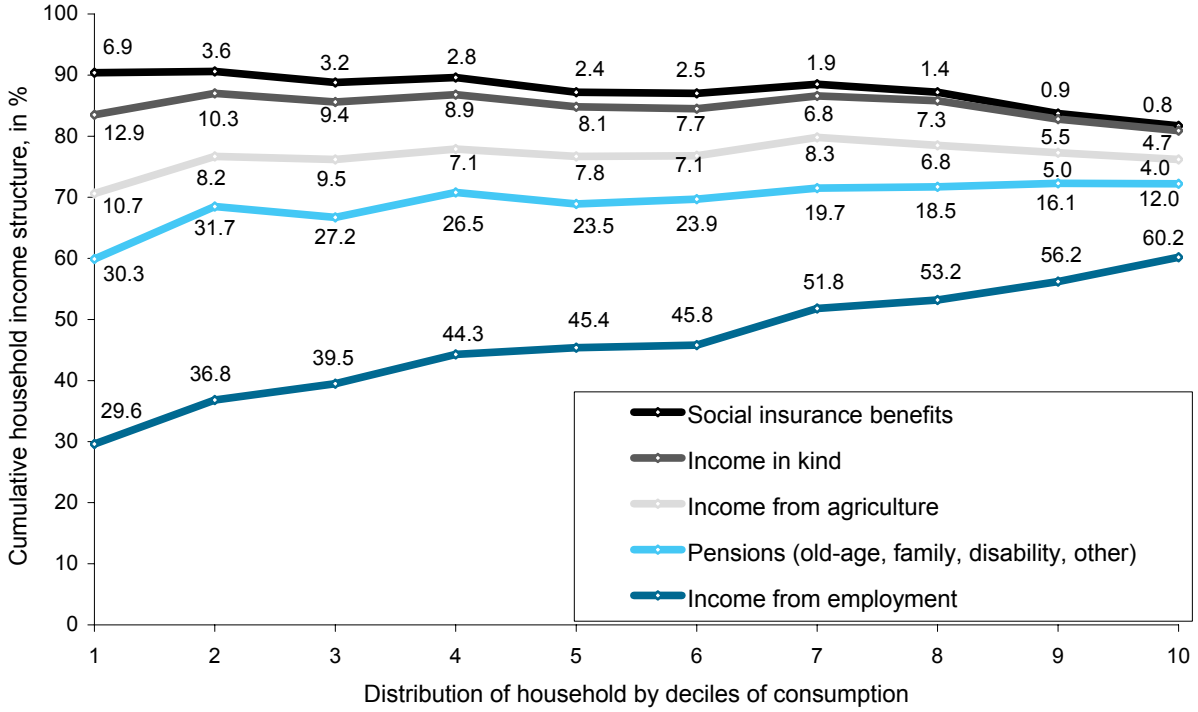


Table 2.4. Average income of households by deciles per expenditure unit (2007)

	Total	1 Decile	2 Decile	3 Decile	4 Decile	5 Decile	6 Decile	7 Decile	8 Decile	9 Decile	10 Decile
Average income in dinars	43 569	9 425	20 500	24 447	29 979	33 620	39 561	45 362	51 478	63 690	99 329

Benefits from social insurance have a high share in the 10 percent poorest households, and account for 6.9 percent of total income, but this share significantly declines as the household living standard increases.

The income structure of poor households corresponds to the income structure of households within the first expenditure decile (the income from social insurance benefits is somewhat greater, amounting to 9.2%)

The average household income in Serbia, viewed by deciles of expenditure unit shows a polarization of the first and tenth deciles as compared to the remaining ones, where the growth from the second to the sixth decile is mostly balanced, but between the seventh and the tenth deciles the average household income grows almost twice as fast as the nominal amount.

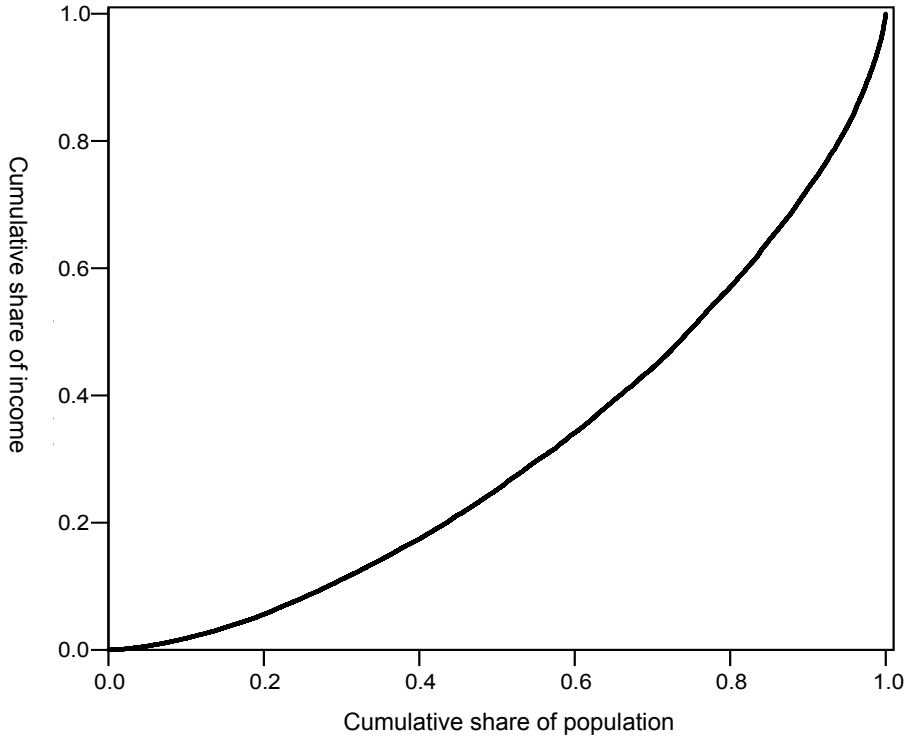
Analyzing the indicator of inequality 9/1 decile[2], we can conclude that income inequality is considerable (6,7). If we compare it with the indicator of inequality set out in the HBS 2006, the results show a mild growth in income inequality (5.4), taking into consideration the methodological differences between those two surveys.

Graph 2.3 shows the Lorenz Curve for income. The cumulative distribution of population ranked by units of the equivalent scale is presented on 'X' axis, while 'Y' axis represents a cumulative distribution of income by units of the equivalent scale. If the Lorenz Curve coincided with the imaginary diagonal of a square, this would mean that all members of population would have equal income and that income inequality is zero. If only one man possessed everything, the Lorenz Curve would have a zero value, on 'Y' axis for all cases on

'X' axis, except for the last case where it would reach 1. The further the Lorenz Curve is from the diagonal (shifted to the right), the higher inequality is– resources concentrated on fewer people.

Based on the graph above, it can be concluded that there is no significant deviation of the Lorenz Curve from the diagonal, which suggests equal distribution of income among the population. One of the most commonly used measures of inequality is the Gini coefficient of inequality, which represents the ratio between the area delimited by the Lorenz curve and its inversion and the area of the unit square (number 1). In the case of absolute equal distribution (when everyone has equal access to resources, taking into account needs) the value of this indicator is 0 (zero), while in the extreme case (when all available resources would be owned by one person only), this coefficient has a value of 1 (one). Using the Gini coefficient, the inequality of incomes using an equivalence scale amounts to 0.37, i.e. 37.03 percent.

Graph 2.3. Lorenz Curve for Income



2.4. The expenditure aggregate

The monthly expenditure of the average Serbian household amounts to 52 843 dinars. The largest share in expenditure includes the costs of food and beverages – 33.7 percent , which are followed by the costs of housing, water, power supply, gas and other fuels -18.6 percent, the costs of transportation services 8.5 percent, costs for other goods and services - 7.8 percent. The monthly expenditure of the households in urban areas amounts to 57 441 dinars, while the expenditure of households in other areas reaches 45 940 dinars.

Table 2.5. Average monthly expenditure and household expenditure , 2007

	Average expenditure in dinars			Structure in percent		
	Total	Urban area	Other areas	Total	Urban area	Other areas
Total	**52 843**	**57 441**	**45 940**	**100.0**	**100.0**	**100.0**
Food and beverages	17 783	17 876	17 644	33.7	31.1	38.4
Alcoholic drinks and tobacco	2 078	2 011	2 178	3.9	3.5	4.7
Clothes and footwear	2 742	3 281	1 931	5.2	5.7	4.2
Housing, water, power supply, gas and other fuels	9 834	11 723	7 000	18.6	20.4	15.2
Furniture, household furnishing and maintenance	1 625	1 855	1 282	3.1	3.2	2.8
Health care	2 183	2 510	1 693	4.1	4.4	3.7
Transport	4 487	4 592	4 331	8.5	8.0	9.4
Communications	1 790	2 116	1 302	3.4	3.7	2.8
Recreation and culture	3 067	4 095	1 524	5.8	7.1	3.3
Education	751	990	393	1.4	1.7	0.9
Restaurants and hotels	2 451	2 996	1 634	4.6	5.2	3.6
Other goods and services	4 110	4 660	3 284	7.8	8.1	7.1

Likewise, the expenditure structure of Serbian households shows considerable deviations by type of settlement. The expenditure of urban households is characterized by a lower share of the costs of food and beverages – 31.1 percent, while such a share in the households in other areas is significantly higher, reaching 38.4 percent. Such a high share of the costs of housing, water, power supply, gas and other fuels in urban households is due to the 20.4 percent of the value of the imputed rent, which, according to the methodology, represents a part of this expenditure group. As for households in other areas, the share of such costs is notably lower - 15.2 percent, since the value of the imputed rent is higher in urban areas, which have a more developed real estate market and where apartment prices are higher.

The expenditure structure for urban households is additionally characterized by a two times higher share of the costs of recreation and culture, and a higher share of costs on restaurants and hotels. The costs of health services are by 0.7 percentage points greater within the expenditure structure for urban households, in comparison to rural (other) households. The costs of education services are higher in urban households, which can be explained by the fact that the number of schoolchildren is larger in this area.

If we analyze the monthly expenditure of the average household by area it is notable that the average household in Belgrade spends 64 706 dinars, i.e. almost one fourth more than the Serbian average. The average household in West Serbia spends 44 752 dinars, or 15 percent less than the Serbian average.

The lowest costs of food and beverages within the total expenditure structure are recorded in households in Belgrade (30.3 percent), which, on the other hand, have the highest share of the costs of housing, water, power supply, gas and other fuels (22.4 percent), and costs of recreation and culture (8.6 percent). Viewing the expenditure structure of the households in Central Serbia and Vojvodina, it is notable that the shares of expenditure groups are almost equal.

HBS 2006 shows nearly the same expenditure patterns in relation to area and type of settlement, taking into account the methodological differences in collecting and computing the relevant figures.

Table 2.6. Average monthly expenditure and household expenditure structure in Central Serbia, the City of Belgrade and Vojvodina, 2007

	Central Serbia					City of Belgrade	Vojvodina
	Total	West Serbia	Šumadija	East Serbia	South-East Serbia		
Average monthly expenditure in dinars	**48 469**	**44 752**	**51 151**	**48 741**	**47 803**	**64 706**	**50 582**
Total in percent	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Food and beverages	36.5	36.3	37.2	34.8	36.7	30.3	32.6
Alcoholic drinks and tobacco	4.3	3.7	4.2	4.7	4.4	3.2	4.1
Clothes and footwear	5.1	5.3	5.2	5.0	4.8	6.1	4.5
Housing, water, power supply, gas and other fuels	16.3	16.2	15.9	16.6	16.9	22.4	18.4
Furniture, household furnishing and maintenance	3.1	2.8	3.3	3.4	2.8	3.2	3.0
Health care	3.5	3.2	3.4	3.4	3.8	4.7	4.6
Transport	8.5	9.0	8.3	8.6	8.2	8.3	8.7
Communications	3.2	3.2	3.3	3.2	3.0	3.9	3.2
Recreation and culture	4.2	3.8	4.3	4.2	4.3	8.6	5.5
Education	1.1	0.8	1.0	1.0	1.5	2.1	1.2
Restaurants and hotels	5.0	5.0	5.4	4.7	4.7	4.7	4.0
Other goods and services	7.3	8.4	7.3	6.8	7.0	8.0	8.3

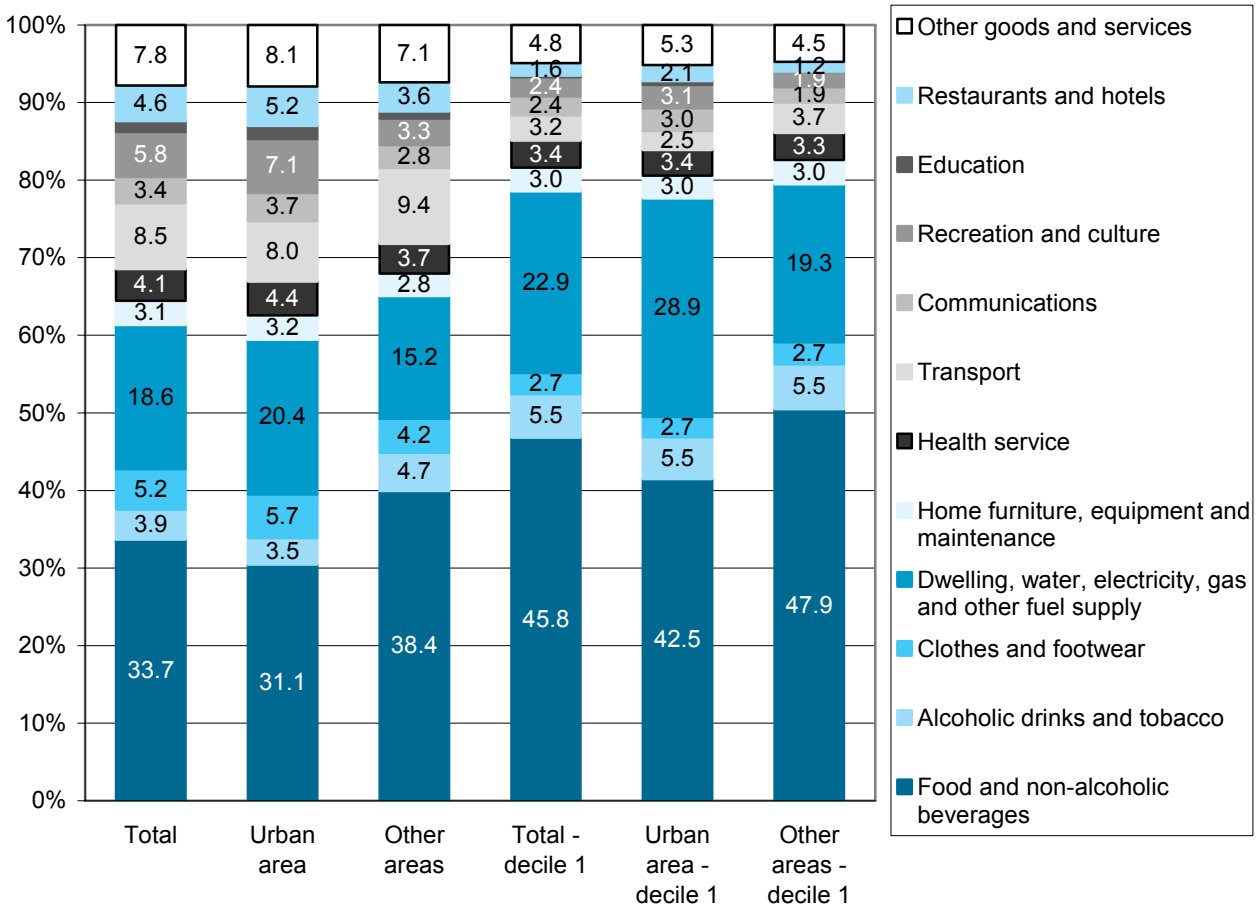
In the expenditure structure of lowest decile the largest share in expenditure is attributable to the costs of food and beverages and the costs of housing, water, power supply, gas and other fuels, which is the case with the expenditure structure of the average Serbian household. Unlike the average household, where such costs account for 52.3 percent of total expenditure, in case of the poorest groups they account for 68.7 percent of total expenditure.

The households in the first decile spend most on food and beverages – 45.8 percent. These costs, by share of total expenditure of these households, are followed by the costs of housing, water, power supply, gas and other fuels and alcoholic drinks and tobacco. The expenditure structure of the households in the first decile in urban and other areas are characterized by a high share of the costs of food and beverages and the costs of housing, water, power supply, gas and other fuels, and they account for some 70 percent of total expenditure. While the poorest households in other areas spend on food and beverages even 47.9 percent of total expenditure, the costs of urban households for housing, water, power supply, gas and other fuels account for 28.9 percent. The households in the initial four deciles have a high share of the costs of food and beverages, ranging from 45.8 percent in the first decile to 40.0 percent in the fourth decile.

The expenditure of the first-decile households is generally characterized by a high share of the costs of alcoholic drinks and tobacco – 5.5 percent, which is unfortunately evermore becoming a characteristic of the poor population. As already mentioned, the 10 percent poorest households spend on food and beverages, and housing, water, power supply, gas and other fuels 68.7 percent of the available funds, so that only 25 percent remains available for all other personal expenditure groups. Such a high share of the costs of basic necessities limits the spending capacity of these households on other spheres of life.

The structure of personal expenditure of the population which is classified as being poor corresponds to the structure of the first expenditure decile.

Graph 2.4. Household consumption structure

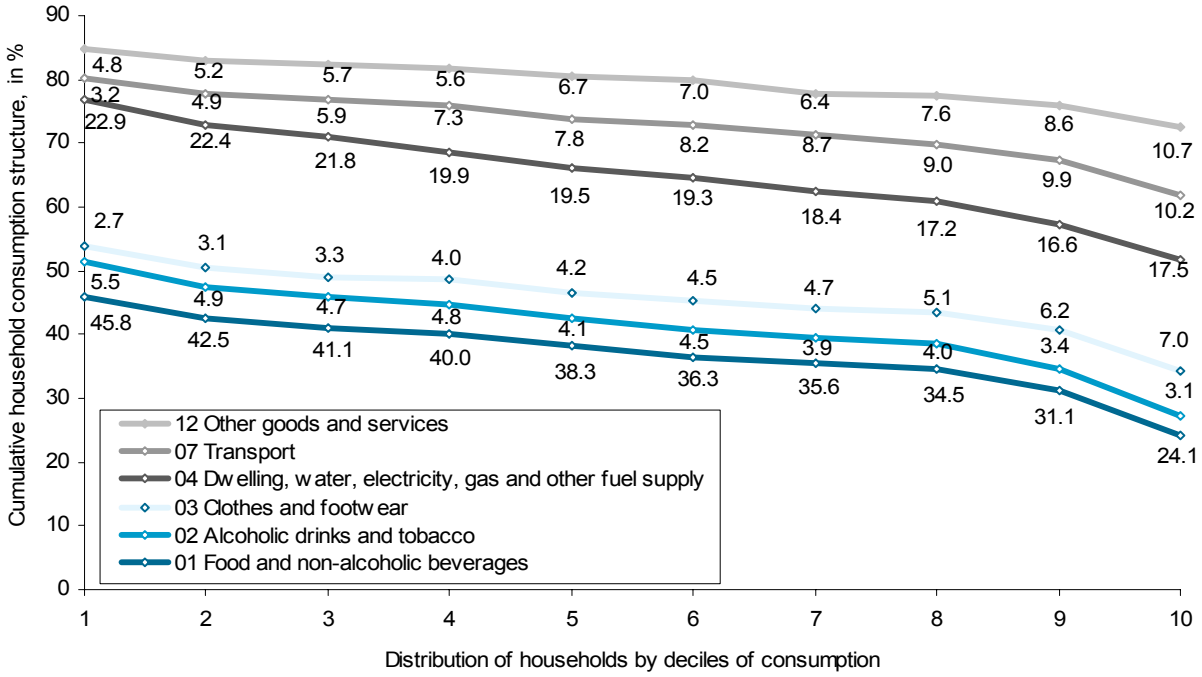


A high share of the costs of housing, water, power supply, gas and other fuels in the structure of average household expenditure (particularly in the households in the initial four deciles, where such costs constitute one fifth of total expenditure), can be explained by the obligation upon a household to settle all the costs within the set deadline in order that they have access to these service in future.

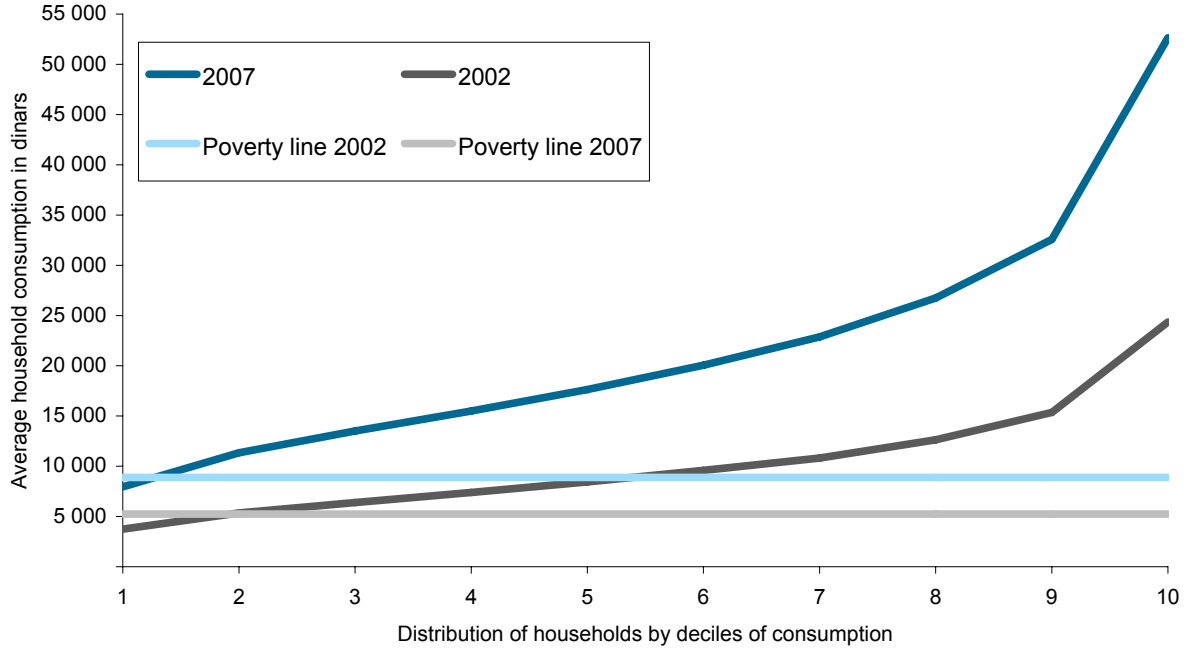
In the wealthiest decile the share of the costs of food and beverages in the structure is almost twice as low as compared to the households in the first decile (24.1 percent). Along with the costs of housing, water, power supply, gas and other fuels, the costs of basic necessities account for 41.6 percent of the available funds of these households. Almost 60 percent of funds remain at the disposal of these households for the products and services belonging to other personal expenditure groups. Out of that, 10.5 percent of monthly funds are allocated for recreation and culture, which, in absolute amounts, is almost four times higher than in the first-decile households, and constitutes nearly 2/3 of the costs of food and beverages of the poorest.

In the 2002 -2007 period, a significant growth in household expenditure was recorded. The average expenditure increased in nominal terms by 113.9 percent. If we view the expenditure of households by deciles, the nominal growth ranges from 105.3 percent to 123.6 percent. The nominal expenditure growth is followed by a real growth , which accounts for 25.5 percent in an average household and ranges from 20.5 percent to 31.2 percent by deciles of expenditure.[3]

Graph 2.5. Cumulative overview of household consumption structure by deciles of consumption, in Republic of Serbia, 2007



Graph 2.6. Household expenditure per unit of equivalent scale



If we take a look at the value trends of the indicator of inequality 9/1 decile against expenditure, it is possible to identify a certain decline of the value of this indicator in the five-year period. In 2002, the value of this indicator was 4.1, while in 2007 it amounted to 3.9.

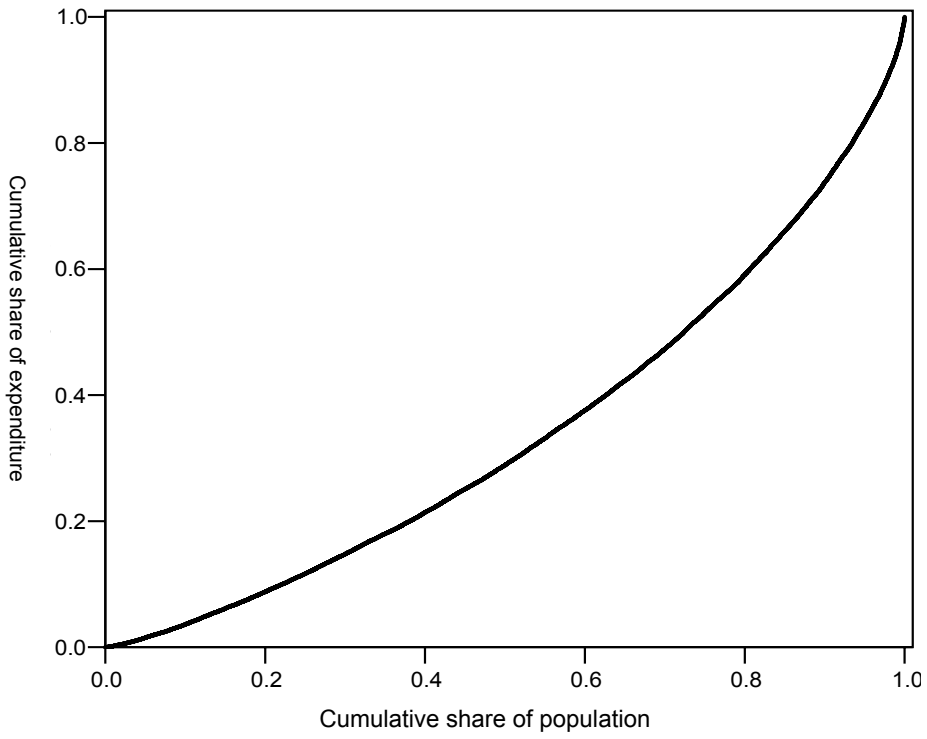
Graph 2.6 represents the distribution of households per unit of the equivalent scale as compared with the poverty lines for 2002 and 2007. If we view the distribution of population against total expenditure, the Lorenz Curve shows that there is no significant inequality of expenditure among the population.

The value of the Gini coefficient measured using household expenditure along the equivalence scale amounts to 29.69. Applying income instead of expenditure increases inequality by about 8 Gini points (the Gini coefficient measured using household income amounts to 37.03), which contributes to the selection of the expenditure aggregate as a measure of living standards of the population, as it has a more balanced distribution.

Table 2.7. Comparison between the average household expenditure by deciles per expenditure unit, 2002 – 2007

	Total	1 Decile	2 Decile	3 Decile	4 Decile	5 Decile	6 Decile	7 Decile	8 Decile	9 Decile	10 Decile
Average expenditure in dinars 2002	24 709	8 905	12 674	15 664	17 375	20 132	23 165	26 454	29 402	36 552	53 978
Average expenditure in dinars 2007	52 843	19 260	27 158	32 337	38 845	43 685	49 283	54 969	63 544	75 030	112 658
Nominal growth in percent	46.8	46.2	46.7	48.4	44.7	46.1	47.0	48.1	46.3	48.7	47.9
Real growth in percent	27.4	27.1	27.4	28.4	26.3	27.0	27.6	28.2	27.2	28.6	28.1

Graph 2.7. Lorenz Curve for expenditure



2.5. Conclusion

1. From 2002 – 2007 a significant growth in household income and expenditure was recorded. The nominal growth in income of 95.4 percent and in expenditure of 113.9 percent corresponds to the real growth in income of about 14 percent and expenditure of about 25 percent.
2. At the same time, changes have occurred both in the structure of income and the structure of expenditure. As for the income structure, the share of income from employment and pensions has increased, while income from agriculture and income in kind have declined. As far as expenditure structure is concerned, the share of food and beverage costs, as well as the costs of housing, water, power supply, gas and other fuels are still the highest, however, they show a declining trend.
3. The largest share in the income structure in the lowest decile is attributable to pensions, while in the wealthiest decile the largest portion of income is generated from employment.
4. A high share of the income from agriculture and income in kind is characteristic for the 10 percent poorest households as viewed by deciles of income.
5. Analyzing the income and expenditure structures by area we can identify the expected differences, which are most diverse when comparing the households in the City of Belgrade and those in Central Serbia.
6. The indicators of inequality (9/1 decile, Gini coefficient) show a more balanced distribution of the expenditure of households as opposed to their income.
7. The average household in Serbia has a monthly income of 43 569 dinars, whereas, the average monthly household expenditure amounts to 52 843 dinars, which is almost one fifth (21%) more than the income. Surveys which collect household income and expenditure data are characterised by an underestimation of income in relation to expenditure. As stated, households avoid declaring their income because of mistrust in the confidentiality of survey data, concern about taxation bodies, etc. In addition, households avoid declaring incomes from semi-legal or illegal sources, which is not the case for expenditure from these sources.

Endnotes, Part 2

[1] In calculating the depreciation of agricultural machines, the depreciation rates from 2002 were applied.
[2] In calculating the depreciation of agricultural machines, the depreciation rates from 2002 were applied.
[3] The calculation of the real growth rate was made based on the living cost index for June 2007/June 2002.

Vladimir Stankovic

Demographic characteristics of the population

3

3. DEMOGRAPHIC CHARACTERISTICS OF THE POPULATION

In this chapter we underline the basic demographic characteristics of the population by comparing results from LSMS 2002, 2003 and 2007 and analyse trends.

3.1. Age and gender

Gender and age, as primarily biological characteristics, represent the determinants of many demographic and social phenomena. Considering their strong empirical links, data on gender and age are examined together.

The population distribution according to gender in 2007 (48.2 percent male compared to 51.8 percent female) has changed only slightly compared to 2003 (48.3 percent male compared to 51.7 percent female) in favour of females, which is to be expected, since the process in question is a long-term demographic process of a gradual increase in the representation of women in societies with a high average age (Table 1). Men are prevalent in the youngest age groups (0-14 and 15-29 years of age).

There are more women than men starting at the 30-44 age group and continuing to the oldest group (60+) where the proportion of females is considerably higher (56.2 percent compared to 43.8 percent). The proportion of women in the population is continually growing which is a characteristic of many European countries.[1]

The age structure of the population in 2007 has not changed significantly to that of 2003, except in the age groups 45-59 and 60+ (Table 2). The proportion of these age groups in 2007 is practically in inverse proportion to their proportion in 2003. The 45 – 59 year olds took over the primary position from those aged 60+ owing to the new generations born after World War Two - during the so called baby boom (1948-1957). Also, the addition of the age cohort born during World War Two (1943-1945), i.e. the "incomplete" generation, to the oldest population group decreased its levels compared to 2003. Having this in mind, it is not surprising there is larger proportion of people of 45-49 years of age than those aged 60+.

The situation according to region is changing because, except for the City of Belgrade and Vojvodina, the majority of people in other regions are elderly. Almost every fourth person in these regions is aged over 60. In East Serbia the oldest cohort accounts for 26.7 percent of the population. This region, with a low birth rate, is in the phase of deep old-aging, a dominant characteristic of Serbia, which has one of the oldest populations in Europe.

A burning issue in Serbia is, without doubt, the ageing of the population. In the total number of households more than a half has at least one member aged 65 years and over, showing the accelerated process of demographic ageing. Furthermore, the proportion of households with persons of 65 and over is far greater in rural than in urban areas (51.4 percent in villages compared to 34.7 percent in towns) demonstrating the impact on the rural age structure in Serbia caused by the long-term and uncontrolled migration of young, educated people.

Table 3.1. Population distribution by gender and age (percent)

	Total		2007						
			Age					Poverty line	
	2003	2007	0-14	15-29	30-44	45-59	60+	Above	Below
Men	48.3	48.2	51.0	50.5	49.1	48.1	43.8	48.2	47.9
Women	51.7	51.8	49.0	49.5	50.9	51.9	56.2	51.8	52.1

Table 3.2. Age, gender, type of settlement, region and poverty line

Age	Total		2007											
			Gender		Type of settlement		Region						Poverty line	
	2003	2007	Male	Female	Urban	Other	Belgrade	Vojvodina	Western Serbia	Sumadija	Eastern Serbia	South East Serbia	Above	Below
0 - 14	13.7	14.0	14.8	13.2	13.9	14.1	13.1	14.7	14.4	13.0	13.7	15.0	13.6	19.5
15 - 29	19.4	20.0	21.0	19.1	21.7	17.6	21.9	20.9	19.2	18.8	17.3	19.0	20.3	15.8
30 - 44	18.8	19.3	19.6	18.9	19.7	18.6	19.5	19.4	18.1	17.9	18.7	21.4	19.4	17.7
45 - 59	22.7	24.2	24.1	24.2	24.8	23.3	25.1	24.7	23.9	24.4	23.7	21.8	24.6	17.6
60+	25.5	22.6	20.5	24.5	19.8	26.4	20.4	20.3	24.3	25.9	26.7	22.8	22.1	29.4
Total	**100 percent**													

The problem of demographic ageing in Central Serbia and Vojvodina can be best seen through data on the number of children in households. Compared to 2003, the proportion of households without children (aged less than 18) has increased (from 65 percent in 2003 to 66.8 percent in 2007). The proportion of households with one child is unchanged (16.7 percent), while the proportion of households with two or more children has declined (18.4 percent in 2003 to 16.5 percent in 2007).[2] According to the type of settlement, a slightly larger proportion of households with one child are found in towns (17.6 percent in urban areas compared to 15.4 percent in rural) while the proportion of the households with two or more children is more prevalent in rural settlements (17.7 in villages compared to 15.7 in towns). Examing regions in Serbia, the smallest proportion of households with two and more children is found in the City of Belgrade (only 13.9 percent) and the largest is South East Serbia (the region with the highest poverty rate).

3.2. Marital status

The distribution of the population aged 15+ by marital status (Table 3) is very similar to that found in Census 2002 and LSMS 2003 (however, it is not completely comparable to the Census which did not include the cohabiting category).

Table 3.3. Marital status of adults aged 15+
(percent)

	Census 2002	LSMS 2003	LSMS 2007
Married	60.4	60.1	57.4
Cohabiting	...	1.9	2.8
Single	24.4	23.3	24.5
Divorced	4.0	3.2	4.0
Widowed	10.8	11.5	11.4

The largest differences between data from 2003 and 2007 were in relation to the legally married category which decreased by 2.7 percentage points in 2007, cohabiting increased by 0.9 percent in 2007), being single increased by 1.2 percent and divorced by 0.8 percent. These changes follow the trends observed in the 1990s that there was an increase in single people, fewer marriages and more divorces.

It is interesting to compare the overall marital structure with that of those living below the poverty line – particularly for cohabiters and widows/ers. Overall the widowed are 11.4 percent of the population but 14.5 percent of the poor. This underlines the already mentioned conclusion that the elderly in Serbia is threatened by poverty having in mind that (according to LSMS 2007) more than one third (35.1 percent) of the widowed are aged 60+ and, according to Census 2002, 45 percent of

widows were aged over 60 and 17 percent of widowers.

Cohabiting people tend to be worse off, this may be explained, among other things, by the fact that 12 percent of all cohabiters are Roma (and almost every fifth Roma is living below the poverty line). Only 2.6 percent of the overall population are cohabiting and in the Roma community it is almost 15 percent.

3.3. Activity status

Activity status is a key characteristic and a classification used on every Census and socio-economic survey. The threefold division of population:

1. Active
2. Persons with personal income
3. Supported population

reflects the achieved degree of social-economic development of a society and provides the basis for an assessment of likely future development.

LSMS 2007 shows some shifts in the ratio of the three categories when their proportions are compared with data from Census 2002 and LSMS 2002 and 2003. The proportion of the active population has grown by 3.5 percentage points, at the "expense" of the persons with personal income (whose proportion declined by 1.5 points) and supported persons (whose proportion declined by 2 percentage points).

Within the active population there is a slight increase in the proportion of those working outside regular employment, employers (including the store owners) and farmers, as well as an increase in the proportion of contributing family workers and self-employed. But there is one percentage point less of employed persons (temporarily and permanently employed) and half a point less for unemployed seeking employment.

In all the categories making up the category of people with personal income there was a slight decline – this was headed by pensioners whose proportion decreased by one percentage point compared to 2003.

Within the category of the supported population it is worth noting the decline in the proportion of housewives (from 9.6 percent in 2003 to 5.5 percent in 2007). It is usual for the older female population, with a basic education level, primarily in rural areas, to choose this status, despite the fact many of these women are actively involved in agricultural activities. The status of housewife is chosen more often by the older, patriarchal female population while younger, more emancipated and more educated women are less likely to declare themselves as housewives. The mortality of the elderly female population also directly affects the decline in the proportion of housewives in the overall activity status structure.

Despite the decline by around one percentage point compared to 2003, the proportion of employed (regularly employed) persons is still the main type of activity status (24.6 percent). However, the increase in the proportion of people working outside formal employment, employers, individual agricultural workers, self-employed persons, contributing family members and others actively performing an occupation indicates that the labour market trends, under the influence of the transition processes, are slowly shifting from formal to informal sector. Formal employment provides the greatest material security since employed persons have a dominant presence among the population in the 4th and 5th consumption quintiles (the richest) while pensioners and individual agricultural workers who have the highest presence in the 1st and 2nd – the poorest quintiles.

Regionally, the data shows that the proportion of formal employment is high, especially in Belgrade (30 percent). The only exception is South East Serbia where the proportion of children, pupils and students is highest (24.8 percent) then followed by employed people (21.2 percent).

Examining the distribution of those living below the poverty line by activity status, the proportion "Child, pupil, student" is particularly large since almost every fourth poor citizen of Serbia is a child, pupil or student (23.7 percent). Pensioners and the unemployed looking for a job make up a large proportion (around 16 percent) of the poor, as well as housewives (11.2 percent). Prominent proportions of poor are also found in the employed category (9.1 percent) and that of individual agricultural workers (8.3 percent).

The ranking of activity status varies when examining the activity status of each person in the survey and examining whether they are poor or not and if we compare the ranking by how many poor people are found within each of the activity statuses. The results can be seen in Table 4.

Table 3.4. Ranking of the poor by Activity status and the proportion of the poor within each Activity status (LSMS 2007)

Ranking of Poverty by Activity status			Proportion of the poor within each category		
Rank	Activity	%	Rank	Activity	%
1.	Children, pupils, students	23.7	1.	Have other personal income (social assistance, alimony etc.)	46.5
2.	Pensioners	16.2	2.	Others who perform an occupation[3]	45.2
3.	Unemployed – seeking employment	16.0	3.	Incapable of work	16.5
4.	Housewives	11.2	4.	Housewives	13.4
5.	Employed (regularly employed)	9.1	5.	Unemployed – seeking employment	12.1
6.	Individual agricultural workers	8.3	6.	Individual agricultural workers	10.0
7.	Working outside regular employment	5.8	7.	Obtain income from property	8.9
8.	Incapable of work	4.5	8.	Contributing family workers	8.3
9.	Contributing family workers	1.7	9.	Working outside regular employment	8.1
10-11.	Have other personal income (social assistance, alimony etc.)	0.9	10.	Others who do not perform an occupation	7.4
10-11.	Others who do not perform an occupation	0.9	11.	Children, pupils, students	6.8
12-13.	Self-employed	0.5	12.	Stopped working (military service or serving a prison sentence)	5.8
12-13.	Others who perform an occupation	0.5	13.	Pensioners	5.3
14.	Employers	0.4	14.	Self-employed	5.1
15-16.	Stopped working (military service or serving a prison sentence)	0.1	15.	Employed (regularly employed)	2.4
15-16.	Obtain income from property	0.1	16.	Employers	0.9
	Total:	**100.0**			

3.4. Household size and composition

The average household size is three members[4]. The average household of Central Serbia and Vojvodina are not much different than the average European household, especially not the average of a South East European household. Of the total number of households in Serbia (Table 5) most consist of two members (23.8 percent) and the next most prevalent are households with four members (20.2 percent). Similar results were found in 2002 and 2003.

Table 3.5. Household size

	LSMS 2003	LSMS 2007
Single	17.5	18.6
Two members	24.7	23.8
Three members	19.8	19.3
Four members	21.7	20.2
Five and more members	16.4	18.2
Total	**100 percent**	

However, there is an increase in the proportion of single member households (from 17.5 percent in 2003 to 18.6 percent in 2007) and households with five and more members (from 16.4 percent in 2003 to 18.2 percent in 2007). The increase of the proportion of single member households is expected, firstly due to the ageing process of the population which adds to the number of single member households of senior citizens both in urban and rural settlements. On the other hand, the increase in the proportion of the households consisting of many members, in a country with a low birth rate, indicates the still widespread tradition of several generations of blood relatives living together (multi-generation families). This phenomenon is especially common in rural areas where the proportion of the households with five and more members (23.4 percent) is practically equal to the proportion of the households with two members (23.3 percent).

Nuclear families with children are the most common type of household in Serbia (31.3 percent). Multi-generational families are in second place (23.5 percent) and then come elderly households (17.4 percent). The distribution of household type varies by type of settlement. As much as 35 percent of households in urban settlements belong to the category of nuclear families, compared to 25.6 percent in rural areas. On the other hand, there are more multi-generational families in rural areas (30.5 percent). This could be the result of a lack of economic and material security, preventing people from leaving families to set up their own home, as well as the agricultural based activity of the rural population. Elderly households are more common in rural areas (20.9 percent in villages compared to 15.1 percent in towns) while the proportion of singles under 65 years of age is slightly smaller in villages than in towns (6.7 percent compared to 8.1 percent).

3.5. Conclusion

1. The gender composition of Serbia's population has not changed significantly compared to 2003. It is still characterized by a higher proportion of women except in the youngest age groups (0-14 and 15-29).
2. The regional aspect of age structure of the population indicates that, apart from Belgrade and Vojvodina (areas with more migration) the majority of the population are aged 60+. The high proportion of elderly in Serbia makes it one of the "oldest" European countries.
3. The population structure by marital status does not show any major changes compared to 2002 or 2003. However, the comparison of the marital structure of the total population and marital structure of the poor reveals a greater proportion of widowed among the poor, which additionally underlines the poverty of the oldest citizens of Serbia.
4. Although, compared to the results of the Census 2002 and LSMS 2002 and 2003 there were no major changes within the threefold division of active population, those with personal income and supported persons. There is however an increase in the proportion of the active population owing to the slight increase of active people engaged in the informal sector.

Endnotes, Part 3

[1] In 2006, life expectancy in Serbia was 75.9 years for women and 70.6 years for men.

[2] Although there is a slight increase in the proportion of the households with three and more children (2.9 percent in 2003 compared to 3.3 percent in 2007) this is not due to the increase of fertility in the period between the surveys.

[3] This category includes active persons for whom it was not possible to obtain a response.

[4] The average household size in Belgrade and Vojvodina is 3 members; West Serbia and Sumadija 3.2; East Serbia 3.1 and South East Serbia 3.4 members.

Vladimir Stankovic

Migration in Serbia 4

4. MIGRATION IN SERBIA

Migration as a separate module was not included in LSMS 2002 and 2003. One of the aims of the 2007 questionnaire was to examine both quantitative and qualitative migratory characteristics of the Serbian population in order to see whether there is a correlation between spatial mobility and poverty.

Based on the 2007 results 58.7 percent of the population have lived in the same place since their birth, while 41.3 percent have moved. These data do not significantly differ from Census 2002 data (54.2 percent and 45.8 percent). The large proportion of migrants in Serbia is the result of some serious social and economic changes occurring in the last 60 years. In relation to internal migration, mass migration from the countryside to the towns was prevalent in the 1950s and 1960s due to rapid economic development. While the last decade of the 20th century will be remembered for the forced migration (refugees and IDPs) caused by the wars in the former Yugoslavia. The fact that the proportion of migrants has doubled from Census 1948 to Census 2002 (from 23 percent to 46 percent) illustrates the extent of spatial mobility.

4.1. Composition of non-movers and migrants by age and gender

The data shows the high degree of spatial mobility of females in Serbia (Table 1). There are a greater proportion of men in the structure of non-mover population than women by 8.3 percent while women have a greater proportion in the migrant population by as much as 20.5 percent.

Looking at the data it is apparent that almost two thirds of men (65.9 percent) belong to the non-mover population, while every third man has changed permanent residence location at least once. The proportions of the female non-movers and migrants are almost equal (51.9 percent compared to 48.1 percent).

The proportion of men in the non-mover population living below the poverty line is 7.5 percent while the proportion of women is 7.4 percent. One can notice that the figures for both genders are above the overall level (6.6 percent). There is difference of only one percentage point in the distribution of migrants living below the poverty line (4.8 percent and 5.8 percent). The proportions of migrants of both genders living below the poverty line are lower than the average value for Serbia.

The age structure of the non-mover population of Serbia is in "inverse proportion" to that of migrants. Persons under 45 years of age account for 67.6 percent of the non-mover population, while the proportion of persons older than 45 in the contingent of migrants is smaller only by half a percentage point (67.1 percent). The average age of the non-mover male is 36 and the average age of the migrant male is 50 years. Migrant females are on average 52 years old, while non-mover females are 18 years younger on average.

If we examine the year in which people last moved we conclude that most migrants moved before 1991, and were aged less than 45 years of age at the time of moving (Table 2).

Table 4.1. Migration status by gender and current age, 2007

	Total	Gender		Age				
		Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60 +
Total	**7 411 000**	**3 571 348**	**3 839 652**	**1 034 669**	**1 484 292**	**1 427 720**	**1 792 178**	**1 672 140**
Non-mover	4 347 469	2 353 638	1 993 831	957 484	1 153 657	828 861	744 079	663 388
Migrant	3 063 531	1 217 710	1 845 821	77 185	330 634	598 859	1 048 100	1 008 752
(percent)								
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Non-mover	58.7	65.9	51.9	92.5	77.7	58.1	41.5	39.7
Migrant	41.3	34.1	48.1	7.5	22.3	41.9	58.5	60.3

Table 4.2. Year of migration by gender and current age (percent)

	Total	Gender		Age				
		Male	Female	0 - 14	15 - 29	30 – 44	45 - 59	60 +
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Before 1946	1.9	1.5	2.2					5.8
1946-1970	31.5	31.6	31.4			6.2	28.1	62.7
1971-1990	34.2	33.3	34.7		22.2	45.6	51.4	15.9
1991-1998	15.7	15.5	15.8	23.7	31.8	28.9	11.0	6.9
1999 and later	14.0	15.5	13.0	65.1	43.9	17.2	6.9	5.7
Unknown	2.8	2.7	2.8	11.1	2.1	2.1	2.6	2.9

An extremely high spatial mobility of the population until the 1980s is an indicator of the rapid socio economic development of Serbia in that period. In the interval between 1980 and 1990 there was a stabilization of internal migratory processes, and the 1990s were marked by the eruptive processes of forced migrations involving refugees and IDPs.

A high proportion of female migration was conditioned by the changed role of women in society, the increasing educational level of women as well as a significant proportion of marriage migrations. This is supported by the fact that almost 70 percent of women gave "family reason" as the main reason for moving (Table 3). Employment was the decisive reason for 12 percent of the women while for 8 percent of the women with Refugee or IDP status, migration was not voluntary but due to the war. The ranking of the reasons for moving is the same for men but with a much smaller proportion for family reasons (45 percent) and a larger one for employment (30 percent).

Table 4.3. Migration by reason for moving and gender (percent)

	Total	Gender	
		Male	Female
Family reasons	59.2	45.0	68.6
Job	19.4	30.2	12.2
Education	6.7	7.6	6.1
Health reasons	0.3	0.3	0.2
War (forced migration)	9.1	10.9	8.0
Other reasons	5.4	6.1	4.9
Total number	**7 032**	**2 721**	**4 311**

4.2. Type of settlement and region

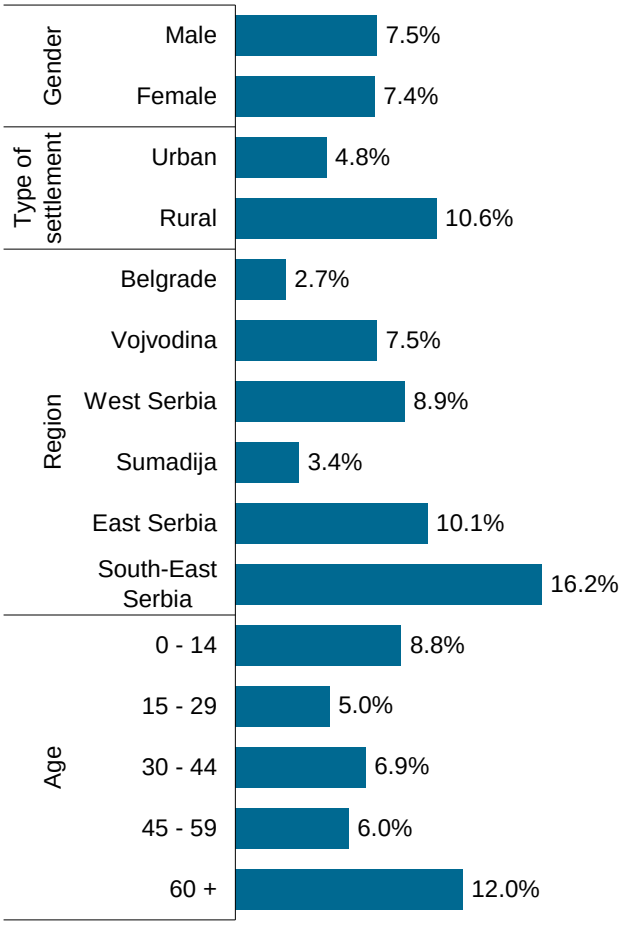
The accelerated economic development of the country in the first decades after World War Two directed the labour surplus from the rural to urban settlements. The volume and intensity of these migration flows from rural toward urban areas can be seen through the increase of the urban population which tripled from 1948 to 2002 (from 18.3 percent to 56.3 percent). The urban population dominates in 2007 (58.5 percent compared to 41.5 percent other settlements, Table 4).

Table 4.4. Migration by type of settlement and region (percent)

	Total	Type of settlement		Region					
		Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	SE Serbia
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Non-mover	58.7	55.2	63.5	53.9	57.4	62.1	60.4	64.1	61.0
Migrant	41.3	44.8	36.5	46.1	42.6	37.9	39.6	35.9	39.0

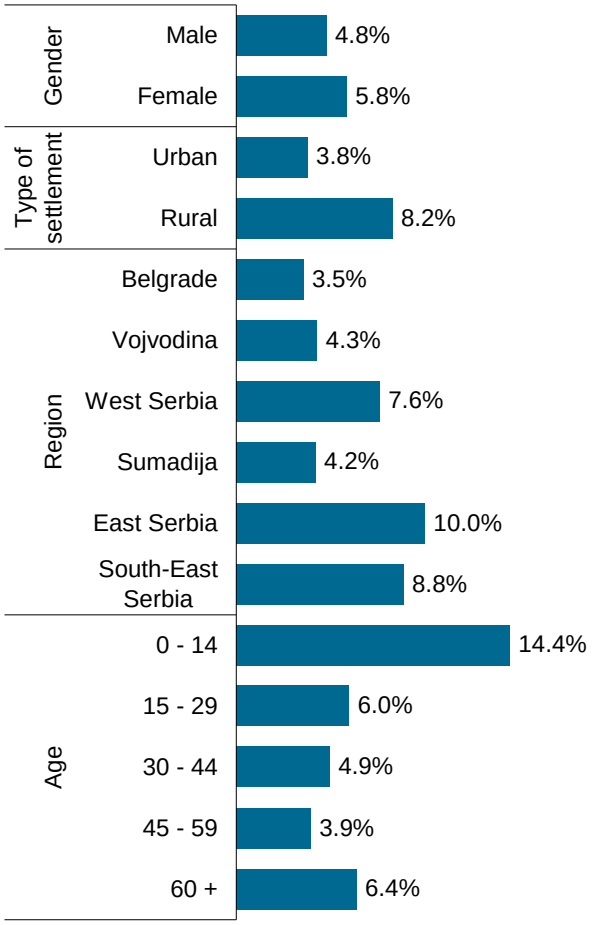
The non-mover population accounts for 55.2 percent of the population in urban areas and 63.5 percent in rural settlements, with 4.8 percent of poor people living in towns while almost every ninth person in rural areas is poor (Graph 1).

Graph 4.1. Proportion of non-mover population living below the poverty line by gender, age, type of settlement and region



At the same time, 44.8 percent of the migrants live in towns, while slightly more than every third person in rural settlements is a migrant. The proportion of poor migrants living in rural settlements is 4.4 percent larger than poor migrants in urban settlements (Graph 2).

Graph 4.2. Proportion of migrants living below the poverty line by gender, age, type of settlement and region



Belgrade and Vojvodina have the smallest proportions of non-movers (53.9 percent and 57.4 percent), while these proportions exceed 60 percent in other regions. Ranking the non-mover population according to the proportion of the poor, Belgrade (with 2.7 percent) and Sumadija (with 3.4 percent) stand out with the lowest percentage of the poor.

Table 4.5. Migration and educational level (percent)

	Non-mover		Migrant	
	Not poor	Poor	Not poor	Poor
Total	**92.6**	**7.4**	**94.6**	**5.4**
Preschool children and primary school pupils	91.4	8.6	86.8	13.2
No school	68.3	31.7	78.6	21.4
Incomplete primary school	82.7	17.3	88.8	11.2
Primary school	90.4	9.6	92.7	7.3
One/two year vocational school	90.9	9.1	93.8	6.2
Secondary – three-year and for skilled workers	95.5	4.5	95.3	4.7
Secondary – four-year and for highly skilled workers	96.1	3.9	97.7	2.3
Gymnasium	98.9	1.1	98.8	1.2
Postsecondary non-university institution	99.0	1.0	99.4	0.6
University	100.0	0.0	99.3	0.7
Masters, Doctoral degree	100.0	0.0	100.0	0.0

They are followed by Vojvodina (7.5 percent), West Serbia (8.9 percent) and East Serbia (10 percent) while the highest percentage can be found in SE Serbia (16.2 percent).

The ranking of the regions according to the proportion of poor migrants is as follows: Belgrade (3.5 percent), Sumadija (4.2 percent) and Vojvodina (4.3 percent) are below the overall average. West Serbia is in 4th position (with 7.6 percent), then SE Serbia (with 8.8 percent) and East Serbia is last (with 10 percent).

It is clear from this regional ranking that only in Belgrade and Sumadija the proportion of the poor in non-mover population is lower than the proportion of the poor in the migrant population. It is interesting to note that the proportion of the poor citizens within the non-mover and migrant population is the same (10 percent) in East Serbia. However, in relation to the overall average, West, East and SE Serbia have above-the-average proportions of the poor both in the non-mover and migrant structure.

Regional differences according to poverty and migration status resulted from the long-term demographic and socio economic processes in the second half of the 20th century. In order to change their status, the young left rural settlements, moving mainly to the big cities or regional centres where it was easier to find work or because there were more opportunities for additional schooling and advanced studies. So, while the urban population was getting demographically younger, the rural settlements were slowly disappearing and the rural population was rapidly ageing. In the mid 60s an economic crisis led to a reduction of country-to-town migration but a wave of young able-to-work people moved abroad, mainly towards the Western European countries.

The depopulation of rural areas was accompanied by the ageing process of its population[1] which brought about the higher concentration of the poor in the non-mover, rural population, especially in East and SE Serbia. At the same time, as Graphs 1 and 2 indicate, there is a greater relative proportion of poor children younger than 15 among migrants than among non-movers.

The distribution of type of settlement and region in relation to poverty status is also correlated with the educational structure of the population (Table 5). Belgrade and Vojvodina are the two regions with an above average proportion of urban population. At the same time, in these regions there are a high proportion of people who graduated from some higher-ranking school than the 8-year primary school. Having in mind that both in the non-mover and migrant population the absolute and relative proportions of the poor decline with the increase in educational level, it is quite understandable that these populations are the least affected by poverty. For example, within the non-mover, as well as the migrant population, the most affected by poverty are the persons without primary school while the risk of poverty is decreasing as the educational level goes up. LSMS 2007 did not interview any person in the non-mover population with a university degree, Masters or Doctoral degree living below the poverty line. Only 0.7 percent of people with university degree in the migrant group were poor while there were no poor people among the persons with Masters or Doctoral degrees.

Table 4.6. Migration characteristics by ethnicity and poverty status

	Non-mover poverty line		Migrant poverty line	
	Above	Below	Above	Below
Total	**92.6**	**7.4**	**94.6**	**5.4**
Serbs (n= 14 979)	94.1	5.9	95.2	4.8
Hungarians (n= 580)	94.5	5.5	97.3	2.7
Roma (n= 456)	47.2	52.8	58.4	41.6
Other (n=1 360)	92.2	7.8	95.6	4.4

4.3. Ethnicity of non-movers and migrants

Large differences in standard of living, based on migration status and ethnicity can be observed (Table 6).

If the proportion of Serbs is analysed in relation to migration and the poverty line, the values are close to the overall level since the majority of the population is Serbian. The results of Census 2002 and LSMS 2007 shows low level of spatial mobility of the Roma population, which diverges from the customary opinion of the Roma being nomadic. Of the total Roma number, 32 percent of them were moving, mostly to urban areas, which is by 14 percent less than the republican average. The Roma population is specific since they have extremely high proportion of the poor both among the non-mover and migrant population. There are as much as 52.8 percent of the Roma who have never changed the location of their residence and this ethic community is the only one with the higher recorded proportion of the poor than of those who "crossed" the poverty line. In the migrant group 41.6 percent of the Roma persons are poor. The reasons for such a high percentage of the poor can be found in the unfavourable educational level of the Roma population which had a negative affect on its professional structure displaying a high proportion of the simplest professions.

Hungarians in Serbia also have above-the-average proportion in the non-mover population. A high percentage of the non-mover population from the Hungarian ethnic group may be interpreted in the light of their high average age, as well as a high proportion of agricultural population which is certainly not an incentive for their spatial mobility. However, as opposed to the Roma population, the Hungarians have a small proportion of the poor both within the non-mover and migrant population. If we consider the educational structure to be one of the factors in negative correlation with the poverty line, then the fact that illiteracy is practically eradicated among the members of this nationality and the proportion of persons without education is almost irrelevant, contributed to the proportions of the poor Hungarians being below the republican average.

4.4. Households according to the migratory characteristics of their members

Migration studies after World War 2 were mostly based on the results of Censuses. The extent, dynamics and type of spatial mobility of the population were analyzed on the basis of individual characteristics of migrants regardless of whether only individual members of a household or complete households moved.

The second half of the 20th century in Serbia began with the agrarian colonization of Vojvodina when whole households from the passive areas of the former SFRY republics settled in the fertile plain. In the period of intensive country-to-town migrations in 1950s and 1960s, as well as in the period of mass departure of labour to the developed European countries from the mid 1960s, often it was individuals who moved but their departure had an impact on the household. Due to the huge economic, social and political crisis in the country in 1990s, as well as the war, the families of young, educated married couples migrated abroad while at the same time, tens of thousands of refugee households came to Serbia.

Using LSMS 2007 households have been categorised according to the migratory characteristics of their members into three groups: non-mover (households without members who have moved), migrant (households in which all members have moved at least once) and mixed (households with at least one non-mover member and at least one migrant member).

Table 4.7. Migration by number of household members, type of settlement, region and poverty status
(percent)

	Total	Type of settlement		Region						Poverty line	
		Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	SE Serbia	Above	Below
Total	**2 402 793**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Non-mover	**656 324**	**24.0**	**32.3**	**23.2**	**27.0**	**30.6**	**28.0**	**35.0**	**26.9**	**26.5**	**40.4**
With 1 member	178 338	5.2	10.7	4.9	7.3	9.8	9.1	9.7	6.8	7.2	11.3
2	149 609	4.9	8.2	4.8	5.4	7.7	8.3	8.0	5.6	5.9	10.9
3	126 487	5.5	4.9	6.2	5.3	4.8	4.2	7.0	4.2	5.2	5.9
4	117 463	5.6	3.8	4.7	5.6	4.8	3.0	5.5	5.7	4.8	6.0
5 and more	84 427	2.8	4.6	2.6	3.5	3.5	3.4	4.8	4.6	3.3	6.2
Migrant	**844 792**	**36.6**	**33.0**	**37.9**	**36.7**	**31.9**	**34.4**	**32.8**	**31.7**	**35.4**	**30.8**
With 1 member	265 490	12.6	8.8	13.3	11.7	9.6	10.1	10.4	8.3	11.1	9.9
2	324 124	14.3	12.2	14.1	14.9	11.7	12.4	13.1	12.3	13.6	12.3
3	91 679	3.9	3.6	5.5	3.1	3.3	3.9	3.2	3.1	3.9	2.1
4	89 084	3.5	4.0	3.2	3.9	3.9	4.2	2.7	4.2	3.7	3.6
5 and more	74 416	2.2	4.4	1.9	3.0	3.4	3.9	3.6	3.9	3.1	3.0
Mixed	**901 677**	**39.4**	**34.7**	**38.9**	**36.3**	**37.5**	**37.6**	**32.2**	**41.4**	**38.1**	**28.8**
With 2 members	95 114	4.8	2.8	5.5	4.5	3.7	2.8	1.7	3.1	4.0	2.9
3	244 275	12.0	7.5	11.4	11.9	9.2	8.5	7.2	8.9	10.6	3.5
4	279 207	12.8	9.8	12.0	11.5	12.3	12.1	9.3	11.6	11.9	6.7
5 and more	283 080	9.9	14.7	10.1	8.5	12.3	14.1	13.9	17.8	11.5	15.8

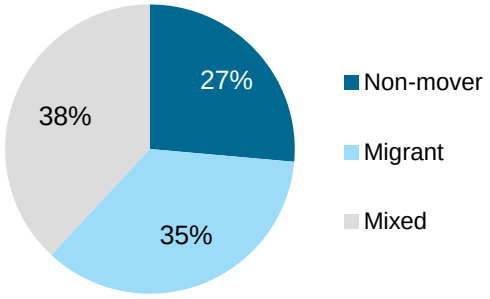
We can see in Table 7 and Graph 3 that mixed households are the most frequent (37.5 percent), then migrant households (35.2 percent), while non-mover households account for the smallest proportion (27.3 percent). However, if we take a look at the migratory structure of households in relation to the poverty line, the ranking is in reverse order: highest poverty levels are found in non-mover households (40.4 percent), and migrant households (30.8 percent) and the lowest proportion of the poor is found in mixed households (28.8 percent).

According to the type of settlement, there is a difference in the distribution of households by migration status and number of members. Most households in urban areas are single-member or two-member migrant households (26.9 percent), as well as three-member and four-member mixed households (24.8 percent). Less than every fourth household in urban areas is non-mover (24 percent). In rural areas almost every seventh household is a mixed household consisting of many members (five or more members), and then follow, according to frequency, two-member migrant households (12.2 percent) and single-member non-mover households (10.7 percent). The higher presence of non-mover households in rural areas, especially single-member, non-mover households is largely elderly households, one of the poorest groups in rural areas.

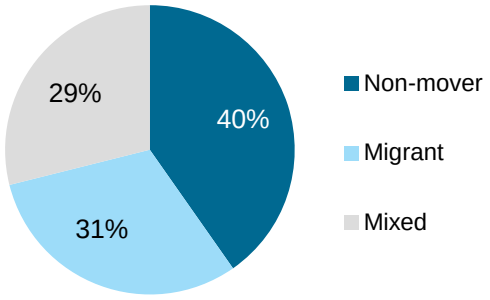
Regionally, the proportion of migrant and mixed households in Belgrade and Vojvodina are almost equal, but with fewer non-mover households. In West Serbia, Sumadija and SE Serbia mixed households dominate but in SE Serbia almost 18 percent of households are mixed and consist of many members. East Serbia is the only region with a high proportion of non-mover households (35 percent). This is the result of the socio economic development of this area, specifically the heavy industry (metals, machinery, mining etc.) that developed in this region was not appealing enough to attract a large number of migrants. On the other hand, economic stagnation in the mid 1960s and a rise in unemployment set most of migrants from this region in motion.

Graph 4.3. Households by migratory characteristics of their members

all households



households living below the poverty line



Looking at household structure in relation to the poverty line, we can see that the mixed households consisting of many members, as well as single-member and two-member non-mover and migrant households are the most affected by poverty[2].

Old-age single-member households account for 59.5 percent of the total number of single-member households. However, by migration status, out of the total number of persons in old-age single-member households, 37.7 percent are non-movers and 62.3 percent migrants. According to LSMS 2007 results, every tenth old-age single-member household is affected by poverty as follows: 13.6 percent (or almost every seventh within the non-mover population) and 0.1 percent within the migrant population. According to the type of settlement, 15.1 percent of the old-age single-member non-mover households with expenditures below the poverty line live in rural areas while 10.7 percent live in towns.

4.5. Conclusion

1. In Serbia overall the non-mover population is larger than those who migrate. The non-mover population is poorer than the migrant population. Non movers have double the average amount of people living below the poverty line.
2. Women are more likely to migrate than men (20.5 percent higher). However, when examining the distribution of the non-mover and migrant population by the poverty line, the male and female proportions are practically equal.
3. Urban non-movers are ten percentage points more frequent than the migrant population in these areas. Non-movers account for almost two thirds of those living in rural settlements. The rural population, especially in East and South East Serbia, is poorer than the urban population, regardless of migration status.
4. Those most affected by poverty are mixed (containing both non movers and migrants) households consisting of many members, then two-member migrant households and single-member and two-member non-mover households. It is especially disturbing to identify that almost every tenth old-age single-member household is affected by poverty.

Endnotes, Part 4

[1] According to LSMS 2007 over a quarter of people in rural settlements are over 60 years of age.

[2] Analysis indicates that single-member and two-member non-mover and migrant households (which are vulnerable to poverty) are mostly elderly households where one or both members are retired, housewives, or individual agricultural labourers, etc. Mixed households with more members which are vulnerable to poverty are most often single-family households with a greater number of children or multi-generational households.

Vladimir Stankovic

Housing conditions and possesion of durable goods

5

5. HOUSING CONDITIONS AND POSSESION OF DURABLE GOODS[1]

The questions within the "Housing and durable goods" module in LSMS 2007 collected basic information on different housing aspects such as: type of dwelling, basic characteristics of the building (the year it was built, surface area, facilities in the apartment/house etc.), ownership of the dwelling, as well as the possession of durable goods. Furthermore, information on the costs necessary to maintain the dwelling was collected as part of household expenditure.

5.1. Basic housing conditions

The highest percentage of households in Serbia live in a house (59 percent), then in a residential building apartment (around 30 percent) while the share of the households living in a house consisting of several apartments is around 11 percent. A small number of households occupy premises not intended for living (0.5 percent).

A high percentage of households living below the poverty line live in a house (almost 85 percent). The number of households living in extremely bad housing conditions is relatively small, although there are a much higher number of households living below the poverty line that live in such dwellings (1.8 percent).

There is a high percentage of ownership of residential dwellings in Serbia since 90.4 percent of the households declared that they own a house or an apartment (Table 1)[2]. According to the type of settlement, there is a difference reflected in a higher share of ownership of residential dwellings in non urban than urban settlements by slightly over 5 percentage points. Also, the ownership of residential dwellings is more frequent in households living below the poverty line.

Households rent a whole apartment belong exclusively to the group of households above the poverty line[3]. Subtenant households are also more frequent among the households above the poverty line[4]. The fact that the households above the poverty line are renting an apartment or living as subtenants while the poor households, as opposed to that, are mainly the owners of the residential dwellings may, at first, appear as a paradox. However, this may be explained by the fact that in the group of poor households there is a big share of elderly households that solved their housing problem a long time ago, plus households from rural areas, as well as extremely poor households in urban areas, that may own a residential dwelling (most often uninhabitable), but do not have the money necessary for renting any kind of residential unit.

The best portrayal of the differences in housing conditions among poor and non poor households is illustrated by data on the availability of a bathroom and a toilet within the apartment. In non-poor households 92.8 percent of the cases have a bathroom within the apartment, and 90.3 percent have a toilet within the apartment. In poor households slightly over half the apartments include a bathroom (54.3 percent) and a similar percentage (51.1 percent) a toilet.

The average surface area of a residential dwelling and the average surface per household member are the important indicators of the housing conditions quality. The average surface of the residential dwelling of the persons living above the poverty line is 75.5m^2 while the average surface of the apartment per household member is 30.9 percent m^2. On the other hand, households below the poverty line live in a house or an apartment of around 52.7m^2 on average i.e. the average residential area per household member is 22.4 m^2.

In relation to when homes were built, it can be seen that the households above the poverty line (47.4 percent) mostly live in residential dwellings built in the 1970s and 1980s while most of the households living below the poverty line live in older residential dwellings built after World War Two and until the beginning of 1970s (46.4 percent). Apart from some specific vulnerable groups (e.g. Roma) it is the older population (60+) and rural population that are most affected by poverty and these groups are mainly located in older residential dwellings.

There is a large regional discrepancy in relation to the year of construction of residential dwellings. The highest share of households in older residential dwellings (built before 1944) was

recorded in Vojvodina (15.2 percent) while the share of households living in recently built dwellings (after 1991) is highest in Belgrade (13.0) and the lowest in Sumadija. The data show that the age of the housing stock is closely related to the migratory flows in Serbia. The complementary processes of industrialization and urbanization had a stimulative effect on the housing construction dynamic and because of that the "regional" shares of households in housing units built in the period 1971-1990 were large. Favourable housing loans and the inflow of foreign remittances from Serbians working abroad also stimulated housing construction in that period. At that time, unlike the period after 1991, Sumadija had the greatest share, since more than a half (50.5 percent) of its housing stock was created in the 1970s and 1980s. The collapse of "Zastava" and other important industrial companies in Sumadija ceased the immigration flows to the urban centres in this area, slowing down the speed of home building (which declined to 7.9 percent after 1991).

Belgrade with suburban municipalities, as the political, administrative, economic and cultural centre of Serbia, has understandably the greatest gravitational power for economic and migration flows owing to which its share of apartments built after 1991 is greater than in other regions. Larger urban areas, especially Belgrade as the capital, represent real "oases" of grey economy and illegal residential construction during the unrestrained transitional times, they are especially appealing to refugees and IDPs, as well as to other socially disabled groups looking for existential refuge in big urban centres.

Households in Serbia are almost completely covered by electricity (99.8 percent), both in urban and other settlements. Installations for running water exist in 95.2 percent of households, although the supply is slightly worse in rural (88.8 percent) than urban (99.4 percent) areas. Access to running water is much higher in households above the poverty line (96.7 percent) than in households below the poverty line (71.2 percent). The situation is similar with sewage facilities, 98.2 percent of households in urban settlements have sewerage facilities and 83.2 percent in non urban settlements. There is a discrepancy between poor and non-poor households in this respect since only 58.4 percent of poor household have sewage facilities compared to 94.4 percent of non-poor households.

As expected, telephone is much more accessible to the urban area households (93.3 percent) than rural area households (73.4 percent), and this difference is even greater between the households above and below the poverty line in favour of the non-poor households (87.5 percent compared to 51.5 percent).

In relation to gas connections Vojvodina, first of all owing to its geographical position and natural conditions, has the biggest number of households linked to gas (29.1 percent) compared to the national average of 11 percent. In central Serbia the greatest share of households whose apartments are connected to the gas pipeline are in Sumadija (7 percent) and Belgrade (around 5 percent). Other parts of Serbia have insignificant coverage (less than 1 percent).

Data on central heating highlights Belgrade (with 57.1 percent) as the region most supplied with this convenient type of heating. The households least supplied with central heating are in South East Serbia (only 18.2 percent). Belgrade households are also above average equipped with other installations in residential dwellings such as cable TV, satellite dish, intercom and security systems.

Differences in the quality of equipment level of residential dwellings in urban and other settlements indicate a much higher standard of living in the urban households. A higher share of rural households use solid fuel for their heating (84.1 percent) and the incidence is even higher in poor households (85.6 percent).

Table 5.1. Indicators of housing conditions and durable goods by type of settlement and poverty line, 2007

	Total	Type of settlement		Poverty line	
		Urban	Other	Below	Above
	5 557	2 960	2 597	5 152	405
			percent		
Premises not intended for living	0.5	0.4	0.6	1.8	0.4
House/apartment built before 1944	9.3	8.4	10.7	14.7	9.0
Ownership					
Owner of the house/ apartment	90.4	88.2	93.6	92.9	90.2
Living space			average		
Average number of rooms per member	1.2	1.1	1.3	1.0	1.2
Average surface area per member (in m^2)	30.3	29.3	31.9	22.4	30.9
Possession of basic infrastructure			percent		
Electricity	99.8	99.9	99.6	97.3	99.9
Running water	95.2	99.4	88.8	71.2	96.7
Sewers	92.2	98.2	83.2	58.4	94.4
Telephone	85.3	93.3	73.4	51.5	87.5
Possession of rooms			percent		
Separate kitchen	85.6	90.3	78.6	57.7	87.5
Bathroom inside the apartment	90.5	97.3	80.3	54.3	92.8
Toilet inside the apartment	87.9	94.2	78.5	51.1	90.3
Type of heating			percent		
Central heating	21.8	36.2	0.3	3.8	23.0
Electricity	8.6	12.5	2.7	4.5	8.8
Solid fuel	54.2	34.3	84.1	85.5	52.1
Gas	7.1	8.3	5.3	1.9	7.4
Durable goods supply			percent		
Stove	100.0	100.0	100.0	100.0	100.0
Washing machine	86.1	93.0	75.8	48.0	88.6
Air conditioner	15.3	22.8	4.0	1.7	16.2
Dishwasher	8.4	12.0	2.9	0.0	8.9
Microwave oven	15.1	18.5	10.0	0.8	16.0
Refrigerator	76.0	69.0	86.4	76.3	75.9
Freezer	74.8	67.8	85.2	61.8	75.6
Vacuum cleaner	86.2	93.5	75.4	47.4	88.8
TV	96.9	98.3	94.8	85.5	97.6
Video recorder	25.2	28.6	20.0	2.9	26.6
Video camera	4.4	6.2	1.8	0.5	4.7
Stereo, CD	36.4	42.8	26.7	9.0	38.2
Computer	34.9	45.3	19.4	5.1	36.9
Automobile	48.9	51.2	45.5	13.6	51.2

5.2. Possession of durable goods

The data on durable goods in the household confirm an oven[5] and refrigerator, as essential appliances. These are equally present in all households regardless of them being below or above the poverty line. Significant distinctions between the households above and below the poverty line can be observed with regard to possession of devices such air conditioning, dishwasher, microwave oven, satellite dish, video recorder, video camera and personal computer.

