LSMS Project 2002-2003

Life in Serbia through Survey Data

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CONTENT

INTRODUCTION

The Living Standard Measurement Study (LSMS) was launched as a World Bank program in 1980, with the idea to help member countries not only in the area of data collection methodology, but also in the use of these data within government administration and for the purpose of solving the problems that decision makers were faced with. After the initial surveys undertaken in Ivory Coast and Peru, this methodology has become one of the standard data collection instruments, particularly in countries undergoing fast and radical changes in all segments. Exactly such processes of very serious change has overwhelmed our region, and, following two decades of social regression and economic devastation, Serbia has started to leave behind international isolation since 2000, and implement sweeping reforms aimed at comprehensive economic and social renewal.

During the nineties official statistics lost its accomplished performances to a significant degree, and, certainly due to isolation, it started lagging behind with its development. Therefore, the Government that assumed power in 2001 after a decade of isolation was faced with multitude of problems, impoverished population, non-competitive economy, widespread corruption and smuggling, large number of refugees... but, for the first time after the eighties, with good will and readiness of the international community to help.

Despite the fact that poverty was widespread, it was not possible to grasp its size, structure, regional distribution, the picture of the poor and the origin of the poverty according to the existing pool of information. Who uses Government resources and how in the area of education, public health, how the pensioners and traditionally poor Roma population live, what was the impact of decade-long isolation on the structure of house-

holds, what was the number of children per household and their living conditions? A big battery of data important for policy makers, particularly in the area of economy, was missing.

Lack of such data in developing countries led to the launching of the World Bank LSMS program. Specific to Serbia and the entire ex Yugoslavia was in the fact that majority of these data were available in the statistical system of the former SFR Yugoslavia in the eighties, but the warring nineties created, among other problems, the absence of statistical data.

LSMS was primarily led by the needs of the first democratically elected Government of Serbia after the communist past and decade-long isolation.

SMMRI was chosen at tender to conduct the LSMS, better yet, the whole battery of surveys. There are a number of people whose work contributed to the successful realization of this project, but I would like to accentuate the knowledge and devotion which was invested by Dragiša Bjeloglav, project leader and Hana David, researcher and author of the text which is in front of you. In this text the authors also used analytical results of Dr Gorana Krstić, and this certainly enhanced the content of the entire publication.

Gordana Matković is author of the chapter Living Standard Measurement Study In Serbia, Gorana Krstić is author of the chapter Main Poverty Indicators Based on LSMS, Dragiša Bjeloglav is author of Methodology and 5. chapter Household Income and Consumption. Hana David is author of 1, 2, 3, 4, 6, 7 and 8 chapter.

SMMRI owes extensive gratitude to the Ministry of Social Affairs whose precise requests and clear objectives made our work much easier. Minister, Dr Gordana Matković, provided invaluable help that included even the most subtle methodological details.

Finally, this work would never have been done with such quality without the World Bank and its experts, for which we owe a special gratitude to Dr Ruslan Yemtsov.

I conclude this introduction with the hope that this publication will creates a clear insight into the content and range of this survey, allowing many people to gain better understanding of Serbia on one hand, and provoking further analytical thinking about Serbia on the basis of data obtained from LSMS presented in this publication, on the other.

Srđan Bogosavljević

Director of Strategic Marketing

LIVING STANDARD MEASUREMENT STUDY IN SERBIA

The Process of Designing It, the Use of Results

The last decade of the 20th century has been a decade of destruction and decline in Serbia. The war in neighbouring republics, sanctions, 1999 bombing, along with incompetent economic policy and destruction of the legal state and authoritarian political regime, have reduced GDP by half. In 1993, the country went through unprecedented hyperinflation, inflationary shocks of smaller take-up had continuously distressed the economy, foreign currency savings of the citizens were blocked, pyramidal banks exhausted the last reserves kept by citizens and the banking system more or less did not function at all. Internal and external debts reached unparalleled extents.

In these conditions, a good portion of the economy was destroyed, the technology became obsolete and the degree of utilization of capacities was reduced to a third. Despite the fact that the labour market hardly functioned at all and, that at one point, it was forbidden to lay off workers, the unemployment rate increased and underemployment became a rule. Together with GDP decrease, real income also decreased during hyperinflation to just a few dollars. In many companies salaries were paid sporadically, and the number of workers on so-called paid or even unpaid leave of absence increased. The grey economy, as well as crime and corruption, penetrated all pores of economy and society.

The education and healthcare system, in disaccord with proclaimed and realistic policies, functioned with devastated and unsustainable capacities, with obsolete programs, followed by an inevitable drop in the quality of services and almost mandatory "additional" payments. Shortages in medical and sanitary supplies, particularly in certain periods, along with informal payments of services, minimized almost entirely the sense of medical insurance. A private healthcare sector emerged, without being financed or controlled by the state, as a completely parallel system. The pension system became increasingly difficult to finance, debts to pensioners grew and pensions, along with all other incomes, could not cover the basic needs.

The system of social protection was made senseless, and the minimal financial support paid was received with delay. By the end of the 90's, social benefits such as Child Allowance were delayed for more than 2 years, and other kinds of welfare between 26 and 32 months. Orphanages and old peoples homes, as well as other similar institutions, were devastated. The level and quality of social services was significantly reduced. The poor and socially vulnerable were, by and large, left to their own resources or the aid of international humanitarian organizations.

Several hundreds of thousands refugees fled to impoverished and ruined Serbia during the 90's whereas a large number of the most educated young people left the country, taking away part of the democratic potential alongside it.

As a consequence of social and economic devastation, poverty in Serbia rose significantly during the 90's. The middle class began to disappear whereas the number of the poor rose along with increasing number of those living just above the poverty line.

According to national criteria, which are measured relative to income by consumption unit, in 2000 over one third or 2.8 million citizens of Serbia were below the poverty line.[1] Poverty has more than doubled in comparison to 1999 when the share of the poor, according to the same criteria, was 14.1%. Among the most vulnerable categories, the following stood out: households with three or more dependent members, multi member households with children, children aged up to 18 and households whose head was unemployed or an industrial worker.[2] The consequences of the period of crisis were further strengthened by the fact that urban population was more at risk than the rural one which was in a position to produce food for personal needs and manage to survive the crises in an easier way.

1 Krstić, look at Bogićević et al, 2002, page 18
2 Ibid. page. 37

In these conditions, after the changes of October 5th, activities in the area of social protection in 2001 were carried out on two parallel tracks.[3] The first part of the activities was **intervention** measures, aimed at stabilizing the system. With the help of donations, repayment of accumulated debts in social welfare, Child Allowance and other material reimbursements, as well as improvement of conditions in homes for institutionalized care of welfare beneficiaries. The budget resources started covering regular payments for social and other benefits. Additional funds from donations and from the budget were directed towards the poorest.[4]

The second part of activities was aimed at **formulation of reforms** within the system. First, strategic aims were established in the domain of social protection. Work groups/task forces for reform implementation were formed and several national and regional meetings were held in order to reach professional consensus on reforms.

As a long-term strategic aim in the domain of reimbursements, it was pointed out that what needed to be achieved was "Helping families and individuals to achieve minimal social security, primarily through measures of active social policy and by preventing all forms of social marginalization." Short-term aims included: establishing new criteria for identification and better targeting of the materially most vulnerable families; the use of centralized as opposed to decentralized criterion; establishing a poverty line which would not be linked to salaries, but to real expenditures of the poorest; establishing a special Fund for welfare benefits from donations and additional budget resources: revision of certain rights in other areas of social protection system directed at the less impoverished population; establishing the Fund for lump sum aid for poor families with children (additional allowance before the school year, after an increase in electricity prices, payments of bonds for children allowances[5]...).

Ministry of Social Affairs mission, formulated at the beginning of 2001

In accordance with governing and widely accepted civilization norms, every society tries to protect the old, the sick, children without parental care, and the disabled. Serbia has just come out of a ten-year period of economic and social crisis and undemocratic regime, wars and conflicts, isolation and sanctions, which have all devastated the society, families and institutions of the system. The categories of society most at risk were in most cases left to their own devices, while the function of the social protection almost became meaningless.

3 more details – Matković, 2005

4 On several occassions double welfare benefits were paid in order to improve most urgently the status of those most at risk.

5 Matković look at Hiber, 2001, pp 34-35

Taking over responsibility for social protection system in such conditions, the priority was to stop deterioration of institutional parts of the system, to connect all positive initiatives and set the relationship between the proclaimed and the possible. This actually means checking once again all rights and securing protection for the poorest among the poor, restoration of institutions of the system which are able to provide protection by restoring dignity, both for those receiving help and those providing it, encouragement for numerous NGOs and their networking with state initiatives in providing help and improving the position of social groups that are most at risk.

The principles of social welfare development were formulated, based on a changed role of the state, larger individual responsibility in providing security for themselves and their families, healthy financing, rationalization of resources and sustainability of social welfare, implying that welfare rights had to be synchronized with financial abilities of the society and that welfare benefits should be made available to all in an equal way and directed at those who are really at risk.[6]

Work groups/task forces for reform of the system of social welfare were organized around the following topics:

- Poverty
- Transformation of institutionalized care homes
- Transformation of social work centres
- Information systems

The work group/task force which dealt with the issue of poverty in 2001 thoroughly analyzed the existing poverty data based on the Household Budget and Expenditure Survey in the preceding year, researched the existing system of compensations, most of all material security (social welfare) and Child Allowance, and considered options for reform of state benefits for the poor.[7]

The results obtained were used as the basis for devising a LSMS, as well as for later changes in legal regulations.[8]

At the very beginning, it has become apparent that, for the purpose of formulating reforms, we had to have a relevant picture of the take-up of poverty and the characteristics of the poor and therefore conduct an appropriate Living Standard Measurement Study of the population. The experts addressing these issues had no doubt that they could not use the data obtained in the existing Household Budget and Expenditure Survey [in Serbian: *Anketa o potrošnji domaćnstva – APD*] of the Republic Statistical Office of Serbia (RSO), taking into consideration

6 Mijatović, look at Hiber, 2001 pp. 63
7 Bogićević et al, 2002
8 Law on Financial Support for Families with Children and Amendments to the Law on Social Care and Providing of Social Security to Citizens

that, by general consent, the quality of this survey in the last couple of years had deteriorated significantly, and that the data were no longer reliable. Registering income and expenditure was not done by making the entries in the diary but rather by relying on the memory of the respondents and their voluntary record keeping. Therefore, information on income from the grey economy was lost, since the difference between the used and available financial means of the household was artificially synchronized. In the process, some important data on household members such as their level of education were lost, list of durable goods was obsolete, etc.[9] This is understandable to a certain extent, taking into consideration the fact that the Household Budget and Expenditure Survey was formulated and remained the same for the twenty years, so that households in the second half of the 90's received no compensation for filling out the questionnaire.

Another obvious fact was that, in order to conduct a reliable survey, the partner we needed to turn to was the World Bank, since it has carried out similar surveys and studies on poverty in a large number of countries.

This is why one of the first requests that the Ministry of Social Affairs expressed to the World Bank was related to this issue. It was suggested that a large survey be prepared and carried out in 2002, including over 6350 households and about 500 households that are recipients of welfare benefits. The survey included questions referring to the wider social sector, not only to social welfare. It was also planned that the survey be repeated in 2003 in approximately 2550 households, with additional observations on the living standard of 525 Roma households living in Roma settlements. The survey in 2002 served not only as the marker for formulating the reforms in social protection area, but also as a necessary base for the work on Poverty Reduction Strategy, although the awareness about this in the first half of 2001 clearly did not exist.

One of the dilemmas that arose at the very beginning of the process referred to the choice of the institution that was to carry out the survey. Some thought that this should be the RSO, in order to improve the Household Budget and Expenditure Survey and to ensure that the state, policy creators and professional public could have reliable data on living standard continuously, in the long run. The second option was to call a tender to select a private agency to conduct the survey, and that this agency would later transfer the data to the RSO, thus helping them to update the Household Budget and Expenditure Survey. Several factors had a decisive effect on selection of the second option.

Even at that time, there were quite a few good and reliable private agencies dealing with market research and public opinion. Some

9 Krstić, look at Bogićević et al, 2002, pp. 17-18

of them employed experts in statistics who had previously worked in the Federal Statistical Office, working on the Household Budget and Expenditure Survey.

On the other hand, following the changes after October 5th, the RSO was bursting with personnel changes and under a lot institutional reforms pressure as the outcome of the change in jurisdiction between the republic and federal institutions[10]. This set of circumstances, if nothing more, clearly indicated that the implementation of the LSMS by the RSO would require more time and entail more uncertainties.

At the same time, a team responsible for composing a questionnaire was formed. It consisted of a work group of the Ministry addressing the issues of poverty, representatives of SMMRI[11] and World Bank experts, who, along with their exceptional professional qualities, possessed highly important ability for quick communication with the team - they were thoroughly familiar with all the specificities of the social situation in Serbia[12].

After the questionnaires had been created and field research conducted, by mid-2002, the team had to make several important decisions - from relatively simple to those more complex, resulting in numerous methodological discussions.

The first decision had to do with using consumption, not income, as a more adequate aggregate to measure the living standard of the population. In transitional countries, it was generally accepted that consumption was a better indicator of living standards[13].

First of all, in conditions of widespread grey economy, income is often under-reported and households are not ready to reveal "illegal" sources of income. The situation is similar with some other income resources, such as remittances from abroad, which are rarely reported as a source of income. Besides, consumption is a better indicator, since the consumption show greater stability over time, unlike income, primarily due to irregularity of salaries. Finally, one of the important reasons is the significant share of own agricultural production in food consumption of households which is not evident from financial income.

Available data indicate validity of all specified factors in our conditions. In 2000 over 1.2 million people were involved in grey economy[14], and according to Schneider's findings, the share of grey economy of

10 Between Federal and Republic Statistical Office
11 SMMRI was selected to conduct the survey
12 Aleksandra Pošarac and Branko Milanović
13 World Bank, 2000, pp. 368
14 Economic Institute and the League of Experts, 2001

GNP was 29.1%[15]. Similar to grey economy, remittances from abroad represented and still represent an important mechanism for survival in Serbia. Records of the National Bank of Serbia show that in 2003 remittances from abroad amounted to $2.74 billion and out of this amount only $780 million was transferred through the banking sector.[16] Another point is that irregular salary payment was the rule rather than an exception for many companies, so that even in the previous two years regular statistics showed that every month more than 190,000 workers did not receive (regular) salary payments[17]. Finally, it is estimated that the share of in-kind consumption in overall available resources of the households is 17.8% in the first half of 2000 and that it was particularly significant for poorer households[18]. International experience, as well as available data, indicated that in case of Serbia the concept of consumption is more relevant in observing poverty and the living standard of the population.

Another important decision involved the selection of an adequate poverty line. In previous research, the Federal Statistical Office's consumer basket was used to establish the poverty line. It included only food and drinks, and since it was formed at the time of significantly higher living standards, the list of articles included those which at the time of overall impoverishment could not be considered as a required minimum.

Despite the attempts to accept European standards, an option of using a relative poverty line to measure poverty in EU was rejected. A relative poverty line defines poverty in relation to average living standard in a single country, and households which are considered poor are those with income below a certain percentage of median and average equivalent household income[19]. A poverty line defined in this manner is more appropriate for developed countries. This is why EU expansion brought about considerations of inclusion of other poverty indicators, more appropriate for transitional countries[20]. For instance, in transitional countries it is possible that a significant part of the population cannot satisfy their basic needs, but also that the share of those who are poor in relation to average living standard is not high, so the indicators on relative poverty might not show alarming figures at all.

15 Schneider findings quoted according to Falcety, Sanfey, Taci "Bridging the Gaps? Private Sector Development, Capital Flows and the Investment Climate in South-east Europe" EBRD, Working paper No. 80, 2003
16 http://www.nbs.yu/serbian/4_12.htm
17 Republic Statistical Office – Saopštenje br. 129, 2005 and Saopštenje br. 258, 2004
18 Krstić, look at Bogićević et al, 2002, pp. 25
19 World Bank, 2000, pp. 371
20 Marlier et al, 2003, pp. 231

Due to the above mentioned reasons, it was accepted that the absolute poverty line was to be used for poverty measurement. This line is established according to the overall household expenditure, which is sufficient to satisfy just the most basic, minimal needs. Minimal needs are established separately for food, in accordance with nutritional requests of FAO, and separately for other necessary expenses. In order to obtain internationally comparative data, it is a common practice to express an absolute poverty line in dollars of equal purchasing power parity (PPP$), which is unfortunately impossible to carry out in Serbia, because there are no official data for conversion.

Establishing the so-called food line, i.e. the level of expenditure sufficient to satisfy minimum needs in nutrition, was relatively easy. The problem, however, appeared when other minimum expenses were to be established, particularly when the data showed that different methods gave different results. Finally, it was decided to accept Engel's method[21], which had as a result a more logical share of food expenditure in relation to overall household expenditure. Since this method also showed a significantly lower share of the poor, and taking into account the high density of households just above the poverty line, it was decided that in further analysis and data presentations, two terms will be used and that analysis will include not only the poor but also those who are placed just above the poverty line. These two groups were given a collective name "materially insufficiently supported" population.

Finally, in accordance with international standards, an extreme poverty line was established on food consumption level, implying that those who are considered extremely poor are those who cannot satisfy even their basic needs for food.

Along with the above mentioned decisions, within the course of work, some other decisions were made such as equivalent scales, rent imputation, depreciation of durable consumer goods and other important methodological issues that were solved with consensus.

According to the data from LSMS, three studies emerged: "Poverty and Reform of Financial Support to the Poor" by Ministry of Social Affairs and the Center for Liberal Democratic Studies, "Poverty Reduction Strategy Paper" by Government of Serbia and "Serbia and Montenegro Poverty Assessment" by the World Bank. On the basis of the survey and the studies mentioned, legal implementation and direction of further reforms were established.

21 More detailed Krstić, look at Bogićević et al, 2003 pp.10-12

In the area of welfare benefits it was clear that legal changes should be directed at establishing an absolute poverty line which would be equal for the whole territory of Serbia and whose real value will reflect indexation of living expenses, with better user targeting.

According to the previous legal regulations, the amount of social welfare and census for Child Allowances were defined on the basis of decentralized criteria and depending on the level of average salary in municipality. Having this in mind, it should come as no surprise that the results of the survey showed that there was a "leak" in the budget resources and that, particularly with Child Allowance a significant share of the resources was received by households above the poverty line determined uniformly for the whole territory of Serbia. Inadequacy of this criterion also prevented the population in "richer" municipalities from accessing the funds for the poor.

In Serbia, especially during the first transitional years, the data on the amount of average salaries in municipalities were not relevant and realistic indicators of the living standard, particularly not as indicators of differences between certain municipalities. This is partly a consequence of statistical weaknesses which cannot encompass the private sector which is increasingly present. In addition, it is also insufficient in measurement of the conditions in social/state sector. Along with that, many state companies are not working, so in most extreme situations, if a certain municipality has only one successful company with a relatively small number of employees and high average salaries, this will have an impact on setting a high census for exercising welfare benefit rights, although the living standard of the majority of population may not necessarily differ from neighbouring municipality which has a lower census, and vice versa. Besides, both amounts and censuses for these rights are defined at a low level which enables satisfaction of the most minimal needs, so the amounts to cover them do not differ among municipalities. The crucial reasons to reject decentralized criterion are, however, primarily linked to the basic question whether these rights should be equally available to all citizens, regardless of the municipality they live in.

Both the Law on Financial Support for Families with Children and a proposal for Amendments of the Law on Social Care and Providing of Social Security to Citizens have made provisions for exclusion of regional (municipal) differences in the criteria by establishing a uniform census and amount of reimbursement for the whole territory of Serbia. In addition, both legal proposals ensured maintenance

of realistic value of reimbursements (through indexation of welfare benefits and censuses with living expenses) and through continuous access to welfare rights.

Furthermore, the Law on Financial Support for Families with Children defined Child Allowance as a measure of social policy, the universal right to Child Allowance was revoked for children of higher order in areas with low birth-rate, and more precisely defined income and assets taken into consideration when assessing the welfare rights, better targeting of the poor was enabled.[22] The new law places into better position families with children with special needs and single parents, but also fosters families and guardians, so that this procedure could encourage non-institutional protection of children without parental care.

Along with establishing the uniform census and the amount of welfare benefits for the whole territory of Serbia and abandoning the policy of linking the amount of reimbursement to the trends in salaries, Amendments to the Law on Social Care and Providing of Social Security to Citizens limited the access of the beneficiaries who are able to work to their right to 9 months within a calendar year. Also, the amount of welfare benefit for additional care and help for the old and the disabled was increased significantly.

However, on the basis of the survey results and conducted research, it was clear that much more valuable findings indicated to the necessity of introducing additional changes in the system.

Research based on the LSMS showed that social welfare in Serbia was targeted well, even better than in other countries in the region, representing a relatively significant part of the expenditure of the poor, much higher than other transfers.[23] The main disadvantages were found to be the very narrow take-up of the population receiving social welfare, low amounts of the received help and inadequate equivalent scales, which give preference to smaller households in particular. According to the World Bank Survey on Poverty in Serbia, the main problem of social welfare was not inadequate targeting, but the error of "exclusion", i.e. insufficient coverage of the poor[24].

The data indicated the need for more significant changes in designing social welfare policy than the one proposed and implemented. However, the idea was to implement the changes gradually, in phases, so as to avoid larger budget strains. Parallel savings in other spheres

22 According to new regulations when establishing material status of the families all income, savings and assets are included, not only salaries and pensions.
23 Milanović, look at Bogićević et al, 2003. pp. 51
24 World Bank, 2003, pp. 137

should have created adequate budget gaps for wider take-up of welfare as the most efficient social transfer, and this was to be done primarily through the change in equivalent scales, i.e. the amount of census and welfare which increased with the increase of the number of household members. A certain degree of caution in a sudden increase of welfare rights was imposed by the fact that the widespread grey economy made targeting significantly harder, which may lead to significant "leak" in budget resources and their inefficient utilization in preventing poverty.

This is why the next phase was intended to be the phase in which the effects of legislative changes will be carefully analyzed, securing adequate budget resources for further expansion of the most efficient social transfer.[25] The findings also indicated the need for a more active role of social welfare centres and the need of their wider engagement in field work, taking into consideration that out of the total number of the poor over half of them did not have information about their rights or did not know how to file a request to exercise their rights[26].

Analyses of the previous results of 2003 survey also showed improvement in targeting Child Allowances after passing the new law.[27] However, considering the fact that legal amendments were significant, the effects still cannot be considered adequate and it is definitely necessary to carry out more detailed analyses in order to see why they were not achieved.

One of the findings revealed in the World Bank Survey on Poverty was also the need for better harmonization of different social welfare programs which are under the jurisdiction of different levels of authority and a large number of administrative institutions[28]. In this respect, it should be pointed out that the data on social welfare on the local level are insufficiently monitored and analyzed, which makes it difficult to obtain a full picture of the system. Also, many problems in social welfare are inter-departmental in their nature and require networking of the education, healthcare and employment sectors, which is particularly important if the emphasis in overall social policy were to be placed more on active measures. All of the mentioned sectors, both on the central and local levels, are focused solely on their own reforms and the lack of links between them, both in terms of agents and effects, make it impossible to achieve adequate prevention of poverty in Serbia.

25 Some proposals for further changes Mijatović, look at Bogićević et al, 2003. pp. 111-128
26 Milanović, look at Bogićević et al, 2003, pp. 61
27 Krstić, 2004
28 World Bank, 2003, str. 138

Finally, it should be particularly stressed that this research and its findings do not exhaust all the valuable data that the 2002 and especially 2003 population LSMS have to offer. This is why this book represents a possibility to make the basic tables available for the wider public and to make a request for the surveys to continue.

Gordana Matković, PhD
Minister of Social Affairs
2001- 2004.

NB

Since I was the Republic Minister of Social Affairs at the time when the survey was conducted and was in charge of devising the Poverty Reduction Strategy, I would like to take this opportunity to thank everybody who put in extraordinary work and made great effort so that these activities could be recorded as significant contribution in the first years of transition in Serbia.

METHODOLOGY

This chapter provides the main information regarding the way the LSMS in 2002 and 2003 was planned and done. The study included four separate surveys:

1. The survey of general population of Serbia in 2002
2. The survey of general population of Serbia in 2003 (panel survey[29])
3. The survey of Family Income Support (MOP in Serbian) recipients[30] in 2002
4. The survey of Roma from Roma settlements in 2003

In the following text a short explanation of the survey aims will be given, along with basic methodology assumptions, description of samples and explanations related to field work itself. The chapter also includes basic information on coding system and database organization, while the definitions of terms are to be found in separate chapters depending on the topics. Explanation on how the basic income and expenditure aggregates were obtained is given in the chapter on Household Expenditure, while the information on calculation of poverty indicators are summarized in the text written by Gorana Krstic *Basic Poverty Indicators* (more detailed explanations can be found in other published papers[31]).

29 The households which participated in 2002 survey were interviewed
30 Detailed description of program in Chapter 8 Social welfare programs
31 Krstić, look at Bogićević et al, 2003, pp. 9-17

1 Design of the Living Standard Measurement Study

1.1 Objectives

LSMS represents multi-topical study of household living standard and is based on international experience in designing and conducting this type of research. The basic survey was carried out in 2002 on a representative sample of households in Serbia (without Kosovo and Metohija). Its goal was to establish a poverty profile according to the comprehensive data on welfare of households and to identify vulnerable groups. Also its aim was to assess the targeting of safety net programs by collecting detailed information from individuals on participation in specific government social programs. This study was used as the basic document in developing Poverty Reduction Strategy (PRS) in Serbia which was adopted by the Government of the Republic of Serbia in October 2003.

The survey was repeated in 2003 on a panel sample[32]. Analysis of the take-up and profile of the population in 2003 was the first step towards formulating the system of monitoring in the Poverty Reduction Strategy (PRS). The survey was conducted in accordance with the same methodological principles used in 2002 survey, with necessary changes referring only to the content of certain modules and the reduction in sample size. The aim of the repeated survey was to obtain panel data[33] to enable monitoring of the change in the living standard within a period of one year, thus indicating whether there had been a decrease or increase in poverty in Serbia in the course of 2003.

Along with these two comprehensive surveys, conducted on national and regional representative samples which were to give a picture of the general population, there were also two surveys with particular emphasis on vulnerable groups. In 2002, it was the survey of living standard of Family Income Support recipients with an aim to validate this state supported program of social welfare. In 2003 the survey of Roma from Roma settlements was conducted. Since all present experiences indicated that this was one of the most vulnerable groups on the territory of Serbia and Montenegro, but with no ample research of poverty of Roma population made, the aim of the survey was to compare poverty of this group with poverty of basic

32 The households which participated in 2002 survey were interviewed

33 Panel data are the data obtained on the sample of households which participated in the both surveys. These data made possible tracking of living standard of the same persons in the period of one year.

population and to establish which categories of Roma population were at the greatest risk of poverty in 2003. However, it is necessary to stress that the LSMS of the Roma population comprised potentially most imperilled Roma, while the Roma integrated in the main population were not included in this study.

1.2 Concept: Features of the Questionnaire

In all surveys the same questionnaire with minimal changes was used. It included different modules, topically separate areas which had an aim of perceiving the living standard of households from different angles. Topic areas were the following:

1. Roster with demography.
2. Housing conditions and durables module with information on the age of durables owned by a household with a special block focused on collecting information on energy billing, payments, and usage.
3. Diary of food expenditures (weekly), including home production, gifts and transfers in kind.
4. Questionnaire of main expenditure-based recall periods sufficient to enable construction of annual consumption at the household level, including home production, gifts and transfers in kind.
5. Agricultural production for all households which cultivate 10+ acres of land or who breed cattle.
6. Participation and social transfers module with detailed breakdown by programs
7. Labour Market module in line with a simplified version of the Labour Force Survey (LFS), with special additional questions to capture various informal sector activities, and providing information on earnings
8. Health with a focus on utilization of services and expenditures (including informal payments)
9. Education module, which incorporated pre-school, compulsory primary education, secondary education and university education.
10. Special income block, focusing on sources of income not covered in other parts (with a focus on remittances).

1.3 Basic Methodological Assumptions

In the following part the basic methodological assumptions and characteristics of this survey are described: sample frame, planned sample, data collecting method and field work, as well as monitoring and analysis units.

Sample frame: Sample frame for both surveys of general population in 2002 and 2003 consisted of all permanent residents of Serbia, without the population of Kosovo and Metohija, according to definition of permanently resident population contained in UN Recommendations for Population Censuses, which were applied in 2002 Census of Population in the Republic of Serbia. Therefore, permanent residents were all persons living in the territory Serbia longer than one year, with the exception of diplomatic and consular staff.

The sample frame for the survey of Family Income Support recipients included all current recipients of this program on the territory of Serbia based on the official list of recipients given by Ministry of Social Affairs.

The definition of the Roma population from Roma settlements was faced with obstacles since precise data on the total number of Roma population in Serbia are not available. According to the last population Census from 2002 there were 108,000 Roma citizens, but the data from the Census are thought to significantly underestimate the total number of the Roma population. However, since no other more precise data were available, this number was taken as the basis for estimate on Roma population from Roma settlements. According to the 2002 Census, settlements with at least 7% of the total population who declared itself as belonging to Roma nationality were selected. A total of 83% or 90,000 self-declared Roma lived in the settlements that were defined in this way and this number was taken as the sample frame for Roma from Roma settlements.