It is interesting to note that households in rural areas use refrigerators (86.4 percent) and freezers (85.2 percent) more than urban households. However, urban households use combined refrigerators and freezers two and a half times more since they are forced to use their space in a more rational manner.

There are no significant differences in the average age of durable goods according to the type of settlement or region. However, generally speaking, the household appliances are rather old. For example, the average age of refrigerators and freezers is around 17 years, ovens around 15 years, vacuum cleaner and iron 10 years and television around 9 years. Apart from these appliances that are common to every household, there are more recent appliances in household possession: air conditioners, DVD players and personal computers that have an average age of between 3 and 4 years. Concerning cars (owned by every other household in urban settlements and every other household above poverty line) it can be said that their average age is rather high (around 15 years).

Belgrade households are among the best equipped in the country regarding durable goods, especially personal computers (52.5 percent of these households own a personal computer). The highest number of households buying new appliances (less than one year old) is in Belgrade. Also households in the richest consumption quintile have more new goods. However, except for the most essential appliances (oven, refrigerator and freezer, washing machine and vacuum cleaner) most appliances are unaffordable to the poor. For example, not a single poor household owns a dishwasher; only 0.8 percent of the households own a microwave oven; 0.5 percent of the households own a video camera. The situation is better with in relation to cars where 13.6 percent of poor households own a car but it is still far from the situation of non-poor households (51.2 percent own a car). Personal computers are found in non-poor households more than seven times more often than in poor households but the difference regarding the possession of a TV is not so prominent (85.5 percent of poor households compared to 97.6 percent of the non-poor). Such a high percentage of the poor households with television sets indicates that not only is it easier to obtain, unlike some more expensive appliances, but this appliance is literally "a window to the world" for the poor and it is a cost-free opportunity to learn about the cultural, sports and other events in the country and in the world.

It is these drastic differences regarding the possession of durable goods between poor and non-poor households that outline the discriminatory sharpness of the absolute poverty line. Within that context, it should be noted that poor households do not own durable goods that are less than one year old (dishwasher, combined refrigerator, video recorder, video camera, car or van). However, some of these households allocated did by washing machines (2.7 percent), vacuum cleaners (2.7 percent), irons (3.0 percent), TV sets (4.7 percent) and DVD players (2.5 percent).

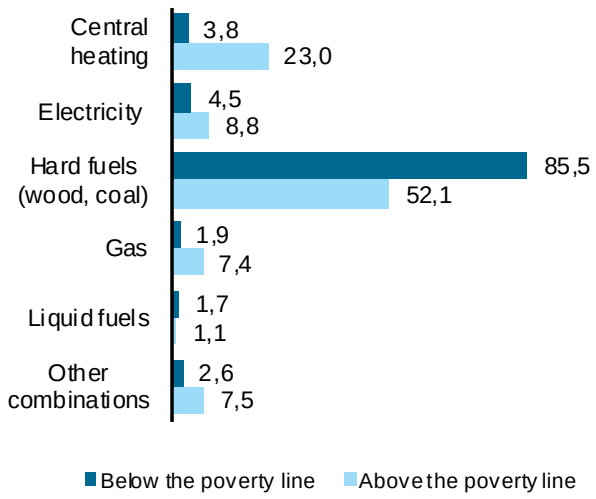
5.3. Types of heating used

More than half (54.2 percent) of households in Serbia use solid fuels i.e. wood and coal as the main source of heating (Table 2). Every fifth household is supplied by central heating (21.8 percent); 8.6 percent of the households use electricity, 7.1 percent gas, while the share of households using liquid fuels is around 1 percent. A combination of different types of heating is used by 7.2 percent of the households which is more or less the same level as in 2003.

Table 5.2. Households by type of heating used, 2002, 2003 and 2007 (percent)

Type of heating	Total			Below the poverty line	Above the poverty line
	2002	2003	2007	2007	2007
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Central heating	15.6	16.6	21.8	3.8	23.0
Electricity	11.7	10.9	8.6	4.5	8.8
Hard fuel (wood, coal)	58.8	60.6	54.2	85.5	52.1
Gas	4.5	4.5	7.1	1.9	7.4
Liquid fuel	0.3	0.3	1.1	1.7	1.1
Other combinations	9.1	7.1	7.2	2.6	7.5

Graph 5.1. Households by type of heating used and poverty line in 2007 (percent)



There were some changes over time and these are mostly reflected in the reduction of use of solid fuels and electricity while the use of central heating, gas and liquid fuels increased. Changes in the use of heating types mostly occurred in households living above the poverty line. According to the 2007 data the majority of poor households (around 86 percent) use solid fuels for heating (Graph 1).

Belgrade is the region with the greatest share (44 percent) of households whose dwellings are heated by central heating (Table 3). Compared to 2002, the proportion of households heated in this way increased by around 16 percentage points which can be explained, among other things, by a large number of newly built residential dwellings using this system of heating. There is also an increase in the number of households using gas as their source of heating in 2007. There is a decrease in the number of Belgrade households using electricity and solid fuel for heating compared to 2002.

Table 5.3. Households by type of heating used and regions, 2002 and 2007 (percent)

Type of heating	Belgrade		Vojvodina		West Serbia		Sumadija		East Serbia		SE Serbia	
	2002	2007	2002	2007	2002	2007	2002	2007	2002	2007	2002	2007
Central heating	28.0	43.9	12.8	18.1	11.5	9.2	10.5	17.9	16.3	15.2	10.7	9.9
Electricity	34.5	19.7	5.7	3.3	1.1	5.5	6.4	6.4	3.9	8.6	7.9	5.6
Solid fuel	26.4	24.9	55.7	51.1	78.0	79.4	74.7	62.7	73.1	66.4	74.3	75.6
Gas	1.8	3.0	11.8	18.0	2.4	0.5	2.1	6.3	1.3	0.1	0.0	0.2
Liquid fuel	0.6	2.4	0.2	1.1	0.0	0.1	0.0	0.9	0.9	0.7	0.3	0.2
Other combinations	8.9	6.1	13.8	8.5	7.0	5.2	6.3	5.8	4.5	8.9	6.8	8.5

Table 5.4. Households by type of heating used and type of settlement, 2002 and 2007 (percent)

Type of heating	2002		2007	
	Type of settlement		Type of settlement	
	Urban	Other	Urban	Other
Central heating	26.4	0.5	36.2	0.3
Electricity	17.8	3.1	12.5	2.7
Solid fuel (wood, coal)	40.2	84.9	34.3	84.1
Gas	4.9	4.1	8.3	5.3
Liquid fuel	0.3	0.2	1.2	0.9
Other combinations	10.4	7.2	7.5	6.8

Vojvodina has the longest tradition in using gas for heating and the presence of this heating type is very dominant compared to other regions. According to 2007 data 18 percent of Vojvodina households used this type of heating, the same figure as households that use electricity for heating.

If the households which use gas are ranked by region, in addition to Vojvodina, Sumadija (with 6.3 percent) and Belgrade (with 3.0 percent) stand out, while in the other regions of Serbia, the proportion of households using gas for heating is insignificant (below 1 percent).

In relation to the use of solid fuel, far below the overall average (54.2 percent) is Belgrade (24.9 percent) and Vojvodina (51.1 percent). In third place is Sumadija (with 62.7 percent), followed by East Serbia (with 66.4 percent), SE Serbia (with 75.6 percent). West Serbia (with 79.4 percent) has the highest percentage of households using solid fuel for heating.

If analysed by region, Belgrade (43.9 percent) stands out with the highest proportion of households with central heating, followed by: Vojvodina (18.1 percent), Sumadija (17.9 percent) and East Serbia (15.2 percent). The share of households in West and SE Serbia which use this form of heating is almost equal (9.2 percent and 9.9 percent).

In relation to the use of electricity for heating, it can be seen that Belgrade is the region with the highest use (around 20 percent), followed by households in East Serbia (8.6 percent) and Sumadija (6.4 percent). The share of households in West and SE Serbia which use this form of heating is almost identical (5.5 percent and 5.6 percent). Vojvodina stands out as the region with the lowest proportion of households using electrical energy for heating (3.3 percent).

Table 4 shows the differences in type of heating used in urban and other types of settlement (table 4). The majority (36.2 percent) of households in urban settlements are supplied by heating plants; 34.3 percent by solid fuel and 12.5 percent use electricity for heating. The share of the households that use gas was 8.3 percent. A further increase in the number of households using this type of heating is expected. Compared to 2002 there was an increase in all urban settlements in the number of households using central heating, gas and liquid fuels while, on the other hand, there was a decline in the share of households using electricity, solid fuel or a combined type of heating.

Unlike urban settlements, 84.1 percent of households in other settlements are heated by solid fuel (wood and coal); 5.3 percent use gas for heating and 2.7 percent of the households are heated by electricity. The number of households with central heating using liquid fuels is insignificant. Slightly less than 7 percent of the households use different combinations of certain types of heating. Compared to 2002 households in other settlements did not considerably change their choice of heating type in 2007.

5.4. Housing expenditure

Housing expenditure represents a significant share of the total household expenditure and relate to expenditures for electricity, telephone and utilities. LSMS 2007 shows (Table 5) that the average monthly expenditures for electricity, telephone and utilities account for 9 percent of total household expenditure (electricity 4.1 percent, telephone 1.8 percent and utilities 3.1 percent).

Table 5.5. Proportion of monthly expenditures for electricity, telephone and utilities of total household expenditures, 2007

	Total	Poverty line		Expenditure quintiles				
		Below	Above	The poorest	2	3	4	The richest
Electricity	4.1	7.3	4.1	6.7	5.7	4.9	4.1	2.7
Telephone	1.8	2.4	1.8	2.4	2.0	2.0	1.8	1.5
Utilities	3.1	3.9	3.0	3.5	3.2	3.0	3.0	2.7

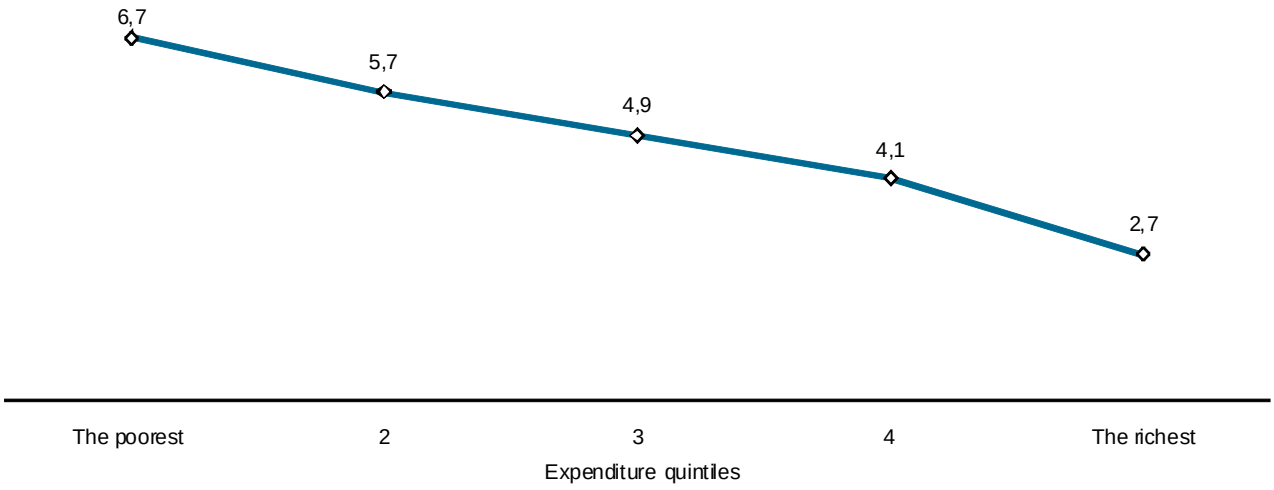
Table 5.6. Average monthly household expenditure for electricity, telephone and utilities, 2002 and 2007

Monthly costs (dinar)	2002	2007	Expenditure index	Price index[6]
			2007/2002	2007/2002
Electricity	1 096	2 190	199.8	197.1
Telephone	547	973	177.9	107.6
Utilities[7]	529	1 633	308.7	271.4

There was a considerable increase in these expenditures from 2002 to 2007. The increase of expenditure for electricity is slightly higher than the increase of the price of electricity which means that the price of electricity increased by 97 percent in 2007 compared to 2002, while the increase of expenditure was 99.8 percent. The price of telephone services in 2007 rose by 7.6 percent compared to 2002. However, there was a considerable increase in telephone expenditures (around 78 percent) during the observed period. The discrepancy between the increase in telephone prices and the increase of expenditure can be explained by the introduction of a new tariff system (from 01.05.2006). From 2002 to 2007 there was a rise in the price of utilities by 171.4 percent while expenditure for utilities slightly more than tripled (Table 6).

A more significant difference between the shares of housing expenditures (electricity, telephone and utilities) in the total household expenditures is noticeable if we consider households living above and below the poverty line, as well as by expenditure quintiles. As expected, households living below the poverty line have greater share of these expenditures of their total expenditure, especially the poorest households.

Graph 5.2. Proportion of expenditure for electricity of total household expenditure, 2007 (percent)



The data in Table 5 and Graph 2 show that the proportion of expenditure for electricity of total household expenditure is the greatest among the poorest (6.7 percent of the total expenditure) and the smallest among the richest households (2.7 percent).

The electricity cost analysis is complemented with data on the percentage of households whose electricity bills exceed 10 percent of their total expenditures (accessibility index). The accessibility index was 10.7 percent in 2002, 12.7 percent in 2003, while in 2007 a significant decline was recorded which is in accordance with the fact that the number of the poor people in Serbia was considerably reduced (Table 7).

Table 5.7. Percentage of households whose electricity bills exceed 10 percent of their total expenditures (accessibility index), 2002, 2003 and 2007

	2002	2003	2007
Accessibility index	10.7	12.7	7.3

The accessibility index shows that for 7.3 percent of households in Serbia electricity expenditure exceeds 10 percent of their total expenditures. Every fifth household below the poverty line has a share of electricity expenditure higher than 10 percent of its total expenditure. According to the expenditure quintiles, around 17 percent of the poorest households have electricity bills that exceed 10 percent of their total consumption while only 1.2 percent of the richest households are found in that situation (Table 8.)

The average electricity bill in urban settlements is 2260 dinars and in other settlements it is 2085 dinars (Table 9). The telephone bill is slightly higher in urban settlements (1012 dinars) and in other settlements it amounts to 897 dinars. There is considerable difference with regard to the monthly utilities bills which are slightly over four times higher in urban than in other settlements. The analysis based on the poverty line indicates that the bills for electricity, telephone and utilities are much higher in households above the poverty line, especially regarding the amounts for utilities (1669 dinars in households above the poverty line and 694 dinars in households below the poverty line).

Unpaid bills for utilities and other services point to household budgets overburdened by basic housing expenditures. According to 2007 data the average number of months for which the bills have not been paid has insignificantly changed compared to 2003. However, if this data is analyzed with regard to the households being above or below the poverty line, there are some considerable differences. Almost all households pay telephone bills (Table 10); in other words, the number of months with unpaid bills is the lowest (1.6 months). On average, poor households have not been paying the electricity bills for ten months and the non-poor for five months (Graph 3). The situation is more or less the same with regard to the bills for utilities. Only households living above the poverty line have unpaid bills for building maintenance and gas which only illustrates the inferior position of the poor households concerning the standard of living and usage of more convenient heating systems.

Table 5.8. Percentage of households whose electricity bills exceed 10 percent of their total expenditure (accessibility index), 2007

	Total	Poverty line		Expenditure quintiles				
		Below	Above	The poorest	2	3	4	The richest
Accessibility index	7.3	21.5	6.4	16.9	10.0	5.8	3.4	1.2

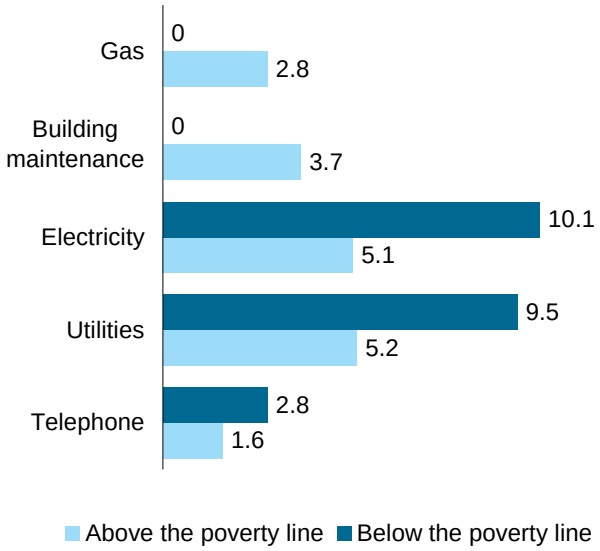
Table 5.9. Average expenditures for electricity, telephone and utilities in the previous month, 2007

	Type of settlement		Poverty line	
	Urban	Other	Below	Above
Electricity	2 260	2 085	1 311	2 245
Telephone	1 012	897	438	993
Utilities	2 031	553	694	1 669

Table 5.10. Average number of months in which households did not pay bills, 2002, 2003 and 2007

	2002	2003	2007
Telephone	1.3	1.3	1.6
Utilities	6.4	5.1	5.4
Electricity	5.5	6.3	5.5
Building maintenance	5.1	3.6	3.7
Gas	3.1	2.4	2.8

Graph 5.3. Average number of months with unpaid bills for maintenance of the residential dwelling, 2007



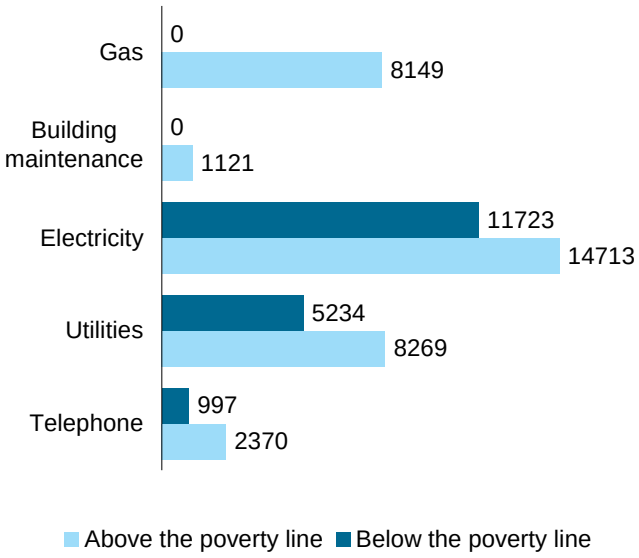
The percentages of households with unpaid bills in 2007 show insignificant variation compared to 2003.

Table 5.11. Percentage of households with unpaid bills, 2002, 2003 and 2007

	2002	2003	2007
Telephone	1.3	2.9	2.9
Utilities	8.0	9.0	9.3
Electricity	14.6	17.8	16.9
Building maintenance	0.6	0.5	0.3
Gas	0.7	1.2	1.0

If we look at the data from 2007 on the average amount of unpaid bills for the maintenance of the residential dwelling, it is evident that the amounts of the unpaid bills are much higher for the households above the poverty line compared to the households below that line (graph 4). Thus, even the average amount of the unpaid bill testifies of a much better housing situation concerning the households living above the poverty line.

Graph 5.4. Average amount of unpaid bills for the maintenance of the residential dwelling (dinar)**, 2007**



5.5. Conclusion

1. Most households live in houses, then apartments in residential buildings while only an insignificant number of households live in premises not intended for living. Ownership over residential dwellings is widespread in Serbia, only a little less than one tenth of the housing stock exists is rented.
2. Households living above the poverty line mainly live in residential dwellings built in the 1970s and 1980s while households below the poverty line mostly live in older dwellings, built in the period after World War 2 up to the beginning of 1970s. The standard of apartments of the poor households is far behind those of households living above the poverty line both in relation to additional rooms (bathroom, kitchen and toilet) and the existence of water and sewage systems.
3. Most households in rural settlements and poor households are heated by solid fuel while in urban settlements most households are heated by central heating. The use of solid fuels is largest in West and SE Serbia and least in Belgrade (where central heating is the most frequent type of heating). The economic gap between the poor and non-poor households is most clearly reflected in access to the more convenient heating systems. Households above the poverty line use central heating over six times more and gas almost three times more than poor households. Such large differences may be the result of the lack of infrastructure in rural areas, as well as the old and inadequate construction features of the housing stock occupied by poor households. However, since there is almost complete electricity coverage in Serbia the two times lower share of the poor in the use of this type of energy for heating gives a clear demonstration of the economic gap of households living above and below the poverty line.
4. In relation to durable goods, besides some of the goods a standard inventory of every household (oven, refrigerator) differences between poor and non-poor households are quite noticeable. This is especially evident with regard to the possession of appliances such a dishwasher, air conditioner, microwave oven, video recorder and personal computer. The average age of household appliances and cars is rather high and there are no significant differences between regions or type of settlement. It should be noted that no poor households own durable goods that are under one year old.
5. There is a higher proportion of total expenditure on electricity, telephone and utilities for households living below the poverty line, especially for the poorest households.
6. Several months of unpaid bills clearly show that some households are overburdened by basic housing expenditures. The fact that for every fifth household living below the poverty line electricity expenditure exceeds the 10 percent of its total expenditure points to the very low standard of living of these households

Endnotes, Part 5

[1] The data in this text can be found in Annex 1.
[2] The owner or co-owner is the household member who owns the house/apartment or part of the house/apartment.
[3] Households renting the whole apartment on average pay 9299 dinars rent per month.
[4] Subtenant households above the poverty line on average pay 9217 dinars rent per month, while the average monthly amount for rent of subtenant households below the poverty line is 1950 dinars.
[5] According to the LSMS 2007 every household owns an oven.
[6] Price index $I=\sum Pn/Po*Wo/\sum Wo$, Pn is the average price during the current period, Po is the average price during the reference period, Wo is the value of quantities sold during the base reference period.
[7] Expenditure for utilities includes water, garbage disposal and central heating.

Mirosinka Dinkic

Social welfare in Serbia 6

6.1. SOCIAL WELFARE IN SERBIA

6.1.1. Introduction

The process of transition towards a market economy in Serbia was in full swing from 2001 onwards. Serbia entered this process in deep poverty which penetrated all parts of society and economy during the 1990s. The social welfare system was degraded and had lost its basic functions. Devastated socially-owned enterprises had been operating with small capacity but employing a large amount of surplus labour whose minimum wages were financed out of a special state fund (outside the social welfare system). Economic efficiency was negative. Many people were living somewhere around the poverty line or below and they needed support to satisfy their basic living conditions. Serbia was in a very difficult situation at the beginning of 2000 as the weak economy could not provide enough resources for social welfare in order to target allowances for those incapable of work and the poor. At this time many funds for social welfare were covered from international donations and aid. Most of the surplus labour force and the poor capable of work were earning additional income from the informal economy.

The reforms that were, on the whole, implemented very intensively and relatively successfully into the economy and financial sector in the last seven years with significant aid of international financial, humanitarian and other organizations and governments of certain countries, created possibilities for faster growth of the private sector as the basis of economic growth and economic efficiency in Serbia. Moreover, the introduction of the system of strategic planning on the national and sub national level resulted in the development of partnerships, first of all, between the governmental and non-governmental sector, with gradual inclusion of the private sector providing more efficient solutions to economic and social problems in Serbian society. In this way a realistic basis was established for the creation of an effective system of social welfare aiming to provide support to the incapacitated and the poor. The extent of its effectiveness will depend on the speed of the decentralization of management and financing of peoples needs as well as the transparency of the amount and flow of the financial means intended to satisfy the needs of the beneficiaries of the social welfare system.

6.1.2. Social welfare policy and the main benefits

Social welfare programs in Serbia are regulated through two key laws: (1) The Law on Social Welfare and Social Welfare Provision of Citizens; and (2) The Law on Financial Assistance to Families with Children. Social welfare and social security rights regulated through the first are as follows:

- Family allowance (MOP in Serbian)
- Attendance and assistance allowance
- Assistance for job training
- Home care, day care, temporary placement in a shelter, placement in an institution or other family
- Equipment for beneficiaries placed in a social welfare institution or other family
- One-time municipal cash subsidy.

MOP, attendance and assistance allowance, assistance for job training, placement in an institution or other family, and social work services for carrying out public entitlements regulated through the law are provided at the Republic level. While home care, day care, temporary placement in a shelter, equipment for beneficiaries placed in a social welfare institution or other family, one time municipal cash subsidy other social services are organised at municipality level. Municipalities can also allocate other resources for social welfare if it has them available.

- The Law on Financial Assistance to Families with Children provides the following benefits:
- Parents (maternity) allowance
- Child allowance
- Pre-school attendance cost for children without parental care
- Pre-school attendance cost for children with developmental difficulties
- Reimbursement of pre-school attendance cost for children from financially vulnerable families.

The first four benefits are provided at the Republic level while the last one is managed at

municipality level. Again, municipalities can allocate resources within their budget for these purposes.

Social and economic reform is running parallel in Serbia. The efficiency of the social welfare system is ensured through strategic planning, anticipating the needs at state and local level and planning financial resources accordingly. The GoS adopted a Social Welfare Development Strategy at the state level at the end of 2005. A similar strategy is currently being developed at the municipal level. The aim is to decentralise the system in order to improve needs assessment and planning. It has been seen that efficient decentralisation is best achieved through:

- Partnerships between the state, private sector and NGOs.
- Beneficiaries being involved in identification of their needs
- Funding available at the local level

As the majority of funds are provided by the state budget, efficient coordination of planning and implementation is essential.

The following analysis focuses on social benefits that can have an impact on poverty reduction. The same benefits were examined in LSMS 2002 allowing an examination of trends. This is turn can help to evaluate the success of the social welfare component of the Poverty Reduction Strategy (PRS).

6.1.3. Take up of social benefits

The PRS adopted by Serbia in 2003 promotes a multidisciplinary approach to the solution of poverty. Since the main causes of poverty originate from the economic sector, the emphasis in dealing with this problem was placed on intensifying economic reforms that would encourage increased activity and employment in the formal sector. The basis is to increase living standards and decrease of the number of poor people incapable of work. Because of this the social assistance program was strengthened and directed towards:

- the incapacitated
- families with low incomes and children of school age
- the unskilled.

The unemployed have also been targeted with a range of active labour market programs in the last few years, funded through programs and projects by the government via the National Employment Service and numerous other donors.

Successful implementation of economic reforms in Serbia enabled dynamic growth of GDP at an annual rate that was higher (from 2003 to 2007 annual GDP growth was 6.0 percent on average) than the one projected in the PRS (an average of 4-5 percent annually). A large increase in salaries of employed people was achieved, especially for those employees who had had extremely low salaries in the period before 2000. There was a significant restructuring of the labour market and salary growth encouraged the unemployed to seek employment and leave the social assistance program.

The proportion of households receiving some sort of benefit was considerably lower in 2007 than in 2002 (18 percent in 2002 and 14.7 percent in 2007). This reduction is mainly the result of the reduction in the number of households receiving child allowance, one-time municipal cash subsidies and humanitarian aid. There was an increase some programs in 2007 compared to 2002.

When examining only poor households, the proportion that has received some sort of benefit has risen by 12.4 percent in the last five years. veterans and disabled veterans allowance (250 percent), MOP (83.0 percent); child allowance (29.9 percent); parents allowance (66.7 percent) and alimony (by 400 percent). While there has been a reduction in the number of poor households receiving humanitarian aid (by 94.3 percent in 2007 compared to 2002) and those receiving one-time municipal cash subsidies (61.5 percent reduction).

The decline in the proportion of poor households receiving humanitarian aid and the increase in those receiving benefits financed from the state budget indicates the strengthening of the Serbian economy in the last five years and its capacity to sustain institutionalized programs within its social welfare system.

The majority of benefits are aimed at improving the lives of children. As the majority of beneficiaries are households with children this implies that, gradually, an important strategic goal in the National Plan[1] and local plans of action for children, within the PRS process in Serbia[2] is being met.

In relation to household size, the majority of beneficiary households consist of many people, i.e. with more children. The proportion of 5 member households was 43.9 percent of all beneficiary households. More than a quarter are four-member

households, around one sixth are three-member households, ten percent are two-member households and only 5.3 percent are single member households. In relation to actual benefits five-member household are large recipients of child allowance (23.2 percent).

These benefits are paid from the Republic budget. In accordance with the law, the Ministry with jurisdiction over social issues monitors the work of Centres for Social Work (CSW) that implements these programs. The aim is that, as much as possible, these programs represent state support for the development of children (fines are imposed for inappropriate spending and bad quality work).

Table 6.1. Households receiving benefits (percent) **LSMS 2002 and 2007**

Benefit Type	LSMS 2002				LSMS 2007			
	Total	Below poverty line	First quintile	Above poverty line	Total	Below poverty line	First quintile	Above poverty line
Number of households receiving benefits	2 435	251	475	2 184	738	111	248	627
Percentage of whole sample								
Attendance and assistance allowance	1.7	3.3	2.9	1.5	3.1	7.2	5.5	2.9
Veterans and disabled veterans allowance	0.2	0.2	0.2	0.2	0.4	0.7	0.4	0.3
Allowance for civilian victims of war	0.0	-	-	0.1	0.1	-	-	0.1
Family allowance ("MOP")	1.1	4.7	3.2	0.7	1.4	8.6	4.2	1.0
Humanitarian aid	3.4	8.8	7.3	2.8	0.2	0.5	0.2	0.1
One-time municipal cash subsidy	0.5	1.3	0.9	0.4	0.1	0.5	0.4	0.1
Child allowance	10.1	14.4	14.1	9.5	8.2	18.7	13.5	7.5
Parents (maternity) allowance	0.4	0.3	0.3	0.4	0.6	0.5	0.5	0.6
Alimony	0.6	0.1	0.2	0.6	0.6	0.5	0.4	0.6

Table 6.2. Average monthly amounts from benefits per household (dinar)

Type of program	LSMS 2002				LSMS 2007			
	Total	Below poverty line	First quintile	Above poverty line	Total	Below poverty line	First quintile	Above poverty line
Attendance and assistance allowance	2514	2200	2166	2595	6808	5504	6182	7021
Veterans and disabled veterans allowance	3208	500	1234	3441	6811	3503	4326	7243
Allowance for civil victims of war[3]	1523			1523	45179			45379
Family allowance ("MOP")	2761	3310	3045	2341	5112	4569	4527	5426
Humanitarian aid	1039	1011	1018	1049	4107	4396	4270	4045
One-off municipal cash subsidy	1462	1062	1154	1601	3629	2313	2940	4037
Child allowance	1450	1639	1589	1417	2889	3420	3241	2803
Parents (maternity) allowance	1303	1060	2854	1310	8571	6085	6393	8697
Alimony	3655	1020	1589	3724	5260	5504	6182	7021

6.1.4. Amounts of benefit received

Examining the average amounts of benefits received in 2007 compared to 2002, it is clear that there was an increase in all benefits but at different rates.

The largest increases in amounts were in parents allowance, alimony, veterans and disabled veterans allowance and humanitarian aid. For humanitarian aid there was an increase in the amount per household but a decline in the number of households that received it demonstrating increased efficiency as it was directed only to people who really needed help. The amount of child allowance doubled for all beneficiaries. Attendance and assistance allowance increased by 2.7 times on average. One-off municipal cash subsidies and MOP are not received on a continuous basis.

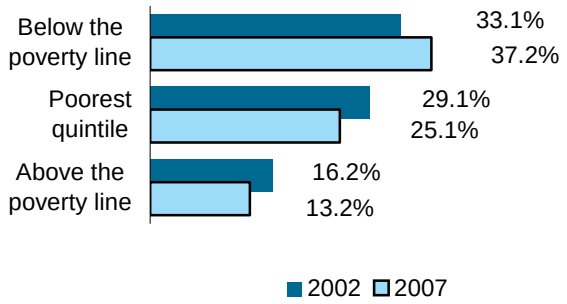
For some benefits the amounts received are higher for households above the poverty line than those below it. This is the case for attendance and assistance allowance and MOP (in 2007) and one-time municipal cash subsidies (in both 2002 and 2007). This could be explained by the following:

- In 2006 the Law on Social Welfare introduced the right to increased attendance and assistance allowance for some levels of disability. The additional funds are based on 70 percent of the average monthly net income of that household. People who receive pension and disability insurance also have the right to this increased allowance. In their case, the amount is equal to the difference between the allowance they receive through pension and disability insurance and the amount of attendance and assistance allowance.
- In relation to MOP, the regulations of the Law on Social Welfare and Social Welfare Provision of Citizens (Article 12a), provide benefits to a family member who is unable to work, if, as the owner of property, they entail the CSW to sell or lease their property (or part of it) and receive funds from this source. Or they entail the property, without receiving payment, to the Republic. In the latter case, the CSW signs a contract with the individual, and the funds received from the sale, or lease of the property, are used to provide financial support of the beneficiary whose property has been sold or leased, in accordance with the contract.

6.1.5. Targeting and efficiency of the benefit system

Results from 2002 and 2007 show that, on the whole, social benefits were primarily targeted towards poor households. Social assistance programs mostly covered households living below the poverty line in both years.

Graph 6.1. Targeting of benefits by poverty thresholds

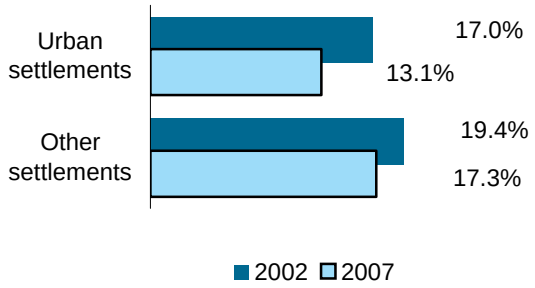


Benefits were better targeted in 2007 compared to 2002. Benefits were received by more (37.2 percent) of households living below the poverty line in 2007 compared to 2002 (33.1 percent). The poorest quintile (containing 20% of the distribution, quite a lot more than the 6.6% living below the poverty line) shows a small reduction in the proportion receiving benefits, suggesting that benefits are being targeted more towards those who really need it – the worse off financially. As you would expect there were fewer beneficiaries living above the poverty line in 2007.

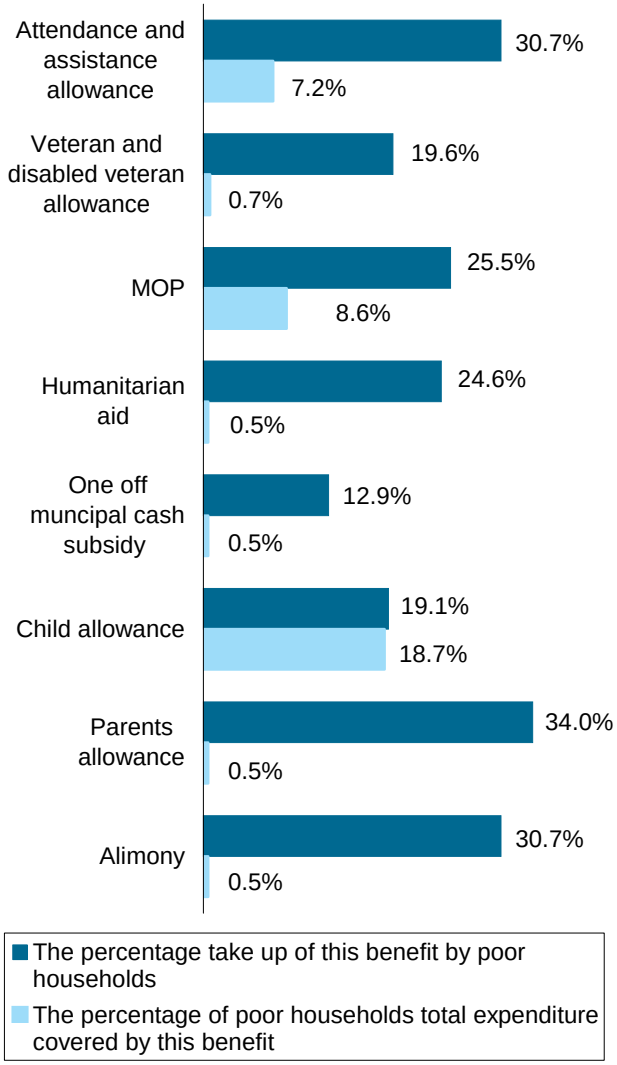
According to the type of settlement for both years, benefits were more likely to be received by rural households. The reduction in overall take up of benefits mentioned above was more prevalent in urban settlements, suggesting that urban Serbia is moving out of poverty at a faster rate (as confirmed in other chapters).

LSMS 2007 shows that, on average, almost one quarter of total expenditure of poor households is covered by the benefits they receive. Compared to 20 % in 2002 this further shows an improvement in 2007.

Graph 6.2. Targeting of benefits by type of settlement



Graph 6.3. Take up and impact of benefits for those living below the poverty line



6.1.6. The impact of the benefit system on the reduction of poverty

Take up of benefits by households living below the poverty line in Serbia has significantly increased in 2007, as compared to 2002. In 2002 of the total number of households receiving social assistance, 10.3 percent were living below the poverty line, in 2007 this rose to 15.0 percent. In addition, there was an increase in the participation of households receiving social assistance in the first quintile, from 19.5 percent in 2002 to 33.6 percent in 2007. These results clearly indicate benefits are more successfully reaching the people who need them (Table 1).

The degree of take up varies by the type of benefits. However, three benefits stand out as encompassing the largest number of households and having the biggest impact on poverty reduction. The benefits with more take up in 2007 compared to 2002 are:

- Attendance and assistance allowance
- MOP
- Child allowance.

Graph 6.3 shows the take up of various benefits, it then highlights that only three programs had a considerable impact on the total finances of poor households (child allowance, MOP and attendance and assistance allowance).

6.1.7. Being informed about social assistance programs and non claimants

LSMS 2007 shows that households are not particularly well informed about the possibilities of receiving certain types of social assistance. Only 11.4 percent of households living below the poverty line applied for MOP (in the last twelve months) compared to 2% of the non poor. The main reasons given for this by households living below the poverty line was they didn't know how to apply or were unaware of the benefit, suggesting that there might need to be some action in terms of publicising this benefit. A very similar picture was seen in relation to humanitarian aid and one time cash benefits (Table 3). It seems that approximately half of poor households are badly informed on their potential rights to claim some benefits or are not receiving

support from authorities to fill in applications for claims.

Of those who applied, 61% of the poor and 37% of the non poor received MOP during the last 12 months. For those respondents who received MOP the average length of time they had been receiving payments was two years and eight months (with virtually no differences between poor and non poor households).

Only 6.7 percent of poor households applied for humanitarian aid in the previous 12 months (none of the non poor households claimed). Of the poor households who applied, 38% actually received humanitarian support during the last twelve months. An extremely small number of poor households applied for a one-off municipal cash subsidy (4.3 percent) and of these a tiny minority were successful in receiving it (1.2%). Only 10 percent of poor households in the survey used the CSW in the last 12 months (compared to 3% of non poor households).

Table 6.3. Reasons why respondents did not take up a particular benefit by poverty status

	MOP		Humanitarian Aid		One time municipal cash subsidy	
	Poor	Non Poor	Poor	Non Poor	Poor	Non Poor
Didn't know about the benefit	22	19	23	16	28	22
Don't know how to apply	27	7	29	7	29	6
I know I don't meet the criteria	21	27	20	26	16	23
I don't need this benefit	17	42	17	48	15	44
Admin procedure is too complicated	12	5	12	4	9	4
	100%	100%	100%	100%	100%	100%

Where columns don't add to 100% this is due to a small percentage of "other" answers.

6.1.8. Conclusion

The proportion of households receiving some sort of benefit was lower in 2007 than in 2002 (18 percent in 2002 and 14.7 percent in 2007). This reduction is mainly the result of the reduction in the number of households receiving child allowance, one-time municipal cash subsidies and humanitarian aid

When examining only poor households, the proportion that has received some sort of benefit increased by 12.4 percent in the last five years. There has been a significant increase in the number of poor households receiving attendance and assistance allowance, veterans and disabled veterans allowance, MOP, child allowance, parents allowance and alimony.

There has been a reduction in the number of poor households receiving humanitarian aid (by 94.3 percent in 2007 compared to 2002) and those receiving one-time municipal cash subsidies (61.5 percent reduction).

Approximately 50 percent of poor households are not particularly well informed about the possibilities of receiving certain types of benefits.

6.2. PEOPLE WITH DISABILITIES

6.2.1. Introduction

Data on People with Disabilities (PWD) in Serbia is scarce. Existing statistical research does not systematically examine PWDs. Importantly there are no official data on the total number of PWDs, type of disability and other relevant data that would facilitate the monitoring of living standards of this group, as well as defining policies and measures for creating the conditions that would improve their quality of life. Society needs to ensure the active inclusion of PWDs in social and economic life, with the aim of facilitating the fulfilment of their rights which are guaranteed through international documents and the Strategy for the Improvement of the Position of PWDs, adopted by the GoS towards the end of 2006.

There is no universally agreed definition of disability. Defining disability is complex and controversial. Disability is usually considered as the outcome of complex interactions between the functional limitations arising from a person's physical, intellectual or mental condition and the social and physical environment. There is a large consensus that restrictions on being able to undertake everyday activities are a key issue. The main debates between disabled people organizations and specialists of the area are focused on inclusion or not of chronic diseases, the mental health dimension and the level of restriction of activity to consider a person to be disabled.

In addition, it is a complex issue to create a representative sample frame of PWDs in Serbia. The records for PWDs are kept by various organisations and creating one complete count of PWDs without the risk of double counting and coming up against issues of confidentiality means that, after wide consultation, it was agreed not to create a specific sub sample of PWD households. Instead to gather enough cases for examination of the issues relating to PWDs some questions were added to the questionnaire to broaden the definition of PWDs. The distribution of these questions can be seen in Table 4.

After examination of the LSMS data it was decided that for the purpose of analysis for this chapter the following questions would be used to define PWDs:

1. Handicap has been confirmed by a medical commission (question H10 health module)
2. There is no access for PWDS up to 7 years in the compulsory preparatory pre-school programme (question D3a education module).
3. Students aged 7-19 are attending a special school for children with disabilities (question O1 education module).
4. A household member been “strongly limited” in performing his/her usual activities over the past six months (question H3 health module).

Based on the above definition LSMS 2007 included 1 671 PWDs (9.6 percent of the total sample population).

Table 6.4. The Minimum European Health Module and LSMS results 4

H1. How is your health in general? (percent)	
Very good	27
Good	33
Fair	21
Bad	15
Very bad	4
H2 Do you have a long standing illness or health problem? (percent)	
Yes	32
No	68
H3. For at least the past 6 months have you been limited in activities that people usually do because of a health problem? (percent)	
Yes, strongly limited	19
Yes limited	41
No	40

6.2.2. Demographic characteristics of PWDs and poverty

Most PWDs fall within two age groups: 45-59 (30.0 percent) and 60+ (57.6 percent). This could indicate that *persons who have become disabled at work, i.e. during the final third of their working life, dominate this population of PWDs*. Of these PWDs, 8.3 percent fall within the 30-44 age group, 2.0 percent are aged 20-29, 0.9 percent aged 15-19, 1.0 percent aged 7-14 age group and 0.1 percent within the 0-6 age group. The distribution of PWDs by gender and age is relatively equal.

It is noticeable that more PWDs aged 60+ live in rural areas (62.3 percent), than in urban areas (53.7 percent), whereas the situation is reversed with regard to the other age groups within the 15-59 age categories, i.e. more live in urban areas.

PWDs within the 30-44 age group were present in all regions. The highest proportion of this age group was in West Serbia (12.8 percent) followed by Vojvodina (9.1 percent), Belgrade (8.2 percent), South East Serbia (8.2 percent), Sumadija (5.1 percent) and East Serbia (5.9 percent).

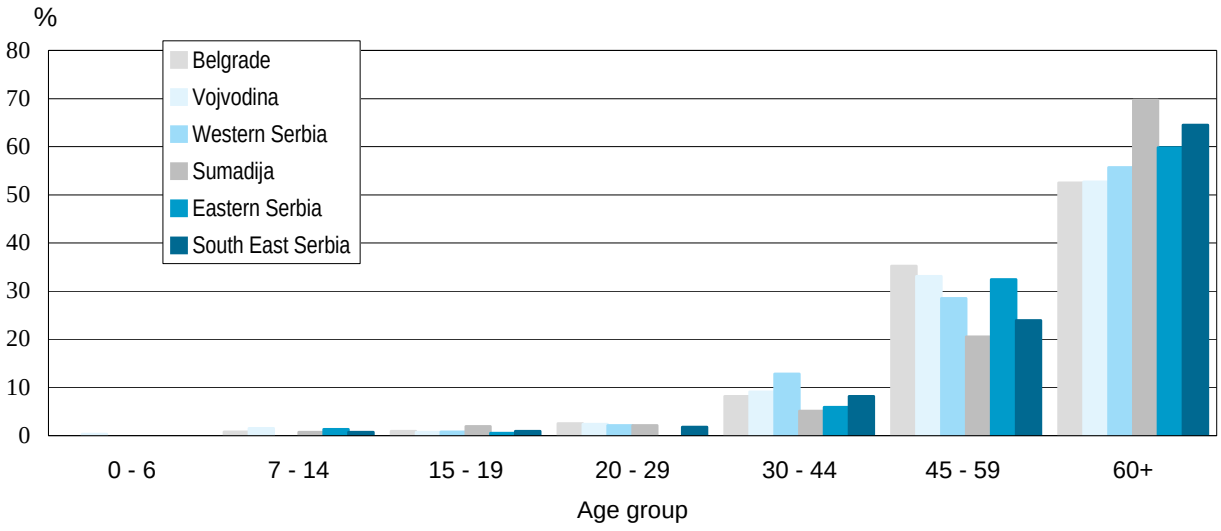
Overall 8.1 percent of PWDs live below the poverty line, compared to 6.6 of the total population of Serbia. Of the total number of PWDs who are poor, most are elderly (68.5 percent of the total number of PWDs living below the poverty line). The proportion of poor among the 45-59 age group was 14.5 percent, while that of the 30-44 age group was 9.6 percent.

In 2007, 60.8 percent of PWDs were married, 9.4 percent were single, 4.7 percent were divorced and 25.1 percent were widowed. By gender, 73.5 percent of the men and half of the women with disabilities (49.9 percent) were married, 11.8 percent of men and 7.2 percent of women were single. It is characteristic that the proportion of divorced women (6.2 percent) is significantly greater than that of men (2.9 percent), and the proportion of widows (36.6 percent) is much greater than that of widowers (11.8%). There were virtually no differences by poor and non poor PWDs in relation to marital status.

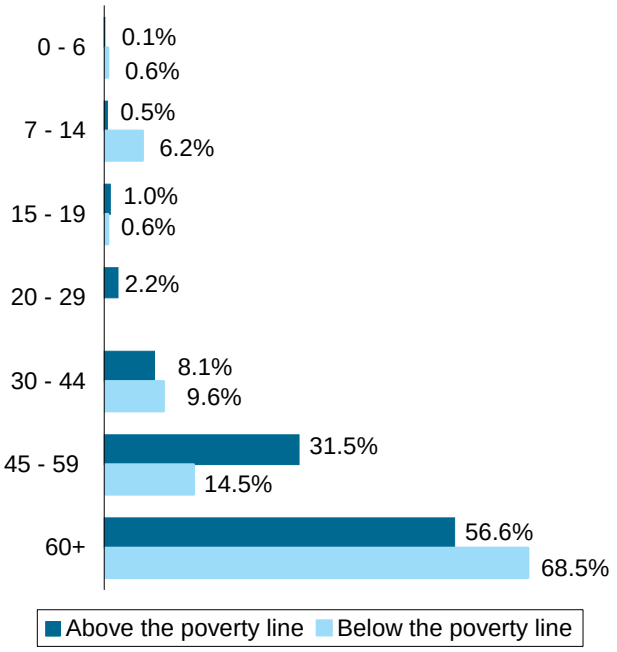
Table 6.5. PWDs by age, gender and urban/rural, 2007

Age group	Total	Gender		Area type	
		Men	Women	Urban	Rural
0-6	0.1	0.1	0.1	0.1	0.1
7-14	1.0	1.5	0.5	0.9	1.1
15-19	0.9	1.3	0.6	1.2	0.7
20-29	2.0	2.7	1.5	3.0	0.9
30-44	8.3	8.4	8.1	9.1	7.3
45-59	30.0	33.7	26.8	32.0	27.6
60+	57.6	52.2	62.4	53.7	62.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Graph 6.4. PWDs by age and region



Graph 6.5. PWDs living above and below the poverty line by age



6.2.3. Education level and poverty of PWDs

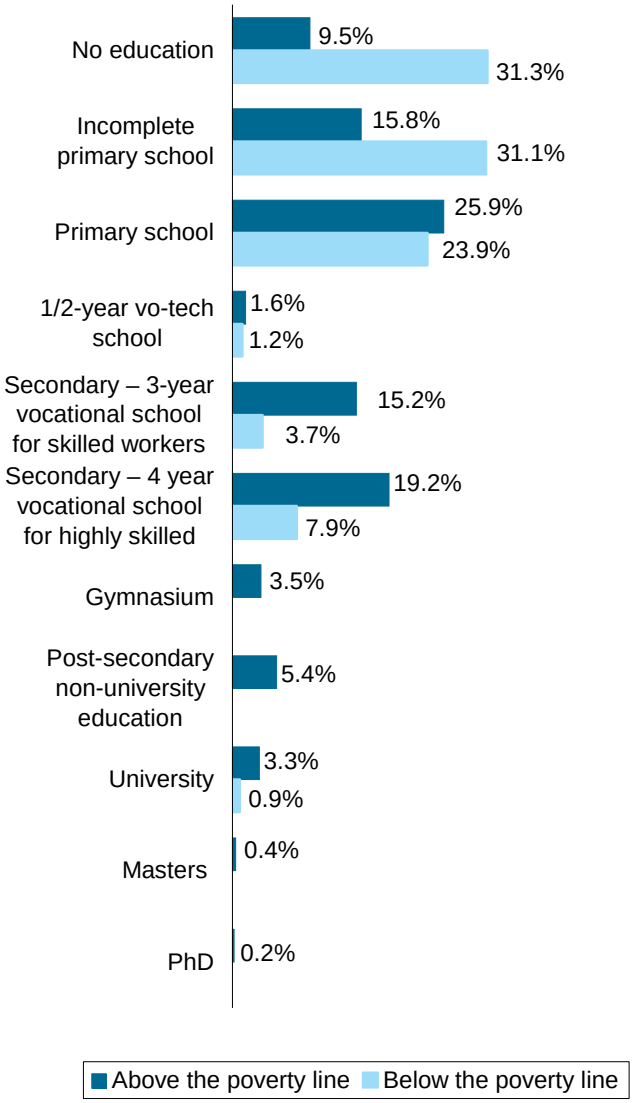
Examining education level, over one quarter of PWDs (25.8 percent) have completed primary school, 17.1 percent have not completed primary school, and 11.2 percent are without any schooling. About one third of PWDs has completed secondary school (14.3 percent three-year and 18.3 percent four-year vocational schools), 3.2 percent have completed gymnasium, 4.9 percent have completed post-secondary non-university education and 3.6 percent have university degrees of various level.

Men with disabilities are generally more highly educated than disabled women. Examining age, the educational structure of PWDs in the younger age groups (15-44) is less favourable in comparison to those aged 45+. This again could confirm the previous conclusion that the proportion of PWDs with work-related disabilities is high, i.e. PWDs acquired their disability after completing their education5

Table 6.6. PWDs (15+) **by education level, gender and age, 2007** (percent)

Education level	Total	Gender		Age			
		Men	Women	15-29	30-44	45-59	60+
No education	11.2	5.8	16.0	12.5	5.4	3.9	15.8
Incomplete primary school	17.1	14.8	19.0	2.0	2.6	4.3	26.5
Primary school	25.8	23.2	28.0	30.1	30.1	26.1	24.8
One/two-year vocational-technical school	1.6	2.5	0.8			1.8	1.7
Secondary – three-year vocational school for skilled workers	14.3	20.7	8.7	15.4	7.4	24.3	10.0
Secondary – four-year vocational school for highly skilled workers	18.3	19.8	17.0	23.7	48.1	25.9	9.7
Gymnasium	3.2	1.8	4.4	7.7	1.7	3.8	2.9
Post-secondary non-university education	4.9	6.4	3.7	7.0	3.7	6.0	4.5
University education	3.1	4.4	2.0	1.7	1.0	3.3	3.4
Masters degree	0.3	0.4	0.3			0.6	0.3
Doctoral degree	0.2	0.2	0.2				0.4
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

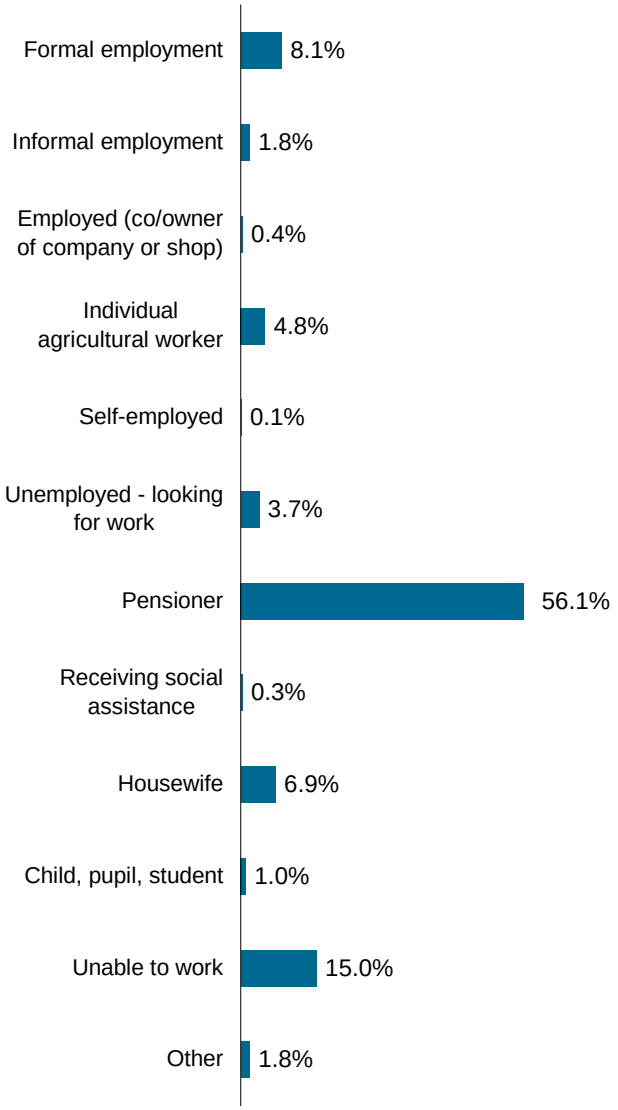
Graph 6.6. PWDs by education level and poverty status



In 2007, the education level of most PWDs living below the poverty line was up to the level of completed primary school (86.3 percent of the total number of the PWD poor). Examining PWDs living above the poverty line most have completed primary school (25.9 percent of the total number of PWDs above the poverty line). This is followed by those who completed secondary school (15.2 percent with three-year and 19.2 percent with four-year vocational schools), incomplete primary school (15.8 percent) and no school (9.5 percent).

Similarly to the overall population, education is a key factor related to poverty status. It is therefore very important to ensure the inclusion of children and young people with disabilities in the regular education system.

Graph 6.7. PWDs Economic Status, 2007



6.2.4. Economic status of PWDs and poverty

More than half of PWDs were pensioners (56.1 percent)[6] , 15 percent declared themselves unable to work, 8.1 percent were employed, 1.8 percent worked informally, 6.9 percent were housewives, 4.8 percent were individual agricultural workers, 1.0 percent were children, pupils and students, while 3.7 percent were unemployed.

If self-employed PWDs, those working in the informal sector, employers and individual

agricultural workers are added to the employed category, 15.2 percent[7] of PWD respondents were employed. This is a small proportion compared to the total population[8].

Looking at economic and poverty status, most PWDs living below the poverty line were retired (42.3 percent of the total poor among this population), followed by PWDs who are unable to work (21.3 percent), housewives (10.5 percent), unemployed (8.2 percent), individual agricultural workers (7.9 percent), social assistance beneficiaries (3.3%), formally employed (2.2 percent), informally employed (1.2 percent). There were no self-employed PWDs among the poor population.

6.2.5. PWDs and the labour market

The employment rate for PWDs (aged 15-64) was only 26.9 percent. The unemployment rate was 13.3 percent and the inactivity rate was 69.0 percent. The employment rate of PWDs is almost two times lower than the employment rate of the entire population and the inactivity rate is much higher for PWDs. The unemployment rate is similar in both groups.

Gender differences are noticed. Men with disabilities fare better in the labour market. The employment rate of men is 32.4 percent compared to 20.9 percent for women. The unemployment rate for men was lower (11.6 percent) compared to women (15.9 percent) and the inactivity rate of women with disabilities is very high (75.1 percent) compared to 63.3 percent for men.

An interesting finding is that the unemployment rate of PWDs with higher education is (10.1 percent) compared to the total population (7.9 percent). Numbers for analysis are small but this could demonstrate the general disadvantage that PWDs face in the labour market.

All the results above show that the situation of PWDs in relation to the Serbian labour market is even less favourable than that of overall population. Poor PWDS are even more disadvantaged. The employment rate of poor PWDs is very low (17.3 percent). The employment rate of the total poor living below the poverty line is 41.4 percent.

Table 6.7. Labour market indicators for those aged 15-64 (percent)

	Total	Gender		Education level			Settlement	
		Men	Women	Primary and less	Secondary	Higher	Urban	Rural
Total population								
Employment rate	55.3	64.1	46.8	37.9	59.2	74.9	53.2	58.6
Unemployment rate	13.9	11.8	16.5	14.9	15.4	7.9	14.4	13.1
Inactivity rate	35.8	27.3	43.9	55.5	30.0	18.7	37.8	32.6
PWDs								
Employment rate	26.9	32.4	20.9	20.9	30.9	30.3	25.4	29.0
Unemployment rate	13.3	11.6	15.9	11.9	14.4	10.1	16.3	9.2
Inactivity rate	69.0	63.3	75.1	76.2	63.9	66.4	69.6	68.0

Table 6.8: The labour market for PWDs and poverty status (percent)

Labour market indicators	Total population			People with disabilities		
	Below the poverty line	Above the poverty line	First quintile	Below the poverty line	Above the poverty line	First quintile
Employment rate	41.4	56.1	45.2	17.3	27.4	13.6
Unemployment rate	33.0	12.9	25.4	45.8	11.5	30.1
Inactivity rate	38.2	35.6	39.4	68.1	69.0	80.6

6.2.6. Health care of PWDs

LSMS shows that PWDs use health care services significantly more than the total population. The majority of PWDs use public health services, while only a small percentage use private health services. Costs of using health services and purchase of medicines are significantly higher for PWDs (by approximately 50 to 100 percent) in comparison to the total population, depending on the type of service. Almost all PWDs have health insurance (98.7 percent). Over three quarters of PWDs receive health insurance through their retirement scheme (76.6 percent), followed by 10.1 percent on the basis of employment and 6.3 percent on the basis of unemployment.

6.2.7. Income and expenditure of PWDs

In 2007, the average monthly household income of PWDs was 41 434 dinars and was almost the same in urban (41 343) and rural areas (41 549). The average monthly income of poor PWDs amounted to 19 981 dinars (48.2 percent lower than the overall average). The average income for the highest quintile was 2.5 times greater than for the lowest quintile.

Over two thirds of the average household income structure in 2007 was made up of salaries and pensions (67.4 percent, whereby the proportion of salaries was 35.1 percent and that of pensions 32.3 percent). This is followed by income from imputed rent and durable goods (8.0 percent), the estimated value of income in-kind (7.8 percent), income from agriculture (7.2 percent), income from social insurance (3.9 percent), money transfers from abroad (3.3 percent) and other income sources (2.6 percent).

Pensions make up almost one third of the income structure of poor PWD households (32.2 percent), while salaries make up slightly less than one quarter (22.7 percent). In relation to the overall average income for these households and those above the poverty line, the estimated value of income in-kind (13.7 percent), income from social insurance (11.9 percent), as well as income from agriculture (9.8 percent) make up a significantly higher proportion of the overall income for households of PWDs living below the poverty line.

Food (34.5 percent) and housing (19.3 percent) make up the greatest proportion of the consumption of households with PWDs. The Participation of these costs among households below the poverty line is significantly higher in comparison with the average and with households above the poverty line. The proportion of food expenditure within the total expenditure of poor households amounted to 44.4 percent and housing (23.6 percent).

The proportion of food expenditure in the total household expenditure decreases by quintiles, while the proportion of expenditure for transport increases, as does that of all non-production services – communication, recreation, education ad health. This indicates that the quality of the standard of life of households with PWDs increases with an increase in income and subsequent increase in expenditure.

Table 6.9. PWD households and receipt of social benefits

Social benefit	Total	Settlement		Above the poverty line	Below the poverty line	Consumption quintiles				
		Urban	Rural			1	2	3	4	5
Attendance and assistance allowance	11.5	10.7	12.5	11.1	16.3	15.0	13.0	8.5	10.1	8.5
Veteran and veteran disability allowance	1.1	1.0	1.2	1.1	0.6	0.7	1.0	1.6	1.2	1.3
Allowance for civilian victims of war	0.1		0.3	0.1			0.5			
Financial family support (MOP)	2.2	2.2	2.2	1.8	6.9	4.3	1.7	2.6	0.7	0.6
Humanitarian assistance	0.3	0.2	0.3	0.3			0.6	0.7		
One-off municipal cash subsidy	0.0		0.1	0.0		0.2				
Child allowance	6.8	5.8	8.0	6.0	15.0	10.4	7.0	7.7	4.8	1.5
Parents allowance	0.3	0.3	0.3	0.3			0.4	0.7		0.4
Alimony	0.6	0.8	0.3	0.5	1.5	0.5		0.6		2.2

6.2.8. Social benefits and PWDs

Table 6 shows that PWDs claimed all type of benefits (except one off municipal cash benefit). Attendance and assistance allowance is a key benefit for this group. Of households living below the poverty line, 16.3 percent receive attendance and assistance allowance, 15.0 percent receive child allowance and 6.9 percent receive MOP.

The average monthly amount of attendance and assistance allowance was 6 909 dinars per household, MOP was 4 244 dinars, child allowance 3 164 dinars. In 2007, only 4 percent of respondent households with PWDs applied for MOP and 8.5 percent had received it in the last 12 months.

6.2.9. Conclusion

1. People aged 45+ are the large age group among the interviewed PWDs (while 50 percent are aged 60+). This could indicate that people, who became disabled during their working life, i.e. during the third part of their working life, make up the greatest proportion of surveyed PWDs.
2. PWDs labour market status is extremely unfavourable. The employment rate of PWDs is significantly lower than that of the total population.
3. PWDs predominantly use public health services. The costs of health services and purchase of medicine are significantly higher for PWDs than for the total population. Almost all PWDs have health insurance.
4. Among poor PWDs, the greatest proportion are aged 60+, with an education level up to completion of primary school, pensioners and households whose members receive attendance and assistance allowance and child allowance.

Endnotes, Part 6

[1] National Plan of Action for Children, Government of the Republic of Serbia, 2004

[2] The basis for defining the above-mentioned goal is the Serbia PRS and numerous UN documents on the rights of children.

[3] Only 5 LSMS households received this benefit in 2007, (but they received between 12 000 – 100 000 dinar)

[4] See Comparative analysis of the Minimum European Health Module and questions used in Europe. Elena de Palma and Roberta Crialesi, ISTAT 2003. The questions are found in the health module.

[5] The Survey on Demographic Characteristics, Service Needs and Material Position of PWDs (2007) shows that the majority of PWDs attend regular schools. In total, 91.3 percent attend school, of which 73.4 percent attend regular school and the remainder attend special schools. The Centre for Independent Living, "Social Welfare Services Targeting PWDs: Harmonising Policies and Practice", in print.

[6] Results of the Survey on Demographic Characteristics, Service Needs and Material Position of PWDs shows that the majority of PWDs receive a pension. The Centre for Independent Living, "Social Welfare Services Targeting PWDs: Harmonising Policies and Practice", in print

[7] According to the Survey on Demographic Characteristics, Service Needs and Material Position of PWDs, 12.8 percent of PWDs were employed in 2007. The Centre for Independent Living, "Social Welfare Services Targeting PWDs: Harmonising Policies and Practice", in print. According to World Bank estimates, 13 percent of PWDs in Serbia are employed. World Bank (2003), Serbia and Montenegro Poverty Assessment, Report no. 26011-YU, Washington D.C.

[8] According to the 2007 Labour Force Survey, the employment rate of the total working age population (15-64) was 51.5 percent. Press Release no. 29, 06.02.2008.

Jasmina Grozdanov

7 Health

7. HEALTH

7.1. Introduction

Public health is determined by the individual characteristics of individuals (sex, age, etc.), external factors – social, economic, physical and cultural environment, and by combined of these parameters. Differences in health reflect differences among population groups according to age, gender, socio-economic status, disability and ethnicity. These differences should not be viewed only as necessary and unavoidable, but also as unjust, which is also the case with poverty. Poverty has a negative effect on health, and the connection between poverty and ill-health is well-known. Plentiful evidence can be found throughout the history of medicine and in numerous studies which all confirm a strong relationship between health inequality and the financial situation of the population[1] [2] [3].

The biggest problem of poverty lies in the fact that ill-health is connected with growing expenses for health care, but also in the fact that poor people find themselves in a vicious circle: poverty causes illnesses, and illnesses reflect poverty.

7.2. Health Care in Serbia

Reform of the health care system in Serbia cannot be separated from the total reform of the state and society which has been going on since 2000. Maintenance of health and public health promotion imply solving a spectrum of problems by means of mechanisms realized through integrated strategic approaches and activities of social systems connected with health. To this effect the Government of the Republic of Serbia has adopted a whole range of important multi-sector and health strategic documents, national programs and activities[4]. At the same time, the legal framework for the health care system has been improved through new laws on medicaments, health protection, health insurance, by means of Health Personnel Chambers, etc. Numerous activities realized by the Ministry of Health in association with international partners have resulted in improvement, particularly in the field of restoration and modernization of health facilities and equipment, as well as in the improved process of health institutions performance.

Despite the definition of priority areas and of directing health services and other sectors towards that which will bring the greatest benefit to the population, particularly the reduction of health inequality which is noticeable in the positive trends of the determinants of public health, Serbia is still facing problems which present a great challenge to be overcome.

Some of the most significant indicators of the level of development, not only of the health care system but the country and population as a whole, is the number of newborns dying under a year of age per 1 000 live births (infant mortality rate), and children under 5 per 1 000 live births (children under five mortality rate). Both indicators have a constant positive trend going on for years. In 2000, the infant mortality rate was 10.6, in 2002, 10.1, and in 2006 it was 7.4. However, this percentage still places Serbia among the European countries with a high infant mortality rate (the average infant mortality rate in the developed European countries was 4.3 in 2005). The mortality rate for children less than 5 years of age also dropped from 11.7 in 2002 to 8.6 in 2006, but the rate is still higher than that found in highly developed EU countries (5.1 in 2005)[5].

A study on public health in Serbia conducted in 2006 found that there was also a positive trend in the availability of doctors – every second inhabitant in Serbia (51 percent) had its own General Practitioner, which was significantly higher than in 2000 (43 percent). The availability of medicines also increased (in 2006, 54 percent of adults in Serbia used medicines mostly on prescription in comparison to 39 percent in 2000). There was also a significant increase in satisfaction of patients with health care services, particularly with the comprehensive treatment in hospitals, from 60 percent in 2000 to 73 percent in 2006. A positive trend was also found in the change of population habits, such as a reduction in the number of smokers from 41 percent in 2000 to 34 percent in 2006[6].

Many problems, however, still remain to be solved, those that require long-term strategy of health care policy such as larger investments in health promotion and preventive medicine so as to

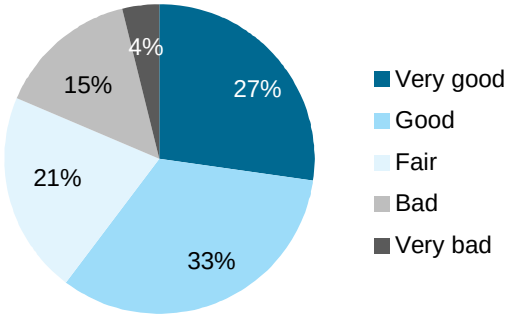
reduce the negative trends in the health of the population. Of all health disorders, the population of Serbia is mostly affected by non-infectious diseases: ischaemic heart disease, cerebrovascular diseases, lung cancer, unipolar depressive disorders, and diabetes mellitus were responsible for almost two thirds of diseases (70 percent)[7]. Every second inhabitant in Serbia dies each year of cardiovascular diseases, and every fifth inhabitant dies of malignant tumours. The two most common causes of death in Serbia have been the same for some time now, with a tendency toward an increase in 2002 and 2006: diseases of the circulatory system are becoming a more significant cause of death with 55 percent in 2002 to 57 percent in 2006, and tumours, as a cause of mortality, with 18 percent in 2002 to 20 percent in 2006[8].

7.3. State of the Populations Health

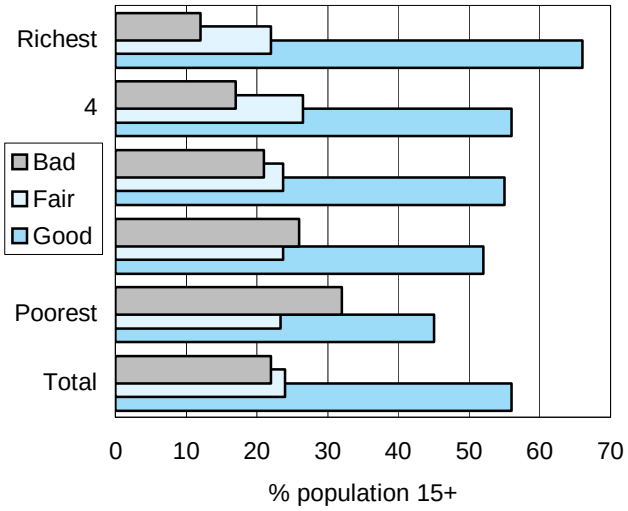
One of the significant indicators of the state of health and quality of life is ones own perception of health, i.e. subjective health assessment. This does not accurately reflect the medically measured state of health, but most frequently correspond to clinical findings. It includes individual evaluation of physiological, psychological and social welfare and the effects that health has on other aspects of life. In 2007, 60 percent of the population in Serbia assessed their health as good and 19 percent as bad (Graph 1). If we consider only the population over 15 years[9] (people below the age of 14 typically assess their health as good and very good) the percentage of those who assess their health as good, was 56 percent, and as bad, 22 percent. It can be seen that only every third inhabitant is in the first quintile (32 percent), and only every ninth inhabitant of the richest quintile (12 percent) assessed their health as bad. The proportion of the population that assesses their health status as good increases with economic prosperity whereas the percentage of inhabitants, who assess their health as bad, decreases (Graph 2).

Nearly one third of the population in Serbia (32 percent) reported that they suffered from a long-lasting disease or a health problem. Women reported it more frequently than men (36 percent and 28 percent respectively), and it was particularly high in those aged over 60 (73 percent). The frequency of this finding was also higher among poorer respondents who fell into the first and second quintile (30 percent and 29 percent).

Graph 7.1. Self-assessment of population health, 2007



Graph 7.2. Self-assessment of population health reported by 15+ according to expenditure quintiles



The most frequently reported chronic diseases and health problems were increased blood pressure and heart diseases (16 percent) and 6 percent reported hand and arm disability (including arthritis and rheumatism)[10]. Since the frequency of these diseases increases with age, they are most common in those aged over 45. For those aged over 60 these diseases are three to four times more frequent than compared to the average population. In relation to individually observed diseases no significant difference was observed regarding the type of habitation, geographic region and socio-economic category.

Four fifths of the population with chronic diseases (80 percent) used health services. Children between the ages 0 and 14 years used services significantly less frequently (only 56 percent) - a very unfavourable finding. One of the worst

situations relating to using services for chronic diseases was noticed among those living below the poverty line and among Roma people (70 percent and 66 percent respectively). There was no significant change in the usage of health services among the overall population compared to 2003.

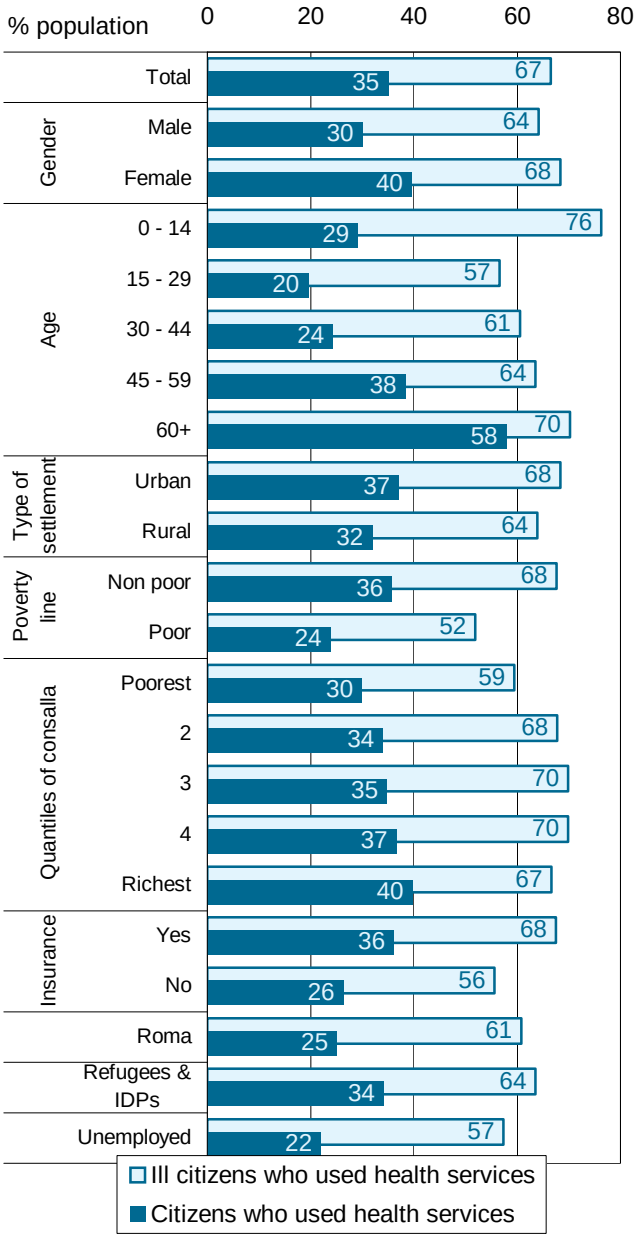
The percentage of the population which reported that due to their chronic diseases they were limited in performing everyday activities was 19 percent, whereas the percentage for population over 60 years was 48 percent. Respondents from the two lowest quintiles had more frequent problems due to their diseases than those in the two highest quintiles (25 percent as opposed to 14 percent). Compared to 2003, the proportion of respondents limited in their everyday activities was lower by 2 percentage points (from 21 percent in 2003 to 19 percent in 2007).

Every tenth respondent (or 10 percent of the population) suffered from an acute disease or injury one month prior to the survey. The frequency of illnesses was higher only among the population older than 60 years (15 percent).

7.4. Use of Health Services

In 2007, 35 percent of the population used health services in health institutions (outpatient health services in the month preceding the study, and hospital treatment in the preceding 12 months). Females were more likely to use services than males, as well as those aged over 45 years, particularly those aged of 65 years and older (58 percent). Urban residents were more likely to use health services (37 percent compared to 32 percent in other areas). Significantly less usage was observed by the poor and socially vulnerable (24 percent of those living below the poverty line, 26 percent of the uninsured, 22 percent of the unemployed and 25 percent of Roma). In the period 67 percent of the both chronically and acutely ill population used health services. Characteristics of the use of health services in the ill population, regarding all the observed variables, correspond to those previously described for the overall population. The only observed difference was in the fact that the groups of ill refugees and IDPs joined the group of those who used health services significantly less. Significantly less use of services was observed among the ill population below poverty the poverty line (52 percent compared to 68 percent above the line), and the uninsured as opposed to insured persons (56 percent and 68 percent respectively) (Graph 3).

Graph 7.3. Overall and ill population that used health services (percent)



In comparison to 2003, in 2007 there was an increase in the use of health services in general population by 5 percentage points, and in the ill population by 8 percentage points (from 30 percent in 2003 to 35 percent in 2007 and from 59 percent in 2003 to 67 percent in 2007).

7.5. Use of Health Care Services according to type and service-ownership

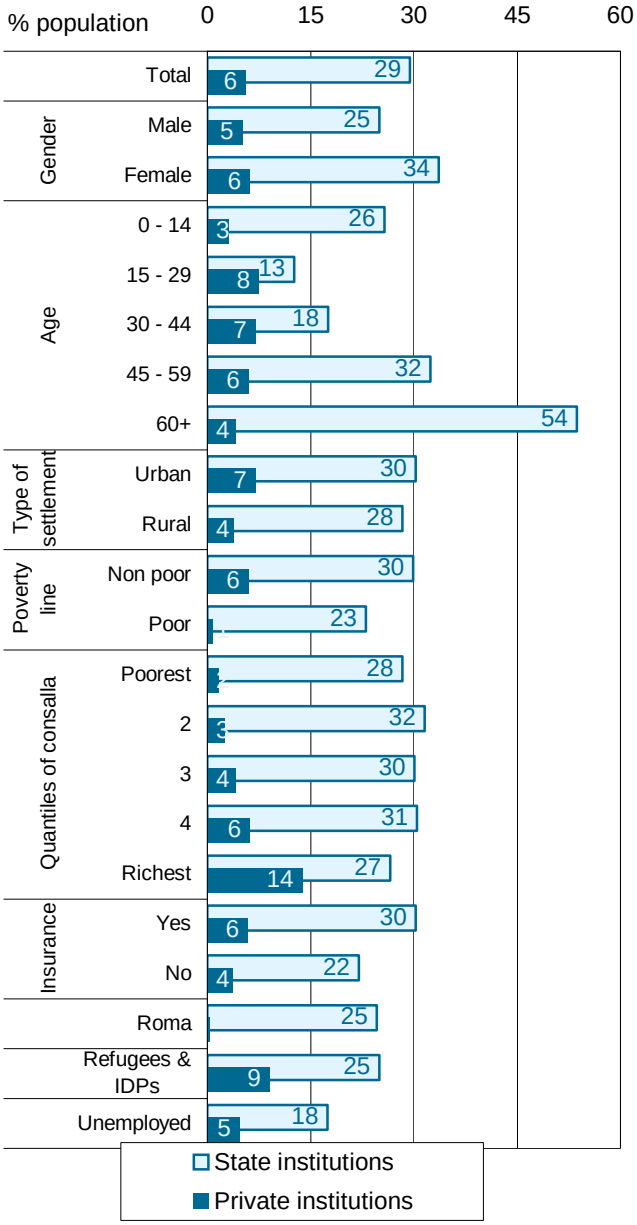
In 2007, 27 percent of the population used outpatient health services, 9 percent used dental services (use of outpatient and dental health services is for the month preceding the study) and 6 percent were hospitalized in the preceding 12 months. In 2007, the population used outpatient and dental services more frequently than in 2003 (23 percent and 7 percent). Hospital treatment remained at more or less the same level (6 percent in 2007 and 5 percent in 2003).

In 2007, 29 percent of the population of Serbia used the services of state health institutions and 6 percent of private health institutions. In comparison with 2003 (state institutions 27 percent and private health institutions 5 percent) there was an increase in the percentage of the population that used health services only in state institutions. Those living below the poverty line used state health services considerably less than those from the non-poor group (23 percent compared to 30 percent) and hardly any (0.7 percent) used private health services. The more prosperous population in the fifth quintile used private institutions health services more than twice as much as the overall population (14 percent compared to 6 percent) (Graph 4).

Differences in the use of health services were more marked in outpatient health institutions (state institutions were used by 27 percent and private only by 1 percent) as well as with hospital treatment which was almost exclusively performed in state institutions (6 percent state and 0.1 percent private). A closer distribution of use was observed in dental health care services where 4 percent of the population used state services and 5 percent private dental services.

Outpatient health care services. Women, respondents aged 45 and 59 years, 60+ used outpatient health services more than the overall population (27 percent). Residents of Belgrade and South East Serbia used these services more often (30 percent and 29 percent) compared to those in West and East Serbia (23 percent and 24 percent). Households below the poverty line (21 percent) and the uninsured (21 percent) Roma (22 percent) used outpatient health services considerably less (Graph 5).

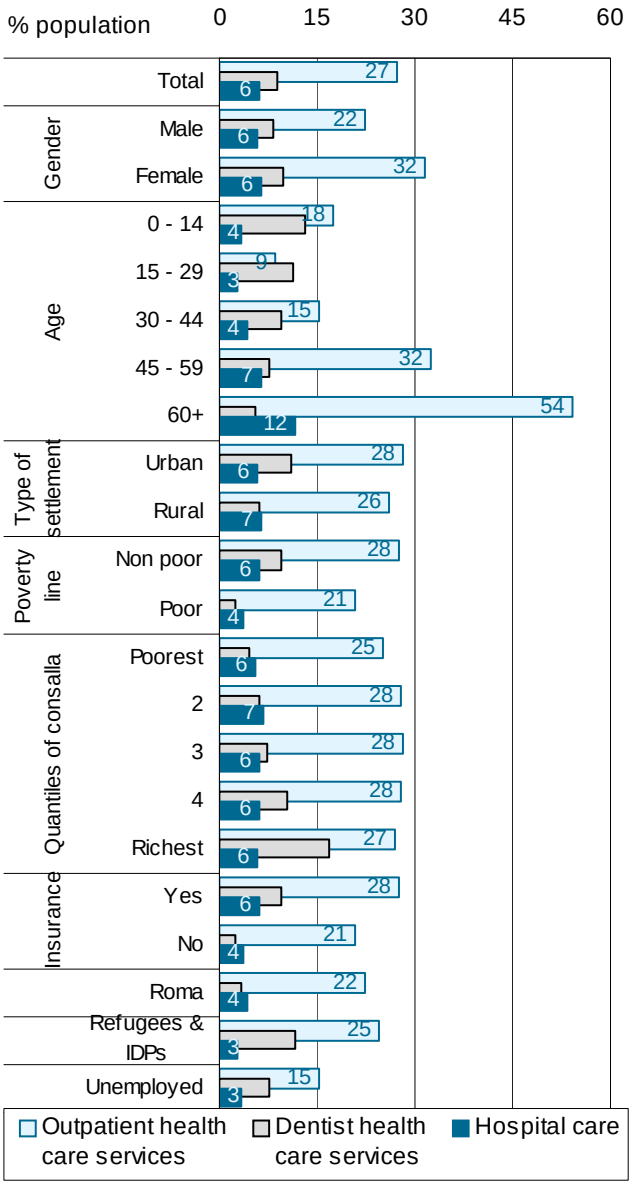
Graph 7.4. Health service use according to type of health institutions ownership (percent)



Dental health care services. Those in the youngest age group (0 to 14 years) visited dentists more frequently (13 percent compared to 9 percent of the overall population) and most frequently dentists in state health institutions. The data is very indicative since at this age it is of the utmost importance that state provides the best available service so that children can eliminate their problems on time, securing better dental health in the future.

People living below the poverty line used dental services three times less frequently. Those falling into the lowest quintile used dental services nearly four times less frequently than the richest. When they did use dental services they were more slightly more likely to use private institutions. (2 percent compared to 1 percent). The Roma almost exclusively used state dental services (3 percent for state compared to 0.4 percent for private) (Graph 5).

Graph 7.5. Use of health service by type of health service (percent)



Hospital care . Hospital care was used by 6 percent of the population and it was done almost exclusively in state health institutions in Serbia. The results of the Study of Public Health in Serbia (2006), also confirm these results (the percentage of adult hospitalized population was also 6 percent), and since it is slightly increased in comparison with LSMS from 2003, it implies that the conditions of use and requests for hospital treatment were relatively unchanged in the observed years. Health services in hospital institutions were most frequently used by those aged over 60, which is more than two times higher than the average for Serbia. There were no differences in the use of hospital treatment according to gender, type of urban/other settlement and region. These services were less frequently used by the population living below the poverty line (4 percent) or by those from one of the socially vulnerable groups (Roma, 4 percent, refugees and IDPs, 3 percent the unemployed 3 percent) (Graph 5).

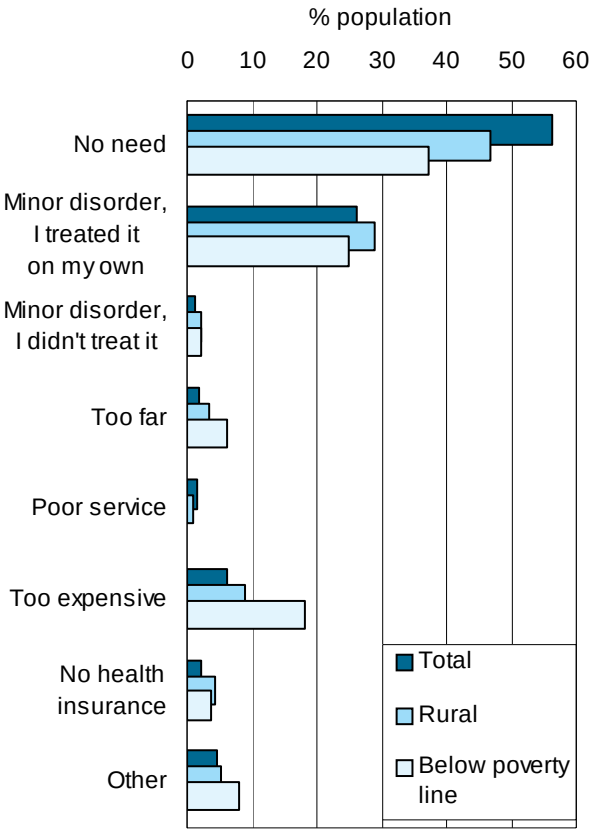
Over-the-counter use of drugs and alternative medicine. Over-the-counter purchase and use of drugs, vitamins and preparations with minerals, medical consumables such as adhesive strips, syringes, gauze, etc, and the use of alternative medicine (acupuncture, chiropractor' services) was recorded in 23 percent of the population in the month before the survey. Women are more likely to buy over-the-counter drugs and alternative medicine than men (27 percent and 19 percent respectively), people older than 45 years use them more than those younger than 45, the urban population more than the non urban (26 percent and 19 percent respectively), as well as residents of Belgrade and Vojvodina, and most frequently those from the richest quintile (33 percent). These drugs and services were significantly less used by the population living below the poverty line (11 percent) and uninsured people (19 percent).

7.6. Non-use of Health Care Services

Among the most significant indicators of health care deprivation are the reasons for non-utilization of health care services among the ill population. In 2007, the majority of ill people considered that there was no need to use health care services (56 percent). Secondly they reported that they had minor health problems which they were able to solve themselves (26 percent). The third mostly quoted reason was that they did not have money for health care services. This reason was

given significantly more by residents of non urban areas (9 percent compared to 4 percent), while those living below the poverty line reported three times more frequently than the overall population that the high cost of health services was the reason for not utilizing these services. A striking difference was noted between those falling into the poorest and the richest quintiles (13 percent compared to 1 percent). In the Roma population, every third ill person (33 percent) did not use health care services due to these reasons, six times more than in the overall population. Not having health insurance was a reason for not using health care services in 2 percent of the population, and it was twice as frequent among non-urban residents those living below the poverty line (4 percent each). In eastern and south-east Serbia the percentage of non users of health services are two and three times higher than in other regions (Graph 6).

Graph 7.6. Ill population that did not use health services by reason (percent)



Although only 1.7 percent of population reports distance as a reason for not utilizing health care services the geographic availability of health care services is, to a large extent, responsible for the level of health care service availability. In 2006, the average distance of households in Serbia from a health care unit was 2.4km, a community health care centre 5.3km, a hospital 14.6km, and a pharmacy 3.8km[11]. The data do not significantly deviate from the data provided in LSMS in 2002.

7.7. Health insurance

In 2007, 6 percent of the population had no health insurance. The non urban population (10 percent), residents of East and South East Serbia (8 percent and 11 percent) and those living below the poverty line (14 percent) were very significantly more likely not have health insurance. There were 17 percent of Roma respondents without health insurance and 11 percent among the unemployed, which is significantly more than the average for the overall population. The percentage of people with no health insurance among refugees and IDPs was the same as for the overall population.

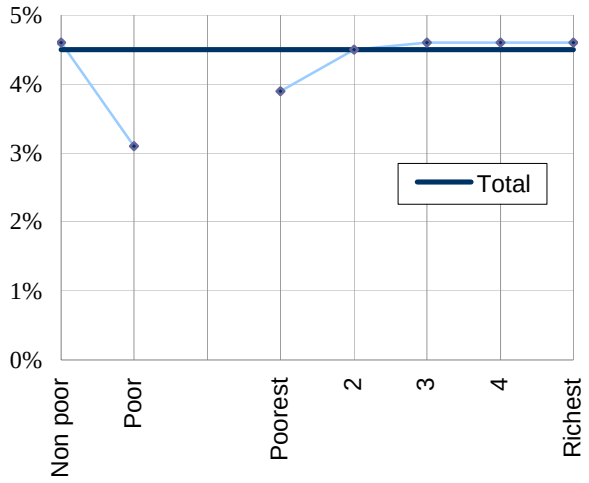
The majority of Serbia's residents were insured through a supporting member of the family (30 percent), and then through insurance based on employment (29 percent). Children up to the age of 14 and adolescents between 15 and 19 years (91 percent and 50 percent) were insured through a supporting family member. Most of those aged over 60 years were insured through their pension (80 percent). Respondents aged between 30 and 59 years (48 percent and 60 percent) were insured through their employment, while unemployed people aged between 15 and 44 years (17 percent and 19 percent) were insured through the Employment Board.

In 2007, the percentage of uninsured people was the same as in 2002 (6 percent). There were also no significant differences in the structure of health insured population according to the type of health insurance in comparison with 2002, except in the group of those insured through another family member in which the percentage was 3 percentage points lower (33 percent in 2002 in comparison to 30 percent in 2007).

7.8. Health care expenditures

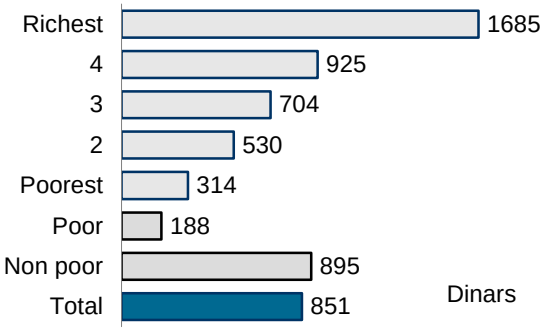
In 2007, health care expenditures amounted to 4.5 percent of total household expenditure. The share of health care expenditures in 2002 was slightly higher (5.4 percent). Graph 7 shows the share of health care expenditures according to the financial situation of households. It is indicative that all the observed groups of population spend around 4.5 percent to 4.6 percent of their total expenditure on health care, except those living below the poverty line and the poorest households according to expenditure quintiles (3.1 percent and 3.9 percent). If we consider the absolute values of average expenditures on health care, the differences become more prominent. People below poverty line spent only 188 dinars per household member per month, the poorest according to expenditure quintiles, 314 dinars and the richest 1 685 dinars (Graph 8).

Graph 7.7. Proportion of health care expenditure of total expenditures according to financial situation of household



Average expenditures on health services according to the type of health institutions show that the expenses for private health care services were much higher than those for state health care services. The average expenditure on private outpatient services were 4 times higher than on state health services, for hospital treatment 5 times higher, and for dental health care services 3 times higher (Table 1).

Graph 7.8. Health care expenditure according to financial situation of households* (dinars)



* All household members are included whether using health services or not

The differences in the average expenditure are partly due to the frequency of use of these services among the population. It is not surprising that a very small portion of population that used private hospital treatment (0.1 percent) had high expenditures and that among the richest, the expenditures exceed the total expenditures per household member, and that this type of services was never used by poor population and so there are no recorded expenditures. State outpatient expenditures amount to 8 percent of total expenditures of the poorest population, and 4 percent (half the amount) spent by the richest. Hospital health care is the most expensive sector of health care system; therefore, it is not surprising that the expenditure on hospital stays in state hospitals was the largest expenditure, regardless of the financial state of population. However, the proportion of expenditure on state hospital treatment was larger among the poorest (29 percent) than among the richest (20 percent).

Table 2 provides average expenditure per individual services both on outpatient and hospital services in relation to the financial state of the population. Expenditures on drugs and medical consumables were the largest expenditures both in primary and hospital health care. The amounts of expenditure in the majority of the examined services are two to three times larger among the rich compared to the poor (among health care users) and expenditures on transportation and hospital stay are 6 times larger.

Table 7.1. Average expenditure on specific health care services per household member who used these services in relation to the poverty line and expenditure quintiles (dinars)

Type of expenditure	Total	Poverty line		Expenditure quintiles				
		Non-poor	Poor	Poorest	2	3	4	Richest
Total expenditure per household member	**18 796**	**19 639**	**5 926**	**8 025**	**11 891**	**15 251**	**20 144**	**36 532**
State outpatient services (1 month)	1 040	1 074	451	647	923	1 031	1 175	1 508
Private outpatient services (1 month)	4 831	4 861	2 330	1 795	2 419	2 968	4 762	6 272
State dental health care services (1 month)	907	924	349	382	581	1 021	835	1 437
Private dental health care services (1 month)	3 134	3 148	1 269	1 394	1 464	1 961	2 576	4 238
State hospital treatment (12 months)	4 883	5 032	1 492	2 363	3 583	5 016	6 389	7 151
Private hospital treatment (12 months)	24 956	24 956			12 000	19 231	10 672	45 534
Over-the-counter purchase of drugs and alternative medicine services (1 month)	657	666	378	456	516	552	678	887

Table 7.2. Average expenditure for individual services in state outpatient and hospital health care per household member who used the service, in relation to the poverty line and expenditure quintiles (dinars)

Expenditures	Total	Poverty line		Expenditure quintiles				
		Non- poor	Poor	Poorest	2	3	4	Richest
Total expenditure per household member (monthly level)	**18 796**	**19 639**	**5 926**	**8 025**	**11 891**	**15 251**	**20 144**	**36 532**
Outpatient health care expenditure (per month)	**1 040**	**1 074**	**451**	**647**	**923**	**1 031**	**1 175**	**1 508**
Examination	134	137	74	84	92	125	172	220
Drugs and other consumables	876	903	424	603	8 001	853	1 008	1 207
Laboratory tests, X-rays	750	767	188	415	661	814	807	991
Transportation expenditure	481	493	270	341	466	564	571	452
Gifts and payments to medical staff	*1 153*	*1 153*	*-*	*478*	*1 049*	*378*	*294*	*2 427*
State hospital stays expenditure (per year)	**4 883**	**5 032**	**1 492**	**2 363**	**3 583**	**5 016**	**6 389**	**7 151**
Hospital treatment	3 652	3 688	2 421	2 096	3 529	3 321	4 243	4 972
Drugs and medical devices (surgical and implantation material)	4 234	4 364	1 130	2 220	2 175	5 308	6 395	4 944
Laboratory tests, X-rays	2 814	2 829	1 000	1 873	1 685	2 852	4 088	2 948
Transportation and accommodation	1 369	1 424	443	472	868	1 517	1 462	2 817
*Gifts and payments to medical staff**	*5 060*	*5 088*	*1 000*	*6 387*	*6 296*	*4 303*	*3 294*	*5 952*

* Data on expenditure of informal payment had low levels of response (total number of respondents was 109 or 0.6 percent of the sample).

7.9. Conclusions

On the basis of the analysis the following conclusions can be defined:

1. The poor population is more likely to negatively assess its health status. As financial security increases the proportion of people who assess positively their health status also increases.
2. Regular usage of health services for treating chronic diseases is less frequent among the population living below the poverty line.
3. Significantly less use of health care services is found among poor and socially vulnerable groups (the uninsured, Roma, refugees, IDPs and the unemployed). Markedly less frequent was the use of health care services among the ill population living below the poverty line.
4. Private health care services are not used by the population living below the poverty line.
5. The high cost of health care services was a frequent reason given by the rural population for not using the services.
6. The proportion of the uninsured population in the general population is unchanged compared to 2003. The largest proportion of uninsured people is found among those living below the poverty line and Roma.
7. The proportion of health care expenditure of total household expenditure is the lowest in the households living below the poverty line. Expenditures for health care services presented a greater financial burden for the poor population.

Endnotes, Part 7

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[10] According to the results of the Study of the Public Health in Serbia (SPHS, 2006) adults aged 20 and older (despite methodological differences which make comparison with LSMS results difficult, the most common chronic disease is hypertension (23 percent of adult population suffering from it) then rheumatic diseases (17 percent of population).

[11] Study of Public Health in Serbia, 2006.Belgrade: The Ministry of Health, Republic of Serbia; 2007.

Snezana Klasnja

Education 8

8. EDUCATION

Introduction

In the document Millennium Development Goals in Republic of Serbia (MDG) poverty reduction and greater participation of children in education are two important connected goals. Two thirds of the poor population have an educational level of completed primary school or lower. Education development policy is simultaneously a poverty reduction policy. In the following text we shall analyze statistical data on education in Serbia[1] and data obtained in LSMS 2002 and 2007 in order to analyze the progression of the country toward total participation of children in primary education, increased participation of children in preschool institutions, postsecondary non-university and university education, and providing equal chances for all to have a quality education. Unfortunately, it was sometimes difficult to make a direct comparison of some date from the two surveys due to changes in the construction of some variables.

8.1. General data on education

8.1.1. Total population and level of education

According to Census 2002, the population of Serbia is 7 498 001. The percentage of women in the total population is 51 percent (3 852 071). The population aged 15 years or more without completed primary education makes up 21.8 percent of the total population (27 percent women and 16 percent men); 24 percent have completed primary education (25 percent women and 23 percent men); 41 percent have completed secondary education (36 percent women and 46 percent men); 11 percent have completed postsecondary non-university and university education (10 percent women and 12 percent men). Data is unavailable for 2 percent of the population.

According to the RSO Serbia had a population of 7 411 000 in 2007. The participation of women in the total population is 3 839 652 (51 percent). The population without children aged under six and primary school students is 6 345 966, 13 percent of population have not completed primary education; 23 percent have completed primary education; 49 percent have completed secondary education, while 14 percent have postsecondary non-university and university education.

Although the data are not directly comparable, a trend of population decrease is evident, as well as an improved education structure of the population during the period in question.

8.1.2. Number of educational institutions, beneficiaries and employees / 2002 and 2006

According to RSO data[2], in September 2002, Serbia had 1 776 *pre-school institutions* and 1 970 in September 2006. At the end of the 2001/02 school year there were 3 591 *regular primary schools (autonomous schools and geographically separated units[3])*, while there were 3 572 schools at the end of the 2005/6 school year. At the end of 2001/02 school year there were 480 regular *secondary schools*, while there were 478 regular secondary schools at the end of 2005/06 school year. In September 2002, Serbia had 135 *higher schools and faculties with*, while this number rose to 2006 in September 2006. At the end of 2001/02, there were 14 *primary schools for adults*, while at the end of 2005/06, there were 19 schools for the education of adults.

8.1.3. Education of minorities

According to 2002 Census, national minorities make up 17.14 percent of population of Serbia. National minorities receive education in the mother tongue, bilingually or in Serbian language, with a

study of mother tongue and elements of national culture. Constitution guarantees the right to education in mother tongue. In the school year 2005/06 there were 247 primary schools, which had sections with upbringing in languages of nationalities, with 33 415 students. Also, there were 42 secondary schools with 9 675 students. Schools for special education (primary and secondary) had 1 418 students from minority groups and 212 students in schools for education of adults.

The largest minority is Hungarian (3.9 percent), followed by Bosnians (2.2 percent), Roma (1.4 percent). It is estimated that the number of Roma is far greater, which would mean that they might be the most numerous minority in Serbia. The number of Roma younger than 15 years of age is 32 percent, which is far greater than the total number of children of this age in the total population, at 16 percent. The percentage of Roma without primary education is 63 percent, while only 0.9 percent of Roma have completed higher or high education. The data obtained in certain analyses[4] indicate that system of education covers about 20 percent of Roma children, and that 30-40 percent of primary school students do not enrol the fifth grade, as well as that Roma are the majority in special schools. Without a greater participation of Roma in the educational system and a decrease in unemployment rate, it is impossible to come out of extreme poverty that now plagues this national minority. According to information obtained through the MICS[5] research, 66 percent of Roma children enrol in primary school, while only 14 percent of boys and 6 percent of Roma girls enrol in secondary education. Serbia has a population of 40 054 Vlachs (0.53 percent of population), who are also a group with exceptionally low level of education. A total of 70 percent of Vlachs have not completed primary education, while only 2 percent have completed higher or high education.

It is necessary to prepare and implement a number of measures that would allow greater participation in all levels of education, primarily of Roma children and children from the Vlach national minority.

8.1.4. Education of children with developmental disorders

The law on the educational system refers to the education of children with developmental disorders. There is no reliable data on the number of these children. There is no precise information on the number of kindergartens that have special sections, which provide education to children with developmental disorders and difficulties. The existing system of educating children and young people with special needs is organized in three basic forms: schools for pupils with developmental disorders, special sections for those children in regular schools and sections in regular schools, in which children with developmental disorders and difficulties are schooled together with other children. In the first two forms the system is organized so that children with the same type of disability are placed in special schools or sections. In Serbia, in the 2005/06 school-year, there were 49 special primary schools and 25 special secondary schools, as well as 90 regular primary schools and 6 regular secondary schools with one or more sections for children with developmental disorders[6]. Other children with a disability or some other type of special needs are placed in the classes of regular schools together with other children, but without an adequate support.

Inclusive education is still at the level of pilot programs. In addition to raising awareness of all stakeholders for an inclusive approach to education, it is necessary to ensure adequate financing, premises and staffing.

8.1.5. Quality of educational attainments

International and national studies of pupils' educational attainments, as one of indicators of effectiveness of education, point to an insufficient grasp of functional knowledge necessary for participation in educational process and further schooling. Results of our fifteen year olds at the international PISA/2003, PISA/2006 and TIMSS/2003 tests are under international average set at 500 points: PISA/2003: mathematics 437 points, reading comprehension 411 sciences 436; PISA 2006: mathematics 435 points, reading comprehension 401 sciences 436 and TIMS: mathematics 477 points and sciences 468.

Results of different studies of educational outputs provide a solid basis for decision makers to improve educational policies.

8.1.6. General education data obtained in LSMS/2002 and LSMS/2007

According to LSMS 2002 data, 14 percent of the Serbian population was poor. According to data from the Labour Force Survey (LFS) in 2002, 10.6 percent of Serbian population was poor. Over the past five years number of the poor has nearly halved, so that it was 6.6 percent in 2007. The absolute poverty line for 2007 is 8 883 dinars per consumer unit. In the last five years, the uneducated population is most heavily represented among the unemployed, children, households with six or more members, and households outside urban areas.

One of the primary causes of poverty is the low education level of the population[7]. The greatest proportion of the poor in 2002 and 2007 are found among families where the head of household has no, or only partial, primary education (67 percent in 2002, 41 percent in 2007). Only 0.7 percent (2002), 1.7 percent (2007) of families where the head of household has a post-secondary non-university and university education is poor. Almost half of the households where the highest education level of the most educated household member is primary school are amongst the poorest households. Whereas, only 7 percent of households where the most educated member has an academic degree are amongst the poorest households. On the other hand, amongst the wealthiest, 55 percent of the households have members with academic degrees, while only 5 percent of the households from this group have members whose highest education level is a completed primary school, or less.

Among the ranks of the unemployed, 37 percent have completed primary education. Among those under 25 years of age, 6 484 are illiterate (3.4 percent of illiterates in overall population). Unemployment is one of the most serious economic and social issues faced by Serbia. According to data from the 2005 LFS, the unemployment rate was 22 percent, while the average unemployment rate in EU countries was 9 percent. The unemployment rate among the young population (15-24) is 48 percent, which is three times higher than the EU countries (19 percent).

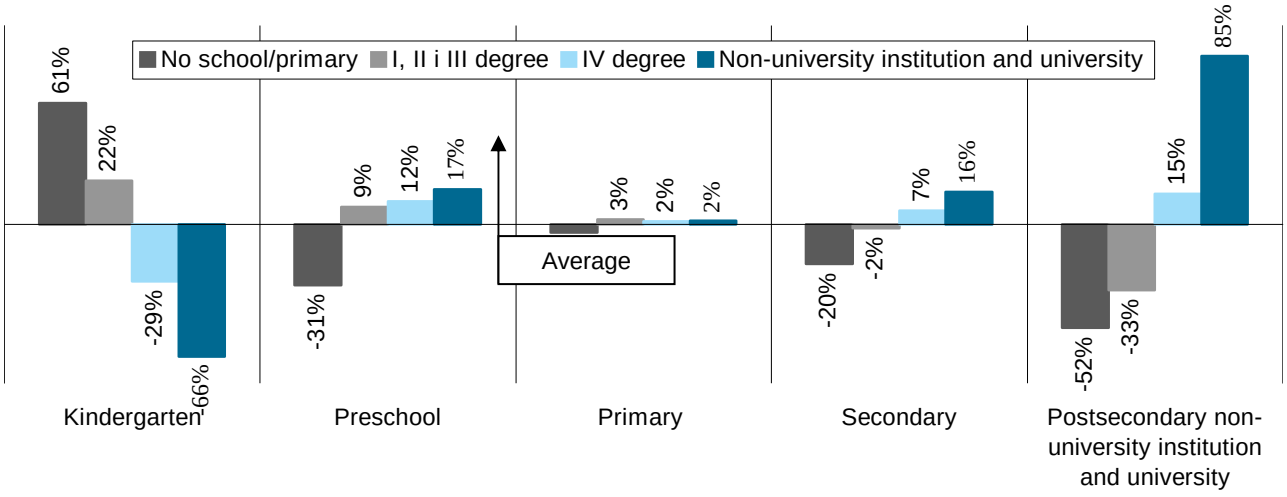
Regions which are most vulnerable to poverty (South-East, East and West Serbia) are at the same time the regions with the greatest proportion of households where the most educated household members have only received a primary education, or do not have any primary education.

The following graphs show relative deviations from the average encompassing all levels of education in 2007, relative to household consumption, type of settlement and attained educational level of the household head.

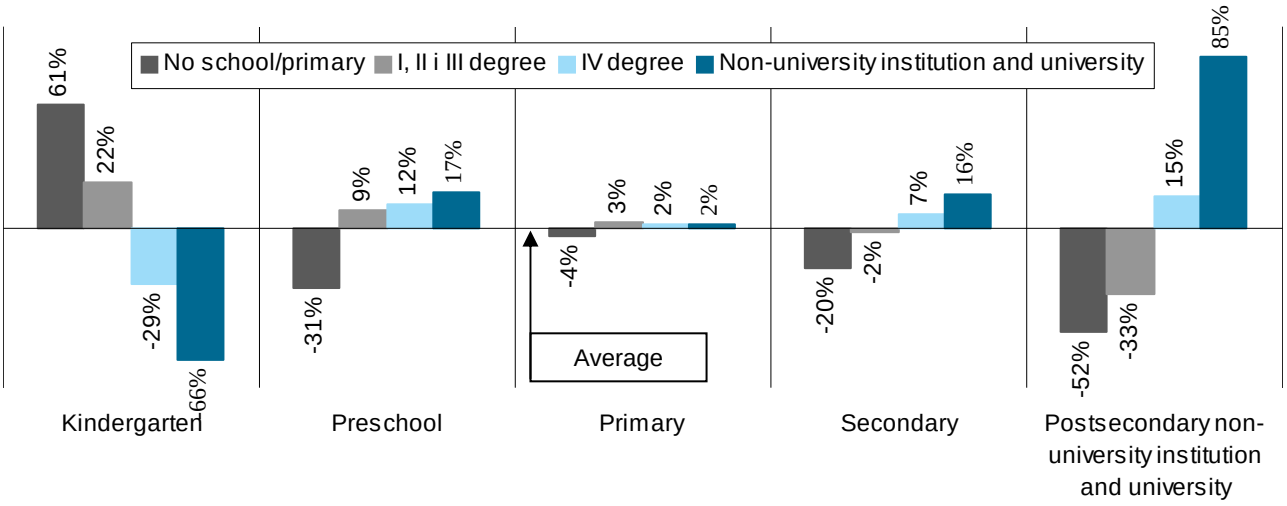
In urban areas, all deviations from the mean for attendance within different education levels are positive, and are most evident for pre-school attendance (+28 percent). In non-urban settlements, all deviations from the mean are negative, and are most evident for pre-school attendance (-43 percent) and institutions for higher education (-34 percent). Differences in attendance of primary education in relation to settlement type are lowest, which is understandable, due to primary education being compulsory. In comparison to 2002, the differences in attendance for preschool institutions in relation to settlement type have increased, while differences in post-secondary non-university and university attendance have decreased. Children from non-urban settlements have the lowest enrolment level in compulsory preschool education.

In households where the head of household has a low education level, all deviations from the mean for attendance within different education levels are negative, the most apparent being for kindergarten attendance (-61 percent), post-secondary non-university and university attendance (-52 percent) and preschool attendance (-31 percent). For households where the head of household has an academic degree, all deviations form the mean are positive, and are most evident for kindergarten attendance (+66 percent), post-secondary non-university and university attendance (+85 percent) and preschool attendance (+17 percent). The lowest differences with respect to the education level of the head of household are evident for primary school attendance (from -4 to +3). Results for all levels are similar to those obtained for 2002, apart from preschool education, where the difference has increased.

Graph 8.1. School attendance, relative differences in relation to type of settlement, 2007

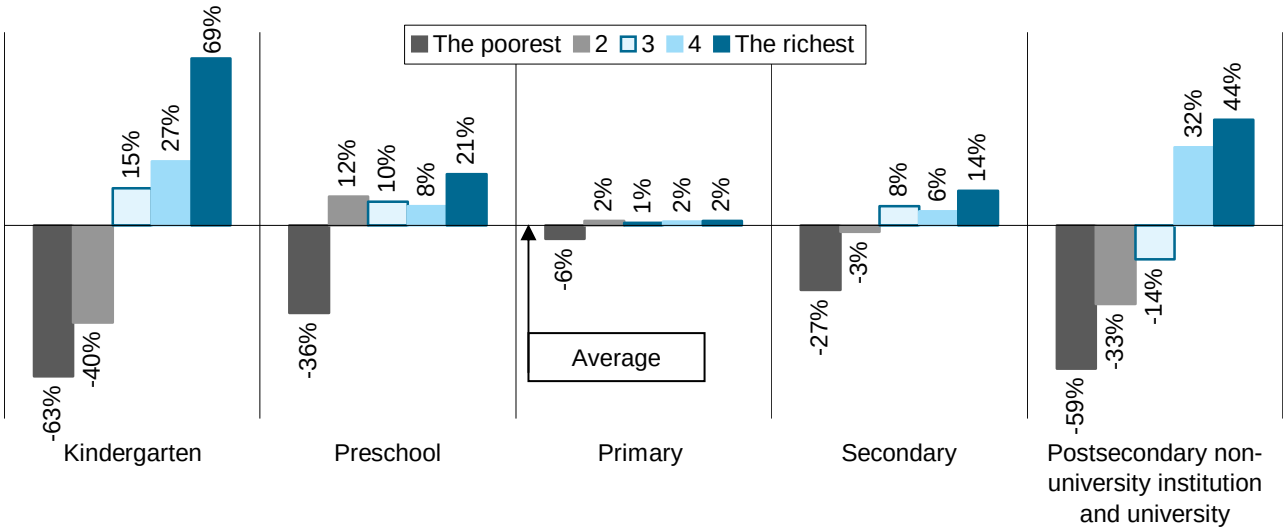


Graph 8.2. School attendance, relative differences in respect to the educational level of the household head, 2007



For the poorest households (1st quintile), all deviations from the mean in attendance of different education levels are negative and are most apparent for kindergarten attendance (-63 percent), post-secondary non-university and university attendance (-59 percent), preschool attendance (-36 percent) and secondary school attendance (-27 percent). In the wealthiest households by consumption expenditure (5th quintile), all deviations from the mean are positive and are most apparent for kindergarten attendance (+69 percent), post-secondary non-university and university attendance (+44 percent), preschool attendance (+21 percent) and secondary school attendance (14 percent). The lowest differences with respect to household poverty are in relation to primary school attendance (from -6 to +2). The data correspond to 2002 results at all levels, apart from preschool and primary education, where the differences have increased. Particularly worrying is the decrease in primary school attendance of children from the poorest families.

Graph 8.3. School attendance, relative differences by quintiles of consumption, 2007



Data clearly point to a correlation between education and different social and economic status. The greatest differences between children from different socio-cultural and geographic backgrounds are evident for post-secondary non-university and university attendance as well as kindergarten attendance. The lowest differences in participation of children from different categories in educational programmes are for primary school attendance.

The increase in attendance and quality of all education levels is considered by the Ministry for Civil Affairs to be a tool for the economic recovery of the country, increased employment and decreased poverty. Analysis of LSMS 2002 and 2007 clearly indicates that poverty decreases with a rise in education levels.

8.2. Preschool education

8.2.1. General data

In Serbia state and private kindergartens provide institutional preschool education for children from 12 to 84 months. Since it is not compulsory, it is financed from monthly fees paid by parents and from municipal revenues. According to RSO data preschool education was provided in 161 preschool institution (1970 kindergartens), with 173 203 beneficiaries in 2006. Of the total 19 738 employees in preschool institutions, teachers and medical staff make up 65 percent, while the rest are administrative and other staff. The percentage of women among employees is 85 percent.

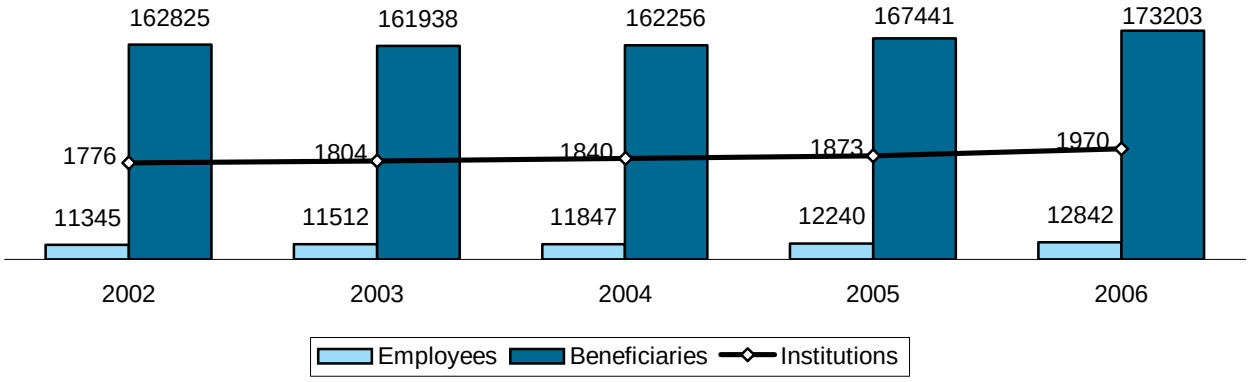
A six month, compulsory Preparatory Preschool Program (PPP) was introduced in the school year 2006/07, consisting of at least 4 hours a day. This program is free and compulsory by law for all children aged 5 and a half to 6 and a half. The program is financed from the state budget. The data available to the Ministry of Education, during 2006/07, PPP encompassed 98 percent of children in corresponding age category, through 4.353 teaching groups. The PPP includes approximately 2980 children from vulnerable groups (Roma, IDP and refugee children). The information on total coverage of the PPP is insufficiently reliable as there are no accurate data on total number of children from vulnerable groups (Roma, children with disabilities, refugees and IDPs etc.) in the overall population.

The rate of participation of children in preschool education (all forms of participation in the public sector for children aged 3 to 7) is one of the lowest in Europe. In 2002 it was 38 percent, while in 2005 it was 39 percent. The network of preschool institutions is underdeveloped and unevenly

distributed geographically. According to the Multiple Indicators Cluster survey of children and women[8] preschool education encompasses only 45 percent of children from urban and 14 percent of children from rural areas, aged 3-5. Among the ranks of the poorest, the participation rate is only 7 percent, while the participation of Roma children is 4 percent. In the past five years it has been apparent that the country is investing efforts to increase participation of children in institutional preschool education.

The number of institutions, teachers and medical staff, and number of children in institutions has been growing steadily from 2002 to 2006. The national MDGs feature an objective to include 70 percent of children in preschool education by 2015.

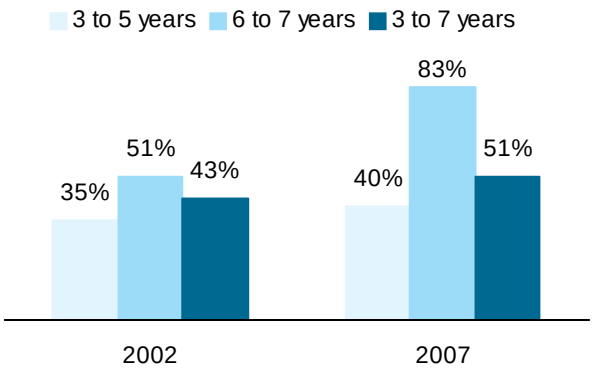
Graph 8.4. Participation in preschool education for the overall population



8.2.2. Data from 2002 and 2007 LSMS

When illustrating the situation in preschool education, according to LSMS 2002 and 2007, we have focused on children aged 3 to 7 years. According to LSMS 2007 kindergarten is attended by 38.1 percent of children aged 3-5 years (39 percent boys and 37 percent girls). Preschool institutions are attended by 83 percent of children aged 6-7 years (81 percent of boys and 85 percent of girls). Over 96 percent of children attend state kindergartens.

Graph 8.5. Participation in preschool education (LSMS)



During the past five years, the participation of *children aged 3-5* years in preschool education has increased moderately (about 5 percent)[9] . However, large differences are still evident, depending on various social and economic variables. Children aged 3-5 years, coming from households whose head has low educational level, are far less likely to attend kindergarten than the average for general population (16 percent relative to the average of 43 percent). Further, only 15 percent of children from the poorest quintile attend kindergarten. No children from this category attend private kindergartens. Children from households below the poverty line are far less likely to attend kindergarten (13 percent compared to 43 percent). Kindergarten is attended by 15 percent of Roma children covered by the sample[10] , while PPP covers 45 percent Roma children and 34 percent of children from poor families.

Geographical differences in the coverage of preschool education still exist. Children from urban areas, Belgrade, West Serbia and Vojvodina, are more likely to attend kindergarten. Children from East Serbia are least likely to attend kindergarten (15 percent attendance). Expensive services and long-distances to kindergartens are important factors for non-attendance of children in this region.

The most commonly cited reason for non-attendance of kindergarten is the child's wish to

remain at home (38 percent). Children from non-urban settlements do not attend kindergarten due to long distances from home (26 percent), the age of the child (24 percent), cost (10 percent) and lack of places (5 percent); while the cost is given priority as a reason for non-attendance of children from the poorest families (19 percent) to distance from home (9 percent). The lack of places as a reason for non-attendance of kindergarten is most often cited by wealthiest families (13 percent) and families from Belgrade (12 percent).

As the main reason for poor children, Roma children and children from non-urban areas not attending kindergarten is the opinion of their guardians that it is not necessary (a very young child prefers to be at home), the requirement is to raise awareness of the importance of institutional education and upbringing for the overall development of the child.

The participation of *children aged 6-7 years* in preschool education has increased by nearly 40 percent over the past five years. The main reason behind this increase is in the introduction of a compulsory and free preparatory preschool program. However, nearly one fourth of children from non-urban areas, East and West Serbia and Vojvodina, are not covered by the PPP. Children from East Serbia have the lowest preschool attendance (71 percent). Participation in the PPP is greatest in urban areas (87 percent), South-East Serbia (97 percent), Belgrade (90 percent) and Šumadija (87 percent). Children from households where the head of household has a low education level have a significantly lower preschool attendance level in comparison to the overall population (57 percent as compared to the mean, 83 percent). Only 53 percent of children aged 6-7 from the poorest quintile attend preschool education. Particularly worrying is the fact that 34 percent of children from families with the lowest expenditure quintile, and almost 50 percent of children from households which are below the poverty line, are not included in the compulsory PPP. Forty-five percent (45 percent) of Roma children from the sample attend preschool institutions.

For this age category, the most frequently cited reason for non-attendance of a preschool institution in LSMS 2007 is the distance from home, while in LSMS 2002 it was the child's wish to stay at home. Although the attendance of PPP is free of charge, the price is given as reason in 19 percent of cases (LSMS 2007). It is possible that interviewees meant the travel expenses or money they would have to pay if the child was staying in the kindergarten more than four hours. As reasons for non-attendance in preschool institutions, families from East Serbia mention expensive services (28 percent) as well as their low quality (23 percent).

Over the last five years, the participation of children from South-East and West Serbia in preschool education has increased.

The average time that children aged 3-7 years spend in a kindergarten is six hours (6.2 in LSMS 2002 and 6.1 in LSMS 2007). The average time that children from poor families spend in a kindergarten has increased slightly during the past five years (4.5 LSMS 2002 relative to 4.8 LSMS 2007), but it is still far below the average for the whole sample. In 2002 and 2007, children from non-urban areas, on average spend one hour less in kindergarten or in preschool intuitions than children from urban areas.

Preschool education has an important role in preventing failure in school and social exclusion. An increase in participation of children in preschool education allows a higher rate of enrolment and decreased attrition of children from primary education, especially those children from those areas that are socially and culturally deprived. It is necessary to take additional measures to remove all obstacles to total coverage of children by PPP. The analysis of data obtained in LSMS 2002 and LSMS 2007 allows us to assert that the basic target groups needing special attention in this respect are children from poor families, children from households where household head has lower education, children from East Serbia, children from rural areas and Roma children. Introduction of compulsory preparatory preschool program should reduce the differences in children's readiness for schooling. However, data shows that this form of education still does not cover all those who need it the most: children from the poor families, Roma children and children from rural areas.

8.3. Primary education

8.3.1. General data

Children aged at least six and a half, and not more than seven and a half years, enrol in the first grade of primary school. The constitution guarantees compulsory and free primary education under equal conditions for all citizens, regardless of sex, religion, health, national, cultural, social or any other affiliation. Primary education lasts eight years and it is structured in two four-year cycles. The preparatory preschool program is part of the nine-year compulsory education programme *Primary schools of music and ballet.* operate within the system of primary education and upbringing. Primary musical education lasts from two to six, and ballet four years. They are carried out in two educational cycles, in accordance with a separate law and academic program. The system of primary education also includes *special schools for students with developmental disorders* which last up to 8 years.

Primary schools exist in about 70 percent of settlements. Village schools represent 60 percent of the total number of schools, but they are attended by only 10 percent of total population of pupils[11] . The network of schools does not properly correspond to the migration of the population, which is a serious drawback in the effectiveness of the system and reduces access to quality education. Only 13 percent of pupils in primary schools use free public transport to school. In Serbia, 27.8 percent of pupils travel from 11 to 20 kilometres to school, while 27.9 percent travel more than 21 kilometres to school[12].

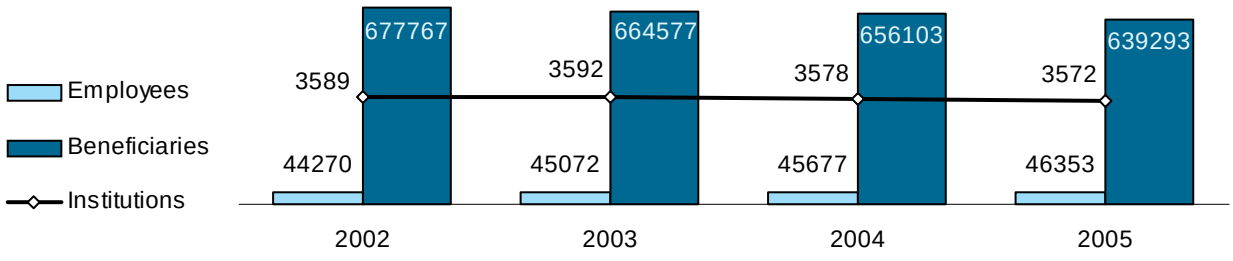
At the end of school year 2005/06 there were 3 572 primary schools in Serbia[13] (autonomous schools and satellite sections) and 639 293 pupils (49 percent girls). Out of total 46 353 teachers, 72 percent are women, while 36 769 teachers, or 79 percent, worked full-time. In the same school year, there were 245 special schools (includes special schools and sections within regular schools) with 7 707 pupils (41 percent girls) and 1 606 teachers, as well as 19 primary schools for education of adults, with 235 teachers and 2 653 pupils (40 percent girls).

The number of pupils repeating a grade is low and somewhere at 1 percent. The percentage in Vojvodina is higher (1.4 percent) than in Central Serbia (0.8 percent). The greatest number of pupils repeating a grade is in the fifth grade (2.2 percent). According to data of the Ministry of Education[14] in the *2006/07 school year* there were 1 119 central (autonomous) primary schools (including schools for pupils with developmental disorders and schools for the education of adults), as well as 67 primary schools of music and ballet. Over one half of primary schools are schools with small, satellite sections, attended by 16 percent of pupils.

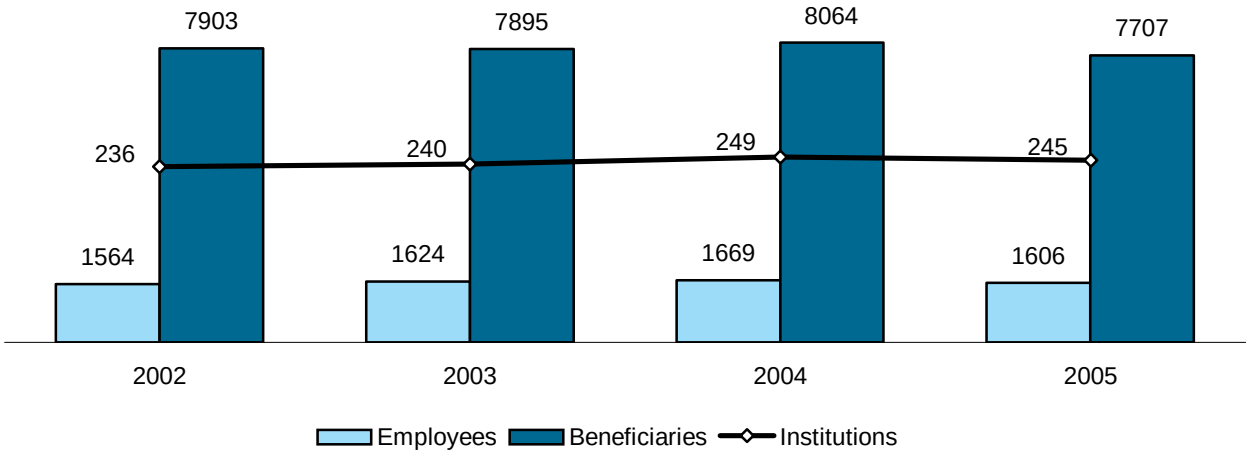
An average pupil to teacher ratio in primary education is 14.36 (RSO, 2005). Although this ratio is close to the average of OECD countries, the issue is that this ratio differs significantly in Serbia between urban and non-urban areas.

In the period from 2002 to 2005 the number of primary schools declined slightly (0.5 percent), while the number of pupils declined as much as 6 percent. However, the number of teachers increased by 5 percent in the same period. Causes are the negative birth rate, the introduction of new subjects and establishing of classes with few pupils in certain areas (the level of financing is set according to number of classes). Since 2002, there has been a downward trend in pupil enrolment in the first grade of primary schools to 1.5 percent[15].

Graph 8.6. Primary education (regular primary schools at the end of school year)



Graph 8.7. Primary education (special primary schools)



According to RSO data *the coverage* by primary education in school year 2005/06 was 98.41 percent, and the dropout rate was 0.36 percent. The completion rate was 95 percent. In the period 2002 to 2005, the coverage of children by primary education ranged in from 96 percent to 99 percent, while the dropout rate was from 0.36 percent to 1.94 percent. These data should be interpreted carefully, as there is no accurate data about the number of children from vulnerable groups in the population (Roma, children with developmental disorders, etc.), as well as the fact that data on enrolment and graduation rate were not prepared on the basis of monitoring a cohort, which means that they are realistically lower. The percentage of attrition of children is low at entry to the fifth grade (1.1 percent, RSO, 2005). Children from rural areas and Roma children have the highest attrition rates.

8.3.2. Data from 2002 and 2007 LSMS

The percentage of children who *attend* primary education is high. According to LSMS 2007, 97.5 percent of school age children attend primary school, while 0.6 percent of children are in schools for children with developmental disorders. Various forms of secondary education cover 0.4 percent of children less than 15 years of age. Compared to 2002, the percentage of children aged 7 to 14, who are not included in the system of education, has increased by 0.2 percent (from 1.4 percent to 1.6 percent). Children with disabilities, refugees and IDPs are fully covered by the education system. The coverage of primary education among children from Roma families has increased (56 percent 2002 compared to 73 percent 2007) and the percentage of children in schools for children with developmental disorders has decreased (8 percent 2002 compared to 5.6 percent 2007). These small shifts are certainly a result of affirmative actions carried out in order to include Roma children in the education system.

All children with disabilities, refugee and IDP children were included in the education system at the time of the survey. However, the most of children outside the education system are still from Roma families (21.6 percent), poor families (11.8 percent compared to average of 1.6 percent) and insufficiently educated families (4.4 percent). Relative to 2002, the number of children from rural areas, who are outside the education system has increased (1.5 percent 2002 compared to 2.4 percent 2007). The greatest proportion of these children is from West Serbia, Vojvodina and Sumadija.

It is a matter of particular concern that the difference in primary school participation of children aged 7-14 from poor and rich families has increased during the past five years. In 2007, 12 percent of children from families below poverty line were not included in the education system, while in 2002 6 percent were not included.

Schools for children with developmental disorders disorders are attended by 0.6 percent of children, mostly Roma, children from poor families,

and only children from families with the lowest educational level. The percentage of boys is almost twice higher than the percentage of girls. In these schools, there are no disabled children, refugees or IDP children from the sample[16].

The number of children who *repeat a grade grade* is exceedingly low in both surveys (0.8 percent 2002 and 1 percent 2007), but families of the children are the same in both surveys: the poor, and households whose heads have low education. The correlation between failure in school and poverty is also illustrated by the information that there are no children from the richest families, who are repeating a grade. Geographic differences are also evident, as the highest percentage of children repeating a grade, in both surveys, is in South East Serbia, while there are none in Belgrade. Simultaneously, the number of children repeating a grade has increased in Vojvodina and declined in Sumadija.

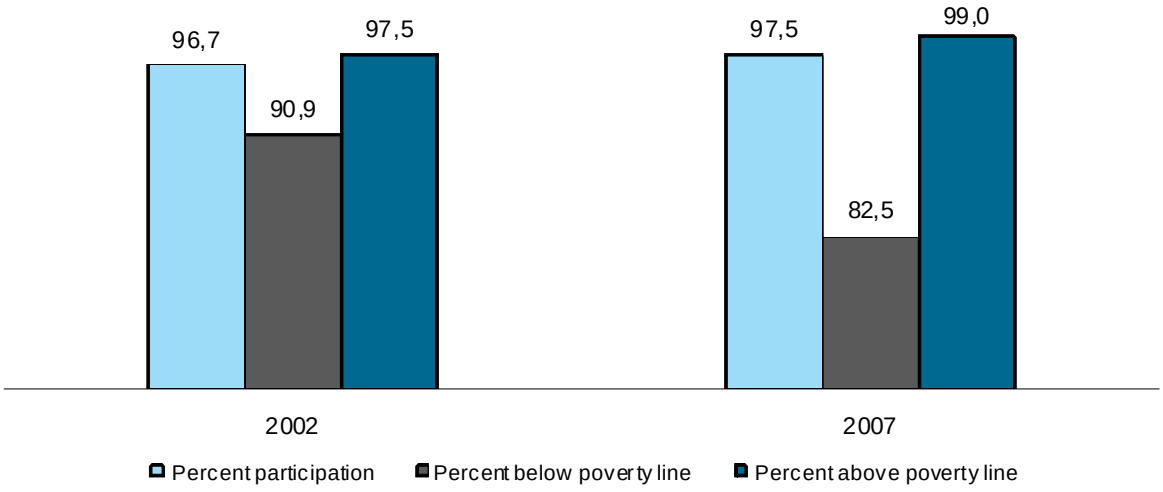
In LSMS 2007 the number of children repeating a grade is slightly higher among girls (1.3 percent compared to 0.7 percent). Further analysis yields a result that the difference by sex is the most striking for Roma population (9.3 percent compared to 4.7 percent).

One of important indicators of household consumption for education of children is participation of children in various forms of *informal education*. In LSMS 2002 it was found that 19 percent of children aged 7-14 years, spend 2 or more hours a week in private classes or specific courses/trainings (language, music, sport) while 29 percent of children were involved in these activities in 2007.

The highest representation of various forms of informal education, in both surveys, is for children from the most educated and richest families, in urban areas of Belgrade and Vojvodina. The lowest percentage of children included in additional educational programs, in both surveys, is in East and South East Serbia. Since both surveys have established the same correlation between attending additional educational programs and main social, economic and geographic variables, while the rate of participation in those activities has almost doubled during the past five years, the question is whether it is due to a desire to stimulate different potentials of children or due to their failure to achieve desired results during the regular schooling process? The answer to this question requires additional research.

Data illustrate that the right to quality education is still not the reality for all children and that inclusive education is still at a conceptual level. During schooling, differences between children from different social and economic backgrounds are deepened, instead of lessened, which indicates the inability of current educational system to fulfil its compensatory role.

Graph 8.8. Percentage of children aged 7-14 years who attend regular primary schools
(LSMS 2002 and 2007)



8.4. Secondary education

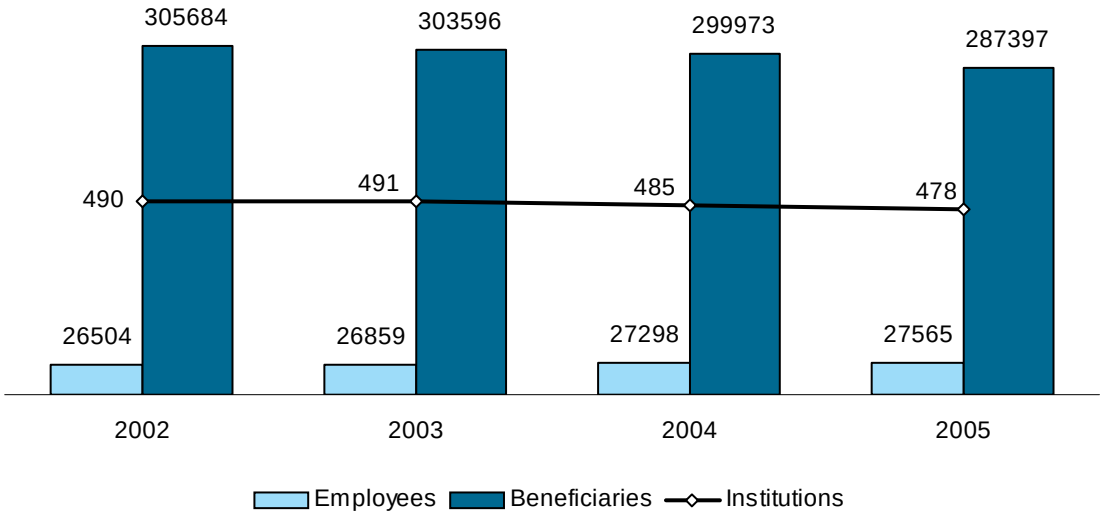
8.4.1. General data

Secondary education is not compulsory and includes pupils mostly aged from 15 to 19 years. The system of secondary education consists of three types of school: gymnasiums, vocational schools and art schools. Gymnasiums are four-year secondary schools providing general education and preparing pupils for further education. Vocational secondary schools prepare pupils for work in 17 professional fields, but also for further education. These schools provide qualifications in one-year, two-year, three-year and four-year programs. Education in arts is carried out in schools of music, ballet and painting art, during three or four-year programs. Secondary schools for pupils with developmental disorders train them for a number of professions during two-year and three-year programs, including one-year vocational training. Secondary education of adults lasts up to three years.

At the end of *school year 2005/06* there were 478 secondary schools in Serbia[17] (110 gymnasiums and 368 secondary vocational schools) with 287 397 pupils (51 percent women). In the same school year, there were 41 secondary schools for pupils with developmental disorders, with 1 465 pupils (37 percent women). Immediately following completion of primary school, in 2005/06, 23 percent of pupils enrolled into three-year programs and 77 percent of pupils selected four-year secondary schools (24.2 percent in gymnasiums and 53 percent in vocational schools)[18] The number of boys who opted for three-year programs (67 percent) far exceeded the number of girls, while less boys than girls went to gymnasiums (41 percent). Out of total 27 565 teachers (including teachers from special schools) women make up 62.7 percent. A total of 19 587 or 71 percent of teachers worked full-time. The average pupil to teacher ratio is 10.9[19].

According to RSO *data participation* in secondary education in 2005/06 was 78 percent and the dropout rate was 2.3 percent. In the period from 2002 to 2005, the participation of children in secondary education ranged within the interval from 62 percent to 78 percent, while the dropout rate ranged from 1.5 percent to 3.2 percent. Percentage of participation of children from Roma settlements is only 10.2 percent (MICS 3, 2005). Attrition of Roma children is high at the point of transition from primary to secondary education (73 percent attend primary school, and 38 percent secondary school).

Graph 8.9. Secondary education (regular secondary schools at the end of school year)



The number of classes and teachers has increased over the five years, while the number of schools and pupils has declined. An increase in the number of teachers can be partly explained by setting up of classes with fewer students, due to introduction of pilot classes, retaining of youth in schools needed for the industry in certain regions, for which there is not a lot of interest, and also for the reason of conducting teaching in the languages of minorities. On the other hand, teachers working in several schools (their numbers have grown over the years) show up repeatedly in statistical reports. As a result, the number of teachers employed part-time is lower than represented in official statistics.

During the analysed five-year period, the number of pupils enrolling gymnasiums and three-year vocational schools has declined, while the number of pupils in secondary four-year schools has increased. Data on enrolment of pupils in secondary schools during the 2007/08 academic year indicate that overall enrolment in three-year profiles was only 76 percent, while enrolment in four-year profiles was 96 percent[20]. The introduction of "oglednih" departments with attractive educational profiles has also affected the higher interest for enrolment in four-year schools.

In Serbia, at the beginning of the 2007/08 school year, there were 483 secondary schools, of which: 100 were gymnasiums, 282 vocational schools, 33 mixed (vocational and gymnasium), 28 schools for children with developmental disorders, 28 music schools, 6 art schools, 3 ballet schools and 3 mixed schools (vocational and art).

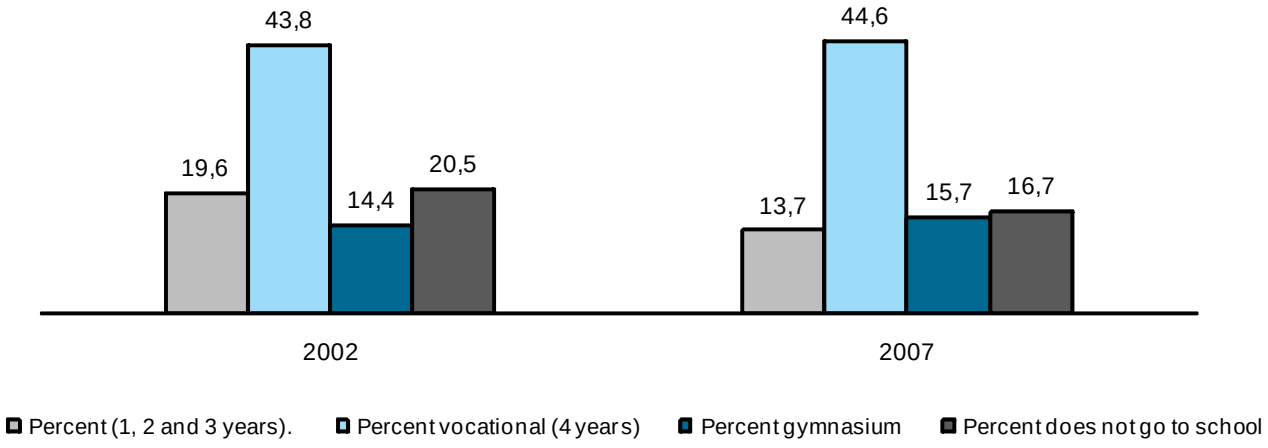
8.4.2. Data from 2002 and 2007 LSMS

Data on participation of secondary school aged children from LSMS 2002 and LSMS 2007 cannot be compared directly. We will present mostly results of surveys from 2007. According to the LSMS from 2002, 20.5 percent of children aged 15-18 years were not included in the educational system, or there was no answer to question about participation.

According to the LSMS 2007, 16.7 percent of children aged 15-19 years *are not included* included in the educational system. Difference between sexes is very pronounced, as 21 percent of boys are not included in the educational system, while only 12 percent of girls are not included in the system. Various forms of secondary education include 74.4 percent of young people of relevant age (0.4 percent in special secondary schools).

Primary school is attended by 8.4 percent of young people, while 0.5 percent is involved in specialist education, following secondary education. Compared to 2002, the number of young people training for professions in programs lasting less than four years has declined (14 percent compared to 20 percent), but the number of young people outside the educational system has increased.

Graph 8.10. Percentage of children aged 15-19 years by type of secondary school attended
(LSMS 2002 and 2007)



Similarly to the research conducted in 2002, the 2007 data indicates significant differences connected with different social and economic indicators: the educational system includes far fewer of young people from households where the household head has low education (28 percent), young people from the poorest families (42 percent), Roma (62 percent), refugees and IDP young people (22 percent). The percentage of pupils from families that receive transfer payments to families (MOP) is 2.4 percent and 19 percent are from families that receive allowance for children.

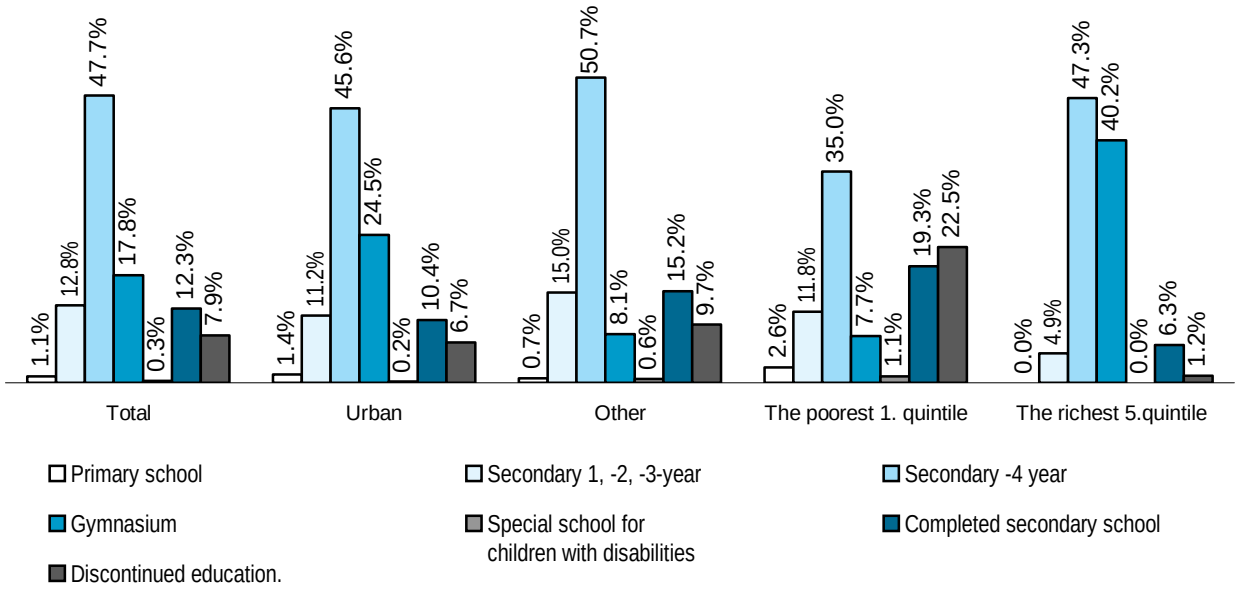
If we compare data from 2007 in relation to type of secondary school attended and economic wealth of household, with data from 2002[21] , we notice that children from non-urban areas and poor population are still more likely to opt for professions that require three-year programs or to discontinue education. However, in terms of discontinuing schooling, the difference between urban and non-urban areas has decreased by approximately 6 percent.

Differences by *gender* and non-participation in the educational system are strong for poor children (50 percent female compared to 31 percent male), refugees and IDPs (19 percent female compared to 27 percent male) and young people from rural areas (17 percent female compared to 24 percent male). Interestingly, 6 percent of children from the richest and the most educated families are not included in the educational system, and this was not the case with children aged 7-14 years.

The highest percentage of non-participation in the educational system relates to children (7-14 years) and young people (15- 19 years) in Vojvodina and West Serbia, while it is the lowest in Belgrade. If attendance of gymnasium is seen as the orientation of young people toward continuation of education at institutions of high and higher education, then it is safe to say that this objective is the highest priority for young people from: the most educated families (43 percent compared to the average of 16 percent), the richest households (34 percent) and urban areas (22 percent). Roma are not found among pupils attending gymnasiums, and there are not young men from the poorest families (only 3.8 percent of girls are enrolled) and young men from the category of refugees and IDPs (only 3.9 percent of girls are enrolled).

The rate of *pupils repeating a grade* is slightly higher than in primary education at 1.9 percent, mostly among males (2.6 percent), young people from less educated families (3.1 percent), and the poorest families (3.1 percent), as well as young people from South East Serbia (5.4 percent) and Vojvodina (2.6 percent). The same class includes 6.2 percent of Roma (exclusively girls). The sample contained only 12 Roma children of relevant age, which makes it impossible to draw any statistical conclusions.

Graph 8.11. Attendance of secondary school, young people aged 15 to 19, 2007



Participation of young people in various forms of *informal education* was 22 percent somewhat higher than for children from primary schools (19 percent). Additional educational programs mostly include children from the most educated families (46 percent), the richest families (43 percent) and children from Belgrade (31 percent).

The percentage of children belonging to secondary school age group, who are included in the educational system, is growing slightly. However, it is necessary to invest additional efforts in order to achieve the objective of having 95 percent of pupils complete some form of regular secondary education by 2015. In this respect, target groups who should be focused on are the youth from poor families, families with lower level of education, families outside urban areas, and Roma.

8.5. Tertiary education and further education of adults

8.5.1. General data

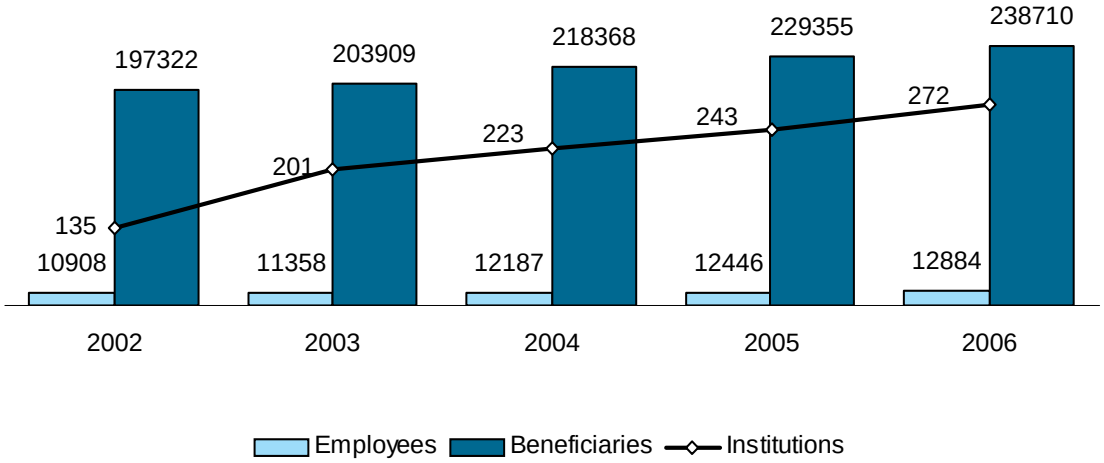
Tertiary education is conducted through academic and professional studies pursuant to the approved and accredited programs of study designed to provide acquisition of high education. This stage of education is regulated by the Law on Higher Education.