Planned sample: In 2002 the planned size of the sample of general population included 6.500 households. The sample was both nationally and regionally representative (representative on each individual stratum). In 2003 the planned panel sample size was 3.000 households. In order to preserve the representative quality of the sample, we kept every other census block unit of the large sample realized in 2002. This way we kept the identical allocation by strata. In selected census block unit, the same households were interviewed as in the basic survey in 2002. The planned sample of Family Income Support recipients in 2002 and Roma from Roma settlements in 2003 was 500 households for each group.

Survey method: The survey incorporated a combined method of interviewing - one involving the interviewer (*face to face* method) and the other was a self-interview. All modules, with the exception of diary of consumption, were filled by the interviewer on the basis of the interview with the respondent. A diary of consumption was left in the household, and it was filled in by the household member in charge of daily purchases. One household member, who was the most familiar with the household expenditures, was chosen within the household, and this member answered the questions concerning the expenditures of all household members. Each individual member gave answers on personal income.

Phases of field work: Field work of all four surveys 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 individually, while the interviewers were obliged to visit the household at least twice, and eventually help them in filling the diary. In the third phase the interviewer visited the household again, examined the diary to see whether it had been correctly filled, and filled the remaining modules. Distribution of modules according to phases is presented in the following table.

Table 1.1 Organizations of Modules by Phases of Data Collecting

1. Demography	1.phase
2. Durable goods	
3. Agriculture (2002) / Social programs (2003)	
4. Health	
Household consumption	2. phase
5.1 Daily consumption	
5.2 Monthly consumption	3 .phase
6. Education	
7. Working activity	
8. Social programs (2002) / Agriculture (2003)	

Unit of monitoring and unit of analyses: Table 1.2 shows for each individual module, on the one hand who the respondents were (units of monitoring) and on the other hand, subjects that contents of certain modules refer to (units of analysis).

Table 1.2 Units of Monitoring and Units of Analyses of Each Individual Module

Module	Respondent	Relates to	Subject
Demography	Head of Household and each household member	All persons in the household	Gender, age, relation to head of the household, migrations after 1991, residence status of the members, marital status, presence in the household, finished school, current activity on own education and activities of all household members Added questions for Roma sample regarding type of Roma settlement
Durable goods	Head of Household and the best informed household member	Entire household	Type, age, size, state of equipment in the flat/house in which the household lives. Monthly expenditures of the household for flat, outstanding bills, kind and price of heating. State of equipment of the household with durable goods with estimated age and value.
Agriculture	Household member most involved in agricultural activities	Entire household	Area and value of agricultural land, receipts from and expenditures in agricultural production. Livestock, present value, consumed in the household and receipts from sale of cattle in previous year. Expenditures on livestock production and estimated net receipts from agricultural holding.
Health	Each household member, parents answer in the name of children	Each household member	Chronic and acute diseases; Utilization of services, expenditures on treatment in medical institutions according to type: public, private; Visit to pharmacies without visiting the doctor; alternative medicine. Data on outpatient treatment related to previous month, and data on inpatient/hospital treatment related to previous 12 months. Incidence of risky behaviour of the population (smoking, alcohol consumption). (2003) Assessment of the number of physically handicapped persons. (2003)

Module	Respondent	Relates to	Subject
Daily consumption (Food Expenditures)	The best informed household member	Consumption of the entire household, each day during 7 days	Consumption of food during the period of 7 days in which the diary is kept, according to sources of consumption: purchasing, own production and received as a gift. For each kind of food, the diary is filled on quantities consumed, unit measure and prices. In case of goods from own production and goods received as a gift the market value at the moment of consumption is used..
Monthly consumption (Non-Food Expenditures)	The best informed household member	Consumption of the entire household	Consumption of goods and services other than food. The data mainly relate to the period of one year, however, in case of goods with less frequent purchasing periodicity, the data relate to the previous 3 months or previous year.
Education	The best informed household member	For each person on schooling	Pre-school, compulsory primary, secondary and university education. Level of education, class attended, expenditures by type and supplementary financial sources. Attending the school for children with special needs.
Working activity	Each household member	All members above 15 years of age	Activities in the previous 7 days, activity, form of ownership, kind of work, hours worked and earnings from main and supplementary work. Unemployment according to previous work experience, length of job seeking and way of solving the problem of own unemployment.
Social programs	The best informed household member	For each household member and the entire household	Utilization of social benefits, breakdown by programs, awareness of social programs and the amounts received, per each social program and according to kinds.

2 Designing the Sample for the Survey

Sample type: In both national surveys the implemented sample was a two-stage stratified sample. Units of the first stage were enumeration districts, and units of the second stage were the households. In the basic 2002 survey, enumeration districts were selected with probability proportional to number of households, so that the enumeration districts with bigger number of households have a higher probability of selection. In the repeated survey in 2003, first-stage units (census block units) were selected from the basic sample obtained in 2002 by including only even numbered census block units. In practice this meant that every second census block unit from the previous survey was included in the sample. In each selected enumeration district the same households interviewed in the previous round were included and interviewed. On finishing the survey in 2003 the cases were merged both on the level of households and members.

Stratification: Municipalities are stratified into the following six territorial strata: Vojvodina, Belgrade, Western Serbia, Central Serbia (Šumadija and Pomoravlje), Eastern Serbia and South-east Serbia. Primary units of selection are further stratified into enumeration districts which belong to urban type of settlements and enumeration districts which belong to rural type of settlement.

The sample of Family Income Support recipients represented the cases chosen randomly from the official list of recipients provided by Ministry of Social Affairs. The sample of Roma from Roma settlements was, as in the national survey, a two-staged stratified sample, but the units in the first stage were settlements where Roma population was represented in the percentage over 7%, and the units of the second stage were Roma households. Settlements are stratified in three territorial strata: Vojvodina, Beograd and Central Serbia.

Response rate: During field work, interviewers kept a precise diary of interviews, recording both successful and unsuccessful visits. Particular attention was paid to reasons why some households were not interviewed. Separate marks were given for households which were not interviewed due to refusal and for cases when a given household could not be found on the territory of the chosen census block.

In 2002 a total of 7,491 households were contacted. Of this number a total of 6,386 households in 621 census rounds were interviewed. Interviewers did not manage to collect the data for 1,106 or 14.8% of selected households. Out of this number 634 households or 9.9% refused cooperation with interviewers after three attempts, and 472 household were not at home. The number of interviewed persons was 19,725.

Table 1.3 Allocated and Realized Sample by Strata 2002:

	Stratum	Allocated Sample size		Realized Sample size	
		Urban	Rural	Urban	Rural
1	Belgrade	1299	215	1025	189
2	Vojvodina	1178	827	959	714
3	Western Serbia	307	478	269	438
4	Šumadija	635	695	535	621
5	Eastern Serbia	332	432	285	386
6	South-east Serbia	527	566	452	513
	Total	**4278**	**3213**	**3525 (82.4%)**	**2861 (89.0%)**
	TOTAL	**7491**		**6386 (85.2%)**	

Response rate = 85.2% (including those who were not at home)
Response rate=91.1% (excluding those who were not at home)

Since the aim of the repeated survey in 2003 was to interview a total of 3,000 households, census block unit 301 was included in the sample since it had 3,119 households that were interviewed in the previous survey and a trend of reduction of interviewed households was to be expected. The realized sample in 2003 included 2,548 households. The interviewers did not manage to collect data for 571 selected households or 18.3% of selected households. Out of this number, 266 or 8.5% of households refused cooperation with interviewers after three attempts, and 305 households were not at home, changed the place of residence or were absent at the time when the interview was conducted. The interviewed households included 8,027 persons.

Table 1.4 Allocated and Realized Sample by Strata 2003:

	Stratum	Allocated Sample size		Realized Sample size	
		Urban	Rural	Urban	Rural
1	Belgrade	517	87	327	57
2	Vojvodina	491	322	375	275
3	Western Serbia	132	226	107	205
4	Šumadija	278	283	247	259
5	Eastern Serbia	154	158	139	134
6	South-east Serbia	209	262	181	242
	Total	**1781**	**1338**	**1376 (77.3%)**	**1172 (87.6%)**
	TOTAL	**3119**		**2548 (81.7%)**	

Response rate = 81.7% (including those who were not at home)
Response rate=91.5% (excluding those who were not at home)

The number of achieved interviews for Family Income Support recipients was 456 households. The number of achieved interviews of Roma in Roma settlements was 525 households.

Sampling error: Table 1.5 shows 95% confidence interval for 5% incidence:

Tabela 1.5. Table 1.5 Sampling Error and Confidence Interval:

	LSMS 2002	LSMS 2003	Family Income Support Recipients	Roma from Roma settlements
N	**6386**	**2548**	**521**	**529**
Confidence interval	**C.I 95%**	**C.I 95%**	**C.I 95%**	**C.I 95%**
C.I. Lower	4.37	4.00	2.79	2.81
C.I Upper	5.63	6.00	7.21	7.19

System of estimation: The proposed sample plan was very complex from the aspect of estimation. Weighting had to be performed for each phase of selection. Special estimates were made for each stratum, and the total estimate was obtained by adding up the estimates on the level of strata.

In the repeated survey carried out in 2003 a correction was performed for non-response. The correction was performed by gender, age and number of household members.

3 Conducting the Household Survey

3.1 Location and Time

Survey location: The surveys were conducted on the whole territory of Serbia (without Kosovo and Metohija).

Time when survey was conducted: Both in 2002 and 2003 the survey was conducted at the same period of time, from 15.05 to 15.06 which is very important, primarily because of seasonal consumption habits and seasonal prices of fruit and vegetables.

3.2 Organization of Field Work

Research team: Participating research team in preparation and realization of the survey was the following: Ministry of Social Affairs

and SMMRI. Approval of the survey methodology was obtained from Ministry of Education, Ministry of Health and the RSO.

Within organizational arrangements each of the participants had certain tasks and responsibilities. Direct execution of interviewing was entrusted to interviewers, supervisors and instructors. Interviewers and supervisors were recruited from the most experienced workers and interviewers from SMMRI. Criterion for selection of the interviewers and supervisors was qualification, communicativeness, experience in field work and familiarity with the area in which the survey was carried out.

Pilot project: Prior to execution of the survey a pilot project was organized, in which all supervisors took part. During realization of the pilot project some minor shortcomings were observed, as well as explanations of some questions which were corrected before printing of the final version of questionnaire.

Tasks and responsibilities: Training was carried out by instructors shortly before commencement of interviewing.

The instructors' tasks were the following:

- to carry out the training of supervisors and interviewers;
- to control accuracy of the work of supervisors and interviewers in the field;
- to give additional explanations to supervisors and interviewers with respect to problems which may eventually appear during the activities in the field;
- to carry out the control of the material obtained from the field.

The supervisors' tasks were the following:

- preparation of the survey strategy, particularly in light of the specificity of their region;
- to carry out, together with the interviewers, the selection of survey units (in compliance with the instructions);
- to visit several households in the initial phase of the interviewing, together with the interviewer;
- to furnish the interviewers with additional instructions during the survey period;
- to contact the instructors in case of eventual difficulties and problems;

- to control the accuracy of filling the questionnaires and control books upon receipt of the survey material;
- to forward the collected material in due time;
- to contact the instructors and proceed on according to the obtained instructions, in case supervisors do not find the solutions for the current problems in survey realization on their own;
- to perform the control of work in the chosen households.

The interviewers' tasks were the following:

- to carry out the interviewing in the households in scheduled time;
- to contact interviewers' controller and act in accordance with the instructions obtained from them in case they are not able to find solutions for the current problems in survey realization;
- to give the correctly filled questionnaires to their controllers in due time;
- to treat all data obtained from the households as official secret.

Selection of households in one enumeration district: Eleven households were selected in each enumeration district. In case that some households could not be approached within the selected households after two attempts, or some of them did not want to give answers, the interviewer contacted his/her controller. The controller tried once again to include the household in the interview. If this failed, then interview of the household was given up.

Each household which was not interviewed, either because of unsuccessful attempts of the interviewer to find someone in the household, *a priori* refusal of the household to be interviewed or some other reason (such as death in the family), the case was evidenced in the control book. In 2002, after the three unsuccessful attempts to find some household member at home the household was replaced by a reserve household. Two replacements were possible in each enumeration district. In the repeated survey in 2003, it was not possible to replace the household.

Authority letter: Each member of the team possessed authority for work which was shown to the respondents at request, and letter for the head of household and members of the household, which was presented upon entering the household.

3.3 Organization of the Field Work for Sample in Roma Settlements

Field work for interviews with Roma from Roma settlements was somewhat different. In order to approach the respondents in a more direct way and to avoid refusal, Roma NGOs were contacted. Their role was, on the one hand to secure help by providing Roma interviewers, and on the other hand to contact the leaders of Roma settlements where it was required. This was particularly important in some settlements and it enabled cooperation with their residents.

Field work in Roma settlements showed that filling out certain parts of the questionnaire was quite problematic. This mainly referred to diaries kept by households: very often the respondents were either illiterate or unable to organize their expenditure within the given categories, so interviewers had to visit some respondents almost on daily basis in order to help them fill out the diaries for previous days. Another problem was that the heads of households were not well informed abut their household members, particularly in cases of multi-member families, older persons, child caretakers, etc. In these cases, the interviewer conducted the interview with more members of the household than planned.

4 Coding and Organization of Datasets

Following the completion of interviewing, the interviewers submitted the material to controllers, and they performed controls together. Complete material was submitted to the authorized person in SMMRI. Further on, the material was handed to coding, data entry and data processing teams.

Coding: Variables in datasets carry the name which corresponds to the one in the questionnaire. Since questionnaires included almost only close-ended type of answers (only expenditure questions were open ended, so that the respondent could state the appropriate amount) the coding system of categories of answers in the database also follows the system from the questionnaire. This system of coding was used in all 4 surveys.

Datasets: Data of each survey are given separately. Databases of each survey were organized in modules – each module from the questionnaire is shown in a separate database. In this way we created the following databases in each of the 4 surveys:

1. Demography
2. Housing conditions and durable goods
3. Agriculture
4. Healthcare

5a. Weekly household's consumption – food diary

5b. Monthly household's consumption – non-food expenditure

6. Education
7. Working activity

8a. Social programs – members

8b. Social programs - households

9 Income-Consumption

The last database 9 Income-Consumption does not include raw data but variables calculated for the purpose of obtaining poverty indicators: consumption and income aggregates, as well as their components, units of equivalent scale and position with respect to poverty line.

Individual level data: 1 Demography, 4 Healthcare, 6 Education, 7 Working activity and 8a Social programs

Household level data: 2 Housing conditions and durable goods, 3 Agriculture, 5a and 5b – Weekly and monthly expenditure, 8b Social programs and 9 Income-Consumption

Each database includes key merging variables: in the case of databases for households these are *Enumeration district code* and *Serial no. of household* (*mesto and rbd)*, while in the case of database for members these key variables include: *Enumeration district code*, *Serial no. of household* and *Serial no. of household member (mesto*, *rbd* and *clan)*. All survey databases contain information on the district, municipality, region and type of settlement and have two population weights:

1. Population weight for households
2. Population weight for individuals

Panel data: On household level, the merging of the data obtained in 2003 with those obtained in 2002 can be done through merging vari-

ables *Enumeration district code and Serial no. of household* (*mesto and rbd),* since every household interviewed in both rounds had the same values on both variables. In merging member data, it was necessary to merge the variable S*erial no. of household member (clan)* from appropriate database from survey in 2002 and *Serial no. of household member in 2002 (clan_lane)* from appropriate database from survey in 2003.

MAIN POVERTY INDICATORS BASED ON LSMS

1 Research Methodology

Research on poverty in Serbia in 2002 and 2003 was based on standard methodology which is used in majority of transitional countries. This methodology was used for the first time to measure poverty in Serbia in 2002.

In order to measure poverty in every country, it is necessary to define the three basic elements: aggregate for measurement of living standard, i.e. poverty, poverty line and units of equal consumption, i.e. adjustment of aggregates for poverty measurement and poverty line to consumer units. The result of poverty analyses as well as analyses of different aspects of social and economic policy relevant for achieving sustainable economic growth and population reduction depend on the methodology used to calculate these three variables.

1.1 Consumption Aggregate

Household consumption was used as the best approximation of the living standard, i.e. wellbeing of the households in Serbia. It is assumed that household consumption is better registered in the Study

than the income, and that it is less prone to short-term fluctuations, which is true of other transitional countries as well.[34]

Household consumption was assessed for the first time in 2002 based on LSMS. It includes food expenditure and other expenses related to purchased products, household's own production and received gifts. Basic components of household consumption are: a) food, tobacco and drinks consumption; b) clothes and footwear expenditure; c) hygienic and cleaning products; d) rent and transportation expenditure; e) education expenditure; f) healthcare expenditure; g) imputation of the service value by using consumer durables (including depreciation of consumer durables); h) imputed rents for flat/house owners. In 2003, household consumption was defined in the same manner as in 2002.

Consumption was deflated by regional price index, so that the higher expenditures in some regions was exclusively the result of higher consumption or consumption of better quality products, and not the result of higher prices.

1.2 Units of Equal Consumption

Household consumption has been reduced to the consumption by consumer unit using units of equal consumption (consumer units). Consumption units were assessed empirically, using the data from LSMS in 2002 and Engel's method. It included the size of household, i.e. the difference in consumption of adults and children (aged 0-6 and 7-18), since it was assumed that children's consumption was lower than adults. Consumer units also take into account economy of scale, since some expenditure is shared by household members, such as rent, car, daily papers and the like. For instance, a four-member household with an income of 40,000 dinars per month is better off than household with one member spending 10,000 per month due to economy of scale in consumption.

A simplified Serbian equivalent scale of OECD type has the following form[35]:

Serbian scale = (1 + 0, 81*(Adults-1) + 0, 24*Children0-6 + 0, 75* Children7-18).

Consumption per consumer unit was derived by dividing the total household consumption by consumer units (Serbian scale).

34 Basic advantages of using household expenditure in poverty measurement as opposed to income, see Bogićević et al, 2003, pp. 9

35 More details on Engel's method in Bogićević et al, 2003, pp. 11-12

The equivalent scale which was assessed in 2002 was used to adjust household consumption to consumption by consumer unit in 2002 and 2003, so that a change in poverty from 2002 to 2003 would not be the consequence of the change in these parameters.

1.3 Poverty Line

Poverty was defined by using an absolute poverty line. Absolute poverty line can be defined as consumption necessary to satisfy basic needs. Poverty line includes two components: the food line or extreme poverty line and other household consumption. Thus the poverty line was defined in two phases.

The first phase defined the food line or extreme poverty line based on minimum consumer food basket in 2002. This means that the minimum average daily amount of calories was defined based on the consumption structure from LSMS and adjusted to fit nutritionist requirements of FAO (Food and Agriculture Organization). This amounted to an average of 2,288 calories. This consumer basket reflects the present structure of consumption in Serbia, where the consumption structure by articles is at least equal to the consumption of the smallest decile (allowed tolerance of deviation of 10% in the first decile of consumption). Minimum consumer basket for standard defined four-member household[36] in 2002 was 7,605 dinars per month in terms of average prices in Serbia for the period May-June 2002 or 2,083 dinars per consumer unit per month.

The second phase defined the total poverty line, which apart from food expenditure includes other expenses as well (clothes and footwear, hygiene and cleaning products, transportation, healthcare, education, etc.). It was defined as total consumption of the households with food consumption equal to minimum consumer basket[37]. This way, the poverty line for 2002 was established and it amounted to 4,489 dinars per month per consumer unit.

Poverty line in 2003 was based on the poverty line from 2002 which was adapted in accordance with the increase in living expenses in the period 2002–2003. The increase in food costs in the period May-June 2002/May-June 2003 was calculated according to LSMS and amounted to 0.66%. This means that the value of minimum food basket of standard four-member household in 2003 was higher by 0.66% in compari-

36 Four-member household includes two adult members, one child up to the age of 7 and one child aged 7 to 18.

37 More details on measurement of complete poverty line in Bogićević et al, 2003, pp.15

son to 2002, on the assumption that the structure of food consumption remained the same as in 2002[38]. So the food poverty line in 2003 was 2,097 dinars (2,083*1.0066) per consumer unit per month.

In order to obtain the total poverty line in 2003, which would include not only food poverty line but also other household expenditure, it was also necessary to adjust the value of other expenditure in 2002 (May-June) to the increase in the cost of living of these expenditures in the period May-June 2002/May-June 2003. The increase in cost of living of other expenditure (excluding food) in this period was 19.4% and was calculated based on the cost of living index of the RSO[39]. By using this index of price increase and assuming that the share of other expenditure in the total poverty line remained the same as in 2002 (2,406 dinars), we obtained the value of other expenditure in 2003 which amounted to 2,873 dinars (2,406*1.194). This is how the total poverty line in 2003 was obtained and it was 4,970 dinars per consumer unit per month.

Besides food line and the total poverty line, in order to analyze characteristics of the population living immediately above the poverty line, we derived the poverty line which is adequate for the second decile. In 2002, it was 5,507 dinars, and below this poverty line (by definition) there was 20% of the population with the lowest consumption per consumer unit. By adjusting this poverty line to fit the increase in cost of living in the period May-June 2002 and May-June 2003, we obtained the line of 6,186 dinars per month per consumer unit in 2003. The population with consumption lower than this poverty line was classified as Materially Insufficiently Supported (In Serbian: *MNO – Materijalno nedovoljno obezbeđeni)*.

In order to measure poverty among Roma population from Roma settlements, the main aggregate used was consumption of households, which was defined in the same way as in basic population. The only difference in comparison to consumption of basic population was the fact that consumption among Roma population did not include the value of imputed rent for flat/house owners. This meant that the value of imputed rent was excluded from the value of the poverty line used to measure poverty of Roma from Roma settlements. This was done in two steps. In the first step, the total poverty line in 2002 was calculated excluding the value of imputed rent and it amounted to 4,128 dinars per consumer unit. This poverty line was 8% lower than poverty line that included imputed rent (4,489 dinars). In the second step, the poverty line was adjusted to the increase in prices in the pe-

38 In 2003 minimal consumer basket for standard four-member household was 7,655 dinars per month expressed in average prices in Serbia for the period May-June.

39 Increase in housing prices was corrected to reflect depreciation.

riod May-June 2002/May-June 2003 in the same way as with general population. The poverty line obtained this way was 4,539 dinars.

1.4 Comparison of Poverty in 2002 and 2003

A comparison of poverty in 2002 and 2003 was possible due to the same methodology used to measure poverty in both years. The consumption aggregate in 2003 includes all the components present in the previous year. The poverty line was adjusted to reflect the cost of living increase in the reference period on the assumption that the structure of consumption (expressed in the relation of food share and other expenditure share in total consumption) remained the same as in 2002. In this way we could follow the change in poverty in 2003 in comparison to 2002, assuming that the line of poverty in actual amount and the structure of consumption did not change.

In addition, the comparison of poverty in this period was made easier by the fact that the same source of data was used - LSMS 2002 and 2003. The questionnaire was almost identical for both years.

1.5 Basic Poverty Indicators

Poverty indicators most often used can be defined according to Foster, Greer and Thorbecke (1984) in the following way[40]:

$$P(\alpha)= \frac{1}{n}\sum_{i=1}^{n}\left[\max\left(\frac{z-c_i}{z},0\right)\right]^{\alpha},$$

where α - parameter; z - poverty line; c_i - unit of equivalent consumption of unit i; n – total number of persons.

For $\alpha=0$, P(0) is poverty index representing the number of the poor as a percentage of the total population. However, this poverty indicator does not show the level of poverty of these people, i.e. to what extent their consumption (income) is below the poverty line. The poverty indicator that takes this into account is the one showing the depth of poverty (poverty gap), which is obtained for $\alpha=1$. So P(1) can be defined in the following way:

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 in total population (the poor and those who are not poor). The poverty depth

40 World Bank, 2000.

P(1) represents the average consumption (income) deficit as a percentage of the poverty line among total population (poor and those who are not). When the average deficit of the poor is multiplied by the number of poor individuals and expressed as a percentage of GDP, then the minimum resources necessary for the elimination of poverty are calculated, assuming that it was perfectly targeted.

Finally, for $\alpha=2$ we obtain P(2) which is called severity of poverty. This indicator measures inequality among the poor, since it puts more weight on the poor who are further away from the poverty line.

All three poverty indicators will be used in these analyses as poverty indicators: the poverty index P(0), poverty depth P(1) and poverty severity P(2).

2 Poverty in Serbia in 2002-2003.

2.1 Basic Poverty Indicators

In 2002 and 2003, about 10% or about 800,000 citizens of Serbia were qualified as being poor, since their consumption per consumer unit was on average lower than the poverty line which amounted to 4,489 dinars per month per consumer unit in 2002 and 4,970 dinars in 2003 (Table 1).

Extreme poverty was almost not detected in this period, since less than one percent of the population had consumption by consumer unit on average lower than the food line (minimal consumer food basket) which was 2,083 dinars per month per consumer unit in 2002 and 2,097 dinars in 2003.

This way, the percentage of the poor and those who were extremely poor in Serbia remained unchanged in spite of significant economic growth in the period 2002-2003. However, it should be pointed out that the picture of poverty in Serbia is somewhat worse than the one stated. The quoted data do not fully include refugees and internally displaced persons (IDPs), who are undoubtedly more vulnerable than the permanent population of Serbia. This is clearly indicated in Graph 1, which shows that the risk of poverty[41] among refugees and IDPs included in LSMS is much higher than among citizens of Serbia. It should also be stressed that this survey did not include Roma population or 25,000 people from collective centres, and they undoubtedly fall into the group of those most exposed to the risk of poverty.

41 Relative risk of poverty was calculated as proportonal increase (decrease) in poverty index in the referential group in relation to average poverty index.

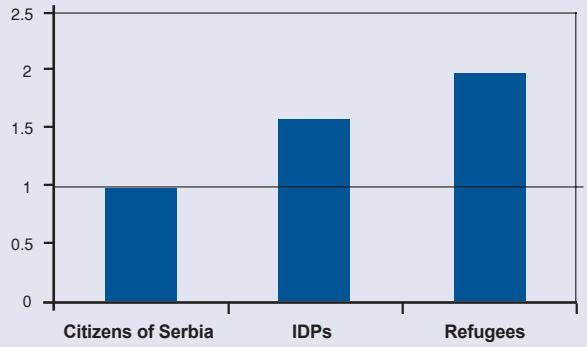
Table 1 Poverty Indicators in Serbia, 2002 – 2003 (in %)

	Poverty index	Poverty depth	Poverty severity
The poor			
2002	10.6	2.2	0.8
2003	10.5	1.9	0.6
Materially Insufficiently Supported			
2002	20.0	4.6	1.6
2003	19.9	4.5	1.5

Note: Poverty line in 2002 amounted to 4,489 dinars per month per consumer unit, and in 2003 4,970 dinars. Higher poverty line for the group of materially insufficiently supported persons in 2002 was 5,507 dinars per month per consumer unit (end of second decile), and in 2003 it was 6,186 dinars. Poverty lines in 2003 were obtained by adjusting the lines from 2002 to reflect the increase in the living expenses for the period June 2002-June 2003
Source: LSMS 2002 and 2003

Table 1 shows both the height of poverty represented thorough the index of poverty, and the distribution of poverty according to two poverty indicators - depth (gap) of poverty and severity of poverty. In 2003, as opposed to 2002, a slight decrease in depth and severity of poverty was noticed, although the percentage of the poor remained unchanged. The depth (gap) of poverty in 2003 amounted to 2%, which indicates that if the state mobilized material recourses of 2% of the poverty line for each individual (the poor and those who are not poor) and directed them towards the poor, theoretically, poverty would be eliminated, assuming that targeting of the help for the poor was perfect. The severity of poverty, an indicator which takes into account that some of the poor are experiencing more severe poverty, i.e. are placed further below the poverty line than others (they are given more weight), was measured at 0.6%.

Graph 1 Relative Risk of Poverty of Refugees and Internally Displaced Persons in Serbia in 2002



Source: LSMS 2002

Poverty towards higher poverty line also remained unchanged in the period 2002-2003, as well as depth and severity of poverty.[42]

Consumption inequality per consumer unit, measured by Gini coefficient, was reduced from 29.7 in 2002 to 28.3 in 2003.

2.2 Economic Mobility and Poverty

Although the percentage of the poor remained unchanged in the period 2002-2003, there were some significant movements of the poor population and the population that is not poor in the observed period (Table 2)[43]. The share of the poor in both observed years was 4.4%. Somewhat more than half of the poor in 2002 improved their economic status and "got out" of poverty a year later. However, approximately the same number of individuals became poor in 2003, so that the "new" poor constituted slightly more than half of the poor in 2003.

Table 2 Economic Mobility of Population in Serbia, 2002-2003 (in %)

	Not poor in 2003	Poor in 2003	Total
Not poor in 2002	83.7	6.1	89.8
Poor in 2002	5.8	4.4	10.2*
Total	89.5	10.5	100.0

Source: Panel LSMS 2002 and 2003
*Due to selected sample on panel data the value of line for 2002 is not 10.6

Significant mobility of the population in and out of poverty is the result of a sharp increase in consumption of those who overcame poverty (on average about twice higher) and a significant decrease among those who became poor (43%). Persons who did not change their status also experienced an increase in consumption (individuals who are not poor - 9.5% and individuals who remained poor - 10.8%).