At the beginning of winter semester *2006/07* in Serbia there were 272 institutions of higher education (34 percent are higher education schools) with 238 710 students (55 percent women) and 12 884 teachers and associates. This means that the ratio teacher to student is about 18:1. 47 percent of students are financed by state budget (58 percent women). During 2005, 27 537 students graduated, of which 60 percent women. In the same year, specialist studies were completed by 635 postgraduates, 1 154 students completed masters programs and 468 students graduated from doctoral academic studies. In 2007, 15 764 students lived in student dormitories (52 percent women)[22].

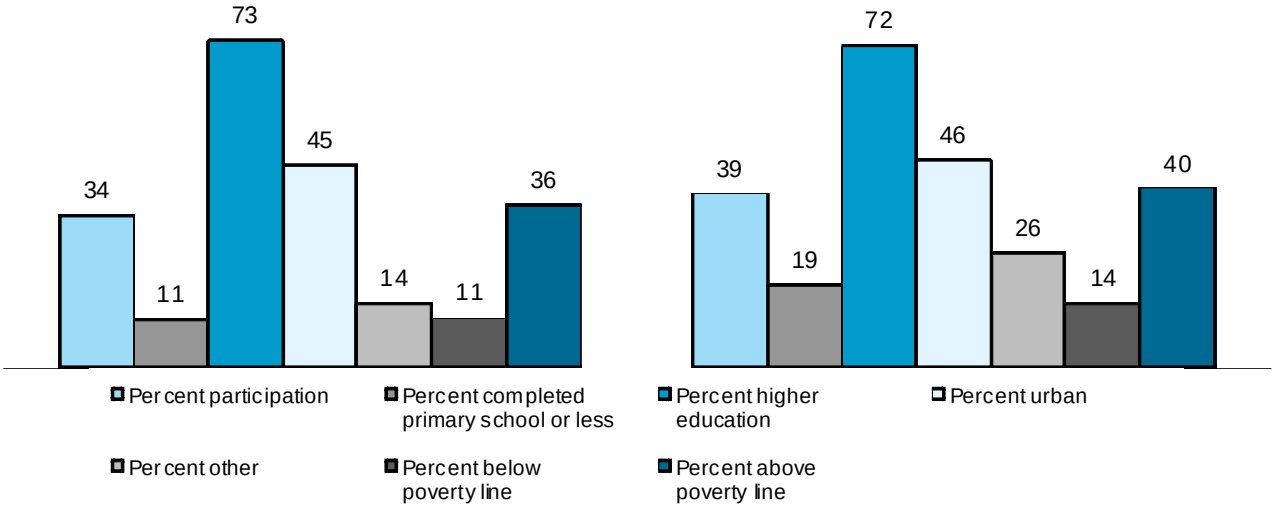
Over the last five years number of students increased 20 percent, teachers by 18 percent, and institutions by as much as 50 percent. Although the number of Roma students increased in the last five years, (0.06 percent compared to 0.03 percent) it is still exceptionally low.

The duration of studies is one of key problems in higher education. It is expected that enforcement of the new Law on Higher Education will translate into more effective and efficient studying.

Graph 8.12. Higher education (postsecondary non-university institutions and universities at the beginning of winter semester)



Graph 8.13. Percentage of young people aged 19-24 who attend some form of higher education
(LSMS 2002 and 2007)



8.5.2. LSMS data

Trends connected with the coverage of the total population in higher education are also available from LSMS 2002 and 2007.

Graph 14 shows data from both surveys indicating the student structure with respect to the education level of the head of household, settlement type and poverty.

According to LSMS 2002 and 2007 the number of studying young people aged 19 -24 years has increased by 5 percent during the last five years. The gender gap has widened, as in 2002 there were 38 percent female and 30 percent male students, while in 2007 there were 45 percent women and 32 percent men. In terms of various social and economic indicators, differences in coverage by higher education are still evident. Young people from the poorest families are still represented in fewer numbers (14 percent compared to an average of 39 percent) as well as young people from the least educated families (19 percent compared to an average of 39 percent). In the 2007 LSMS the percentage of students from families receiving MOP was 0.8, while there were 4.6 percent students from families receiving child allowance. There are no Roma among the young people who enter universities immediately after graduating from secondary school. However, it is encouraging that the highest increase in participation is evident for young people from the least educated families (19 percent compared to 11 percent) and that the participation of young people from families below the poverty line has increased by 3 percent.

The highest percentage of students is in Belgrade (56 percent) and South East Serbia (48 percent). Over the past five years, the most considerable increase in participation of young people in higher education is evident in South East Serbia (48 percent compared to 32 percent). Reasons should be sought in the network of schools and the percentage of young people in the population, among other reasons.

Comparison of data on student accommodation shows that the number of students living with parents has decreased (48 percent compared to 70 percent). In LSMS 2007 there are no students living in students' and pupils' dormitories, while in 2002 there were 7 percent. Interestingly, all students from West Serbia live in rented apartments, while 29 percent lived with their parents in 2002.

8.5.3. Further education for adults

Education of adults includes all formal and informal programs of education designed for people over 18, who are not pupils or students. Formal education is delivered within the schooling system – from primary schools to postgraduate studies at

universities, pursuant to approved programs of education which lead to a degree with adequate qualifications, competences or levels of education and which are financed from public funds. Informal education refers to all programs, educational activities and learning processes delivered outside the schooling system, Just as formal education, it is also organized and institutional, but it does not lead to social verification of acquired knowledge and achievements through award of national qualifications and levels of education, and most often it is not financed from public funds[23].

The principle of lifelong learning is difficult to apply without a developed and regulated system of informal education, which should complement the formal system. Unfortunately, in Serbia, education of adults still is seen only as compensatory. Thus it is mostly at the level of teaching illiterates how to read and write and helping the ever younger dropouts complete primary education.

According to LSMS 2007 12 percent of young people aged 15-24 years attend some form of vocational training. The highest percentage (9.9 percent) attend specific courses (languages, computers, driving) while far fewer young people attend training and seminars. For those aged 19-24, attendance of various programs of informal education dropped by 1 percent over the last five years. Men are still more frequently attending various courses and training (17 percent compared to 4 percent), as well as young people from outside urban areas (16 percent compared to 8 percent). Interestingly, these forms of education mostly include young people from households whose heads have secondary education. Participation of young people from South East Serbia has increased relative to 2002. Since these programs involve additional expenses it is not surprising that youths from the poorest families do not attend informal education.

Among employed people aged 15-24, 6 percent of the male population and 14 percent of the female population are students, while 0.4 percent of the male population and 1.4 percent of the female population attend secondary school while working at the same time. This indicates that young women are investing more in further education than young men.

According to LSMS 2007 data, 42 percent of the sampled Roma population aged 15-24 has not completed primary school, while this figure is 2 percent for the entire sample of young people. Roma students make up the highest proportion of adult attendees within schools.

In order to increase participation of young people in various training, skills and qualifications, it is necessary to expand the number of available programs, their availability, and regulate informal education through a structured approach.

8.6. Financing of education by various stakeholders

8.6.1. Participation of various levels of government in financing of education

The percentage of GDP spent and total public expenditure for financing of education represents key indicators. The percentage spent for education out of total public expenditures of Serbia was 10 percent in 2007, which is a 4 percent increase relative to 2002. The percentage of GDP for education was 3.5 percent in 2007, which is considerably below the average in OECD countries (5.4 percent of GDP and 12.9 percent of public expenditure).

The Law on Budget for 2007 involves plans to spend 58.4 billion dinars of budgetary finance for education. Out of the above amount, 49 percent is allocated to preschool and primary education, 23 percent to secondary education, 18 percent to postsecondary non-university, and university education, 2 percent to the living standard of pupils, and 4 percent to the living standard of students. Other funds are allocated to the operation of the Ministry of Education and Sports Institute for evaluating the quality of education and the Institute for improvement of quality of education. The bulk of those funds are spent for payroll (over 90 percent in primary education), while the average outlays for payroll in EU[24] countries are at 76 percent . In 2008 the Ministry of Education moved to budgeting by programs, which allowed for, among other things, a considerable increase of expenditures on education. The budget for 2008 has allocated 105.7 billion dinars from budget financing, which is 16 percent of total budgeted expenditure of Serbia.

Local government spent 7.1 billion dinars for primary education in 2006, which is 5.8 percent of total expenditures at the level of local government[25] . Secondary education was financed by local government with 3.3 billion dinars, which is 2.8 percent of total expenditures at this level of governance.

Preschool education is mostly financed from the funds of local government, fees collected from users and, to a lesser extent, from the state budget. Compulsory education (preparatory preschool program and primary education) and secondary education are mostly financed from the budget (payroll, development programs, competitions of pupils, etc.). Expenses for equipment and supplies, and investment financing are funded from local budgets. Tertiary education at state schools is financed from the budget, students' contributions (tuition and various fees) and school income. Payroll, equipment and supplies are financed from the budget. In EU countries[26] , primary education is mostly financed at the local level (45.4 percent), regional level 20.3 percent, and central level 34.1 percent. On average, local government participates less in financing of secondary education (34.8 percent), while the regional level contributes more at (29.0 percent), and central level at (36.2 percent). EU countries differ greatly in terms of participation in costs of education at specific levels.

In LSMS 2007, 2.4 percent of pupils and 0.8 percent of students are from families which receive social benefits. Within families receiving child allowance, 19.2 percent are pupils and 4.6 percent are students. 1.8 percent of pupils and 0.9 percent of students receive alimony. Within families receiving allowance for care and assistance, 1.6 percent are pupils and 2.2 percent are students.

8.6.2. Participation of households in financing of education

By comparing percentages of expenses for education out of total household consumption in LSMS 2002 and 2007, we can confirm certain similarities as well as differences.

In comparison to the survey carried out in 2002, it can be concluded that there has been a decrease in the participation of education costs from 5.5 percent (2002) to 4.2 percent (2007). The greatest decrease is among households within the second quintile. The richer and better educated households spend the most at all levels of education. This is understandable, considering that children and young people from those households are the most represented in educational programs. Even though the wealthiest households spend most on education, these costs are higher for the poorest population, as they only spend 1 percent less than the wealthiest ones, which is a great expense in relation to their income.

Graph 8.14 The proportion of educational costs in relation to total household consumption (2007).

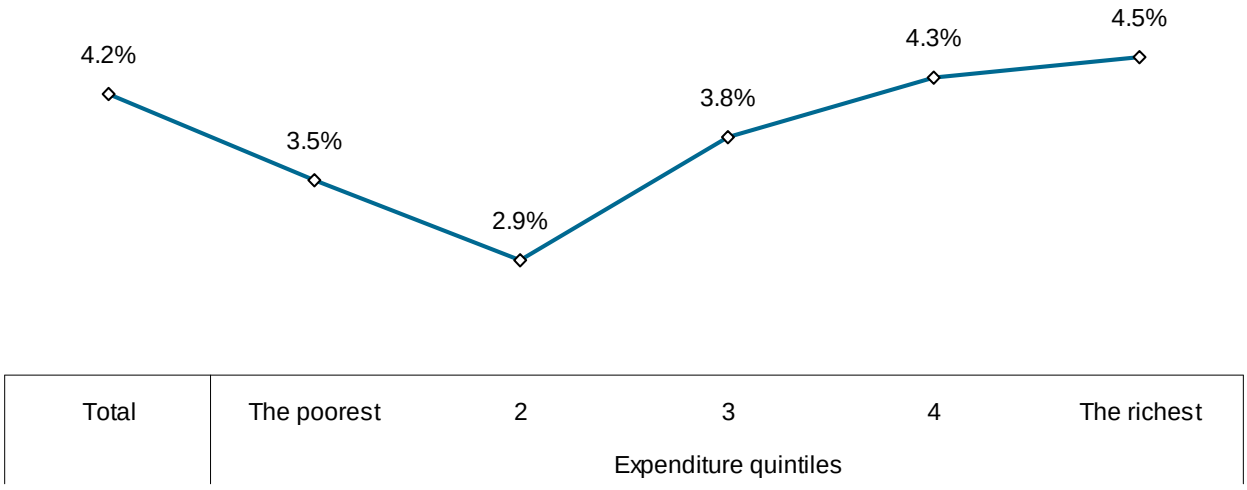


Table 8.1. shows the proportion of expenses for different education levels from the 2002 and 2007 surveys.

In both surveys, households from urban areas spend more on preschool education, while rural areas spend more on secondary education. During the last five years[27] differences by gender in expenditure for preschool education have decreased, but the gap has widened in respect to secondary and tertiary education (greater expenditure for men). Also, more money is now spent for textbooks and supplies in primary education (by 6 percent), and less in secondary education (5 percent less). The most educated households from urban areas spend more on primary education, while the difference between urban and rural areas in expenditure for tertiary education has decreased.

Expenses for preschool and primary education are twice as high for families with the highest education level in comparison to families with the lowest education levels, in both survey years. Expenses for textbooks are similar, while the greatest differences are in expenditure for transport to school and for school trips.

In both survey years, expenses for secondary education are slightly higher among those families whose head of household has the highest level of education (10 percent). Over the past five years, the difference in expenses for textbooks has increased for the most educated in relation to the least educated. In both survey years, the least educated have spent more than the most educated for transport to school. This difference has increased significantly in 2007, representing the greatest expense made for the education of secondary school pupils by households whose head has a low education level. Transport costs to school are highest in East Serbia, for households where the head has a low education level.

It is interesting to note that expenses for membership in various organisations are greater for primary school children coming from the poorest families, while the situation is reversed for secondary school children.

Families with students spent most on textbooks and other educational materials in both survey years. In relation to 2002, expenditure for university administrative taxes has increased, whereas transport expenses have decreased.

If we look at specific expense items it is evident that households with children aged 7-19, who are below poverty line, spend only 12 percent less for textbooks and reference books than households with income above poverty line. Since this difference has decreased relative to 2002, we may conclude that purchase of textbooks weighs even more heavily on the poorest population. In both surveys, poorer families spend two and a half times fewer resources than richer families for all forms of education, up to tertiary education.

Households have a large share in financing education. The share of the poorest families in expenses for the purchase of textbooks, at all education levels is worrying. The high proportion of households covering transport expenses for secondary school pupils indicates problems in the secondary school network, as well as the problem of reimbursing transport costs for specific categories of pupils. Higher expenses of boys for secondary school textbooks are probably the result of a greater percentage of boys in three-year vocational schools, which use more expensive, specialized textbooks, printed in fewer copies.

Table 8.1. Proportion of expenses for special forms of education, by quintiles of expenditure, 2002 and 2007 (dinars)

Education	Total 2002	Total 2007	The poorest first quintile 2002	The poorest first quintile 2007	The richest first quintile 2002	The richest first quintile 2007
Preschool	1 026	1 850	370	801	1 242	2 887
Primary	6 100	13 146	3 520	8 320	8 092	18 344
Secondary	10 566	23 152	6 282	14 846	14 495	30 417
Tertiary	17 456	31 726	12 862	0	21 420	30 448

8.7. Conclusion

We shall consider above results primarily in relation to MDG 2, which refers to universal completion of primary education for all children in Serbia by 2015. This objective is to be achieved through a number of tasks.

1. Increased participation of children in primary education.

Data from LSMS 2002 and 2007 indicate that participation of children in preschool education is growing, especially in the age of 6-7 years, as a result of introducing the compulsory PPP. However, the scope is still low, especially in relation to children from poor families. The scope of including children and the rate of completing primary school are high and relatively constant during the analyzed five-year period. However, the gap between children from rich and poor families, in terms of their participation in primary education, has widened during the past five years. Children who do not attend school are mostly from poor families, families whose household head has low education and families from rural areas, and from Roma households

2. Training for professions, promotion of lifelong learning concept and availability of higher education.

The percentage of young people attending secondary and higher education has increased during the past five years. However, one fifth of children are still not included in secondary education, especially boys and young people from socially and culturally deprived areas. The imbalance in sexual distribution of young people at higher education institutions has increased (more female students).

In terms of various social and economic indicators, differences in participation in higher education are still evident. This is reflected in lower participation of young people from the poorest families and young people from the least educated families. Young people are increasingly participating in various programs of informal education, but those diplomas are still not appropriately acknowledged in the labour market. It is necessary to have better vertical and horizontal mobility in education and shorter response time of formal and informal education to demands of labour market, which is envisioned in the Strategy of developing vocational education

3. Improved quality of education

Data from LSMS are only sufficient for an indirect conclusion about the quality of education. The percentage of children who attend private classes or other additional programs of education has doubled over the past five years, but it is still most represented among young people from rich families or families whose household head has at least four-year secondary education. In terms of quality of education, the issue that comes to mind is whether this increase in spending for additional classes and programs is due to a desire to stimulate potentials of children or they fail to achieve desired outcomes during regular schooling

4. Setting-up additional databases for monitoring and evaluation of progress toward national objective and task.

Statistics on various education indicators is still incomplete, especially data referring to attrition of children from the educational system and participation in the educational system of young people from vulnerable groups. LSMS is a step forward in establishing better databases.

Data obtained from LSMS shows that the population has decreased, while the educational structure has improved during the past ten years. Yet, the right to quality education is still not available to all children. Gaps between children from different social and economic backgrounds are widened during education, instead of narrowed. This is a reflection of the inability of existing educational system to perform its compensatory role. Target groups who need greatest attention in terms of education are young people from poor families, families with lower educational levels, from rural areas, and Roma. The state should invest more in education (development of human resources) in order to develop an open, effective, efficient and just system of formal and informal education accessible to all young people.

Endnotes, Part 8

[1] All data refer to the territory of Republic of Serbia without Kosovo and Metohija, as there are no comparable data for the entire territory of the Republic of Serbia.
[2] Source: RSO, Statistical Yearbooks from 2002 to 2007.
[3] The 2006 Statistical Yearbook defines schools as "a school is considered to be an autonomous school, geographically separated unit (a class) or a school unit within another type of school".
[4] Source: Roma Education Fund, Need Assessment Study 2004.
[5] Source: Multiple indicators survey of children and women, MICS (Multiple Indicators Cluster Survey), UNICEF, 2005.
[6] Source: Institute for the Improvement of Education.
[7] Note: A detailed analysis of the poverty structure according to education level is provided in the Demography and Poverty Profile chapters, while an analysis according to unemployment is given in the chapter on Employment.
[8] Source: Multiple indicators survey of children and women, UNICEF 2005.
[9] It is difficult to make a more detailed comparison of LSMS 2002 and 2007 by different variables, as the data from 2002 are provided in aggregate form for ages 3-7.
[10] The number of Roma children of preschool age included in the sample is too small (43) to be able to draw general conclusions.
[11] Source: S. Karavidic, Decentralization and management serving development of education, Institute of Economics and Finance, Belgrade, 2007
[12] Ibid.
[13] Source: RSO, Statistical Yearbook 2007.
[14] Source: Ministry of Education, Analysis of Secondary School Enrolment in the 2006/07 School Year and Analysis of Secondary School Enrolment in the 2007/08 School Year.
[15] Source: S. Karavidic, Decentralization and management serving development of education, Institute of Economics and Finance, Belgrade, 2007.
[16] In the LSMS 2007 sample of children aged 7-14, 75 were Roma children, 45 IDP and refugee children and 51 were children with disabilities.
[17] Source: RSO, Statistical Yearbook 2007.
[18] Source: Ministry of Education, Secondary education 2000-2005, statistical bulletin, 2006.
[19] Source: RSO, Statistical Yearbook 2007.
[20] Source: Ministry of Education, Analysis of Enrolement in Secondary Schools for the Academic Year 2007/08.
[21] Source: LSMS 2002.
[22] Source: RSO, Statistical Yearbook 2007.
[23] Source: Serbian Government, Strategy of Educating Adults in Republic of Serbia.
[24] Source: S. Karavidic, Decentralization and management serving development of education, Institute of Economics and Finance, Belgrade, 2007.
[25] Ibid.
[26] Ibid.
[27] Annex 6. Education: Tables 6.6, 6.11, 6.15, 6.19

Jelena Milakovic

Employment status 9

9. EMPLOYMENT STATUS

Despite significant positive changes over the past few years, the Serbian economy is still confronted with serious problems, unemployment being one of the most serious. A high unemployment rate represents one of the major economic and social problems in every country as it is a well-known fact that unemployment is closely related to poverty and a low standard of living.

Regardless of the numerous hardships encountered by the Serbian economy over the past five-year period, a series of positive effects were reported including: a growth in GDP, a moderate inflation rate, an increase in real salaries, an expansion of most of the economic activities, a rise in industrial production, etc. yet all of it did not result in the relevant increase in the number of employed and unemployment reduction. From 2002-2007 GDP grew at an average annual rate of 5.74 percent whereas, in the same period, the unemployment rate rose by 2.2 percent. The issue of high unemployment carried over from the pre-transition period escalated even more over the past five-year period as a result of the ownership transformation and company restructuring processes. The inherited number of unemployed was also joined by an army of workers whose firms were in bankruptcy or liquidation, as well as by lay-offs from companies in which restructuring and ownership transformation had been completed. An even greater disparity between labour offer and demand was created. Such disparity is primarily reflected in the excessive offer, on one hand and modest demand, on the other. Likewise, there is a mismatch between the qualification, age and professional structures of labour on offer and in demand.

One of the objectives set in the National Employment Strategy adopted by the government of the Republic of Serbia from 2005-2010 is ensuring full employment i.e. reaching an employment rate of 70 percent - a standard adopted by the European Union. At present, Serbia is still far away from accomplishing the set objective.

Given that privatization was, for the most part, completed in the period between 2002 and 2007, in this chapter, we shall try to find an answer to the question as to what took place in the Serbian labour market in the period concerned using the data from LSMS conducted in May 2007, and the Labour Force Survey (LFS).

9.1. Activity status

It is a well-known fact that in terms of its labour status, the entire population of a country may be divided as follows:

- working population (employed) and
- population that do not work (inactive and unemployed)

However, a classification by activity status is much more often used. According to this classification, the population may be divided as follows:

- active[1] (employed and unemployed) and
- inactive

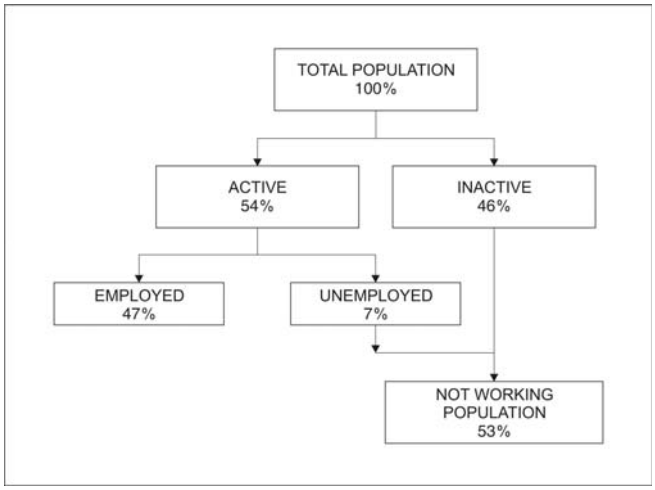
The above classification of the population is shown in the following figure.

Figure 1 shows LSMS data for the total population aged 15+ according to activity and employment status. Data show that the activity rate of the total adult population (aged 15+) is 54 percent, 3.8 percent less than in 2002. On the other hand, during the past five years the proportion of the inactive population has increased from 42.2 percent to 45.9 percent.

The decrease in the active population within the total population is due to the decrease in the number of employed persons. The share of employed persons in the total population has decreased from 51.6 percent to 47 percent in the past five years.

Labour force indicators (relating to the population aged 15 to 64) show that over the past five years, the Serbian economy passed through a difficult and challenging period on its path towards a market economy. This was particularly reflected on labour market developments. The period between 2002 and 2006 saw a constant decline in the number of employed persons and a rise in unemployment. In 2007, there was a positive turnabout, yet the results are still very poor, particularly when compared to the European Union average. The activity rate[2] of 64 percent is now even further from the Lisbon objective of 70 percent than in was in 2002 when it was 67 percent. The results in 2007, as compared to 2002, exhibit a 2.2 percent increase in unemployment rate.

Graph 9.1. Activity and Employment Status for respondents aged 15+, LSMS 2007



A major change in the structure of the population aged 15 years or above in the period between 2002 and 2007 is reflected in shifts from the active population to inactive. As compared to 2002, the active population within the total population aged 15 or above fell by 3.8 percent, whereas the inactive population increased by almost the same percentage. As can be seen in Table 1, the LFS shows similar trends. Such transitions of the population from active to the sphere of economic inactivity caused the effective dependency rate of 113 percent[3], which means that that there are 113 not working per 100 working persons. For males, this rate is 78.5 percent, and for females it represents 158.5 percent, which practically means that a little less than two-fifths of the women work and three-fifths do not work.

This increase in the inactive population among the population aged 15+ over the past five-year period is primarily due to transition which initially involves a reduction in the number of employed people. Employees of the companies in bankruptcy or liquidation became jobless. A large number of employees were laid off from companies that underwent ownership transformation. In cases involving older workers, such workers, taking advantage of the relatively fair severance pays (around 130 000 dinars on average[4]) more often opted for registration with the National Employment Service awaiting to fulfil one of the retirement conditions[5], rather than attempt to seek new employment. Of the total number of inactive persons who have become unemployed due to dismissals or company bankruptcies, 54.2 percent have become unemployed because of this during 2002-2007.

Table 9.1. Population aged 15+ by activity status, LSMS 2002 and 2007 and LFS 2004-2007

	LSMS		LFS			
	2002	2007	2004	2005	2006	2007
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Active	57.9	54.1	55.5	53.5	51.0	51.0
Employed	51.6	47.0	45.2	42.3	40.4	41.8
Unemployed	6.3	7.1	10.3	11.2	10.6	9.2
Inactive	42.2	45.9	44.5	46.5	49.0	49.0
Activity rate(15-64)	67.2	64.2	66.4	65.2	63.6	63.4
Unemployment rate (15-64)	11.7	13.9	19.5	21.8	21.6	18.8

There is a strong correlation between labour market status and living standards, and unemployment and poverty are very closely related. However, the rise in the unemployment rate over

the past five years did not lead to an increase in poverty. On the contrary, in these five years the poverty rate halved. How can this be accounted for? Such developments can only be attributed to the impressive growth of real salaries in that period, which boosted the purchasing power of the population, and a more regular and efficient provision of various types of social welfare assistance intended for vulnerable social groups.

The following table shows that the share of the poor in all population categories was reduced:

Table 9.2. Adult population below the poverty line by employment status LSMS 2002 and 2007 (percent)

	2002	2007		
		Total	Male	Female
Total	**10.6**	**6.2**	**6.1**	**6.2**
Employed	8.7	4.3	5.1	3.4
Unemployed	17.8	12.1	13.9	10.5
Inactive	11.4	7.1	6.2	7.7

Data on the employment status of employed persons in LSMS were gathered using the same definitions and questions as LFS. However, there are significant differences between the results. These differences are probably related to seasonality. The LFS is conducted in October, a month in which activities in some sectors, particularly construction and agriculture, are less intensive than in May or June (when LSMS was conducted). Due to this the LSMS shows a more favourable picture of the labour market than the LFS.

According to LFS October 2007 the activity rate (for those aged 15-64) was 63.4 percent, and the unemployment rate was 18.8 percent. The higher number of employed persons in LSMS and the smaller number of unemployed people is a result of the fact that the number of persons with seasonal and occasional employment in LSMS is twice as high as compared to LFS. The increase in the number of employed people was observed in typically seasonal activity sectors, agriculture and construction. Employment status from the different surveys is shown below.

Table 9.3. Permanent and temporary jobs LSMS and LFS (percent)

	LFS 2006	LSMS 2007	LFS 2007
Total	**100.0**	**100.0**	**100.0**
Permanent worker	87.0	77.1	88.0
Temporary worker	5.0	7.8	5.3
Seasonal worker	5.0	8.4	3.9
Occasional worker	3.0	6.7	2.8

Even though the differences between labour market indicators in LSMS and LFS are probably largely due to seasonality, it could be said that there were positive developments in the Serbian labour market in 2007. This is shown in the data on employment and unemployment rates from LFS (which does not contain seasonal influences because they refer to the same month). It can be seen from Table 4 that the unemployment rate was reduced and the employment rate increased in 2007 as compared to 2006. While the number of employed persons slightly rose (by a little less than 1 percent), the number of unemployed persons dropped by 15 percent, which resulted in a 2.8 percent decrease in the unemployment rate.

Table 9.4. Employed and unemployed (numbers) **and employment and unemployment rates** (percent) **of working age people, LFS**

	Number of employed	Number of unemployed	%	
			Employment Rate	Unemployment Rate
2004	2 930 846	665 436	53.4	19.5
2005	2 733 412	719 881	51.0	21.8
2006	2 630 691	693 024	49.9	21.6
2007	2 655 736	585 472	51.5	18.8

Table 9.5. Population aged 15+ by activity status and gender

	Total		Active						Inactive	
	Total	Women	Total	Women	Employed		unemployed		Total	Women
					Total	Women	Total	Women		
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
15-24	15.5	14.9	8.8	8.1	6.3	5.5	24.8	22.3	23.5	20.7
25-34	15.4	14.4	23.3	23.4	22.2	22.1	30.7	30.5	6.0	6.8
35-44	14.7	14.5	23.6	25.1	24.1	25.5	20.2	22.8	4.4	5.6
45-54	18.5	18.3	26.9	28.2	28.2	29.8	18.1	19.6	8.8	10.0
55- 64	15.6	15.6	12.2	10.3	13.1	11.3	6.2	4.7	19.5	20.1
65+	20.2	22.2	5.2	4.9	6.0	5.9	0.0	0.0	37.8	36.8
Working age 15-64	100.0	51.0	100.0	44.5	100.0	43.1	100.0	53.0	100.0	62.6

9.2. Characteristics of the employed

Both LSMS and LFS define the term "employed" in accordance with EUROSTAT recommendations, using the ILO definition. According to the definition, an employed person is any person who, for at least one hour during the reference week, did any work for pay (in cash or in kind), and a person who had a job but was absent from work in the reference week.

Apart from people who began working in a company, institution or some other type of organization or became entrepreneurs, employed persons also include individual farmers, unpaid household members assisting in household tasks and people who did a job which they found and contracted on their own (orally or in writing) without entering into an employment contract. Therefore, the formal status of the work is not the basis for the definition but it is determined on the basis of the actual activity performed in the reference week.

Labour market indicators show that women are in a far more difficult position than men. Women account for 43 percent of the total number of employed persons, which corresponds to the very low employment rate. The employment rate for women (46.8 percent) is almost 30 percent lower than the employment rate for men and falls far short of the Lisbon objective of 67 percent for female workers. Unlike developed countries in which women, because of family responsibilities, use the opportunity to work part time, in Serbia this type of work is not widespread. According to LFS 2007 data only 8 percent of the total number of employed persons works part time, less than 50 percent of who are women.

According to LSMS 2007 the age structure of employed persons shows that among the employed, most people are aged between 45 and 54 (28 percent). While the proportion of young people (aged 15-24) of the total employed people is almost the same (6 percent) as that of people who are beyond working age i.e. above 64 years.

According to the LSMS data, in 2007, the employment rate of 55.3[6] percent (for people of working age) is still much below the full employment rate of 70 percent as envisaged by the National Employment Strategy and some 10 percent lower than the EU average (respective employment rates in neighbouring countries in 2007 are 55.6 percent in Croatia, 57.3 percent in Hungary, 58.6 percent in Bulgaria and 58.8 percent in Romania).

The youth employment rate is very low at 19.2 percent, and particularly low among female workers (only 14.2 percent). The highest employment rate of almost 77 percent is found in those of full working age i.e. those aged between 35 and 44. Table 6 shows data on employment and unemployment rates by age and gender.

Table 9.6. Employment and unemployment rates by age and gender, LSMS 2007

	Rates					
	Employment			Unemployment		
	Total	Male	Female	Total	Male	Female
Total	**47.0**	**56.0**	**38.7**	**13.2**	**11.1**	**15.7**
15-24	19.2	24.1	14.2	37.2	33.0	43.2
25-34	67.9	76.3	59.1	17.3	14.8	20.5
35-44	76.6	85.8	68.0	11.3	8.6	14.3
45-54	71.4	80.5	62.9	8.9	7.0	10.9
55- 64	39.6	52.3	28.0	6.7	6.4	7.3
65+	14.0	19.1	10.2	0.0	0.0	0.0
Working age 15-64	55.3	64.1	46.8	13.9	11.8	16.5

Education level is undoubtedly one of the most important factors having an impact on the economic position of the employed. There is a very high correlation between education level and poverty, and this correlation is even higher where the employed population is concerned, because employment position and status are determined by the education level. Investments in education certainly contribute to the welfare of both the individual and society as a whole. This is best illustrated by the fact that 11 percent of the low-educated workers are poor, whereas the poor account for less than 0.5 percent of workers with college or university education (tertiary education).

Generally speaking, employed men are poorer than employed women. This can probably be attributed to the fact that, in many cases, an employed woman has a working husband, whereas due to the low employment rate for women, it is more usual that an employed husband does not have a working wife.

Graph 9.2. Employed and unemployed by age, LSMS 2007

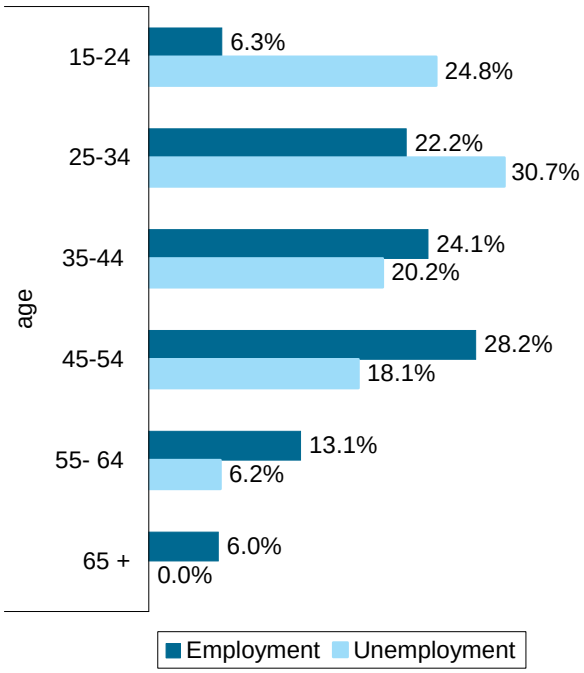


Table 9.7. Employed and unemployed by education level and gender, LSMS

	Employed		Unemployed	
	Total	Women	Total	Women
Total	**100.0**	**100.0**	**100.0**	**100.0**
Primary	23.9	24.7	21.7	22.9
Secondary	57.0	52.9	67.6	64.2
Tertiary	19.1	22.5	10.7	12.9

Examining education level, people with secondary education are the most numerous (57 percent), those with primary school education make up 23.9 percent of the total number of employed people, while the proportion of employed with college or university education is the lowest (19.1 percent).

9.3. Employment in the informal sector

The definition of the employed in the informal sector is the same as that used in LSMS 2002. According to that definition, persons employed in the informal sector were all people without a formal and legal regulated employment relation i.e. persons who are not employed in registered companies, have no own registered company or have no employment-related insurance. According to LSMS 2007, almost 35 percent of employed persons were engaged in the informal sector, some 4 percent more compared to 2002, but at the same level as in 2003.

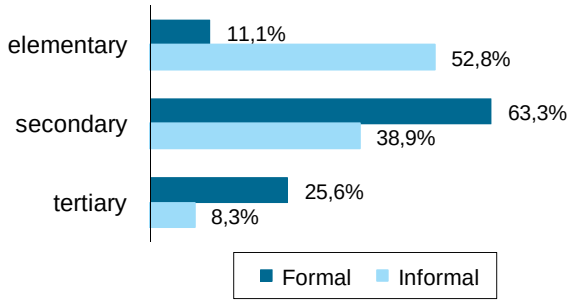
In urban areas the number of the employed in the informal sector fell by 0.3 percent. In rural areas over 52 percent of employees work in the informal sector, 11.3 percent up on 2002. Given that people in rural areas represent the majority of those employed in the informal sector, it can be assumed that such persons mainly work in agriculture. The high percentage of people employed in the informal sector is, among other things, the result of greater flexibility offered by such type of work in terms of timing and number of working hours and avoidance of costs related to the payment of contributions and taxes.

There are significant regional differences in the informal sector. The lowest percentage of people employed in the informal sector is in Belgrade (21 percent) and the highest (over 47 percent) is found in West Serbia which, simultaneously, has the largest number of employed persons (55 percent).

Since 2002, the trends shows that the informal sector has been increasingly absorbing unqualified and unskilled labour. Of the total number of employees in the informal sector, 53 percent are educated up to primary school level, 39 percent secondary and 8 percent to college and university level.

Even though, compared to 2002, the number of employed at all educational levels increased in the informal sector, those with lower education represents the overwhelming majority. Whereas in 2002, some 49 percent of employed persons with primary school education were engaged in the informal sector, in 2007, than number reaches some 70 percent. Of the total number of employed people with secondary education, a little less than 28 percent, work in the informal sector, whereas the smallest percentage of persons with college and university education are employed in the informal sector.

Graph 9.3. Formal and informal employment by education level, LSMS 2007



As compared to 2002, significant changes have taken place in the social and economic position of the employed in the formal and informal sectors. While in 2002, a higher percentage of employees in the formal sector were reported living below the poverty line (58 percent) as compared to the informal sector (42 percent), the data for 2007 point to the reverse situation. Of the total number of employed persons below the poverty line, over 72 percent work in the informal sector.

Among the employed in the poorest quintile, 40 percent are engaged in formal employment and 60 percent work in the informal. While for the 20% from the richest quintile 82 percent have formal employment and 18 percent informal.

The data testifies that the economic position of the formally employed has substantially improved.

9.4. Transformation from state to private ownership

Over recent years, ownership transformation led to the prevalence of the private sector over the state one, while the social sector, which was dominant in the socialist regime, was reduced to a little more than 4 percent of employed persons. The privatization of the remainder of socially-owned enterprises, which is to be completed by the end of 2008, will remove the social ownership sector from the historical scene. Private ownership, with 48.4 percent of the employed in the registered and 19.7 percent in the unregistered form, has become the most widespread ownership type in which the working activity of Serbians is undertaken. Compared to LSMS 2002, the number of employed in private companies rose by 28.7 percent. Both registered and unregistered companies saw an increase.

If the economic position of the employed is analyzed by ownership sector, the fact that the poor mostly work in the unregistered sector of private ownership comes as no surprise. Almost one-fifth of the total number of the employed (and the majority of the poor 43.4 percent) works in unregistered businesses. In addition, almost 48 percent of the total number of employed persons with primary school education works in the private unregistered businesses. Of the total number of workers with secondary education, 13.2 percent is employed in the unregistered sector and 4.5 percent of employees with college and university education. Workers employed in the private unregistered businesses make up one-third of the employed in rural areas.

9.5. Permanent and temporary jobs

Employed people may be engaged for an indefinite term, for a definite term, seasonally and occasionally. Often the number of people performing seasonal and occasional jobs is season-dependant and this can influence estimates of the total employment. The increase in the number of employed persons in LSMS, as compared to LFS, is probably the result of a larger number of temporary, occasional or seasonal workers. The number of unemployed persons was reduced by almost the same number whereby the number of employed persons increased, which resulted in a significant decrease in the unemployment rate.

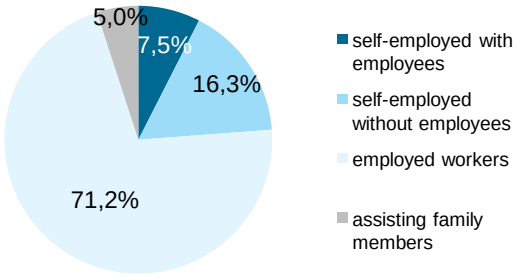
Permanent workers are the most stable category of the employed, free from seasonal influences. Their number in LFS 2007 rose by a little less than 1 percent as compared to LFS 2006. The increase in this category of employed persons, albeit minimal, coupled with a substantial growth of seasonal employment could indicate a turnabout towards a rise in overall employment. Unlike the 2002-2006 period in which the number of employed dropped each year, both the LSMS and LFS reported an increase in the number of employed persons in 2007.

Of employees living below the poverty line, 42 percent have no permanent employment, whereas 78 percent of those above the poverty line have permanent employment.

9.6. Status in employment

The development of the private sector and the encouragement of private initiative by giving support to small and medium-sized businesses potentially opened the possibility of self-employment for the unemployed. The LFS and LSMS show, however, that self employment plays a minor role in overall employment. The largest number of the employees (71 percent) work for an employer. The self-employed who do not employ other workers account for 16.3 percent of the employed, self employers who employ at least one worker (7.5 percent) and unpaid family members who assist in the performance of a family business (5 percent). The LFS data show a similar distribution.

Graph 9.4. Employees and self employed, LSMS 2007



9.7. Employment by activity sector

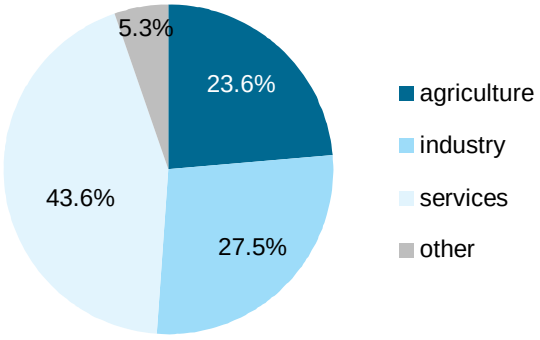
Changes in the employee structure by activity show trends characteristic of a country whose economy, despite delays, is moving towards modern trends. This is reflected in a larger number of employees in the service sectors. Although the number of employees in these activities is still far from absorbing 50 percent of the total number of those employed, a 4 percent increase compared to 2002 shows that Serbia is following world trends regarding the orientation of its economy, i.e. that along with the revitalization of industry and the revival of the construction industry, it is also oriented towards the development of service activities. The need to further expand service activities are shown by the fact that these activities, with 44 percent of the employed, account for 60 percent[7] of GDP.

The largest number of the employed (24 percent) still works in agricultural (5 percent less

than in 2003). Apart from the fact that the agricultural sector contains the largest number of employees, it is also the sector with the largest number of poor people. As much as 47 percent of employees living below the poverty line work in agriculture.

Compared to 2002, the processing industry, construction, trade and the real estate sale and renting business account for a larger share in the total number of employed. The structure of employees by activity is shown in the graph below:

Graph 9.5. Employees by activity sector, LSMS 2007 (percent)



9.8. Employees and length of service

The insufficient employment of young people and changes in the law on pension insurance (2003), led to the fact that the average number of the employees' years of service in 2007 was slightly over 20 years, which is almost 4 years more than in 2003. Those with less than a year of working experience constituted 13.1 percent of the total number of those employed in 2003, while their share in the total number of employees in 2007 was only 3.6 percent. On the other hand, the number of employees with more than 30 years of working experience has increased from 13.6 percent to over 21 percent.

The least educated workers on average have the highest number of years of service (29 years), meaning that they are mostly older workers, while the average number of years of service of employees with high school, college and university education is 17 or 18 years. It can therefore be concluded that young people who have only primary school education find it more difficult to get a job.

9.9. Additional job

There are different reasons why people in different situations decide to find an additional job. Although we can expect that the majority of those employed get an additional job in order to improve their living standard, there are almost 54 percent of Serbians who do an additional job in order to provide a basic living for themselves and their families. However, the percentage of people who have an additional job has decreased by 3 percent since 2003 and levelled off at just 8.8 percent of the total number of employees. Men do additional jobs more often than women and most often in the agricultural sector (57 percent of the cases). Examined by region, employees in Vojvodina are most likely to have a second job (12 percent of those employed).

Since second jobs provide additional income that can improve the living standard in a large number of developed countries, it might be seen as a chance to further reduce poverty in Serbia where only 4 percent of the poor have an additional, second job.

9.10. Unemployment, definitions and data issues

When analyzing unemployment it is important to establish a clear and precise definition of an unemployed person. According to the ILO definition, the unemployed are those who in the previous week have not performed any paid work, or had a job from which they were absent and to which they could go back to after the expiry of their leave, on condition that they meet the following requirements:

- that in the last four weeks they have taken active steps to find a job, and that, in case they have been offered a job, they are able to start work within a period of two weeks, or
- that in the last four weeks they have not been actively looking for a job, because they have found a job that they should start in three months' time at the latest and that they are able to start work within two weeks.

This definition has been used in the LFS since 2004 when the methodology was harmonized to EUROSTAT guidelines. By using this LFS methodology (also applied in LSMS 2007) unemployment is defined more precisely and it is

possible to examine hidden unemployment. In previous research respondents who actually did not work or receive salaries, but were officially employed in bankrupt companies, were classified as employed.

The definition of employed and unemployed persons is the same in both LFS and LSMS 2007 and the data can also be compared with that of other countries using the same ILO definition.

Confusion sometimes arises in relation to the fact that there are two widely used sources of data on the number of unemployed people:

1. Labour Force Survey
2. National Employment Service (NES) records

This is the case in Serbia because despite the availability of LFS a large number of users, by habit, continue to use the NES data as indicative and reliable enough to reflect an absolute and relative measure of unemployment. The unemployment rate calculated according to the NES is higher due to the following reasons:

1. The active population has not been fully taken into account, i.e. not all the employees in the informal sector have been included (both in agricultural and non-agricultural activities), along with the unpaid family members assisting in the family business and those employed in the defence ministries,
2. The unemployed include all people from the NES records, regardless of whether they have an informal job, or have even started working under a formal employment contract, but have not been erased from the records in the meantime.

Until June 30, 2006, it was practically impossible to identify those from the NES records who really want employment, and those who got registered for the sake of some other benefits, e.g. the right to health insurance. From January 1, 2007, health insurance could no longer be obtained through the NES. However, those who verified their health care cards in the NES before December 31, 2006, had the right to get health care through the NES until June 30, 2007.

According to LSMS data, of the total number of persons registered with NES, 81 percent registered in order to seek employment while 19 percent applied for a different reason.

The difference between the definition of the employed and unemployed used by the NES and that used in the LFS and LSMS is best illustrated by examining the total number of respondents who reported in the LSMS that they registered with the NES in order to find work. By applying the ILO definition 35 percent are employed people, 43 percent unemployed and 23 percent inactive. The estimated number of unemployed persons from LFS 2007 is over 900 000, while in May 2007 there were some 870 000 people registered as unemployed in the NES.

A unique difficulty for the NES is establishing whether registered people are ready to start work, and identifying the real motives for their registration. This is why the unemployment rate published by NES is higher than the unemployment rate calculated by LFS and LSMS studies, and why it also cannot be compared with unemployment rates of other countries.

Table 9.8. Population aged 15+ by NES and employment status, LSMS 2007

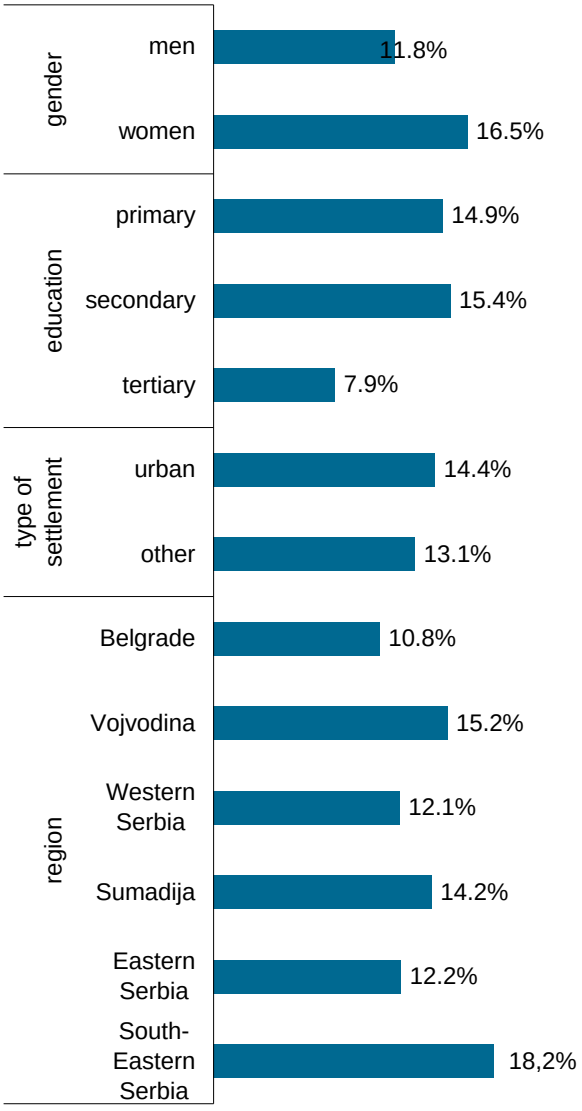
	Employment by ILO definitions			
	Total	Employed	Unemployed	Inactive
Total	**100.0**	**47.0**	**7.1**	**45.9**
Not registered in NES	100.0	49.6	1.0	49.3
Registered in NES to find a job	100.0	34.6	42.3	23.1
Registered in NES for other reasons	100.0	33.9	6.7	59.4

9.11. The unemployment rate[8]

According to LFS 2007 the unemployment rate was 13.9 percent, which is much lower than the unemployment rate from LFS 2006 (21.6 percent). Although LFS and LSMS data cannot be considered fully comparable due to the already mentioned seasonal influence on unemployment trends, it can still be concluded on the basis of unemployment tendencies over the last four years that unemployment levels are gradually stabilizing.

The EU unemployment rate in 2007 was 7 percent and in surrounding countries it was less than 10 percent (Croatia 9.0 percent, Hungary 7.2 percent, Romania 6.7 percent and Bulgaria 6.9 percent).

Graph 9.6. Unemployment rate, LFS 2007



The Serbian labour market is typical of a country in transition:

1. The unemployment rate is much higher than the EU average
2. There is a high percentage of long-term unemployment, youth unemployment, and unemployment among people with primary and secondary education
3. There is large regional disparity in unemployment rates

Table 8 shows that 2006 was a turning point in relation to labour market trends. Unemployment grew continuously from 2002-2005 (the period when a large number of state-owned companies were privatized, when banks were liquidated and state administration rationalized, all resulting in huge layoffs). In 2006, the unemployment rate stagnated, i.e. there was a tiny reduction in the employment rate, while in 2007 all data sources (LFS, NES, and LSMS) recorded a decrease in the unemployment rate.

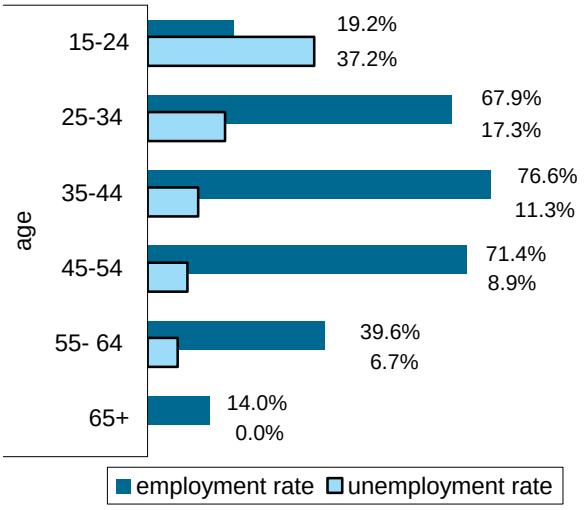
Table 9.9. Unemployment rate, 2004-2007

	LFS	LSMS	NES
	October	May	Annual average
2004	19.5	-	25.86
2005	21.8	-	26.83
2006	21.6	-	27.90
2007	18.8	13.9	26.83

Of the total number of unemployed, 53 percent are women. The unemployment rate for women is 16.5 percent and for men 11.8 percent. Similar to other countries that have gone through a transition period and experienced high unemployment, young people were most affected by unemployment. Young people (between 15 and 24 years of age) account for 15.5 percent of the total number of population aged 15+. They constitute 6.3 percent of the employed and 24.8 percent of the unemployed.

Youth unemployment is extremely high (37 percent for men and 43 percent for women). The youth unemployment rate in 2007 compared to 2002 was up 9 percent. Apart from an extremely high youth unemployment rate, unemployment is also high in other age groups, which can be seen from the following graph.

Graph 9.7. Employment and unemployment rates by age group, LSMS 2007



There are notable regional differences in unemployment rates (ranging from 10.8 percent in Belgrade to 18.2 percent in South East Serbia). The differences in the unemployment rate between people with different levels of education are also significant; the unemployment rate is lowest, 7.9 percent, among people with college and university education, and highest among people with secondary education, 15.4 percent.

9.12. Discouraged unemployed and the long term unemployed

Long term unemployment is one of the key indicators. From the social and psychological aspects this indicator might be even more important than the overall unemployment rate because it creates a risk of getting into a hopeless situation, leading to social isolation and discourages people from looking for a job. This especially refers to people without qualifications, older persons (over 50 years of age), people with disabilities and certain ethnic groups (especially the Roma).

A particular problem that arises from long-term unemployment is the fact that knowledge and skills become obsolete and that people lose working habits due to not working for a long time. There is a possibility that such persons will become inactive, representing a loss of human resources and an additional burden for social welfare funds. Such persons are part of the total potential workforce.

According to LFS data, the percentage of discouraged people in the total potential workforce, i.e. people who are not looking for a job because they have lost hope they would ever find one has increased from 21 percent in 2004 to 34 percent in 2007.

According to LSMS 2007, 75 percent of the unemployed fall in the category of long-term unemployed, i.e. people who have been looking for a job for longer than a year. The largest number of unemployed people, over one quarter, has been looking for a job for a period of 2 to 4 years. The LFS data shows a similar picture.

Regionally, long-term unemployment among the total unemployed ranges between 70.5 percent in Belgrade to 81.8 percent in West Serbia. According to LSMS data, the long-term unemployment rate[9] is 10.8 percent overall.

When it comes to the qualification structure of the unemployed, over two thirds are people with secondary education, over one fifth are people with primary school education, and 11 percent are people with college and university education.

The unemployed search for work in various ways. Based on LFS results the most common way of seeking employment is via the National Employment Service, as many as 80.7 percent of the unemployed have tried to find a job in this way. The following activities are also used as ways of looking for a job: 54.7 percent ask friends, relatives, etc. 34.9 percent have responded to job advertisements, and 34.7 percent have directly contacted employers. Less than l percent have set up their own businesses.[10]

According to their previous working experience, the unemployed are divided into two categories: people who have been employed before and people who have never worked. The first category account for 54.1 percent of the unemployed, and the majority of them are those left without a job because their companies were closed down, liquidated or gone bankrupt (35 percent) or because they were laid off (21 percent). People who have never worked before account for 45.9 percent of the total number of unemployed. The situation for those looking for employment for the first time account for 58.9 percent of the unemployed living below poverty line and 57 percent of the unemployed who fall within the first quintile of consumption.

Table 9.10. Inactive population by age and reason for inactivity, LSMS 2007 (percent)

	Age category						
	Total	15-24	25-34	35-44	45-54	55- 64	65+
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Education / training	21.4	82.7	33.1	0.0	0.0	0.0	0.0
Retirement	42.1	0.3	0.9	7.8	30.8	67.0	68.4
Personal and family reasons (housewife)	10.1	4.4	28.0	34.9	23.4	10.0	5.0
Not seeking employment through any method	1.4	1.3	5.5	5.7	3.0	1.2	0.0
Illness, inability to work or old age	16	1.4	5.8	22.1	22.8	14.6	25.2
Discouraged persons	2.7	1.5	7.0	11.7	9.7	2.5	0.2
Other reasons	6.3	8.5	19.6	17.8	10.3	4.6	1.2

9.13. The inactive population

The share of inactive people in the total adult population has increased from 42.2 percent in 2002, to 45.9 percent in 2007. At 42.1 percent, pensioners make up the greatest proportion of the inactive population in 2007, followed by people attending some form of education (21.4 percent) housewives and persons who are inactive due to family reasons (10.1 percent) people who are ill, unable to work or elderly (16.0 percent of the inactive population) and other inactive categories amount to 10.3 percent.

If viewed from the aspect of poverty, 53 percent of poor adults (aged 15+) fall within the inactive contingent. The most vulnerable within the inactive population are elderly people, as well as those who are ill or unable to work. They make up 16 percent of the total inactive population, and 30.9 percent of the total number of poor people within the inactive group.

The inactive contingent is extremely diverse and is made up of different age groups, with the reason for inactivity mostly dependent on age. Among inactive youth (aged 15 to 24) the most frequent reason for inactivity is education (82.7 percent). Education is also the most common reason for inactivity within the 25-34 age group, albeit to a much lesser extent (33.1 percent), while a significant percentage of persons from this age category (28 percent) are inactive because of personal and family-related reasons. Discouraged unemployed people also make up a significant proportion of this age category (7 percent).

The most common reason for inactivity among middle aged inactive persons (35 to 44) is due to personal and family issues (in 34.9 percent of the cases), followed by illness or inability to work (20.6%), while discouragement and lack of faith in the possibility of finding employment is a reason for the inactivity of 11.7 percent of people within this age group. Persons aged 45 and above increasingly mention retirement, illness, inability to work or old age as reasons for inactivity, while for 93.6 percent of cases among persons aged 65 and above these factors constitute the main reasons for inactivity.

Discouraged people are a specific group among inactive persons, i.e. people without a job but are not job-seeking because they have lost faith in their ability to find one. Discouraged persons are most frequent among the inactive group aged from 35 to 44.

The greatest percentage of discouraged persons (64.5 percent) has been employed previously, while 35.5 percent of this group has never worked.

Discouraged people are potentially active persons, who could, under certain circumstances and following specific changes of behaviour in the labour market, move from the inactive to the active category.

9.14. Earnings and pensions

Labour-related income in the LSMS includes income based on current job and income from pensions. The total income based on current job includes net income (salaries) from main and additional jobs and other income received at work such as premiums, rewards, one-off assistance, transport allowance, daily living allowances, etc.

According to the data (referring to income from the previous month) the largest percent (36.6 percent) of the adult population generate income from their current job and the majority of this figure (35.3 percent) earns this income from their main

job. While 26 percent of the population receive pensions and slightly over one third of respondents said that they do not have any labour-related income.

Differences in type of income are closely linked with gender and education. Nearly 45 percent of men earn income from their current job compared to 29 percent of women. But over 40 percent of women do not have any labour-related income compared to 26 percent of men. In relation to those with a low level of education it is typical that more people generate income from pensions (36.4 percent) than from salaries (17.8 percent), which is the result of their difficulties to find employment, while 45.1 percent of the poorly educated do not earn any labour-related income. Among people with secondary education, the majority (45.5 percent) of them earn income from their current job, 31 percent are without any income, while 18.5 percent get income from pensions. As much as 55 percent of the population with college and university education earns income from their current job, a quarter from pensions and 12 percent do not have any income at all.[11] There are no major regional differences in relation to sources of labour income.

More than 52 percent of people aged 15+ who are living below poverty line have no labour-related income. Only 21 percent of the poor get income from a main job.

From 2002 to 2007 the average employees' labour-related income from main job increased by 2.5 times. Nominally it grew at an impressive average annual rate of 19.6 percent. The actual growth during the five years (following deflation based on the Cost of Living Index)[12] was 43 percent.

There are significant differences in average incomes from main job. In relation to education level, the salaries of those with college and university education are 2.7 times higher than the average income of those with a lower level of education. The salaries in urban areas are 49 percent higher than the salaries in other areas. The average salary for women is lower than the average salary for men by 9 percent. Regionally, the average salaries in Belgrade are 50 percent higher than average salaries in other regions. There are no significant differences in the level of average salaries between the other regions.

Table 9.11. Discouraged people by age and previous employment experience, LSMS 2007 (percent)

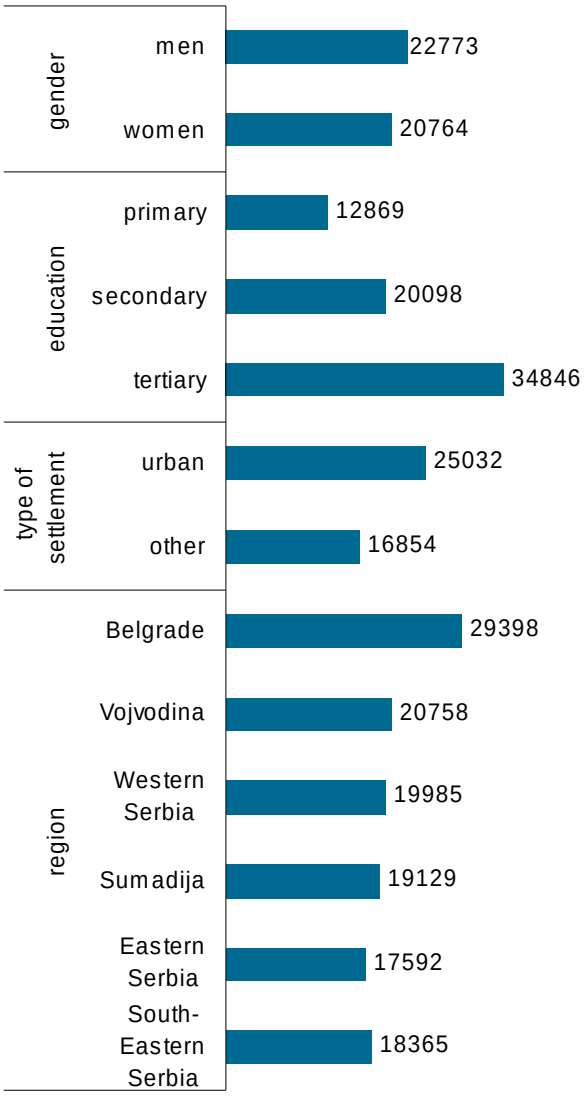
	Age						
	Total	15-24	25-34	35-44	45-54	55- 64	65+
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
No employment experience	35.5	96.1	62.3	25.4	24.0	2.9	19.8
Have employment experience	64.5	3.9	37.7	74.6	76.0	97.1	80.2

Table 9.12. Average income (dinar) **and index of nominal and actual income based on current and previous work**

	2002	2007	Index 2007/2002	
			Nominal	Actual
Labour-related income	9132	22466	246.0	144.3
Income from main job	8978	21929	244.3	143.3
Pension	6021	13875	230.4	135.2
Age	6092	14743	242.0	142.0
Disability	5364	13331	248.5	145.8
Family	4321	9445	218.6	128.2
Foreign	27215	30128	110.7	64.9

Examined by quintile, the average salary for the first quintile is 13 495 dinars, while the average salary for the fifth quintile is 31 728 dinars, therefore the 20 percent of the wealthiest people earned 2.4 times more than the 20 percent of the poorest.

Graph 9.8. Salary from main job, LSMS 2007 (dinar)



Average income based on LSMS 2007 is 19 percent lower than the average income obtained from a regular statistics study on employees' salaries, which in May 2007, without taxes and contributions, equaled 26 981 dinars. The difference can be due to:

1) *the official data on average incomes that are collected from companies or institutions are based on data from accounting records and refer only to officially employed persons. The income data from LSMS is based on respondent's reports and refers to both formal and informal employment – including income from occasional or one-time jobs (even only one hour a week) which decreases the overall average.*
2) *LSMS income data is probably lower than the official data because respondents are unwilling to give information on income and salaries. Amounts may be under reported, perhaps to receive assistance from the state or because of fears of the tax authorities*

9.15. Current education

Education has a significant impact on the social and economic position of the individual. A higher education level, professional training and the development of skills have a significant influence on the position of employees and increases the chances of finding employment for the unemployed. Encouraging people to keep learning new skills during their entire length of service and even after retirement age is one the goals of developed countries. The LSMS shows however, that only 12.4 percent of the adult population attend some kind of education or training. The largest number of adults attends secondary or higher education within the formal education system (10 percent). The majority of employed people have undergone some kind of training at work. The majority of the unemployed attend tertiary education (university or college).

Whether women place higher importance on education or are more interested in education and professional training for other reasons, is a topic for other research. However, LSMS data indicate that among the employed group the percentage of women involved in some form of education is higher than men. If the current education status of the unemployed, analysed by gender it can be seen that equal percentages of men and women attend education, both within the formal education system and within relevant institutions. For the inactive the percentage of men attending some form of education (mostly within the formal education system) is significantly higher than that of women.

Table 9.13. Respondents aged 15+ by activity status and education/training during the last 4 weeks, LSMS 2007 (percent)

	Total			Employed			Unemployed			Inactive		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Attended education/training during the last 4 weeks	12.4	11.8	13.0	3.8	2.9	5.0	4.2	4.2	4.2	22.5	26.6	19.9
Of those:												
Within the formal education system	11.2	10.7	11.6	1.4	1.1	1.7	3.7	3.7	3.7	22.4	26.6	19.8
At workplace	0.9	0.8	0.9	1.8	1.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0
At relevant institutions	0.4	0.3	0.4	0.6	0.5	0.8	0.5	0.5	0.5	0.1	0.0	0.1
Did not attend education/training	87.6	88.2	87.0	96.2	97.1	95.0	95.8	95.8	95.8	77.5	73.4	80.1

9.16. Conclusions

1) From 2002 to 2007 the poverty rate in all categories of the population declined, while the unemployment rate increased. The share of the non-active population in the total population aged 15+ increased.

2) The transformation of companies from state to private ownership is almost complete and there is now the division of employees into those employed in private and state-owned companies.

3) The movement of employees from the primary sector (agriculture, forestry, water management and fishery) to the service sector continues, although, agriculture is still the sector where the largest percentage of the employed are engaged.

4) Although there was a reduction in the unemployment rate in 2007 compared to 2006 (according to all sources: LSMS, LFS, NES), the figure is still high, and, along with an extremely high long-term unemployment rate, it represents a problem which should be the subject of the employment policy in the forthcoming period. Work on improving the business environment, attracting direct foreign investments, providing support to the development of small and medium-sized enterprises are measures that could contribute to the reduction of unemployment and higher employment.

5) The percentage of the poor people has fallen among the employed, unemployed and non-active population. The most vulnerable categories are those with informal employment, people with primary school education and people who have never previously worked.

6) Informal employment accounts for over one third of the total number of the employed and most informal employees only have primary school level education.

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4. World Bank Document: Serbia, Labour Market Evaluation
5. World Bank: Economic Growth and Employment Program, 2004, report no. 29258-YU
6. Anders Reutersward: Overview of Labour Market Policy in Serbia.

Endnotes, Part 9

[1] Data on the size of the active population (employed and unemployed) provided by LSMS Employment Status module differs from that in the Demography module as they use different definitions. The definition in the Demography is based on the subjective assessment of the respondent, while the Employment Status module classifies these populations in accordance with ILO definitions used in LFS.
[2] The LFS activity rate represents the proportion of the active population of the total population between 15 and 65 years of age.
[3] Effective dependency rate represents the relation between the not working population (aged 15+) and the number of employed. The population that does not work consists of the unemployed and inactive.
[4] Document of the World Bank, Report No. 36576-YU
[5] See: The Law on Employment and Insurance in Case of Unemployment of 2003.
[6] The employment rate represents the percentage employed of the total working age (15-64) population.
[7] Source: RSO, National Accounts System of the Republic of Serbia 1997-2004
[8] The unemployment rate is the percentage of unemployed people in the total number of active population of working age.
[9] Long-term unemployment rate is the percentage of the unemployed in the active population between 15 and 74 years of age, who have been looking for a job for a period of longer than a year.
[10] The unemployed can seek for work using several methods simutaneously so the sum is not 100.
[11] Percentages do not sum to 100 because: 1) a person can have several sources of income 2) some respondents refuse to give income data.
[12] The Cost of Living Index was 170.46 in the period from May 2002-May 2007

Natalija Bogdanov

10 Agriculture

10. AGRICULTURE

10.1. Rural poverty

Agriculture is closely related to poverty: the poorest areas are those with high employment rates in the agricultural sector. The same is true for households. Households relying to greater extent on income from agriculture are poorer than others. Such a situation is caused by lower productivity of the agricultural production compared to other industries. Furthermore agricultural dominance indicates the unfavourable performance of other industries and a low economic development rate. In such circumstances, agriculture represents a "shelter" for numerous rural populations (especially those with limited physical, human, financial and social capital) not capable of participating in overall economic growth.

The situation above applies to European countries, as well. In Europe, especially in Southern and Eastern European countries, agriculture still has an important economic and social role, although its productivity is well-below the level achieved by other industries[1]. High-levels of rural poverty in Europe, although not extreme poverty, are common in Central and Eastern European countries in the early transition and EU accession period, and in some Mediterranean regions and Balkan countries[2]. Various studies indicate that transition, particularly in its early stage, is closely related to social tensions and growing inequality of the rural population. In the IFAD study (2002) "Assessment of Rural Poverty – Central and Eastern European Countries and New Independent States", the following groups are classified as particularly vulnerable to rural poverty:

• *Farmers in upland and mountainous areas* – these populations often live in extreme poverty and are not capable of producing sufficient food to meet their own needs. Market and communication isolation as well as overall underdevelopment of the region significantly reduces generation of additional income.

• *Rural wage earners*. Rural households, with income exclusively from wages (especially those households with no land or no other capital) are, as a rule, poorer than others. Considering limited resources, these households usually do not produce enough food even for their own needs.

• *Rural women.* Women's share in the poor rural population, as a rule, is growing in the transition period, having an adverse impact on gender equality. The study states that a trend of "rural feminization" is still present in analyzed countries as a consequence of the migration of men to cities in search of employment. Women are left on the farm to deal with own production agricultural production and are not able to diversify their activities due to numerous household obligations.

• *The elderly.* Pensioners also account for a large share of the poor rural population. In analyzed countries, they are usually "returnees" who were prime beneficiaries of the land restitution programs. However, many are no longer capable of farming or lack basic machinery and equipment to start production. Considering the underdeveloped land market, income coming (possibly) from rent is modest and usually in kind.

• *Ethnic minorities.* The creation of new state borders has caused increasing numbers of minority groups and growing competitiveness for limited resources along the line of majority-minority relations. The IFAD study states that during the land restitution process in post-communist countries, members of ethnic minorities had unequal treatment in rural areas in terms of their status in the privatization process and access to capital.

• *Internally displaced people.* A high percentage of refugees and IDPs live in rural areas. Usually they do not own land, access to labour and financial markets is difficult and they depend on social allowances.

More reliable conclusions on compatibility of these findings with the Serbian situation needs additional research, but can be accepted in principle (Box 1).

10.2. Rural poverty in Serbia

Interpretation of rural poverty in Serbia as well as poverty of agricultural households (especially those with income coming exclusively from agricultural activities), is rendered significantly difficult by lack of precise statistical definition and classifications. Namely, a statistically-based social and economic groups of households and agricultural households in rural areas in Serbia.

The 2007 LSMS results, as well as those of 2002, confirm that the rural poverty represents one of the crucial characteristics of poverty in Serbia (Table 1):

Box 1. Rural Vulnerability in Serbia 2003

The most comprehensive assessment regarding poverty in Serbia was produced in 2003 according to the World Bank methodology. The conclusions are as follows:

1. Poverty is the major contributor of rural vulnerability in Serbia; risks also contribute to rural households' perceived vulnerability. The fact that poverty accounts for such a high share of vulnerability suggests that the characteristics of those who are observed to be poor are strikingly similar to the characteristics of those who are estimated to be vulnerable, whether they are currently poor or not.
2. Households and regions with a greater share of their livelihood sources depending on agricultural activities are more at risk of vulnerability and poverty than those with significantly higher share coming from non-agricultural sources.
3. A high level of human capital such as educational level of household heads significantly decreases household vulnerability and poverty. Households with a member having higher than secondary face significantly lower vulnerability than those with lower educational attainment.
4. Households with more and older members are more vulnerable and are more likely to be in poverty. An aging population, a reduced pool of active workers and the opportunity to generate income, compounded with low educational attainment, significantly worsen rural poverty in Serbia[1].
5. Employment in the informal sector leads to less vulnerability and poverty of the rural population.
6. Rural poverty and vulnerability is strongly associated with asset ownership and access to markets. Families with higher value of durable assets are significantly less vulnerable.
7. Geographic location and topography, natural conditions (such as drought) and access to communications services are significantly correlated with household vulnerability and poverty.

Ersado L (2006): "Rural Vulnerability in Serbia**",**
Human Development Network Europe and Central Asia Region,
The World Bank, Key Emerging and Conceptual Issues

definition of the rural area in Serbia does not exist (Box 2), while the agricultural household (Box 3) is defined according to agricultural resources owned or used and it does not have to be *a priori* located in rural areas. Various types of agricultural households are defined according to income sources of the family members, as described in Box 3.

There is a lack of other typologies of rural households and agricultural households that enable varied analysis of poverty parameters of different

1. The percentage of the poor population living in rural areas increased from 55 percent in 2002 to 61 percent in 2007;
2. Rural poverty in 2007 was almost halved compared to 2002 (9.8 percent compared to 17.7 percent) but it still remains twice as high as in urban areas (9.8 percent compared to 4.3 percent).
3. The gap between rural and urban poverty has grown from 1.6 times to 2.3 times as a result of the slower reduction of rural poverty.

Box 2. Definition of Rural Areas

A statistical definition of rural settlements in Serbia practically does not exist. Classification of settlements into urban, rural and mixed was used in the postwar Censuses of 1953, 1961 and 1971 and a criterion for classification was size of the settlement, and proportion between the agricultural and total population. Unfortunately, this approach was abandoned in the Censuses of 1981, 1991 and 2002, and the following classification was applied:

- Urban settlements
- Other settlements

This classification is based on municipal decisions whereas municipalities are in charge of assigning a status of town to settlements. It is sufficient that a settlement develops a master plan and it can be assigned a status of a town by a municipal decision. All settlements not assigned the status of town are categorized as "Other" and are automatically considered rural, but this represents a difficult methodological limitation to overcome in research.

Bogdanov N. (2006): Small Rural Households in Serbia and Rural Non Farm Economy, UNDP, Belgrade

Box 3. **Definition of Agricultural Households**

An agricultural household in the 2002 Census is considered to be any household that at the time of the census *used* at least 10 acres of the arable land as well as any household using less than 10 acres of arable land and possessing at least:

a) 1 cow and calf or 1 cow and beef cattle, or
b) 1 cow and two adult head of small animals, or
c) 5 adult sheep, or
d) 3 adult pig, or
e) 4 adult head of sheep or pig together, or
f) 50 adult poultry, or
g) 20 beehives.

Land ownership refers to the land owned by household members regardless whether it is located within or outside the place of residence of the household.

Land use represents land area (regardless whether it is cultivated or not at the time of the Census) consisting of land owned by the household member and land leased (on lease, share lease, or free-of-charge use), but excluding the land given to others to be used.

Republic Statistical Office: Census 2002

The high poverty rate of rural areas in Serbia has been caused by low economic development and continued insufficient diversification of the rural economy. The economic structure in rural areas in Serbia relies on the primary sector and is (still) based on use of natural resources. The main characteristics of the economic structure of rural areas in Serbia are the high share of agriculture, food-processing industry, mining and energy, and a low level of tertiary sector. Privatization and closing down of companies has caused a reduction in demand for less-qualified labour (usually recruited from the rural population) and hampered the already underdeveloped rural labour market. The slowed down process of privatization of agricultural companies and conglomerates (due to unclear land ownership relations) has caused a reduction in investors' interests to invest into rural areas. Poor utility and business infrastructure as well as low human and entrepreneurial potential are the main barriers to rural development.

In circumstances of poor development of other industries, agriculture has an important place in the rural social and economic structure, which is borne out by the following parameters:

Box 4. Types of Individual Agricultural Households

According to activities performed by their members, agricultural households are classified into following groups:

Agricultural farms are those farms where the overall income is from individual farmers on the farm.

Non-agricultural farms are those farms where income is from a member/members of the farm performing non-agricultural activities or performing off-farm activities or from pensions, other assets, social allowances or other types of fixed income.

"Part-time" farms are those generating at the same time income from for agricultural and non-agricultural farms.

Farms generating no income are those farms with unknown source of income or income stemming from a party providing financial support - non member of the household (including legal entities).

Republic Statistical Office: Census 2002

Table 10.1. Poverty indicators by settlement type

	Population structure		Poverty percentage		Poverty structure	
	2002	2007	2002	2007	2002	2007
Urban	56.4	58.5	11.2	4.3	45.0	38.6
Rural	43.6	41.5	17.7	9.8	55.0	61.4
Index rural/urban			1.6	2.3		

Table 10.2. Total number of households by types of settlement and farm ownership

	Total number of households	Rural households		Percent of rural households in total number of households	Percent of households with farms in the total number of rural households	LSMS 2007 percent of rural households in total number of households
		Total	With farms			
SERBIA	2 521 190	1 039 886	633 939	41.25	60.96	40.0
Central Serbia	1 243 908	648 334	455 439	52.12	70.25	51.2
Vojvodina	709 957	298 582	143 056	42.06	47.91	41.2
Urban area Belgrade	567 325	92 970	35 444	16.39	38.12	15.3

Source: Census 2002, LSMS 2007

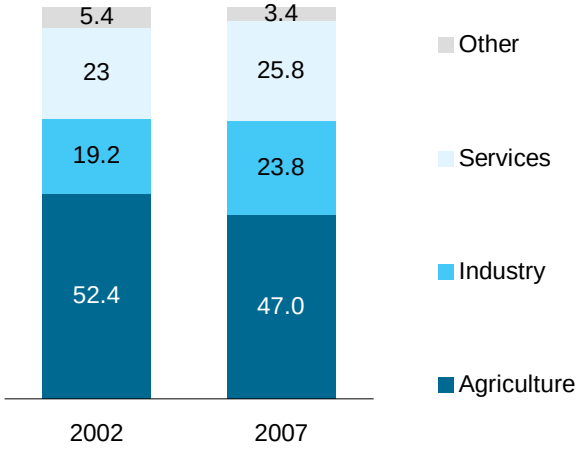
1. The high proportion of agricultural households in the total number of rural households indicates high relevancy of agriculture in rural social and economic structure. According to results of the 2002 Census, there were about 1.04 million households in rural areas in Serbia, which is 41.24 percent of the total number of households in Serbia. According to the 2002 Census 61 percent of rural households have agricultural farms. Results of LSMS 2007 indicate that this share has slightly dropped in the past five-year period (59 percent) but still most households in Serbia own farms. However, the possession of farms, per se, does not imply that the household has income from agriculture (this is particularly true for elderly households, households with small farms, urban households, etc.). But ownership of a farm, use of even a small farm or just living on a farm represents a way to reduce households' costs of living.

The share of rural households in Vojvodina is slightly higher compared to other parts of Serbia, but the percentage of rural households with farms is

significantly lower (Table 2). Stated data indicate that the relevancy of the agricultural activities for the rural population in Vojvodina is smaller compared to Central Serbia (excluding the territory of Belgrade as unrepresentative for the purpose of this analysis). Rural areas for the Vojvodina population have primarily a residential role, and not (primarily) a role in terms of income generation.

2. Insufficient diversification of the rural economy is caused by the high share of agriculture in the rural employment structure (Graph 1). Although the share of agriculture in the labour force employment structure broken down by sectors has reduced by approximately 5 percent in past five years, against an increase in the share of industrial and tertiary sectors, employment in the agricultural sector is still extremely high. Such a high level of the rural population employed in agriculture classifies Serbia as one of the most agrarian European countries. In addition to agriculture, the rural labour force is recruited in the processing industry (15.6 percent), wholesale and retail sale (10 percent) and civil engineering (6.3 percent). The underdeveloped public services and service sector in rural areas generates a limited number of jobs.

Graph 10.1. Rural labour employment by sector

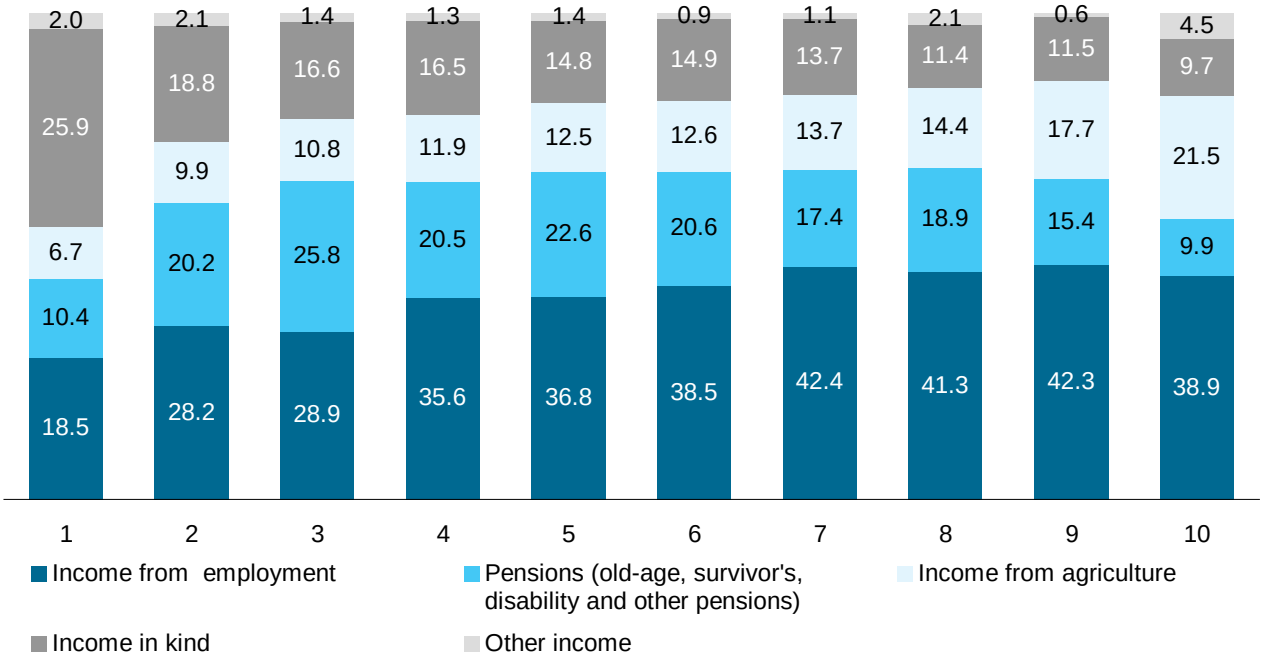


3. Despite high employment in agriculture, low productivity and the unfavourable economic position of agriculture cause *income generated in this sector to have little impact on the rural population living standards, but income from salaries have crucial importance for consumption growth.* Analysis of rural population income by deciles of consumption indicates a positive correlation between salary growth and consumption (Graph 2). Income from salaries is the most important for all groups of rural households ranging from 18.5 percent for the poorest households to 42 percent for the 7th to 9th deciles. For more vulnerable categories of rural households income from pensions has greater relative importance. After the third decile, there is growth of importance of salaries and reduction in share of pensions in the rural population income structure, confirming that *elderly households are the most vulnerable rural households.* Income from agriculture is the less relevant for the most vulnerable households (7.9 percent), while its importance grows in the following deciles (2nd to 7th), and the importance remains relatively unchanged (9.5-11 percent). Relevancy of agriculture income increases only for 10 percent of the wealthiest rural households, whose income from salaries, remittances from abroad and from agriculture in absolute values are several times higher compared to the lowest decile.

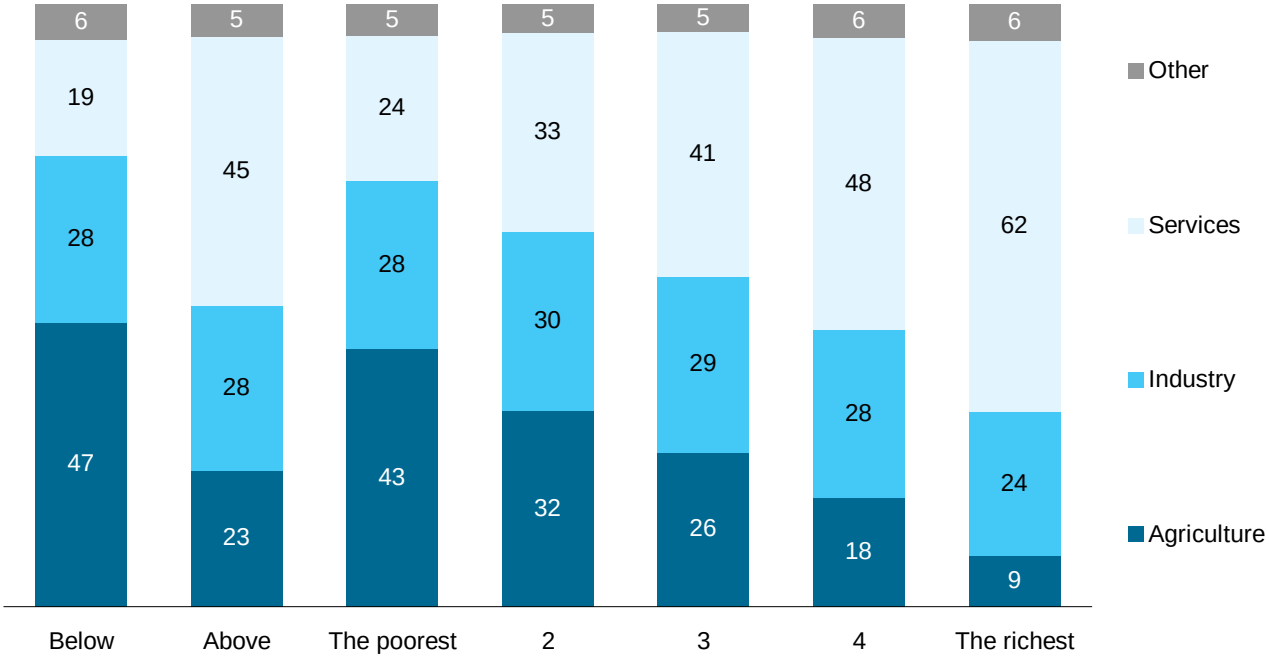
Insufficient competitiveness of agricultural income is illustrated also by the fact that the employed in the agricultural sector accounts for almost a half of (47 percent) the employed below the poverty line as well the small percentage (8.5 percent) of farmers that are in the richest quintile (Graph 3).

The data shows that in circumstances of underdeveloped rural economy, agriculture has a high impact on the rural vulnerability. Studies analyzing samples of rural households with poor potential[3] show that these households have a negative perception of their current position and feel very vulnerable (Graph 4). On the other hand, their optimism increases in relation to the mid-term prospective (Graph 5).

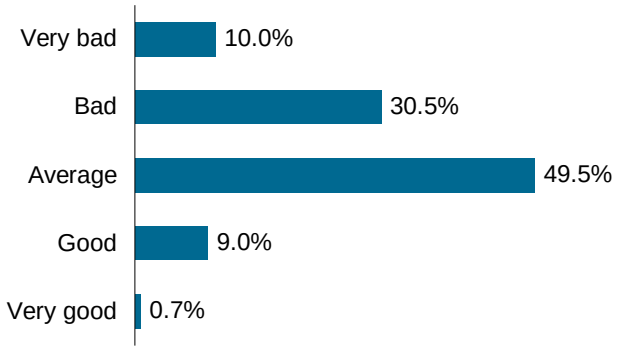
Graph 10.2. Income of rural households by deciles of consumption



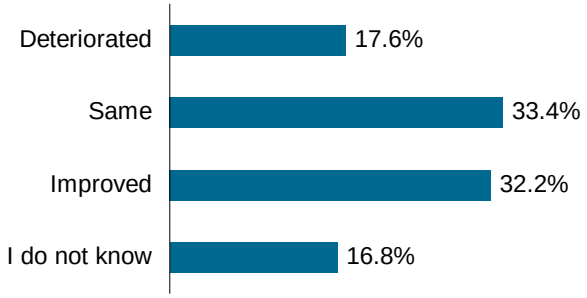
Graph 10.3. Employment sector structure, by quintiles of consumption



Graph 10.4 How do you assess the current status of your household?



Graph 10.5. How do you see material position of your household in next five years?

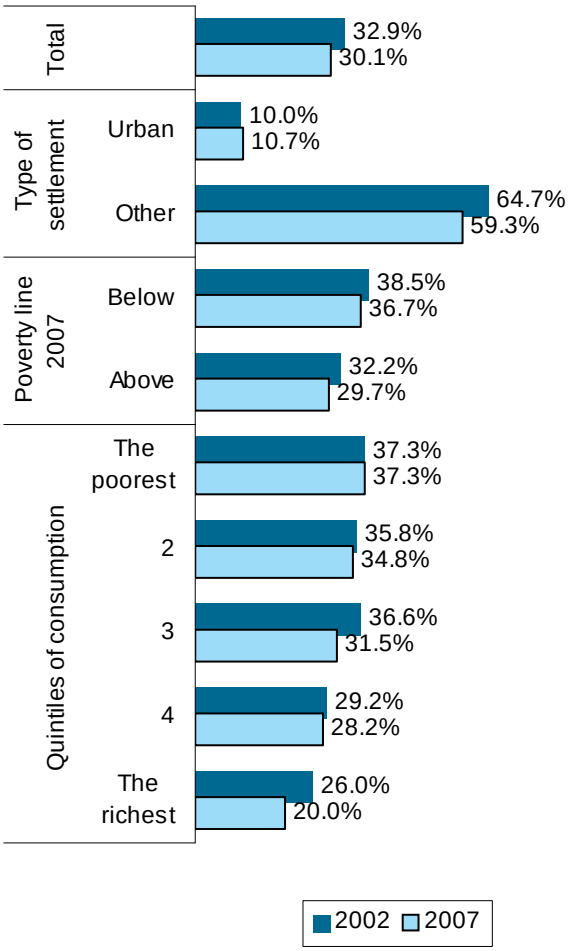


10.3. Serbian agricultural households and poverty

According to LSMS 2007, agricultural households account for 30.1 percent of the total number of Serbian households, which is reduction by 2.8 percent compared to 2002. This relatively small reduction in the number of agricultural households is caused by a natural withering away of households without heirs and indicates that the labour market and land market are not sufficiently active. In such circumstances, productivity growth by land consolidation and by reduction of hidden unemployment through diversification of activities and income of members of the agricultural households is significantly reduced.

The share of agricultural households living below the poverty line (36.7 percent) was slightly reduced in 2007, while the share of the most vulnerable households (37.33 percent) remained unchanged compared to the 2002 level. On the other hand, the share of agricultural households in the richest households was reduced by almost 6 percent (Graph 10.6.).

Graph 10.6. Share of agricultural households



The main causes of poverty of agricultural households may be classified into two groups of factors:

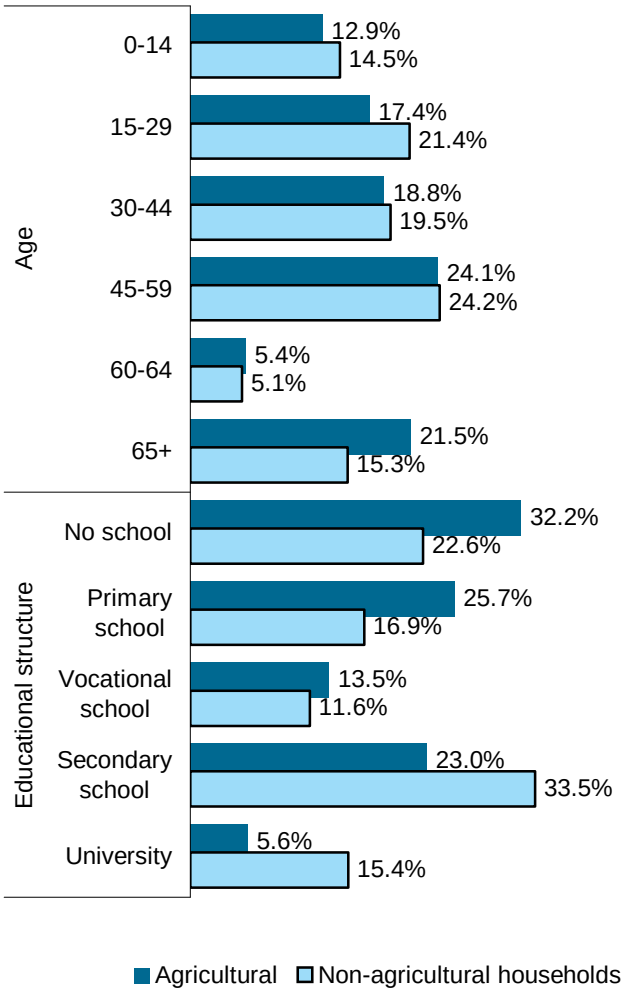
1. unfavourable performances of the agrarian structure - unfavourable ownership structure, underdeveloped capital market and poor human resources are main causes of the agricultural households vulnerability;
2. insufficient diversification of income and activities of members of agricultural households.

10.3.1. Human resources of the agricultural households

Human resources of agricultural households, by their performances, are significantly less

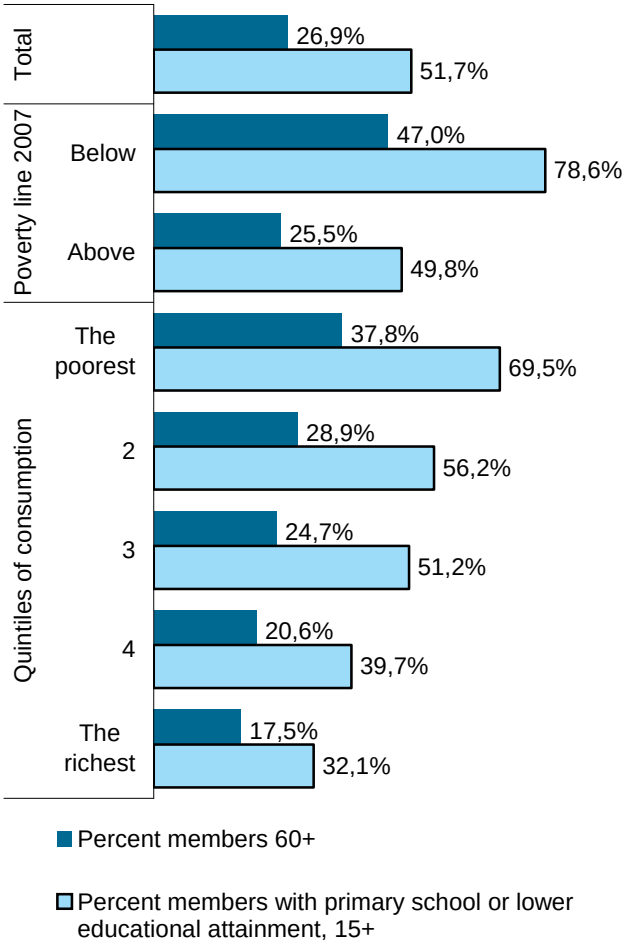
favourable compared to the non-agricultural households (Graph 7). The aging rate (ratio between population over 65 and below 15-year old) of the agricultural households indicates that the ratio of the eldest members of households is 67 percent higher compared to the young population. Therefore, the educational structure of members of the agricultural households is significantly negative, since a third has uncompleted primary school and a quarter has only completed primary education.

Graph 10.7. Age and educational structure of members by household type



Poor knowledge and skills of the overall population are confirmed LSMS 2007 according to which *97 percent of the rural population answered that they have not attended additional trainings and courses, while 54 percent state that they do not have particular knowledge and skills.* The above data are compatible to the great extent with findings from the survey "Small Rural Households in Serbia and Rural Non-agricultural Economy", according to which 52 percent of respondents did not recognize additional skill of members of own households that could help to generate additional income. Low labour force quality in agricultural households has negative impact on their standards, and on overall poverty. Farms with greater numbers of elderly members and less educated members are poorer (Graph 8).

Graph 10.8. Human resources of agricultural households, by quintiles of consumption



Knowledge and skills of the rural labour force do not correspond with modern technological requirements and have an insufficient impact on the total labour force capacities in rural areas. Labour force quality represents one of the limiting factors in

rural area economic development because investors "skirt" places lacking a quality and trained labour force. On the other hand, better educated people usually migrate from rural areas which lack an attractive economic environment and jobs adequate for their specific knowledge and preferences (Bogdanov N. 2007).

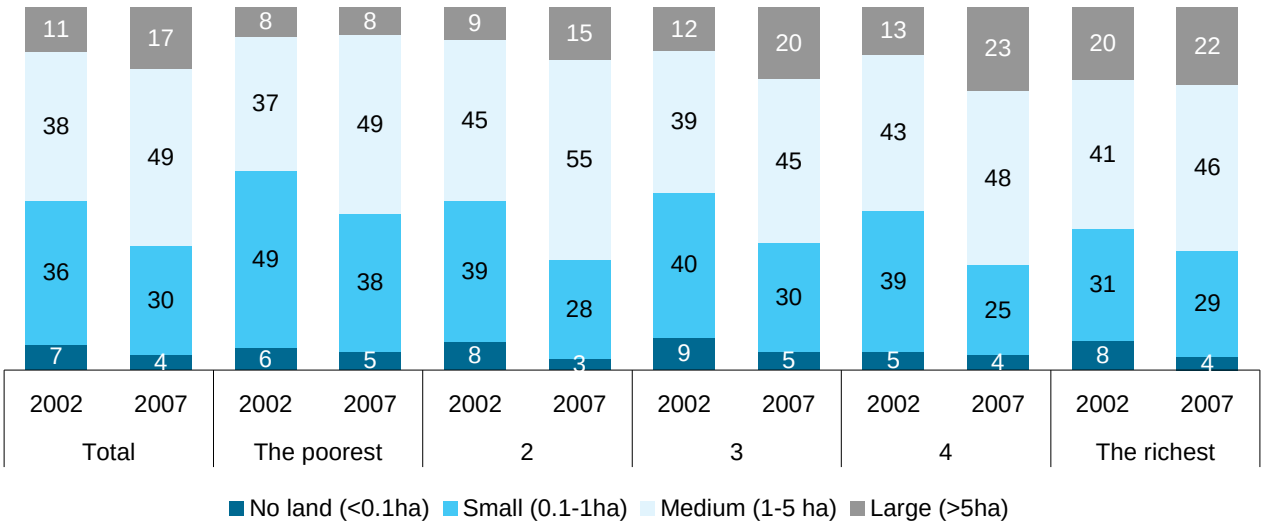
10.3.2. Ownership structure and physical capital of agricultural households

Farms' structure according to their size indicates the prevalence of small farms. LSMS results indicate that farms sized around 5 hectares account for 73 percent out of the total number of agricultural households. This share is lower compared to 2002 LSMS (80 percent) and 2002 Census (78 percent), showing the presence of a growing bimodal agrarian structure.

As regards *small and the smallest farms* (with no land and with less than 1 hectare) *they are equally represented in both the richest and poorest categories* (2nd and 5th quintiles – Graph. 9). Such results are expected considering that this category is extremely heterogeneous from the point of social and economic structure of its members. Besides the poorest rural population (those with no land and socially vulnerable groups) small farms are also cultivated by those to whom land and farm do not represent the main capital (the employed, small businessmen, pensioners who returned to rural areas, urban households, etc). *The correlation between the size of the farm and poverty is reflected more precisely by a position of medium-size farms (1-5 hectares)*, that are the most numerous and distribution of which in terms of consumption quintiles is extremely unequal.

In comparison with 2002, the growing share of big farms in the higher consumption quintiles is visible (whereas not in the richest household category), and the presence of small and medium-size farms increases by quintiles of consumption. The *share of medium-size farms in lower quintiles of consumption is growing against a reduction in the share of small farms*. These changes are caused by strengthening of bi-modal agricultural structure but also the less favourable position of the medium-size households that are not able to achieve a competitive productivity level. Medium-size farms achieve performances of semi-own production agricultural production: they lease some land, possess machinery to be maintained, they use hired labour much less than others, their market surplus is not significantly higher compared to small farms. A part of farms of this size, especially those with the young labour force, has succeeded to transform into commercial farms oriented to labour and capital-intensive production.

Graph 10.9. Amount of land by quintiles of consumption

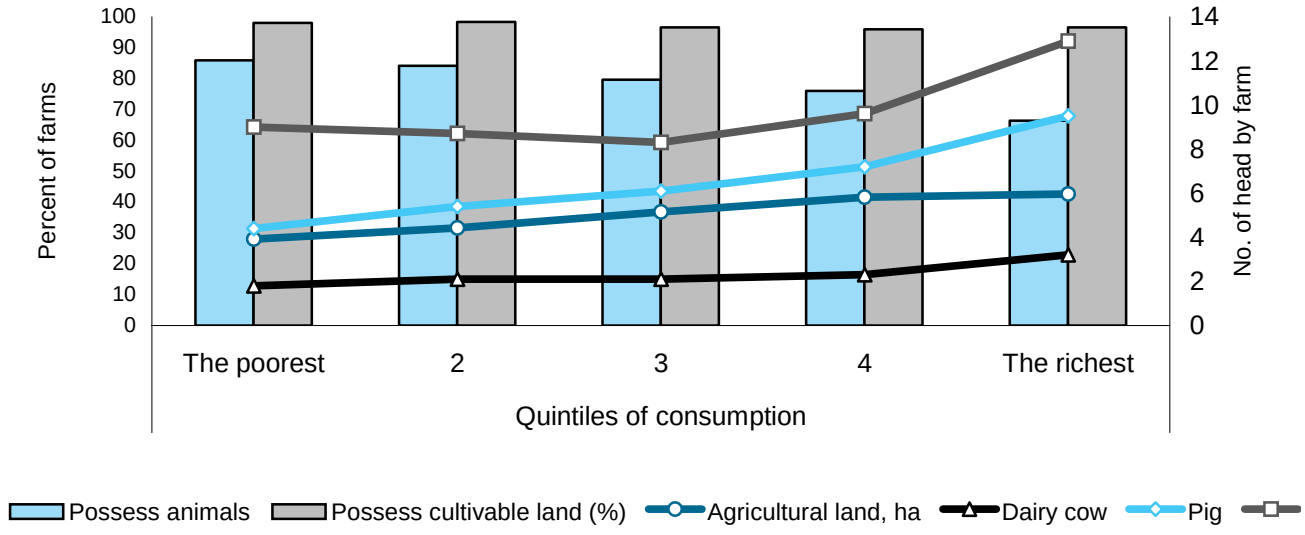


The physical capital of agricultural households has a high impact on their poverty, but LSMS data does not reflect that dependency. The survey does not gather data on the state and quality of soil, livestock and mechanization, which would make conclusions on physical capital relevancy to agricultural household vulnerability more reliable. *Simple ownership of land and/or livestock is not correlated with agricultural household vulnerability:* 99 percent of the poorest and 98 percent of the richest farms own land. Such a situation is expected considering the fact that land ownership, per se, without adequate machinery and applied agro technique measures is not a precondition for higher income. In addition, the land market is not dynamic and leasing does not provide always significant income, especially to small farms. Further, some land is not used by agricultural households due to poor quality, inaccessibility, expensive production and lack of machinery etc.

Data on the share of arable land of the total area of the poorest farms is significantly lower than that of the richest (68 compared to 89 percent) supporting the fact regarding greater poverty dependency on the quality of resources. Renting land contributed to the improvement of farm economic status. The percentage of farms that rent land is higher within the 3rd and 5th quintiles (15 percent) compared to other quintiles. Generally speaking, *although land ownership per se is not closely connected with poverty, the size of land used is*: farms that are below the poverty line have the average-size farms of 3.30 hectares, and those above the poverty line of 5.06 hectares. A similar relation is also valid regarding possession of animals and number of head owned by farms (Graph 10). A larger percentage of farms (up to the 3rd quintile) own livestock of all kinds, while up to a third of the richest ones do not breed animals. However, the average number of head of some species is constantly growing from the lowest to the highest quintile.

Possession of agricultural machinery and equipment is equally distributed among quintiles of consumption, excluding the poorest farms with the least agricultural machines. The biggest farms are well-equipped with machinery. Farms within the 4th quintile are those with best machinery, which is expected considering the higher relevancy of agriculture to their total income.

Graph 10.10. Physical capital availability by quintiles of consumption



10.3.3. diversification of income and activities of members of agricultural households

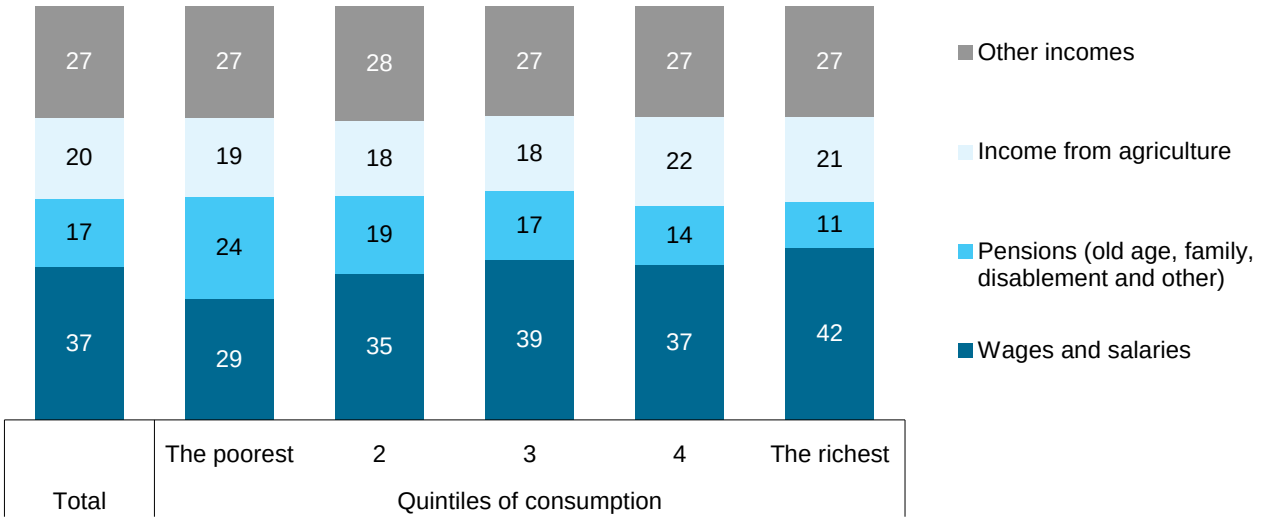
Diversification of income of agricultural households represents a precondition for diversification of activities and reduction in their poverty because it reduces the high income risk of agricultural population in extensive agricultural production. The income structure indicates that *income from agriculture does not represent a crucial factor for classification of agricultural households by quintiles of consumption, but income from other sources* (Graph 11)**.** Data on differences in amount of agricultural income between the richest and poorest that are relatively small supports this conclusion. Monthly income from agriculture of the richest and poorest agricultural households is 1:2.6 (6 062 dinar compared to 15 751 dinar), while the ratio between their salaries is 1:3.3 (9 251 dinar compared to 31 547 dinar).

The data above shows that there is disproportional relation between the employed in agriculture (49 percent) and the share in total household income (20 percent), indicating low agriculture productivity. LSMS does not provide reliable data on agricultural income structure (share of income from the sale of agricultural products, machinery services, day wages, sale of processed agricultural products and handicrafts products, etc.)[4]. But based on the previous surveys (Bogdanov N. 2007.) it is well-known that income generated on farms is diversified to certain extent, due to which (especially smaller farms) are exposed to greater income risk[5].

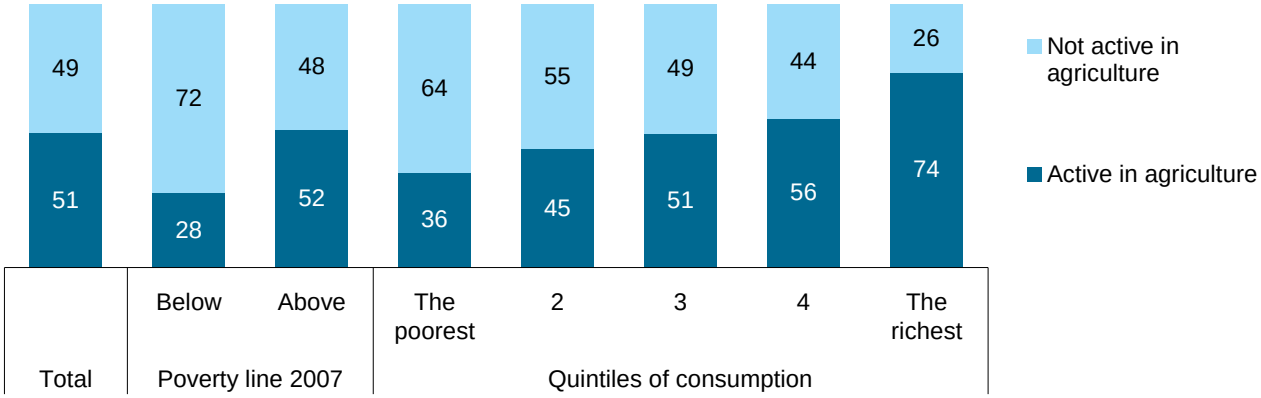
The great importance of income diversification for the standard of living of the rural population is confirmed also by data regarding the diversification of activities of members of agricultural households. Farms with member that are 15+ employed only in the agricultural sector are exposed to a high poverty risk. Among farms that are below the poverty line, 72 percent are those whose able-bodied members (15+) are active only in the agricultural sector (Graph 12).

Data on the activities of members of agricultural households indicates that 60 percent of members aged 15+ are equally active in agricultural and non-agricultural activities. Agricultural households have a lower unemployment rate and non-self supporting members compared to non-agricultural households (Table 3.). The reason for the relatively more favourable labour indicators of members of agricultural households comes from the definition of employment that also includes the unpaid labour force. The *high employment rate in agriculture*, such as in Serbia, *causes labour market indicators in rural areas and in agricultural households have better values.*

Graph 10.11. Income of agricultural households by quintiles of consumption



Graph 10.12. Structure of farms by employment of 15+ members, by quintiles of consumption (members active in non-agricultural activities / members active in agriculture)



Census 2002 indicates that the *majority of labour recruited to work in agriculture in Serbia (75 percent) fits into a category of labour producing for their own needs, while only 20 percent of workers in agriculture produce for the market* (Table 4)**.** The proportion of women in the agricultural labour force producing for the market is extremely low (26.1 percent) which is the case in other transition countries as well (IFAD 2002). The remaining 5 percent of workers in agriculture are manual workers (day labourers).

From the prospective of diversification of income and activities of members of agricultural households, one can conclude that differences in their standard of living depends on other non-agricultural activities i.e. their opportunity to get off-farm employment. This implies that human capital and labour force performances have the greatest impact on agricultural households' vulnerability[6]. Besides the high impact of wages on agricultural households standard of living the data shows that "part time" farms, especially those with a younger and more qualified labour force are richer compared to the others. This conclusion supports the general conclusion that "part-time" farms are those having higher standards, better educational and age structure of their members compared with other types of households in rural areas and agricultural households[7], and are considered to be leaders in progress, technical, technological and other innovations in rural areas.

Table 10.3. Activities of the labour force by household type

	Total	Agricultural farms	Non-agricultural farms
Active members 15+	100.0	100.0	100.0
Active	54.1	59.6	51.3
Employed (non-agricultural activities)	37.0	27.5	41.8
Farmers and members helping in agricultural activities	10.0	26.4	1.6
Unemployed	7.1	5.7	7.9
Inactive	45.9	40.5	48.7
Pensioners	20.8	17.4	22.6
Housewife	4.7	5.1	4.4
Pupils and students	9.8	8.0	10.8
Incapable of work	2.1	2.0	2.1
Other inactive	8.5	8.0	8.8

Table 10.4. Active agricultural population by type of activities

Sex	Employed in agricultural activities – producing for the market	Employed in agricultural activities – own production	Manual workers in agriculture
Male	79 377	20 8475	17 738
	73.9%	53.1%	72.2%
Female	28030	188803	6813
	26.1%	46.9%	27.8%
Total	107407	397278	24551
	100%	100%	100%

Source: Census 2002

10.3.4. Marketability of agricultural households

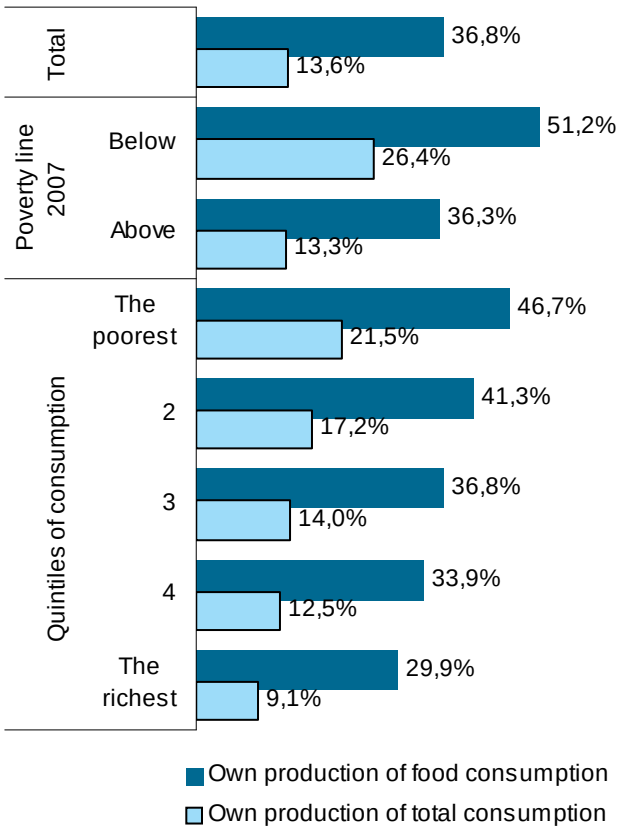
The marketability of agricultural households is reflected by their ability to create profit. Farms generating greater market surplus have favourable organizational and economic performances and achieve better productivity. In addition to farm performance, marketability also depends on the general situation in agricultural production, accessibility to organized markets, price parity and attained yields.

Serbian agriculture is characterized by low marketability and high own production consumption. Small farms, the majority in Serbia, have production that satisfies own needs, reducing their market dependency, but the proportion of own production consumption of food in relation to overall expenditure is extremely high (Graph 13).

The data shows that own production consumption accounts for 37 percent of the total food expenditure in agricultural households. The poorest farms satisfy 47 percent of their nutritional needs by own production, while for the richest farms this is 30 percent. Out of total consumption, own production compensates 22 percent of the needs of the poorest and only 9 percent of the richest farms. One can conclude that poorer farms use a part of their production to satisfy their own food needs and their market surplus is insignificant.

Data on the percentage of agricultural households generating income from the sale of agricultural products support this and shows that 35.7 percent of farms in 2006 were selling plant products (crops, vegetable, fruit and viticulture products) and timber and 44.3 percent sold livestock and/or livestock products. The greatest marketability of production is achieved by farms from Vojvodina and medium-size farms. In terms of percentages, the *differences in the proportion of farms selling products by quintiles of consumption are not significant, but income generated by this trade is several times higher for the richest farms* (Graph 14). The greatest profit among farm production is as follows: corn (12 percent of farms sell surplus), fruit (12 percent), wheat (9 percent), and industrial oil (6 percent).

Graph 10.13 Share of own production consumption of food expenses and total expenses by quintiles of consumption

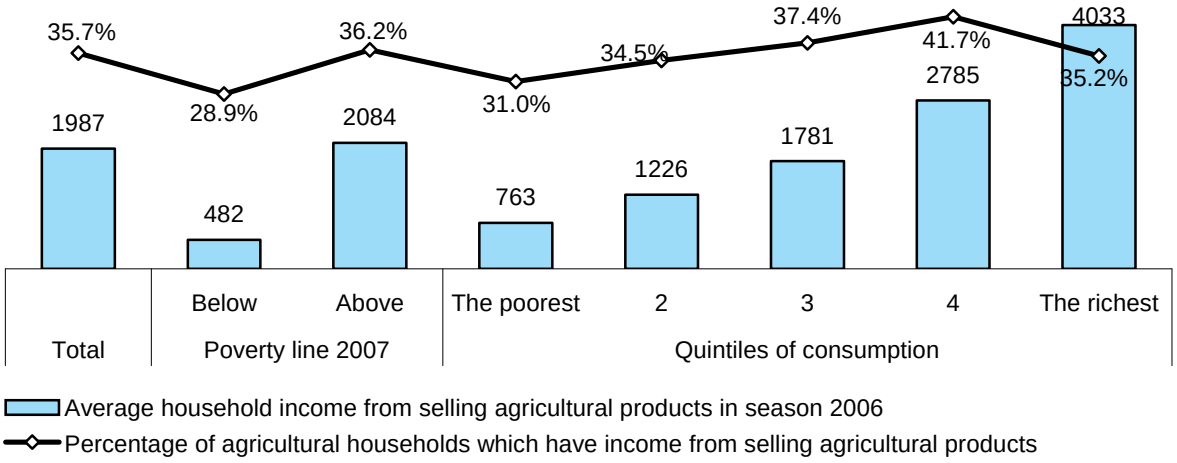


The greatest profit from animal livestock production is found in West Serbia and Sumadija, especially in large farms. Furthermore, the proportion of farms selling livestock and livestock products falls as income generated from these farms grows. This is because of specialization of production on larger farms (Graph 15). The greatest profit by products is as follows: pigs (24 percent) and livestock products (milk, eggs, etc. - 25 percent).

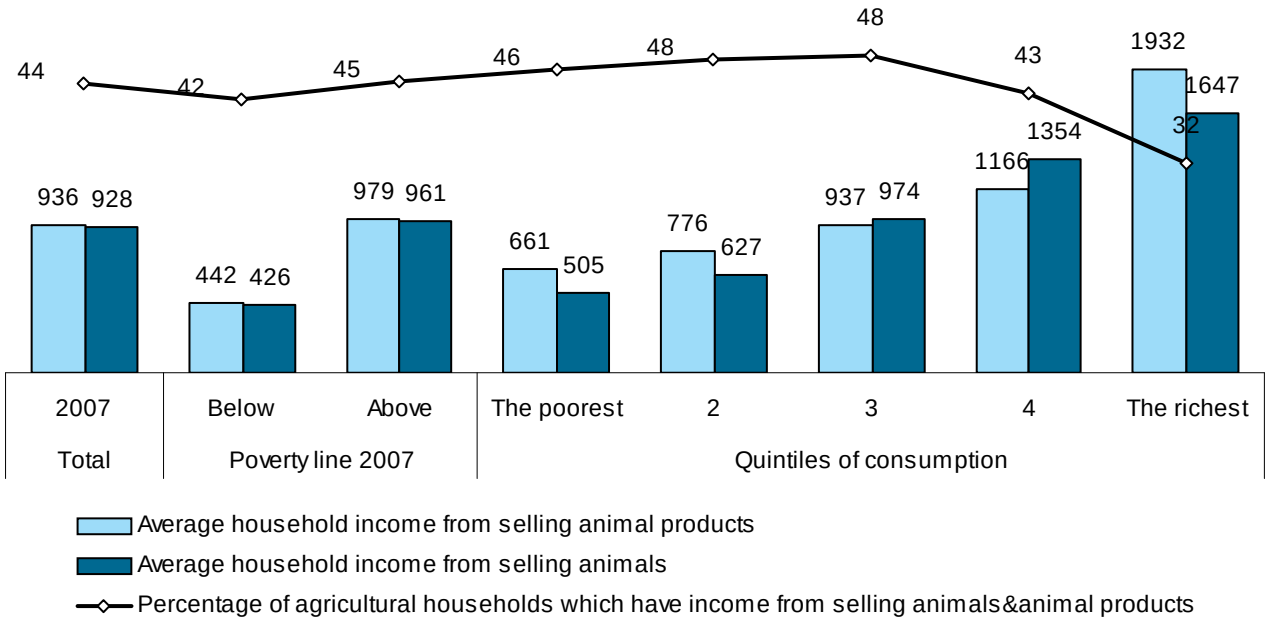
Previous research (Bogdanov N. 2007, REC 2007) indicate that the lack of a market was one of the significant barriers in development of agricultural households for half of households (Graph 16).

According to the results of the above mentioned research, poorer farms sell their products to neighbours and on the green market (in villages or towns). Farms with greater surplus (of wheat, industrial oil and fattening livestock) sell their products to cooperatives or buyers/processors, and are bonded by contract and less exposed to market risks.

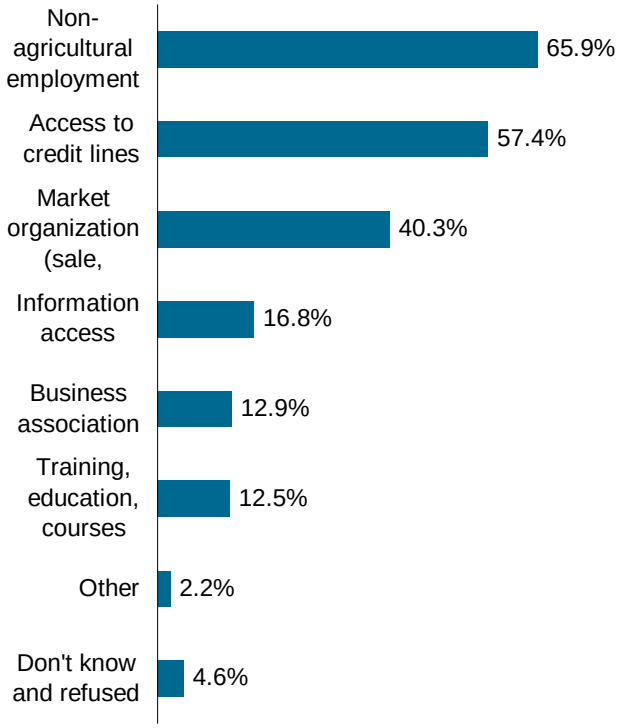
Graph 10.14. Sale of plant products, by quintiles of consumption



Graph 10.15. Sale of livestock products by quintiles of consumption



Graph 10.16. What would help your household to live better?



10.4. Changes of main social and economic indicators of agricultural households 2002-2007

From 2002 - 2007 strategies relating to agricultural incentives changed several times. The most important elements of the agrarian reform in Serbia since 2000 have been as follows: market liberalization, privatization of food-processing industry, the beginning of the formation of new institutional forms at all levels. Land re-privatization, unlike other countries in transition, did not have significant consequences on the agrarian structure considering high share of private farms in the total agricultural resources even before transition.

However, many years of overlapping jurisdiction from republic and federal institutions has slowed down significant changes in the sector operations. The majority of jurisdictions relating to the agricultural sector were not transferred to the Government of the Republic of Serbia until early 2003. Strategic and program commitments of the reform governments have been changed (partly) due to objective changes in the overall macroeconomic environment. Therefore, there is still lack of clearly defined development strategy and mechanisms for implementation. Therefore efficiency, as well as overall results of the sector, is below the expected and achievable level. Generally speaking, in past five years agrarian policy reform in Serbia has undertaken the following directions (Božić D., Bogdanov N. 2006):

- Funds from the agrarian budget have been increased while their share in the total budget has remained at almost the same level;
- Implementation mechanisms have been redirected from income support to investment incentives;
- A key system change regards the implementation of state support, in that only registered farmers are allowed to receive it since 2004;
- Significant diversification of supporting measures to agriculture and rural areas is performed.

Changes in the organizational and economic characteristics of the agricultural households in past five years indicate the following (Table 5):

1. The number of agricultural farms is decreasing, followed by their polarization by size.
2. The average size of agricultural land possessed by farms is reduced to 4.34 hectares (by 6 percent compared to 2002), but the land used per farm has grown to almost 5 hectares. These figures indicate relatively dynamic land market compared to the 2002 situation.
3. The number of farms that own livestock is reduced, but the average number of head per farm has grown.
4. The quantity of machinery and equipment has grown, partly owing to support from the Ministry of Agriculture, Forestry and Water Management aimed at purchasing agricultural machinery and partly to a more developed financial capital market.
5. The share of food expenses of agricultural households in relation to total expenses has dropped as well as own production food consumption, which are measures of the better standard of living compared to five years ago.
6. The number of farms with income from the sale of agricultural products is dropping, indicating household income specialization and their polarization according to income sources within the agricultural and off-farm activities.

Table 10.5. Features of agricultural households in Serbia

	Total			Poverty line 2007		Quintiles of consumption 2007				
	2002	2007	Index 2007/ 2002	Below	Above	The poorest	2	3	4	The richest
Percent of agricultural households										
Cultivable land owned	91.6	97.2	106.0	97.5	97.2	98.0	98.3	96.6	96	96.6
Rented out	9.2	6.0	65.0	7.5	5.9	6.4	4.5	6.3	7.3	5.6
Rented	6.7	11.7	175.0	4.2	12.3	6.9	10.6	15.4	13	15.1
Average land size (acres) (Average for households that own land)										
Total owned,	460	434	94	326	442	377	418	457	490	452
Out of that cultivable	301	336	112	248	342	256	324	352	376	402
Rented out	220	299	136	219	305	236	362	350	273	313
Rented	377	513	136	228	520	194	265	438	659	853
Agricultural land, acres	329	493	150	330	506	391	443	515	582	596
Percent agricultural households										
Dairy cow	39.1	30.3	77.0	35.8	29.8	35.1	36.3	33.7	24.0	15.7
Pig	66.5	60.2	91.0	56.1	60.5	61.8	67.0	64.1	58.0	44.8
Chicken	78.6	66.2	84.0	72.3	65.8	72.8	72.8	66.5	62.0	50.8
Average number of herd (Average for households that own them)										
Dairy cow	1.9	2.1	111.0	1.7	2.2	1.8	2.1	2.1	2.3	3.2
Pig	4.3	6.1	142.0	3.0	6.3	4.4	5.4	6.1	7.2	9.5
Sheep	7.2	9.3	129.0	8.9	9.3	9.0	8.7	8.3	9.6	12.9
Chicken	20.3	24.6	121.0	14.4	25.6	16.4	20.5	25.0	35.0	36.9
Percent family farms possessing machinery										
Motor cultivator	24.7	27.3	111.0	20.2	27.9	22.7	29.1	29.3	29.0	27.1
Small tractor	25.7	25.3	98.0	12.9	26.3	20.4	27.7	27.7	28.0	22.9
Large tractor	17.9	21.9	122.0	9.1	23.0	13.1	22.4	24.8	28.0	24.2
Combine harvester	2.1	3.0	143.0	0.0	3.3	1.1	3.2	3.3	3.9	4.3
Other machines	30.8	31.5	102.0	12.8	33.1	21.7	29.3	35.4	40.0	34.9
Consumption										
percent consumption on food, total	49.0	37.0	76.0	51.6	36.6	46.1	41.5	38.1	36.8	30.3
percent subsistence consumption in food consumption	45.0	36.8	82.0	51.2	36.3	46.7	41.3	36.8	33.9	29.9
Marketability										
percent farms selling plant products	39.0	35.7	91.5	28.9	36.2	31.0	34.5	37.4	41.7	35.2
percent farms selling livestock and livestock products	59.6	44.3	74.2	41.6	44.5	46.3	47.9	48.4	42.5	32.1
Human resources										
percent members with elementary and lower education attainment	59.0	51.7	88.0	78.6	49.8	69.5	56.2	51.2	39.7	32.1
percent member 60+	29.0	26.9	93.0	47.0	25.5	37.8	28.9	24.7	20.6	17.5
percent family farms engaging labour force	20.0	15.3	77.0	7.0	16.0	9.4	11.9	15.1	20.0	25.6

10.5. CONCLUSION

1. One of the main characteristics of poverty in Serbia is the high level of poverty in rural areas. It has however halved from 2002-07, but is reducing more slowly than urban areas. The main cause of rural poverty is the high dependency of the rural economy on agriculture and insufficient diversification of the economic structure.
2. Agricultural performance in Serbia shows extensive production, a strong dependency on natural factors and weather conditions along with low soil and labour force productivity. Hence, in circumstances of high dependency of the rural economy on agriculture the value of realized production in this sector has a great impact on rural poverty.
3. Unfavourable ownership structures, underdeveloped land and labour market and modest human resources are the main causes of poverty of agricultural households.
4. The proportion of agriculture in total income of agricultural households is lower in comparison to its share from employment, which is caused by the low productivity of the agrarian sector. In such circumstances, wages generated in other sectors contribute more to the standard of living of agricultural households than income generated from agriculture.
5. Agricultural households with a more competitive (younger and more highly educated) labour force are richer. Such a labour force more easily finds quality and better-paid jobs, and generates higher external income.
6. In relation to poverty, medium size farms are particularly vulnerable. These farms are facing growing competitiveness in the market and are polarized to that of market-oriented and semi-own production.
7. The percentage of agricultural households with market production has reduced, but the value of market production has grown rapidly in the richest farms, again as a consequence of specialized production and strengthening of the dual agrarian structure.
8. Own production consumption has a great share in the consumption of poor farms, confirming that land ownership represents an important factor as regards meeting ones own needs, though not generating significant income.

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Endnotes, Part 10

[1] "Jugožni" model of the European agriculture is characterized by small farms, usually owned by the elderly. Without additional income or highly-specialized production, these farms are not capable of ensuring sufficient income to their members.

[2] For more information on this issue - http://www.ruralpovertyportal.org/english/regions/europe/index.htm

[3] Bogdanov N. (2006) The definition of small rural households applied in this research corresponds to a great extent to the characteristics of households living below the poverty line.

[4] The share of income from the non-agricultural economy of the total income of agricultural households is difficult to estimate due to the unwillingness of the rural population to provide data on their income. According to some estimates, at mid-transition period households in Central and Eastern European countries achieved 30-50 percent of the income from non-agricultural activities (Davis, J. R., Gaburici, A., 1999). According to LSMS 2007, data for Serbia are (with methodological notes stated at the beginning of this report regarding the definition of agricultural households) compatible with the above estimation for other countries in transition.

[5] Surveys indicate that daily wages (as well as social allowances), as a main income source, are more common in female-headed households. Available data on such families are limited, but it is estimated that those are socially vulnerable households. Services regarding agricultural machinery, equipment lease and day labour, as an income source is more common in Vojvodina than in other regions. The reason of greater percentage of households with daily wages as a main income source is labour force deficit in season peaks in these areas, and due to the labour-intensive production there is a need to recruit additional labour. Female-headed households or households headed by young people are more involved in the sale of processed and finished products (cookies, pasta, meat products, winter food provisions, etc.).

[6] It should be stressed that this relates to analysis of agricultural households not related to classification of farms by activities of their members. This indicator should be interpreted more carefully. A criterion for selection of farms is the economic structure of members, which, *de facto,* includes also urban households with farms.

[7] The comprehensive study is Functioning and reproduction of family farms in Serbia, Agriculture University of Belgrade, Zemun, 1987.

Rachel Smith–Govoni

Water and Sanitation Services (WSS) 11

11. WATER AND SANITATION SERVICES (WSS)

This module was administered to half of the national sample[1] and the sample size for this module is 2 744 households. The module was commissioned by the Sustainable Development Department of the World Bank. The objective of the WSS module and the complementary qualitative interviews[2] was to better understand the sources and quality of WSS services used by households, how they are affected by the quality of services, and how they cope with both real and perceived service shortfalls. The module included harmonized WSS questions that were recently developed by the multi-agency Joint Monitoring Program for Water Supply and Sanitation in collaboration with experts from three international survey programs - the Demographic and Health Survey (DHS), the Multiple Indicator Cluster Survey (MICS) and the World Health Survey (WHS).

11.1. Household access to water

The water and sanitation sector was well developed in the former Yugoslavia. Despite ten years of very limited investment, especially in terms of maintenance, WSS have avoided collapse because of this inherited high initial quality and broad coverage of existing infrastructure as well as good technical capacity of the professionals working in the sector.[3] As a result 99 percent of the population has access to an improved[4] source of drinking water – 100 percent in Belgrade and secondary cities and 97.6 percent in rural areas.

The main source of drinking water is the local pipeline. However, a sizeable percentage (17.4 percent) of rural households use protected wells or standpipes and an additional 2.3 percent use unprotected sources, including lakes and streams (Table 1). A substantial proportion of rural households (26 percent) have access to urban piped water systems owing to their proximity to cities; 40 percent of rural communities have their own piped water system. Access to safe water varies by region and East Serbia had the lowest access to piped water.

11.2. Access to water in Belgrade

The importance of Belgrade as a political and economic centre, as well as the better economic situation of its residents with many more options has largely ensured reliable services. The bombing of Serbia during the NATO attacks in 1999 did not leave lasting adverse affects on the WSS infrastructure. The water from the piped water supply is regularly tested (both chemically and microbiologically), there have been no epidemics or large scale illnesses, and the confidence of the users in this source of water is high. The water management company financed the installation of special individual pumps for high rises and skyscrapers that in the past experienced some pressure problems. Thus, today even the people living on the highest floors have adequate water pressure.

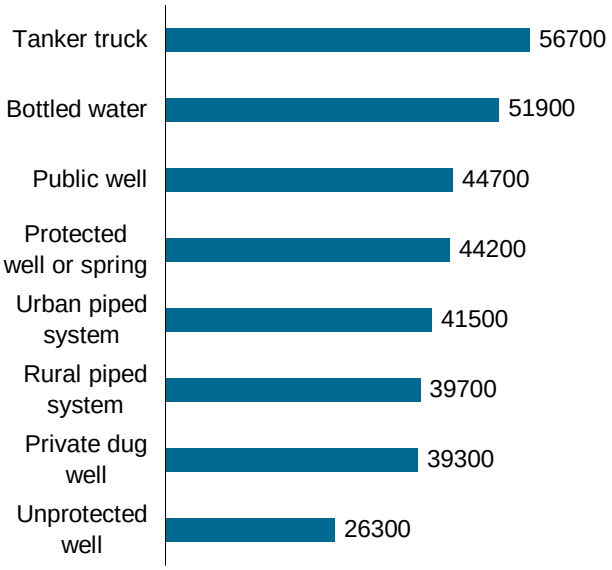
Table 11.1. Water source for drinking[5] by settlement type

	Belgrade	Secondary towns	Rural
Urban plumbing	93.6	89.1	26.1
Rural (local) plumbing	-	3.0	40.1
Public tap/standpipe	0.3	0.4	2.1
Dug well	-	1.3	9.3
Protected dug well or standpipe	-	0.6	17.4
Bottled water	6.1	5.6	2.6
Unprotected dug well or standpipe	-	-	2.2
Tanker truck	-	-	0.1
Lake, river, stream	-	-	0.1
Total	**100%**	**100%**	**100%**

N=2744

Belgrade is the only location in Serbia where there is a significant percentage of people who buy bottled water as an alternative for drinking water from the centrally supplied system. The trend of purchasing bottled water is particularly strong among younger, more educated people, and among parents with young children. These social groups tend to be more cautious and sceptical about the proclamations of city officials on the quality of the publicly supplied water and consequently have less trust in its quality. Discussions with some local experts and households suggest that the sales of bottled water and soft drinks have increased in recent years. There are several reasons for this: (i) consumers in the capital enjoy higher levels of disposable income; (ii) increased availability of these products in stores; and (iii) the emergence of new products at lower prices from local manufacturers. Figure 1 confirms that households buying bottled water have higher than average incomes.

Graph 11.1. Average monthly household income (dinar) **by main source of drinking water**



11.3. Water access in smaller towns

In general, WSS in urban areas outside the capital are inferior. The qualitative research indicates that while Krusevac can be seen as a model for a small city where residents have reliable water supply and peri-urban and rural areas nearby are continually being added to the system, Kraljevo and Zrenjanin experience significant problems, particularly in terms of intermittency and quality of the water. Water is regularly tested and is in general in accordance with national standards. At the same time, the quality of water in Zrenjanin and nearby areas that are connected to its system is considered to be of poorer quality and the water company has informed the residents about this situation. Arsenic and some other organic materials were found in recent years in Zrenjanin's central water supply system, leading to people increasingly doubting the quality of the water they receive.

The WSS data shows that some wealthier households use bottled water for drinking in addition to the central piped water, especially in the areas that experience the problems with water supply. However, this coping strategy is less commonly used than in the capital because family incomes are lower.

11.4. Water access in rural areas

Problems with the water supply in rural areas vary significantly based on the terrain, location of the villages and available alternatives for solving water supply problems. Villages that are closer to urban areas gradually connect to their central water supply systems, if they can organize themselves and can afford to pay for the connection. A good example of such a development is a Citluk which connected to the central supply of Krusevac and today has reliable water supply. Other villages built their own systems, usually from nearby mountains or rivers some of these are highly organized and effective, while others cannot provide adequate water.

The data shows that villages without access to the central water supply rely on wells as the primary source of water. These wells were mostly drilled during the Communist era. The costs of drilling today are prohibitive for most of the households (25$ per 1m, and the pump costs between $75 and $250). In general, households drink the water from the wells based on their perception of the quality.

Only 95 households, or less than 4 percent of the population, walked beyond their home to fetch potable water and these walked an average walk time of 22 minutes. Among these, most household members shared the burden of water collection (38 percent).

Table 11.2. Water and sewerage characteristics by poor and non poor (below and above the poverty line) percent unless otherwise stated

Characteristic	Poor	Non poor
Have water available every day in the last 2 weeks	81.5	82.5
Have 24 hour availability (when water comes)	95.3	97.4
Treats water	7.2	6.9
Connected to central sewerage system	26.7	57.7
Uses pit latrine	44.1	8.3
Own private home	92.9	90.2
Number of people in household	3	3
Has agricultural holding	36.7	29.7
Average monthly cost of rent (dinar)[ab]	2 000	10 100
Average monthly cost of electricity (dinar)[ac]	1 200	2 200
Average weekly cost of water bill (dinar)[a]	79	115
Stated monthly income (dinar)[ac]	20 200	45 100
Has water payments in arrears	15.6	9.4
Average amount in arrears with water payments (dinar)[ac]	14 000	4 000

a Average for those with a positive response
b Rounded to nearest thousand
c Rounded to nearest hundred

11.5. Reliability of WSS services - quantity

There are indications that the water supply service is not particularly reliable. Overall 17.5 of the population experienced a cut off for an entire day in the two weeks prior to the interview. The problem was least serious in Belgrade and the worst in East Serbia and Vojvodina. Residents of secondary cities and villages suffered more than those of Belgrade.

Overall, 97 percent of households reported that when water is available it is available for 24 hours a day. For the other 2.8 percent (76 households) water was available, on average, for fifteen hours a day.

11.6. Coping strategies to improve WSS access

If the main drinking water source is not available, households have three options:

1. use alternative potable water source
2. use saved/stored drinking water
3. ask their neighbours for help

Among the three alternatives, by far the most preferred coping mechanism is to use an alternative source of water (67 percent). The first alternative source mentioned by most people is bottled water (71 percent), followed by public tap (10 percent) and all types of dug well or springs (12 percent). 26 percent of households use stored water and 22 percent ask their neighbours.

The strategies used to deal with lack of drinking water vary according to settlement type and region. An alternative source is used by 74 percent of residents of secondary towns compared to 59.5 percent in rural areas (Table 3). Turning to a neighbour for help is the least likely strategy used but it is three times much more likely in rural areas when compared to Belgrade (31 percent compared to 13 percent). The qualitative interviews highlighted the high degree of solidarity among villagers who have wells with good drinking water not to charge their neighbours for using them[6].

Vojvodina residents are most likely to use an alternative source of drinking water while those living in South East Serbia are those most likely to request help from neighbours.

Table 11.3. Coping methods used if drinking water not available by type of settlement

	Belgrade	Secondary towns	Rural
Use alternative drinking water source	70.9	73.8	59.5
Use previously saved/stored drinking water	22.8	27.4	26.5
Ask neighbours for help	12.8	15.8	31.2
Total	**100%**	**100%**	**100%**

N=2744

11.7. Strategies to cope with unreliable quality of water supply

Despite the availability of a wide range of products for treating poor quality water (including single and dual staged filtration systems) in specific water and sanitation stores as well as larger centres selling furniture and household appliances very few households use such products. The prices of the filters range from 1 900 dinars for a simple mechanical filter to 11 000 dinars for more sophisticated models for the whole household. High prices and overall confidence in the water from the central piped supply are the main reasons for this consumer preference.

Overall only 7 percent of the population has treated their water to make it safer to drink. This activity is highest in rural areas (9.4 percent) and in SE Serbia (10.4 percent). Of the 199 households (7 percent of the population) who reported treating their water, most use chlorine (34 percent) and water filters (29 percent); fewer boil the tap water (23 percent) or let it stand and settle (8 percent).

The frequency of treatment varied by type of settlement; "Today" was mentioned by 79 percent of Belgrade residents and 51 percent in other towns and only 19 percent in rural areas. In rural areas, a greater proportion of households made an effort to improve the quality of their potable water - but less frequently than those households in Belgrade and secondary towns.

11.8. People's suggestions for improving water supply

When asked which two improvements are needed for their existing water supply two fifths of respondents (42 percent) said there was no need for improvement. The differences among urban and rural areas in the level of satisfaction are not major; surprisingly there is somewhat lower level of satisfaction in Belgrade than elsewhere. Equally surprising is the finding that an overwhelming majority (72 percent) of households in West Serbia region feels there is no need for improvements; the level of satisfaction is also remarkably high in South East and East Serbia regions.

Table 11.4. First improvement to make to water by region

	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	SE Serbia
Increased pressure	14.5	19.7	8.6	27.7	15.3	17.9
Improved taste	19.3	28.5	4.3	22.6	19.8	8.7
24 hour service	3.6	2.2	7.9	3.7	5.4	2.4
Improved safety	16.8	9.2	6.9	8.7	8.5	11.2
No need for improvement	39.0	36.1	71.6	28.3	43.5	54.7
Other	6.8	4.3	0.7	9.0	7.5	5.1
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

N=2280

The improvements varied by both type of settlement and region. Generally improved pressure was given more importance in rural than in non rural areas. Highest level of satisfaction with the existing water supply was found in West Serbia and the lowest in Sumadija.

Those who felt improvements were needed mentioned first the taste of the water and the pressure; almost 11 percent also asked that the safety should be improved regardless of the taste of water. Across different types of settlements and various geographical regions demand for 24 hour supply of water was not a salient issue; rather, improved quality measured in terms of taste and safety appeared to be far more important than many other features of water supply. Fewer households mentioned a second type of improvement; those focused predominantly on safety (or the enhanced quality), improved taste and a more continuous provisioning of water. The improvements varied by both type of settlement and region.

Rural households underlined the importance of "improved pressure" more than urban/secondary towns. Highest level of satisfaction with the existing water supply was found in West Serbia and the lowest in Sumadija.

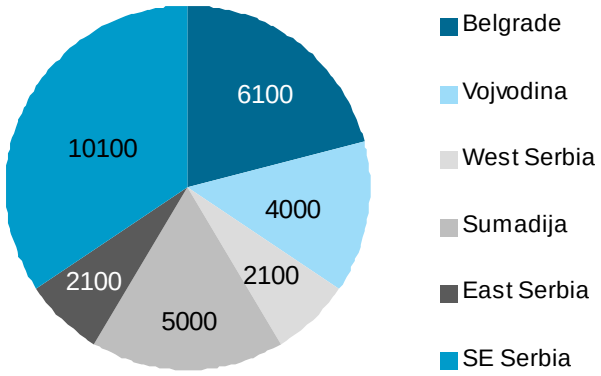
11.9. Payments

Overall 90.9 percent of those households connected to the public or local water supply paid for water. Payment rates were highest in Belgrade and lowest in West Serbia. Of the 264 households who said they did not pay, affordability was the main reason in urban areas; in rural areas, those who did not pay did so because the service was free. The average weekly payment is 114 dinars[7] (standard deviation of 101 dinars), When asked about water payment arrears almost 10 percent of the sample (n=226) had arrears. Non payment was highest in secondary towns (12 percent), followed by the rural areas (9 percent). The average debt was 4 788 dinars. There was a large standard deviation of 12 763 dinars as some households were heavily in debt.

11.10. Access to waste water systems

Overall, the access to sewerage services is not high in Serbia with only slightly over half (55.6 percent) of households are connected to a central piped sewerage system and 44.4 percent not. There is a wide discrepancy in connections depending on the type of settlement and the region of the country. The urban/rural divide is very large with great majority of the households in the Capital city being connected to the sewerage network; in the rural areas, on the other hand, only one out of 5 households could dispose of their waste water through a formal system The rate of connection was lowest in Vojvodina and East Serbia.

Graph 11.2. Average amount of debt with water payments by region



When asked about how the waste water was discharged, there were also large differences between type of settlement and region. In Belgrade city and the Belgrade region, as well as in secondary cities/towns over three fourths of the households stated that they were connected to a central piped system and that the water they used for bathing, washing, cooking, etc., was discharged in the piped system as well. About a fifth of the rural households stated connection to a piped sewerage system, yet when asked where the water they used was discharged, only about 14 percent of the households mentioned the central sewer system; a large majority stated that the waste water was discharged into a cesspool or septic tank and this method was most widely used in Vojvodina and East Serbia.

Most of the rural areas visited use outside toilets and simple pit latrines. Wealthier households, especially those closer to urban centres, rely more on septic tanks, but these are very rarely built according to standards. Some households transformed the wells that they no longer use into de facto ready made septic tanks which is extremely dangerous for the quality of the water from the wells they extensively use. There were several

reported outbreaks of jaundice related to the problem of contaminated wells. Waste water is most of the time disposed in the ground, or in the nearby waterways such as rivers or streams. Rural households were disadvantaged both in terms of connections to piped water and to waste water systems.

Table 11.5. Whether residence is connected to a central piped sewerage system by region

	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	SE Serbia
Yes	77.8	41.7	52.1	56.9	48.7	56.6
No	22.2	58.3	47.9	43.1	51.3	43.4
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

N=2744

11.11. Sanitation facilities

The type of toilet use by the household also shows significant differences between type of settlement and region. Nearly all homes in Belgrade use a flush or pour flash toilet connected to the sewerage system. In rural areas, on the other hand, most toilets are connected to a septic tank and over one fifth of households use a pit latrine. The regional differences were significant; households in Vojvodina relied heavily on septic tanks whereas in the Belgrade area nearly 78 percent of households had flush toilets connected to the central sewerage system.

11.12. Sanitary and solid waste management

Households using a cesspool or septic tank were asked how the tank was emptied. Overall, most households used a cleaner service to come and empty the tank. In rural areas 7 percent of households emptied it themselves. Residents of East Serbia were most likely to empty it themselves and least likely to pay for the service. The average cost of the 580 households who paid to have the tank emptied was 1 487 dinars (standard deviation 1 267 dinars).

Households with young children (aged less than five years) were asked how they disposed of their children's waste. Most households reported that they put the stools in the toilet or latrine (34 percent) followed by the child using the toilet themselves (26 percent) and one fifth of respondents reported throwing the waste into the garbage (22 percent).

When asked what they did to dispose of non sanitary (solid) waste most respondents mentioned they left it out for municipal water collectors (Table 6). Belgrade residents did not mention waste disposal while those living in secondary towns and rural areas did. Waste collectors' involvement in collecting the waste was the method most often mentioned in secondary towns, while in rural areas burning waste was the most often used method.

Table 11.6. Methods used to dispose of solid waster, number of mentions

	Mentioned times
Waste collectors	1 593
Burn it	687
Neighbourhood collection and local disposal	267
Compost	126
Bury in yard	86

11.13. Contact with water suppliers

Households in Serbia appeared relatively satisfied with their WSS system. Respondents were also asked if during the past two years they brought an official complaint about their water supply or sewerage service to any authority. Only 3 percent of households (n=67) reported having made an official complaint and there were no differences between type of settlement or regions.

Households connected to piped water or to the sewerage network were asked if they regularly received information from the water authority when water cuts or shortages will occur. Overall, less than half of the households (44 percent) received the relevant information regularly while others did not; 24 percent said information was received irregularly, 18 percent never received information and 15 percent did not know. This varied by type of settlement and region with secondary towns residents most likely to receive information. This is expected since the households in secondary towns reported higher incidence of water cuts; while rural areas also suffered from water cuts as much as the residents of secondary cities, they were the least likely to receive timely information. The residents of the Vojvodina region also received water information far more often than other regions.