The question is how the labour market influenced this significant mobility of the poor, since the poor and those placed immediately above poverty line can only enjoy the benefit of economic growth thorough labour market, as income from work most often contributes to 100% of their income.

42 Population whose consumption per consumer unit was smaller than higher poverty line (5,507 dinars per month in 2002 and 6,186 dinars in 2003).
43 Based on panel data (LSM 2002 and 2003) which enable monitoring the trends of living standard of the same persons over a period of one year (May-June 2002 and May-June 2003).

Table 3 Mobility of Labour Force in Serbia, 2002 - 2003
Status in 2002 =100 (in %) aged 15+

	Employed in 2003	Unemployed in 2003	Not active in 2003
Employed in 2002	83.1	5.7	11.2
Unemployed in 2002	43.0	38.2	18.8
Not active in 2002	13.3	5.9	80.8

Source: Panel LSMS 2002 and 2003

Significant economic mobility of the population can be explained by significant mobility of the labour force, among other things. Percentages on the diagonal in Table 3 indicate significant reallocation of the labour force over a period of one year, particularly for the unemployed. Almost half of the unemployed in 2002 got a job in 2003. However, the data also show that half of the unemployed who got a job, did so in the grey economy. Thus, the informal sector significantly improved mobility of the labour force.

Table 4 Change in Poverty Index by Status on the Labour Market, 2002-2003 (%)

	Employed in 2003	Unemployed in 2003	Not active in 2003
Employed in 2002	3.1	156.7	0.7
Unemployed in 2002	-34.2	-12.2	-49.6*
Not active in 2002	4.3	-33.5	-7.6

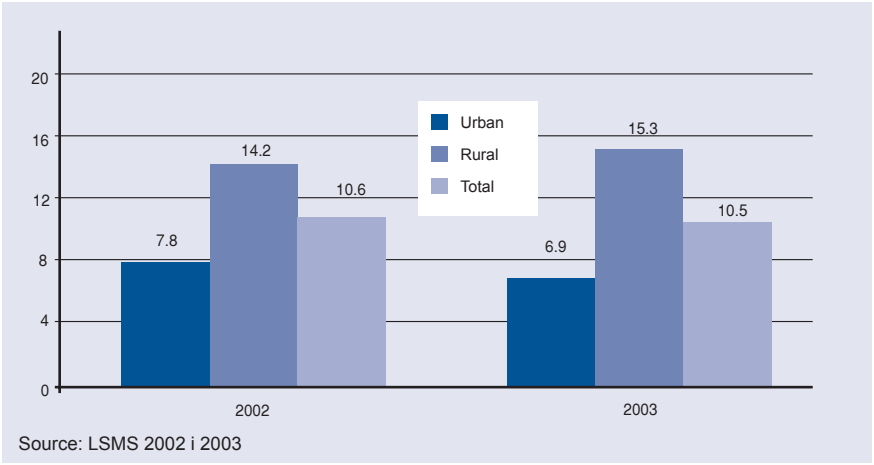
Source: Panel LSMS 2002 and 2003
*Small sample (<100 respondents)

Changes in the poverty index as a result of mobility of the labour force in the period 2002 - 2003 are shown in Table 4. The risk of poverty was reduced most among the unemployed in 2002 that got jobs a year later (34.2%). As opposed to this, the risk of poverty was most increased among those who were employed in 2002 and lost their jobs in 2003. Poverty index for this category of population increased 156.7%. The data indicate that the income from work was the main determinant of the living standard of the poor and those placed immediately above poverty line.

2.3 Poverty by Region

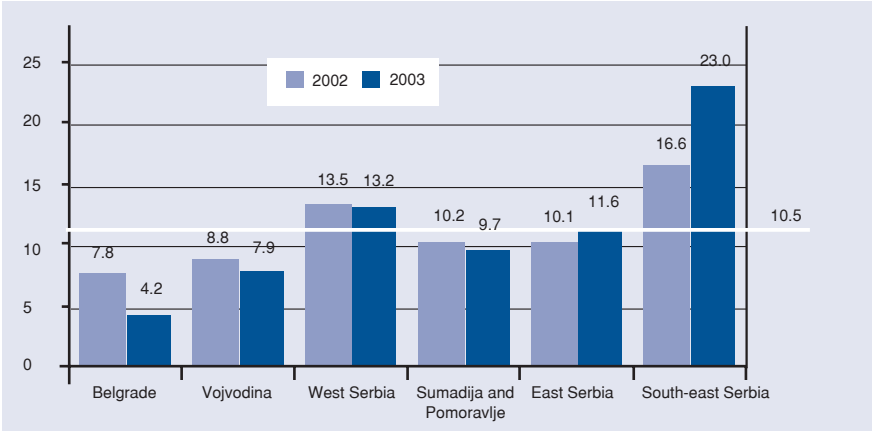
Poverty in Serbia is largely a rural phenomenon (Graph 2), similar to majority of transition countries[44]. Poverty was twice more present in rural areas than urban areas in 2002 and 2003. The difference in poverty between rural and urban areas increased slightly in 2003. This can be explained by the fact that the growth in actual earnings of pensions and of the employed, which constitute major income sources for urban population, was relatively higher than the growth of other income sources.

Graph 2 Percentage of the Poor by Type of Region in Serbia, 2002-2003



Source: LSMS 2002 i 2003

Graph 3 Percentage of the Poor by Type of Region in Serbia, 2002-2003



Source: LSMS 2002 i 2003

44 See Alam et al, 2005

From 2002-2003 the highest share of the poor was in south-eastern Serbia and the lowest in Belgrade (Graph 3). In comparison to 2002, the highest increase in poverty index was shown in south-eastern Serbia (38.6%), while the sharpest decrease was measured in Belgrade, where the percentage of the poor was doubly reduced. This indicates increasingly deeper regional differences in poverty. The ratio of the poverty index in south-eastern Serbia and Belgrade in 2003 was 5.5 and only a year before it was 2.1. A slight fall in the share of the poor in total population was noticed in Vojvodina, Sumadija and Pomoravlje and western Serbia, and a slight increase in eastern Serbia.

2.4 Poverty among Roma in Roma Settlements

Poverty among Roma respondents was extremely high in 2003. Two out of three Roma (64.4 %) were poor. Their average total consumption was lower than the poverty line of 4,539 dinars per month/consumption unit. This is an exceptionally high share of poor Roma population in the total sample of Roma. However, one should bear in mind that the LSMS included only Roma from Roma settlements. Roma integrated into the general population and assumed to be in a better material situation had been left out of this booster sample.

The percentage of the extremely poor among the interviewed Roma was 11.9 %. Their total consumption was lower than the extreme poverty line of 2,097 dinars/consumption unit per month (the value of minimum food basket).

Table 5 Poverty Indicators for Interviewed Roma and General Population in Serbia, 2003 (in %)

	% of extremely poor	% of the total poor	Depth of poverty	Severity of poverty
Interviewed Roma	11.9	64.4	21.8	9.8
General population	0.2	10.5	1.9	0.6

NB: Consumption does not include the value of imputed rent
Source: LSMS Roma 2003 and LSMS 2003

The depth and severity of poverty are very big. The depth (gap) of poverty amounted to 21.8% which indicates that if the state mobilized financial means amounting to 21.8% of the poverty line for each Roma individual (the poor and the non poor), and allocated that sum

for the poor, poverty among Roma would theoretically be eliminated (presuming that the targeting of aid intended for the poor was perfect). The severity of poverty, an indicator which takes into account the fact that some of the poor are stricken by deeper poverty, i.e. they live further down below the poverty line than the others (which gives them more weight) amounted to 9.8%.

The total and extreme poverty of the interviewed Roma were far more striking than in case of the general population. Poverty among the Roma population was 6.1 times more frequent than poverty among general population. Also, poverty of Roma was significantly deeper (about 11 times) and more severe (about 16 times) compared to the general population. Furthermore, there is a significant difference in the percentage of extremely poor Roma in comparison to the general population, among which there are almost no extremely poor individuals (11.9% compared to 0.2%).

2.4.1 Poverty Profile of Roma Who Were Potentially at Risk in 2003

Poverty among the Roma who live in rural areas is more frequent than that in urban areas (Table 6). However, this difference is significantly less than that of the general population where the risk of poverty in rural areas was twice as big as urban areas. The structure of the total interviewed Roma by type of the region is very similar to the structure of the poor Roma population.

Table 6 Poverty of Interviewed Roma by Region in Serbia, 2003 (in %)

	% of the poor	Structure of total population	Structure of poor population
Urbanity			
Urban	62.9	61.7	60.3
Rural	66.8	38.3	39.7
Region			
Belgrade-total	**54.8**	**17.8**	**15.2**
Urban	61.2	14.9	14.2
Rural	22.0	2.9	1.0
Vojvodina – total	**72.1**	**26.8**	**30.0**
Urban	71.2	11.6	12.8
Rural	72.8	15.2	17.2
Central Serbia – total	**63.7**	**55.4**	**54.8**
Urban	60.9	35.2	33.3
Rural	68.7	20.2	21.5
	64.4	**100.0**	**100.0**

Source: LSMS Roma 2003

Vojvodina has the biggest risk of poverty among the Roma. This is probably a consequence of the greater number of Roma refugees from Kosovo and Metohija compared to other regions in Serbia (Table 6).[45]

Extreme poverty was experienced in the slums, where 22.5% of the Roma lived (Table 7). The risk of poverty of Roma from such settlements was 29% bigger than the average risk of population of all interviewed Roma. Nearly a third (29.1%) of poor Roma lived in slums. The main characteristics of the majority of Roma settlements are bad hygienic and unhealthy housing conditions, poor utilities, unresolved legal status of the settlements, etc. In terms of ethnic structure of the settlements, the difference in the percentage of poor Roma is not large.

Table 7 Poverty of Interviewed Roma Household by Type and Ethnic Structure of Settlements, 2003 (in %)

	% of the poor	Structure of total population	Structure of poor population
Type of settlement			
Slum – extreme poverty settlement	75.4	22.5	29.1
Partaya – rural settlements in towns	52.1	29.0	25.9
Poor villages	56.9	28.1	27.4
New urban-suburban settlements	50.2	20.5	17.6
Ethnic structure of settlements			
Only Roma population	56.9	34.7	33.9
Roma population majority	56.7	37.2	36.2
Roma population minority	62.1	28.1	30.0
Total	58.3	100.0	100.0

Source: LSMS Roma 2003

45 More details on the Roma population in Belgrade and surroundings are given in OXFAM, 2001.

1 DEMOGRAPHIC STRUCTURE OF EXAMINED POPULATION

1.

In this chapter we would like to cover several topics. In the first part we will show the results of comparison of demographic characteristics of the population obtained from LSMS of the general population in 2002, from the panel in 2003 and from the 2002 Census. Further, characteristics of the general population along with some separate groups will be shown, especially those who are becoming particularly vulnerable groups at the time of transition (e.g. old-age households, single parents, parents with small children, widows, etc.). Finally our focus will be on comparison of demographic characteristics of vulnerable groups (obtained in separate surveys Family Income Support recipients and Roma from Roma settlements) with demographic characteristics of the general population.

1.1 The Structure of 2002 and 2003 Samples

The comparison of the general population structure with the structure of 2002 and 2003 samples is very important in order to establish whether there have been any significant aberrations or not. This is particularly true of the panel sample from 2003, where theoretically there could have been some shifts due to the selected population (only people who participated in 2002 survey) and a possibility of systematic refusal for repeated participation by certain groups.

1.1.1 Population Structure by Gender and Age

Population structure by gender and age was obtained from LSMS and matches the results of 2002 Census (Table 1.1). A somewhat lower number was obtained in the youngest group, up to 15 years of age, and somewhat higher in older group, over 60 of age. The structure of panel sample from 2003 maintains the structure of sample from 2002.

Table1.1Comparison of LSMS Results (2002 - 2003) and 2002 Census Results, by Gender and Age, Total Population

	2002 Census		LSMS 2002.*		LSMS 2003.*	
	No. of persons	%	%	SE** 95%	%	SE 95%
Male	3645930	48.6	48.7	+/-0.8	48.5	+/-1.3
Female	3852071	51.4	51.3	+/-0.8	51.5	+/-1.3
0-14	1176770	15.7	14.6	+/-0.6	14.0	+/-0.9
15-29	1512646	20.2	19.8	+/-0.7	19.3	+/-1.0
30-44	1494284	19.9	19.5	+/-0.7	18.8	+/-1.0
45-59	1582091	21.1	21.7	+/-0.7	22.2	+/-1.0
60+	1732210	23.1	24.5	+/-0.7	25.7	+/-1.1
Total	7498001	100	100		100	

* Non-weighted results
**SE - Estimation of standard error

1.1.2 Population Structure by Marital Status

The data on population structure by marital status obtained in LSMS in 2002 almost completely match those obtained in 2002 Census[46]. The data from LSMS in 2003 referring to the structure by marital status do not differ from the data obtained in 2002. (Table 1.2)

Table 1.2 Comparison of LSMS Results (2002-2003) and 2002 Census Results, by Marital Status, Population Aged 15+

	2002 Census		LSMS 2002.*		LSMS 2003.*	
	No. of persons	%	%	%	%	SE 95%
Single	1540743	24.4	25.5	24.6	24.6	+/-1.3
Married	3820251	60.4	59.9	61.1	61.1	+/-1.4
Widow/widower	684089	10.8	11.3	11.4	11.4	+/-0.8
Divorced	252793	4.0	3.3	3.0	3.0	+/-0.4
Unknown	23355	0.4				
Total	6321231	100	100		100	

*Non-weighted results

46 Insignificant overestimated number of single persons, perhaps due to the formulation of the question which included the category of Common law marriage. This category did not exist in 2002 Census.

Table 1.3 Comparison of LSMS Results (2002-2003) and 2002 Census Results, by Education, Population Aged 15+

	2002 Census		LSMS 2002.*		LSMS 2003.*	
	No. of persons	%	%	SG 95%	%	SG 95%
Without school or incomplete primary school	1408102	22.3	18.8	+/-0.6	18.9	+/-1.1
Primary school	1543260	24.4	24.4	+/-0.7	22.5	+/-1.2
Vocational schools lasting from 1-3 years	803321	12.7	17.2	+/-0.6	19.3	+/-1.1
Vocational schools 4 years	1554830	24.6	24.8	+/-0.7	24.4	+/-1.2
High school	298618	4.7	3.3	+/-0.3	3.6	+/-0.5
College	291409	4.6	4.8	+/-0.4	4.5	+/-0.6
University	421691	6.7	6.1	+/-0.4	6.1	+/-0.7
Unknown			0.5	+/-0.1		
Total	6321231	100	100		100	

*Non-weighted results

Table 1.4 Comparison of LSMS Results (2002-2003) and 2002 Census Results, by Activity, Total Population

	2002 Census		LSMS 2002.*		LSMS 2003.*	
	No. of persons	%	%	SG 95%	%	SSG 95%
Active	3398227	45.3	45.4	+/-0.8	45.2	+/-1.4
With personal income	1511816	20.2	21.1	+/-0.7	21.7	+/-1.2
Dependent persons	2570639	34.3	33.6	+/-0.8	33.1	+/-1.3
Residing abroad	17319	0.2				
Total	7498001	100	100		100	

*Non-weighted results

1.1.3 Education Structure of the Population

Table 1.3 gives the comparison of results on education structure of the population obtained from LSMS and the results from 2002 Census. Although the data from LSMS reflect quite well the situation in the population, we can also notice some deviations: underestimated number of individuals without primary school and overestimated number of individuals with vocational schools lasting from 1 to 3 years. These differences are result of using different methodologies in the Census and LSMS[47].

1.1.4 Population Structure by Activity

The structure of the sample by activity, both in 2002 and 2003, completely matches the structure of the general population, obtained in 2002 Census.

47 Additional forms about education obtained from their working places were used in Census, which gave more precise data about the finished school. The discrepancies are due to the fact that some respondents treated their specialized courses as crafts, which actually are not accredited school. That is supported by the fact that sum of percentages of the categories 1 and 3 in Census and in LSMS give the same percentage (35%).

LSMS did not completely include refugees and IDPs mostly due to the fact that the survey was not carried out in collective centres which at the time accommodated a certain percentage of refugees and displaced persons.

We can conclude that the data obtained in LSMS on general population in 2002, in terms of basic demographic characteristics, match the situation in the population. Also, the panel sample from 2003 did not show significant aberrations and this sample also reflects the situation in the population of Serbia.

1.2 The Structure of General Population and Vulnerable Groups

1.2.1 The Structure of General Population

The previous studies[48] give a detailed analysis of the connection between poverty indicators and demographic characteristics obtained from 2002 LSMS data. The findings of this survey showed that the groups particularly vulnerable to poverty in Serbia are the following:

1) Uneducated population;
2) Unemployed and dependent persons;
3) Persons whose main job activity is in the grey economy;
4) Older persons (65+) and children aged 7-14;
5) Households with five or more members;
6) Old-age households and two-member households, particularly in rural areas;
7) Agriculture pensioners, particularly in rural areas;
8) Rural areas in south-eastern and western Serbia.

In this chapter we will address the problem from a slightly different standpoint, with an aim of analyzing the demographic structure of households in Serbia. We shall place particular emphasis on some of the groups which were selected as vulnerable in previous analyses, as well as groups which are traditionally considered to be sensitive groups during transitional processes.

1.2.2 The Structure of General Population – Characteristics of Members

Women make 51% of the population whereas men 49%, and this relation is quite stable in all age groups, except in the oldest group (60+) where there is an advantage in favour of women. The population in Serbia is mostly an

48 Krstić, look at Bogićević et al, 2003, pp. 28-23

old population. Persons aged over 60 make 1/4, while children aged 0 to 14 make only 14% of the general population (Annex A.1 Demography).

In sample 2003. in terms of maritual status, 60% of the population over 15 are married, 2% live in common law marriages, 23% are single, 3% divorced, and 12% are widowed. Single and divorced categories are somewhat more frequent in urban areas, while married/widowed categories are slightly more present in non-urban areas. Also, there are more widows than widowers, probably due to the fact that women are more present in the oldest age group.

Educational status is significantly correlated with several variables – basic demographic characteristics - gender and age, geographic variables, and finally poverty. On the basis of LSMS we can form a picture of the structure which accompanies each level of education (Annex A.1 Demography). The main conclusion is that the basic shift in the structure occurs in groups of those that finished vocational schools (I, II and III qualification level). Among persons with lower educational level, there are more women, older people aged 60+, living in non-urban areas in western, central, eastern and south-eastern Serbia. These cases are much more frequent among the poorer population. On the other hand, secondary and higher education is more frequently present among the population aged below 60, in urban areas, especially in Belgrade. These categories are much more present among population in the 4th and 5th quintile[49] (the richest 40% of the population). In higher education categories, however, there are no gender differences – women are present to the same extent as men.

With respect to activity status, according to their self-declaration, 45% of the population belongs to the group of the active (32% employed outside agriculture, 4% in agriculture and 9% of the unemployed). A total of 21% are individuals with personal income and 33% are dependent members. As for people aged over 60, 68% are retired (with personal income), 23% are dependent persons and 9% are active. With respect to poverty exposure, farmers, the unemployed and those with personal income are exposed to a greater risk of poverty (they are more present in the 1st and 2nd quintile, the poorest quintile), while the opposite situation is in the category of those who are active outside agriculture. They are most present in the 4th and 5th quintile, the richest quintile. Dependent members (mainly children), since they live in different types of households, are equally present in all household categories with respect to consumption.

49 If we divide the whole population into 5 equal categories depending on total consumption we obtain quintiles, i.e. categories with 20% of individuals from 1st , poorest quintile (20% of population with lowest consumption) to the 5th, richest quintile (20% of population with the highest consumption).

1.2.3 The Structure of General Population – Household Characteristics

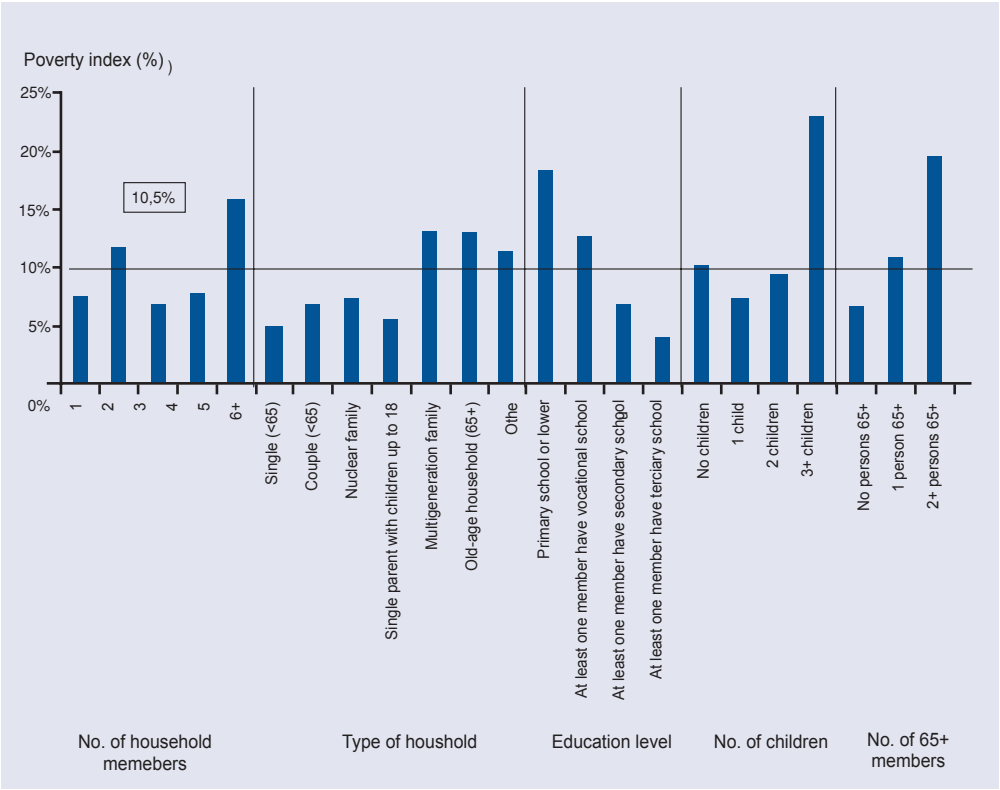
The dominant types of households in Serbia are those with fewer members. A total of 18% are one-member households, 25% two-member households, 20% have three members, 22% four members, whereas only 16% of the households in Serbia have 5 or more members. Furthermore, there are more households without children aged up to 18 in comparison to households with children – 65% of all households are households without children, 17% are households with one child, 16% with two children and only 3% are households with three and more children. Three-member and four-member households, as well as households with one child are more frequent in richer groups (in the 5th, last quintile), while households with 5 and more members, as well as those with three and more children are more characteristic for poorer groups (first quintile).

Almost a half (45%) of households in Serbia have at least one member older than 65 – in 30% of the households there is one member older than 65, and in 15% two or more members. While households without members older than 65 are much more frequent in the 4th and 5th, the richest quintiles, households with two and more older members are dominant in the first, poorest quintile.

With respect to educational status, 27% of households in Serbia consist entirely of members whose maximum qualification level is primary school. 19% have at least one member with vocational school, 33% have at least one member with completed secondary school (lasting for 4 years) and 22% have at least one member with higher education. Since we have already seen that education is to a large degree connected with poverty, it is not surprising that the first two groups are characteristic for households below the poverty line, as well as for the first quintile of the poorest households, while the two remaining categories are typical for the fourth and fifth quintile.

With respect to activity, 30% of households do not have active members, 22% have one active member, 33% have two active members and 15% three or more active members. On the other hand, dependent members live in 60% of the households. The number of active members has an impact on poverty – households without active members are much more frequent in the poorest quintile, while households with 2 active members are most frequent in the richest, 5th quintile. However, the number of dependent members is the factor which influences poverty only in case

Graph 1.1 Poverty Index by Type of Households in General Population, 2003



of 3 or more dependent members – families with such a large number of dependent members are significantly poorer then average.

Types of households: In Serbia there are three most frequent types of household defined by type of relationship between household members: nuclear families (32%), multi-generation families (18%) and old-age households (22%). Nuclear families are defined as households which include only first and second generation of direct relatives (both parents and children). Multi-generation families are households with members from all three or first and third generation. Old-age households include only members aged over 65. Families consisting of single parents who live on their own are not so frequent – only 1.6% of households fall into this category. One-member households and married couples without children who live on their own (with at least one member younger than 65) account for 5% and 10% respectively. These are mainly older households, with members over 50 of age, although there are also other age groups, represented in a much smaller percentage. These are most probably heterogeneous

groups, since they show mixed characteristics (e.g. they are present to a higher percentage in the last, richest quintile, but on the other hand, these households have more uneducated and inactive members).[50] (Annex A.1 Demography)

There are 32% of **nuclear families** in Serbia which are concluded to be one of the most frequent household type in Serbia. These households are most often three or four-member households. About half (52%) of these households have children up to the age of 18: most often these are families with two children (25%) or one child (24%), while nuclear families with three or more children are very rare (3%). A total of 48% of nuclear families have children over 18 of age. Although there are no bigger regional differences, nuclear families are typical of urban areas. They are characterized by higher educational level of households. Very rarely, in just 2% of the cases, these households do not include a single active member – in the case of families with children up to 18, most often both adults are active (73% of households with children), and in the case of households without children up to the age of 18, very frequently three members are active. These households are less presented below poverty line, as well as in the first quintile of the poorest, while they are dominant in the last, richest quintile.

Multi-generation families are also very frequent in Serbia. Households with at least three generations, or first and third generation living together make 18% of all households. These are large households - 3/4 of these households have 5 or more members, and they are most often households with children, but not with a big number of children: 37% of these households have 1 child, 35% two children, while just 8% have three and more children. They are typical in rural areas. They are also typical for the region of central and eastern Serbia, while they are less present than average in Vojvodina. Vocational and secondary education is predominant in these households and they are characterized by more active members, but also more dependent members than the average in Serbia. These are, however, households particularly at risk of poverty: the poverty index is 12.7% as opposed to 9.6% average in the population of households in 2003. Their risk of poverty is most often correlated with the large number of members that these households have - multi-generation households with fewer than 5 members have a poverty index value below the average.

Households with **single parents who have children up to 18 years of age and live on their own** are not a frequent occurrence in Serbia. Only 1.6% of the households fall into this category. Their risk of

50 One more group, named „others“, which represent 12% of the household population in Serbia includes households of different structures: most often it is the case when one parent lives with grown-up children (7%) or households which include, along with members directly related to the head of household, other members and relatives, and in their nature these cases are not multi-generation family (4%).

poverty in 2003 was lower than the average (poverty index was 5.3% as opposed to 9.6% average for households in Serbia). These households are more frequent in Belgrade and Vojvodina than in other regions. Most often these are parents with one or two children. These households are urban phenomenon and are characteristic for richer groups of society. However, we should not forget that a significantly higher number of single parents live together with other members of the households[51]. Obviously, single parents in Serbia often cannot afford to live independently and the ones who opt for that solution are primarily those who can afford it.

Persons over the age of 65 make 1/5 of the total population. According to LSMS data, these persons are particularly vulnerable to the risk of poverty (15.1% compared to 10.5% average in the population in 2003). This is why we will analyze in more details the characteristics of households with persons older than 65. In almost half of the cases persons over the age of 65 live in **old-age households,** i.e. households with no members younger than 65. These households represent 22% of all households in Serbia and according to LSMS data are the most vulnerable, along with multi-generation households (poverty index is 12.6% compared to 9.6% average in the household population in 2003). These households are somewhat more frequent in rural areas. In 2/3 of the cases these are households whose members have no education or only primary school. In almost all cases, none of the members is active (96%), while in every third old-age household at least one member is a dependent person. Most often these are one-member and two-member households, and very rarely three-member households (2% of all old-age households).

Widowers and widows make 12% of the population. Women are more represented (15% as opposed to 5% of men). **Widows** are traditionally a group at a great risk of poverty during the transitional period. Similarly to the situation in other countries in the region, in Serbia this group is also at a higher risk of poverty (12.3% compared to 10.5% average in general population in 2003). Their risk of poverty is significantly higher than it is the case with widowers (9.4%), the reason being that widowers have higher education and more often have personal income (pensions).[52] A total of 72% of these women are 65 or over. In accordance with this, households with widows and old-age households overlap up to a high degree – 1/3 or 35% of wid-

51 In another 4% of households single parents live with other adult household members, and they are the heads of household, however, it is not known how many households are there where single parents live in the household where some other member is a household head. Their exact number can not be obtained on the basis of LSMS since information about relation between all household members are not available, but just information about relation with respect to household head.

52 Widows in most cases do not have any education (56%) or have only primary school (22%). In 35% of the cases, widows are dependent persons, with no personal income (in 58% of the cases they are pensioners, while only 7% work). Widowers do not have any education in 36% of the cases and in 18% of the cases they only have primary school. 82% are pensioners, 12% are employed and only 6% they are dependent members.

owers live in old-age households. There are no significant differences with respect to geographical characteristics (type of settlement and region).

We will also analyze characteristics of **households with young children, up to the age of two** – are these nuclear families or multi-generation households, richer or poorer groups? A total of 6% of household population in 2003 had children aged up to 2. Big families had young children more frequently than small families – 2/3 of children in the previous two years were born in multi-generation households, and only 1/3 in nuclear families. Also, more than half of the children were born in families with 5 and more members. However, these were not families with a large number of children – most often that was the second (44%) or the first child (36% of these households). It is also important to stress that these households on average have higher education level and more active members.[53] There are no particular differences with respect to geographic characteristics (type of settlement and region). These households are not at a particular poverty risk and more frequently they are part of richer population groups. We can conclude that the decision to have children is more frequently made by persons with higher education who live in households with more active members, since these households can provide the required material security.