11.14. Enumeration District Questionnaire

In April 2007, the Heads of the Regional Offices of RSO were asked to complete a short Enumeration District (ED) questionnaire on the 510 Enumeration Districts (EDs). This questionnaire gathered information on facilities and infrastructure of each ED included in the LSMS sample. The results from this survey have been merged with the household level data.

The ED questionnaire confirmed that in Belgrade and the other urban areas piped water system was available to all residents. The ED questionnaire clearly showed the availability of formal waste collection systems in both the Capital city and in other urban areas. In the rural areas, on the other hand, less than half of the communities had a formal waste collection system; some buried their solid waste, others threw it to nearby rivers, piled it in their back yard or took it to a local dump. Regional differences were also prominent; Belgrade and Vojvodina regions were predominantly served by municipal collectors whereas; the situation in other regions was more complicated.

If the main method of waste disposal in the ED was collection, the respondents recorded whether this service had to be paid for. In urban areas nearly all households pay for solid waste services. About a quarter of rural households did not pay for services even when their waste was collected.

The tendency for not paying for solid waste services was highest in West Serbia. Waste is most often collected in secondary towns. In almost a fifth of cases in Belgrade waste collection took place only 1 -3 times a month (Figure 4). The waste disposal service is most frequent in SE Serbia.

11.15. Irrigation and drainage system in rural areas

In rural area, the heads of the regional offices were asked a number of questions on the irrigation and drainage system in the ED. The drainage system in Vojvodina is much more developed than in other parts of the country. However, most respondents in Vojvodina felt that the drainage system was in an emergency state. Belgrade seems to have a drainage system in best condition but the necessity for irrigation was rated highest in Belgrade and the lowest in West Serbia.

Table 11.7. Condition of the system of drains by region

	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	SE Serbia[8]
Functioning uninterruptedly	21.7	-	-	-	-	-
Functioning with minor disturbances	53.4	22.3	52.1	38.3	50.9	-
In an emergency state	24.9	77.7	-	61.7	29.9	-
Does not operate	-	-	47.9	-	19.2	-
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

N=259

Table 11.8. Estimation of the necessity of irrigation by region

	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	SE Serbia
Not necessary	42.8	41.5	51.1	37.7	52.8	24.1
Necessary for part of arable land	14.7	21.0	24.7	23.1	17.8	42.5
Necessary for all arable land	42.5	37.5	24.2	39.2	29.4	33.4
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

N=1303

11.16. Conclusions

1. In Serbia, water supply and sanitation services reveal important differences by settlement type and region. There is wide discrepancy in access to piped (centralized) services between Belgrade and rural areas, while secondary towns are in between depending on the region they are located in. The quality and availability of service in Belgrade is mostly satisfying.
2. The priority of the people is not having a 24 hour service but a regular, safe and reliable service. The services in rural areas require improvement and centralized water supply and sanitation services could be extended to those rural areas where services are not available. Currently, only the rural areas closer to urban settlements especially close to Belgrade benefit from extension of services.
3. WSS investments appear to be more needed in some regions than in others. For example, the conditions are generally satisfactory in the Belgrade region; but the survey illustrated that East Serbia is lagging behind in connections and overall water availability, thus investments to this region to enhance the standards would be important.
4. Rural households are the most disadvantaged. Rural households not only lack centralized water but also sewerage. Connection to central piped sewerage system among rural households is low.
5. Outside urban areas, solid waste management services are not available.
6. Irrigation and drainage system is in an emergency state in Vojvodina, and Sumadija.

Endnotes, Part 11

[1] All serial numbers ending with an even number

[2] Bartol Letica, a WB qualitative interviewer, visited Belgrade, Kraljevo, Krusevac and Zrenjanin and a number of villages in Nis, Kraljevo, Zrenjanin counties and Podavalje region. Discussants and counterparts in these locations included local authorities, water management companies, small businesses, hospital and school directors, salespeople working in shops selling WSS equipment and parts, and individual households. Most of the interviews were one-on-one while some gradually developed into focus groups format as more interested residents/interlocutors joined the conversation by offering their opinions and views. Some of his results are presented here.

[3] "Federal Republic of Yugoslavia: Water Supply, Wastewater and Solid Waste Management," p. 2.

[4] Improved sources of water include public and rural water supply, public tap/standpipe, dug well, protected dug well or standpipe, bottled water. Unimproved sources include unprotected well or standpipe, tanker truck or lake/river/stream.

[5] The sources of water used for purposes other than drinking (cooking and bathing) were similar to those indicated for drinking

[6] The most telling instance of this came out during a qualitative interview in one of the villages in Podavalje where two neighbors had a very serious argument and stopped talking: regardless, one sent a message to the other through another neighbor that all that did not mean that he could not still get the water from the well.

[7] Calculation based on 1978 households who gave a non-zero amount

[8] SE Serbia has no responses to this question as they all respondents in this ED stated that the drainage system was not at all developed

In terms of the necessity for irrigation this was rated highest in Belgrade and the lowest in West Serbia.

Rachel Smith–Govoni and Gorana Krstic

12 Methodology

12. METHODOLOGY

12.1. Fieldwork

Approximately 90% of the LSMS questionnaire was based on the 2002 and 2003 LSMS questionnaire, carrying forward core measures in order to measure trends over time. The survey incorporated two methods of interviewing - one involving the interviewer (*face to face*) and the other was a self-completion diary. All modules, with the exception of the consumption diary, were filled by the interviewer with the respondent. The diary was left in the household and filled in by the household member in charge of daily purchases.

Fieldwork consisted of three phases. The first phase involved identification of the household and filling of certain modules, after which the household was instructed how to keep the diary of consumption. In the second phase each household kept the diary, while the interviewers were obliged to visit the household and help them in fill the diary where needed. In the third phase the interviewer visited the household again, examined the diary to see whether it had been correctly filled, and conducted the interview for the remaining modules. Distribution of modules according to phases is presented in the following table.

Table 12.1. Organisation of modules by phases of data collection

1. Demography and migration	1.phase:
2. Durable goods	
3. Social programs	
4. Health	
Household consumption	2.phase
5.1 Daily consumption	
5.2 Monthly consumption	
6. Education	3.phase
7. Employment	
8. Agriculture	
9. Water and sanitation	

Although the majority of questions were identical between LSMS 2002, 2003 and 2007, two new modules were added to LSMS 2007:

1. United Nations High Commission for Refugees: Survey of IDPs

UNHCR, with support from UNDP were planning to undertake a survey of Internally Displaced People (IDPs) in the early part of 2007. The aim of the survey was to examine the living standards and poverty profile of IDPs. UNHCR, having heard of a likely upcoming LSMS in 2007, approached DFID to identify if the two surveys could be complimentary.

The IDP survey took place at the same time as the national sample. The sample size was 2 000 households (of which 250 are Roma households) and the sample frame was the UNHCR database of IDPs. *The questionnaire was identical for both samples***.** A migration module, with some items specific to the IDP population (in both samples) was added to the LSMS questionnaire.

2. World Bank: Water and Sanitation Services Module (WSS)

The WSS module was administered to half of the national sample (all serial numbers ending with an even number). Therefore the sample size for this module is 2744 households.

In order to gather inputs from key users of data the questionnaire was widely circulated, with support from the PRS unit. A pilot of 80 households took place from 19-28 March. A debriefing session was held and a few revisions made to the questionnaire. Final versions of the questionnaire were produced in the following languages:

1. Serbian
2. English
3. Albanian
4. Romany

As part of LSMS two further questionnaires have been created and administered:

- Enumeration District questionnaire, - 510 completed.

- Rental questionnaire – in which the market value of various property types has been collected.
- Other fieldwork documents produced by RSO in the period from March to May include:
- Interviewer and supervisor instructions
- Control form
- Advance letter and leaflet
- A gift - coffee and biscuits, were given to each household interviewed.

In May 2007 a lot of effort was put into advertising the LSMS prior to fieldwork (in order to maximise response). The following activities were undertaken:

- Press conference (Sava Media Centre, Belgrade, 8th May 2007) with six teams for Television, two for Radio and fifteen journalists.
- A leaflet for potential respondents distributed to approximately 1 300 home addresses in Belgrade, in cooperation with INFOSTAN (Secretariat for Utilities and Housing services);
- A leaflet with basic information on LSMS was distributed in Belgrade and municipalities that are covered by the regional offices;
- Posters, announcing the survey were distributed in municipalities throughout Serbia;
- Business portals (E-gate, Vibilia);
- Visits to some electronic media in Belgrade and to the HQs regional offices (informative and other sorts of broadcasts);
- Visits to Index radio, Belgrade and to some local radio stations;
- Information and a short animation regarding the LSMS were presented on the RSO website.

Two TV stations (TV Fox and RTS 1) filmed an interview taking place within a household. During fieldwork, after an early analysis of the response rate (based on progress chasing) contact with potential respondents was intensified, primarily via television presentations, urging them to co-operate in the survey.

The RSO PR dept continuously provided information relating to LSMS to all interested institutions, journalists and individuals. In total LSMS was shown on twenty six television reports. Plus there were twenty four reports in the Press, eleven on Radio and two via business portals. Due to this intensive and innovative PR strategy the final response rate achieved for the survey was particularly good (80.6%).

Interviewer and supervisor briefings took place from 10-19 May. Briefing sessions were conducted at the regional offices. All field staff were provided with Instructions which contained the basic information needed for survey administration, each session was conducted semi-formally, with opportunities for questions and answers as well as for further explanation. UNHCR and WB representatives participated in briefings in Belgrade, Sremska Mitrovica, Valjevo, Pančevo, Smederevo and Novi Sad.

During each briefing session, the sample addresses were distributed to each interviewer and discussed with them in detail. Ample time was allowed for a clear understanding of the materials, quantity of work expected from each interviewer and the procedures to be followed in conducting the work. Prior to leaving the briefing session each interviewer thus had: an assignment, field administration forms and a supply of survey questionnaires.

Each viewer was allocated, on average, 28 households. The main data collection period was scheduled for six weeks (the second half of May and all of June). In June controls on interviewers work were undertaken by supervisors. In addition 160 households were checked by WB, UNHCR and UNDP representatives – very few anomalies were found. Fieldwork ended on July 6 2007.

Instructions for editing were provided created at RSO by the person responsible for each module in the questionnaire. Questionnaires were edited at the central office and then given for data entry. Visual basic was the chosen data entry software. The program consisted of two main features intended to reduce the number of keying errors and to reduce the number of errors generated by the computer consistency check undertaken following data entry:

- Data entry screens that included all skip patterns.
- Range checks for each question

The DE program was tested by those responsible for development of each module in the questionnaire. Data entry training was undertaken in June. DE staff was instructed to clear all anomalies with SIG fieldwork members. Data entry and the coding of three open-ended items (occupation, industry, highest level of education) were completed in August.

12.2. Data production

Data files are available in SPSS. The data is fully documented and available from the World Bank website. (www.worldbank.org/lsms).

Identifiers The key variables for linking the files are:

1. Opstina (municipality)
2. PopKrug (enumeration district)
3. Dom (household number within ED)
4. Lice (person number within the household)

Structure of SPSS files

Name of file	Description	Number of cases
	HOUSEHOLD LEVEL	
Household	Date of visit, length of time of interview etc. migration data for IDPs from Kosovo and Metohija Durable goods owned by the household Housing, Social benefits, Household subjective financial status, Agricultural holding, water and sanitation supply and expenditure, weights	5 557
	INDIVIDUAL LEVEL	
Individual	Basic demographic details of all household members Migration questions Take up and non-take up of Child Allowance Health status of all Preschool, school and university education Employment, using LFS definitions to all adults aged 15+	17 375
	OTHER	
Durables	Ownership of durables in the household	48 060
Diary	One week diary completed by household on expenditure on food and drink	196 702
Nonfoodconsumption	Expenditure on non food items	248 064
Data_for_imputting_rents	Data on housing value and size for various types of accommodation	689
EnumerationDistrict	Questions on infrastructure and services for each ED in the sample	510
ED_section3	Section of the Enumeration District questionnaire that gathers data on projects to improve the infrastructure that have been completed in the last few years in each ED	465

12.3. Sampling

12.3.1. Sample description

The population for LSMS consists of Republic of Serbia residents, excluding Kosovo and Metohija. The sampling frame for the LSMS was based on the Enumeration Districts (ED) delineated for the 2002 Serbia Census, excluding those with less than 20 households. It is estimated that the households in the excluded EDs only represent about 1 percent of the population of Serbia.

The sampling frame also excludes the population living in group quarters, institutions and temporary housing units, as well as the homeless population; these groups also represent less than 1 percent of the population, so the sampling frame should cover at least 98 percent of the Serbian population.

Stratification was done in the same way as for the previous LSMSs. Enumeration Districts were stratified according to:

- Region in 6 strata (Vojvodina, Belgrade, West Serbia, Sumadija and Pomoravlje, East Serbia and South East Serbia).
- Type of settlement (urban and other).

The allocation of EDs according to region and type of settlement was proportional to the number of occupied dwellings, adjusted to provide sufficient precision of estimates at the regional level. To provide optimal sample sizes in each region we decided that the minimum number of allocated EDs to each stratum should be 60. The result of this procedure was a slight deviation from strictly proportional allocation.

The sample size for LSMS 2007 was 7140 households from 510 selected EDs. Within each ED 14 occupied dwellings were selected. From each selected occupied dwellings one household was selected (using a Kish Grid). The sample size was determined according with the aim of achieving 5 000 household interviews with an expected non-response rate of around 30%. The final response rate was 78%, producing a sample size of 5 557 households.

A three stage stratified sample was used.

1st stage – Enumeration District selection

EDs were selected systematically with probability proportional to size (PPS) within each stratum (region and settlement type) from the list of EDs. The size of each EDs was the number of occupied dwellings according to Census 2002. EDs were sorted within each stratum according to the serial numbers. Using systematic selection on the sorted list a high level of implicit geographical stratification and effective sample distribution was achieved.

2nd stage – Occupied Dwelling selection – including an update of dwellings in selected EDs

Occupied dwellings were selected from each selected ED (selected in the first stage) from updated dwelling lists systematically with equal probabilities.

Update of EDs

Although time was short and funds were not yet available it was agreed that it was important to update the selected EDs before specific dwellings were selected. The update took place from 5-15 April 2007 with data entry completed two weeks later.

The observation unit for updating was each dwelling (household) in an ED. From 2002 Census 510 EDs were selected (114 Belgrade and 396 in other parts of the country). Enumerators were given a map showing the borders of the ED and a list of dwellings. The map and the description of the ED were compared to the actual situation. If a street title was changed, the new address was written onto the list of dwellings. If a new street or dwelling had been constructed, the street name and the house number were added to the list and coded. If a dwelling no longer exists it was crossed out and coded. All dwellings were included even if inhabited by persons were not owners (tenants) and if there was any doubt as to whether a dwelling was occupied or not, it was included.

3rd stage – Households within occupied dwellings

The majority of occupied dwellings consist of one household. If the selected dwelling was occupied by one household then that household was automatically selected. In cases where a selected dwelling was occupied by more than one household the interviewer randomly choose one household using a Kish Grid.

The overall probability of selection of a sample household can be expressed as follows:

$$p_{hij} = \frac{n_h \times M_{hi}}{M_h} \times \frac{m_{hi}}{M'_{hi}} \times \frac{1}{k_{hij}},$$

where:

p_{hij} = overall probability of selection for a sample household in the j-th sample dwelling unit selected in the i-th sample ED in stratum h

n_h = number of sample EDs selected in stratum h

M_{hi} = number of occupied dwelling units from the 2002 Serbia Census frame for the i-th sample ED in stratum h

M_h = total number of occupied dwelling units in the 2002 Census frame (cumulated measure of size) for stratum h

m_{hi} = 14 = number of occupied dwelling units selected for the LSMS from the updated listing in the i-th sample ED in stratum h

M'_{hi} = number of currently occupied dwelling units the i-th sample ED in stratum h from the updated listing

k_{hij} = number of households in the j-th sample dwelling unit selected in the i-th sample ED in stratum h

The three components of this probability correspond to the three sampling stages. Most of the occupied dwelling units (almost 98 percent) only have one household, in which case the last component of this probability would be equal to 1. Table 2 shows the number of interviewed sample households by the number of households in their dwelling unit (k_{hij}).

Table 12.2. Distribution of 2007 LSMS Sample households by number of households in dwelling unit

No. Households in dwelling unit	No. Sample households	Percent
1	5 443	97.9
2	97	1.7
3	16	0.3
4	1	0.0
Total	**5 557**	**100.0**

12.4. Weighting

The basic sampling weight is calculated as the inverse of this probability, which can be expressed as follows:

$$W_{hij} = \frac{M_h \times M'_{hi} \times k_{hij}}{n_h \times M_{hi} \times m_{hi}},$$

where:

W_{hij} = basic sampling weight for a sample household in the j-th sample dwelling unit in the i-th sample ED in stratum h

After the LSMS data collection, this basic weight was adjusted for non-interviews as follows:

$$W'_{hij} = W_{hij} \times \frac{m'_{hi}}{m''_{hi}},$$

where:

W'_{hij} = adjusted weight for the j-th sample dwelling unit in the i-th sample ED in stratum h

m'_{hi} = number of valid sample occupied dwelling units in the i-th sample ED in stratum h, excluding any dwelling units found to be vacant or demolished

m''_{hi} = number of selected dwelling units with a completed LSMS questionnaire (that is, number of completed household interviews) in the i-th sample ED in stratum h

The following categories were used to identify the final interview status of each sample household (or dwelling unit):

(1) Interviewed
(2) Temporarily absent
(3) Refusal
(4) Illness
(5) Language problem
(6) Empty, derelict

The number of valid sample occupied dwelling units (m'_{hi}) is based on interview status categories (1) through (5), and the number of completed interviews (m''_{hi}) was based on category (1). Table 3 shows the distribution of the sample occupied dwelling units by interview status. The dwelling units classified as category (6) were considered out of scope, since no persons lived there. There were a total of 246 household records with interview status category (6). One reason this number is relatively high is that dwelling units for which the occupancy

status was unknown at the time of the listing were included in the second stage sampling frame to ensure that any households in these dwelling units were included in the frame; some of these dwelling units were found to be unoccupied at the time of the LSMS interview. Excluding the sample dwelling units in category (6), the unweighted unit response rate for the 2007 LSMS is 80.6 percent.

It can be seen that the main reason for noninterviews was (3) Refusal. Although this response rate is considered reasonable compared to that for other household surveys, the characteristics of the 19.4 percent of sample households that did not respond may be somewhat different from those of the responding sample households, resulting in a corresponding bias in the survey results.

The first two components of the weight and the non-interview adjustment factor were calculated at the level of the sample ED, and were attached to the data record for each household in the ED. This dwelling unit weight was then multiplied by the number of households in the sample dwelling unit (k_{hij}) for each household record. The final weights based on these specifications were generated by Mira Ogrizovic, RSO using the SAS software, and independently verified by the consultant David Megill.

The weights specified above are based on the sample design. It is important to examine the weighted estimates of the total number of households and population by stratum (region, urban and rural) in order to compare these results to the population distribution from the 2002 Census and other sources. This enables evaluation of the implementation of the sample design and identifies potential biases in the sampling frame.

Table 12.3. Distribution of 2007 LSMS Sample households by interview status

Code	Interview status	No. Sample households	Percent
1	Interviewed	5 557	77.8
2	Temporarily absent	236	3.3
3	Refusal	1 020	14.3
4	Illness	61	0.9
5	Language problem	20	0.3
6	Empty, derelict	246	3.4
Total		**7 140**	**100.0**

Table 12.4. Comparison of Weighted Total Number of Households from 2007 LSMS and Corresponding Number from the 2002 Census Frame, by region, urban and rural

Region	Total			Urban			Rural		
	2007 LSMS	2002 Census	% Diff.	2007 LSMS	2002 Census	% Diff.	2007 LSMS	2002 Census	% Diff.
Belgrade	512 992	555 588	-7.7	434 404	464 291	-6.4	78 588	91 297	-13.9
West Serbia	228 297	260 278	-12.3	94 822	105 641	-10.2	133 475	154 637	-13.7
Šumadija	365 292	402 793	-9.3	185 852	207 292	-10.3	179 440	195 501	-8.2
East Serbia	188 403	220 097	-14.4	90 818	110 032	-17.5	97 585	110 065	-11.3
SE Serbia	273 406	329 073	-16.9	143 286	164 726	-13.0	130 120	164 347	-20.8
Vojvodina	650 578	699 799	-7.0	382 507	406 553	-5.9	268 071	293 246	-8.6
Total Serbia	**2 218 968**	**2 467 628**	**-10.1**	**1 331 689**	**1 458 535**	**-8.7**	**887 279**	**1 009 093**	**-12.1**

12.4.1. Comparing number of households in LSMS 2007 and Census 2002

The units of analysis for the 2007 LSMS are individual households and the persons in those households. Since the weights were calculated at the level of the household, the first comparison with the 2002 Serbia Census results was based on the weighted total number of households. Table 4 shows the weighted total number of households by region, urban and rural strata from the 2007 LSMS data, using the final adjusted weights, and the corresponding number of households in the 2002 Census frame for each stratum. The number of households from the Census frame excludes the households in EDs with less than 20 households, so it should be directly comparable to weighted estimates from the LSMS. It can be seen in Table 4 that the overall estimated total number of households from the 2007 LSMS based on the final weights is about 10 percent lower than the corresponding figure from the 2002 Census frame. The difference is larger for the rural strata (12.1 percent) than the urban strata (8.7 percent). These differences probably include an actual decline in the number of households in some strata and may also reflect the quality of the updating of the listing of occupied dwelling units in sample EDs.

12.4.2. Evaluation of update of EDs

During the update operation dwelling units were coded as "occupied" when the occupancy status was unclear, to ensure that all households had a chance of being selected; this is taken into account in the weighting procedures. However, it is still possible that some enumerators did not completely cover the ED boundaries during the update operation. In order to examine this possibility, the number of occupied dwelling units from the updated frame in each sample ED was compared to the corresponding number from the 2002 Census frame used as the measure of size for the first stage sample selection with PPS.

The differences varied by sample ED. Overall the unweighted number of occupied dwelling units identified in the updated listing for the 510 sample EDs was 5.7 percent lower than the corresponding number from the 2002 Census frame for these EDs. The difference was higher for the rural EDs (8.7 percent) compared to the urban EDs (4.0 percent); this is consistent with the understanding that there is more emigration from the rural areas (both international and to urban areas).

12.4.3. Definition of a household in LSMS 2007 and Census 2002

It is possible that the concept of household may have been applied slightly differently during Census 2002 and LSMS 2007. For example, when two or more families were living in a housing unit, some Census enumerators may have been tempted to consider each one a separate household, regardless of the financial or eating arrangements, since they were paid based on the number of questionnaires completed.

The average number of households per occupied dwelling unit for the 2002 Census was 1 036, compared to 1 024 for the 2007 LSMS, so the difference is relatively small. The average number of persons per household in the 2007 LSMS was 3.10, compared to 2.97 in the 2002 Census, so these figures are also relatively close. Therefore it seems a differing concept of "households" does not explain the reduction of households between 2002 and 2007.

12.4.4. RSO population projection of 2006

It is also important to compare the 2007 LSMS weighted estimates of total population by region to corresponding estimates from other sources such as the population projections based on demographic analysis.

Table 5 shows the weighted population estimates by region from the survey data and the corresponding RSO population projections for 2006. It can be seen in Table 4 that the 2007 LSMS weighted estimates of total population are 7.0 percent lower than the corresponding projections for 2006. The 2006 projections were compared to those for 2005, indicating a small annual decrease of about 0.4 percent. Therefore it is expected that the population projections for 2007 may show a similar slight decline in the population.

In reviewing Table 5 it is also necessary to take into account the population excluded from the sampling frame for the LSMS (such as the population living in EDs with less than 20

households, those living in institutions or group quarters, and persons who are homeless or living in temporary houses). It is estimated that the LSMS sampling frame excludes less than 2 percent of the population of Serbia.

The 95 percent confidence interval for the 2007 LSMS estimate of the total population is 6 714 557 to 7 064 104, so the difference between the LSMS estimate and the population projection is statistically significant and cannot be explained by sampling error alone. It should also be pointed out that the 2006 population projections are based on vital statistics (birth and death rate) and do not take into account the population that has emigrated internationally; this probably accounts for part of the difference.

Due to the update of occupied dwelling units in sample EDs the LSMS 07 weights should reflect a more recent distribution of the population by region, urban and rural strata. Most of the estimates from the 2007 Serbia LSMS survey data will be in the form of relative indicators, such as averages and proportions, so even if there were deficiencies in the Update for some sample EDs, they should not have a significant effect on the accuracy of the survey results.

Table 12.5. Comparison of Weighted Total Population from 2007 LSMS and Corresponding Projected 2006 Population, by region

Region	2007 LSMS	2006 Projection	% Diff.
Belgrade	1 524 150	1 602 861	-4.9
West Serbia	720 351	811 108	-11.2
Šumadija	1 160 963	1 283 780	-9.6
East Serbia	610 775	671 186	-9.0
South East Serbia	933 902	1 040 036	-10.2
Vojvodina	1 939 191	2 002 598	-3.2
Total Serbia	6 889 332	7 411 569	-7.0

12.4.5. Adjustment of 2007 LSMS Weights Based on Projected Population

In order to make the weighted estimate of the total population from the 2007 LSMS data more consistent with the projected total population for Serbia based on the vital registration data and demographic analysis, the RSO decided to adjust the weights by a constant factor of 7 411 000/6 889 332, where the denominator of this ratio is the preliminary weighted total population from the LSMS data presented in Table 5. Although this adjustment will increase the survey weighted estimate of the total population to 7 411 000, the relative distribution of the population by region, urban/rural and other characteristics will remain the same. As a result, the survey estimates of relative indicators, such as averages, proportions and other ratios will be the same as those using the previous weights. Table 6 shows the new 2007 LSMS estimates of the total population by region, urban and rural domains based on the adjusted weights. The slight difference from the total projected population at the national level is due to an insignificant rounding error.

Table 12.6. New Estimates of Total Population by Region, Urban and Rural from the 2007 LSMS Data, based on the Adjusted Weights

Region	New 2007 LSMS Weighted Estimates		
	Urban	Rural	Total
Belgrade	1 350 629	288 932	1 639 561
West Serbia	312 764	462 133	774 897
Šumadija	631 358	617 513	1 248 871
East Serbia	304 936	352 088	657 024
South East Serbia	530 705	473 912	1 004 617
Vojvodina	1 192 840	893 188	2 086 028
Total Serbia	4 323 232	3 087 766	7 410 998

12.5.Poverty Measurement Methodology

Monitoring poverty trends over the period 2002-2007 was made possible by using a virtually identical data source, LSMS, and a comparable methodology for measuring poverty. Applying a comparable approach to the design and implementation of the LSMS (sample, questionnaire, etc.) enabled the use of a comparable methodology for measuring poverty. For both years, the three elements required for measuring poverty, which are household consumption aggregate, poverty line and adult equivalent units were based on comparable methodology. The slightly amended method used in 2007, was also applied for measuring poverty in Serbia in 2002.

Particular elements of the method used for measuring poverty in this study were improved compared to the method applied in 2002-2003 (Krstić, 2007). In order to compare results for 2007 with the 2002 estimates, it was necessary to ecalculate the poverty indicators for 2002 using the same methodology as for 2007.

12.5.1. Consumption aggregate

As in previous poverty research, household consumption was used as the best approximation of living standards, i.e. household well-being in Serbia. It is assumed that household consumption is better declared in LSMS than income and that it is less sensitive to short-term fluctuations, as in other transitional countries.[1]

The household consumption aggregate was estimated using LSMS data. Its two basic components, which include goods purchased, goods produced by the household and gifts received, are: a) the value of food expenditure and b) the value of non-food expenditure.

In order to enable a comparison of living standards and poverty over time, the same definition for household consumption used in 2002 was applied in 2007.[2]

Household consumption was estimated according to the COICOP classification and includes the following expenditure categories: 1) food and non-alcoholic beverages; 2) alcoholic beverages and tobacco; 3) clothing and footwear; 4) housing; 5) furnishings, household equipment and maintenance; 6) health; 7) transport; 8) communication; 9) recreation and culture; 10) education; 11) restaurants and hotels; 12) miscellaneous goods and services.

In additional to regular expenditure (public utilities, electricity, gas and other fuels, telephone and regular maintenance), housing expenditure included the actual rent paid by tenants of apartments/houses and the *imputed rent* for apartment/home owners. Estimates of imputed rent for apartment/house owners were only collected for the primary dwelling, while the actual rent paid by tenants included both primary and secondary dwellings. The method used for imputing rent is explained in part 1.1.1. Unpaid electricity and utility bills, as well as socially-targeted electricity and utility subsidies, were treated as in-kind component of housing expenditure and were included in the total value of rent.

Household consumption included *amortisation for durable goods*. Consumption components which encompass amortisation for durable goods, depending on the durable good, are: a) expenditure for furnishings, household equipment and maintenance; b) expenditure for transport; and c) expenditure for recreation and culture. Thus, for example, amortisation for vehicles is included in COICOP category 7 – transport expenditure, while amortisation

for household appliances is included in category 5 – expenditure for furnishings, household equipment and maintenance, etc.

Health expenditure includes all costs incurred for out-patient, hospital and dental care: formal payments for medical examinations, medication, laboratory tests and medical aids, as well as informal payments and gifts for medical staff. Treatment received abroad, self-medication and alternative medical services were also included.

Education expenditure includes costs of pre-school, primary, secondary and tertiary education, as well as expenditure for additional educational programmes/private lessons.

*Extreme expenditure values (outliers) were excluded at the aggregate level. They were defined as all values lower than 1% of the average consumption per adult equivalent (lower limit) or greater than the median consumption multiplied by 10 (upper limit). All outliers were replaced with the lower or upper limit values (1% of average consumption per adult equivalent or 10*median consumption/adult equivalent) depending on whether consumption per adult equivalent was lower than the lower limit or greater than the upper limit.*

Thus defined, consumption was deflated using the regional price index, so that higher expenditure in some regions would exclusively be the result of higher consumption or consumption of better quality goods, rather than a result of higher prices.

12.5.2. Imputed rent

Rent for dwellings occupied by owners was estimated using a separate survey of the real property market, which included 41 municipalities. Information on the market prices and area (in m²) of dwellings were provided by estate agents, law firms etc. according to the following characteristics:

1. Type of dwelling (one-room, two-room, three-room apartment or house in the city, suburb or house in rural area up to 20 years old, 21-40 years old, over 40 years old)
2. Location (city centre, city – wider centre, suburb, rural area)
3. Method of heating used (central heating, other)[3].

Average prices per square meter, according to the specified property characteristics, were calculated using this data for each of the 41 surveyed areas. To enable data comparability with LSMS 2002 the data was gathered same towns and cities as 2002 (plus the new addition of Surčin).

Town/city	Municipalities of Belgrade
Šabac	Barajevo
Zaječar	Voždovac
Leskovac	Vračar
Vranje	Grocka
Kraljevo	Zvezdara
Kruševac	Zemun
Novi Pazar	Lazarevac
Čačak	Mladenovac
Niš	Novi Beograd
Pirot	Obrenovac
Valjevo	Palilula
Smederevo	Rakovica
Požarevac	Savski Venac
Užice	Sopot
Prijepolje	Stari grad
Kragujevac	Čukarica
Jagodina	Surčin
Aranđelovac	
Zrenjanin	
Novi Sad	
Pančevo	
S. Mitrovca	
Subotica	
Sombor	

The average prices per square meter were imputed for those LSMS households owning property, with the specified characteristics, in the regions/municipalities where the additional survey was carried out. For households in municipalities that were not included in the property survey, the average price per square meter of the regions where those municipalities belong were used according to the property characteristics (location, type of dwelling, heating method). In regions where there were no properties with one of the specified characteristics, for example, central heating in rural areas, the average price per square meter in that region, by location and property type, was used, regardless of the heating method. Finally, if the property survey did not provide data on the dwelling price for a specific property type (e.g. house in the centre in Western Serbia), the average price per square meter by location for the region in question, was used, regardless of the property type.

Based on data on property areas (m²) and the estimated price per square meter, the value of the property owned by the household was calculated. It was assumed that the imputed rent for each dwelling was 1 percent of the value of the property occupied by owners. The same amortisation rate was used for the 2002 survey. For rented properties, the actual

rent paid by the tenants was used. Imputed rent for secondary dwellings was not calculated. The average rent for all households (tenant-occupied and otherwise) more than doubled in 2007 compared to 2002.

The second method for estimating rent for properties occupied by owners was based on the hedonic rental regression estimate, where the dependent variable is the logarithm of the actual rent paid by tenants and the independent variables are the property characteristics: the logarithm of the property area (m²), number of rooms, additional rooms, property type, type of fittings (heating, water supply, sewerage, telephone, intercom, etc.), problems linked to individual parts of the property (damp, leaking roof, ruined walls, etc.), location and region. The goodness of fit of this regression model was high, R^2=0.70, and the property characteristics had the expected sign. The resulting parameters from this regression were used to calculate rent for the part of the population living in their own properties and for whom rent data is unavailable. This rent estimation method has its shortcomings, such as the relatively undeveloped rental market in Serbia – the number of observations in this regression model is small (156 observations) – as well as the fact that a systematic difference can exist between the characteristics of tenants and owners[4]. Regardless of these shortcomings, the results of this method served to compare with results obtained through the separate survey on dwelling values.

A comparison of results obtained by applying these two methods indicates that the amortisation rate of 2% per annum would provide results that are closer to the second method. Using the first method, in 2007, the average estimated rent for households living in their own dwellings was 2 381 dinars per month (1% amortisation rate), while the second method results in 7 514 dinars per month. However, bearing in mind the shortcomings of the second method, and in order to enable comparisons of the results with 2002, the amortisation rate of 1% per annum was retained in 2007 and applied to the estimated property values using the first method.

12.5.3. Imputed value of flow of services from durables

Instead of the expenditure for the purchase of durable goods, the household consumption aggregate includes the value of services which the household acquires through their use. In order to calculate the cost of use of durable goods, the depreciation rate for each durable good must be calculated. The depreciation rate for each durable good can be expressed as follows:

$$\delta - \pi = 1 - (p_t/p_{t-T})^{1/T} \quad (1.1)$$

where δ is the depreciation rate, π is the actual interest rate, p_t is the current value of the durable good, p_{t-T} is the value of the durable good at the time of purchase and T is the age of the durable good.

By taking the logarithm and sorting the equation (1.1), the following is obtained:

$$\ln(p_t)=\ln(p_{t-T}) - T \ln(1- \delta + \pi) \quad (1.2)$$

Since the LSMS only collects data on the current value and age of the durable good, $\delta - \pi$ can be estimated using equation (1.2) by regressing the logarithm of the current value of the durable good to the constant and age, assuming that the current value of the new durable good is a constant. This regression is estimated for each durable good aged up to 30 years[5], previously removing the outliers. Parameters resulting from this regression are used for calculating current values of durable goods for the segment of the population which was unable to estimate the current value of the durable good or whose value was an outlier, as follows:

$$p_t = (\text{estimated current value})_{i,k}=\exp(\delta_k T_{i,k})$$

where δ_k is the estimated depreciation rate of the durable good k.

Table 7. shows the estimated deprecation rates of durable goods in 2002 and 2007.

Finally, the consumption flow from the possession of durable was obtained by multiplying the depreciation rate with the current value of the durable.

Table 12.7. Estimated depreciation rates of durable goods, 2002-2007

	2002	2007
Oven	6.25	7.34
Washing machine	5.99	7.91
Air conditioner	12.73	10.77
Dishwasher	6.71	8.29
Refrigerator with freezer	4.97	6.76
Refrigerator	4.63	6.35
Freezer	5.15	8.17
Microwave oven	5.42	7.08
Vacuum cleaner	4.53	6.28
Iron	3.72	5.67
Satellite dish	5.38	5.79
TV	6.79	7.35
Video recorder	4.64	6.29
Video camera	8.27	11.90
Stereo, CD/DVD player	6.35	5.11
Radio cassette player	5.17	5.43
PC/laptop	12.70	15.33
Motorcycle	7.41	5.93
Car	10.16	9.67
Jeep, van	7.20	9.54

Source: LSMS 2002, 2007.

12.5.4. Regional differences in prices

Differences in the cost of living between regions can lead to the identical goods being more expensive in one region in relation to another. However, differences in expenditure/consumption caused by these regional differences in prices do not reflect the differences in the well-being of the population. Thus, for example, a kilogram of potatoes can cost up to 60 dinars in Belgrade and only 40 dinars in a rural area of Serbia. The benefit from the consumption of a kilogram of potatoes is the same, regardless of the place and price of purchase. To compare the well-being of two households or individuals, their consumption must be corrected with the regional price index. This way, the greater consumption of one household will solely be the result of the consumption of a greater quantity or the consumption of better quality goods, rather than the result of higher prices.

Since the Republican Statistics Office (RSO) only calculates the cost of living index for larger Serbian cities and does not cover rural areas, the LSMS data was used to define and calculate the price index for the relevant regions in Serbia.

The Paasche index was used to deflate consumption with regional differences in prices[6]. The Paasche index for a household living in region r is expressed as follows:

$$P_r = \sum_{k=1}^{K} \left(\frac{Q_{k,r}\, p_{k,r}}{Q_{k,r}\, p_{k,0}} \right)$$

where P_r is the price index for region r, $Q_{k,r}$ is the quantity of purchased good k in region r, $p_{k,r}$ is the price of good k in region r and $p_{k,0}$ is the reference price of good k.

This price index was calculated on the basis of data on 93 food items, so that the total consumption per adult equivalent, excluding rent, is deflated using this food price index. It is thereby assumed that the regional price variations for other goods and services (excluding rent) are similar to the variations in food prices. Since there was no regional data on the unit cost of other goods and services (excluding food), this was the only acceptable method for regional deflation of consumption.

Expenditure for rent (imputed and actual) was deflated using the regional price index of dwellings, which was calculated using data on property prices

from the separate survey on regional property market prices in Serbia.

The food price index was calculated for 6 basic regions in Serbia, as well as for urban/rural areas within each region. Hence, the regional food price index covered 12 regions. These regions were also used to calculate the regional property price index.

As the LSMS did not collect data on prices of goods, the price per unit of a good was calculated as the ratio of expenditures and quantities purchased for each food item. These unit prices were used to calculate the individual food price index for each household. The price of food item k for region r is calculated as the median of the unit price for that good in that region. The reference price $p_{k,0}$ is calculated as the median unit price of that good for the whole country. If the frequency of the price of a food item in one region is less than 5, or if it has been determined that the value is an outlier (5 times greater than the unit price for the whole country or less than one-fifth of the national unit price), then its regional price is replaced with the country-level price of the good. The regional food price index is the median food price index of all households in the region.

Regional food price indices are shown in Table 8. In addition to the 2007 indices, the regional indices used for deflating consumption in 2002 are provided. The variation in regional food prices is significant. As was the case five years ago, in 2007, urban areas in Belgrade were most expensive, while rural areas in South-East Serbia were least expensive. However, the ratio of food prices between the most and least expensive region has increased slightly, from 15.3% in 2002 to 16.8% in 2007.

The regional property price indices were calculated using the same method as for the regional food price indices. Expenditure for rent (imputed and actual) was deflated using the regional property price index provided in Table 8. In 2007, dwellings in the urban areas of Belgrade are still most expensive, while the least expensive are dwellings in rural East Serbia, whereas five years ago dwellings in rural areas of Vojvodina used to be the least expensive. The increase in property prices in rural Vojvodina, compared to the national average, can be attributed to the increased investments in that region.

Table 12.8. Regional food price and property price indices, 2002-2007

Regions	2002		2007	
	Regional food price index	Regional property price index	Regional food price index	Regional property price index
Belgrade, urban	1.054	2.940	1.122	2.563
Belgrade, rural	1.060	0.747	1.064	0.877
Vojvodina, urban	0.976	1.269	1.000	1.060
Vojvodina, rural	0.960	0.424	0.973	0.370
West Serbia, urban	0.959	1.450	1.046	1.073
West Serbia, rural	0.931	0.608	0.986	0.385
Šumadija, urban	0.970	1.627	0.984	1.323
Šumadija, rural	0.929	0.585	0.977	0.540
East Serbia, urban	0.970	1.135	0.987	0.889
East Serbia, rural	0.966	0.501	0.918	0.299
South-East Serbia, urban	0.949	1.417	0.973	1.138
South-East Serbia, rural	0.914	0.447	0.961	0.567
Total	**1.000**	**1.000**	**1.000**	**1.000**

Source: LSMS 2002, 2007.

12.5.5. Equivalence scale

In order to define the level of well-being of individuals, and thereby their poverty level, the total household level consumption collected through surveys must be distributed between household members according to specific criteria.

One of the methods for distributing total household consumption to its members is to divide household consumption by household members. This provides consumption per capita and assumes that each household member is accredited an equal share of household resources (consumption). However, this method is inadequate as different

members require different amounts of resources in order to achieve the same level of well-being. Two important facts which are overlooked during the allocation of the same amount of consumption to all household members are: a) the difference in consumption of adults and children; b) economies of scale i.e. the fact that certain costs are shared between household members, such as expenditures on housing, cars or daily newspapers, etc. Consequently, for example, a four-member household which spends 80 000 dinars per month is wealthier than a one-member household which spends 20 000 dinars per month.

The economy of scale can be approximated by adjusting the household size to the variable representing the equivalent household size. For example, a household with an equivalent size of 3.5 has to spend 3.5 times more in comparison to an adult in order to achieve the same level of well-being as the adult. Apart from household size, sex and age of household members also influence the household consumption required, so equivalence scale can also take into account these characteristics of its members.

Equivalence scale can only reflect the size of the household, and therefore depend on one parameter θ. Consumption per adult equivalent POTpj can be expressed as follows[7]:

$$POTpj=\frac{POT}{n^{\theta}},$$

where: POT - household consumption; n - number of household members; and θ - parameter.

The specific case where θ=1, represents consumption per capita. OECD uses the value of θ=0.7. For a typical household size in countries of East European and the former Soviet Union, the aforementioned equation represents a simplification of the OECD scale, according to which the first adult=1, the second adult=0.7 and children=0.5.

This study uses the OECD scale, which besides the household size, takes into consideration the household composition according to which the first adult = 1, other adults = 0.7 and children up to 13 years of age have a weight of 0.5.[8] This scale is expressed as follows:

OECD equivalence scale =1+0.7*(adults-1)+0.5*children013

The RSO also used this equivalence scale for its annual poverty estimates based on the Household Budget Survey (HBS) for the period 2003-2006. The shift to this equivalence scale[9], which has been recommended by OECD, contributes significantly to international comparability.

12.5.6. Poverty line

Poverty is defined using the absolute poverty line. The absolute poverty line can be defined as the consumption deemed necessary to achieve a minimum standard of living. The poverty line consists of two components: the food poverty line or extreme poverty line, and other household expenditure. Thus the poverty line is defined through two steps.

12.5.7. Food poverty line or the extreme poverty line

The first step defines the food poverty line, which is usually used to define the population living in extreme poverty. This line is defined as the consumption required to meet basic subsistence needs. The population whose total consumption is insufficient to meet the basic subsistence needs is considered to be extremely poor. In order to express this as a monetary amount, the average caloric needs of the Serbian population must be calculated, as defined by World Health Organisation standards, as well as the cost per calorie.

The food poverty line which is determined at the level of the minimum food basket included 93 food items from the 2007 LSMS. The minimum food basket was calculated using the food consumption of households whose total consumption was located in the first three deciles.

Average caloric needs. The average caloric requirements at the national level were determined based on the caloric requirements of different demographic groups, i.e. using the LSMS data from 2007 on population structure by sex and age, and nutritional needs of these demographic groups (Table 9). Caloric requirements of the population by sex and age were based on World Health Organisation (1985) data. The average caloric requirements at the national level calculated using this method amounted to 2 253 calories per day per capita in 2007.

Cost per calorie. The cost per calorie is calculated on the basis of food consumption of those people whose consumption per adult equivalent lies within the first three deciles. The cost per calorie is calculated through a number of

steps. First, the daily caloric value of each good purchased by the household is calculated (including in-kind consumption) by multiplying the quantity of the purchased good with its caloric content by unit measure and dividing this amount by the number of days and equivalence scale used (OECD scale).[10] The caloric content of the quantities purchased is then calculated for each good at the national level, i.e. caloric consumption (by summing the caloric consumption of specific good for all households) and price of the good (median of the price of the good for all households). The cost per calorie for each good is calculated by dividing the price with the caloric consumption for that good. In the next step, the total caloric food consumption is calculated by summing the caloric consumption for all food items. Using this data, the share of the consumption of each food item in total food consumption is calculated (by dividing the caloric consumption for each item with the total caloric consumption of food). The daily cost per calorie for the population whose consumption per adult equivalent lies within the first three deciles is calculated as the weighted average of prices of all goods, where the weights are the shares of consumption of each item in the total food consumption.

Finally, the extreme poverty line (food poverty line) per capita at the monthly level is obtained by multiplying the average caloric requirements at the national level (2 253 calories) with the daily cost per calorie (first three deciles) and the number of days in the month. The food line calculated using this method reflects the current food consumption of LSMS households with the lowest consumption and the prices they pay. Since consumption is expressed per adult equivalent, the food poverty line per capita is adjusted with equivalence scales used. The ratio of the average equivalence scale and the average household size has been used to adjust the food poverty line per capita to the food poverty line per adult equivalent. Consequently, a food poverty line of 4 138 dinars per month per adult equivalent has been obtained for 2007.

Table 12.9. Estimated caloric requirements in Serbia, 2007

	Demographic structure	Daily caloric requirements
Men, 16-60	7.8	2 655
Women, 16-60	11.4	2 099
Elderly people, 60+	32.8	2 006
Children, 0-6	31.8	1 614
Children, 7-15	16.1	2 362
Total	**100.0**	**2 253**

Source: LSMS 2007 and World Health Organisation (1985).

12.5.8. Total poverty line

The second step consists of defining the total poverty line, which in addition to expenditure for food includes expenditure for other goods and services (clothing and footwear, hygiene and furnishings, transport, health, education, etc.). It is determined as the total consumption of those households whose food consumption equalled the minimum food basket. This method resulted in a poverty line of 8 883 dinars per month per adult equivalent in 2007.

In order to estimate the total consumption which corresponds to the minimum consumer basket, the following equations are used:

$$OH = \frac{UPHpj}{MKHpj}$$

$$POTpj = \frac{UP}{PJ * IC}$$

where: OH is the ratio of household food consumption and the minimum food basket of the household; UPH is the total household food consumption (per adult equivalent); MKH is the minimum household food basket (per adult equivalent); POTpj is the consumption per adult equivalent as defined in the preceding part; UP is the total household consumption; PJ is the equivalence scale (OECD scale) and IC is the price index. Variable OH equals 1 when the household

spends on food exactly the amount of the minimum food basket.

In order to obtain the poverty line which corresponds to consumption per adult equivalent at which the respondents spend on food exactly the amount of the minimum food basket, the following relation is estimated using the non-linear least square method:

$$\ln(OH_i) = \alpha_0 + \alpha_1 \ln(POTpj_i) + \alpha_2 \ln(POTpj_i)^2 + \varepsilon_i$$

where i represents the household; $\alpha_0, \alpha_1, \alpha_2$ are the parameters being estimated; and ε_i represents the error.

The estimated regression is solved for the equivalent consumption level at which the households spend on food the amount equal to the minimum consumer basket, i.e., for OH=1:

$$\ln(1) = 0 = \hat{\alpha}_0 + \hat{\alpha}_1 \ln(LS) + \hat{\alpha}_2 \ln(LS)^2,$$

where $\hat{\alpha}_0, \hat{\alpha}_1, \hat{\alpha}_2$ the estimated regression parameters, and LS are is the estimated poverty line.

By solving this equation, the following is obtained:

$$LS = \exp\left(\frac{-\hat{\alpha}_1 \pm \sqrt{\hat{\alpha}_1^2 - 4\hat{\alpha}_0\hat{\alpha}_2}}{2\hat{\alpha}_2}\right)$$

i.e., the poverty line which, in addition to expenditure for food, includes expenditure for other goods and services and amounts to 8 883 dinars per adult equivalent per month (Table 10).

The poverty line for 2002 was calculated by adjusting the poverty line for 2007 with the increase in the cost of living for the period June 2002 - June 2007. According to RSO data, the increase in expenditure for food and non-alcoholic beverages in this period amounts to 49.7%, while the increase in prices of other goods and services (non-food) amounted to 92.1%. The food poverty line from 2007 was deflated by the increase in food and beverage prices in the period June 2002 - June 2007, while the value of non-food expenditures was deflated by the increase in non- food prices during the same period. Hence, the food poverty line in 2002 amounted to 2 764 dinars (4 138/1.497), assuming the structure of food consumption was the same as for 2007. The non-food expenditure in 2002 amounted to 2 470 (4 745/1.921), assuming that the share of non-food in the total poverty line was the same as in 2007 (4 745 dinars). Consequently, the total poverty line in 2002 amounted to 5 234 dinars per month per adult equivalent (Table 10).

Table 12.10. Poverty line in Serbia, 2002-2007

	Poverty line per adult equivalent per month, dinars
2002	5 234
2007	8 883

12.5.9. Comparing poverty between 2002 and 2007

As has previously been mentioned, a poverty comparison between 2002 and 2007 was made possible by using: 1) the same data source - LSMS and a comparable methodology for its design and implementation (questionnaire, sample etc.); and 2) a comparable methodology for calculating all components required for defining poverty (household consumption, adult equivalent units, poverty line).

The LSMS was carried out in both years (2002 and 2007) during the same period (May-June), in order to eliminate seasonal effects. The instrument (questionnaire) for these surveys was the same for both years, with minor additions/amendments in 2007, which enabled the definition of comparable consumption aggregates for both years. Methodological explanations for the 2007 LSMS are provided above (sample, fieldwork etc.).

In addition to this, a poverty comparison for this period was made possible by using the same methodology for measuring poverty. The consumption aggregate in 2007 includes the same components as in 2002. The poverty line was calculated for 2007 and the line for 2002 was obtained by deflating the 2007 poverty line with the increase in the cost of living during the reference period, under the assumption that the consumption structure (expressed as food share and non-food share in total consumption) was the same as in 2007. This enables the monitoring of poverty changes between 2007 and 2002, assuming an unchanged poverty line (actual amount) and an unchanged consumption structure.

However, it should be emphasised that certain aspects of the methodology used for measuring

poverty in Serbia in 2007 were improved in comparison to the method used for measuring poverty for the period 2002-2003, which was published in the paper by Bjeloglav et al. (2007). Since comparing poverty over time assumes that the poverty estimates are calculated using the same method, it was necessary to recalculate the poverty indicators for 2002 using the same methodology as in 2007.

Two basic methodological differences for measuring poverty, which were applied in this study for the period 2002-2007 and the method which was initially used for the period 2002-2003, refer to the equivalence scale and poverty line.

In the estimation of poverty for the period 2002-2003, an equivalence scale, estimated by Engel's method using LSMS 2002 data, was applied. This scale is expressed as follows: Serbian scale = (1 + 0.81*(adults-1) + 0.24*children06 + 0.75*children718). This study used the OECD scale (1+0.7*(adults-1)+0.5*children013) which is used in many countries in the region, thus contributing to international comparability. In addition, the RSO has been using this scale for a number of years for their official poverty estimates based on HBS data.

The other more significant difference is related to the poverty line, i.e. more precisely the food poverty line. The reference group for determining the food poverty line, i.e. the minimum food basket in 2002, consisted of persons whose consumption per adult equivalent was located in the first decile, while the reference group in this study consists of people whose consumption per adult equivalent is located within the first three deciles in 2007. By expanding the reference group to the first three deciles, a more realistic indication of the minimum food consumption can be obtained in comparison to the reference group from the first decile, where the outlier's extremely low values could be found. An additional reason for modifying the reference group is the fact that, in addition to the poorest 10% of the population in 2002, the following 10% with the lowest consumption are considered to be financially insecure.

Both of these changes (in equivalence scale and food poverty line), in particular the one related to the food poverty line, resulted in the revision of the poverty index for 2002, from 10.6% to 14%. To reiterate, the poverty line used in 2002 amounted to 4 489 dinars per adult equivalent, while the recalculated poverty line for the same year amounts to 5 234 dinars per adult equivalent per month.

12.5.10. Basic poverty indicators

The most frequently used poverty indicators can be defined, according to Foster, Greer and Thorbecke (1984), as follows[11]:

$$P(\alpha) = \frac{1}{n}\sum_{i=1}^{n}\left[\max\left(\frac{z - c_i}{z}, 0\right)\right]^{\alpha},$$

where α - parameter; z - poverty line; c_i - unit of equivalent consumption i; n – total number of respondents.

For α=0, P(0) is the poverty index that represents the number of poor people as a percentage of the total population. However, this poverty indicator does not say anything about their poverty level, i.e., to what degree is their consumption (income) below the poverty line. The poverty indicator that takes this into account is the depth of poverty (poverty gap), and is obtained for α=1. Thus, P(1) can be defined as follows:

P(1)= P(0)*(average deficit),

where the average deficit represents the average consumption (income) deficit of the poor as a percentage of the poverty line. The depth of poverty P(1) represents the average consumption (income) deficit as a percentage of the poverty line of the total population (both poor and non-poor). When the average deficit of the poor is multiplied with the number of poor and expressed as a percentage of the gross domestic product, the minimum amount of funds required to eliminate poverty is obtained, assuming that targeting is perfect.

Finally, for α=2, P(2), called the poverty severity indicator is obtained. This indicator measures inequality among the poor, as it places a higher weight on the poor who are further away from the poverty line.

The analysis presented in the LSMS report use all three indicators as poverty indicators:

- incidence of poverty P(0),
- depth of poverty P(1)
- poverty severity P(2).

Endnotes, Part 12

[1] For basic advantages of using household consumption for poverty measurement over income, see Bogićević, Krstić, Milanović and Mijatović: "Siromaštvo i reforma državne pomoći siromašnima" (Poverty and Reform of Country Assistance for the Poor), CLDS, Belgrade, 2003, (p.9).

[2] In 2007, consumption was calculated for members present in the household (members who lived in the household for at least one month during the previous 12 months and who did not work abroad). In 2002, it was not possible to calculate consumption only for those members who were present in the household. Consumption was calculated for all household members, since respondents who selected "0" for the number of months of presence in the household were treated as members who refused to respond.

[3] Central heating means the heating of dwelling/house through thermal plants, while other means all other types of heating.

[4] Heckman's (1979) two-stage method is frequently used to estimate hedonic rental regression.

[5] Households did not specify values for durable goods aged 30 years or more.

[6] The Paasche price index is theoretically better than the Laspeyres index but requires data on quantities of all goods purchased by the household, which were collected in the LSMS. See: Grosh, Margaret and Paul Glewwe, eds. (2000), Designing Household Survey Questionnaires for Developing Countries: Lessons from 15 Years of the Living Standards Measurement Study Surveys, The World Bank, Washington, D.C.

[7] Braithwaite, J. Grootaert, C. and Milanovic, B: Poverty and Social Assistance in Transition Countries, 1999.

[8] See: Household Survey in the EU, Methodology and recommendations for harmonisation – 2003, p. 155.

[9] In 2002, units of equal consumption were used, which were estimated based on LSMS 2002 data using the Engel method. This scale is expressed as follows: Serbian scale = (1 + 0.81*(adults-1) + 0.24*children06 + 0.75*children718).

[10] The caloric value of each food item is based on US Department of Agriculture (USDA) data.

[11] See: World Bank, "Making Transition Work for Everyone" Washington, DC, 2000.

Annex A

Table 1.1. Individual Sample

		Total	Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
		2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
individuals	Count / Sample	17375	8423	8952	2433	3376	3328	4148	4090	9103	8272	2788	4159	2318	3264	2052	2794	16069	1306	3909	3638	3567	3301	2960
	Count / Population	7411000	3571348	3839652	1035646	1483889	1427720	1791886	1671859	4332844	3078156	1649374	2095984	778379	1244459	639297	1003506	6922429	488571	1483247	1481243	1482584	1483538	1480388
	Row %	100.0	48.2	51.8	14.0	20.0	19.3	24.2	22.6	58.5	41.5	22.3	28.3	10.5	16.8	8.6	13.5	93.4	6.6	20.0	20.0	20.0	20.0	20.0

Table 1.2. Household Sample

	Total	Settlement		Region						Poverty line		Quintiles of consumption				
		Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Count / Sample of Households	5557	2960	2597	921	1388	734	1032	655	827	5152	405	1259	1132	1093	1039	1034
Estimated number of households	2402793	1442009	960784	555490	704473	247209	395554	204011	296056	2254992	147801	473549	465987	460101	478599	524557
Row %	100%	58.5	41.5	22.3	28.3	10.5	16.8	8.6	13.5	93.4	6.6	20.0	20.0	20.0	20.0	20.0

Table 2.1. Average monthly consumption per household by product categories of COICOP classification (dinar)

N=5557	Total	Settlement		Region						Poverty line		Quintiles of consumption				
		Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Total Consumption	52843	57441	45940	64706	50582	44752	51151	48741	47803	55133	17904	23247	35508	46493	59276	94659
COICOP Group 1 (Food)	17783	17876	17644	19616	16491	16254	19048	16973	17561	18399	8379	10205	14377	17308	20749	25360
COICOP Group 2 (Alcohol and Tobacco)	2078	2011	2178	2096	2090	1668	2159	2269	2116	2146	1039	1202	1684	1996	2343	3047
COICOP Group 3 (Clothing)	2742	3281	1931	3925	2268	2370	2640	2436	2304	2891	470	672	1297	2040	2925	6341
COICOP Group 4 (Housing/Utilities)	9834	11723	7000	14477	9280	7230	8140	8103	8074	10211	4081	5253	7384	9018	10550	16210
COICOP Group 5 (Furnishings/HH Equipment)	1625	1855	1282	2039	1515	1266	1672	1647	1335	1698	518	707	1051	1447	1781	2980
COICOP Group 6 (Health)	2183	2510	1693	3051	2320	1417	1748	1653	1814	2294	492	826	1370	1887	2385	4207
COICOP Group 7 (Transport)	4487	4592	4331	5353	4417	4035	4263	4168	3930	4747	526	976	2354	3732	5241	9528
COICOP Group 8 (Communications)	1790	2116	1302	2502	1631	1432	1668	1572	1447	1881	402	625	1084	1595	2087	3371
COICOP Group 9 (Recreation)	3067	4095	1524	5576	2777	1717	2201	2040	2039	3240	429	599	1134	1701	2958	8308
COICOP Group 10 (Education)	751	990	393	1368	627	354	515	479	727	799	34	96	217	538	963	1813
COICOP Group 11 (Restaurants /cafes/accommodation/hotels)	2451	2996	1634	3053	2019	2241	2754	2291	2234	2594	278	432	1078	1731	3073	5560
COICOP Group 12 (Miscellaneous)	4110	4660	3284	5150	4187	3736	3716	3329	3349	4325	821	1176	1998	3196	4183	9369

Table 2.2. Monthly consumption per household by product categories of COICOP Classifications (percent)

N=5557	Total	Settlement		Region						Poverty line		Quintiles of consumption				
		Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Total Consumption	52843	57441	45940	64706	50582	44752	51151	48741	47803	55133	17904	23247	35508	46493	59276	94659
COICOP Group 1 (Food)	33.65	31.12	38.41	30.31	32.60	36.32	37.24	34.82	36.74	33.37	46.80	43.90	40.49	37.23	35.00	26.79
COICOP Group 2 (Alcohol and Tobacco)	3.93	3.50	4.74	3.24	4.13	3.73	4.22	4.65	4.43	3.89	5.81	5.17	4.74	4.29	3.95	3.22
COICOP Group 3 (Clothing)	5.19	5.71	4.20	6.07	4.48	5.30	5.16	5.00	4.82	5.24	2.63	2.89	3.65	4.39	4.94	6.70
COICOP Group 4 (Housing/Utilities)	18.61	20.41	15.24	22.37	18.35	16.16	15.91	16.62	16.89	18.52	22.80	22.59	20.80	19.40	17.80	17.12
COICOP Group 5 (Furnishings/HH Equipment)	3.08	3.23	2.79	3.15	3.00	2.83	3.27	3.38	2.79	3.08	2.90	3.04	2.96	3.11	3.00	3.15
COICOP Group 6 (Health)	4.13	4.37	3.68	4.71	4.59	3.17	3.42	3.39	3.79	4.16	2.75	3.55	3.86	4.06	4.02	4.44
COICOP Group 7 (Transport)	8.49	7.99	9.43	8.27	8.73	9.02	8.33	8.55	8.22	8.61	2.94	4.20	6.63	8.03	8.84	10.07
COICOP Group 8 (Communications)	3.39	3.68	2.83	3.87	3.22	3.20	3.26	3.22	3.03	3.41	2.25	2.69	3.05	3.43	3.52	3.56
COICOP Group 9 (Recreation)	5.80	7.13	3.32	8.62	5.49	3.84	4.30	4.18	4.27	5.88	2.40	2.57	3.19	3.66	4.99	8.78
COICOP Group 10 (Education)	1.42	1.72	0.86	2.11	1.24	0.79	1.01	0.98	1.52	1.45	0.19	0.41	0.61	1.16	1.62	1.91
COICOP Group 11 (Restaurants /cafes/accommodation/hotels)	4.64	5.22	3.56	4.72	3.99	5.01	5.38	4.70	4.67	4.70	1.55	1.86	3.04	3.72	5.18	5.87
COICOP Group 12 (Miscellaneous)	7.78	8.11	7.15	7.96	8.28	8.35	7.26	6.83	7.01	7.85	4.58	5.06	5.63	6.87	7.06	9.90

Table 2.3. Average monthly income per household by income categories (dinar)

N=5557	Total	Settlement		Region						Poverty line		Quintiles of consumption				
		Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Total HH income in Dinars	43569	44041	42859	47787	42875	41650	43194	44250	38938	45099	20218	25956	35643	41385	48454	63967
Wages and salaries	21480	24902	16340	28037	20724	19321	19355	18109	17936	22479	6230	8750	14909	18905	25461	37431
Pensions (old age, family, disablement and other)	9092	10205	7423	10365	8864	7482	9064	9286	8498	9339	5326	8087	9579	9809	9253	8793
Social insurance receipts	933	837	1078	645	1114	775	945	998	1117	873	1852	1306	1065	1008	786	549
Cash transfers from abroad	887	560	1377	514	628	917	1153	2888	440	931	210	163	598	664	677	2184
Income from agriculture	2980	717	6376	776	3141	4801	3937	4026	3208	3038	2081	2410	2949	3082	3642	2827
Income in kind	3227	1567	5719	1694	3118	4209	4133	4436	3501	3259	2752	2963	3270	3266	3420	3218
Other income	1217	1440	882	1795	1319	705	1085	756	810	1276	308	377	506	1120	893	2986
Imputed housing and durable good value	3753	3813	3664	3961	3967	3440	3522	3751	3428	3904	1459	1900	2767	3531	4322	5979

Table 2.4. Monthly income per household by Income categories (percent)

N=5557	Total	Settlement		Region						Poverty line		Quintiles of consumption				
		Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Total HH income in Dinars	43569	44041	42859	47787	42875	41650	43194	44250	38938	45099	20218	25956	35643	41385	48454	63967
Wages and salaries	49.4	56.4	38.2	58.7	48.2	46.3	44.7	40.9	46.1	49.9	30.9	33.7	41.7	45.8	52.6	58.6
Pensions (old age, family, disablement and other)	20.9	23.2	17.3	21.7	20.7	18.0	21.0	21.0	21.8	20.7	26.3	31.2	26.9	23.7	19.1	13.7
Social insurance receipts	2.1	1.9	2.5	1.3	2.6	1.9	2.2	2.3	2.9	1.9	9.2	5.0	3.0	2.4	1.6	0.9
Cash transfers from abroad	2.0	1.3	3.2	1.1	1.5	2.2	2.7	6.5	1.1	2.1	1.0	0.6	1.7	1.6	1.4	3.4
Income from agriculture	6.8	1.6	14.9	1.6	7.3	11.5	9.1	9.1	8.2	6.7	10.3	9.3	8.3	7.4	7.5	4.4
Income in kind	7.4	3.6	13.3	3.5	7.3	10.1	9.6	10.0	9.0	7.2	13.6	11.4	9.2	7.9	7.1	5.0
Other income	2.8	3.3	2.1	3.8	3.1	1.7	2.5	1.7	2.1	2.8	1.5	1.5	1.4	2.7	1.8	4.7
Imputed housing and durable good value	8.6	8.7	8.5	8.3	9.3	8.3	8.2	8.5	8.8	8.7	7.2	7.3	7.8	8.5	8.9	9.3
Total								100%								

Table 3.1. Gender characteristics

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample		17375																						
Male	48.3	48.2	-		51.0	50.5	49.1	48.1	43.8	47.0	49.9	46.1	48.5	49.6	49.2	48.0	48.9	48.2	47.9	47.6	48.2	48.1	48.7	48.3
Female	51.7	51.8		-	49.0	49.5	50.9	51.9	56.2	53.0	50.1	53.9	51.5	50.4	50.8	52.0	51.1	51.8	52.1	52.4	51.8	51.9	51.3	51.7
Total															100%									

Table 3.2. Age characteristics

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample		17375																						
0 - 14	13.7	14.0	14.8	13.2	-					13.9	14.1	13.1	14.7	14.4	13.0	13.7	15.0	13.6	19.5	15.7	13.5	14.5	14.4	11.8
15 - 29	19.4	20.0	21.0	19.1		-				21.7	17.6	21.9	20.9	19.2	18.8	17.3	19.0	20.3	15.8	16.3	17.9	20.1	21.3	24.5
30 - 44	18.8	19.3	19.6	18.9			-			19.7	18.6	19.5	19.4	18.1	17.9	18.7	21.4	19.4	17.7	17.6	18.6	19.3	20.7	20.2
45 - 59	22.7	24.2	24.1	24.2				-		24.8	23.3	25.1	24.7	23.9	24.4	23.7	21.8	24.6	17.6	19.6	22.8	23.8	26.0	28.7
60+	25.5	22.6	20.5	24.5					-	19.8	26.4	20.4	20.3	24.3	25.9	26.7	22.8	22.1	29.4	30.9	27.1	22.4	17.6	14.8
Total															100%									

Table 3.3. Household residence status

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample		17375																						
Resident	96.6	96.7	96.2	97.2	99.4	90.3	98.0	97.8	98.4	96.3	97.2	97.0	97.1	96.5	97.0	95.8	95.6	96.6	98.1	97.7	97.6	96.2	96.3	95.6
Attending education and living elsewhere	0.9	1.3	1.2	1.4	-	6.3	0.1	-	-	1.3	1.2	0.2	0.9	1.9	1.7	2.8	1.8	1.3	0.3	0.4	0.9	1.5	1.8	1.8
Works and lives elsewhere	0.4	0.5	0.8	0.2	-	0.7	0.9	0.6	0.1	0.4	0.5	0.3	0.3	0.7	0.4	0.3	1.1	0.4	0.8	0.8	0.6	0.4	0.3	0.4
Attending military service	0.3	0.1	0.2	-	-	0.6	-	0.0	0.0	0.1	0.2	-	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	-	0.1
Serving prison sentence	<0.1	<0.1	-	-	-	-	0.1	0.1	-	-	0.1	-	0.1	-	-	-	-	-	0.1	0.1	-	-	0.1	-
Hospitalization	0.1	0.1	0.1	0.1	-	0.1	-	0.1	0.4	0.1	0.1	0.1	0.2	-	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1
Attending education abroad	0.2	0.1	0.1	0.1	-	0.6	-		-	0.2	-	0.2	0.1	-	-	-	0.2	0.1	-	0.2	-	0.1	0.2	0.1
Works or lives abroad	1.0	0.3	0.4	0.2	-	0.4	0.2	0.4	0.2	0.3	0.2	0.4	0.3	0.2	0.1	0.4	0.1	0.3	0.1	0.2	0.1	0.3	0.2	0.6
Temporarily absent (vacation, business trip)	0.4	0.9	1.0	0.8	0.6	1.0	0.7	1.0	1.0	1.2	0.4	1.9	0.7	0.3	0.5	0.3	1.0	0.9	0.4	0.3	0.5	1.2	1.1	1.3
Total												100%												

Table 3.4. Marital status

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample, 15+		14942																						
Legally married	60.1	57.4	60.0	55.1	-	16.9	69.4	80.5	58.3	55.5	60.0	53.0	55.7	60.5	59.3	59.0	62.5	57.5	56.5	58.2	58.8	57.8	57.3	55.1
Cohabiting	1.9	2.8	2.9	2.7	-	3.6	4.6	2.3	1.0	3.2	2.2	3.0	3.7	1.1	2.6	3.9	1.3	2.6	4.9	2.9	2.7	3.0	3.1	2.3
Single	23.3	24.5	28.7	20.6	-	78.6	19.0	4.8	2.1	26.4	21.8	29.0	24.9	22.7	22.5	19.5	22.9	24.8	19.8	20.6	22.2	23.4	25.7	30.2
Divorcé/e	3.2	4.0	3.1	4.8	-	0.7	5.8	5.9	3.4	4.9	2.7	4.8	4.5	3.2	3.1	5.5	2.3	4.0	4.2	3.7	3.5	3.3	4.4	5.1
Widow/er	11.5	11.4	5.3	16.9	-	0.2	1.2	6.6	35.1	10.0	13.3	10.1	11.2	12.6	12.4	12.1	11.1	11.2	14.5	14.7	12.8	12.5	9.6	7.4
Total												100%												

Table 3.5. Education level (population 15+)

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample, 15+		14942																						
No school	5.9	5.1	2.6	7.3	-	3.3	1.3	2	13.2	2.6	8.6	1.7	5.6	6.3	6.4	4.4	7.5	4.1	19.9	12	6	3.5	2.5	1.5
Incomplete primary school	12.7	8.8	6.7	10.7	-	1.3	1.4	5.0	25.9	4.2	15.3	2.8	8.1	12.9	12.2	16.7	7.8	8.0	20.5	18.0	11.1	8.1	4.7	2.5
Primary school	22.7	23.0	21.0	24.8	-	29.3	16.0	22.8	23.6	18.0	30.0	15.7	23.8	25.1	22.3	30.5	27.7	22.4	31.5	31.4	28.2	24.4	18.2	13.1
One / two-year vocational school	2.3	0.8	1.0	0.6	-	0.4	0.3	1.2	1.2	0.8	0.9	0.5	1.1	0.4	1.3	0.7	0.5	0.8	1.0	0.9	0.8	0.8	0.8	0.8
Secondary - three-year and for skilled workers	17.1	13.4	18.6	8.7	-	15.0	9.6	18.9	9.4	12.7	14.4	9.5	15.8	17.6	14.5	12.9	10.7	13.7	10.0	12.9	16.1	15.2	13.4	9.6
Secondary - four-year and for highly skilled workers	24.6	29.2	30.9	27.6	-	31.3	49.9	27.5	11.4	33.2	23.6	35.6	28.9	25.2	28.6	20.3	28.7	30.1	14.9	19.4	26.8	32.0	36.9	30.7
Gymnasium	3.6	5.7	4.2	7.0	-	12.6	3.7	4.4	2.5	7.9	2.5	9.2	4.4	3.7	3.5	5.6	6.7	6.0	1.0	2.5	3.7	5.6	6.7	9.8
Postsecondary non-university institution	5.1	6.0	6.0	6.0	-	3.2	6.7	7.6	6.2	8.3	2.7	8.1	5.6	5.3	5.6	5.1	4.9	6.3	0.8	1.7	4.0	5.5	8.1	10.7
University	5.6	7.3	7.9	6.8	-	3.6	10.2	9.5	5.7	11.1	1.9	14.8	6.2	3.2	5.2	3.7	5.0	7.7	0.5	1.3	3.2	4.8	8.1	18.7
Masters, specialist degree	0.3	0.6	0.8	0.4	-	-	0.7	0.9	0.6	0.9	0.1	1.5	0.2	0.3	0.4	0.2	0.4	0.6	-	-	0.1	0.2	0.5	2.0
Doctoral degree	0.2	0.2	0.2	0.2	-	-	0.2	0.2	0.3	0.3	-	0.5	0.2	-	-	-	-	0.2	-	-	-	0.1	0.1	0.7
Total												100%												

Table 3.6. Additional school attendance (percent)

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample, 15+		14942																						
Courses	3.2	3.9	3.5	4.2	-	8.9	5.0	2.0	0.4	5.4	1.6	7.5	2.6	1.3	3.6	1.6	4.3	4.1	0.6	1.3	2.0	3.0	5.1	7.7
Seminars	0.7	1.4	1.0	1.8	-	1.9	2.1	1.5	0.3	2.0	0.6	2.9	0.8	0.8	1.6	0.6	0.9	1.5	0.1	0.1	0.3	0.8	1.9	3.8
Training	0.5	1.9	2.0	1.8	-	3.5	3.2	1.1	0.2	2.6	0.9	3.6	1.8	0.8	1.4	0.5	1.6	2.0	0.5	0.6	1.0	1.8	2.2	3.7
NO additional schooling	96.2	93.6	94.1	93.2	-	87.3	90.9	96.0	99.1	91.3	97.0	87.9	95.2	97.5	94.3	97.5	93.6	93.3	98.8	98.0	96.9	95.0	91.8	86.8

Table 3.7. Reason why do not attend additional lessons (percent)

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample, 15+		14942																						
Completed desired school	31.8	13.6	15.0	12.3	-	12.4	19.5	18.6	4.6	17.5	8.4	19.4	11.3	14.0	12.3	10.9	12.4	14.3	3.4	5.6	11.2	12.0	17.2	22.8
No interest	29.8	35.9	37.3	34.5	-	24.7	43.4	50.1	23.9	31.4	41.8	30.0	36.8	40.0	35.4	39.0	38.3	35.3	43.9	39.1	37.7	37.3	34.2	30.5
No financial means, conditions	6.8	11.1	11.7	10.5	-	18.6	18.9	8.3	2.0	11.2	10.9	11.6	12.9	9.7	9.5	7.6	12.0	10.6	18.3	15.5	12.2	12.4	9.0	5.9
Illness, old age	19.3	22.8	19.0	26.3	-	0.9	2.3	14.5	64.6	20.2	26.2	19.4	20.6	25.0	26.0	29.3	22.5	22.6	25.1	29.9	27.1	22.2	19.6	14.3
Further schooling planned	8.7	9.7	9.8	9.6	-	32.7	9.0	1.8	0.3	11.7	7.0	10.1	10.0	8.6	10.1	7.1	10.1	10.1	2.7	4.2	7.0	9.3	12.1	16.4
Other	3.5	7.0	7.2	6.8	-	10.7	7.0	6.6	4.6	8.0	5.7	9.5	8.4	2.7	6.7	6.0	4.8	7.1	6.4	5.7	4.9	6.8	7.9	10.2
Total												100%												