We can conclude that nuclear households and single parents who live independently are characteristic for richer groups of population (their frequency increases as we move away from the 1st, poorest quintile towards the fifth, richest) unlike multi-generation families and old-age households which are characteristic for poorer groups.

1.2.4 The Structure of Family Income Support Recipients

Households of Family Income Support recipients show very unfavourable demographic characteristics, from the poverty aspect.

The biggest differences between household members, in households that receive Family Income Support and general population in Serbia is the level of education, which is much lower among Family Income Support household[54] members. Among Family Income Support recipients the number of household members older than 15 without primary education is 3 times larger than in general population (57% as opposed to 19%). Also, the percentage of members with higher education is negligible (1%). Furthermore, among members of households which are Family Income Support recipients the dominant group are those who are unemployed (27%

53 Only 7% of these households do not have active members, as opposed to 35% households in Serbia (without active members). Also, only 9% of households with children up to 2 years do not have member with education upper then primary, as opposed to 27% households in Serbia (without educated members).

54 Family Income Support households – abbreviation which, in further text, will be used for households which receive material allowance for support of family.

or 3 times more than in total population), while the number of members who are employed is extremely small (only 5% or 7 times less than in total population). There is also a slightly higher percentage of dependent household members.

The total number of household members gives an even clearer picture of the recipients. Much more than in general population, Family Income Support recipients are one-member households (26%), as well as households with 5 and more members (21%). These two groups alone make almost one half of all recipients of Family Income Support.

One-member households are in more than half of the cases older member households (53% with a member older than 60), and the person who is the beneficiary is either an inactive person with personal income or a dependent person. Two-thirds of these beneficiaries are women (in more than 50% of the cases it as a single, divorced or widowed female). The structure of beneficiaries – multi-member households (over 5 members) shows that these households mostly have male head of household (2/3 of the cases), a younger person (aged 20-35), an unemployed person looking for a job or a dependent person. What is dominant in the structure of such households is a large number of children (60% of household with 5 and more members have 3 and more children).

We can conclude that lack of education and unemployment are the main characteristics of Family Income Support households and the prevailing types of households are single old-age households or multi-member households with large number of children. As it was mentioned earlier in previous studies[55], all the stated characteristics represent basic correlates of poverty in Serbia, which suggests that this program is in fact focused on the most vulnerable members.

1.2.5 The Structure of Roma in Roma Settlements

Since LSMS covered only Roma living in Roma settlements, as a potentially most vulnerable group, their demographic characteristics will be shown.

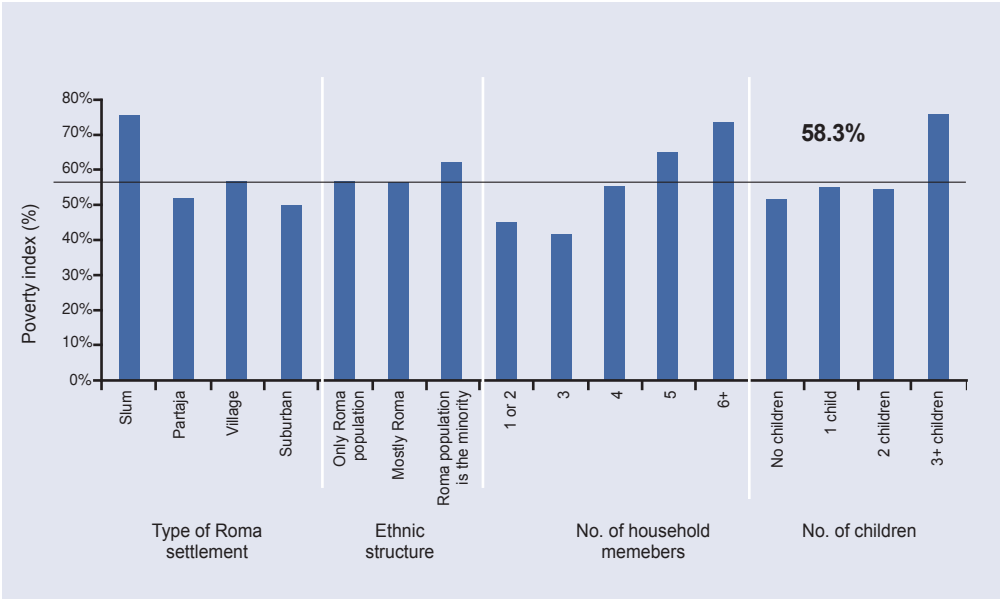
Roma settlements are more characteristic in urban areas (62% of Roma live in urban, compared to 38% who live in rural areas). Roma settlements can be of different types. The worst living conditions are present in slums – unhygienic cardboard settlements, where 25% of Roma live, while 27% live in partaya – rural settlements within cities, also in very poor living conditions. A total of 26% of this population lives in hamlets or poor villages, while 22% live in new urban or suburban areas, in slightly better conditions, characteristic by living in residential buildings.

55 Krstić, look at Bogićević et al, 2003, pp.28-38

Somewhat less than a third of Roma live in settlements where they are the minority, and somewhat more than a third in settlements with equal number of domicile and Roma population, while a third live in entirely or nearly entirely Roma settlements.

Poverty, measured by number of households below poverty line is most obvious in slums – the risk of poverty in these settlements is 75%, as opposed to the average of 58% for Roma settlements. In other types of Roma settlements, the difference in percentage of poor Roma in comparison to the average for Roma population is not high. This also refers to ethnic structure of settlements, where no differences were found.

Graph 1.2 Poverty Index by Type of Households in Roma Settlements, 2003



The results of the survey indicate significant demographic differences between Roma and non-Roma population. The Roma population in Serbia is significantly younger than the general population. The percentage of children up to the age of 18 amounts to 42%, as opposed to 19% the overall population in Serbia. Furthermore, there is an extremely low percentage of the oldest, aged over 60, who are represented in Roma settlements by just 5%.

The characteristics of the population from Roma settlements are big households (46% with five and more members), and there is a particularly high percentage of households with children (76% compared to 36% in general population). Roma households are characterized by larger number of children – 28% of households have three and more children. There is

also a high frequency of young households, where the head of household is not older than 29 (16% as opposed to only 3% in the total population).

Households with children are more exposed to the risk of poverty those without, but primarily households with three and more children (76% compared to 58% on average for Roma in Roma settlements), while other households are exposed to this risk less than average for this subpopulation. Poverty increases with the increase in the number of households members, so that families with 5 and more members are more than the average in danger of poverty, and in families with 7 and more members (there are 17% of these families in Roma population) the poverty index reaches 81%.

The main characteristics of life in Roma settlements are very low level of education and very high level of unemployment. Almost two thirds of Roma aged over 15 do not have even primary school (62% as opposed to 19% in overall population), and almost half of them state that they are unemployed (45% compared to 9% in general population). Both characteristics correlate with poverty to a high degree.

As we will show in the following chapters, Roma from Roma settlements experience different forms of deprivation in almost all spheres of life – in education, healthcare and housing. All these data indicate that there is a vicious circle of poverty among Roma population, which deepens and hinders the process of Roma integration[56] .

1.3 Conclusion

1. Demographic characteristics in high correlation with poverty are the following: number of household members, educational status of household members, number of active household members, number of supported household members, number of children, and number of household members aged 65+ years.

2. Nuclear households and single parents who live independently are characteristic for richer groups of population (their frequency increases as we move away from the 1st, poorest quintile towards the fifth, the richest) unlike multi-generation families and old-age households which are characteristic for poorer groups.

3. Lack of education and unemployment are the main characteristics of Family Income Support households and the prevailing types of house-

56 Detailed analysis of the situation of Roma population from Roma settlements according to LSMS study can be found in Bodewig, Sethi, 2005

holds are single old-age households or multi-member households with large number of children.

4. High level of poverty is characteristic for Roma population living in Roma settlements, regardless of demographic and geographic characteristics. However, poverty is particularly pronounced in slums and in the households with many household members and many children, which characterizes the majority of Roma population.

HOUSING CONDITIONS 2.

Housing conditions are one of the most important indicators of living standard. In this chapter we will pay particular attention to different aspects of housing conditions, primarily: basic housing infrastructure (electricity supply, plumbing and sewerage), the size, i.e. density of "living space", ownership of housing units, heating systems used, possession and purchase of new durable goods. We will also analyze the expenses spent on common utilities and electricity bills – their amount, changes over a period of one year, as well as their share in total household consumption. Since housing expenses together with food expenses make the necessary consumption of the households, they are important indicators of capabilities and abilities of a household to meet its needs.

2.1 Basic Housing Conditions

Similarly to the situation in other countries in the region the distribution of electrical power is almost complete (99.9%), both in urban and rural areas. A similar situation is noticed with respect to drinking water supply through central water supply system (91%), although rural areas are somewhat worse supplied than urban (80% as opposed to 99%). The sewerage coverage is somewhat lower – 62%, and the differences are particularly

striking depending on the type of settlement – 83% of households from urban areas have sewerage as opposed to only 34% of households from non-urban areas. Differences were found with respect to material status of the households (Table 2.1).

The size and density of "living space" is yet another important aspect of housing conditions. Although the differences by type of settlement were not found, average floor area of housing units per household member increases linearly with material status of households. Thus, average floor area of housing units in Serbia is 67m^2 (27m^2 per household member), while among households below poverty line it is 53m^2 (20m^2 per household member). However, extreme forms of housing deprivation are rarely present – only 2.7% of households live in crammed space[57], although this figure is higher among the poorest – 9.8%.

Another form of extreme deprivation is living in substandard, inadequate dwellings. However, this is rarely the case – less than 1% of households live in these inadequate conditions. This percentage is higher among the population below poverty line (4%), especially in urban areas (7% of urban population below poverty line lives in such conditions).

What is also indicative is the finding that 16% of households live in older dwellings, built before 1944 and that this percentage is higher among households living below poverty line (25%).

Flat ownership rate is very high in Serbia. A total of 91% of households in 2003 stated that they were owners of the flat or house (as opposed to 88% in 2002). Such a high percentage is in accordance with the situation in other countries in the region (e.g. Hungary - 90%, Romania -95%, Russia - 92%, Albania - 94%)[58]. Furthermore, other countries show a positive trend in the increase of flat ownership in the past years. On the other hand, house/flat renting is quite undeveloped in Serbia - less than 1% of the households live in rented dwellings.

A high percentage of the population below the poverty line also owns their flats/houses (90%), which is also the case in rural households (94%). However, it is important to point out that the percentage of housing units which are legalized or have complete documentation remains unknown[59].

The data on the equipment that the housing units possess offer a picture of even more severe differences between the poor and those who are not poor. Rural households, as well as poor households have significantly

57 Criteria taken is fewer than 6m2 per member or more than 3 persons per room. Look at Alam et al, 2005, pp. 275-277

58 Alam et al, 2005, pp. 274-276

59 Respondents only stated whether they were owners, protected tenants, tenants, etc. without giving information on documentation of their dwelling.

Table 2.1. Basic Indicators of Housing Conditions – by Type of Settlement and Poverty Line, 2003

	Total	Type of settlement		Poverty line		Roma from Roma settlements	Recipients of Family Income Support
		Urban	Other	Below	Above		
Base	2548	1483	1065	244	2304	525	525
Housing deprivation	%	%	%	%	%	%	%
Substandard, inadequate dwellings	0.9	1.1	0.6	3.6	0.6	10.6	7.0
Crammed housing conditions (more than 3 per room, less than 6m2 per person)	2.7	2.8	2.7	9.8	2.0	40.0	15.0
Built before 1944	16.0	14.7	17.7	24.7	15.0	9.5	27.0
Ownership	%	%	%	%	%	%	%
House/flat owner	90.6	88.6	93.6	89.7	90.9	75.4	57.9*
Living space	Mean	Mean	Mean	Mean	Mean	Mean	Mean
Average No. of rooms per member	1.1	1.1	1.2	0.9	1.1	0.6	0.9
Average area per member (in m2)	27.2	27	27.5	19.9	28.0	11.2	17.3
Possession of basic infrastructure	%	%	%	%	%	%	%
Electric power	99.9	100	99.8	99.4	100.0	87.1	95.8
Running water	90.7	98.6	79.7	70.9	92.8	60.6	74.9
Sewerage	62.4	82.7	34	36.7	65.1	32.5	54.2
Telephone	76.3	88.3	59.6	47.3	79.4	17	33.9
Possession of rooms	%	%	%	%	%	%	%
Separate kitchen	78.6	84.7	70	53.4	81.2	31.6	47.6
Bathroom inside the flat	84.9	95.4	70.2	52.4	88.3	30.9	49.2
Toilet inside the flat	79.2	90.7	63.1	47.3	82.6	30.7	47.5
Type of heating	%	%	%	%	%	%	%
Central heating	17.4	29	1.3	3.3	18.9	0.6	10.2
Electricity	16.0	22.8	6.5	6.1	17.1	2.9	15.1
Solid fuel	66.9	48.6	92.5	91.1	64.4	97.5	77.3
Gas	6.3	7.3	4.8	1.8	6.7	0.4	1.3
Possession of durable goods	%	%	%	%	%	%	%
Stove	98.6	99.5	97.4	97.4	98.7	98.6	87.8
Washing machine	78.3	90.1	62	45.5	81.8	21.1	36.5
Air-conditioning	2.3	3.9	0.2	-	2.6	00.2	0.3
Dishwasher	3.6	5.9	0.4	-	4.0	-	0.2
Microwave oven	5.3	7.1	2.8	0.6	5.8	01.3	2.2
Vacuum cleaner	78.2	89.9	61.9	50.4	81.1	16.5	32.6
TV	95.3	98	91.5	83.3	96.5	78.1	69.3
Video recorder	31.7	39.3	21.2	11.2	33.7	10.5	6.9
Video camera	2	2.8	0.8	0.3	2.1	-	-
Stereo , CD player	18.6	25.3	9.2	2.0	20.3	4.9	2.3
Computer	12.6	18.7	4.2	1.4	13.8	0.5	0.9
Car	41.4	45.1	36.2	15.8	44.1	6.6	4.4

**27.9% live free of charge in the house that they do not own*

worse equipment in their housing units, which particularly refers to different installations (telephone, central heating, sewerage, etc.), separate rooms inside the living quarters (kitchens, bathrooms, toilets) and the possession of different durable goods.

With respect to basic housing conditions indicators, there are also great regional differences (Annex A.2 Housing and durables). Households from Belgrade and Vojvodina live in much better conditions by most indicators, while the case is reverse for citizens in western and south-eastern Serbia.

2.2 Purchase of Durable Goods

Stoves, refrigerators and TV sets are the only appliances which are on an inventory of each household, whether it is poor or not (e.g. 83% of households below poverty line own a TV set), while the biggest differences between the poor and those who are not poor are noticed in possession of washing machines (46% as opposed to 82%), vacuum cleaner (50%-81%) and cars (16%-44%). (Table 2.1)

As expected, great differences are noticed in the least frequently possessed durable goods – air-conditioning, dishwashers, microwave ovens, video cameras, and computers. Although these appliances are not present to such a significant percentage, they are almost unaffordable for the poorest (less than 1% own the appliances mentioned, except for the computer, which is owned by 1.4% of the poorest).

There are almost no changes in the share of durable goods in 2002 and 2003 – only the share of computers is on the increase (from 9.5% to 12.2%), and slightly the share of air-conditioning systems, vacuum cleaners, microwave ovens and washing machines, while the percentage of other durable goods still remains the same[60].

The data on average age of appliances show that majority of appliances owned by households are rather old. Appliances like stoves, washing machines and refrigerators are on average over 15 years old whereas vacuum cleaners, TV sets and video recorders over 10 years old. It is interesting that in 2003 in comparison to 2002 an average age of almost every single appliance is lower, which is a result of a large number of goods purchased in 2003. The percentage of purchased goods in year time, from 2002 till 2003 is given in the Annex A.2. It can be noticed that TV sets were pur-

60 Panel household data, Annex A.2 Housing and durables

chased most (8%), followed by vacuum cleaners (7%), washing machines (5%), refrigerators (5%), stoves (4%), computers (4%) and music equipment (4%), but we cannot neglect 1% of low-frequency purchased durable goods (air-conditioning, microwave ovens).

New durable goods were purchased most by citizens of the capital, but also by households in the richest quintile. However, it is important to point out that the poorest part of the population, households below poverty line, had some degree of consumption in this respect. This part of the population most often purchased stoves (5%), vacuum cleaners (3%) and TV sets (3%).

We can conclude that in 2003 a significant degree of purchased durable good was registered, not with an aim to purchase new appliances that households did not own before (the frequency of durable goods increases to a negligible degree), but primarily to replace worn out basic appliances (stoves, vacuum cleaners, refrigerators, TV sets, etc.).

2.3 Vulnerable Groups – Roma from Roma Settlements and Recipients of Family Income Support

Extremely poor living conditions in which Roma population from Roma settlements lives is best reflected through data on housing conditions. These households most often live in dwellings without minimal basic infrastructure, which is not registered as a problem in the general population (Table 2.1). Only 87% of Roma households have electrical supply, 61% have water supply and 32% sewage.

Only stoves (99%) and TV sets (78%) are present in majority of households from Roma settlements, while other appliances are incomparably less frequent (the next appliance most frequently owned is the washing machine, owned by only 21% of households). (Table 2.1)

The most extreme situation is the conditions of dwellings in Roma settlements. A total of 11% of households from Roma settlements live in dwellings which are not fit for living (in comparison to 1% of such dwellings in general population). Furthermore, these are most often very small dwellings, the average number of rooms per member is 0.55 and the average floor area per member is 11m^2. If we take life in a crammed space as extreme form of housing deprivation[61] keeping in mind that in general population this extreme form of deprivation almost did not exist (only 2.7% of households) in Roma settlements up to 40% of households live

61 Criteria: less than 6m2 per member or more than 3 persons per room

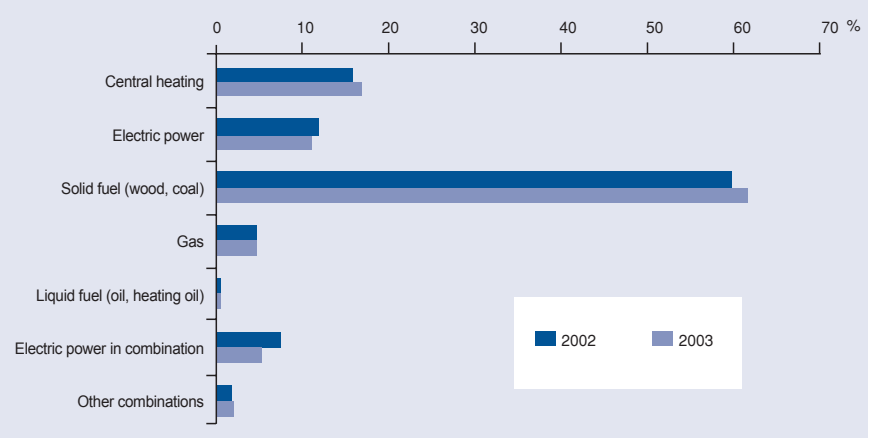
below this minimum. The poor condition of these dwellings is further illustrated by the fact that less than 1/3 has a separate kitchen and bathroom or toilet inside the dwelling.

Households which are recipients of Family Income Support also live in very poor conditions. A total of 7% live in dwellings not fit for living, 15% in crammed dwellings. Also, just 58% of households – recipients of Family Income Support are owners of dwellings they live in, while another 28% live free of charge in a dwelling they do not own. The average Family Income Support household by all indicators of housing conditions shows even poorer living conditions than the average household below poverty line – by frequency of basic infrastructure in flats/houses, by equipment in different rooms, type of heating and possession of durable goods. (Table 2.1)

2.4 Heating in 2002 and 2003

In 2003, 61% of households used solid fuel for heating, 17% used heating supplied by heating plants, 11% used electric power, 4% used gas while the remaining 7% used a combination of different fuel types (most often electricity and some other form of heating). The household panel data show that in 2003 in comparison to 2002, there has been a slight change in the choice of heating type. (Graph 2.1)

Graph 2.1 Percentage of Households by Type of Heating Used, 2003



**The data given refer to panel of households 2002-2003*

This means that in 2003 there were a larger number of solid fuel users, while the number of electric power users declined. Also, the number of central heating users in 2003 increased in comparison to 2002. (Annex A.2 Housing and durables)

Table 2.2 Changes in the Type of Heating Used, 2002 - 2003

		Used type of heating in 2002*			
		Central heating	Electric power	Solid fuel (wood, coal)	Electric power in combination
	N (Number of households)	382	250	1391	119
	%	%	%	%	%
Heating type used in 2003	Central heating	98.0	5.8	0.2	3.9
	Electric power		73.1	2.9	5.6
	Solid fuel (wood, coal)		12.6	91.0	57.5
	Gas		0.9	0.7	6.4
	Liquid fuel (oil, heating oil)		1.2	0.1	0.8
	Electric power in combination	1.4	6.4	4.2	22.7
	Other combinations	0.6		0.9	3.1

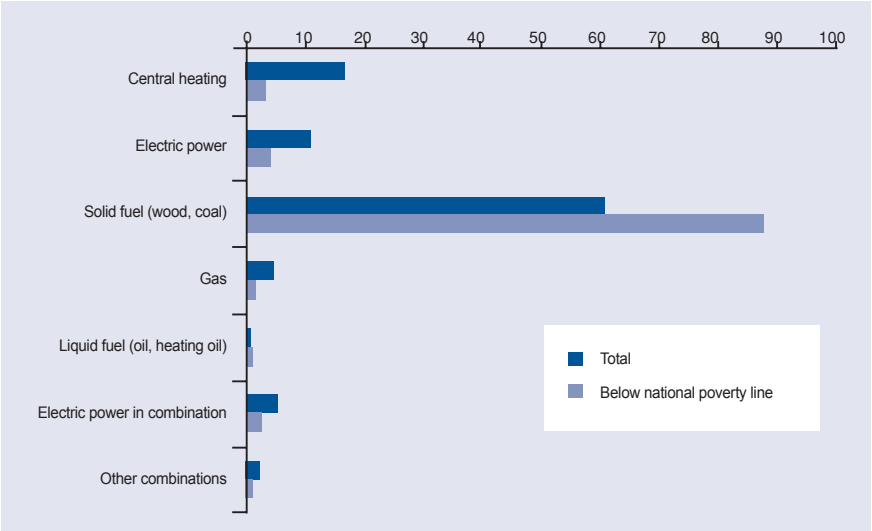
**A change from other types of heating are not given since the sample was too small to enable reliable conclusions*

If we take a more detailed look into the changes in types of heating used in 2002 and 2003 (Table 2.2) we can notice the switch in a number of users of electric power to less convenient and less hygienic solid fuels. Therefore, 13% of exclusive users of electric power switched to exclusive use of solid fuels, which was also the case in more than half of the households that used electric power heating in combination with other types of heating, while on the other side, users of central heating and solid fuels remained stable in using their power source.

2.4.1 Differences in Types of Heating Depending on Geographic and Socio-Economic Variables

The biggest differences by examined geographic and socio-economic variables (type of settlement, region, and financial status of the household) are noticed with respect to the use of solid fuels on the one side and electric power and central heating on the other. (Annex A.2 Housing and durables).

Graph 2.2 Percentage of Households with Respect to Type of Heating Used, by Poverty, 2003



Data given refer to panel households 2002-2003

As expected, solid fuels are much more frequently used by the poor (below national poverty line up to 88% of households use exclusively coal or wood for heating, and in the first quintile of the poorest – 81%), as well as among citizens of rural areas, particularly from western and south-eastern Serbia (over 80% of users). Solid fuels are extremely inefficient type of heating: on the one hand, the expenses for these power sources by far exceed the level of energy they provide. Primarily, they are very inconvenient because they require large and continuous physical effort to secure optimal temperature in the flat. This has a particularly bad effect on the elderly and those who are unable to work. A lot of studies show yet another effect of solid, or as they are often referred to "unclean" fuels, and that is their harmful effect on the environment and health of citizens (occurrence of different chronic diseases, higher mortality rate, etc.).[62]

On the other hand, central heating is significantly more frequent among citizens in urban areas, particularly in Belgrade. While central heating is used in 3% of the households below poverty line, in the richest quintile 26% of the household use this type of heating. Similar situation is also present in electric power heating (4% of households below poverty line as opposed to 18% in the richest quintile). Gas heating is almost exclusively present in Vojvodina and again relatively more often among the two richest quintiles. We can conclude that central heating, gas heating and electric power heating, as convenient and efficient types of heating

62 Kovačević, 2004, pp. 51-56

are to a large extent unavailable to the poorest population (only 8% of the households below poverty line use one of these 3 types of heating).

2.5 Electricity and Common Utilities Expenses

Housing costs have significantly increased over a period of one year – from 2002 to 2003 (for instance, the prices for electricity increased by 50%).

We will look at the effect of the increase in prices on the households' expenses for electricity in 2002 and 2003. Table 2.3 shows average electricity bills by quintiles of consumption in 2002 and 2003, the index of price increase and expenses increase. It can be seen that the index of increase in the expenses is much lower than the increase in prices in almost all cases (except among the poorest) which leads to a conclusion that the households used more electricity in time of lower tariffs or reduced consumption of electricity over a period of one year as a way of adjusting to new prices of electric power[63]. This increase in prices certainly explains the change in heating type for a number of households, from convenient types, such as electric power to solid fuels - less convenient types which are also more harmful to health. Among the poorest, the increase in expenses is somewhat higher than the increase in prices, probably due to their inability to reduce their already low consumption.

Table 2.3 Monthly Bills for Electricity by Quintiles, 2002 and 2003[64]

	Total	Quintiles of consumption				
		The poorest	2	3	4	The richest
Average electricity expenses in dinars, 2002	1031	589	828	969	1151	1574
Average electricity expenses in dinars, 2003	1415	889	1139	1338	1698	1950
Price increase index	50%	50%	50%	50%	50%	50%
Expenses increase	37%	51%	38%	38%	48%	24%

In further analyses we will examine the share of electric power expenses in total consumption of households depending on their financial status in 2002 and 2003. This share is often called affordability ratio, since it signifies the extent to which electric power is affordable to citizens with respect to the expense they need to set aside for using it. The share of electricity expenses over 10% is often taken as the line above which these expense are

63 The eventual change in day/night share of consumption was not captured through these surveys, as 2002 survey did not have these questions incorporated.

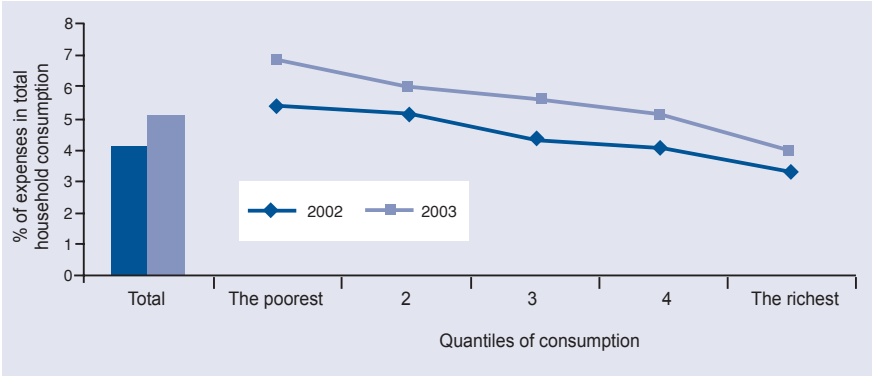
64 In 2002 the conversion rate for dinars was 30 dinars=1DM, and in 2003 the conversion rate was 65 dinars=1euro.

deemed too high or endangering for given household (in reference books, this indicator is called affordability rate)[65]. The following analyses should provide us with an answer to what extent electricity expenses burden the budget of the households, particularly the poorest households.

Graph 2.3 shows the share of electric power expenses in total consumption of a household. The first striking thing is the increase in the share of these expenses in total consumption of the household over a period of one year – in 2002 this share was on average 4%, whereas in 2003 it was 5%.

The next thing that can be noticed is that the profile of the share of expenses for electric power by quintiles leans to the right, both in 2002 and 2003, which means that poorer households spend a much larger portion of their means on electricity than richer households (7% in the first, poorest quintile as opposed to 4% in the richest).

Graph 2.3 Share of Electric Power Expenses in Total Consumption, 2002-2003



Affordability rate (percentage of households whose electric power bills exceed 10% of total household consumption) was 11% in 2002 and 13% in 2003. Table 2.4 shows affordability rate by quintiles and with respect to poverty line. We can notice that in 2003 almost ¼ of the households below poverty line have the share of electricity expense which amount to over 10% of their total consumption (24%).

Table 2.4 Percentage of Households Whose Electric Power Bills Exceed 10% of Total Consumption (Affordability Rate), 2002-2003

	Total	Poverty line		Quintiles of consumption				
		Below	Above	The poorest	2	3	4	The richest
Affordability rate, 2002	10.7	21.4	10.5	19.3	15.6	13.3	10.8	8.3
Affordability rate, 2003	12.7	24.1	11.5	21.9	12.2	12.9	11.3	6.0

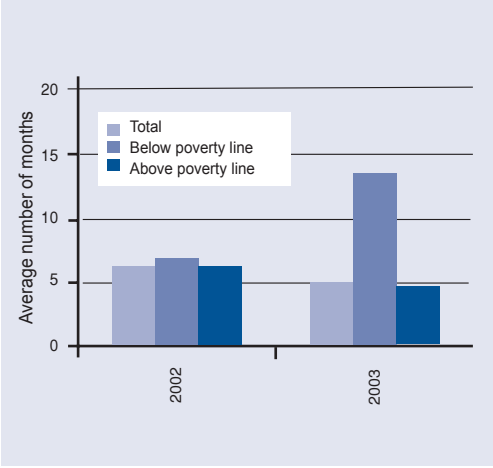
65 World Bank (2002-2003), pp. 6

Bills for common utilities (accumulative payments for water supply, garbage collection, central heating, cleaning, etc.) are paid by almost all households that live in urban areas, while in rural areas less than 1/2 of households have this expenditure (Annex A.2 Housing and durables). Moreover, the majority of common utilities bills are significantly different depending on the level of type of settlement: in urban areas an average bill in 2002 was 620 dinars, while in rural areas it was 2.5 times smaller (240 dinars). The expenses for common utilities increased by 35% over a period of one year, and a higher increase was noticed in urban areas as opposed to rural areas (39% in contrast to 24%).

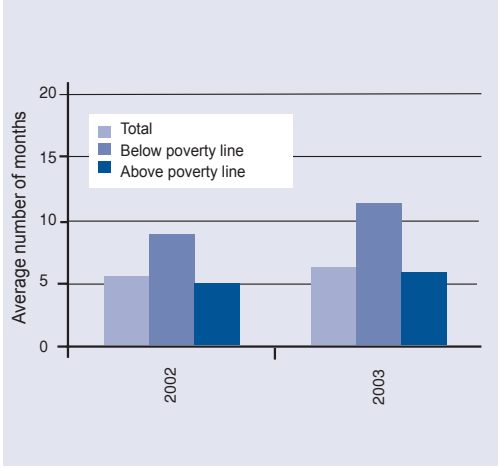
One more indicator illustrates that the budget of the poor is far more burdened by the housing expenses. This refers to accumulated unpaid bills for common utilities and electric power in smaller part of poor households.[66] In 2002 a total of 15% of households had unpaid electricity bills and 8% had unpaid common utilities bills, while in 2003 this percentage increased slightly and amounted to 18% and 9%. The percentage of households with unpaid electricity bills was particularly high in south-eastern Serbia (24% in 2003 and 33% in 2003) which is to a certain degree the consequence of the political situation.[67]

It is interesting that, on the one hand, no connection was established between the frequency of unpaid bills and financial status of households – both in 2002 and 2003 the percentage of overdue payers was approximately the same with respect to quintiles of consumption.

Graph 2.4 Average Number of Months of Unpaid Common Utility Bills, by Poverty



Graph 2.5 Average Number of Months of Unpaid Eletricity Bills, by Poverty



66 Unpaid telephone bills are a rare occurrence and they can be maximum one month overdue, since telephone service is automatically cut off if the bill is overdue.

67 Refusing to pay electricity bills was a form of civil resistance during the regime of Slobodan Milosevic. The debts remained the same up to the time when this survey was conducted.

However, on the other hand, the number of months for which a household has overdue bills (Graph 2.4 and 2.5) reveals that, although a lower percentage of poor households do not pay regularly their electricity and common utilities bills, the seriousness of their debts is much higher, i.e. overdue payments in these households are several times higher. So, in 2003, households below poverty line (with debts), on average were overdue with their bills for common utilities for a period of 14 months, and 11 months overdue bills for electric power, while households above poverty line owed the bills on average for 5 and 6 months. If we compare the data for 2002 and 2003, we can also conclude that as time passes, the debts become more serious problem for the poorest segment of the population. The amount of debts for electric power in 2003 for households below poverty line was on average 8,3 thousands dinars and for common utilities 2,3 thousands dinars (and their average total monthly consumption was 11,000 dinars).

2.6 Conclusion

1. Frequency of electric power and water supply in Serbia is rather high and very similar to the situation in other countries in the region. Extreme housing deprivation in the form of cramped living space, i.e. high number of persons living in a single housing unit is a rare occurrence.

2. Great differences were found depending on the urbanity of the area, as well as the material status of the households with respect to housing conditions, particularly the presence of durable goods.

3. Over a period of one year, from 2002 to 2003, there has been a large renewal of durable goods.

4. Solid power sources as a form of heating are particularly present in non-urban areas, in western and south-eastern Serbia, as well as among poor population, while central heating is the “privilege” of the richest segment of the population.

5. The share of electricity expenses in total household consumption has increased over a period of one year, but this increase of expenditures was lower than increase of prices.

6. While overdue payment of electricity and common utility bills is an occurrence among groups of different economic level, long-term overdue payments (even up to a year) are rare but serious problem of the poorest segment of the population.

FARMSTEADS AND FARMING 3.

Rural poverty is one of the basic characteristics of poverty in Serbia. As it was stated in the chapter *Basic poverty indicators,* poverty in rural areas was twice as widespread as in urban areas during the years 2002 and 2003. At present, farming implies serious commitment which is often non-profitable due to high risks and low income. In addition, the opportunities for finding a job in the non-farming sector in rural areas are rather poor. This results in migration of the most hardworking and strongest part of the population, creating unfavourable educational and age structure of the remaining population. Generally, rural households cannot afford large investments aimed at increasing the production, which creates further economic falling back and even bigger poverty.

Rural poverty has already been analyzed in detail.[68] Since the majority of rural population consists of households with farmsteads, this chapter will particularly analyze this type of households – their structure, characteristics, diffusion and of course, their connection with poverty. In defining households with farmsteads[69] we will use the definition

68 World Bank, 2003, pp.82-84
69 In further text agricultural households

given by the RSO (Box 3.1). We have chosen this definition because it enables us to compare the data from 2002 Census which used the same definition, and on the other hand, we think it reflects the structure of agricultural households in Serbia where the dominant form are households with small farmsteads.

Box 3.1 The Definition of a Households with Ownership of Agricultural Farms[71]

According to the definition given by the RSO a household with farmstead implies each household that uses (at the moment of the research) at least 10 Ares (0.1 hectare) of farm land or uses less than 10 Ares of farm land but owns at least:

- 1 cow and a calf or 1 cow and a heifer, or
- 1 cow and 2 heads of adult small cattle, or
- 5 adult sheep, or
- 3 adult pigs, or
- 4 heads of adult sheep and pigs together , or
- 50 heads of adult poultry, or
- 20 beehives

3.1 Characteristics of Agricultural Households

According to the RSO definition one third of households in Serbia is regarded as agricultural household. (Box 3.1). Naturally, the majority of them are in non-urban areas (65% of households in rural settlements own a farmstead), although there are some of them in urban settlements (10% of urban settlements). Their number is considerably smaller in Belgrade region (only 11%), and it is also below than average in Vojvodina (30%)[71]. In central, eastern and south-eastern Serbia agricultural households make more than 40%, while in western Serbia they make more than a half of the total number of households (51%). The given data match the results of the Census in 2002, on the basis of which 31% of households in Serbia are regarded as agricultural households.

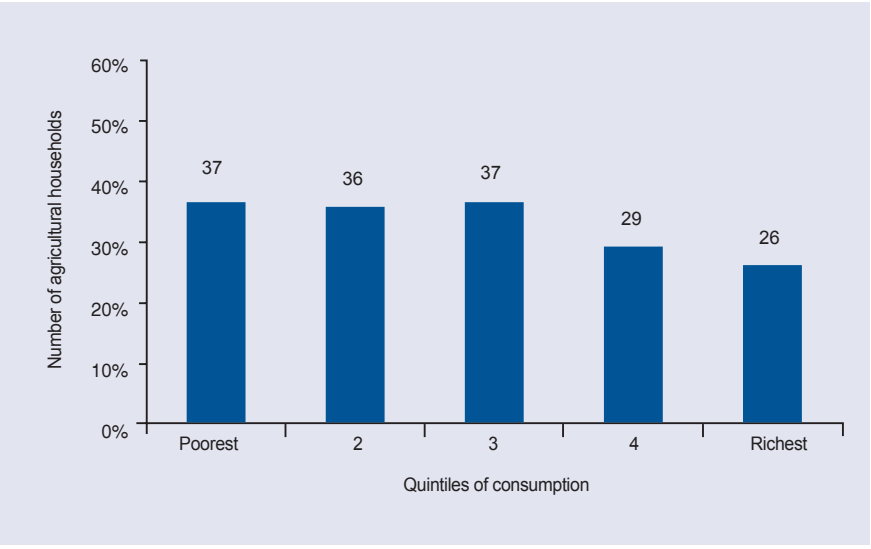
70 http://webrzs.statserb.sr.gov.yu/axd/Zip/PGBC11.pdf

71 Surprisingly small percentage of farmsteads in Vojvodina shows that this region is typical for a smaller number of large farms which were formed through the process of renting farm land and merging smaller agricultural holdings together, which will be discussed later.

3.1.1 Agricultural Households and Poverty

There are more agricultural households among the poor population. Thus, there are 37% of agricultural households in the first and poorest quintile, whereas the fifth and richest quintile registers 26% of them. Graph 3.1 illustrates diffusion of these households through quintiles by consumption.

Graph 3.1 Number of Farmsteads by Quintiles of Consumption, 2002



Also, the risk of poverty is higher for persons from agricultural households – 12% of persons from these households live below the poverty line compared to 10% of persons from non-agricultural households.

What influences the higher rate of poverty among agricultural households? The two reasons most often given are: prevalence of small agricultural holdings which cannot provide enough financial sources on one side, and poor opportunities for earning a living in the non-farming sector in rural areas on the other. In the following we will analyze both of these reasons.

First, we are going to compare agricultural and non-agricultural households according to their basic characteristics – the demographic structure and the income level and structure, which will be followed by a more detailed analysis of other characteristics of agricultural households – analysis of the size and structure of the estate as well as of other factors related to poverty.

3.2 Demographic Characteristics of Agricultural Households

The differences between two types of households (agricultural and non-agricultural) can be seen as soon as you look at their demographic structure. As is illustrated in Graph 3.1, the demographic structure of members of agricultural households is rather unfavourable, from the aspect of poverty, in comparison to that of non-agricultural households. The agricultural population includes elderly people (over 60 years of age) with lower level of education. It also includes a higher percentage of dependents aged 15+.

Let's analyze in more detail the working activity. The percentage of employed population aged 15+ is the same in agricultural and non-agricultural households – 41%. Out of this number, in non-agricultural households all members work in non-agricultural industries. In agricultural households, on the other side, 14% work in agriculture and 28% in non-agricultural services. These findings can be looked at from two points of view:

1. In agricultural households labour activity in non-agricultural services is less frequent, and this automatically means smaller income generated from this job activity (28% compared to 41%)

Table 3.1 Basic Demographic Characteristics of Members of Agricultural and Non-Agricultural Households, 2002

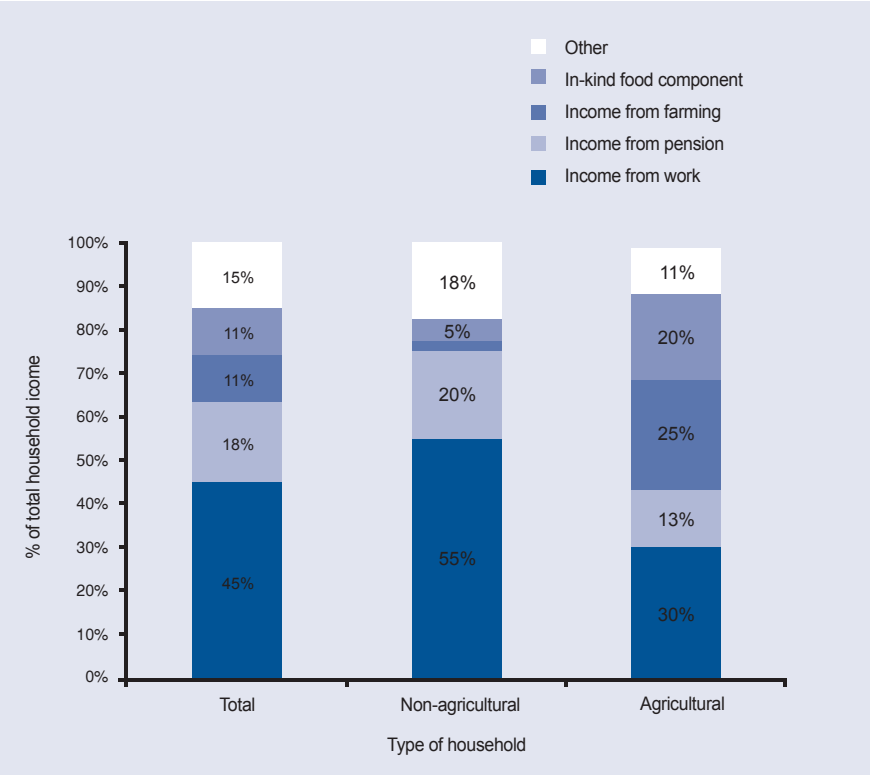
		Non-Agricultural	Agricultural	Total
		Col%	Col%	Col%
Gender	Male	47.6	50.5	48.6
	Female	52.4	49.5	51.4
Age	0-14	15.0	13.7	14.5
	15-29	21.8	17.2	20.1
	30-44	20.5	18.2	19.6
	45-59	21.9	21.5	21.7
	60+	20.9	29.5	24.1
Education 15+	Without primary school	11.3	28.9	17.8
	Primary school	20.0	30.1	23.7
	I, II and III level qualifications	16.7	18.4	17.3
	IV level qualification and high school	36.7	17.5	29.6
	college and university	15.4	5.1	11.6
Activity 15+	Active in non-farming sector	41.2	28.1	36.4
	Farmers	0.1	14.0	5.2
	Unemployed looking for a job	12.6	10.3	11.7
	Inactive persons with income	25.7	22.8	24.6
	Dependents	20.4	24.7	22.0

2. However, the fact that twice more household members are employed in non-agricultural services than in agriculture (28% compared to 14%), indicates the importance of **non-agricultural labour activities for these households.**

3.3 Income Structure of Agricultural Households

In 2002, the total monthly income for agricultural households was 20 thousand dinars, which was 35% lower than the average income of non-agricultural households of 27 thousand dinars.

Chart 3.2 Income Structure by Agricultural Activity of Households, 2002



Since agricultural households have a high percentage of members with other types of income, it is important to look at the income structure of these households (Graph 3.1). It can be noticed that within agricultural households, besides the income generated from farming and in-kind component, there is another source of income from non-farming activities and pensions (together creating more than 40% of the total income of these households) a finding which further proves what was previously mentioned.

3.4 Characteristics of Agricultural Households and Poverty

Table 3.3 shows various indicators of the status of agricultural household and their connection with poverty[72].

Among poorer households smaller land holdings are dominant: the area of arable soil in the fifth, richest quintile is more than double compared to the average area of arable soil in the first, poorest quintile.

Although the data about the possession of animals are not distinctive for poverty, the number of animals which the households raise is. Richer households that raise certain sorts of farm animals have on average more heads of livestock, pigs, poultry and beehives than poorer ones that raise the same sort of animals (Table 3.2).

Only 20% of agricultural households hire labour and 52% of them possess at least one piece of farming equipment. Poorer agricultural households very rarely hire labour (households of the first quintile 3.5 times less frequently than households of the richest, fifth quintile) and only a small number of them possess farming equipment necessary for greater production.

As it could have been assumed, **in-kind consumption of food[73] is a very important source of food for all agricultural households** – it makes 45% of the total amount of food consumed in agricultural households. In-kind consumption is much more important for poorer households – it presents more than a half of the total amount of consumed food in the first quintile of the poorest agricultural households, while in the richest, fifth quintile its share is slightly more than 1/3. This shows that in-kind consumption prevents poor households from getting even poorer.

On the other hand, **a large number of agricultural households do not generate income from the farming sector.** A total of 40% of households did not sell anything in 2002. The percentage is even higher among the poor - 47% of households from the poorest quintile did not have any agricultural income compared to 38% of those among the richest.

72 The connection with poverty is shown through quintiles of agricultural households by total consumption (from the first quintile: the poorest 20% of agricultural households to the fifth quintile: the richest 20% of agricultural households)

73 In-kind component, in general, includes consumption of items and articles which are either self-produced or received as a gift. So in the case of in-kind consumption of food, these are food items which are self-produced and received as a gift.

Table 3.2 Basic Characteristics of Agricultural Households by Quintiles of Consumption, 2002

	Total	Quintiles of consumption of agricultural households				
		Poorest	2	3	4	Richest
N	2099	420	419	421	419	419
Average area of arable soil (in Ares)	329	259	230	317	340	557
Possession of farm animals – % of agricultural households which possess them	85,8	89,9	89,4	89,4	83,9	76,4
Members						
% members older than 60	29	35	31	30	25	26
% members with primary school and lower level of education, 15+	59	72	62	60	53	48
% members engaged in non-farming sector, 15+	28	22	27	26	31	35
% members engaged in farming sector, 15+	14	15	15	13	15	13
Consumption on a monthly level per unit of national equivalent scale (in dinars)						
Total consumption	8651	3793	5725	7526	9604	16953
% food consumption	49	57	56	53	51	42
% in-kind consumption in food consumption	45	56	51	47	46	37
Average value of in-kind consumption	1909	1199	1632	1876	2274	2590
Number of farm animals (Average in households that possess them)						
Milk cows	1.9	1.6	1,8	1.7	1.8	2.8
Pigs	4.3	3.0	3.5	4.6	4.7	5.6
Poultry	20.3	16.6	21.2	20.2	20.1	24.3
Selling in 2001 (% of households)						
% sold crops products	39.0	35.4	35.3	39.3	44.7	40.4
% sold farm animals	36.0	30.3	36.8	39.5	36.4	37.2
% sold animal products	25.5	24.8	25.1	26.2	26.7	24.7
% with any kind of selling agr. products	59.6	53.3	55.3	63.6	64.2	61.5
% with income from wages or pension	87.2	84.0	86.6	87.7	87.2	90.1
Average income on a monthly level per unit of national equivalent scale (in dinars)*						
Average income from selling all sorts of products**	2403	2329	1957	1977	2552	3199
Average income from wages or pension	4602	2962	4030	3988	5335	6987
Labour force						
% households that hired labour force	20	9.8	13.5	16.8	25.2	34.6
Agricultural machinery -% of agricultural households that possess it						
Tractor	40.8	33.0	34.2	42.7	47.3	46.7
Attached machinery	30.8	23.0	24.3	31.8	36.3	38.7

**Income = 0 not included, the average for households who generated this income*
***Income from selling crops + income from selling farm animals + income from selling animal products*

Even among households that earn their income from agriculture, **income generated from farming is low and insufficient to provide a decent standard of living.** Let us consider the average total amount of income from farming (income from selling crops + income from selling farm animals + income from selling animal products). The average income on a monthly level per unit of national equivalent scale [74] was 2,403 dinars in 2002. If this figure is compared to the value of poverty line which amounted to 4,489 dinars in 2002, it is clearly seen that the average income from farming could not cover the basic needs of a household, especially those expenses not related to food. Although there is difference between income from farming generated by poor and rich farmsteads, it is not big and even the richest households do not earn a lot from farming (on average 3,200 dinars per unit of national equivalent scale per month).[75] This figure shows that **in order to explain the differences between richer and poorer agricultural households, we also have to take into consideration characteristics that are not directly related to farming.**

This is why we should look at the most important income from non-agricultural sources – wages and pensions in Table 3.2. The first thing we can notice is that income from wages and pensions is far higher than income secured through agricultural activity – income obtained in non-agricultural activities is on average twice higher, only in the fist quintile it is approximately the same.

The second thing is that income from wages and pensions increases at a faster pace as we move from the first to the last quintile compared to income from agriculture – while the ratio 5/1 quintile for income generated through sale of agricultural products is 1.4, the same ratio is in the case of wages and pensions 2.4.

Based on all this, we can conclude that **income from non-agricultural activities defines the living standard of agricultural households to a higher degree than income from agricultural activity.**

One more finding from Table 3.2 speaks in favour of this: the poorest quintile, compared to the richest one, consists of the oldest members of over 60 years of age and those with lower level of education. Such a demographic structure results in fewer opportunities for finding a job in the non-farming sector (22% of the engaged in the first quintile compared to 35% of them in the fifth quintile). On the other hand, there are no differences regarding the number of members engaged in farming.

74 For further explanation of national equivalent scale (and consumer unit) see chapter Basic Poverty Indicators

75 The value of in-kind component of food on a monthly level per unit of equivalent scale was 1,909 dinars, and in the fifth, richest quintile it was 2,590 – even taken together with in-kind consumption, income from farming cannot provide a better living standard

3.5 The Size of Farmsteads

More than ninety per cent (92%) of agricultural households possess farm land. A total of 9% of agricultural households rent out their farm land and 7% of them rent farm land from others. Renting of farm land is more often recorded among households with large agricultural holdings, which proves that they were made by renting several smaller ones. Farm land is more often rented out in Vojvodina (12%). This is in accordance with the previously mentioned structure of farmsteads in Vojvodina – there are few larger agricultural holdings made by (apart from other ways) renting farm land from 'smaller' owners.

As we mentioned before, households with smaller land holdings are dominant among poorer households, and this speaks in favour of the fact that the size of holding also represents an important factor. We shell take a closer look at the structure of agricultural farmsteads in Serbia by the area of used farm land[76].

According to LSMS, 6% of farmsteads do not use farm land (or use less than 0.1 hectares of farm land), 30% of them use small agricultural holdings (up to 1 hectares), 44% use between 1 and 5 hectares of farm land, 14% use agricultural holdings of 5 to 10 hectares, while only 7% of them use more than 10 hectares of farm land. The figures based on LSMS are slightly different from the data obtained from 2002 Census (Table 3.3), especially regarding the holdings with no farm land[77].

Regardless of the source of information used, it is clear that small agricultural holdings up to 5 hectares are dominant in Serbia (80% of farmsteads), whereas only 6.5% of agricultural households use farm land larger than 10 hectares.

Taking only arable soil into consideration[78], according to LSMS, 7% of farmsteads do not cultivate farm land (or cultivate land which is smaller in area than 0.1 hectares), 39% of them cultivate small farm land (up to 1 hectares), 41% cultivate farm land of the area between 1 and 5 hectares, while only 12% cultivate farm land larger than 5 hectares. The average area of small holdings (between 0.1 and 1 hectares) is 0.5 hectares, the one of medium size holdings (between 1

76 Used farm land is the area (either cultivated or not) consisting of land owned by all members of the household, plus the land rented from others minus the land rented out to others. (The definition of the Republic Statistical Office used in 2002 Census)

77 The data on the area of farm land obtained in 2002 Census are significantly lower in comparison to the data from regular surveys in agriculture, primarily due to a different method of take-up, which is also the case with LSMS results.

78 The size of arable soil is defined as the total area of arable soil in possession plus rented land minus rented out land (since it is not possible to determine whether the rented out or rented land is arable or not, these values are taken as the estimated area of arable soil both rented and rented out)

Table 3.3 Structure of Farmsteads by the Area of Used Farm Land, according to LSMS 2002 and Census 2002.

	LSMS**	Census, 2002
With no farm land (less than 10 Ares)	6.1 (1.2)*	0.8
0.1ha - 1 ha	29.7 (2.4)	26.7
1.01 – 5 ha	44.1 (2.6)	50.1
5.01 - 10 ha	13.6 (1.8)	16.9
>10 ha	6.5 (1.3)	5.5

**Standard error given in brackets*
*** Only households which gave the data on the farm land area*

and 5 hectares) is 2.5 hectares, and the average area of large holdings (over 5 hectares) is 14.6 hectares (median 8.5 hectares).

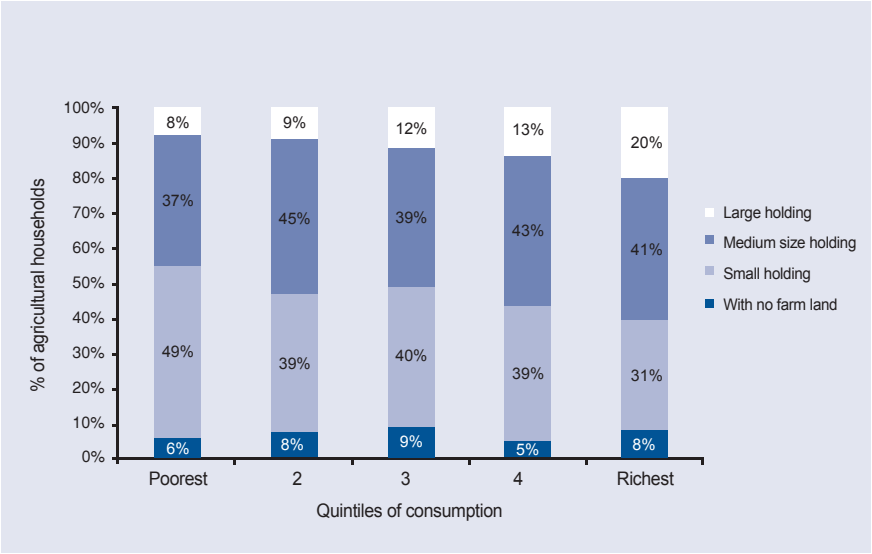
The agricultural holdings with no farm land and those with a small area of arable soil characterize urban regions, while medium-size and large agricultural holdings dominate in rural regions. Larger holdings of over 5 hectares (21%) are typical for Vojvodina, but there are also holdings with no farm land (16%). More than an average number of large agricultural holdings can be found in western Serbia (17%), whereas small holdings are particularly typical for South-Eastern Serbia.

The risk of poverty is considerably higher among agricultural households which possess smaller agricultural holdings – thus, up to 17% of households with smaller holdings live below the poverty line compared to 10% of households with medium size holdings and 7% of those with large agricultural holdings. Graph 3.3 shows the structure of farmsteads by the area of farm land that is cultivated, in relation to quintiles of consumption. It can be seen that the number of small agricultural holdings decreases as we move from the poorest towards the richest quintile, whereas at the same time the number of large holdings increases.

The connection between poverty and the area of arable soil can be explained in the following way: the size of arable soil is the main factor in determining the nature of agricultural activities on the farmstead (Table 3.4). Small farms simply cover their own needs and do not generate any income from the farming sector – cultivating land and raising farm animals. The amount of average agricultural income also varies a lot[79] – with small farms it was on average 1.2 thusands dinars in 2002

79 Earned from selling crops, farm animals and animal products

Chart 3.3 Structure of Farmsteads Regarding the Area of Arable Soil, by Quantiles of Consumption, 2002



(per equivalent scale unit per month), with medium size farms it was 2.1 thousands dinars, and with large ones 5.5 thousands dinars.

If we compare income from agriculture and non-agricultural sources (wages and pensions) in small, medium size and large farms, we can see that **the importance of source of income is in correlation with size of farmsteads.** Therefore, material status of agricultural households with no land and with small land holdings primarily depends on the income outside agriculture. In the case of small holdings, income from agriculture is far less frequent than income outside agri-

Table 3.4 Comparison of Average Income from Agricultural and Non-Agricultural Activities (Income from Wages and Pensions) Depending on the Size of Agricultural Holdings, 2002

By land size	Arable land size			
	No land	Small (0.1 -1ha)	Medium (1-5ha)	Large (>5ha)
Income in 2001 (% of households)				
% with market activity (sale of agricultural products)	36.7%	46.8%	75.3%	87.6%
% with income from wages and pensions	93.0%	90.6%	86.3%	76.1%
Average value of income (on a monthly level per unit of national equivalent scale (in dinars)				
Average income from sale of agricultural products	782	1199	2143	5468
Income from wages and pensions	5046	4995	4284	4206

culture (47% compared to 91%) and if there was any income earned, it had on average the value which was 4 times smaller than the income outside agriculture. In the case of medium-sized farms the income from agriculture was twice lower then income outside agriculture. In larger farms income from agriculture was, on one hand, more frequent (87% as opposed to 76%) and, on the other hand, it was higher than income from non-agricultural activities.

This chapter does not exhaust all the options for further analysis of the conditions in rural households in Serbia. The data collected in 2002 and 2003 in LSMS, due to their exhaustiveness and take-up, offer a wide range of opportunities, both for analysis of the data obtained and as the base for comparison and measurement of different influences and effects of the phenomena that occurred after 2002, which is one of the most important accomplishments of this survey. Microeconomic analyses which could take into consideration climatic conditions characteristic for 2002 and 2003 would be an opportunity for discovering the impact of different factors of poverty risk among agricultural households.

3.6 Conclusion

1. Farmsteads make one third of households in Serbia. These households are characterized by a larger risk of poverty.

2. A huge percentage of agricultural households do not earn monetary income from their agricultural activities. Up to 40% of households did not engage in any kind of sale in 2002

3. On the other hand, in-kind consumption has a great influence on consumption of agricultural households and is of a particular importance to poor households.

4. Income from non-agricultural activities (wages and pensions) is of great importance to agricultural households (the number of active members in non-agricultural activities is double the number of those employed in agriculture) and this income defines the living standard of agricultural households to a much higher extent than that obtained from agricultural activities.

5. However, the importance of non-agricultural activities decreases as the size of the farmstead increases.

HEALTHCARE 4.