Table 3.8. Respondents have the following skills

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample, 15+		14942																						
a foreign language	22.5	29.5	29.7	29.2	-	53.5	33.3	23.3	11.5	39.0	16.1	48.3	31.4	14.8	21.0	20.5	21.8	31.1	5.5	10.3	19.0	24.7	36.0	56.4
how to use a computer	16.6	29.7	30.6	28.9	-	58.8	38.2	22.5	4.3	39.8	15.3	45.6	29.7	19.5	23.9	20.7	23.8	31.3	5.3	8.7	17.4	26.3	38.7	56.2
how to drive a car (with a license)	38.5	45.0	65.2	26.6	-	46.0	60.9	50.5	24.7	50.8	36.9	51.5	46.0	42.7	44.5	36.8	40.0	47.0	15.3	23.4	36.3	45.1	53.9	65.5
None	-	40.5	25.7	54.1	-	21.3	27.6	39.1	70.2	30.8	54.2	27.0	39.1	48.9	44.7	50.5	48.0	38.0	79.2	67.9	51.8	39.8	28.0	16.2

Table 3.9. Individual economic status

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample		17375																						
Employed (formally)	25.5	24.6	27.8	21.7	-	21.6	51.9	40.4	2.3	28.8	18.7	30.0	24.5	22.0	23.5	22.0	21.2	25.7	9.1	13.4	20.4	23.8	30.3	35.2
Working outside formal employment	3.4	4.8	6.3	3.4	-	6.7	8.8	5.8	1.4	4.4	5.3	4.8	5.1	3.7	4.2	5.6	5.0	4.7	5.8	5.2	5.5	4.8	4.6	3.7
Employer (co-/owner of company or shop)	1.2	2.7	4.0	1.4	-	1.6	5.9	4.1	1.0	2.9	2.3	2.6	2.7	2.5	2.7	2.7	2.9	2.8	0.4	0.6	1.2	2.2	2.8	6.5
Individual agricultural worker	4.4	5.5	6.8	4.2	<0.1	1.9	6.0	8.2	8.6	0.9	11.9	0.4	4.3	12.7	6.7	9.2	6.7	5.3	8.3	8.6	6.5	5.7	4.7	1.8
Performs activity independently	0.4	0.7	1.1	0.3	-	0.4	1.2	1.3	0.2	0.8	0.5	1.1	0.7	0.6	0.4	0.6	0.5	0.7	0.5	0.5	0.4	0.5	0.9	1.1
Supporting family member	1.0	1.4	0.6	2.1	-	1.1	1.6	1.8	1.8	0.4	2.7	0.3	0.6	4.0	2.2	1.0	1.9	1.3	1.7	1.9	1.8	1.5	1.0	0.6
Others who perform occupation	0.4	0.1	0.1	-	-	-	0.2	0.1	-	0.1	0.1	-	0.2	-	-	0.3	-	-	0.5	0.2	-	0.1	-	-
Unemployed - seeking employment	9.2	8.7	8.3	9.1	-	15.7	15.2	10.5	0.5	9.4	7.8	7.6	9.7	8.1	9.0	6.7	10.0	8.2	16.0	12.8	10.2	9.6	6.3	4.8
Stopped working (military service,serving prison sentence)	0.1	0.2	0.3	-	-	0.8	0.1	-		0.1	0.2	0.1	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.2
Pensioner	21.0	20.0	18.4	21.5	-	0.2	1.0	16.5	70.2	21.2	18.4	22.3	18.9	16.4	21.7	21.8	18.4	20.3	16.2	22.2	23.0	20.6	18.0	16.4
Has income from property (rent, lease, dividends)	0.2	0.1	0.1	0.1	-	-	-	0.1	0.2	0.1	0.1	-	0.2	-	0.1	-	-	0.1	0.1	-	0.1	-	0.1	0.1
Has other personal income (social assistance, alimony)	0.2	0.1	0.1	0.2	-	-	-	0.2	0.3	0.1	0.2	-	0.2	0.3	0.2	0.1	-	0.1	0.9	0.5	0.1	-	-	-
Housewife	9.6	5.5		10.6	<0.1	2.6	5.7	7.6	9.1	4.1	7.5	3.8	6.5	5.7	5.8	5.5	5.9	5.1	11.2	9.1	6.7	5.3	3.8	2.6
Child, pupil, student	22.5	23.0	23.3	22.7	99.9	44.6	0.4	-	-	24.4	21.0	24.8	22.9	21.2	21.1	21.6	24.8	22.9	23.7	20.3	20.8	23.3	25.2	25.2
Incapable of work	0.7	1.8	1.8	1.8	-	0.5	1.6	2.2	3.7	1.3	2.5	0.9	2.3	2.2	1.8	2.0	1.9	1.6	4.5	3.6	2.4	1.2	1.0	0.8
Abroad	-	0.1	0.1	0.1	-	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	-	-	0.2	-	0.1	-	-	0.1	0.2	-	0.3
Others, not performing occupation	0.3	0.8	1.0	0.7	-	2.2	0.3	0.9	0.6	1.0	0.6	1.0	1.1	0.5	0.6	0.6	0.6	0.8	0.9	0.9	0.6	0.9	1.0	0.9
Total															100%									

Table 3.10. Household characteristics by gender of household head

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample		5557															
Male	74.9	71.3	67.0	77.7	62.5	71.3	77.6	74.9	69.3	78.9	71.3	70.7	69.7	72.2	71.3	73.4	69.8
Female	25.1	28.7	33.0	22.3	37.5	28.7	22.4	25.1	30.7	21.1	28.7	29.3	30.3	27.8	28.7	26.6	30.2
Total									100%								

Table 3.11. Household characteristics by age of household head

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample		5557															
15 - 29	1.8	2.4	3.2	1.4	3.7	2.7	1.9	2.1	1.6	1.7	2.4	1.5	1.1	0.6	2.1	2.5	6.2
30 - 44	15.7	16.4	19.0	13.4	17.1	19.6	14.7	13.5	15.7	16.1	16.7	12.3	10.7	13.5	17.2	21.2	20.9
45 - 59	34.6	37.1	39.0	35.0	38.0	39.2	36.8	36.1	33.3	37.3	38.0	26.4	29.0	35.2	37.4	41.9	44.3
60+	48.0	44.1	38.7	50.2	41.2	38.5	46.6	48.3	49.4	44.9	42.8	59.8	59.3	50.7	43.3	34.3	28.6
Total									100%								

Table 3.12. Marital status of household head

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample		5557															
Legally married		63.1	62.4	63.9	60.0	61.5	65.3	63.0	61.1	68.9	63.5	58.0	60.0	64.2	64.6	65.0	62.2
Cohabiting, not legally married	67.3	2.3	2.8	1.7	2.3	3.6	0.7	2.2	3.2	0.6	2.1	3.7	2.3	2.0	2.3	2.1	2.5
Single	4.3	5.8	6.0	5.5	9.1	5.6	6.5	5.7	3.4	3.6	5.9	4.0	4.4	4.4	3.9	5.8	10.9
Divorcé/e	5.3	6.6	8.7	4.2	8.2	7.6	5.3	5.7	9.4	3.2	6.8	4.0	4.6	4.9	5.7	8.1	10.2
Widow/er	23.0	22.3	20.2	24.8	20.4	21.7	22.2	23.4	22.8	23.7	21.7	30.4	28.8	24.4	23.5	18.9	14.3
Total									100%								

Table 3.13. Educational level of household head (percent)

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample		5557															
No school, Incomplete primary school	21.6	19.5	8.4	32.3	5.2	17.2	26.3	24.0	28.5	20.7	17.2	48.4	39.0	23.6	16.3	9.1	4.9
Primary school	18.9	20.9	15.4	27.3	11.8	22.9	22.2	18.1	26.9	25.4	20.4	28.1	29.9	26.9	21.5	15.6	8.1
Secondary one/two/three year school	21.6	17.4	17.9	16.7	16.0	19.7	19.1	19.0	14.5	13.7	17.9	11.1	13.5	18.6	20.3	18.3	16.7
Four year secondary school and gymnasium	23.6	27.3	34.9	18.6	38.5	26.3	23.4	26.7	18.1	27.9	28.6	11.1	14.9	23.7	31.7	37.2	31.7
University and Postsecondary non-university	13.5	13.9	21.8	5.0	25.8	13.3	8.4	11.4	11.6	11.8	15.0	1.2	2.6	7.1	9.7	18.4	35.5
Masters, specialist, doctoral degree	0.8	0.9	1.6	0.2	2.7	0.6	0.5	0.7	0.5	0.5	1.0	-	-	0.2	0.5	1.3	3.1
Total									100%								

Table 3.14. Economic status of household head

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample of households		5557															
Employed (formally)	31.3	27.8	34.2	20.5	33.8	30.5	24.1	25.5	25.5	24.5	29.1	10.9	14.3	23.1	26.1	37.4	41.6
Working outside formal employment	3.8	4.8	4.9	4.8	4.7	6.0	4.2	3.4	3.7	6.2	4.7	6.7	5.1	5.7	5.0	4.7	3.6
Employer (co-/owner of company or shop)	1.9	4.4	4.8	4.0	3.8	4.1	3.4	5.1	4.3	5.6	4.7	1.0	1.3	2.2	4.2	4.2	11.0
Individual agricultural worker	6.4	10.2	1.6	20.0	0.5	8.2	21.8	10.0	13.9	11.3	9.9	13.6	15.2	11.3	11.5	8.4	3.2
Performs activity independently	0.4	1.1	1.5	0.7	1.6	1.0	1.8	0.8	0.8	0.9	1.1	1.0	0.8	0.8	0.8	1.3	2.1
Supporting family member	-	0.3	0.1	0.5	0.1	-	1.1	0.4	-	0.6	0.3	0.7	0.6	0.3	0.3	0.3	0.1
Others who perform occupation	0.3	0.1	0.1	0.1	-	0.2	-	0.1	-	-	0.0	0.7	0.2	-	0.1	-	-
Unemployed - seeking employment	5.1	5.9	6.3	5.4	6.4	6.6	5.2	5.7	3.5	6.7	5.4	12.3	7.5	5.8	7.1	4.8	3.6
Stopped working (military service, serving prison sentence)	-	0.1	0.1	0.0	0.2	-	-	-	0.2	-	0.1	-	-	-	-	0.1	0.2
Pensioner	43.4	40.1	41.9	38.0	44.8	37.9	32.3	44.1	42.1	38.9	40.0	40.7	47.0	45.2	41.4	34.4	30.2
Has income from property (rent, lease, dividends)	-	0.2	0.1	0.2	0.1	0.4	-	0.2	0.2	-	0.2	0.2	0.1	0.3	0.1	0.3	0.2
Has other personal income (social assistance, alimony)	-	0.3	0.1	0.4	-	0.1	0.8	0.4	0.3	-	0.2	1.5	0.8	0.3	0.1	-	-
Housewife	5.4	1.1	1.0	1.2	1.1	1.1	1.5	0.4	1.5	1.2	1.0	2.2	1.5	1.1	0.8	1.1	0.8
Child, pupil, student	-	0.4	0.8	-	1.2	0.1	0.1	0.3	-	0.7	0.4	-	-	-	-	0.6	1.7
Incapable of work	-	2.5	1.9	3.2	1.2	2.5	3.0	2.7	3.1	2.7	2.1	7.4	4.4	3.1	1.9	1.5	1.2
Others, not performing occupation	-	0.8	0.7	0.9	0.4	0.9	0.7	1.0	0.9	0.7	0.8	1.0	1.2	0.8	0.6	1.0	0.3
Abroad	-	0.1	0.0	0.1	-	0.3	-	-	-	-	0.1	-	-	-	0.2	-	0.2
Others who does not work	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total									100%								

Table 3.15. Household Type

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Sample of households		5557															
Single	5.1	7.6	8.1	6.7	7.9	8.2	6.4	7.0	9.6	5.7	7.8	3.5	3.6	6.0	6.1	7.5	13.9
Couple	9.7	9.9	9.8	10.0	9.0	11.3	10.2	9.4	10.4	8.1	10.1	6.4	7.5	8.7	9.4	10.7	12.7
Nuclear family	32.3	31.3	35.0	25.6	35.4	33.7	29.4	26.1	24.5	31.1	31.9	21.9	21.8	25.7	30.2	38.5	39.2
Single parent with children up to 18	1.6	2.1	2.9	0.9	3.9	1.7	1.9	1.5	1.3	1.4	2.2	1.5	1.2	1.2	1.8	3.2	3.0
Multi-generational family	18.2	23.5	18.9	30.5	16.9	19.3	27.4	29.1	30.3	30.6	23.2	28.7	28.4	29.5	28.6	19.8	12.8
Old age household, 65+	21.5	17.4	15.1	20.9	15.4	16.5	19.5	20.7	18.3	16.9	16.5	32.3	31.3	22.4	15.6	11.3	7.8
Other	11.6	8.2	10.1	5.3	11.6	9.3	5.3	6.2	5.5	6.1	8.3	5.7	6.2	6.4	8.4	9.1	10.6
Total									100%								

Table 3.16. Number of household members (percent)

	Total		Settlement		Region						Household Type							Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Single	Couple	Nuclear Family	Single parents (children up to 18)	Multi generation family	Old age household(age 65+)	Other	Non poor	Poor	Poorest	2	3	4	Richest
Sample of households		5557																						
1	17.5	18.6	17.8	19.7	18.2	19.0	19.3	19.5	20.6	15.1	100.0	-	-	-	-	63.0	-	18.4	21.3	21.7	20.0	15.9	15.5	19.6
2	24.7	23.8	24.0	23.3	24.4	25.0	23.1	23.7	22.9	21.0	-	100.0	-	50.3	6.0	35.8	63.2	23.6	26.1	26.6	22.9	22.6	22.7	23.9
3	19.8	19.3	21.5	16.0	23.2	20.3	17.4	16.4	17.2	16.7	-	-	42.2	39.3	10.2	1.0	32.8	19.8	11.5	13.4	15.8	19.3	23.3	24.0
4	21.7	20.2	21.9	17.6	19.8	20.8	21.0	19.3	17.4	21.5	-	-	48.0	8.3	19.8	0.1	3.4	20.4	16.2	14.7	18.0	21.1	23.3	23.3
5+	16.4	18.2	14.8	23.4	14.5	14.9	19.1	21.2	21.9	25.7	-	-	9.8	2.1	64.0	0.0	0.6	17.8	24.9	23.6	23.3	21.0	15.1	9.2
Total													100%											

Table 3.17. Number of children in household

	Total		Settlement		Region						Household Type							Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Single	Couple	Nuclear Family	Single parents (children up to 18)	Multi generation family	Old age household(age 65+)	Other	Non poor	Poor	Poorest	2	3	4	Richest
Sample of households		5557																						
No children	65.0	66.8	66.8	66.9	67.7	66.9	67.1	68.6	66.9	62.3	99.8	100.0	50.7	1.3	34.3	100.0	97.6	66.8	67.5	69.3	66.5	63.9	64.8	69.2
1 child	16.7	16.7	17.6	15.4	18.4	17.5	15.1	15.0	15.8	15.6	0.2	-	22.9	74.2	33.4	-	1.0	17.3	7.2	12.1	16.2	18.1	18.2	18.6
2 children	15.5	13.2	12.9	13.8	10.6	12.3	14.9	13.8	14.7	17.4	-	-	21.3	19.9	26.0	-	0.6	13.1	14.9	12.2	14.2	15.5	13.7	11.0
3+ children	2.9	3.3	2.8	3.9	3.3	3.3	2.9	2.7	2.6	4.7	-	-	5.1	4.5	6.4	-	0.8	2.8	10.4	6.4	3.1	2.5	3.3	1.2
Total													100%											

Table 3.18. Household types

	Total		Settlement		Region						Household Type							Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Single	Couple	Nuclear Family	Single parents (children up to 18)	Multi generation family	Old age household(age 65+)	Other	Non poor	Poor	Poorest	2	3	4	Richest
Sample of households		5557																						
No elderly people 65+	55.0	58.6	65.3	48.6	63.6	63.5	55.7	50.3	53.6	54.8	100	72.2	89.2	98.9	35.9	-	67.2	59.8	40.7	40.3	48.9	58.6	66.9	76.4
1 member	30.1	29.5	25.6	35.3	27.6	26.8	31.0	34.9	31.1	29.7	-	27.8	4.9	1.1	49.1	63.1	32.2	29.0	36.8	39.3	36.2	29.2	25.7	18.3
2+ members	14.9	11.9	9.1	16.0	8.8	9.6	13.3	14.8	15.3	15.5	-	0.0	6.0	0.0	15.0	36.9	0.6	11.2	22.5	20.5	15.0	12.2	7.3	5.2
Total												100%												

Table 3.19. Households with one or more household members educated

	Total		Settlement		Region						Household Type							Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Single	Couple	Nuclear Family	Single parents (children up to 18)	Multi generation family	Old age household (age 65+)	Other	Non poor	Poor	Poorest	2	3	4	Richest
Sample of households		5557																						
Elementary and less	27.0	21.8	11.7	37.1	8.1	22.9	29.5	25.3	34.3	25.4	30.0	26.6	5.9	13.7	12.7	61.3	14.0	19.5	57.0	48.4	28.0	19.3	10.2	5.2
Secondary (2 or 3 years)	18.6	11.4	9.2	14.9	6.0	14.2	15.8	12.3	12.9	9.5	12.2	19.6	8.6	8.2	11.6	10.5	14.2	11.2	15.2	13.6	15.1	13.4	9.6	6.3
Secondary (4 years or gymnasium)	32.7	39.9	41.3	37.8	41.3	39.8	36.8	40.9	34.2	42.8	38.9	28.5	47.9	49.2	52.1	14.9	40.5	40.9	25.0	31.4	41.8	46.7	46.5	34.0
University	21.8	26.8	37.8	10.3	44.6	23.1	17.8	21.5	18.7	22.3	18.9	25.4	37.7	29.0	23.6	13.4	31.4	28.4	2.7	6.7	15.1	20.6	33.7	54.5
Total														100%										

Table 3.20. Households by number of active members

	Total		Settlement		Region						Household Type							Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Single	Couple	Nuclear Family	Single parents (children up to 18)	Multi generation family	Old age household (age 65+)	Other	Non poor	Poor	Poorest	2	3	4	Richest
Sample of households		5557																						
No active member	30.0	30.5	31.3	29.4	31.4	31.4	24.4	33.1	29.6	29.1	48.9	40.9	7.5	20.0	11.3	87.5	25.7	29.5	46.9	45.4	35.5	30.0	23.3	19.9
1 active member	22.0	30.8	32.4	28.5	31.9	32.9	31.4	27.1	29.0	29.6	51.1	32.1	33.8	73.8	26.7	8.4	47.9	30.9	29.8	27.2	29.1	31.7	31.3	34.6
2 active members	32.7	27.8	28.0	27.5	27.5	27.9	28.7	26.3	28.5	29.1		26.9	45.7	6.2	35.4	4.0	21.1	28.6	16.5	18.5	24.3	26.1	33.6	35.7
3+ active members	15.3	10.8	8.2	14.6	9.1	7.7	15.6	13.4	12.9	12.1	-	0.0	12.9	0.0	26.6	0.1	5.3	11.0	6.8	8.9	11.2	12.3	11.8	9.8
Total												100%												

Table 3.21. Households by number of supported members

	Total		Settlement		Region						Household Type							Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Single	Couple	Nuclear Family	Single parents (children up to 18)	Multi generation family	Old age household (age 65+)	Other	Non poor	Poor	Poorest	2	3	4	Richest
Sample of households		5557																						
Not supported members	40.1	37.2	36.3	38.5	38.7	36.3	40.7	38.1	41.2	29.4	85.3	64.4	13.2	-	10.2	81.6	44.1	37.5	31.8	36.4	37.3	34.7	35.7	41.3
1 supported member	31.0	26.4	27.1	25.5	27.1	27.3	24.0	27.1	23.8	26.3	14.7	31.0	30.1	45.9	24.4	17.4	37.9	26.7	23.3	24.7	25.4	24.3	28.3	29.1
2 supported members	19.2	20.8	23.0	17.4	22.8	20.1	18.8	18.7	21.4	22.2	-	4.6	34.1	43.0	31.2	0.9	15.0	21.2	14.1	15.5	17.3	23.5	24.7	22.5
3+ supported members	9.6	15.6	13.6	18.6	11.4	16.3	16.4	16.1	13.6	22.1	-	-	22.6	11.1	34.2	0.1	3.0	14.6	30.9	23.4	20.0	17.4	11.3	7.1
Total													100%											

Table 5.1. Accommodation Type (percent)

N=5557	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
An apartment in a building	24.6	29.8	47.5	3.3	59.3	20.1	17.1	28.0	23.1	15.4	31.2	8.7	12.1	20.8	25.5	35.2	52.9
A house with several apartments	6.0	10.9	12.4	8.5	13.2	10.7	7.1	6.9	8.5	16.9	11.3	4.6	7.1	8.7	12.2	13.2	12.8
A house	68.5	58.8	39.7	87.5	26.8	68.9	75.7	64.2	68.1	67.4	57.1	84.8	79.5	69.7	62.2	51.6	34.1
A space not meant for living	0.9	0.5	0.4	0.6	0.7	0.3	0.1	0.9	0.2	0.3	0.4	1.8	1.2	0.8	0.2		0.2
Total									100%								

Table 5.2. Year of construction of household accommodation (percent)

N=5557	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Before 1944	16.0	9.3	8.4	10.7	10.4	15.2	3.7	5.1	6.5	5.7	9.0	14.7	14.6	10.0	7.7	7.2	7.4
1945-1970	37.3	33.5	33.2	34.0	30.1	30.4	38.1	36.5	39.1	35.8	32.7	46.4	41.9	39.3	31.5	29.9	25.9
1971-1990	41.2	46.2	47.3	44.6	46.5	43.3	46.1	50.5	46.0	47.5	47.4	28.6	35.4	42.0	49.9	53.2	50.3
After 1991	5.6	10.9	11.1	10.6	13.0	11.2	12.1	7.9	8.5	11.0	11.0	10.3	8.1	8.8	10.9	9.7	16.4
Total									100%								

Table 5.3. Average number of rooms (bigger than 6m^2) in accommodation

N=5557	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Average per HH	2.75	2.9	2.8	3.2	2.7	3.0	2.7	3.1	3.2	3.2	3.0	2.3	2.5	2.8	3.1	3.1	3.2
Average per capita	1.12	1.2	1.1	1.3	1.1	1.3	1.1	1.3	1.3	1.2	1.2	1.0	1.1	1.2	1.2	1.2	1.4

Table 5.4. Average useful living space of accommodation (m^2)

N=5557	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Average per HH	67.0	74.1	70.9	78.9	69.4	77.8	72.5	72.7	77.3	74.9	75.5	52.7	59.0	68.5	77.6	79.3	84.8
Average per capita	27.2	30.3	29.3	31.9	28.5	33.4	29.3	29.6	31.8	27.3	30.9	22.4	25.1	28.2	30.1	31.5	36.1

Table 5.5. Households with housing amenities

N=5557	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Separate kitchen	78.6	85.6	90.3	78.6	90.5	89.3	80.1	82.7	84.2	77.2	87.5	57.7	69.2	84.7	88.8	90.8	93.8
Bathroom within the dwelling	84.9	90.5	97.3	80.3	97.6	92.4	85.2	87.8	89.1	81.6	92.8	54.3	70.2	90.2	94.8	97.4	98.9
Toilet within the dwelling	79.2	87.9	94.2	78.5	93.5	90.3	83.3	86.0	85.7	79.6	90.3	51.1	66.9	87.8	92.5	95.1	96.3
Balcony/loggia	61.6	69.0	73.8	61.7	74.5	62.0	66.9	74.1	66.7	71.7	70.8	40.4	50.1	62.0	72.9	77.3	81.1
Total									100%								

Table 5.6. Households with installed facilities

N=5557	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Electricity	99.9	99.8	99.9	99.6	99.8	99.8	99.9	99.6	99.7	99.7	99.9	97.3	99.1	99.8	100.0	99.9	100.0
Running water supply	90.7	95.2	99.4	88.8	99.2	97.8	90.9	92.3	94.4	89.1	96.7	71.2	83.7	95.9	97.3	98.9	99.6
Sewerage	62.4	92.2	98.2	83.2	98.3	94.3	88.5	89.7	90.4	83.4	94.4	58.4	74.0	92.7	95.8	98.2	99.5
Gas	08.4	10.9	12.1	9.1	4.8	29.1	0.5	7.0	0.4	0.2	11.5	2.5	6.0	8.8	15.0	12.4	12.3
Centralised heating /autonomous heating	21.9	36.2	50.8	14.4	57.1	38.0	20.7	28.5	33.5	18.2	38.1	7.8	12.1	22.1	34.0	45.8	63.7
Telephone	76.3	85.3	93.3	73.4	91.7	84.4	80.3	85.3	82.3	81.8	87.5	51.5	64.4	82.2	89.0	93.9	96.0
Cable or satellite TV	21.8	39.5	57.4	12.6	65.2	33.9	21.0	31.6	31.1	36.5	41.4	10.2	16.3	26.3	36.1	49.8	65.7
Interphone, videophone	10.5	18.9	31.0	0.8	46.4	17.2	7.5	5.9	7.8	6.0	19.8	5.3	6.2	11.2	12.8	23.3	38.6
Security system	1.4	3.3	5.0	0.7	10.0	1.6	0.7	1.4	1.1	1.1	3.5	0.3	0.5	1.5	1.6	2.0	10.1

Table 5.7. Type of heating (percent)

N=5557	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Only Central Heating	16.6	21.8	36.2	0.3	43.9	18.1	9.2	17.9	15.2	9.9	23.0	3.8	5.9	13.2	17.8	27.3	42.5
Only Electric heating	10.9	8.6	12.5	2.7	19.7	3.3	5.5	6.4	8.6	5.6	8.8	4.5	5.8	7.5	8.3	9.3	11.5
Only Solid fuel heating	60.6	54.2	34.3	84.1	24.9	51.1	79.4	62.7	66.4	75.6	52.1	85.5	78.1	66.8	57.2	44.1	28.0
Only Gas heating	4.5	7.1	8.3	5.3	3.0	18.0	0.5	6.3	0.1	0.2	7.4	1.9	4.1	5.2	9.0	8.2	8.7
Only Liquid fuel heating	0.3	1.1	1.2	0.9	2.4	1.1	0.1	0.9	0.7	0.2	1.1	1.7	1.3	0.9	0.7	1.1	1.4
Other Combinations	7.1	7.2	7.5	6.8	6.1	8.5	5.2	5.8	8.9	8.5	7.5	2.6	4.7	6.3	6.9	10.1	8.0
Total									100%								

Table 5.8. Average household monthly expenses for heating (dinar)

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Central Heating (N=924)	1056	2571	2566	3188	2390	3215	2582	2180	2389	2439	2582	1524	1938	2361	2461	2534	2776
Electric heating (N=781)	6359	5690	5743	5509	5253	6503	4869	7188	4734	5585	5664	6586	4934	5321	6473	5578	5849
Solid fuel heating (N=3824)	1955	2177	2186	2170	2475	2086	2256	2148	2544	1871	2254	1385	1692	2094	2329	2421	2778
Gas heating (N=388)	2526	2793	2920	2523	2411	2719	3214	3540	1667	1789	2812	1664	1782	2193	2805	2734	3661
Liquid fuel heating (N=23)	3711	3367	3120	3869	3667	3489	1146	6594	2170	2461	3437	113	3095	1073	2018	2289	6784

Table 5.9. Households which have expenses for utility items

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Telephone (N=4561)	75.8	84.3	92.3	72.4	91.0	83.1	79.9	84.3	80.8	80.8	86.6	50.3	63.0	81.1	88.1	93.2	95.0
Mobile phone (N=3736)	37.7	69.7	77.2	58.5	82.6	69.4	60.1	67.0	63.5	62.0	72.4	29.1	40.3	60.7	70.8	82.7	91.3
Utilities (N=4137)	75.4	79.6	96.9	53.5	93.4	91.8	59.6	68.6	64.9	65.9	81.7	47.7	60.0	76.2	81.5	86.5	92.3
Electricity (N=5458)	99.9	98.2	98.3	98.0	97.8	98.5	99.8	98.9	96.0	97.4	98.5	92.9	96.0	98.2	98.3	99.2	99.0
Gas (N=404)	7.6	8.6	9.2	7.6	2.5	23.9	0.3	5.8	-	-	9.0	1.9	5.0	6.8	11.4	10.5	9.2

Table 5.10. Average household monthly expenses for utilities (dinar)

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Telephone (N=4561)	713	973	1012	897	1192	901	895	894	1002	838	993	438	562	693	917	1042	1414
Mobile phone (N=3736)	753	1213	1340	961	1668	1044	1084	1103	941	979	1229	578	613	773	980	1174	1902
Utilities (N=4137)	714	1633	2031	553	2672	1374	972	1154	1246	1161	1669	694	802	1136	1408	1805	2514
Electricity (N=5458)	1405	2190	2260	2085	2476	2269	1894	1964	2244	1988	2245	1311	1554	2013	2285	2456	2578
Gas (N=404)	1553	2077	2452	1390	4119	1647	2750	4000	-	-	2099	474	873	1036	1833	2080	3615

Table 5.11. Households which have unpaid utility bills (percent)

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Telephone (N=158)	2.9	2.9	3.1	2.5	2.2	2.0	3.9	4.6	2.5	3.1	2.9	1.9	2.3	2.5	2.6	3.1	3.6
Utilities (N=475)	9.0	9.3	11.6	5.8	8.2	11.7	8.7	9.3	7.0	7.6	9.4	7.0	6.1	9.0	11.1	10.4	9.8
Electricity (N=997)	17.8	16.9	13.8	21.4	11.6	14.0	19.9	18.7	21.0	25.8	16.8	18.0	18.0	18.8	18.3	16.8	12.9
Building maintenance (N=19)	0.5	0.3	0.5	-	-	0.3	0.2	0.6	0.8	0.3	0.3	-	-	0.3	0.2	0.5	0.6
Gas (N=44)	1.2	1.0	1.0	0.8	0.2	2.7	-	0.7	-	-	1.0	-	0.3	0.8	1.4	0.9	1.2

Table 5.12. Average amount of unpaid utility bills (dinar)

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Telephone (N=158)	1776	2315	2806	1398	4370	1652	1490	1722	2470	2481	2370	997	2905	1511	2131	1833	2974
Utilities (N=475)	2964	8127	9426	4256	14133	6943	3839	6595	9516	6091	8269	5234	5604	5192	8831	7612	11763
Electricity (N=997)	8595	14516	15132	13920	23279	7299	6005	11222	19612	22264	14713	11723	13927	12218	15204	17742	13542
Building maintenance (N=19)	1773	1121	1121	-	-	1036	1000	498	954	3571	1121	-	-	892	40	1336	1374
Gas (N=44)	5944	8249	7426	9779	4900	8527	-	7623	-	-	8249	-	4060	7113	9613	5547	10341

Table 5.13. Average number off months of unpaid utility bills

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Telephone (N=158)	1.3	1.6	1.7	1.4	1.8	1.5	1.2	1.7	1.5	1.9	1.6	2.8	2.3	1.4	1.9	1.3	1.3
Utilities (N=475)	5.1	5.4	4.9	6.9	4.6	5.8	5.3	4.7	5.4	6.9	5.2	9.5	7.3	4.7	5.8	5.2	4.7
Electricity (N=997)	6.3	5.5	5.1	5.7	6.2	3.0	3.1	4.6	6.8	9.2	5.1	10.1	7.2	4.8	4.8	5.5	4.5
Building maintenance (N=19)	3.6	3.7	3.7	3.7	-	3.8	5.0	3.8	3.4	3.5	3.7	-	-	7.3	1.5	4.8	2.1
Gas (N=44)	2.4	2.8	2.1	3.9	1.0	2.5	-	4.9	-	-	2.8	-	2.7	3.1	3.8	1.7	2.3

Table 5.14. Household durable goods ownership (percent)

N=5557	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Stove	98.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Washing machine	78.3	86.1	93.0	75.8	94.1	89.2	78.2	81.8	82.9	78.1	88.6	48.0	63.3	84.8	91.4	95.0	95.1
Air conditioner	2.3	15.3	22.8	4.0	34.4	13.9	3.2	6.0	13.3	6.5	16.2	1.7	2.5	3.8	10.8	19.2	37.2
Dishwasher	3.6	8.4	12.0	2.9	20.4	4.8	2.3	6.9	3.9	4.2	8.9	-	0.8	2.0	3.8	10.9	22.5
Refrigerator	85.0	76.0	69.0	86.4	58.3	76.3	83.6	83.1	87.8	84.3	75.9	76.3	81.7	81.7	80.3	72.8	64.7
Freezer	75.0	74.8	67.8	85.2	60.8	76.4	76.2	78.1	84.5	84.9	75.6	61.8	72.8	79.7	80.2	75.2	67.0
Combined refrigerator with freezer	12.4	26.2	34.8	13.4	48.0	24.4	14.6	20.2	13.8	16.3	27.5	7.2	11.2	18.6	23.5	32.7	43.2
Microwave oven	5.3	15.1	18.5	10.0	18.0	19.4	6.8	12.5	13.8	10.5	16.0	0.8	3.3	7.2	13.3	20.7	29.1
Vacuum cleaner	78.2	86.2	93.5	75.4	92.8	88.7	79.9	85.0	79.2	79.9	88.8	47.4	64.7	83.6	91.2	94.1	96.5
Iron	6.7	90.6	94.6	84.8	95.2	91.3	88.0	90.2	89.1	84.2	92.4	64.0	77.0	90.7	93.5	95.2	96.1
Satellite dish	5.2	-	6.3	7.9	4.8	7.5	6.4	6.3	12.4	7.5	7.4	0.6	2.3	4.6	6.2	9.3	11.9
TV	95.3	96.9	98.3	94.8	97.8	97.6	96.2	96.5	96.7	94.7	97.6	85.5	91.9	97.1	97.6	98.4	99.2
Video recorder	31.7	25.2	28.6	20.0	31.5	24.9	22.2	21.6	24.0	21.9	26.6	2.9	8.4	16.5	26.1	32.3	40.7
Video camera	2.0	4.4	6.2	1.8	9.9	3.3	1.1	2.5	3.0	3.0	4.7	0.5	0.2	0.7	1.7	4.3	13.8
Stereo, CD /DVD player	18.6	36.4	42.8	26.7	45.9	38.3	25.2	31.6	33.6	31.6	38.2	9.0	14.8	26.1	37.5	45.2	56.0
Radio cassette player	47.1	45.0	44.2	46.2	41.6	49.8	47.6	45.7	45.1	36.4	46.2	25.7	35.4	44.9	45.7	45.8	52.3
PC/laptop	12.6	34.9	45.3	19.4	52.5	34.7	21.2	28.5	27.3	27.9	36.9	5.1	9.5	19.7	31.9	46.3	63.8
Motorcycle	6.5	7.0	6.0	8.6	3.0	11.7	2.5	7.4	8.9	5.7	7.3	2.7	3.0	5.4	8.4	8.7	9.4
Car	41.4	48.9	51.2	45.5	52.0	45.9	48.8	50.5	48.7	48.4	51.2	13.6	20.4	37.8	50.3	61.5	71.9
Jeep, van	1.6	1.3	1.1	1.7	0.6	1.1	2.0	1.6	1.0	2.6	1.4	-	0.1	0.6	1.2	2.1	2.5

Table 5.15. Average age of durable goods (years)

N=5557	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Stove	16.7	15.2	15.5	14.7	14.5	15.6	15.5	15.4	14.5	15.4	14.8	21.4	18.6	15.7	15.1	14.5	12.3
Washing machine	15.9	13.0	13.1	12.9	11.5	13.7	13.3	13.6	13.0	13.7	12.9	17.2	16.1	14.4	13.6	12.3	10.3
Air conditioner	2.2	3.3	3.4	2.9	3.6	2.8	3.6	3.3	2.9	3.8	3.4	1.7	2.9	3.1	2.9	3.2	3.6
Dishwasher	9.4	6.7	6.9	5.4	7.4	6.4	5.5	5.0	5.0	6.6	6.7	10.6	8.0	6.4	7.2	6.3	3.6
Refrigerator	18.6	17.5	17.6	17.4	15.6	18.4	18.3	17.9	16.1	17.9	17.3	21.0	20.0	18.7	16.9	16.7	14.7
Freezer	16.8	17.2	17.5	16.9	16.8	17.3	17.0	18.0	15.9	17.7	17.1	20.1	19.1	18.1	16.8	16.4	15.8
Combined refrigerator with freezer	13.3	11.0	11.0	11.0	11.4	10.7	10.2	11.0	10.3	11.3	10.9	17.2	14.8	13.2	13.3	10.6	8.5
Microwave oven	8.1	4.6	4.8	4.0	4.7	4.2	3.7	5.3	4.8	5.5	4.6	4.1	4.3	5.2	4.3	4.7	4.6
Vacuum cleaner	12.4	9.9	9.8	10.1	8.9	10.2	10.7	10.2	9.5	10.5	9.8	12.3	12.3	11.5	10.3	9.6	7.2
Iron	11.6	9.8	9.4	10.5	8.1	10.6	11.0	9.5	9.2	10.9	9.6	13.1	13.0	12.0	9.4	8.8	6.8
Satellite dish	6.7	6.6	7.3	5.8	6.7	6.2	5.7	7.3	6.7	6.9	6.6	5.4	7.0	9.5	5.5	6.7	5.9
TV	12.1	9.1	8.4	10.2	7.6	9.1	10.4	10.0	9.5	9.6	8.9	13.6	12.2	10.0	9.3	7.9	6.6
Video recorder	11.3	13.1	13.2	12.9	12.1	12.9	12.3	14.9	12.8	14.7	13.1	15.0	14.5	13.4	13.3	12.6	12.9
Video camera	8.0	5.8	5.6	6.8	5.7	5.3	8.6	6.3	7.2	5.3	5.7	21.0	17.5	7.5	8.4	6.6	5.1
Stereo, CD /DVD player	6.3	3.8	4.1	3.0	4.8	3.4	2.8	3.2	3.5	3.8	3.8	4.1	3.3	3.3	3.6	4.0	4.2
Radio cassette player	13.9	13.6	13.9	13.2	14.3	12.5	13.7	13.8	12.5	16.1	13.5	16.5	15.5	15.0	13.4	12.9	12.1
PC/laptop	3.7	3.8	3.8	3.6	3.9	3.6	3.8	3.5	3.6	4.0	3.7	4.8	4.6	4.1	3.9	3.9	3.4
Motorcycle	17.0	16.9	15.9	17.8	9.1	18.8	16.6	16.9	13.3	19.1	16.9	15.0	18.0	22.4	17.9	14.8	14.7
Car	15.3	15.4	14.7	16.5	13.5	14.7	16.3	16.3	16.8	17.4	15.3	21.3	19.7	18.3	16.6	15.6	11.9
Jeep, van	16.5	16.3	14.9	17.8	10.0	16.7	13.0	20.2	19.0	17.0	16.3	35.0	22.7	17.5	16.2	13.9	11.9

Table 5.16. Household ownership of durable goods aged 1 year or less (percent)

N=5557	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non Poor	Poor	Poorest	2	3	4	Richest
Stove	4.4	6.3	6.5	6.0	8.4	6.3	6.6	5.2	4.8	4.8	6.7	0.9	2.9	6.1	5.4	6.4	10.2
Washing machine	5.0	7.3	8.2	6.1	8.5	7.4	7.5	6.5	6.3	6.6	7.6	2.7	3.7	6.5	6.5	8.8	10.7
Air conditioner	1.1	4.0	5.7	1.4	7.7	4.6	1.0	1.6	4.4	1.2	4.2	1.0	0.8	1.3	3.4	5.0	8.9
Dishwasher	0.4	1.8	2.6	0.6	4.1	1.4	0.9	1.7	0.5	0.6	2.0	-	0.3	0.2	0.8	2.4	5.1
Refrigerator	2.2	3.2	3.4	2.9	4.0	3.4	2.7	2.4	4.4	2.1	3.4	0.8	1.6	2.8	2.9	3.9	4.8
Freezer	1.2	2.5	2.3	2.7	2.6	3.2	1.5	1.5	3.2	2.1	2.6	0.5	1.1	2.3	2.8	2.9	3.2
Combined refrigerator with freezer	1.1	3.1	4.2	1.4	4.9	3.2	2.5	2.4	1.4	1.9	3.3	-	0.8	1.9	2.1	3.1	7.0
Microwave oven	1.0	3.4	4.0	2.4	4.8	4.2	2.0	2.1	2.9	1.7	3.6	0.3	0.8	0.8	3.4	5.4	6.0
Vacuum cleaner	7.3	10.2	11.5	8.4	12.6	12.3	8.6	8.3	7.5	6.5	10.7	2.7	4.6	7.1	9.9	11.3	17.4
Iron	0.5	11.5	13.8	8.0	14.9	11.5	9.5	11.7	9.0	7.9	12.0	3.0	4.2	7.0	12.4	13.9	18.9
Satellite dish	0.4	1.6	1.2	2.3	0.9	2.4	2.0	0.9	2.7	1.0	1.7	0.3	0.7	0.9	1.9	2.2	2.3
TV	8.2	11.1	13.0	8.4	13.5	12.4	9.5	8.8	10.4	8.7	11.5	4.7	5.4	10.3	9.2	14.5	15.6
Video recorder	1.6	0.6	0.9	0.3	1.0	1.0	0.4	-	0.7	0.1	0.7	-	-	0.5	1.1	0.5	1.1
Video camera	0.1	0.8	1.2	0.3	2.6	0.3	0.1	0.1	0.7	0.3	0.9	-	-	0.1	0.1	0.8	2.9
Stereo, CD /DVD player	3.6	10.8	12.2	8.8	12.5	12.4	9.5	8.6	9.4	9.0	11.4	2.5	4.7	8.3	11.5	12.3	16.7
Radio cassette player	2.3	1.9	2.0	1.7	2.0	3.2	1.0	1.1	1.7	0.4	2.0	0.7	1.0	1.0	2.4	2.1	2.8
PC/laptop	3.7	6.7	8.8	3.5	10.4	6.5	4.4	6.2	4.8	4.0	7.1	0.5	0.9	3.0	5.0	8.9	14.8
Motorcycle	0.4	0.7	0.9	0.4	0.8	0.9	-	0.3	1.7	0.4	0.7	0.9	0.4	0.1	0.7	1.0	1.2
Car	0.6	1.3	1.5	1.0	2.0	1.4	1.1	1.3	0.4	0.7	1.4	-	0.1	0.2	0.8	1.6	3.7
Jeep, van	0.0	0.1	0.1	0.0	-	0.2	0.3	-	-	0.1	0.1	-	-	0.1	-	0.2	0.1

Table 6.1. Benefits received in the last month (percent)

	Total		Settlement		Region						Number of household members					Poverty line		Quintiles of consumption				
	2002	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	1	2	3	4	5+	Non poor	Poor	Poorest	2	3	4	Richest
N		5557																				
Attendance and assistance allowance	1.7	3.1	2.6	3.9	3.3	3.5	2.5	3.4	3.1	2.3	2.0	3.2	3.8	1.9	4.9	2.9	7.2	5.5	4.3	2.1	2.4	1.5
Veteran's and disabled veteran's allowance	0.2	0.4	0.3	0.4	0.4	0.6	0.3	0.1	0.1	0.3	0.6	0.4	0.1	0.2	0.4	0.3	0.7	0.4	0.4	0.5	0.3	0.4
Allowance for civilian victims of war	0.0	0.1	0.1	0.1	-	0.1	-	0.1	0.1	0.1	0.1	0.0	0.2	-	0.1	0.1	-	-	0.2	0.2	-	0.1
Family allowance (MOP)	1.1	1.4	1.4	1.5	0.8	2.5	1.0	0.9	1.1	1.2	1.1	1.4	1.0	1.4	2.3	1.0	8.6	4.2	1.2	1.0	0.8	0.1
Humanitarian Aid	3.4	0.2	0.1	0.2	-	0.3	0.2	0.1	-	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.5	0.2	0.3	0.2	0.1	0.1
One-time municipal cash subsidy	0.5	0.1	0.1	0.2	-	0.2	0.4	0.1	0.1	0.1	0.1	-	-	0.2	0.3	0.1	0.5	0.4	0.1	-	0.1	0.1
Child allowance	10.1	8.2	7.1	9.9	3.3	10.7	9.4	7.9	4.0	13.7	-	1.1	5.2	13.5	23.2	7.5	18.7	13.5	10.6	9.6	6.5	1.6
Parents (maternity) allowance	0.4	0.6	0.6	0.7	0.4	1.0	0.1	0.9	0.2	0.3	-	-	-	0.8	2.4	0.6	0.5	0.5	0.9	1.2	0.4	0.2
Monthly allowance for mothers	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alimony	0.6	0.6	0.8	0.4	0.8	0.7	0.4	0.5	1.0	0.1	-	0.5	0.7	1.0	0.8	0.6	0.5	0.4	0.4	0.6	0.6	1.1

Table 6.2. Average amount received from benefits per household (dinar)

	Total		Settlement		Region						Number of household members					Poverty line		Quintiles of consumption				
	2002	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	1	2	3	4	5+	Non poor	Poor	Poorest	2	3	4	Richest
N		5557																				
Attendance and assistance allowance	2514	6808,2	6405	7220	6949	7061	7369	6100	6671	6562	5835	6632	7332	5961	7285	7021	5504	6182	7094	6392	8132	6714
Veteran's and disabled veteran's allowance	3206	6810,8	8633	4801	13297	3638	10548	12869	8000	2370	3680	3248	5720	21350	7196	7243	3503	4328	3520	6719	3416	14703
Allowance for civilian victims of war	1523	45379,2	40043	49893	-	18929	-	64000	90900	100000	26000	100000	36475	-	64000	45379	-	-	36608	46413	-	64000
Family allowance (MOP)	2761	5112,1	5253	4913	4895	4870	4815	4085	8176	5925	4016	4424	6943	4831	5520	5426	4569	4527	5030	5590	8116	1600
Humanitarian Aid	1039	4107,4	5334	3040	-	3850	4891	4600	-	4000	3500	2000	4675	5251	3791	4045	4396	4270	2367	6000	4600	6000
One-time municipal cash subsidy	1462	3628,9	5051	2855	-	3699	4680	3000	3000	1500	2000	-	-	5667	2878	4037	2313	2940	2600	-	3000	10000
Child allowance	1450	2889,2	3008	2761	3778	2658	2683	2924	3311	2919	-	1822	1779	2761	3301	2803	3420	3241	2691	2793	2764	2357
Parents (maternity) allowance	2501	8570,9	9317	7629	8871	8665	3500	3721	74000	3906	-	-	-	3151	10538	8697	6085	5393	3306	10708	4527	36737
Monthly allowance for mothers	1303	-	5349	5003	7181	4463	4667	5702	3041	5000	-	6794	5393	4024	5697	5368	3110	4390	5070	5220	4482	6006
Alimony	3655	5259,5	6405	7220	6949	7061	7369	6100	6671	6562	5835	6632	7332	5961	7285	7021	5504	6182	7094	6392	8132	6714

Table 6.3. MOP applicants during last 12 months (percent)

	Total		Settlement		Region						Number of household members					Poverty line		Quintiles of consumption				
	2002	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	1	2	3	4	5+	Non poor	Poor	Poorest	2	3	4	Richest
N		5557																				
Yes	2.5	2.7	2.7	2.7	2.9	3.5	2.1	1.9	2.4	2.0	2.0	2.2	2.6	2.3	4.5	2.1	11.4	6.3	2.8	2.8	1.4	0.4
No	96.0	97.3	97.3	97.3	97.1	96.5	97.9	98.1	97.6	98.0	98.0	97.8	97.4	97.7	95.5	97.9	88.6	93.7	97.2	97.2	98.6	99.6
Total											100%											

Table 6.4. Reasons for non application of MOP (percent)

	Total		Settlement		Region						Number of household members					Poverty line		Quintiles of consumption				
	2002	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	1	2	3	4	5+	Non poor	Poor	Poorest	2	3	4	Richest
N		5557																				
They applied	2.6	2.5	2.6	2.4	2.8	3.2	2.0	1.8	2.2	1.7	2.0	1.8	2.4	2.2	4.2	2.0	10.6	5.8	2.5	2.7	1.4	0.4
Did not require it	35.4	39.9	44.0	33.7	46.4	41.9	34.7	31.9	49.3	31.4	40.3	43.3	41.6	40.3	32.7	41.5	15.4	22.6	29.9	36.2	46.6	61.5
Was unaware of the existence of such a programme	24.5	18.8	17.1	21.5	17.7	18.0	21.8	21.5	12.4	21.5	16.0	18.5	18.2	19.3	22.3	18.8	19.7	24.1	23.3	20.8	16.7	10.3
Do not know how to apply	9.2	7.4	4.7	11.4	5.1	4.0	8.3	10.1	7.5	15.3	11.6	7.9	5.5	4.6	7.6	6.3	23.9	16.9	9.5	6.6	3.3	1.4
Administrative procedure is too complicated	4.0	5.6	4.8	6.7	4.6	5.6	4.8	4.8	8.8	6.9	6.4	4.6	5.1	5.5	6.6	5.2	10.8	8.1	6.7	6.2	4.9	2.5
I know that I do not meet the criteria	23.7	25.6	26.7	24.0	23.3	27.1	28.3	29.9	19.7	22.9	23.7	23.5	26.9	28.1	26.3	26.1	18.8	22.0	27.9	27.4	27.1	24.0
I was already receiving it	0.5	0.2	0.1	0.3	0.1	0.2	0.1	0.1	0.1	0.4	-	0.4	0.2	0.1	0.3	0.2	0.8	0.5	0.3	0.2	-	-
Total													100%									

Table 6.5. Whether during the last 12 months received MOP (percent)

	Total	Settlement		Region						Number of household members					Poverty line		Quintiles of consumption				
	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	1	2	3	4	5+	Non poor	Poor	Poorest	2	3	4	Richest
N	5557																				
They did not apply	97.3	97.3	97.3	97.1	96.5	97.9	98.1	97.6	98.0	98.0	97.8	97.4	97.7	95.5	97.9	88.6	93.7	97.2	97.2	98.6	99.6
Yes	1.2	1.1	1.3	0.6	2.2	0.9	0.8	0.6	0.8	0.9	1.2	0.6	1.1	2.1	0.8	6.9	3.6	0.9	1.0	0.3	0.1
No	1.5	1.6	1.4	2.4	1.3	1.2	1.0	1.7	1.2	1.1	1.0	2.1	1.1	2.4	1.3	4.5	2.6	1.9	1.9	1.1	0.3
Total											100%										

Table 6.6. Whether during the last 12 months applied for humanitarian aid (percent)

	Total	Settlement		Region						Number of household members					Poverty line		Quintiles of consumption				
	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	1	2	3	4	5+	Non poor	Poor	Poorest	2	3	4	Richest
N	5557																				
Yes	1.1	1.0	1.4	0.6	1.3	2.2	0.9	1.1	1.2	1.3	0.5	1.1	0.7	2.3	0.8	6.7	3.4	0.8	0.8	0.5	0.2
No	98.9	99.0	98.6	99.4	98.7	97.8	99.1	98.9	98.8	98.7	99.5	98.9	99.3	97.7	99.2	93.3	96.6	99.2	99.2	99.5	99.8
Total											100%										

Table 6.7. Reason did not apply for humanitarian aid (percent)

	Total	Settlement		Region						Number of household members					Poverty line		Quintiles of consumption				
	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	1	2	3	4	5+	Non poor	Poor	Poorest	2	3	4	Richest
N	5557																				
They have applied	1.1	1.0	1.4	0.6	1.3	2.2	0.9	1.1	1.2	1.3	0.5	1.1	0.7	2.3	0.8	6.7	3.4	0.8	0.8	0.5	0.2
Did not require it	44.6	50.2	36.2	50.3	47.5	36.8	34.0	56.0	39.8	42.7	46.4	49.0	46.0	37.9	46.5	15.4	24.4	32.8	43.8	52.0	67.2
Was unaware of the existence of such a programme	16.4	13.3	21.0	17.4	16.6	19.9	18.8	9.6	12.5	15.4	15.9	14.8	15.8	20.4	16.1	21.2	22.6	21.3	18.4	14.2	6.7
Do not know how to apply	8.1	5.4	12.1	3.7	5.6	8.4	11.3	7.4	18.2	12.3	8.4	4.8	6.2	8.9	6.9	27.0	18.8	11.1	6.7	3.3	1.3
Administrative procedure is too complicated	4.1	3.2	5.4	3.8	4.2	3.0	3.1	6.7	4.9	5.5	4.0	3.7	3.1	4.2	3.6	10.8	7.3	4.4	4.2	2.8	2.0
I know that I do not meet the criteria	25.4	26.8	23.3	24.0	24.4	29.6	31.7	18.5	23.4	22.5	24.5	26.2	28.0	25.9	25.9	18.5	23.3	29.3	26.0	26.7	22.1
Aid is received without having to apply	0.3	0.1	0.6	0.2	0.4	0.2	0.3	0.7	0.1	0.3	0.3	0.3	0.2	0.4	0.3	0.6	0.2	0.3	0.2	0.4	0.4
Total											100%										

Table 6.8. Whether during the last 12 months received humanitarian aid (percent)

	Total	Settlement		Region						Number of household members					Poverty line		Quintiles of consumption				
	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	1	2	3	4	5+	Non poor	Poor	Poorest	2	3	4	Richest
N	5557																				
They did not apply	98.6	98.9	98.0	99.2	98.3	97.7	98.8	98.2	98.7	98.4	99.2	98.6	99.0	97.4	98.9	92.7	96.4	98.9	99.0	99.0	99.4
Yes	0.5	0.4	0.6	0.2	0.9	0.9	0.2	0.2	0.3	0.9	0.3	0.4	0.1	0.8	0.3	2.8	1.4	0.3	0.3	0.4	0.1
No	0.9	0.7	1.3	0.6	0.9	1.5	1.0	1.5	0.9	0.6	0.5	1.0	0.8	1.8	0.7	4.5	2.2	0.8	0.7	0.6	0.5
Total												100%									

Table 6.9. Whether during the last 12 months applied for a one-time municipal cash benefit (percent)

	Total	Settlement		Region						Number of household members					Poverty line		Quintiles of consumption				
	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	1	2	3	4	5+	Non poor	Poor	Poorest	2	3	4	Richest
N	5557																				
Yes	1.1	1.1	1.2	0.8	0.9	1.3	1.7	0.9	1.3	1.1	1.0	1.0	1.0	1.5	0.9	4.3	2.5	1.0	0.9	0.7	0.4
No	98.9	98.9	98.8	99.2	99.1	98.7	98.3	99.1	98.7	98.9	99.0	99.0	99.0	98.5	99.1	95.7	97.5	99.0	99.1	99.3	99.6
Total												100%									

Table 6.10. Reason did not apply for one-time municipal cash subsidy (percent)

	Total	Settlement		Region						Number of household members					Poverty line		Quintiles of consumption				
	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	1	2	3	4	5+	Non poor	Poor	Poorest	2	3	4	Richest
N	5557																				
They have applied	1.1	1.1	1.2	0.8	0.9	1.3	1.7	0.9	1.3	1.1	1.0	1.0	1.0	1.5	0.9	4.3	2.5	1.0	0.9	0.7	0.4
Did not require it	41.5	46.3	34.4	47.5	43.2	34.6	33.0	52.5	35.8	39.5	46.3	43.8	41.7	34.7	43.3	14.5	23.0	28.9	40.9	49.7	62.6
Was unaware of the existence of such a programme	22.4	19.1	27.3	21.1	23.7	28.0	24.0	14.7	20.0	21.3	20.2	21.3	22.6	27.1	22.1	26.8	28.5	30.1	23.8	19.1	11.6
Do not know how to apply	7.0	4.6	10.5	4.0	4.7	7.2	8.8	6.5	15.6	10.8	6.7	4.6	5.2	7.9	5.6	27.4	16.5	8.4	6.0	3.3	1.2
Administrative procedure is too complicated	4.1	3.7	4.8	3.8	4.3	3.3	3.4	5.8	4.8	6.1	3.4	3.4	3.5	4.5	3.8	9.0	7.1	4.0	4.3	2.7	2.7
I know that I do not meet the criteria	22.3	24.2	19.5	21.8	21.1	25.3	27.9	15.9	20.5	19.2	20.7	23.9	25.4	22.4	22.8	15.1	19.2	26.1	22.7	23.0	20.7
Other	1.6	1.1	2.4	1.0	2.1	0.4	1.1	3.8	1.9	2.1	1.6	2.0	0.6	1.8	1.5	2.9	3.2	1.5	1.3	1.5	0.7
Total											100%										

Table 6.11. Whether during the last 12 months received a one-time municipal cash subsidy (percent)

	Total	Settlement		Region						Number of household members					Poverty line		Quintiles of consumption				
	2007	Urban	Rural	Belgrade	Vojodina	West Serbia	Sumadija	East Serbia	South-East Serbia	1	2	3	4	5+	Non poor	Poor	Poorest	2	3	4	Richest
N	5557																				
Yes	0.4	0.3	0.5	0.5	0.3	0.5	0.7	0.2	0.3	0.8	0.5	0.1	0.3	0.4	0.4	1.2	1.0	0.1	0.3	0.4	0.2
No	99.6	99.7	99.5	99.5	99.7	99.5	99.3	99.8	99.7	99.2	99.5	99.9	99.7	99.6	99.6	98.8	99.0	99.9	99.7	99.6	99.8
Total											100%										

Table 6.12. Whether during the last 12 months used the centre for social work (percent)

	Total	Settlement		Region						Number of household members					Poverty line		Quintiles of consumption				
	2007	Urban	Rural	Belgrade	Vojodina	West Serbia	Sumadija	East Serbia	South-East Serbia	1	2	3	4	5+	Non poor	Poor	Poorest	2	3	4	Richest
N	5557																				
Yes	3.3	2.9	3.8	3.1	5.2	2.1	2.3	2.2	2.1	2.7	2.5	3.3	3.1	5.0	2.8	10.0	6.0	3.2	2.7	3.0	1.7
No	96.7	97.1	96.1	96.9	94.8	97.8	97.7	97.8	97.9	97.3	97.5	96.6	96.9	95.0	97.1	90.0	94.0	96.8	97.3	96.9	98.3
Total											100%										

Table 7.1. Whether respondents have a long standing illness or health problem (percent)

N=17375	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Reachest
Yes	27.1	32.3	28.2	36.0	4.4	6.8	16.9	44.0	72.7	31.3	33.7	32.7	34.1	31.4	29.4	32.8	31.6	32.1	34.8	36.8	34.8	31.1	29.8	28.7
No	72.5	67.7	71.8	64.0	95.6	93.2	83.1	56.0	27.3	68.7	66.3	67.3	65.9	68.6	70.6	67.2	68.4	67.9	65.2	63.2	65.2	68.9	70.2	71.3
Total	100%																							

Table 7.2. Specific diseases, illnesses (percent)

	Total	Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	poor	Poorest	2	3	4	Richest
Problems or disabilities (including arthritis or rheumatism) N=1085	5.9	4.2	7.6	0.0	0.2	1.6	7.1	17.1	4.9	7.4	5.3	5.4	7.2	6.8	6.2	6.0	5.9	7.1	7.6	7.2	5.6	5.4	4.0
.... legs or feet N=793	4.5	3.6	5.3	0.1	0.4	1.2	4.7	13.5	4.0	5.2	3.7	5.1	3.8	4.2	4.4	5.6	4.3	7.0	6.1	5.3	4.4	3.8	3.0
.... back or neck N=812	4.6	3.8	5.4	0.1	0.3	2.7	6.8	10.7	4.4	4.9	4.4	5.4	5.1	3.8	3.9	4.7	4.6	5.0	4.9	5.0	4.9	4.5	3.9
difficulty in seeing N=1127	6.8	5.9	7.7	0.4	1.3	2.0	8.3	18.2	6.8	6.9	8.8	7.5	6.0	5.9	4.8	5.4	6.9	5.9	6.7	7.4	5.9	6.3	7.9
difficulty in hearing N=401	2.3	2.3	2.3	0.3	0.3	0.6	1.5	7.7	2.0	2.7	2.3	2.3	2.6	3.2	1.6	1.5	2.3	3.2	3.4	3.0	1.9	1.9	1.3
a speech impediment N=88	0.5	0.7	0.4	0.3	0.3	0.2	0.6	1.1	0.5	0.5	0.6	0.6	0.5	0.5	0.2	0.4	0.5	1.1	0.8	0.6	0.6	0.3	0.3
severe disfigurement N=191	1.3	1.0	1.5	0.3	0.9	0.9	1.9	1.7	1.4	1.0	1.9	1.6	0.8	0.9	0.6	0.6	1.3	0.5	0.8	0.8	1.0	1.5	2.1
asthma, bronchitis N=588	3.4	3.3	3.6	2.2	1.4	1.1	3.5	8.0	3.8	3.0	3.6	3.7	3.1	3.2	3.5	3.3	3.4	4.1	4.2	3.6	3.5	2.8	3.1
heart, blood pressure	16.0	12.7	19.0	0.1	0.5	4.2	21.6	43.5	15.5	16.6	17.2	16.2	15.4	14.1	14.4	17.0	16.0	14.8	16.9	18.8	15.9	15.4	12.8
Stomach N=2752	5.8	4.9	6.6	0.1	0.4	3.3	8.3	13.6	5.5	6.2	5.6	6.7	6.1	5.8	4.7	4.9	5.8	6.1	7.0	5.9	5.4	5.4	5.3
Diabetes N=1017	3.5	3.1	4.0	0.1	0.5	0.7	4.6	9.8	3.6	3.5	3.7	4.2	2.5	3.5	3.2	3.0	3.6	2.8	3.6	3.9	3.9	3.3	3.1
Depression N=605	2.8	2.2	3.5	0.1	0.3	2.0	4.4	5.8	2.7	3.0	2.0	3.3	3.2	2.7	3.0	3.0	2.7	4.1	4.1	3.2	2.5	2.2	2.2
Epilepsy N=503	0.3	0.3	0.3	0.3	0.2	0.4	0.5	0.2	0.3	0.3	0.2	0.5	0.4	0.2	0.2	0.4	0.3	0.4	0.5	0.4	0.2	0.4	0.2
severe or specific learning difficulties N=59	0.2	0.2	0.1	0.0	0.0	0.2	0.2	0.2	0.1	0.3	0.1	0.2	0.1	0.3	0.2	0.2	0.2	0.3	0.4	0.3	0.0	0.1	0.1
mental illness N=33	0.6	0.6	0.6	0.1	0.4	0.7	0.7	0.9	0.4	0.9	0.4	0.8	0.5	0.5	0.6	0.9	0.6	1.2	1.3	0.6	0.5	0.4	0.2
progressive illness not included elsewhere N=239	1.5	1.1	1.9	-	0.3	0.9	2.0	3.3	1.5	1.5	2.2	1.4	1.3	1.5	0.6	1.1	1.5	1.2	1.8	1.3	1.4	1.5	1.4
other health problems or disability N=908	5.2	4.5	5.8	0.5	1.1	3.0	6.4	12.2	5.2	5.1	4.5	5.2	2.0	5.6	8.1	6.2	5.1	5.8	5.8	5.1	5.2	4.9	4.9

Table 7.3. Whether respondents receive regular treatment or therapy for their illness or health problem (percent)

N=5629	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Reachest
Yes	78.6	80.2	76.1	83.2	56.0	57.3	66.2	79.1	86.4	80.7	79.5	81.7	75.7	78.2	83.7	84.0	82.6	80.9	70.3	76.2	84.3	80.9	81.8	77.9
No	21.4	19.8	23.9	16.8	44.0	42.7	33.8	20.9	13.6	19.3	20.5	18.3	24.3	21.8	16.3	16.0	17.4	19.1	29.7	23.8	15.7	19.1	18.2	22.1
Total	100%																							

Table 7.4. Whether activities limited in last 6 months by health condition (percent)

N=5629	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Reaches
Do not have health problem	72.9	67.7	71.7	64.0	95.5	93.2	83.1	55.9	27.3	68.7	66.3	67.2	65.9	68.4	70.6	67.1	68.4	67.9	64.8	63.0	65.1	68.9	70.2	71.3
Yes, strongly limited	-	6.0	5.2	6.8	0.3	0.9	2.5	6.1	17.0	5.1	7.3	5.5	6.2	5.5	6.2	6.6	6.4	5.8	9.9	9.1	6.5	5.6	4.9	4.0
Yes, limited	-	13.3	11.7	14.9	1.5	2.1	6.5	18.2	31.3	12.1	15.0	11.5	14.3	15.2	12.7	12.8	13.9	13.1	16.2	16.3	16.3	12.7	11.3	10.0
No, not limited	6.1	13.0	11.4	14.4	2.7	3.8	7.9	19.8	24.4	14.1	11.3	15.7	13.6	10.9	10.5	13.4	11.4	13.2	9.1	11.6	12.1	12.9	13.5	14.7
Total	100%																							

Table 7.5. Which health condition most limits activities (percent)

N=5628	Total	Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Do not have health problem	67.7	71.8	64.0	95.6	93.2	83.1	56.0	27.3	68.7	66.3	67.3	65.9	68.6	70.6	67.2	68.4	67.9	65.2	63.2	65.2	68.9	70.2	71.3
Problems or disabilities (including arthritis or rheumatism)	2.9	2.3	3.6	0.0	0.2	0.9	4.2	7.6	2.3	3.8	2.9	2.4	3.7	3.1	3.5	3.0	2.9	3.0	3.4	3.2	3.0	3.0	2.1
….. legs or feet	2.3	1.9	2.7	0.1	0.2	0.5	2.7	6.6	1.9	2.8	1.7	2.5	2.0	2.3	2.9	2.7	2.2	3.9	3.2	2.8	2.1	1.9	1.4
…. back or neck	2.3	2.1	2.5	-	0.2	2.1	3.9	4.2	2.3	2.3	2.2	2.8	3.2	1.7	2.2	1.8	2.3	2.7	2.4	2.8	2.2	2.3	1.9
difficulty in seeing	1.8	1.6	2.0	0.3	1.1	0.9	1.9	4.1	1.8	1.8	2.5	1.9	1.1	1.5	1.5	1.5	1.9	1.2	1.4	1.8	1.6	1.5	2.7
difficulty in hearing	0.5	0.6	0.4	0.2	0.2	0.2	0.4	1.2	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.2	0.4	0.7	0.6	0.7	0.3	0.4	0.2
a speech impediment	0.1	0.1	0.1	0.3	0.0	-	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	-	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1
severe disfigurement	0.6	0.5	0.7	0.2	0.9	0.7	0.7	0.4	0.8	0.4	1.0	0.7	0.3	0.4	0.2	0.3	0.6	0.1	0.4	0.3	0.4	0.8	1.1
asthma, bronchitis	2.3	2.4	2.2	2.1	1.3	0.9	2.2	4.7	2.5	2.0	2.4	2.5	2.1	2.1	2.3	2.2	2.3	3.1	3.0	2.5	2.3	1.7	2.0
heart, blood pressure	9.7	7.9	11.4	0.1	0.4	3.2	14.1	24.8	9.7	9.7	10.8	9.7	9.6	8.1	8.8	10.6	9.8	8.1	9.9	11.2	9.6	9.4	8.4
Stomach	2.4	2.2	2.5	0.1	0.3	2.0	3.5	4.7	2.1	2.7	2.0	2.7	3.1	2.2	2.3	2.0	2.3	3.0	3.3	2.2	2.1	2.1	2.1
Diabetes	1.9	1.7	2.0	0.1	0.4	0.4	2.7	4.5	1.8	1.9	1.5	2.3	1.7	2.1	1.7	1.3	1.9	1.5	2.0	1.8	2.0	1.8	1.7
Depression	1.0	0.9	1.1	-	0.1	1.3	1.4	1.5	0.9	1.1	0.7	0.9	1.3	1.0	1.1	1.2	0.9	2.0	1.6	1.0	0.9	0.7	0.6
Epilepsy	0.2	0.2	0.2	0.2	0.1	0.3	0.4	0.1	0.2	0.2	0.0	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2
severe or specific learning difficulties	0.1	0.0	0.1	-	0.0	0.1	0.0	0.1	0.0	0.1	0.0	-	-	0.2	0.0	0.1	0.0	0.3	0.2	0.1	-	0.0	-
mental illness	0.4	0.4	0.4	0.1	0.3	0.7	0.5	0.4	0.3	0.6	0.2	0.6	0.4	0.3	0.4	0.6	0.4	1.1	0.9	0.4	0.4	0.2	0.1
progressive illness not included elsewhere	1.1	0.8	1.5	-	0.3	0.7	1.7	2.4	1.2	1.1	1.7	1.1	1.1	1.2	0.5	0.7	1.2	0.6	1.2	1.0	1.1	1.0	1.3
other health problems or disability	2.7	2.5	3.0	0.4	0.9	2.1	3.7	5.2	2.9	2.5	2.5	2.9	1.1	2.3	4.7	3.2	2.7	3.2	2.8	2.6	2.7	2.6	2.8

Table 7.6. Whether respondents used hospital services in last 12 months (percent)

N=17375	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption					Insurance	
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest	Yes	No
Yes	30.0	35.0	30.1	39.6	29.2	19.6	24.4	38.4	57.9	37.2	32.0	41.0	35.1	29.5	32.6	30.3	35.6	35.8	23.9	30.0	34.0	34.8	36.7	39.7	36.1	26.4
No	70.0	65.0	69.9	60.4	70.8	80.4	75.6	61.6	42.1	62.8	68.0	59.0	64.9	70.5	67.4	69.7	64.4	64.2	76.1	70.0	66.0	65.2	63.3	60.3	63.9	73.6
Total	100%																									

Table 7.7. Whether ill respondents used hospital services in last 12 months

N=6454	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption					Insurance	
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest	Yes	No
Yes	59.0	66.5	64.1	68.4	76.3	56.6	60.5	63.5	70.2	68.4	63.9	71.5	63.6	62.3	66.7	62.4	70.7	67.6	51.9	59.4	67.7	69.9	69.8	66.6	67.5	55.6
No	41.0	33.5	35.9	31.6	23.7	43.4	39.5	36.5	29.8	31.6	36.1	28.5	36.4	37.7	33.3	37.6	29.3	32.4	48.1	40.6	32.3	30.1	30.2	33.4	32.5	44.4
Total	100%																									

Table 7.8. Ill respondents who did not use health services by reason (percent)

N=2191	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption					Insurance	
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest	Yes	No
No need	52.0	56.4	58.1	55.0	75.9	68.7	65.7	57.3	48.5	64.7	46.7	77.1	58.1	35.0	55.8	48.7	46.4	58.5	37.1	44.5	54.7	54.1	62.9	71.2	58.3	34.5
Minor disorder, I treated it on my own	32.7	26.1	25.2	26.9	15.3	22.7	21.7	27.2	28.3	23.8	28.8	15.0	23.4	43.3	25.7	31.4	31.0	26.2	24.8	25.9	27.0	32.7	26.0	19.4	25.8	28.5
Minor disorder, I didn't treat it	3.1	1.2	1.2	1.2	1.5	0.6	0.6	1.6	1.2	0.6	2.0	-	1.0	5.4	1.0	0.3	0.6	1.1	2.0	2.1	1.5	0.5	0.5	0.8	1.3	0.8
Too far	1.8	1.7	0.9	2.4	-	-	-	0.3	3.9	0.3	3.4	-	0.9	4.2	2.4	0.9	4.1	1.2	6.1	4.1	1.4	1.3	0.7	-	1.8	0.8
Poor service	0.8	1.4	1.4	1.4	-	-	0.6	2.2	1.4	1.9	0.8	1.6	2.0	-	0.3	1.3	2.1	1.6	-	0.6	0.6	0.7	2.1	3.5	1.5	1.0
Too expensive	4.9	6.2	6.7	5.8	4.1	6.9	5.1	6.4	6.5	3.9	9.0	2.8	7.0	8.3	7.5	7.1	5.2	4.9	18.2	12.6	8.3	4.2	1.7	1.1	5.5	14.2
No health insurance	0.8	2.3	2.1	2.4	1.3	0.5	3.3	2.3	2.4	0.6	4.2	0.6	1.2	2.2	1.9	4.6	6.6	2.1	3.6	3.3	3.3	2.1	1.6	0.6	1.0	17.3
Other	3.8	4.7	4.4	4.9	2.0	0.6	3.1	2.7	7.9	4.3	5.1	2.9	6.5	1.5	5.3	5.8	4.0	4.3	8.0	6.9	3.2	4.5	4.5	3.4	4.9	2.9
Total													100%													

Table 7.9. Respondents use of outpatient, dental and hospital services (multiple answer)

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption					Insurance	
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest	Yes	No
Outpatient health care services N=4675	23.1	27.2	22.4	31.6	17.5	8.6	15.3	32.4	54.2	28.1	25.9	29.9	27.7	23.4	25.7	24.1	28.6	27.6	20.7	25.1	27.9	28.1	27.8	27.0	28.0	21.3
Dental health care services N=1443	6.9	9.0	8.3	9.8	13.3	11.4	9.6	7.6	5.4	11.1	6.1	13.5	8.2	6.3	7.6	6.5	9.0	9.5	2.6	4.6	6.1	7.4	10.5	16.7	9.5	4.4
Hospitalization in last 12 month N=1052	4.9	6.1	5.8	6.4	3.5	2.7	4.4	6.5	11.6	5.7	6.5	5.9	5.9	6.2	6.3	6.6	6.0	6.2	3.8	5.6	6.6	6.2	6.1	5.8	6.2	4.9

Table 7.10. Usage of health services by type of ownership (multiple answer)