The connection between the health status and poverty is not always clear and straightforward. Bad state of health can be both the reason for and the consequence of poverty. For instance, physical disability often leads to termination of working activity, thus having a direct impact on deteriorated economic status. On the other hand, poor living conditions, particularly unhygienic living quarters and poor heating conditions, often contribute to the occurrence of illnesses. In measurements of population state of health, the data most often used are the respondents' statements on illnesses they suffer from, making this issue even more complex. This means that people can suffer from an illness without knowing it or without feeling any symptoms, but due to various reasons (distance from healthcare institutions, costs, and lack of medical insurance), they do not consult a doctor who would confirm this illness. All the points mentioned should be taken into consideration when state of health of the population is interpreted.

4.1 General Data on Healthcare

The crisis at the end of the 90's led to the devastation of healthcare institutions. Lack of money on the one hand and the policy of securing

"social peace" (trying to preserve all facilities, all the employed covered by healthcare protection and all the rights of healthcare users) on the other hand led to maladjustment of state healthcare protection to new conditions. The consequences were the lack of means and equipment, poor conditions of hospital buildings, decline in quality of state healthcare services and their lower utilization. Along with this process, private healthcare sector, banned during the socialistic period, emerged and its activities increased. [80]

However, even after the whole decade of the economic crisis, war conflicts and sanctions, the basic indicators of the population state of health show a positive trend since 1989 up to the present. Majority of healthcare indicators also show that Serbia is positioned close to the average for the monitored regions (both in comparison to former SFRY republics and countries in the south-eastern Europe). [81]

Since 1993 up to the present, an improvement in the value of two basic indicators can be noticed: infant mortality rate[82] (IMR) and children under 5 mortality rate (U5MR) (from 1990 to 2005, IMR improved from 16.4 to 8.0). Average IMR, in 2002, in central-eastern Europe and former USSR countries was 34, so Serbia was far below this average, but still above the average of industrialized countries (which had an average of 5 IMR).[83] A similar improvement is noticed when the second indicator is interpreted – children under 5 mortality rate (U5MR) (a decrease from 18.3 to 9.2 from 1990 to 2005). The data on vaccination against different diseases show that the percentage of children who are subjected to vaccination is most often around 95%[84]. The rate of maternal mortality[85] also decreased in the last 10 years.

According to RSO data life expectancy in 2003 was 70 years for men and 75 years for women[86]. Most frequent causes of death were cardiovascular diseases followed by tumours, which are characteristic diseases for developed countries and transitional countries.

80 Government of the Republic of Serbia, Poverty Reduction Strategy Paper for Serbia, 2003, pp.119
81 Source: RSO – Vital statistics by Institute of public health – Epidemiology (DevInfo).
82 Number of live newborns dying under a year of age per one thousand live. RSO - Vital statistics (DevInfo)
83 Source: The State of the World's Children 2005, UNICEF
84 Source: RSO – Vital statistics by Institute of public health – Epidemiology (DevInfo)
85 Number of cases per 100 000 live born children. RSO - Vital statistics (DevInfo)
86 Statistical Office of Serbia and Montenegro, Statistical Year Book of Serbia and Montenegro 2003, pp. 65

4.2 Detection of Chronic and Acute Diseases According to Living Standard Measurement Study (LSMS)

According to LSMS from 2003, 27% of the population in Serbia stated that they suffered from a chronic illness which was confirmed by a doctor. Chronic illnesses represent one of the most important problems in life quality in terms of health, particularly in older citizens and the main reason for hospitalization[87].

Women in a higher percentage than men state that they have a chronic illness (31% as opposed to 23%); the same is true of the oldest population (63%). Also, differences were found between the poor and those who are not poor – the population from the two poorest quintiles more often suffer from chronic illnesses than those in the two richest quintiles (30% in comparison to 24%).

Most frequent chronic illnesses are hypertension (11% of the population), cardiovascular diseases (8%), asthma and respiratory chronic diseases (4%), diabetes (3%). As expected, an increasing number of all chronic diseases can be noticed in the group of those over 45, and in the group of those over 60, frequency of chronic diseases is twice to three times higher than average. There are no differences between the poor and those who are not poor in frequency of specific illnesses, apart from the number of illnesses which resulted in invalidity (4% in the first, poorest quintile as opposed to 3% among total population). One more indicator speaks in favour of the higher frequency of invalidity among the poor - in this group there were more individuals who complained of hearing and mobility problems.

The following data is quite indicative - while in total population 79% of those who suffer from chronic diseases regularly receive therapy for their ailment, this percentage is somewhat lower among population below poverty line (71%). This cannot be explained by other factors (such as type of settlement or age) because no other demographic variable shows any differences. The situation is even worse among individuals without insurance – only 65% of uninsured receive therapy for their chronic ailment, compared to 79% of the insured. The situation is also bad among Roma from Roma settlements and among Family Income Support recipients, where only slightly more than half (52% and 51% respectively) suffering from chronic diseases receive regular therapy.

87 It should be noted that these are statements by respondents - not objective indicators (e.g. examination or doctor's report). This may lead to underestimated picture, especially for groups that go to medical institutions less frequently (and these are the poorer and more vulnerable groups which will be dealt with in more details later).

A total of 21% of all citizens (or ¾ of the sick) believe that their illness prevents them from doing their daily activities. This is more often the case among older population (2.5 times more often among population aged 60+) and among population from rural settlements. Also, population from the two poorest quintiles more often encounters problems due to their illness than those in the two richest quintiles (25% in comparison to 17%).

A total of 17% of the population suffered from some form of short-term illness or injury in the previous month. Most often, these include headaches, acute respiratory diseases and backache. Women and those over the age of 60 more often state that they had some acute illness.

4.3 Medical Insurance

For the purpose of understanding how healthcare protection operates in Serbia, it is certainly important to analyze in more details the data related to medical insurance. In 2003, 5.6% of the population did not have medical insurance (Graph 4.1 and Table 4.14 in Annex 1). This percentage is identical in all age groups, even among 15 years old children. The percentage of individuals without insurance is significantly higher among those with informal jobs (15%), rural population (9%) and among individuals with low education (9%), as well as among those below national poverty line (8%).

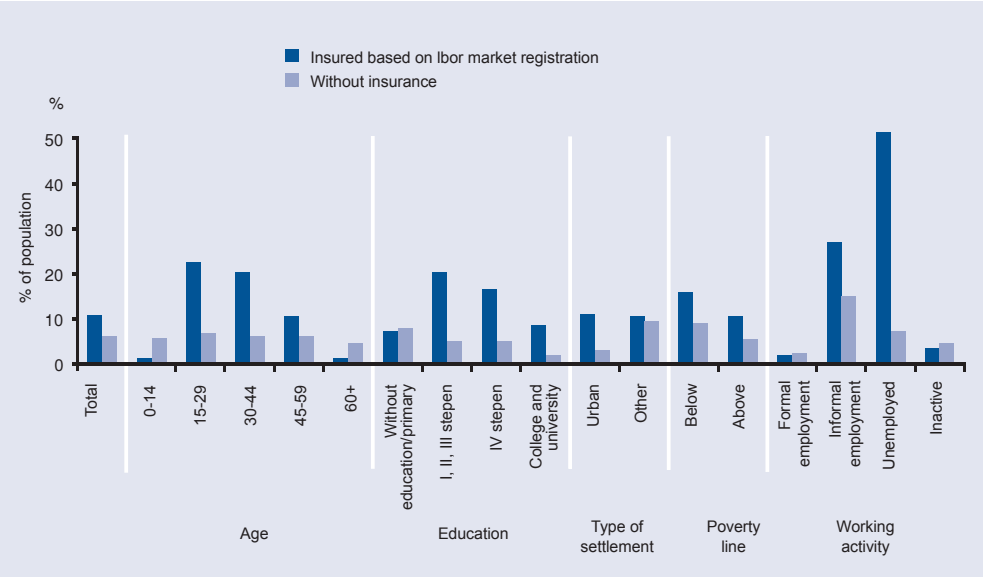
Among those with medical insurance, the largest percentage received it through some other family member – 33% of insurants (among children up to 15 of age – 99% of insurants, while among adults this percentage varied from 10% to 15% depending on the age group). For adults up to 60, the most important kind of insurance was the one they got through work (2/3 of adults up to 60), while for the oldest group the most important way of obtaining insurance was through pension (3/4 of those over 60).

A total of 11% of the population had insurance because they were registered at the Republic Bureau for Labour Market (now National Employment Service). Since the function of this Bureau is about to undergo transformations, it is necessary to take care about people insured in this way. These are mostly younger adults, unemployed or informally employed, individuals with secondary education (particularly with I, II, or III level qualifications). Individuals below the national poverty line are also overrepresented.

Roma from Roma settlements were in an even worse position, since 11% did not have any insurance and 33% received their insurance through their registration at the Republic Bureau for Labour Market[88].

88 This data is unknown for Family Income Support recipients since in the survey in 2002, when the survey of Family Income Support recipients was also done, this question was not asked.

Graph 4.1 Percentage of Population without Insurance and with Insurance Based on Registration with Republic Bureau for Labor Market, 2003



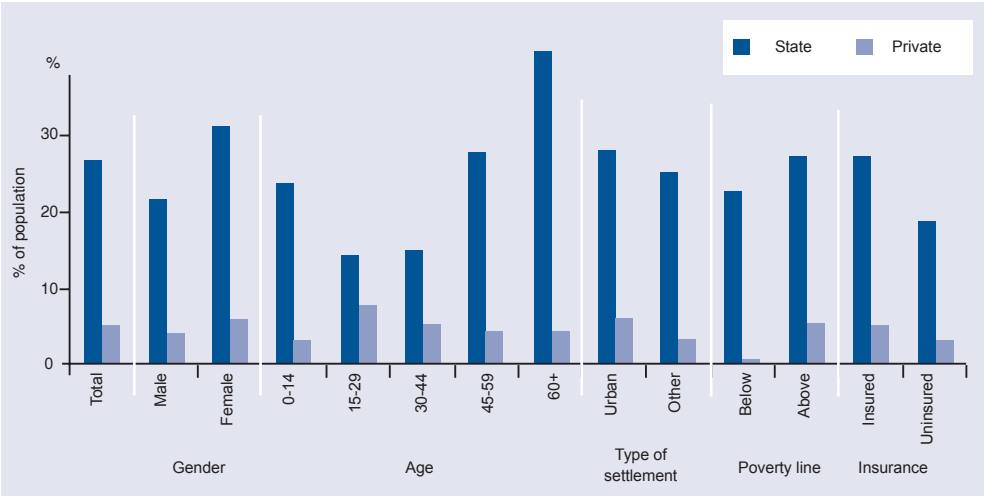
4.4 Using the Services of Different Types of Healthcare Institutions

Similarly to other ex SFRY republics, Serbia has inherited a system of healthcare protection which was supposed to ensure easy access to comprehensive healthcare services for the whole population. The lack of financial means during the previous decade led to very poor conditions in the infrastructure and equipment of healthcare institutions, low salaries and lack of motivation among healthcare workers, while current expenses of healthcare protection were paid from insurance fund. This jeopardized the accessibility as the basic principle of healthcare protection[89].

One of the most important indicators of the level of accessibility of healthcare protection is the percentage of people who used the services of these institutions. In total, 30% of population used healthcare services.[90] **Significant differences in using the healthcare services were found with respect to financial status of the household** (23% of those below poverty line used healthcare services, as opposed to 31% of those above poverty line), while particularly striking differences were found with respect to insurance status.

89 Government of Serbia, Poverty Reduction Strategy Paper for Serbia, 2003, pp.123
90 Number of users refers to preceding month in case of out-hospital and dental health protection, that is, to preceding 12 months in case of hospital health protection. The data are from LSMS in 2003.

Graph 4.2 Percentage of Population Who Use Given Types of Healthcare Services, 2003



4.4.1 State and Private Institutions

In 2003, 27% of the population used the services of state healthcare institutions; only 5% used the services of private institutions (Graph 4.2). **Differences were found in usage of healthcare institutions depending on material status of the household.** A total of 22% of individuals below national poverty line use state institutions, compared to 27% above the line. Also, there are almost no users of private institutions who live below poverty line (only 16 out of 826 respondents, or 0.5%)[91]. On the other hand, out of all private healthcare users, ¾ belong to the two richest quintiles (40% of the richest).

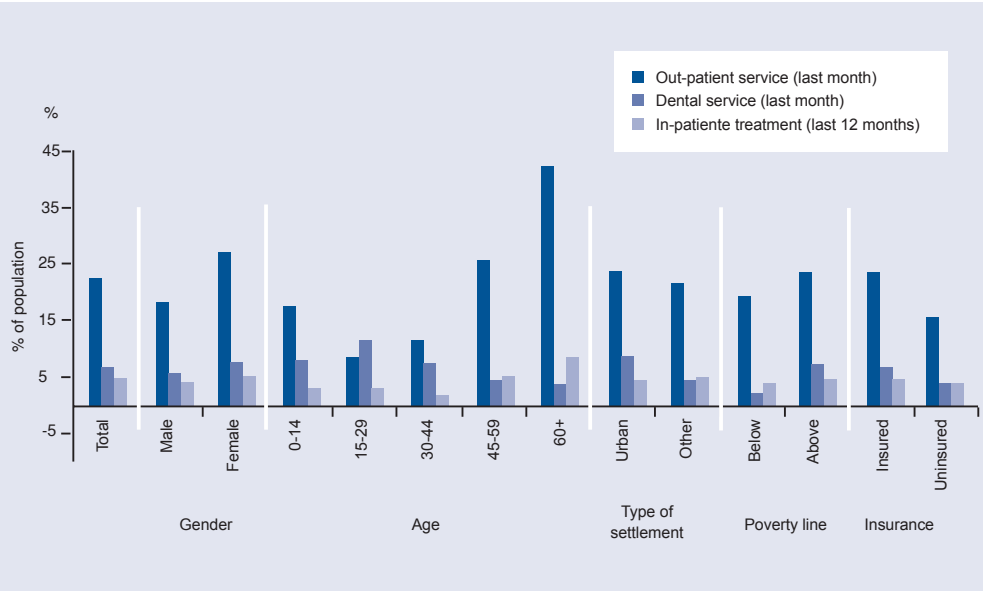
4.4.2 Outpatient, Dental and Inpatient Institutions

In 2003, 23% of the population in one month used the services of outpatient healthcare institutions, 7% used dental services (Graph 4.3). In the period of 12 months, 5% of the population was admitted to hospital. The percentage of hospitalization was very low when compared to neighbouring countries[92], which suggests that there was either a lack of inpatient capacities or that they are poorly allocated.[93]

91 Both differences are statistically significant on the level 0.05
92 World Bank, 2003, pp.107, Alam et al, 2005
93 In Poverty Reduction Strategy Paper for Serbia (Government of the Republic of Serbia 2003, pp.124) it is stated that the structure of hospital beds did not follow the changes in needs, which led to excessive number of beds at some wards and the lack in others (only 60% utilization of beds at wards for infectious and parasite diseases, respiratory diseases, gynecology and obstetrics, while the wards for care and treatment of the elderly, heart diseases and blood vessel diseases, endocrinology and malignant diseases lack beds).

A total of 22% of the population used the services of state outpatient care and only 2% of private outpatient care institutions. This relation is more balanced in dental services – in a period of one month state dental services were used by 4% of the population as opposed to 3% of those who used private sector dental services. Hospitalization was almost exclusively related to state hospitals (5% used the services of state hospitals, while less than 0.2% were hospitalized in private hospitals or hospitals abroad).

Graph 4.3 Percentage of Population Using Given Types of Healthcare Services, 2003



Outpatient healthcare services. Women and older respondents (over 45) more often use the services of outpatient healthcare, while the differences in the type of settlement are not so evident. **Outpatient services are less frequently used by poorer** (19% of users below poverty line compared to 24% above the line), **and especially uninsured individuals** (19% and 16% respectively)[94]. In the case of uninsured citizens it is particularly true of state outpatient services, and this results in harder detection of illnesses (particularly in the beginning phase) and lack of treatment for these individuals (as mentioned previously in this chapter).

Dental services. **Pronounced differences related to poverty are noticeable in terms of dental services** – dental services are three times less frequently used in the group of the poorest (below poverty line), and twice less frequently among rural population. This factor speaks in favour of the point that poorer households are much more

94 Both differences are statistically significant on the level 0.05

willing to neglect the expenses for healthcare protection which is not acute and do not require immediate intervention, as a form of fighting poverty. The poorer population use less frequently both state and private dental services (only 2% of those below poverty line used state dental services and less than 0.5% used private dental services in a period of one month).

Inpatient services. As we mentioned earlier, in a period of 12 months 5% of the population were admitted to hospitals. Most frequent users of inpatient healthcare were those over the age of 60 (9% of users in this age group). **Treatments in state hospitals did not show differences between population with respect to type of settlement and financial status.** Unlike state hospitals, the differences exist in the case of private hospitals.[95]

Roma from Roma settlements use outpatient and dental services to a significantly lower degree (18% and 3% respectively). However, services of inpatient healthcare are used to an equal degree as in total population, although the age structure of Roma settlements is different (only 5% of individuals over the age of 60 as opposed to 26% in total population). This suggests that the forms of healthcare prevention in this group are neglected and that reaction to illness follows only after it has reached the state when serious treatment is required. Household members, recipients of Family Income Support, use outpatient and hospital healthcare services to a somewhat higher degree, compared to the general population (31% and 8% compared to 23% and 5%), while dental services were used to a smaller degree in comparison to the general population (3% compared to 7%). They used almost exclusively the services of state institutions.

Independent administration of medicaments and alternative medicine services. Another interesting fact is connected to independent purchase and administration of medicines and aids (band aids, thermometer, vitamins etc.) and services provided by alternative medicine (chiropractors, herbalists). A total of 21% of the population in the period of one month used these kinds of services. Out of this number, a significantly large proportion was women, those over 45, from urban settlements, particularly from Belgrade and Vojvodina. The sick also used these services to a higher degree. Those below poverty line used these remedies and services twice less frequently than the average, and similar behaviour was noticed in individuals without healthcare insurance.

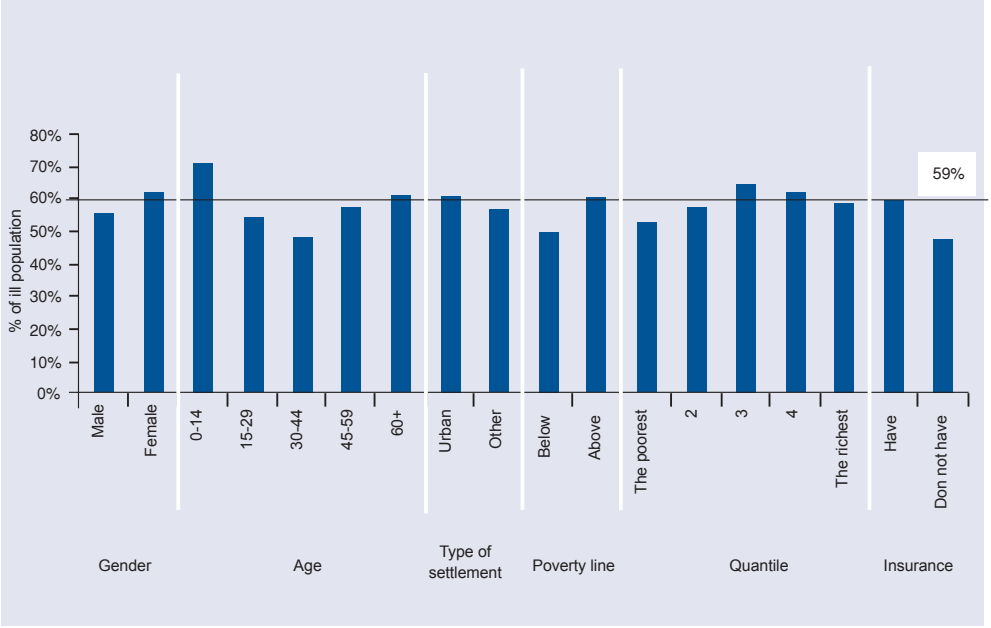
95 Although the detected number of users of inpatient care in private institutions or abroad was rather small (and this does not allow definite conclusions), the fact that out of 20% the poorest (the first quintile) no one used these services still suggests that these services are reserved for richer segments of the populations (in the last, fifth quintile, the percentage of users is 0.3% - 2 times bigger than the average).

4.5 Healthcare Deprivation

Healthcare Deprivation – The Percentage of the Ill Not Using the Services of Healthcare Protection

As we already mentioned at the beginning of this chapter, the relation of poverty and the use of healthcare protection is rather complex. The use of healthcare protection to a lower degree does not necessarily mean that the access to this service was hindered, but can simply mean that there was no need for this service. In assessing the presence of healthcare deprivation it is important to focus only on the group of people who required healthcare services (i.e. the ill) and did not use them due to a certain reason.[96]

Graph 4.4 Percentage of the Ill Who Used Medical Services, 2003



In 2003, a total of 59% of the ill used healthcare services. Graph 4.4 (and Table 4.7c in Appendix 1.4 Health) shows the percentage of sick users by different socio-demographic variables. There are no significant differences with respect to geographic variables – type of settlement and region. However, **the differences are noticeable regarding financial status and insurance** – the poorer use healthcare services less often when they need

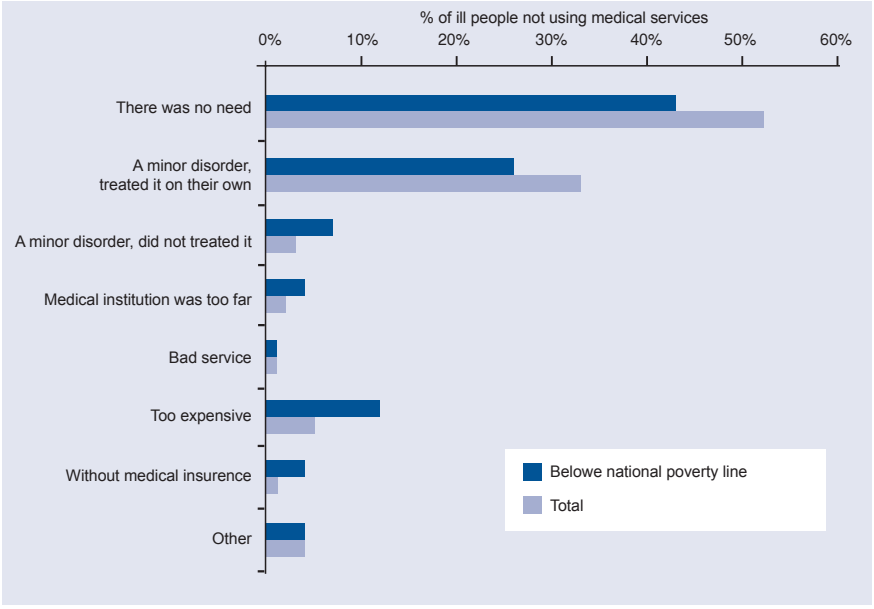
96 The sick included all individuals who reported that they suffered from acute or chronic diseases in the period of the previous month (a total of 36% in 2003). Since chronic disease had to be confirmed by doctor, it is possible that differences would be even bigger without this limitation.

them, i.e. when they are ill (50% of the population below poverty line compared to 60% in the population above poverty line) and the same is true of persons who are not insured (48%), compared to 60% among the insured. It can also be noticed that children are taken to the doctor when they are ill, whereas those aged between 30 and 44 go to see the doctor the least frequently. This percentage is also much lower among Roma from Roma settlements (50% of the sick used healthcare services) – the data which indicate the high healthcare deprivation. In case of members of households, recipients of Family Income Support, the situation is quite opposite – the number of ill people who use healthcare services is even higher compared to general population (69%), so we can conclude that the program, to some extent, secured the recipients from healthcare deprivation.

Why did not those requiring healthcare protection use it? Graph 4.5 offers the answer to this question referring to the ill who did not use healthcare services. As the most frequent reason for not using the healthcare services respondents stated that there was no need (more than half of the respondents). The next reason is that those were minor disorders which the respondents dealt with on their own.

However, we can notice the differences between the poor and average citizens. **Respondents below poverty line to a higher percentage give answers which explain different forms of healthcare deprivation** – although they also most often state that there was

Graph 4.5 Reasons Why They Did Not Use Medical Services-% of Answers among Those Who Were Ill and Did Not Use Them, 2003

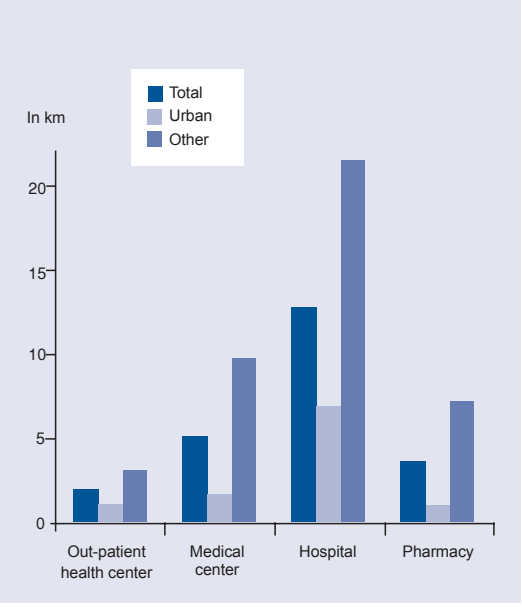


no need for healthcare services, other types of answers were also given (which almost do not appear in total population): high price of services, great distance from healthcare institutions, lack of healthcare insurance and minor problems which were not treated. Roma from Roma settlements more often state as reasons that they dealt with the problem on their own, that the price of services was very high and that they did not have insurance.

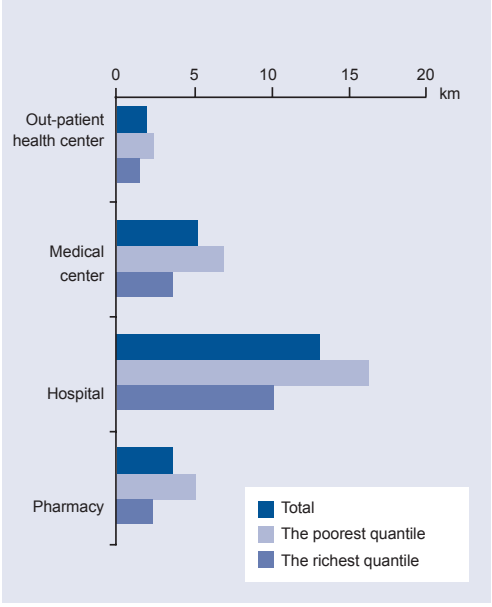
4.6 Distance from Healthcare Institutions

The distance from healthcare institutions was not often mentioned as the reason for not using medical services. This is in accordance with the LSMS data on average distance of these institutions, which showed that an average distance of an outpatient health center was 2km. However, outpatient health center most often give just the initial level of services, forwarding a person for further examination to the first bigger medical center (most often outpatient health centers have a poor range of supplies and are not capable of offering diagnostic services and medicines). The distance for other types of institutions are somewhat further. An average distance to a pharmacy is 3.6 km, medical center 5.1 km, while the furthest distance is that for hospitals (12.9 km). However, there are

Graph 4.6 Average Distance from Institutions by Type of Settlement, 2002



Graph 4.7 Average Distance from Institutions by Financial Status of Household, 2002



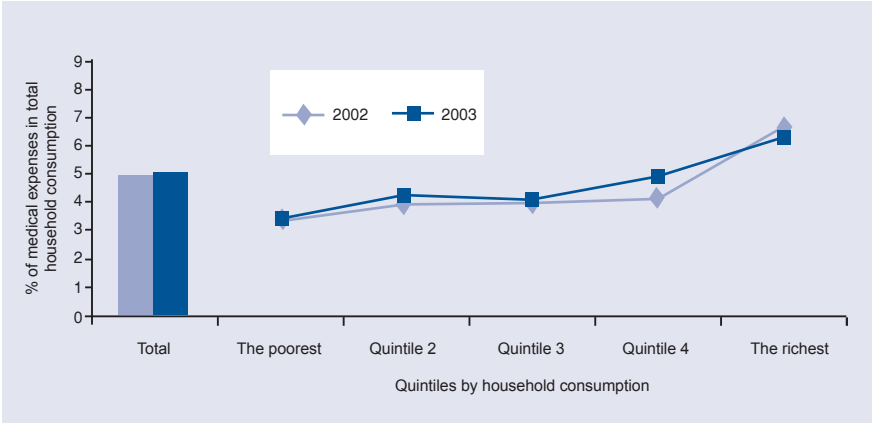
significant differences depending on the type of settlement (in urban settlements all institutions are located relatively close) and depending on the level of poverty (Graph 4.6 and 4.7).

The differences in the distance from institutions between poorer and richer households can be partly explained by the number of the poor among rural population, but the differences still remain even when this factor is kept under control.[97]

4.7 Healthcare Expenses

Graph 4.8 shows the share of expenses for healthcare in total household consumption. By comparing the share of healthcare expenses in the total household consumption in 2002 and 2003, we can conclude that there were no changes in the period of one year. As we can notice, richer households have higher expenses both in relative and in absolute values in comparison to poorer households. So households from the first, the poorest quintile spend only 3% of their total resources on healthcare, households from the 2nd, 3rd and 4th quintile spend 5-6% and households from the richest quintile spend about 6% - 7%.

Graph 4.8 Share of Medical Expenses in Total Consumption 2002-2003



In absolute values, this difference is even more drastic. The poorest quintile of households spends on healthcare on average, approximately, 370 dinars per month in 2002 and the richest – 2040 dinars (in 2003 these values were 370 dinars as opposed to 2860 dinars)[98]. Further analyses show that bigger differences in expenses appear even when we monitor independently different types of institutions (private and state or outpa-

97 World Bank, 2003, pp.106

98 An average amount calculated for all households in the given group – both those that used the services and those that did not

tient, dental and in-patient care). Table 4.1 shows average expenses spent on healthcare services per household member who used services in one month, that is, 12 months, depending on the financial status of a household.

Table 4.1 Average Expenses for Some Medical Care Services per Household Member Who Used Services in Month/12 Month Preceding the Survey, by Consumption Quintiles (in Dinars), 2002

	Total	Quintiles of household consumption				
		The poorest	2	3	4	The richest
Total consumption of household	27763	12803	19012	23511	32610	48832
State outpatient (1 month)	1033	452	716	854	1181	1877
Private outpatient (1 month)	2998	2589	1715	2299	2657	3718
State dentist (1 month)	303	269	302	262	364	291
Private dentist (1 month)	2869	622	1441	1069	2002	4062
State hospital (12 month)	4072	3095	3229	4359	2836	6619
Private hospital (12 month)	19785	-	-	27000	22440	17070
Self –protection, self-medication and alternative medicines (1 month)	471	313	357	397	477	664

Table 4.2 Average Expenses for Services in Outpatient and Inpatient Medical Care per Household Member Who Used Services in Month/12 Month Preceding the Survey by Consumption Quintiles (in Dinars), 2002

	%	Total	Quintiles of household consumption				
			The poorest	2	3	4	The richest
Total household consumption (per month)		27763	12803	19012	23511	32610	48832
State outpatient medical care – total (expenses in a month)	22.0%	1033	452	716	854	1181	1877
Medical examinations	7,3%	114	51	157	82	94	180
Medicines and other material	12,3%	793	367	602	694	864	1410
Laboratory analyses, X-ray scans	3,0%	743	274	241	389	1391	980
Transportation expenses	7,1%	386	255	301	306	389	684
Gifts and payments for medical workers	0,3%	1174	157	389	155	204	2219
Hospitalization in state hospitals (expenses in 12 months)	5,1%	4072	3095	3229	4359	2836	6619
Inpatient treatment	1,2%	3717	2579	2039	1755	1469	9878
Medicines and medical supplies (surgical and implant material)	2,2%	5314	2306	2557	3753	1977	16872
Laboratory analyses, X-ray scans	0,4%	2082	1699	248	2133	2015	3344
Transportation and accommodation	2,0%	1106	775	541	949	1114	1840
Gifts and payments for medical workers	0,7%	2281	828	446	1652	2326	3191

The first thing that the Table above shows is that the cost of private healthcare is much higher than the cost of state healthcare (outpatient services are two times more expensive, hospital services five times and dental services nine times).

Furthermore, what is noticeable is that differences in the expenses appear depending on the financial status of the household regardless of the type of institution. The richest quintile spends about 1.5 up to 2 times more money than the average on both private and state institutions services. Most often they spend higher amounts of money for all types of medical services – doctors' examinations, laboratory analysis, X-ray scans, medicaments and another additional materials, as well as transportation expenses (Table 4.2).

We see from further analyses that the poorer population, in restricting their total consumption, reduces the expenses for healthcare protection. If we remember that also significant differences in frequency of use of outpatient and dental medical protection was obtained, we can conclude that **poorer population to some extent reduce the use of healthcare services which are not an immediate necessity**.

However, a question still remains – *To what extent do expenses for healthcare protection represent a burden on the budget of the poor when they request this kind of service?* Table 4.2 shows that the expenses given for hospitalization are very high. Reference books often state that hospitalization represents one of the so-called catastrophic events – events which are by nature rare, but when they do happen they require large unforeseen expenses which have an impact on household ability to maintain the level of its usual expenditure and to satisfy its basic needs.[99] Of course, events like these have a particularly deep impact on the poorest segment of the population.

By analyzing the expenses of hospitalization (Table 4.2) we can conclude that when the need for hospitalization arises, the poorest quintile spends 24% of total household monthly consumption of the whole household on medical treatment expenses. This is certainly a large expenditure for these households and it significantly lowers their ability to satisfy their basic needs. Also, if we take a look at individual services of inpatient treatment (medicaments, laboratory examinations, transportation, accommodation, etc.) the share of these services in the expenditure of the poorest varies from 5% to 20%. Another fact which is not to be ignored are the expenses given as gifts and payments to medical staff (6% of the consumption of the poorest quintile), although these expenses are not so frequent[100] – they appear in approximately 1/6 of hospitalization cases.

99 Alam et al, 2005, pp.168

100 Or not reported so often

4.8 Conclusion

This chapter was aimed at proving the connection between poverty and usage of healthcare protection services. The key findings are the following:

1. Some differences in frequency of chronic illness occurrence were found, depending on financial status; the poor receive treatment for their diseases less frequently than average.

2. Lack of healthcare insurance (6% of the population) represents a serious form of healthcare deprivation, particularly present in those with informal jobs.

3. The percentage of the ill who did not used medical services (one of the important indicators of healthcare deprivation) is higher among the poor, those without insurance and Roma from Roma settlements; Family Income Support recipients are not at risk with respect to this indicator.

4. The greatest differences were found between the poor and those who are not poor in the usage of private institutions of all kinds; there is almost no single user of private healthcare protection who lives below poverty line.

5. The poorer population to some extent reduce the use of healthcare services which are not perceived as immediate necessity – the poor use outpatient services less frequently, dental services in particular, while the differences with respect to the use of inpatient services were not found.

6. The poorer population, while restricting their total consumption, also reduces the expenditure given for healthcare protection. However, the equal incidence of the use of inpatient healthcare protection among the poor and those who are not poor indicates that when the problem becomes serious, the need for hospitalization is inevitable. That is why the expenditure for hospitalization, which is in its nature enormous expense, represents to a high degree a burden for the budget of the poor.

HOUSEHOLD INCOME AND CONSUMPTION

5.

Comparative Review of 2002 and 2003 LSMS Data

Household income and consumption are main welfare variables. Consumption (per equivalent unit) is chosen as a measure of living standard based on assumption that it is better declared and less subject to short-term fluctuations. In addition to consumption, income is also used on its own or in combination with consumption to check and validate consumption-based results. In this chapter we will briefly describe both aggregates and analyze the changes in their value and structure from 2002 to 2003.

5.1 Welfare Aggregates

Aggregate of consumption is a comprehensive aggregate of current consumption expenditures, in-kind consumption of household own production, value of gifts and transfers received in kind, imputed value of owner-occupied housing, and depreciation of durables owned by the household. The consumption aggregate, as well as income aggregate, includes monthly amounts for both monetary and in-kind components measured at local prices.[101]

101 Please look at the Annex B with detailed lists of all components of the income and consumption aggregates.

5.1.1 Consumption Aggregate

The basis of the consumption aggregate consisted of monthly expenditure for food and other articles. It included bought articles, gifts and home-produced articles.

The consumption aggregate included also basic housing expenditure: monthly bills for utilities, gas, electricity and telephone, expenditure for solid and liquid fuels as well as expenditure for necessary repairs, while different types of investments related to housing were not included in the aggregate. Imputation of depreciation of durables, imputed and real rent and rent for additional flat/house were also included. Unpaid electricity and utilities bills, as well as socially targeted electricity and utilities discounts and humanitarian aid for heating (imputed value) which were treated as *in-kind* component for housing services. Since consumption was mainly based on monthly amounts, seasonal differences were present (e.g. there was almost no expenditure for electrical heating, since the expenditure collected referred to the previous month – April/May).

Healthcare expenditure included all expenditure for outpatient, inpatient and dental healthcare protection: formal payments for medical examinations, medicines, laboratory analyses and helping devices, informal payments and gifts given to medical staff and expenditure for transportation to medical institutions. Medical treatments abroad and independent medicament consumption and services of alternative medicine were also included.

Education expenditure included all expenditure for pre-school, primary, secondary and tertiary education, transportation expenditure and private tutorials' expenditure, as well as caretaking for children up to 7 years of age.

5.1.2 Income Aggregate

The basis for income aggregate was made from income related to employment, retirement and unemployment. Employment income included net income from basic and additional activity, as well as other income from working activity (income during sick leaves, maternity leaves, transportation compensation, etc.). Retirement income included old-age pension, invalid, family and foreign pensions, while unemployment income included unemployment benefits and severance packages for workers who were laid off. Income aggregate included different kinds of social welfare transfers.

Income from agriculture was calculated as a sum of incomes and expenditures from agricultural activity. On the one side, all income from crops, animals and animal products was added, and on the other side all expenditure necessary for these activities (purchase of seed, fertilizers, cattle food, fuel consumption, veterinary services, etc.) was subtracted. Renting out and hiring land and machinery were also included. Another component was included in agriculture income and that was in-kind food component, i.e. food produced or received as a gift in agricultural households.[102]

Housing income consisted of depreciation of durables, flat/house imputed rent and in-kind component for housing services (the same component which was part of consumption).

Other monthly income consisted of income from interest rates, insurance, prize games and dividends, aid and gifts and different rent-related income. Income from sales was not included. Also, as part of monthly income the total monthly in-kind consumption of food and other articles was included.

Aid and gifts acquired specifically for the needs of healthcare and education along with collected compensation of the health insurance were included in income.

5.1.3 Imputation of Rent, Depreciation of Durables and In-Kind Component

Imputation of rent: Imputation of the rent was based on the data which was provided by the real estate agencies and housing transactions in 39 regions of the country in order to get an average market value by the type of house/apartment (taking into account the space and other characteristics of the real estate). The basic assumption was that the deprecation rate for real estate is 1% per year and that this value can be an estimate of annual flow of services for owner-occupied dwellings. Imputation of rent for secondary residence was not calculated.

Depreciation of durables: The depreciation of durables was estimated by the cost of owning a durable good. *Depreciation* $= \delta V$, where δ is the depreciation rate and V is the value of durable. *Depreciation rate* is the drop in value of the good during the course of the year and it was calcu-

102 Income aggregate obtained in this manner is not final. Since agriculture income was calculated in a very complex way, for the period of one year, a justifiable doubt arose that one part of households will show underestimated values of reported income due to insufficient evidence given by respondents themselves. This is why the final income aggregate from agriculture is taken as the maximum value of the following two values: 1. income registered in the described manner and 2. subjective assessment made by respondents on income from agriculture. Also, if this calculation showed negative values, income from agriculture was recorded as non-existent.

lated on the basis of information about the age and estimated value of the durable on which regression analysis was applied.

In-kind component: Special attention was paid to inclusion of all non-monetary transfers (called collectively in-kind component). This component included consumption of goods made at home or obtained as a gift, both in terms of food and other articles. We also included unpaid bills, socially targeted discounts and non-monetary humanitarian aid. Due to their nature, these transfers are at the same time both the income and expenditure of the household, so this component was part of both aggregates – income and expenditure aggregates.

5.2 Changes in the Structure of Income and Consumption 2002-2003

In the following paragraphs comparative data of income and consumption in households in 2002 and 2003 will be shown. In order to achieve comparability with other surveys, the structure of consumption will not follow the structure from the questionnaire but will be presented through categories of international COICOP[103] consumption classification.

The structure of income represents modified version of COICOP classification, since categories from the questionnaire could not be identical to the categories from this classification. Also, due to the importance of certain categories (such as domestic pensions and social transfers) these categories will be presented separately, while *Other forms of income* include all categories of lesser importance in terms of income structure (e.g. income from NGOs, collected healthcare insurance, etc.)

5.2.1 Changes of Income Structure 2002-2003

Nominal increase of average household income for the period of one year amounted to 21%, but, due to the 13.1% increase in consumer prices in the same period, the real increase of income was 7%. The biggest relative increase was recorded in income from social transfers, (nominal 37%), (real 21%) and in domestic pensions (nominal 35%), (real 20%) followed by income from employment. However, the number of households which received pensions also increased and this was the

103 Classification of Individual Consumption According to Purpose, more detailed on http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=5

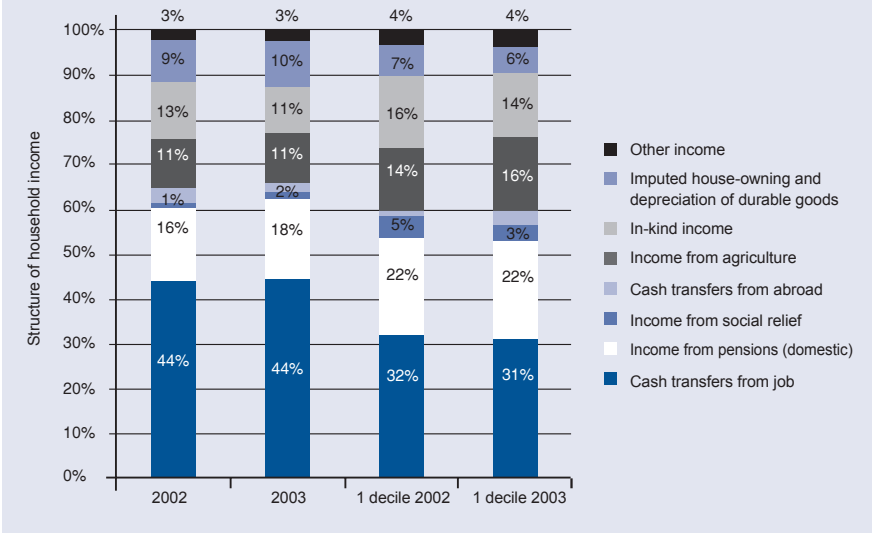
result of the increase in realized pensions in Serbia during the period 2002-2003.

Table 5.1 Comparative Review of Sources of Household Income in 2002 and 2003

	Average receipts		Percent of increase/decrease		Income structure	
	2002.	2003.	Nominal	Real	2002.	2003.
Total household income	22299	26884	20.6	6.6	100.0	100.0
Cash transfers from job	9839	11942	21.4	7.3	44.1%	44.4%
Income from pensions (domestic)	3594	4859	35.2	19.5	16.1%	18.1%
Income from social relief	301	413	37.2	21.3	1.3%	1.5%
Cash transfers from abroad	665	516	-22.4	-31.4	3.0%	1.9%
Income from agriculture	2415	2849	18.0	4.3	10.8%	10.6%
In-kind income	2872	2922	1.7	-10.0	12.9%	10.9%
Imputed house-owning and depreciation of durable goods	2051	2634	28.4	13.6	9.2%	9.8%
Other income	562	749	33.3	17.8	2.5%	2.8%

In-kind component in our conditions is mainly reduced to the use of agricultural products either from household own production or received as a gift from relatives and friends who live in the villages. As the prices of agricultural products did not change in the period between two surveys, a decrease of real value of in-kind component in total income was recorded.

Graph 5.1 Structure of Household Income, 2002-2003



Income from depreciation of durables, imputed rent and income from renting flats mainly follow the real increase of prices of flats and durable goods. Increase of prices of flats in the period of one year was very unequal in certain parts of the country. The biggest increase was recorded in cities such as Belgrade and Novi Sad, but in Novi Pazar as well, where the prices of flats are almost equal to those in Belgrade. A decrease was recorded in villages, and the biggest decrease in prices of flats in regional terms was recorded in Eastern Serbia.

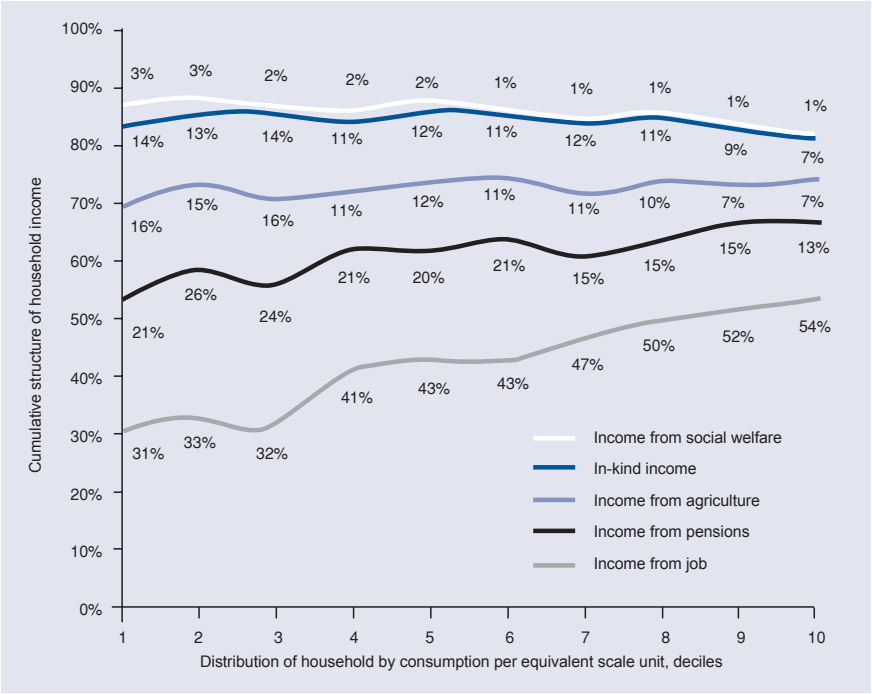
The share of income from employment[104] in total household income increased by 1 percentage point in the period of one year (from 44% in 2002 to 45% in 2003). Somewhat higher is the increase of the share of income from pensions, so that, in 2003, it was 18%. If these data are compared with data from Survey on Income and Expenditures in the past 10 years, it is obvious that the share of income from pension is on the constant increase in total household income. In 1991 the share of income from pension in total household income was 14 -15%.

The share of imputed rent and depreciation of durables, as well as agriculture income, did not change considerably over the period of one year, but the share of in-kind component (household own production, gifts and in-kind earning) decreased by 2 percentage points. The decrease in the share of in-kind income in total household income in previous years followed the real increase of the living standard. During the years of the gravest crisis the share of in-kind income in total household income exceeded 20%[105], but, with the increase in the living standard it fell to 11%, as recorded in 2003.

The structure of income of the poorest 10% of the population differs significantly from the structure of income of total population. Basic characteristic of income of the poorest segment of population is that major sources of available household resources are, except wages, income from pension, agriculture and in-kind component. The share of income from employment (formal and informal) in total available resources of the poorest is only 32%. In case of 10% of the poorest population the sum of income from agriculture and in-kind component almost equals the income from employment. The share of social transfers in total household income of the poorest population is very significant. In 2002 the share of these transfers was 4.6% in total household income, and in 2003 this share somewhat decreased, although it still represents an important item in the budget of the poorest households.

104 This includes income of formally employed, the income of employed who did not formally and legally regulate their status and income from work outside working hours and severance pay.
105 The highest level of share of in-kind consumption was recorded in 1993, in the period of the biggest crisis and inflation, when it reached 23%.

Graph 5.2 Cumulative Review of the Structure of Household Income by Deciles of Consumption, 2003



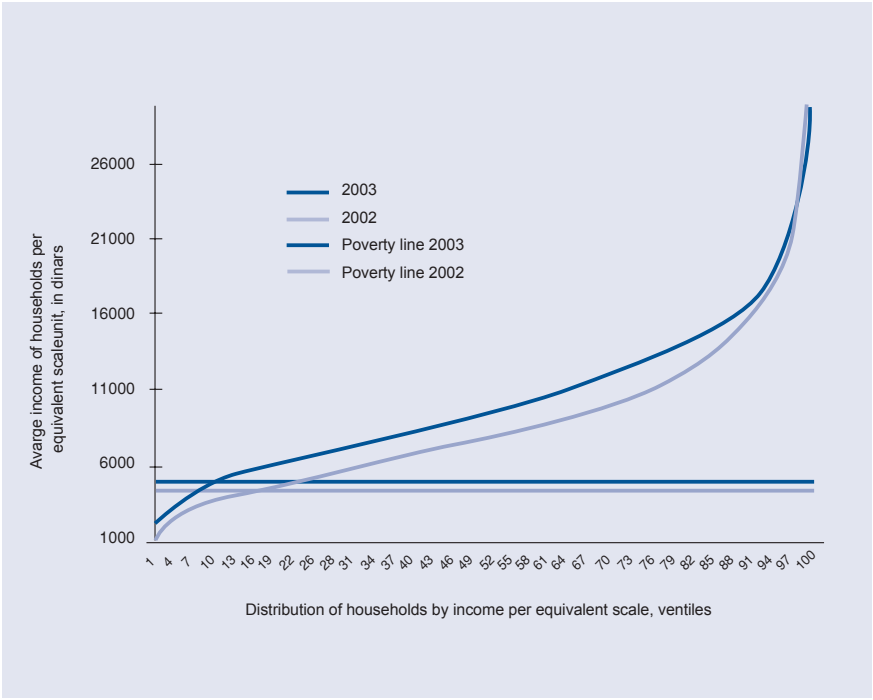
Analysis of the structure of income by deciles of consumption in 2003 shows positive correlation between the increase of consumption and share of income from employment in total household income. The share of income from employment ranges from around 31% (the poorest category of population) to 54% (10% of the richest population).

The high share of income from pensions is characteristic of households with lower standards of living, so that 30% of the poorest population have approximately one quarter of income which is based on pensions, whereas, in case of the 10% of the richest segment of population (according to consumption), 13% of income is based on pensions.

A high share of income from agriculture in total household income is also characteristic of the poor segments of population. For instance, within 10% of the poorest population the share of income from agriculture in total household income is 16%, while, within 10% of the richest population the share of income from agriculture in total household income is just 7%.

Income based on social transfers is mainly allocated to 20% of the poorest population, therefore, with improvement in the living standard, their share in total household income decreases significantly.

Graph 5.3 Household Income per Equivalent Scale Unit



Distribution of population by level of income in the observed two years significantly coincides. The highest absolute increase was recorded between the seventh and eight decile (Table 5.2) The richest according to income (10 deciles) had also a high increase in absolute amounts, but in relative amount it was below the average (4% real increase). Percent-wise, the biggest increase of income with respect to the previous year was recorded with 10% of the poorest population (according to income). Their income increased by 25% on average (in real terms). In other deciles the average increase of income (in real terms) was below 12%. Previous analysis, and also analysis of inequality indicators 9/1 decile[106] allows us to conclude that, in a period of one year, increase of income inequality hasn't taken place, and that even a certain decrease of inequality among the households occurred. Namely, the value of this indicator was 2.3 in 2002, and in 2003 it was 1.9.

Graph 5.4 represents the Lorenz curve of income. The graph construction is the following: X axis is cumulative distribution of the population ranked by income per equivalent scale unit. Y axis is cumulative

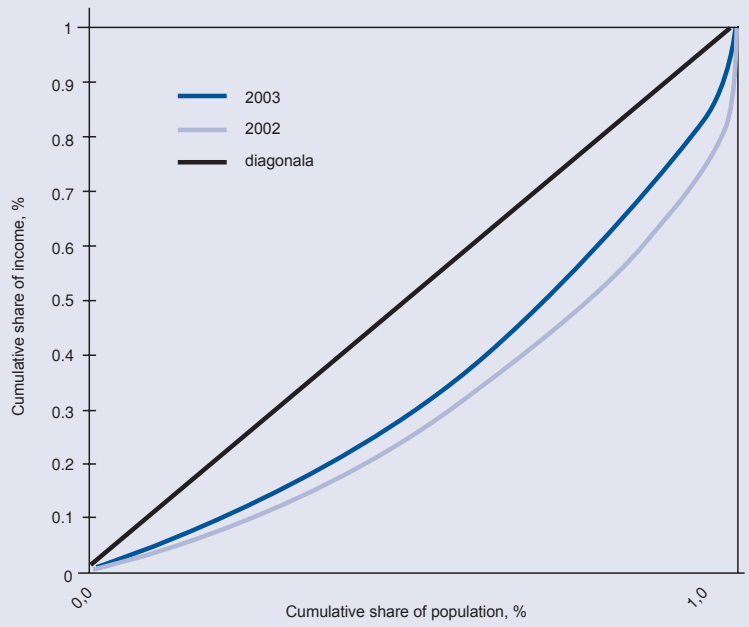
106 Measure of inequality, quotient between average income of the first and ninth decile by amount of income

Table 5.2 Comparison of Household Income by Deciles of Income per Equivalent Scale Unit, in Dinars, 2002-2003

	Total	Deciles of income									
		1. decile	2. decile	3. decile	4. decile	5. decile	6. decile	7. decile	8. decile	9. decile	10. decile
Total income 2002	22299	12440	16431	18104	18564	20777	22532	23908	25882	28235	34421
Total income 2003	26884	17634	19757	22008	23249	24271	24955	30263	30473	33430	40527
Nominal increase	20.6	41.7	20.2	21.6	25.2	16.8	10.8	26.6	17.7	18.4	17.7
Real increase	6.6	25.3	6.3	7.5	10.7	3.3	-2.1	11.9	4.1	4.7	4.1

distribution of income per equivalent scale unit. If the Lorenz curve overlapped with the diagonal, this would mean that all the population had equal income and that inequality by income was zero. If only one individual owned everything, the Lorenz curve would equal zero on Y axis for all cases on X axis, except in the last case, where it would equal 1. We can conclude that the further the Lorenz curve from the diagonal (the more it leans to the right), the higher the inequality – the means are concentrated in the hands of fewer people.

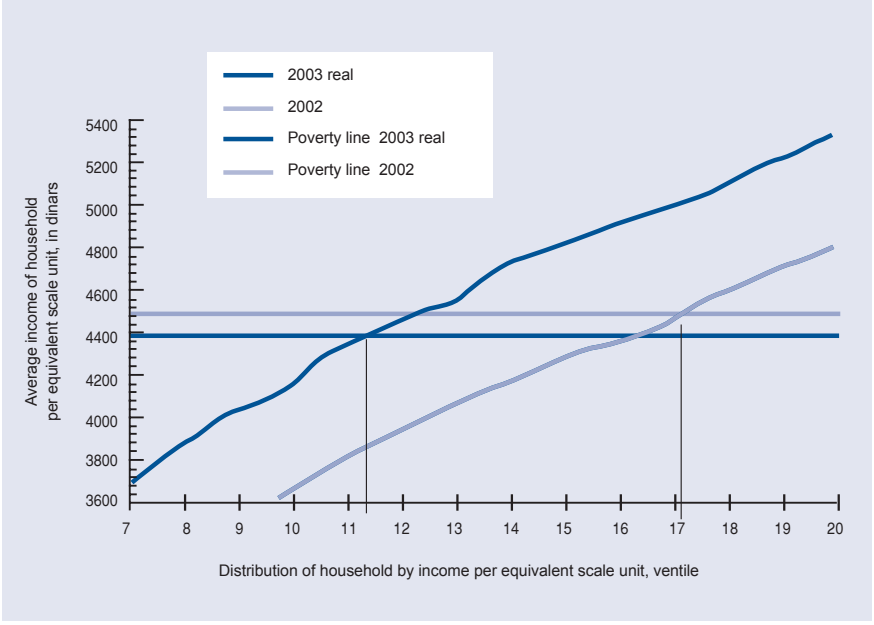
Graph 5.4 Lorence Cureve of Income



By comparing lines representing the Lorenz curves of income for 2002 and 2003, we can conclude that there has been a decrease in inequality over a period of one year, and this decrease was recorded in the upper middle classes.

For the purpose of comparing behaviour of households in the period of one year around the poverty line, we recalculated income from 2003 to the level of prices from 2002, dividing the income by index of consumer prices. We did the same with poverty line from 2003. Income increased the most in households up to the first decile, but later it decreased.

Graph 5.5 Household Incomes around Poverty Line (Income in 2003 Is Given in Real Amounts)



5.2.2 Changes of Consumption Structure 2002-2003

Nominal household consumption in Serbia from May 2002 until May 2003 increased by 11%. The biggest item in this increase is housing expenditures which increased by 26%. Such a high increase in consumption still lags behind statistical data on increase of housing costs which record 39%. Important difference between these expenditures according to LSMS survey and according to official statistical data is in the fact that this aggregate includes imputed rent and imputed depre-

ciation of durables. These two items recorded a slower increase than other elements of housing expenditure. Another important factor is adaptation of population to new tariff systems by using more electricity in time of lower tariffs.