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption					Insurance	
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest	Yes	No
State N=5067	26.6	29.4	25.0	33.6	25.7	12.6	17.6	32.4	53.7	30.3	28.3	31.9	29.7	25.8	27.8	26.8	31.3	29.9	23.0	28.3	31.6	30.1	30.5	26.6	30.3	22.0
Private N=891	5.1	5.7	5.1	6.2	3.2	7.5	7.1	6.0	4.1	7.1	3.8	9.5	4.6	4.1	5.2	3.5	4.9	6.0	0.7	1.7	2.6	4.2	6.2	13.8	5.9	3.7

Table 7.11. Usage of health services (multiply answer)

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption					Insurance	
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest	Yes	No
Doctor in state institution N=4239	22.0	24.5	20.1	28.6	15.8	7.2	13.1	29.0	50.1	25.0	23.7	25.6	24.9	21.6	23.5	22.1	26.6	24.8	20.4	24.5	27.1	25.5	24.6	20.7	25.2	18.5
Doctor in private institution N=209	2.1	1.2	1.1	1.3	0.6	0.7	1.0	1.7	1.7	1.2	1.3	1.6	1.1	0.8	1.4	1.1	1.0	1.3	0.2	0.4	0.5	1.1	1.1	3.0	1.2	1.5
Dentist in state institution N=719	4.1	4.3	3.9	4.7	10.5	4.3	3.2	3.0	2.8	4.9	3.5	5.2	4.4	2.9	3.5	4.0	4.7	4.5	2.0	3.2	3.8	4.0	5.1	5.3	4.5	2.0
Dentist in private institutions N=696	3.0	4.6	4.2	4.9	2.7	7.0	6.1	4.5	2.4	6.0	2.5	8.2	3.6	3.3	4.0	2.4	3.9	4.9	0.5	1.3	2.1	3.1	5.2	11.2	4.8	2.3
State hospital N=1033	4.9	6.0	5.7	6.2	3.5	2.7	4.2	6.4	11.5	5.6	6.5	5.8	5.8	6.0	6.3	6.4	5.9	6.1	3.8	5.6	6.6	6.0	6.0	5.7	6.1	4.8
Private hospital N=11	0.1	0.1	0.0	0.1	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.0	-	0.1	0.1	0.1	0.1	-	-	0.0	0.1	0.1	0.1	0.1	0.1
Self medication, alternative medicine N=3758	21.0	23.1	19.1	26.9	14.0	13.4	20.3	28.3	34.3	26.2	18.9	24.9	28.7	21.6	15.8	19.1	21.5	24.0	11.1	14.4	20.5	21.8	26.5	32.5	23.7	19.0

Table 7.12. Average frequency of visits to health services in last month

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption					Insurance	
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest	Yes	No
Doctor in state institution N=4239	2.5	2.0	2.0	2.0	1.8	1.9	2.1	2.2	2.0	2.0	2.0	2.0	2.1	1.9	2.1	1.9	2.0	2.0	1.9	1.8	2.0	2.0	2.2	2.1	2.0	2.0
Doctor in private institution N=209	2.2	1.8	1.8	1.8	1.9	1.6	2.5	1.8	1.5	2.0	1.5	2.0	1.5	2.1	1.6	2.0	2.1	1.7	6.4	2.5	1.5	1.5	1.5	2.0	2.0	2.0
Dentist in state institution N=719	2.0	1.9	2.1	1.7	1.6	1.6	1.8	2.4	2.1	1.9	1.7	2.2	1.7	1.9	2.1	1.5	1.5	1.9	1.7	1.4	1.6	1.9	1.8	2.3	2.0	2.0
Dentist in private institutions N=696	2.1	2.1	2.1	2.1	1.6	2.0	2.2	2.3	2.4	2.2	1.8	2.5	1.7	2.3	2.0	2.2	1.7	2.1	3.4	2.0	1.7	1.7	2.1	2.4	2.1	2.2
State hospital N=1033	1.4	1.7	1.7	1.6	1.4	1.6	1.6	1.8	1.7	1.7	1.6	1.8	1.6	1.5	1.6	1.5	1.9	1.7	1.3	1.5	1.6	1.6	1.9	1.7	1.7	1.4

Table 7.13. Average total expenditures for health care during previous month (including informal payments for medical staff) (dinar)

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption					Insurance	
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest	Yes	No
State outpatient N=4239	1033	1040	1105	997	413	931	1003	1158	1112	1040	1040	1102	1116	904	1015	1091	879	1074	451	647	923	1031	1175	1508	1432	962
Private outpatient N=209	2998	4831	4190	5321	2468	4446	4651	5563	4743	5348	4186	6745	5612	3753	2499	4291	3127	4861	2330	1795	2419	2968	4762	6272	4585	3731
State dentist N=719	303	907	1129	732	172	719	1824	1280	1526	968	786	994	1228	664	845	554	489	924	349	382	581	1021	835	1437	935	381
Private dentist N=696	2869	3134	3424	2906	2263	2986	2496	3659	4459	3324	2496	4038	3319	1883	2749	2005	1395	3148	1269	1394	1464	1961	2576	4238	2944	8073
State hospital N=1033	4072	4883	5286	4536	2460	4023	5727	5899	4641	5113	4600	5286	4621	4542	5270	4025	5128	5032	1492	2363	3583	5016	6389	7151	5032	3094
Private hospital N=11	19785	24956	32500	24304	-	-	19325	14291	36548	34965	12510	35614	6767	-	22339	40400	13913	24956	-	-	12000	19231	10672	45534	24304	32500
Alternative medicines N=3758	471	656	647	663	444	628	599	724	690	726	520	849	631	444	700	568	537	666	378	456	516	552	678	887	655	710

Table 7.14. Respondents insured in 2002

N=17011	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Yes	94.2	92.0	91.5	92.4	70.9	95.8	95.0	94.8	96.0	93.9	89.2	92.8	93.4	89.7	92.2	91.1	89.8	92.5	85.0	88.4	91.7	92.1	93.6	94.2
No	5.6	8.0	8.5	7.6	29.1	4.2	5.0	5.2	4.0	6.1	10.8	7.2	6.6	10.3	7.8	8.9	10.2	7.5	15.0	11.6	8.3	7.9	6.4	5.8
Total	100%																							

Table 7.15. Type of health insurance coverage (percent)

N=17375	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
No health insurance	-	6.1	7.1	5.1	5.2	7.1	7.2	6.5	4.2	3.4	9.8	4.3	4.0	7.0	6.8	7.5	10.6	5.5	13.8	10.0	6.0	6.6	4.3	3.5
Has health insurance based on employment	30.4	29.2	34.3	24.4	1.1	24.6	60.0	48.0	4.1	32.6	24.2	35.0	28.0	27.5	28.3	26.8	25.6	30.5	10.6	15.8	23.6	27.8	34.7	43.8
Has health insurance based on pension	24.3	23.5	21.8	25.1	1.1	1.1	2.1	19.8	79.6	23.4	23.7	23.7	21.9	22.8	25.7	27.8	21.8	23.8	20.0	26.7	27.5	23.8	21.0	18.6
Has health insurance based on employment of other household	32.7	30.0	24.7	34.9	90.6	49.8	11.3	11.6	10.5	29.4	30.7	28.8	32.0	31.9	26.8	29.7	30.1	29.9	30.6	29.0	29.5	30.2	31.8	29.3
Has health insurance based on unemployment	10.9	10.9	11.7	10.2	1.5	17.0	19.1	13.7	1.4	10.7	11.2	7.6	14.0	10.8	11.2	8.1	11.4	10.1	22.9	17.7	13.1	11.5	7.5	4.7
IDP Health insurance	0.9	0.4	0.5	0.3	0.5	0.5	0.4	0.4	0.2	0.4	0.4	0.7	0.0	-	1.1	0.0	0.4	0.3	2.2	0.7	0.4	0.1	0.7	0.1
Total	100%																							

Table 7.16. Respondents with types of health problems

	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Hearing problems N=79	9.6	0.5	0.6	0.4	0.2	0.2	0.2	0.4	1.2	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.2	0.4	0.7	0.6	0.7	0.3	0.4	0.2
Problems with eyes N=289	15.3	1.8	1.6	2.0	0.3	1.1	0.9	1.9	4.1	1.8	1.8	2.5	1.9	1.1	1.5	1.5	1.5	1.9	1.2	1.4	1.8	1.6	1.5	2.7
Mobility problems N=1357	5.1	7.5	6.3	8.7	0.2	0.6	3.5	10.7	18.4	6.5	9.0	6.7	7.7	8.9	7.1	8.5	7.5	7.4	9.6	9.0	8.8	7.4	7.2	5.4

Table 7.17. Whether respondent classified themselves as an invalid

N=818	Total		Gender		Age					Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	0 - 14	15 - 29	30 - 44	45 - 59	60+	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Non poor	Poor	Poorest	2	3	4	Richest
Yes	5.1	4.9	5.7	4.1	0.1	0.5	2.3	8.3	10.1	5.1	4.5	4.9	6.3	4.3	3.7	4.7	3.8	5.0	3.1	4.8	5.6	4.3	5.0	4.5
No	94.7	95.1	94.3	95.9	99.9	99.5	97.7	91.7	89.9	94.9	95.5	95.1	93.7	95.7	96.3	95.3	96.2	95.0	96.9	95.2	94.4	95.7	95.0	95.5
Total	100%																							

Table 8.1. Population aged 3-24 years old

		Total		Gender		Education of household head				Settlement		Region						Poverty line		Quintiles of consumption				
		2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Unweighted	Count / Sample	4967	3583	1767	1816	1113	511	1354	605	2008	1575	615	876	448	606	400	638	285	3298	736	693	716	754	684
Weighted	Count / Population	1889608	1552256	764512	787744	418165	213987	622415	297688	952306	599950	370050	439376	151134	230118	126240	235338	112068	1440188	288956	284643	297812	334261	346585
	Row %	100,0	100,0	49,3	50,7	26,9	13,8	40,1	19,2	61,3	38,7	23,8	28,3	9,7	14,8	8,1	15,2	7,2	92,8	20,0	20,0	20,0	20,0	20,0

Table 8.2. Children from 3 to 5 who attended kindergarten, by type of kindergarten (percent)

	Total		Gender		Education of household head				Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		467																					
Public / state kindergarten	33.4	38.1	39.2	37.1	15.3	28.0	50.0	61.9	48.6	21.8	55.4	37.4	42.9	29.0	15.3	30.2	12.7	40.5	14.9	23.9	42.8	49.0	63.3
Private kindergarten	2.1	1.8	2.3	1.3	0.3	3.1	1.3	4.5	2.4	0.8	4.1	0.7	3.2	0.9	0.0	1.3	0.0	2.0	0.0	0.0	3.2	1.5	4.2
Religious kindergarten	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Do not attend	64.4	60.1	58.5	61.7	84.4	68.9	48.7	33.6	48.9	77.4	40.6	61.9	53.9	70.1	84.7	68.5	87.3	57.5	85.1	76.1	54.0	49.5	32.5
Total												100%											

Table 8.3. Children from 6 to 7 who attended preschool institutions, by type of preschool institution (percent)

	Total		Gender		Education of household head				Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		163																					
Public / state kindergarten	50.0	81.9	80.6	83.6	57.4	89.9	92.1	92.0	86.8	75.2	90.3	74.6	71.4	86.8	71.3	96.6	33.6	87.9	52.5	92.5	90.6	85.8	100.0
Private kindergarten	0.5	0.8	0.0	1.8	0.0	0.0	0.0	5.0	1.3	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	3.4	0.0
Religious kindergarten	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Do not attend	48.8	17.4	19.4	14.7	42.6	10.1	7.9	3.0	11.9	24.8	9.7	22.8	28.6	13.2	28.7	3.4	66.4	11.3	47.5	7.5	9.4	10.8	0.0
Total												100%											

Table 8.4. Children from 3 to 5 by the reason they do not attend kindergarten (percent)

	Total		Gender		Education of household head				Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		298																					
Child is too young	13.9	17.9	16.5	19.2	23.2	14.3	13.8	12.8	12.0	23.7	13.7	31.4	13.2	11.9	12.0	8.8	38.4	15.0	26.1	21.8	7.5	10.6	17.1
Service is too expensive	14.5	13.1	17.0	9.4	12.9	23.0	11.2	3.2	16.6	9.7	15.0	10.0	11.4	6.0	19.6	25.4	23.3	11.7	19.3	10.4	15.9	5.8	6.0
Too far away	14.8	13.5	16.4	10.8	20.0	8.9	7.9	10.0	1.2	25.7	4.2	9.3	15.1	20.8	18.2	18.0	9.3	14.1	8.9	12.7	16.2	17.5	17.8
Bad quality of service	0.4	0.5	0.5	0.4	0.0	0.0	0.7	2.5	0.5	0.4	0.0	0.0	0.0	0.0	2.1	1.9	0.0	0.5	0.7	0.0	0.0	1.7	0.0
No need/prefers to stay home	43.6	37.5	33.7	41.2	32.9	35.3	37.7	61.2	48.1	27.1	47.9	35.2	45.7	39.7	26.7	29.4	21.8	39.7	29.9	37.7	37.8	46.6	46.2
No vacancies or places available	12.5	7.0	4.2	9.7	4.5	7.6	11.9	2.4	9.4	4.7	11.8	3.2	12.2	6.9	2.7	9.8	0.0	8.0	1.0	10.7	7.4	8.2	13.0
Other	13.9	10.5	11.6	9.3	6.5	10.9	16.8	7.9	12.2	8.7	7.4	10.9	2.5	14.7	18.8	6.6	7.2	10.9	14.0	6.7	15.2	9.6	0.0
Total												100%											

Table 8.5. Children from 6 to 7 by the reason why they do not attend preschool institution (percent)

	Total		Gender		Education of household head				Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		30																					
The child is too small	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Service is too expensive	10.8	19.0	23.9	10.7	21.2	0.0	22.2	0.0	19.3	18.9	38.2	8.3	31.1	0.0	28.3	0.0	28.0	12.5	23.6	0.0	0.0	21.4	0.0
Too far away	18.3	25.9	17.7	39.9	31.3	48.1	0.0	0.0	22.0	28.5	26.4	27.4	23.9	32.9	0.0	100.0	28.8	23.8	27.3	0.0	40.5	24.0	0.0
Bad quality of service	0.5	8.4	8.6	8.1	3.4	0.0	31.6	0.0	6.1	9.9	0.0	15.5	0.0	0.0	22.8	0.0	14.2	4.2	12.4	0.0	0.0	0.0	0.0
No need/prefers to stay	49.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	11.1	46.6	49.8	41.2	44.1	51.9	46.2	100.0	52.7	42.7	35.4	48.9	45.0	67.1	48.9	0.0	29.0	59.5	36.8	100.0	59.5	54.6	0.0
Total												100%											

Table 8.6. Average number of hours a day that child from 3 to 7 spends in kindergarten or preschool institution

	Total	Children from 3 to 7		Gender		Education of household head				Settlement		Region						Poverty line		Quintiles of consumption				
		3-5	6+	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Hours a day, 2002.	6.2	6.8	5.7	6.4	5.9	4.9	6.2	6.5	6.6	6.6	5.0	6.8	5.8	5.6	6.3	6.1	5.8	4.5	6.2	4.5	5.8	6.1	6.0	6.7
Hours a day, 2007.	6.1	6.5	5.5	6.0	6.2	5.1	6.3	6.1	6.4	6.4	5.2	6.5	5.5	6.1	6.2	6.8	5.8	4.8	6.1	5.2	5.2	6.5	6.3	6.4

Table 8.7. Average monthly amount paid for kindergarten or preschool institutions (dinar)

	Total	Children from 3 to 7		Gender		Education of household head				Settlement		Region						Poverty line		Quintiles of consumption				
		3-5	6+	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Average amount, 2002.	1026	1174	918	1149	866	919	900	1018	1203	1069	870	1438	786	1001	869	1577	584	317	1046	370	816	1089	888	1242
Average amount, 2007.	1850	2179	1377	1844	1856	1007	1818	1631	2804	2123	1173	2681	1494	1510	1439	1890	1501	621	1893	801	1011	1398	2237	2887

Table 8.8. Children from 3 to 7 who attended private lessons 2 or more times a week (percent)

	Total		Children from 3 to 7		Gender		Education of household head				Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	3-5	6+	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		609																							
Yes	8.6	11.8	9.1	19.7	9.9	13.8	2.3	10.7	11.8	30.1	18.1	2.5	23.7	10.8	9.6	2.3	12.1	8.1	1.6	12.8	1.0	0.0	12.2	13.4	35.2
No	91.4	88.2	90.9	80.3	90.1	86.2	97.7	89.3	88.2	69.9	81.9	97.5	76.3	89.2	90.4	97.7	87.9	91.9	98.4	87.2	98.9	100	87.8	86.6	64.8
Total													100%												

Table 8.9. Children from 7 to 14 by school that they were attending at the time of LSMS 2007 (percent)

	Total		Gender		Education of household head				Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		1386																					
Does not attend school	1.4	1.6	2.0	1.2	4.4	0.0	0.6	0.0	1.0	2.4	0.0	2.7	3.5	2.4	0.6	0.4	11.8	0.6	5.1	0.4	1.1	0.8	0.0
Primary school	97.0	97.5	97.1	97.9	93.4	100.0	99.1	99.2	98.1	96.7	99.0	95.8	95.9	97.3	98.5	99.0	82.5	99.0	92.1	99.3	98.6	99.0	99.3
Three-year secondary school	0.1	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.0	0.6	0.0	0.2	0.0	0.0	0.0	0.0
Four-year secondary school	0.4	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.1	0.3	0.0	0.0	0.0	0.0
Special school for children with disabilities	0.8	0.6	0.7	0.5	2.0	0.0	0.0	0.0	0.6	0.7	1.0	1.0	0.0	0.0	1.0	0.3	5.1	0.2	2.3	0.0	0.3	0.2	0.0
Gymnasium	0.3	0.2	0.0	0.4	0.0	0.0	0.2	0.8	0.3	0.0	0.0	0.4	0.7	0.0	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0	0.7
Total												100%											

Table 8.10. Children from 7 to 14 by in grade which child attended in 2006/2007

	Total		Gender		Education of household head				Settlement		Region						Poverty line 2007		Quintiles of consumption				
	2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		1219																					
The same grade	0.9	1.0	0.7	1.3	1.9	1.5	0.5	0.0	0.4	1.8	0.0	1.7	0.8	0.0	1.3	1.7	3.6	0.7	2.0	1.7	0.5	0.6	0.0
The next grade	99.1	99.0	99.3	98.7	98.1	98.5	99.5	100.0	99.6	98.2	100.0	98.3	99.2	100.0	98.7	98.3	96.4	99.3	98.0	98.3	99.5	99.4	100.0
Total												100%											

Table 8.11. Percentage of children from 7 to 14 who attended organized classes (private classes), 2 or more classes a week (languages, music, sport,…)

Base: Population of children 7 to 14 years old

	Total		Gender		Education of household head				Settlement		Region						Poverty line 2007		Quintiles of consumption				
	2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		1352																					
Yes	19.9	29.2	29.6	28.8	16.3	20.2	31.7	52.9	35.8	20.1	42.7	33.1	30.2	24.9	14.3	18.3	3.1	31.4	11.1	15.2	29.7	33.9	59.3
No	80.1	70.8	70.4	71.2	83.7	79.8	68.3	47.1	64.2	79.9	57.3	66.9	69.8	75.1	85.7	81.7	96.9	68.6	88.9	84.8	70.3	66.1	40.7
Total												100%											

Table 8.12. Average amount spent for child education in primary school, in 2006/2007 school year (the data are presented for each child separately) (dinar)
Base: Population of children 7 to 14 years old who attended school in 2006/2007

	% of children who attended primary school		Total	Gender		Education of household head				Settlement		Region						Poverty line 2007		Quintiles of consumption				
	2002	2007		Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Textbooks, books	91.2	97.2	4299	4301	4297	4282	3832	4189	4965	4336	4249	4206	4460	3707	4394	4759	4122	3770	4342	3744	4163	3990	4642	4990
Other school materials (notebooks, school bags, pencils)	90.4	96.2	2257	2313	2198	1968	2176	2324	2648	2484	1950	2532	2320	2003	2686	2040	1702	1296	2330	1527	1822	2058	2577	3341
Meals at school	55.8	54.9	5398	5821	4957	5963	5050	4821	5927	5795	4857	6205	4464	6712	4930	6438	5427	4202	5482	3629	4570	5683	6287	6227
Transport to school	9.4	6.8	4723	4644	4840	5161	3084	3660	7505	4620	4797	3117	3907	3961	6429	8021	5090	1174	4831	3234	5273	3993	4436	5741
Excursions, recreation	60.5	64.3	4887	4661	5115	4084	4471	5042	5917	5755	3697	6199	4548	5425	4198	4356	4560	2829	4937	2982	3915	5480	5257	5865
Help for school repairs, and maintenance costs	15.1	13.4	452	440	462	354	485	510	422	487	376	509	432	371	370	667	417	255	454	182	478	620	462	423
Membership in children's organizations	6.6	8.3	1107	1085	1132	1870	1030	1198	518	1123	1069	976	1594	206	1090	261	756	2679	1083	1867	580	638	1285	1046
Gifts to the teaching and other school staff	13.9	14.2	329	306	358	345	320	292	398	354	295	369	402	179	353	271	228	175	332	216	230	316	348	439
Other	8.6	8.4	1154	1188	1114	1667	729	878	1885	1355	996	1162	553	800	2540	2091	1250	674	1167	931	763	942	1331	1515
Total	83.6	99.6	13146	13385	12902	12377	11912	12604	16844	14140	11804	13819	12437	13047	14571	14242	11685	7603	13592	8320	10912	12949	15614	18334

Table 8.13. Children from 15 to 19 by type of school currently attending (percent)

	Total	Gender		Education of household head				Settlement		Region						Poverty line 2007		Quintiles of consumption				
	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample	1017																					
Does not attend school	16.7	20.9	12.4	28.4	16.9	12.5	6.0	13.9	20.7	10.1	21.5	21.1	16.2	14.3	16.5	41.9	14.9	36.3	18.9	11.5	12.2	6.0
Primary school	8.4	8.7	8.1	10.0	9.2	7.4	7.3	8.9	7.7	9.2	9.1	6.8	8.6	9.0	6.3	11.9	8.1	8.2	8.6	7.7	8.5	8.9
Vocational school - 1 year	1.4	0.9	2.0	2.1	1.1	1.6	0.0	1.3	1.6	0.0	2.7	1.5	2.7	1.0	0.0	0.0	1.5	0.0	3.8	0.9	1.9	0.4
Vocational school - 2 years	0.3	0.5	0.2	0.3	1.0	0.3	0.0	0.3	0.4	0.0	0.4	0.0	0.9	0.0	0.5	1.1	0.3	0.4	0.0	0.8	0.0	0.5
Three-year secondary school	12.0	15.4	8.7	14.7	12.9	14.2	1.8	10.2	14.6	10.4	15.1	15.9	8.7	11.1	10.1	13.0	11.9	14.1	15.3	15.1	12.0	4.3
Four-year secondary school	43.1	37.9	48.4	35.0	48.8	47.9	41.2	41.4	45.5	45.4	39.4	42.6	43.5	44.1	45.9	25.8	44.4	32.7	43.8	50.8	43.6	44.3
Four-year art school	1.5	0.9	2.1	0.6	2.5	1.8	1.2	1.4	1.6	2.2	0.8	0.7	2.6	0.0	1.6	0.0	1.6	0.5	2.1	1.4	2.0	1.3
Special school for children with disabilities	0.4	0.5	0.2	0.6	0.7	0.2	0.0	0.3	0.5	0.0	0.4	0.0	1.1	1.0	0.0	1.2	0.3	0.9	0.0	0.4	0.5	0.0
Gymnasium	15.7	14.1	17.3	7.0	6.7	13.8	42.5	22.0	6.7	22.6	9.8	11.3	14.5	18.5	19.0	3.8	16.5	5.9	6.0	11.3	19.2	34.2
Specialist education following secondary education lasting one year	0.5	0.2	0.8	1.4	0.0	0.3	0.0	0.3	0.7	0.0	0.8	0.0	1.2	1.0	0.0	1.2	0.4	1.0	1.4	0.0	0.0	0.0
Total											100%											

Table 8.14. Children from 15 to 19 by grade in 2006/2007 (percent)

	Total		Gender		Education of household head				Settlement		Region						Poverty line 2007		Quintiles of consumption				
	2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		626																					
The same grade	1.6	1.9	2.6	1.3	3.1	1.6	1.5	1.3	1.3	2.8	1.1	2.6	0.0	0.9	0.0	5.4	3.1	1.8	2.0	2.7	2.7	1.6	0.6
The next grade	98.4	98.1	97.4	98.7	96.9	98.4	98.5	98.7	98.7	97.2	98.9	97.4	100.0	99.1	100.0	94.6	96.9	98.2	98.0	97.3	97.3	98.4	99.4
Total													100%										

Table 8.15. Children aged 15 to 19 who attended private classes 2 or more times a week (percent)

	Total		Gender		Education of household head				Settlement		Region						Poverty line 2007		Quintiles of consumption				
	2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		811																					
Yes	13.0	22.2	21.6	22.6	10.8	11.3	21.4	46.2	28.8	11.8	30.5	22.9	16.2	19.6	16.7	17.4	0.0	23.1	4.0	7.0	19.1	26.0	43.0
No	87.0	77.8	78.4	77.4	89.2	88.7	78.6	53.8	71.2	88.2	69.5	77.1	83.8	80.4	83.3	82.6	100.0	76.9	96.0	93.0	80.9	74.0	57.0
Total													100%										

Table 8.16. Average value of money (in RSD) spent for child education in secondary school, in 2006/2007 school year (the data are presented for each child separately)

Base: Population 15 to 19 years old who attended secondary school in 2006/2007

	% of children who attended secondary school		Total	Gender		Education of household head				Settlement		Region						Poverty line 2007		Quintiles of consumption				
	2002	2007		Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Textbooks, books	88.7	84.1	4683	4529	4816	3879	4028	4386	6650	5101	4042	6318	4174	3853	3978	5020	4012	4335	4698	4186	3956	3667	4718	6333
Other school materials (notebooks, school bags, pencils)	88.0	83.5	2028	1890	2151	1666	1955	2008	2578	2115	1895	2488	1976	1535	2248	1742	1699	1688	2043	1900	1628	1823	2103	2541
Meals at school	46.3	39.3	10487	10097	10835	10168	9977	10625	11041	11030	9486	11472	10643	13575	8398	10230	10001	2963	10780	5273	9152	9894	12347	12692
Transport to school	48.2	42.2	10741	9585	11757	14404	12115	9985	5534	7319	13440	5539	13207	9667	11133	23922	12487	5138	10910	9912	8906	13630	11795	9138
Excursions, recreation	42.9	36.5	13695	12681	14596	10384	16356	13160	15657	15515	10532	17649	10357	12522	13634	12465	13172	12334	13724	7131	9197	11145	12113	19839
Help for school repairs, and maintenance costs	12.1	14.0	1076	850	1294	934	2450	792	1124	1098	1022	1114	1393	622	605	1392	666	100	1081	860	1863	819	648	1234
Membership in children's organizations	4.3	3.8	1664	1277	2028	632	385	2449	1450	1872	742	2868	1080	888	1347	800	972	0	1664	1000	521	417	3142	1359
Gifts to the teaching and other school staff	7.2	7.7	509	466	524	286	245	419	1445	611	338	729	443	229	1047	372	175	200	514.6	192	202	414	528	887
Other	12.3	9.5	7885	7357	8387	8677	11266	3469	15127	5962	9131	13679	3815	31482	3978	13272	9504	1000	7955	3367	5230	14287	6965	5636
Total	95.1	87.7	23152	21604	24524	22278	25287	21829	25412	22411	24278	25366	21864	21514	24455	24602	20823	11272	23670	14846	16398	23792	26022	30417

Table 8.17. Percentage of citizens from 19 to 24 by the higher education status at the moment of research

	Total		Gender		Education of household head				Settlement		Region						Poverty line 2007		Quintiles of consumption				
	2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		1158																					
Student	34.0	38.9	32.5	45.3	18.7	26.0	44.9	71.8	46.2	25.8	55.9	32.6	24.3	28.7	35.6	47.8	14.2	40.1	15.8	26.2	33.4	51.5	55.9
Does not study	66.0	61.1	67.5	54.7	81.3	74.0	55.1	28.2	53.8	74.2	44.1	67.4	75.7	71.3	64.4	52.2	85.7	59.9	84.2	73.8	66.6	48.5	44.1
Total												100%											

Table 8.18. Percentage of students from 19 to 24 by type of apartment that student lives in

	Total		Gender		Education of household head				Settlement		Region						Poverty line 2007		Quintiles of consumption				
	2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		32																					
In apartment with family/own apartment	70.5	47.7	56.5	42.4	37.8	45.3	100.0	47.7	48.3	40.6	41.8	70.8	0.0	46.4	0.0	71.9	0.0	47.7	0.0	0.0	0.0	90.4	36.5
In rented apartment/room	22.3	52.3	43.5	57.6	62.2	54.7	0.0	52.3	51.7	59.4	58.2	29.2	100.0	53.6	100.0	28.1	0.0	52.3	0.0	0.0	100.0	9.6	63.5
In dormitory	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total												100%											

Table 8.19. Percentage of students from 19 to 24 who attended organized classes (private classes), 2 or more classes a week (languages, music, sport,…)

	Total		Gender		Education of household head				Settlement		Region						Poverty line 2007		Quintiles of consumption				
	2002	2007	Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Sample		32																					
Yes	10.0	8.9	17.1	4.0	0.0	0.0	7.8	38.5	8.2	16.3	10.5	0.0	0.0	0.0	0.0	17.7	0.0	8.9	0.0	0.0	0.0	16.3	7.0
No	90.0	91.1	82.9	96.0	0.0	100.0	92.2	61.5	91.8	83.7	89.5	100.0	100.0	100.0	100.0	82.3	0.0	91.1	0.0	0.0	100.0	83.7	93.0
Total														100%									

Table 8.20. Average value of money (in RSD) spent for student education, in 2006/2007 school year (the data are presented for each person separately)

Base: Population 19 to 24 years old who attended higher education in 2006/2007

	% of students		Total	Gender		Education of household head				Settlement		Region						Poverty line 2007		Quintiles of consumption				
	2002	2007		Male	Female	No school / Primary school	Vocational school	Secondary school	University	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest
Monthly amount paid for rented flat/room	8.6	42.1	10315	7602	11067	0	5949	10797	0	11089	5716	11089	0	5200	0	8000	4000	0	10315	0	0	5200	0	10555
Tuition fees for 2006/7	62.6	32.1	49187	57655	31383	0	18717	24256	153814	53304	37410	92136	22318	0	70000	30000	29868	0	49187	0	0	0	38705	56410
Textbooks, books, scripts	84.8	94.9	6448	5707	6766	0	9513	6123	8737	6422	6665	5033	8213	4000	4431	9000	11205	0	6448	0	0	4000	7354	6151
Other school material	68.9	78.0	1393	2610	971	0	5000	1176	2540	1305	2140	1285	400	500	1000	0	2218	0	1393	0	0	500	2202	1194
Transport to faculty/post-secondary school	64.2	65.4	2176	3298	1576	0	1974	1789	8060	1653	5758	1388	0	0	12000	3000	3261	0	2176	0	0	0	1976	2230
Meals in canteen	22.7	8.2	18222	36000	8859	0	0	18222	0	18222	0	0	0	0	0	0	18222	-	18222	-	-	0	31278	1000
Administrative fees on faculty	39.8	62.0	870	794	897	0	0	865	1000	865	1000	903	100	0	716	0	2000	0	870	0	0	0	837	885
Membership in students organizations	6.5	20.7	685	400	770	0	0	685	0	685	0	685	0	0	0	0	0	0	685	0	0	0	0	685
Gifts to the teaching staff	0.2	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	12.7	14.3	5422	9203	1241	0	10000	4612	0	5028	6503	2000	12000	0	1500	0	4412	0	5422	0	0	0	6087	4412
Total	100.0	100.0	31726	53577	20665	0	43846	21288	170437	29688	49649	26795	37039	9700	41798	50000	44881	0	31726	0	0	9700	36683	30448

Table 9.1. Population aged 15+

		Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
		2002	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Unweighted	Count / Sample	16855	14945	7185	7760	6081	7108	1756	7795	7150	2411	3548	1989	2844	1774	2379	1063	13882	3315	3152	3060	2811	2607
Weighted	Count / Population	6396053	6376331	3043909	3332422	2351132	3129967	895232	3732066	2644265	1433614	1788384	666313	1083032	552045	852943	393369	5982962	1250842	1281341	1268427	1270108	1305614
	Row %	100.0	100.0	47.7	52.3	36.9	49.1	14.0	58.5	41.5	22.5	28.0	10.4	17.0	8.7	13.4	6.2	93.8	20.0	20.0	20.0	20.0	20.0

Table 9.2. Population 15+ by Activity Status (percent)

	Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Sample		14945																				
Employed	51.6	47.0	56.0	38.7	30.4	54.5	64.0	44.9	49.9	45.4	45.7	54.5	47.0	47.7	45.8	33.0	47.9	36.5	43.1	46.2	52.5	56.2
Unemployed	6.3	7.1	7.0	7.2	4.2	9.8	5.4	7.5	6.6	5.4	7.9	6.7	7.1	6.1	9.5	14.0	6.7	10.7	8.6	8.1	5.2	3.2
Inactive	42.2	45.9	37.0	54.1	65.4	35.7	30.6	47.7	43.5	49.2	46.4	38.9	45.9	46.3	44.7	53.0	45.5	52.9	48.4	45.6	42.4	40.6
Total												100%										

Table 9.3. Labour market indicators for working age population 15-64 years old

Base: Population 15-64 years old (for unemployment rate – active population 15-64 years old)

	Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Sample		11771																				
Participation rate	67.2	64.2	72.7	56.1	44.5	70.0	81.3	62.2	67.4	61.1	63.3	70.2	65.0	64.5	65.9	61.8	64.4	60.6	63.0	64.5	66.0	66.0
Unemployed rate	11.7	13.9	11.8	16.5	14.9	15.4	7.9	14.4	13.1	10.8	15.2	12.1	14.2	12.2	18.2	33.0	12.9	25.4	17.9	15.7	9.2	5.5

Table 9.4. Employed population by type of employment

Base: Employed population 15+

	Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Sample		7057																				
Formal	69.3	62.1	60.7	63.9	29.0	68.3	84.9	74.7	46.1	74.1	64.3	51.2	60.6	54.9	54.5	26.6	63.7	38.4	52.3	61.1	69.1	78.6
Informal	30.7	37.9	39.3	36.1	71.0	31.7	15.1	25.3	53.9	25.9	35.7	48.8	39.4	45.1	45.5	73.4	36.3	61.6	47.7	38.9	30.9	21.4
Total													100%									

Table 9.5. Employed 15+ by Activity Sector

Base: Employed population 15+

	Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Sample		7057																				
Agriculture, forestry and water works supply	28.1	23.6	23.4	23.9	63.0	13.8	3.6	5.2	47.0	3.0	23.2	39.4	29.8	34.4	28.7	47.0	22.5	42.6	32.4	25.6	18.2	8.5
Fishing	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0
Mining and quarrying	0.7	0.9	1.3	0.4	0.2	1.2	0.8	1.2	0.5	0.8	0.7	0.3	1.0	3.0	0.3	0.9	0.9	0.9	0.8	1.3	0.9	0.7
Manufacturing	15.6	18.1	20.8	14.5	12.9	22.3	12.1	20.0	15.6	13.1	21.2	17.6	22.2	13.3	18.1	15.6	18.2	18.5	20.2	20.0	18.2	14.7
Electricity, gas and water supply	2.4	1.8	2.4	1.0	0.8	2.3	1.4	2.1	1.4	3.0	1.0	1.1	1.4	3.5	1.6	0.9	1.8	1.1	1.5	1.3	2.4	2.2
Construction	4.3	6.7	10.7	1.4	6.0	7.9	4.1	7.0	6.3	7.4	7.6	4.9	5.0	5.2	8.4	10.2	6.5	7.4	7.3	6.6	6.3	6.2
Wholesale and retail trade, repair	11.5	14.7	12.8	17.1	4.4	19.6	12.8	18.3	10.0	16.3	15.6	11.5	14.0	12.0	15.5	8.0	15.0	11.2	11.6	15.3	15.2	18.1
Hotels and restaurants	2.7	2.8	2.2	3.6	1.1	4.1	0.8	3.4	1.9	2.2	1.9	4.7	2.5	2.7	4.1	3.8	2.7	2.3	2.0	3.1	3.6	2.7
Transport, storage and communications	4.5	5.6	7.6	3.0	2.9	7.2	4.5	6.8	4.2	9.3	4.9	5.2	4.2	4.6	4.0	3.9	5.7	3.5	5.7	5.0	7.3	5.8
Financial intermediation	1.3	2.1	1.0	3.6	0.1	2.2	4.6	3.3	0.7	5.3	1.4	1.4	0.8	1.8	0.9	0.7	2.2	0.6	0.9	1.6	1.7	4.8
Real estate, renting activities	0.2	3.1	2.8	3.6	0.8	2.0	9.4	5.0	0.7	7.6	2.7	1.4	1.0	2.3	1.6	0.1	3.3	1.0	2.1	2.4	2.5	6.4
Public administration and social insurance	4.8	4.9	5.4	4.3	0.9	4.4	11.4	6.5	2.9	5.7	5.0	3.7	4.9	3.8	5.4	1.6	5.1	1.8	3.3	3.9	5.7	8.1
Education	3.8	4.6	2.6	7.3	1.2	1.8	17.4	6.4	2.4	6.8	4.6	2.3	4.7	3.2	4.3	0.3	4.8	1.4	3.2	4.1	5.8	7.1
Health and social work	4.8	5.7	2.3	10.1	1.3	5.5	11.7	7.8	3.0	8.1	5.0	4.1	5.3	5.3	5.2	0.8	5.9	2.4	4.1	5.1	6.5	8.6
Other community, social and personal service activities	14.8	4.8	4.6	5.2	3.2	5.4	5.3	6.2	3.1	10.2	4.5	1.9	3.0	4.6	1.9	5.1	4.8	4.5	4.3	3.9	5.2	5.8
Households with employed persons	0.1	0.5	0.1	1.0	1.0	0.4	0.1	0.6	0.3	1.0	0.6	0.4	0.1	0.2	0.0	0.8	0.5	0.7	0.6	0.6	0.5	0.1
Extra-territorial organizations and bodies	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Total																						
												100%										

Table 9.6. Employed 15+ by Activity Sector

Base: Employed population 15+

	Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Sample		7057																				
Agriculture	28.2	23.6	23.4	23.9	63.1	13.8	3.6	5.2	47.0	3.0	23.2	39.4	29.8	34.5	28.7	47.2	22.6	42.8	32.4	25.6	18.2	8.5
Industry	23.0	27.5	35.2	17.3	19.9	33.7	18.5	30.4	23.8	24.4	30.5	23.9	29.7	25.0	28.4	27.6	27.5	28.0	29.8	29.2	27.8	23.8
Services	39.8	43.6	36.7	52.6	12.7	46.8	72.5	57.6	25.8	61.4	41.1	34.4	37.4	35.7	41.0	19.3	44.7	24.1	32.9	40.6	48.4	61.6
Other	9.0	5.3	4.7	6.2	4.3	5.7	5.4	6.8	3.4	11.3	5.1	2.3	3.1	4.7	1.9	5.9	5.3	5.2	4.8	4.6	5.6	6.1
Total													100%									

Table 9.7. Employed population by permanent and non permanent work

Base: Employed population 15+

	Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Sample		7057																				
Permanent job	58.3	77.1	76.0	78.4	68.0	77.9	86.0	79.2	74.4	81.0	72.5	84.2	76.6	82.0	70.7	58.2	77.9	65.8	73.2	76.4	80.7	84.2
Temporary job	11.7	7.8	7.5	8.3	4.6	8.8	9.1	9.6	5.6	8.9	9.1	7.7	7.8	3.4	6.6	8.0	7.8	8.9	8.2	7.7	7.3	7.4
Seasonal job	19.0	8.4	9.0	7.6	19.7	6.0	1.4	3.8	14.2	2.6	10.0	3.9	11.0	7.9	15.8	17.8	8.0	16.0	11.7	8.5	6.5	2.9
Casual job	11.0	6.7	7.5	5.6	7.8	7.3	3.5	7.4	5.8	7.4	8.5	4.3	4.6	6.8	6.9	16.0	6.3	9.3	6.9	7.4	5.5	5.5
Total													100%									

Table 9.8. Employment by ownership status of the company in which respondents perform their main job, 2007
Base: Company employees 15+

	Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Sample		4821																				
Private registered	25.0	48.2	49.6	46.7	45.6	54.4	33.4	47.1	50.3	44.1	56.1	51.1	47.3	39.0	44.4	46.9	48.3	50.8	49.0	51.8	44.8	46.9
Private non registered	1.5	7.0	7.0	7.0	24.5	4.7	1.2	3.4	13.4	2.9	7.2	8.2	5.5	13.2	11.6	25.3	6.3	17.6	10.7	7.5	4.1	1.3
State owned	70.7	36.6	33.5	40.5	20.8	32.0	59.7	41.2	28.4	45.6	29.7	28.8	39.6	34.0	37.9	18.3	37.3	22.6	30.3	33.1	42.3	45.6
Social owned	-	6.2	7.8	4.2	6.2	7.1	3.6	6.3	5.8	5.1	5.0	9.6	6.0	10.9	5.2	4.7	6.2	6.1	8.0	6.0	7.1	4.2
Other	2.8	2.0	2.2	1.7	3.0	1.7	2.0	2.0	2.0	2.3	2.0	2.2	1.6	2.8	0.9	4.8	1.9	2.9	2.0	1.7	1.6	2.0
Total												100%										

Table 9.9. Size of company (number of employees) in which respondents perform their main job (percent)

	Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Sample		4723																				
Micro <10	13.7	55.2	53.7	56.9	67.6	56.9	42.1	51.5	61.8	45.7	52.0	56.0	59.6	69.9	65.0	65.0	73.2	65.6	57.0	58.3	53.3	48.0
Small 10-50	13.9	23.5	24.6	22.2	16.2	23.1	29.4	25.3	20.2	27.9	24.4	22.3	21.9	16.5	20.3	20.3	13.7	19.2	22.1	21.3	25.3	26.6
Medium 50-250	23.6	12.7	12.7	12.6	9.5	11.3	18.3	13.2	11.7	14.5	14.4	16.8	10.6	6.4	8.9	8.9	5.1	8.4	12.1	11.7	13.5	15.1
Large 250+	48.9	8.7	9.0	8.3	6.7	8.6	10.1	10.0	6.3	11.9	9.2	4.9	7.9	7.2	5.8	5.8	8.0	6.8	8.8	8.8	7.8	10.3
Total													100%									

Table 9.10. Employed 15+ by years of working experience (percent)

	Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Sample		7057																				
<1 year	13.1	3.6	3.3	3.9	2.5	4.2	3.1	3.8	3.2	3.8	4.6	2.9	2.3	1.9	4.4	5.2	3.5	3.8	4.4	3.9	3.3	2.7
1-10	24.0	27.1	25.9	28.7	13.8	32.3	28.4	31.1	22.1	32.2	28.5	23.1	25.4	24.9	23.2	22.5	27.3	25.7	25.3	26.5	27.1	29.8
11-20	25.7	23.2	22.2	24.6	17.7	25.1	24.5	23.5	22.9	22.2	23.9	21.7	21.0	24.3	26.9	22.2	23.3	20.3	21.7	24.3	25.9	22.9
21-30	23.6	25.0	25.2	24.7	21.9	24.6	30.1	26.6	23.0	26.9	25.3	22.9	25.0	23.2	24.4	20.3	25.2	21.7	24.3	24.8	24.8	27.9
30 +	13.6	21.1	23.4	18.1	44.2	13.9	13.9	15.0	28.9	14.9	17.7	29.4	26.3	25.7	21.2	29.8	20.7	28.5	24.4	20.5	18.8	16.7
Total													100%									

Table 9.11. Average number of years of work experience of employed respondents 15+

	Total	Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
		Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Average, 2002.	16.2	17.1	14.9	16.8	15.7	17.1	16.8	15.3	17.0	16.1	16.3	14.9	15.8	17.0	15.4	16.3	14.7	16.5	16.1	16.9	16.3
Average, 2007.	20.1	20.8	19.2	29.0	17.1	18.0	17.7	23.2	17.5	18.4	23.2	22.2	22.5	20.8	23.3	20.0	22.9	21.3	19.9	19.3	18.5

Table 9.12. Employed with an additional job (percent)

	Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
	2003	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Sample		7057																				
Have additional job	11.9	8.8	10.5	6.5	6.7	9.0	10.7	6.9	11.2	7.1	11.6	6.8	9.6	8.0	6.9	3.9	9.0	6.6	8.6	7.7	9.1	10.9
Do not have	88.1	91.2	89.5	93.5	93.3	91.0	89.3	93.1	88.8	92.9	88.4	93.2	90.4	92.0	93.1	96.1	91.0	93.4	91.4	92.3	90.9	89.1
Total											100%											

Table 9.13. Average number of working hours a week for main and additional job

	Total	Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
		Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Main job, 2003.	37.4	39.1	35.0	35.3	38.7	36.9	37.8	36.9	38.5	38.8	35.4	36.3	36.7	36.5	33.9	37.7	34.0	36.3	37.6	38.2	39.7
Additional job, 2003.	20.7	21.7	18.1	22.5	21.2	16.0	18.0	22.7	19.1	21.5	21.6	19.6	21.7	21.3	22.7	20.5	21.9	20.8	21.4	21.7	18.4
Main job, 2007.	42.0	44.1	39.3	42.1	42.6	40.1	41.3	42.9	40.8	39.8	42.6	44.1	44.2	44.0	41.4	42.1	40.9	40.5	43.1	43.3	41.9
Additional job, 2007.	16.8	18.5	13.1	18.4	18.1	12.2	12.9	19.9	12.5	13.4	19.5	20.4	24.0	21.4	20.9	16.7	21.0	18.5	17.6	17.4	13.3

Table 9.14. Respondents 15+ who received money from working or pensions during the month preceding the survey

	Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Sample		14945																				
Money from working activity	41.5	36.6	44.5	29.3	17.8	45.5	54.8	38.8	33.4	38.9	37.8	36.1	35.5	34.8	33.0	22.1	37.5	24.7	31.6	36.6	42.9	46.6
Money from main job	37.8	35.3	42.8	28.4	17.0	43.8	53.1	37.4	32.3	37.5	36.5	35.1	34.1	33.9	31.5	20.7	36.2	23.4	30.4	35.3	41.3	45.5
Money from pensions	24.4	26.0	24.5	27.4	36.4	18.5	24.9	25.7	26.4	25.6	24.4	25.6	28.4	30.5	24.3	23.5	26.2	30.5	29.8	27.0	23.1	19.8
Old age pension	15.5	15.4	17.5	13.5	18.6	11.7	20.1	15.8	15.0	15.9	12.8	16.0	18.5	16.8	15.0	13.5	15.6	17.3	17.7	16.5	13.6	12.2
Disability pension	4.6	4.9	6.0	3.9	5.4	4.8	4.0	5.4	4.2	5.0	5.7	3.8	3.9	5.9	4.4	2.9	5.0	5.0	5.8	4.6	5.0	4.0
Family pension	4.0	5.3	0.6	9.6	11.6	1.9	0.8	4.5	6.5	4.3	5.6	5.5	5.6	6.7	4.8	6.9	5.2	8.0	6.0	5.7	4.0	2.9
Foreign pension	0.4	0.6	0.6	0.6	1.2	0.3	0.2	0.3	1.0	0.7	0.4	0.6	0.6	1.3	0.4	0.3	0.6	0.3	0.5	0.7	0.6	0.9
Did not receive any money	10.9	33.5	25.9	40.5	45.1	31.0	11.8	30.8	37.4	28.8	34.9	35.5	33.4	31.2	38.4	52.2	32.3	42.5	35.6	33.0	29.9	26.9

Table 9.15. Average amount received from work or pensions in the month preceding the survey (dinar)

	Total		Gender		Education			Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Male	Female	Low	Medium	High	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Working activity	9132	22466	23153	21513	13476	20499	35839	25569	17386	30627	21216	20071	19398	18276	18390	10746	22920	13401	17154	18724	22571	33367
Main job	8978	21929	22773	20764	12869	20098	34846	25032	16854	29398	20758	19985	19129	17592	18365	10883	22344	13495	16788	18487	22308	31728
Pensions	6021	13875	16250	11938	9934	15760	24124	16001	10955	17724	14266	11588	12319	12204	11782	8364	14201	9939	12058	13623	15805	20525
Old age pension	6092	14743	16298	12910	9306	16464	24496	17681	10372	19339	16497	11711	11852	11742	12684	8839	15080	10718	12509	14646	17387	20654
Disability pension	5364	13331	14313	11949	10136	14008	21869	13811	12476	16655	12744	11885	12556	11704	11781	9874	13463	10176	12093	12993	14621	17678
Family pension	4321	9445	8521	9501	8609	11806	22010	11035	7907	11124	10145	7961	9035	8381	8056	6783	9678	8116	8904	9379	10622	12598
Foreign pension	27215	30128	33944	26260	29479	33965	20032	27745	31348	21444	18538	32855	51827	38817	17577	6174	30917	8036	28947	19708	24288	48954

Table 10.1 Agricultural Households

		Total		Settlement		Region						Poverty line		Quintiles of consumption				
		2002	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Unweighted	Count / Sample	2258	1940	340	1597	110	406	340	428	296	360	168	1772	527	443	386	337	247
Weighted	Count / Population	799572	723784	154345	569440	54663	198772	107033	156710	87659	118947	54224	669561	176754	162192	144948	134809	105081
	Row %	100,0	100,0	21,3	78,7	7,6	27,5	14,8	21,7	12,1	16,4	7,5	92,5	24,4	22,4	20,0	18,6	14,5

Table 10.2. Agricultural households[1] (percent)

	Total		Settlement		Region						Poverty line		Quintiles of consumption				
	2002	2007	Urban	Rural	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	Poorest	2	3	4	Richest
Sample		5577															
Agricultural households	32.9	30.1	10.7	59.3	9.8	28.2	43.3	39.6	43.0	40.2	36.7	29.7	37.33	34.8	31.5	28.2	20.03
Other households	67.1	69.9	89.3	40.7	90.2	71.8	56.7	60.4	57.0	59.8	63.3	70.3	62.67	65.2	68.5	71.8	79.97
Total									100%								

[1]Agricultural household is any household which cultivate at least 10 acres of agricultural land or owns the following animals - at least:
- one cow and one calf
- one cow and heifer
- one cow and any two livestock of the same kind
- five sheep
- three pigs
- four sheep or pigs altogether
- fifty poultry
- twenty bee hives.

The specified criteria are for all households whether they are in “urban” or “other” settlement.

Table 10.3. Structure of agricultural households (percent)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Sample		1940																			
Cultivate land and owns livestock	79.2	75.2	45.8	83.2	51.6	66.9	87.5	80.5	83.5	76.0	81.4	74.7	83.1	79.4	74.3	70.6	62.5	0.0	75.4	83.9	90.1
Only cultivate land	14.2	20.5	47.5	13.1	46.2	19.8	12.1	19.1	15.2	23.0	14.6	20.9	14.1	15.9	20.4	24.0	33.7	0.0	24.6	16.1	9. 9
Only owns livestock	6.6	4.3	6.7	3.7	2.3	13.3	0.4	0.4	1.3	1.0	4.0	4.3	2.7	4.7	5.3	5.4	3.7	100.0	0.0	0.0	0.0
Total												100%									

Table 10.4. Agricultural households by size of used agricultural land[1] (percent)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Type of agricultural household		
	2002	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	Cultivate land and owns livestock	Only cultivate land	Only owns livestock
Sample		1484																		
No land (<0.1 hectare)	6.1	2.0	3.6	1.6	0.0	7.2	0.7	0.3	0.9	0.0	3.9	1.8	2.1	1.6	2.2	2.3	1.6	2.3	0.0	0.0
0.1-1hectare	29.7	22.8	30.2	21.3	26.1	24.6	21.4	20.7	12.9	32.3	26.0	22.6	25.8	22.1	21.1	19.4	25.6	20.3	36.0	0.0
1-5hectare	44.1	48.2	45.6	48.7	40.3	39.0	48.6	55.4	42.5	56.5	55.3	47.6	52.7	47.1	47.9	45.9	45.5	48.4	47.0	0.0
5-10hectare	13.6	18.5	12.6	19.7	23.5	16.9	22.7	18.6	26.4	8.1	12.3	19.0	15.0	20.8	19.0	21.1	16.7	19.4	13.5	0.0
>10hectare	6.5	8.5	8.0	8.7	10.1	12.3	6.6	5.0	17.4	3.0	2.6	9.0	4.5	8.4	9.7	11.3	10.6	9.5	3.5	0.0
Total												100%								

[1] Used land = owned land - rented out land + rented land (cultivated and non cultivated).

Table 10.5. Agricultural households by size of cultivated[1] agricultural land (percent)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Type of agricultural household		
	2002	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	Cultivate land and owns livestock	Only cultivate land	Only owns livestock
Sample		1285																		
No land (<0.1hectare)	7.2	4.2	6.7	3.7	1.4	8.0	4.3	3.5	1.3	2.3	10.3	3.8	5.0	3.1	5.1	4.2	3.6	5.0	0.0	0.0
Small (0.1-1hectare)	39.5	30.1	37.8	28.5	28.5	25.1	30.1	34.2	20.6	42.0	34.6	29.8	38.0	27.5	30.0	24.7	29.4	28.2	40.6	0.0
Medium (1-5hectare)	41.1	48.8	39.2	50.7	42.6	39.5	50.7	54.9	55.6	49.0	48.1	48.9	49.4	54.9	45.1	48.1	45.5	49.3	45.8	0.0
Large (>5hectare)	12.3	16.9	16.3	17.0	27.5	27.3	14.8	7.3	22.6	6.6	7.0	17.6	7.7	14.5	19.8	23.0	21.5	17.5	13.6	0.0
Total										100%										

[1] Cultivated land =cultivated owned land - rented out land + rented land (rented out and rented land are taken to be cultivated rented out and cultivated rented land).

Table 10.6. Agricultural households which own or cultivate land (percent)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Sample		1870																			
Total owned land[1]	91.6	98.3	97.9	98.4	99.2	95.5	99.0	99.6	99.4	99.0	99.4	98.2	99.0	98.7	98.2	97.4	98.0	0.0	100.0	100.0	100.0
Owns cultivable land	91.6	97.2	96.6	97.4	97.9	94.4	97.5	98.2	99.2	97.9	97.5	97.2	98.0	98.3	96.6	96.0	96.6	0.0	98.8	99.6	98.5
Rents out land	9.2	6.0	7.8	5.5	2.4	10.9	7.8	5.2	4.2	1.3	7.5	5.9	6.4	4.5	6.3	7.3	5.6	0.0	7.7	8.0	5.5
Rents land	6.7	11.7	8.1	12.6	6.4	18.8	10.9	9.9	6.1	10.7	4.2	12.3	6.9	10.6	15.4	12.7	15.1	0.0	7.9	9.4	21.1

[1] Total area of the land owned by all household members: orchard, vineyard, meadow, pasture, uncultivated land etc.

Table 10.7. Average amount of land that agricultural households own or cultivate (acres)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Total owned[1]	460	434	401	442	429	447	430	383	695	290	326	442	377	418	457	490	452	0	100	318	1029
Out of that cultivable[2]	301	336	374	328	396	434	295	253	409	208	248	342	256	324	352	376	402	0	100	239	703
Rented out	220	299	357	270	321	305	230	233	562	173	219	305	236	362	350	273	313	0	100	255	738
Rented	377	513	627	491	1307	654	301	282	396	338	228	520	194	265	438	659	853	0	177	305	813
Agricultural land	329	493	451	502	576	623	452	410	703	311	330	506	391	443	515	582	596	0	110	336	1162

[1] Total area of land owned by all household members: orchard, vineyard, meadow, pasture, uncultivated land, etc.
[2] Total cultivated land = cultivated + rented - rented out

Table 10.8. Average estimated value of land that agricultural households own, cultivate or rent (EURO)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002[1]	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Total owned	10189	10097	8467	10688	10249	7692	10931	11573	14144	8624	6059	10416	6500	9469	9719	11132	16294	0	5307	11059	26124
Out of that cultivable	7307	7646	7710	7624	10574	7365	6467	8036	8493	6562	4139	7925	4378	6690	7370	8657	14047	0	4182	8043	18916
Rented out/area[2]	374	648	793	562	485	680	930	550	309	475.8	515	657	440	630	501	524	1471	0	252	657	1854
Rented/area[3]	379	1113	1480	1044	7047	1482	286	395	755	350	166	1139	337	668	844	942	2775	0	275	525	2378

[1] Values are calculated using the average annual exchange rate of NBS from 2001, EUR/dinar=59.4574.
[2] Total area of the land owned by all household members: orchard, vineyard, meadow, pasture, uncultivated land, etc.
[3] Estimated value of rent taken/given in 2006.

Table 10.9. Agricultural households which have income from selling agricultural products in season 2006 (percent)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Sample		1940																			
Wheat	15.9	9.3	7.9	9.7	7.0	20.3	3.8	5.3	8.5	3.1	1.6	10.0	4.8	10.0	9.5	11.9	12.6	0.0	5.6	10.7	18.3
Corn	19.2	12.3	10.4	12.8	8.2	27.2	5.3	4.9	13.6	4.3	4.2	13.0	7.0	12.1	14.3	14.9	15.5	0.0	10.6	13.4	21.6
Other cereals (oat, rye, etc.)	3.7	1.4	1.2	1.5	2.1	2.3	1.0	1.3	1.1	0.3	0.0	1.5	0.4	1.1	2.0	1.8	2.3	0.0	1.4	1.1	4.1
Industrial crops	2.6	5.9	7.4	5.5	1.6	15.3	1.5	5.2	0.3	0.9	1.2	6.3	2.8	5.8	7.1	7.7	7.0	0.0	3.5	6.4	11.6
Fruits	13.4	12.6	7.4	14.0	10.4	2.6	25.3	20.6	8.3	11.5	13.1	12.6	13.9	11.7	13.7	14.1	8.3	0.0	7.9	16.5	19.9
Grape	3.4	1.5	0.9	1.7	4.4	0.2	0.2	2.0	3.9	1.4	0.9	1.6	0.8	0.6	3.0	2.1	1.7	0.0	1.6	1.5	2.6
Vegetables	12.6	9.0	5.0	10.2	7.4	4.9	9.3	9.8	8.7	15.8	11.7	8.8	8.6	7.5	12.0	10.6	6.3	0.0	8.6	10.2	11.2
Trees	2.8	2.6	1.3	2.9	0.8	0.0	2.0	7.2	5.4	0.3	1.1	2.7	2.5	3.1	2.9	2.7	1.5	0.0	1.8	3.1	6.2
Other agricultural products	3.5	2.4	2.3	2.4	0.5	3.5	0.7	4.3	0.6	1.6	1.6	2.4	1.6	2.2	2.2	3.6	2.7	0.0	0.5	3.7	3.3
All agricultural products	39.0	35.7	27.9	37.7	22.1	43.1	36.9	35.0	33.5	30.6	28.9	36.2	31.0	34.5	37.4	41.7	35.2	0.0	29.0	43.0	51.1

Table 10.10. Average household income from selling agricultural products in season 2006 (EURO)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002[1]	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Sample		1940																			
Wheat	461	1307	1851	1187	3089	1332	700	454	1016	2342	672	1315	575	635	844	1465	2880	0	408	753	2379
Corn	551	1374	1415	1364	2597	1681	519	434	723	944	232	1404	527	944	773	2607	1777	0	457	1273	2221
Other cereals (oat, rye, etc.)	329	1213	693	1326	338	455	464	646	502	20000	0	1213	462	786	335	579	3462	0	505	291	1936
Industrial crops	304	1718	1619	1754	1750	2141	479	618	30	297	418	1738	822	775	1085	2013	4012	0	720	1002	2985
Fruits	628	1038	786	1073	1549	1450	729	940	1940	1032	380	1093	604	871	1070	1301	1970	0	930	1032	1300
Grape	182	479	138	526	1138	50	30	249	477	127	488	478	314	329	397	622	646	0	318	365	789
Vegetables	583	1431	1358	1440	417	1678	686	1716	596	2021	460	1535	485	722	1662	1785	3521	0	1264	1354	1989
Trees	127	695	1019	655	2000	0	755	766	416	200	200	712	599	736	716	555	1114	0	807	689	672
Other agricultural products	272	566	540	572	100	852	479	354	231	448	200	585	257	480	533	917	414	0	277	463	920
All agricultural products	1095	1987	2057	1973	3272	2822	901	1492	1331	2049	482	2084	763	1226	1781	2785	4033	0	1054	1561	3748

[1] Values are calculated using the average annual exchange rate of NBS from 2001, EUR/dinar=59.4574.

Table 10.11. Households which own livestock (percent)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Sample		1940																			
Calf	21.5	11.9	5.8	13.6	4.4	7.1	16.5	17.1	13.5	11.2	12.2	11.9	11.9	13.3	13.1	9.4	11.3	1.3	6.9	13.8	26.2
Heifer	10.2	9.9	2.5	11.9	5.1	8.9	18.5	10.0	7.8	7.6	6.5	10.2	9.6	11.1	11.5	9.0	7.7	2.6	3.6	12.1	22.3
Dairy cow	39.1	30.3	8.9	36.0	9.8	11.6	49.7	39.3	37.8	35.9	35.8	29.8	35.1	36.3	33.7	24.3	15.7	8.6	16.0	39.3	59.3
Horse	3.4	1.8	0.5	2.1	0.0	1.5	2.7	1.2	4.0	1.1	2.2	1.7	1.5	2.6	1.9	1.3	1.3	1.5	1.1	1.9	3.3
Pig	66.5	60.2	32.6	67.7	35.2	62.0	67.2	60.8	69.9	54.5	56.1	60.5	61.8	67.0	64.1	57.7	44.8	82.7	55.0	63.5	77.2
Sheep	20.9	21.5	8.1	25.1	13.0	6.7	49.7	33.6	22.9	7.9	22.1	21.5	23.3	25.3	19.3	21.5	15.6	3.3	12.3	27.0	41.5
Goat	9.2	7.7	4.4	8.6	2.5	10.2	5.0	5.7	7.8	11.1	16.1	7.0	11.6	7.3	6.9	6.6	4.3	6.6	7.8	7.8	6.6
Chicken	78.6	66.2	37.5	74.0	44.1	64.5	76.0	67.9	73.9	62.8	72.3	65.8	72.8	72.8	66.5	61.6	50.8	76.1	61.9	72.0	80.0
Other livestock/poultry	2.0	0.9	0.3	1.1	0.0	1.1	1.2	0.7	0.0	1.7	0.0	1.0	0.4	1.2	1.3	0.3	1.5	0.0	0.7	0.7	2.2
Bee hives	2.5	4.0	3.9	4.0	2.0	2.5	4.3	5.9	5.7	3.3	1.4	4.2	2.8	2.3	3.6	7.0	5.2	4.0	2.9	4.1	5.6
Do not own livestock	14.2	20.5	47.5	13.1	46.2	19.8	12.1	19.1	15.2	23.0	14.6	20.9	14.1	15.9	20.4	24.0	33.7	0.0	24.6	16.1	9.9

Table 10.12. Average number of animals that households own

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Sample		1940																			
Calf	1.7	1.8	2.7	1.7	2.8	2.9	1.5	1.6	1.4	1.7	1.5	1.8	1.5	1.6	1.9	1.8	2.4	1.0	1.3	1.8	1.9
Heifer	1.8	2.1	2.9	2.0	2.3	2.3	2.1	2.1	1.5	1.8	1.1	2.1	1.6	1.4	2.1	3.3	2.5	1.0	1.9	1.4	2.8
Dairy cow	1.9	2.1	2.0	2.1	2.1	3.0	2.2	2.1	2.1	1.7	1.7	2.2	1.8	2.1	2.1	2.3	3.2	1.0	1.5	1.7	2.9
Horse	1.3	1.3	1.0	1.3	0.0	1.0	1.1	1.0	1.9	1.0	1.0	1.3	1.0	1.1	1.5	1.0	2.3	1.0	1.0	1.0	1.7
Pig	4.3	6.1	5.9	6.1	9.1	8.2	6.9	4.3	5.6	3.1	3.0	6.3	4.4	5.4	6.1	7.2	9.5	4.7	4.1	5.5	10.0
Sheep	7.2	9.3	10.5	9.2	8.3	10.9	10.3	9.2	6.3	9.2	8.9	9.3	9.0	8.7	8.3	9.6	12.9	7.4	6.6	8.3	11.9
Goat	2.0	4.0	6.3	3.7	3.0	3.9	3.7	7.4	3.1	2.6	3.8	4.1	4.2	4.7	2.7	4.4	3.6	3.6	4.0	3.3	6.3
Chicken	20.3	24.6	30.4	23.8	19.9	32.8	22.4	27.5	20.1	14.4	14.4	25.6	16.4	20.5	25.0	34.9	36.9	41.2	19.1	21.4	33.3
Other livestock/poultry	0.0	7.4	2.0	7.8	0.0	11.8	3.5	8.2	0.0	4.3	0.0	7.4	2.6	6.1	6.4	6.0	12.6	0.0	2.0	14.5	3.6
Bee hives	12.1	13.8	29.7	9.6	29.9	24.8	11.9	7.2	13.5	13.3	8.8	13.9	8.1	6.2	11.9	12.9	27.5	25.0	22.8	7.8	7.0

Table 10.13. Estimated value of livestock (EURO)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002[1]	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Sample		1940																			
Calf	448	567	960	522	1167	984	449	463	461	474	425	579	422	496	617	591	846	250	329	596	608
Heifer	850	1022	1508	994	1192	1113	1004	1187	747	749	472	1050	822	682	1064	1653	1156	557	964	700	1415
Dairy cow	1231	1576	1714	1567	1901	2661	1605	1467	1410	1200	1311	1602	1340	1515	1542	1645	2649	828	1027	1266	2149
Horse	876	1120	637	1149	0	706	838	1191	1905	487	957	1136	806	727	1217	1499	2327	400	856	753	1865
Pig	384	376	355	379	624	429	374	292	423	283	266	384	284	339	389	470	493	258	250	351	603
Sheep	479	707	936	687	670	1178	780	656	351	694	596	716	603	670	630	729	1152	370	492	629	914
Goat	95	215	264	208	387	210	165	425	133	126	213	215	214	303	130	194	218	129	267	158	291
Chicken	69	71	93	67	72	83	64	76	71	48	49	72	55	60	75	86	100	94	54	69	82
Other livestock/poultry	197	423	100	449	0	69	1569	270	0	202	0	423	779	213	264	100	792	0	18	210	812
Bee hives	771	1236	2961	787	3035	2592	1006	536	1344	793	239	1263	449	485	920	1236	2767	2689	1871	647	436

[1] Values are calculated by using the average annual exchange rate of NBS from 2001, EUR/dinar = 59.4574.

Table 10.14. Households which had income from selling animals or animals products in 2006 (percent)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Sample		1940																			
Calf	11.6	6.6	2.7	7.7	0.8	1.3	9.4	13.2	9.6	4.9	5.1	6.8	6.4	7.8	8.2	5.1	5.1	1.3	3.0	8.0	15.3
Heifer	3.4	3.0	0.3	3.7	2.0	2.7	6.0	3.3	2.7	1.0	2.2	3.1	2.3	1.9	5.1	2.5	3.6	0.0	0.8	3.8	7.2
Dairy cow	4.5	4.1	1.0	4.9	0.8	1.7	6.9	3.7	9.2	3.6	1.8	4.2	3.3	3.5	5.4	3.9	4.6	3.8	1.6	4.9	8.5
Horse	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2
Pig	23.5	23.5	11.8	26.7	8.6	23.6	31.5	26.3	30.3	14.3	16.0	24.1	21.8	22.1	27.1	26.7	19.5	24.7	19.7	25.3	36.9
Sheep	7.8	10.9	4.1	12.7	3.7	1.6	26.8	20.0	11.6	2.7	12.6	10.7	13.2	13.0	8.5	9.6	8.4	3.3	5.8	12.8	23.6
Goat	0.7	1.2	0.5	1.4	0.0	1.1	0.5	2.5	0.9	1.2	1.1	1.2	1.2	1.4	1.2	1.5	0.6	1.4	1.4	1.8	0.4
Chicken	4.4	4.3	3.5	4.5	0.8	4.0	5.0	5.2	7.2	2.1	2.8	4.4	3.5	4.4	4.8	4.8	3.9	5.8	3.2	4.1	6.5
Other livestock/poultry	0.7	0.1	0.0	0.5	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.1	0.2
Bee hives	0.7	0.6	0.8	0.5	0.9	0.2	1.2	0.6	1.2	0.0	0.0	0.6	0.4	0.1	0.7	0.7	1.2	0.0	0.0	0.7	0.9
All animals	36.0	36.2	18.0	41.2	10.6	30.6	53.9	48.2	42.8	21.1	30.0	36.8	37.2	36.7	39.7	35.9	29.8	34.6	27.5	40.8	57.7
Animal products[1]	25.5	25.0	9.0	29.3	8.0	14.0	43.7	29.3	28.1	26.2	26.8	24.8	27.4	29.5	29.2	20.4	14.0	11.5	14.7	30.6	48.6
Total income from animals	59.6	44.3	22.1	50.3	16.3	36.0	63.5	54.5	50.3	36.0	41.6	44.5	46.3	47.9	48.4	42.5	32.1	38.8	34.5	51.1	70.4

[1] Fresh animal products = milk, cheese, eggs, etc.

Table 10.15. Average estimated value from selling animals or animals products in 2006 (EURO)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002[1]	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Sample		1940																			
Calf	398	608	941	576	1500	994	714	474	566	730	379	622	427	469	627	1032	732	250	325	553	741
Heifer	1010	1810	1200	1825	2389	1335	2132	2263	596	2136	446	1891	1124	730	1649	3763	2001	0	2686	983	2564
Dairy cow	607	779	667	785	3000	824	803	654	769	674	791	779	626	779	780	772	969	407	715	744	871
Horse	828	9000	0	9000	0	0	0	0	9000	0	0	9000	0	0	0	0	9000	0	0	0	9000
Pig	399	640	837	616	527	1135	549	448	408	308	229	662	325	439	571	887	1275	512	374	478	1146
Sheep	210	341	578	321	454	736	333	341	233	308	352	340	293	318	290	473	403	182	237	338	374
Goat	70	214	776	155	0	78	141	389	35	77	40	227	112	572	76	94	95	50	343	102	1200
Chicken	201	317	519	274	50	543	314	258	220	89	79	329	66	120	582	350	530	1784	182	169.5	318
Other livestock/poultry	423	1422	0	1422	0	100	3000	0	0	0	0	1422	0	0	0	0	1422	0	0	100	3000
Bee hives	639	436	1036	149	100	100	239	145	1211	0	0	436	178	200	128	1374	207	0	0	193.1	123
All animals	654	928	1053	913	1370	1200	1004	769	810	651	426	961	505	627	974	1354	1647	741	512	716	1620
Animal products[2]	667	936	1261	909	1639	1419	1111	683	981	484	442	979	661	776	937	1166	1932	1061	501	730	1339
Total income from animals	1406	1287	1372	1277	1688	1571	1617	1048	1235	734	591	1340	796	956	1364	1707	2366	973	621	1010	2251

[1] Values are calculated using the average annual exchange rate of NBS from 2001, EUR/dinar=59.4574.
[2] Fresh animal products = milk, cheese, eggs, etc.

Table 10.16. Agricultural households that hired labour in season 2006 (percent)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Sample		1940																			
Yes	20.0	15.3	14.0	15.7	12.8	15.7	15.6	13.6	21.7	13.1	7.0	16.0	9.4	11.9	15.1	19.6	25.6	47.2	38.3	15.2	78.5
No	80.0	84.7	86.0	84.3	87.2	84.3	84.4	86.4	78.3	86.9	93.0	84.0	90.6	88.1	84.9	80.4	74.4	52.8	61.7	84.8	21.5
Total											100%										

Table 10.17. Average amount that households paid for labour in seasons 2001 and 2006 (EURO)

	Total	Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
		Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Average[1], 2002.	259	180	268	286	344	168	363	167	169	117	265	172	143	162	359	304	112	100	246	429
Average, 2007.	399	278	429	519	395	242	230	458	685	121	409	198	304	290	415	666	0	207	352	548

[1] Values are calculated using the average annual exchange rate of NBS from 2001, EUR/dinar=59.4574.

Table 10.18. Agricultural households that own agricultural machines or equipment (percent)

	Total		Settlement		Region						Poverty line		Quintiles of consumption					Size of plot			
	2002	2007	Urban	Other	Belgrade	Vojvodina	West Serbia	Sumadija	East Serbia	South-East Serbia	Poor	Non poor	The poorest	2	3	4	The richest	No land	Small	Medium	Large
Sample		1940																			
Motor cultivator	24.7	27.3	22.3	28.6	28.5	8.9	11.3	40.2	35.2	49.0	20.2	27.9	22.7	29.1	29.3	29.0	27.1	7.2	25.8	29.8	36.1
Small tractor	25.7	25.3	10.2	29.4	18.8	21.3	19.1	29.4	34.0	28.9	12.9	26.3	20.4	27.7	27.7	28.3	22.9	0.0	16.3	33.8	42.5
Large tractor	17.9	21.9	12.1	24.6	14.9	21.3	22.8	24.9	33.4	13.2	9.1	23.0	13.1	22.4	24.8	28.2	24.2	0.0	10.4	26.2	50.1
Combine harvester	2.1	3.0	2.4	3.2	2.2	6.0	0.6	2.3	4.3	0.6	0.0	3.3	1.1	3.2	3.3	3.9	4.3	0.0	0.5	2.3	10.8
Other machines	30.8	31.5	17.9	35.2	26.1	33.1	21.5	33.9	52.4	22.0	12.8	33.1	21.7	29.3	35.4	40.4	34.9	1.4	15.6	39.8	63.8
Tools	5.7	29.2	14.0	33.3	31.9	25.6	24.7	33.4	41.7	23.1	14.7	30.4	21.7	28.7	32.1	32.1	34.7	5.1	24.9	36.2	44.6
Any agricultural machines	52.2	58.0	42.7	62.2	51.7	49.1	47.6	68.4	71.6	61.7	38.3	59.62	47.4	61.9	62.8	63.6	56.4	12.8	49.3	68.2	84.3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