Table 5.3 Comparative Review of Household Consumption in 2002 and 2003 Based on COICOP Classification

Structure of consumption	Average consumption		Percent of increase/decrease		Structure of consumption	
	2002.	2003.	Nominal	Real[109]	2002.	2003.
Total consumption of household	24957	27763	11.2	-1.7	100.0	100.0
01 Food and Non-alcoholic beverages	10178	10448	2.7	-0.5	40.8%	37.6%
02 Alcoholic beverages, tobacco and narcotics	1047	1097	4.8	-7.5	4.2%	4.0%
03 Clothes and footwear	1282	1335	4.1	-2.5	5.1%	4.8%
04 Housing, water, electricity, gas and other fuels	4395	5517	25.5	-9.6	17.6%	19.9%
05 Furnishings, household equipment and routine household maintenance	787	863	9.7	-3.0	3.2%	3.1%
06 Health	1139	1177	3.3	-8.6	4.6%	4.2%
07 Transport	1745	2191	25.6	0.5	7.0%	7.9%
08 Communication	688	890	29.4	14.4	2.8%	3.2%
09 Recreation and culture – without durable goods	945	1192	26.1	11.6	3.8%	4.3%
10 Education	240	287	19.6	5.7	1.0%	1.0%
11 Restaurants, cafés, hotels	907	889	-2.0	-13.3	3.6%	3.2%
12 Other goods and services	1604	1877	17.0	3.4	6.4%	6.8%

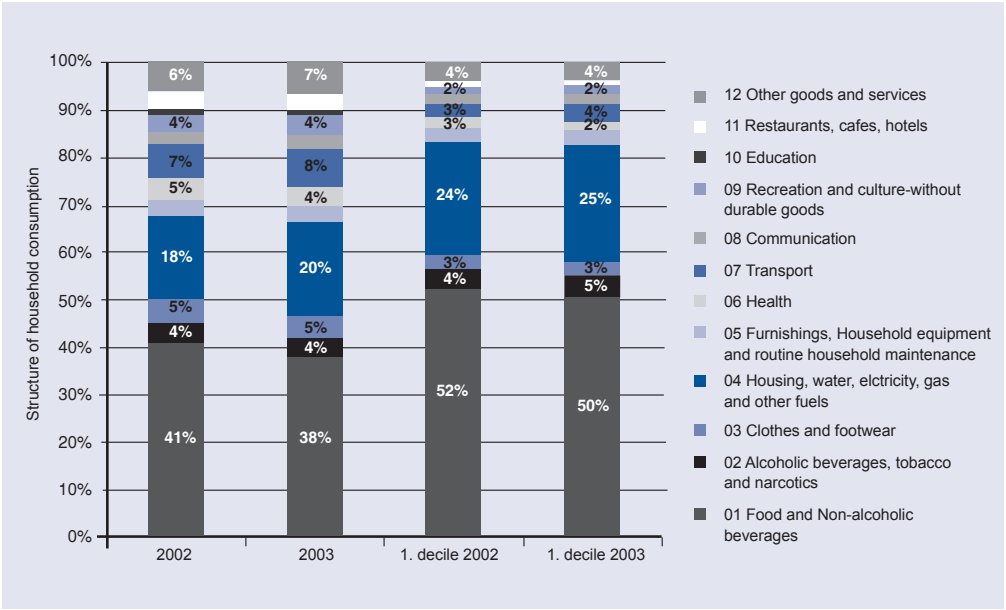
Expenditure for food increased only by 2.7%, primarily because the price of food products hardly increased from May 2002 to May 2003. The prices of agricultural products decreased 2% according to the statistical price index. Particularly significant was the decrease of almost 10% in the prices of pork. This automatically had an impact on the change of structure of household consumption in the way that households used pork more than other kinds of meat, primarily beef.

Expenditure for clothing and footwear, transport and housing equipment remained at the same level as in the previous year. Nominal index increased in the amount of increase in prices of these products.

107 Consumer price indices by product groups were used for calculation of real increase

Increase in personal incomes reflected on the increased purchase of durable goods and saving. (More detailed in the *Chapter 2 Housing condition*).

Graph 5.6. Structure of Household Consumption



As for the structure of consumption, the biggest changes were recorded with food and housing expenditures. Households spent a similar amount of money for food and housing – 58%, so that the real decrease in expenditure for food was practically attributed to increased housing expenditure. Housing expenditures are mainly dictated by the government, so that the population was forced to make this expenditure. A small exception might be the expenses for telephone and electricity which can be somewhat controlled by reduced consumption, or an increased use of the benefits of tariff systems.

The poorest segment of the population[108] had to allocate the majority of expenditure to food and housing. These two most important expenditure categories absorbed 75% of all available resources.

High increase in prices of electricity and public utilities resulted in a significantly increased share of consumption for housing in total household consumption for the first decile. Consequently, in just one year, the share of housing consumption with the poorest segment of population increased from 24% to 25%, which practically means that, in the course

108 10% of the poorest, that is, population which belongs to the first decile of consumption per equivalent scale unit. This also refers to the population below the poverty line.

of 2003, the poorest segment of population had to spend one quarter of their available resources just for housing.

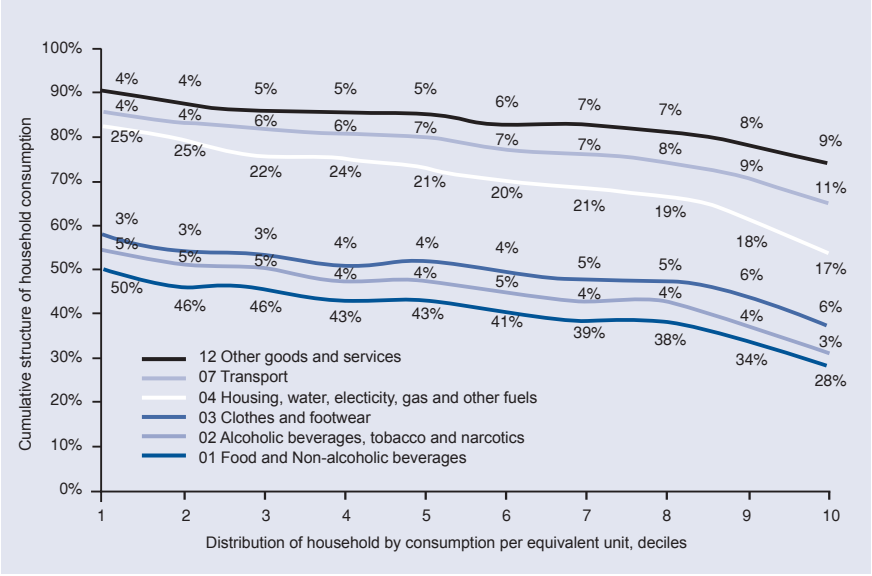
High percent of expenditure for food is characteristic of the first three deciles, so 30% of the poorest population must spend almost one half of total available resources on food (47% to 50%).

As mentioned before, 10% of the poorest population spends almost 75% of the resources every month on food and housing. This means that only 25% is available for all other expenses. From that amount they spend another 5% on smoking and alcoholic drinks, which, unfortunately, becomes the characteristic of the poorest population, so that, the remaining percent for all other purposes is just 20%. This percent must be spent on education, health care, clothing and footwear, transport, housing and personal hygiene, etc. As we can see, such a high expenditure for basic life necessities resulted in reduced spending of the poorest segment of population for all other segments of life.

However, 10% of the richest population spends on food and housing just slightly above 44% of their total monthly consumption, so that they can afford to spend 7% of total monthly resources on recreation and culture, which is about 2/3 of the expenditure on food of the 10% of the poorest population in absolute amount.

Household consumption habits, looking at the deciles of population according to consumption, have not changed significantly during the

Graph 5.7 Cumulative Review of the Structure of Household Consumption by Consumption Deciles, 2003



Graph 5.8 Household Consumption per Equivalent Scale Unit

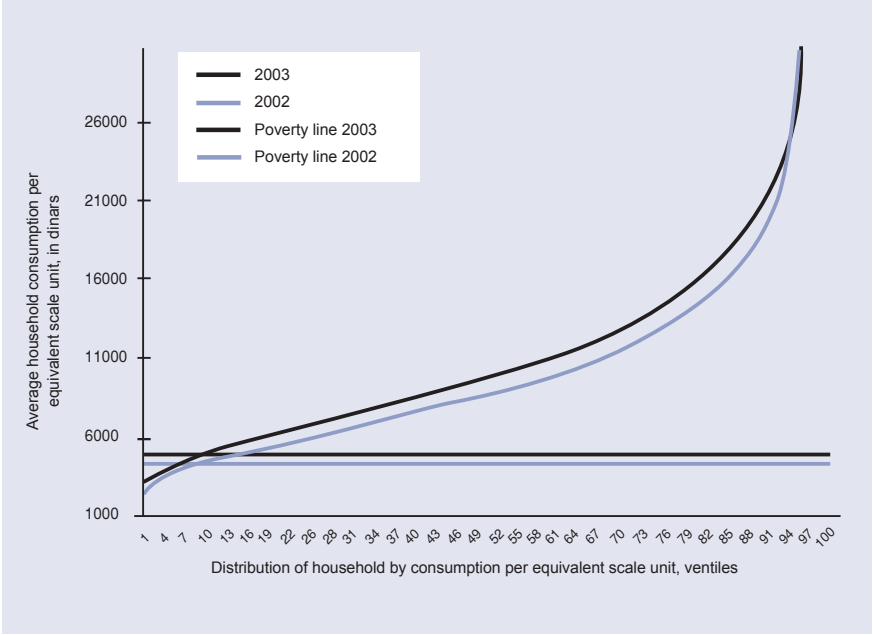
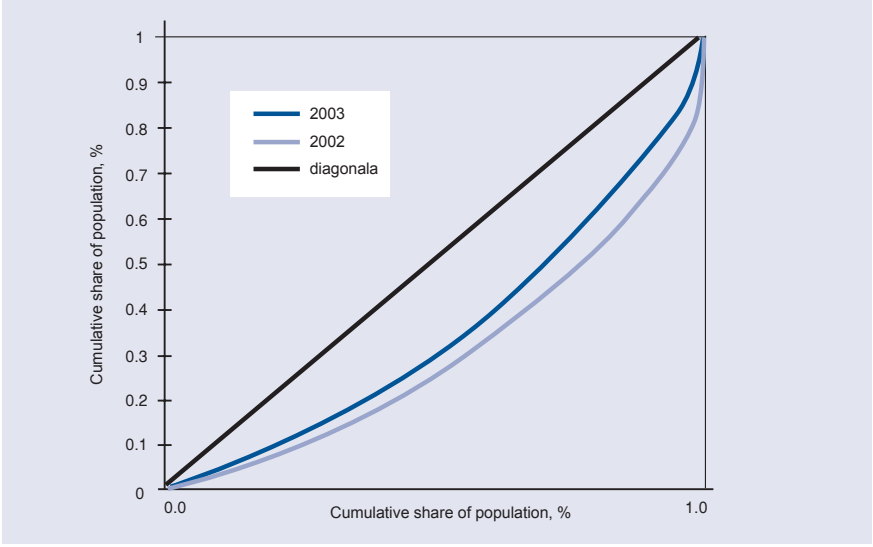


Table 5.4 Comparison of Household Consumption by Deciles of Household Consumption per Equivalent Scale Unit, in Dinars, 2002-2003

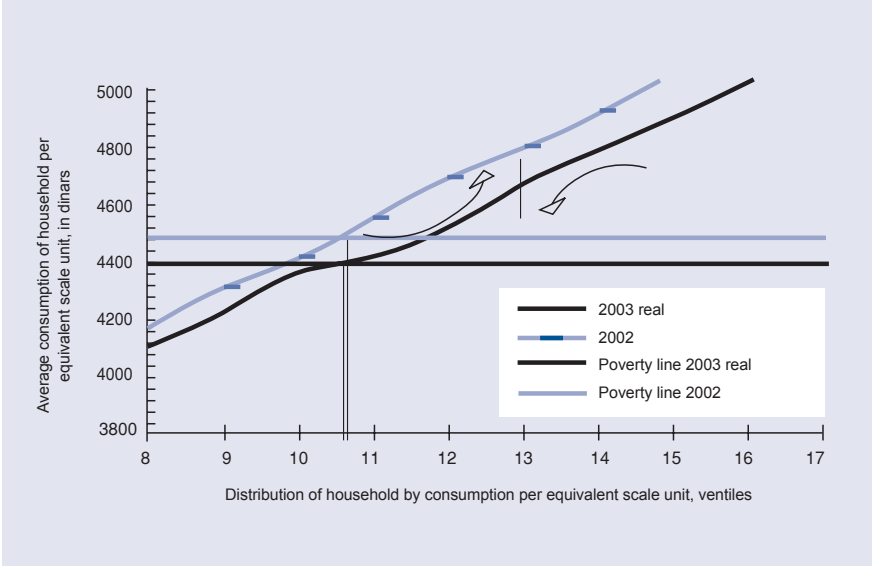
	Total	Deciles of consumption									
		1 decile	2 decile	3 decile	4 decile	5 decile	6 decile	7 decile	8 decile	9 decile	10 decile
2002 Total consumption	24957	8921	12874	15399	17152	20400	23731	26331	30284	36344	54210
2003 Total consumption	27763	11061	14387	17502	20539	21824	25174	30772	34361	40259	56958
Nominal increase	11.2	24.0	11.8	13.7	19.7	7.0	6.1	16.9	13.5	10.8	5.1
Real increase	-1.6	9.6	-1.2	0.5	5.9	-5.4	-6.2	3.3	0.3	-2.1	-7.1

past twelve months, except for the first decile. In the case of the first decile the nominal increase in consumption was high - over 24%, but the real increase was lower – 10%. Anyway, this increase was the highest among total population. In case of the tenth decile the situation is the opposite – while nominal increase ranged around 5%, the recorded decrease in consumption was 7%. In other categories of population the recorded changes vary from -6% to 6%. If we observe the movement of value of inequality indicator 9/1 decile according to consumption in a period of one year, we can see that, similar to income, a certain decrease of value of this indicator has taken place. The value of this indicator in 2002 was 4.1, while in 2003 it was 3.6.

Graph 5.9 Lorenc Curve of Consumption

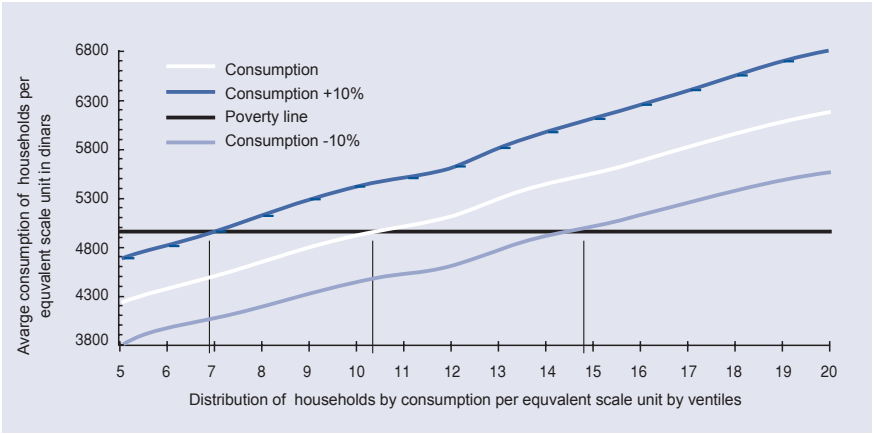


Graph 5.10 Household Consumption around Poverty Line - for 2003 the Amounts Were Deflated



If the distribution of population according to total consumption is observed, the Lorenz curve shows that during the past twelve months, the situation is similar to the one detected when income was analyzed. In other words, that inequality did not increase, but it decreased during a period of one year. This information is in accordance with a decrease of Gini coefficient, described in the chapter *Basic Poverty Indicators* by Gorana Krstić.

Graph 5.11 Household Consumption around Poverty Line (Consumption in 2003 in Real Amounts)



However, as we saw in *Basic Poverty Indicators* this increase in household consumption in the first decile was not sufficient to lower the poverty index. That is why we are going to check what the situation is with households placed around poverty line (Graph 5.10). Around poverty line consumption per unit of national equivalent scale increased nominally by circa 11%, and rather evenly in the entire second decile. In order to eliminate the impact of inflation, we reduced the consumption aggregates from 2003 to the level recorded in 2002, by dividing them by corresponding consumer price index. In this way we obtained the result that the level of consumption around poverty line decreased in real terms by circa 2%. As the real poverty line decreased as well, it is obvious on the graph that number of the poor practically remained unchanged during these two years. On the cross-section of real poverty line for 2003 and the line which represents distribution of population according to real consumption on X axis, we obtain percentage of the poor in 2003. Interpretation of cross-section of poverty line for 2002 and distribution of population according to consumption for 2002 is similar.

Analysis of the level of consumption of population directly above the poverty line shows that another circa 3% fo population were very near poverty line in 2003. Even a minimal decrease of consumption of this population would pull them down below poverty line. Situation is somewhat better with population which is above 13% of the poorest. In 2003 they were in better situation than they were in 2002, since their distance from poverty line slightly increased compared to preceding year. Consequently, we can conclude that number of population very close

to poverty line increased, while population whose distance from poverty line exceeds 4%, were in better situation in 2003 than they were in 2002.

Graph 5.11 shows the impact of household consumption near the poverty line on the number of the poor. A decrease in household consumption around poverty line by about 10% would result in an increase in the number of poor population by another 4.5%. While an increase in consumption of the poorest segment of population by 10% would result in a decrease in the number of the poor by 3.5%. All this would be possible provided that the poverty line remains unchanged.

5.3 Conclusion

1. In the period between May 2002 and May 2003 significant increase of income was recorded. This increase of income was not followed by an increase of consumption – namely, the real value of consumption in 2003 remained unchanged compared to year 2002. Such finding implies that rise of income was caused both by real increase of salaries, but also by increase of legal money flows.

2. Even though consumption (in real values) has not changed over one year, consumption structure certainly has. The share of expenditure on food decreased (there was no increase in the price of food products), whereas the share of housing expenditure increased, primarily due to the higher housing prices (prices of common utilities, heating, telephone).

3. Compared with 2002, in 2003 no increase of inequality was recorded, moreover, there was a certain decrease of inequality observed by income and consumption of households.

EDUCATION IN SERBIA 6.

Numerous reports show that education is one of the most important correlates of living standards.[109] Low and inadequate level of education is identified as one of the main causes of poverty in Serbia.[110] This is why we will try to analyze in more detail the relation between education status and poverty.

6.1 General Data on Education

The situation in education considerably deteriorated during the 90's. The best indicator of this trend is the share of expenditure for education in GDP, which amounted to 3.62% in 1990 and 3.14% in 2000.[111] It is generally known that, for a long period of time, due to lack of resources and general crisis in the country, very little or nothing was invested in schools, which resulted in various negative consequences: very poor equipment of classrooms, lack of teaching aids, lack of motivation among teaching staff, as well as generally bad conditions in the majority of schools.[112]

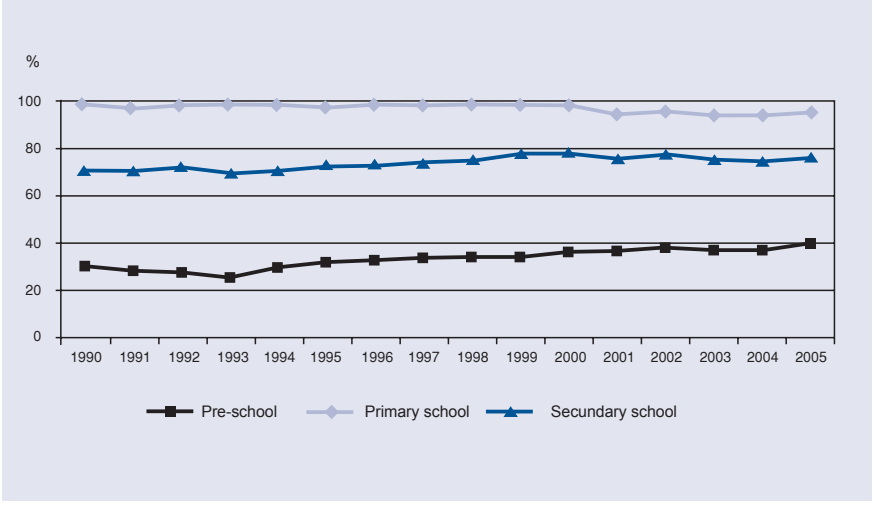
Nevertheless, the overall bad situation did not result in decrease of the number of children who attended school. On the contrary, unchanged

109 See Alam et al, 2005
110 Government of the Republic of Serbia, Poverty Reduction Strategy Paper for Serbia, 2003, pp.132
111 Ibid, pp.132
112 Ibid, pp.132

coverage (or even increase) is a trend which is noticed at different levels of education – pre-school, primary and secondary education. Graph 6.1 shows the percentage of enrolled children of relevant age in all three levels of education from 1991 to 2005.

Coverage of pre-school education has been on the increase since 1991, and in 2002 it reached 38% (DevInfo, Education Statistics). Nevertheless, this percentage is rather low when compared with the situation in other countries. For instance, in the Czech Republic and Hungary coverage of children in pre-school education exceeds even 85%, in Bulgaria and Romania it exceeds 70%. The percentage in Serbia is close to that recorded in majority of ex-Yugoslav republics (2002, Croatia – 38%, Macedonia 27%).[113]

Graph 6.1 Enrollment of Children in Different Levels of Educational Institutions, Serbia without Kosovo



Source: Data on pre-school: 3 – 7 years old, RSO - Education Statistics (DevInfo) - enrolment

Data on primary schools: 7 - 14 years old (1991-1999 Trans Monee database, 2000-2005 RSO - Education Statistics - DevInfo) - net enrolment ratio

Data on secondary school: 15 - 18 years old, RSO - Education Statistics (DevInfo) – net enrolment ratio

Primary school coverage since 1990 has been high and not lagging behind the situation detected in other countries of the region, that is, Eastern European countries. The percentage of children enrolled in secondary school also shows a constant level for the observed period – ranging between 70% and 79%.

113 TransMonee, UNICEF database

6.2 Pre-school Education

The above mentioned data on coverage of children by pre-school institutions refers only to state-owned pre-school institutions. Although data for private and church kindergartens are not collected by the RSO the LSMS findings indicate that an insignificant number of children attend these institutions (less than 2%).

Reporting on the situation in pre-school education as examined by LSMS,[114] we will refer solely to children aged 3 to 7[115], since the number of children up to 2 years of age who attend pre-school institutions is very small (only 9%). This percentage is considerably higher among children aged 3 to 7 – 43% of children attend some kind of pre-school institution. As we mentioned before, this percentage is quite low when compared to the situation in the other countries in the region. With respect to age, 35% children aged 3-5 (from 36 to 59 months) attend pre-school education, while the same is true of 51% of children aged 6.

Considerable differences are observed depending on various socio-economic indicators: pre-school institutions are attended to a much lesser extent by children from households in which the head of the household has a lower level of education (only 23% in comparison to average - 43%). This strongly points to the closed circle of deprivation in the area of education – from the very beginning children whose parents have lower education have a smaller chance to adapt properly in the school system. Geographic differences are noticeable as well: attendance of pre-school institutions is more frequent in Belgrade and Vojvodina, and much less frequent among the children from western Serbia and those from non-urban areas. Other analyses also indicate certain regularity – pre-school institutions are attended much less by children from multi-generation families, families with 5 or more members, as well as those from the households in which some household members do not have any personal income. What was also established is the connection between poverty and pre-school attendance: just 20% of children aged between 3 and 7 who live in the households from the first, poorest quintile attend pre-school institutions (Annex 1.6. Education)

Children from poorer households not only attend pre-school institutions to a considerably lower extent, but also spend less time on average in the pre-school institution. For instance, children from the poorest quintile on average spend 4.5 hours a day in the pre-school institution, while chil-

114 The data in the whole chapter refer to LSMS in 2002

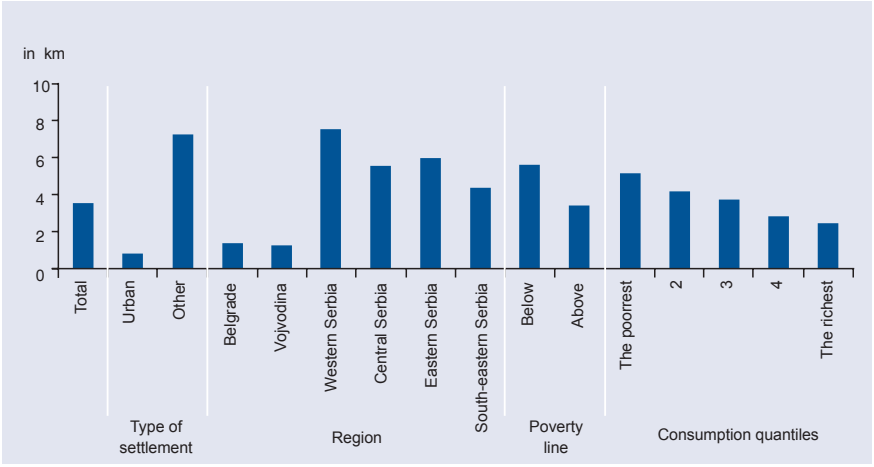
115 In „Education" section the age of child is calculated according to calendar years (not relative to date of birth). In Serbia the calendar age is used for determining relevant age for going to primary school (parents are legally obliged to enroll the child in the first grade of primary school in the year in which the child turns 7 years). Since the survey was realized in May, relevant age of the child was determined by subtracting one year from calendar age of the child (since particular school year started in September of the previous year).

dren from the richest quintile spend 6.2 hours. Although these data do not directly indicate the quality of service received in pre-school institution, we can still indirectly conclude that lower exposure results in the smaller influence of pre-school education.

This indicator shows that female children spend less time in kindergarten (5.9 on average as opposed to 6.4 hours for male children). Also expenditure for pre-school institutions in 2002 was lower for girls (870 dinars as opposed to 1150 dinars for boys).

A question is why the percentage of children not attending kindergarten is so high (56% of children aged between 3 and 7). The most frequent reason that caretakers mention in order to justify their children's non-attendance of pre-school institution is that there is no need – they prefer to have them at home (45% of caretakers of children aged from 3 to 7 who do not attend kindergarten). Distance of the institution is a particularly important obstacle for parents who live in rural areas – it is mentioned in 26% of cases, or 11 times more frequently compared to urban areas). A total of 13% of children aged from 3 to 7 do not attend a pre-school institution because the service is too expensive. [116]

Graph 6.2 Distance of Pre-School Institution, 2002



Graph 6.2 shows the estimated distance of the nearest kindergarten depending on various socio-demographic variables. Distance to pre-school institutions is one of the indicators of accessibility of this form of education, and it can somewhat help us in explaining the obtained findings. While distance to kindergarten is not a problem in urban areas, as well as in Belgrade and Vojvodina, other regions, particularly non-urban

116 The LSMS questionnaire did not offer the answer that there was no vacancy in nursery school. However, as our everyday experiences show, this could be one very important reason for non-attendance of nursery school

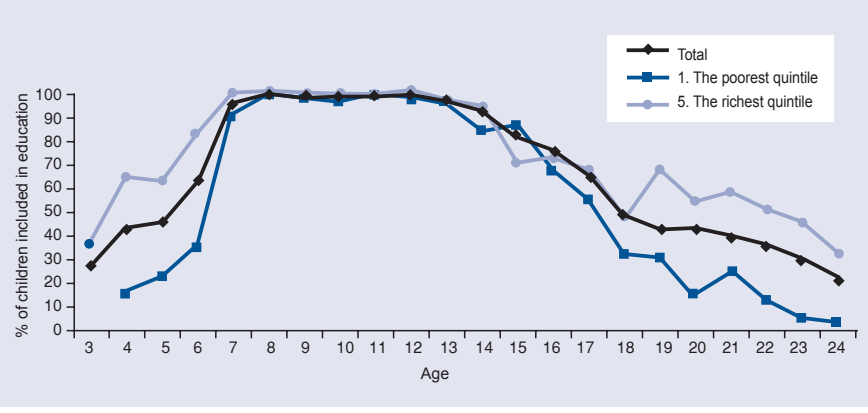
settlements have extremely small coverage of kindergartens. The average distance of the nearest kindergarten in non-urban areas is as much as 7.5 km. Similar distances are recorded in western Serbia. This finding explains to a certain extent the low level of pre-school attendance in the given geographical areas. Small density of pre-school institutions is a result of an unchanged and obsolete system of pre-school education where pre-school institutions are organized as large institutions in municipal centres.

6.3 Primary and Secondary Education

Similar to the situation in other countries in the region, the coverage of primary and secondary education in Serbia is very high. According to official RSO data coverage of primary schools in 2003 was 98.6% (for children of relevant age[117]), and 79.6%[118] of secondary school in 2000/2001 school year. According to these data the drop-out rate is 0.62 for primary school and 2.67 for secondary school.

Similar data are obtained from the LSMS according to which 96.7% of children of relevant age (7-14 years old) attend primary school, and 77.8% of children aged 15 to 18 attend some form of secondary education. Interesting data are also obtained if we observe inclusion of children in education system[119] by individual ages, shown in Graph 6.3.[120]

Graph 6.3. Percentage of Children Included in Any Form of Education, 2002



117 In Serbia primary school attendance is compulsory by law. At the time when this research was carried out the length of primary school was 8 years, and the child had to enroll in primary school by the age of 7 (children could enroll at the age of 6 , if they would turn 7 by the end of calendar year).

118 Statistical Office of Serbia and Montenegro, Statistical Year Book of Serbia and Montenegro 2003, pp. 358

119 Regardless of whether the child attends pre-school, primary school, secondary school, college or university

120 Since the sample of children by specific age is small, it is necessary to observe the results more as a trend indicator than a precise indicator of each specific age

It is evident that between the age of 8 and 14 there are almost no differences between children – all children, regardless of their material status are included in some type of educational system. However, it is obvious that education before the age of 7 and after the age of 15 is very much connected with material status in which the child is brought up.

Children from poorer families are considerably less included in the system of education till the age of 7, and not before they turn 8 do they reach the level of other children. Further analyses show that the reason for this lies not only in less frequent attendance of kindergartens, but also in the fact that children start going to school later (just 90% of children from the 1st quintile are included in the system of education at the age of 7, as opposed to 100% of the children from 5th quintile).[121]

Furthermore, after the age of 15, a dramatic drop in the number of children who attend school is observed, as well as the new split in the trend depending on material status of the household – at the age of 18 as many as 48% of children from the richest quintile still attend school, while only 31% of the children from the poorest households do the same. The differences are particularly pronounced in case of university studies.

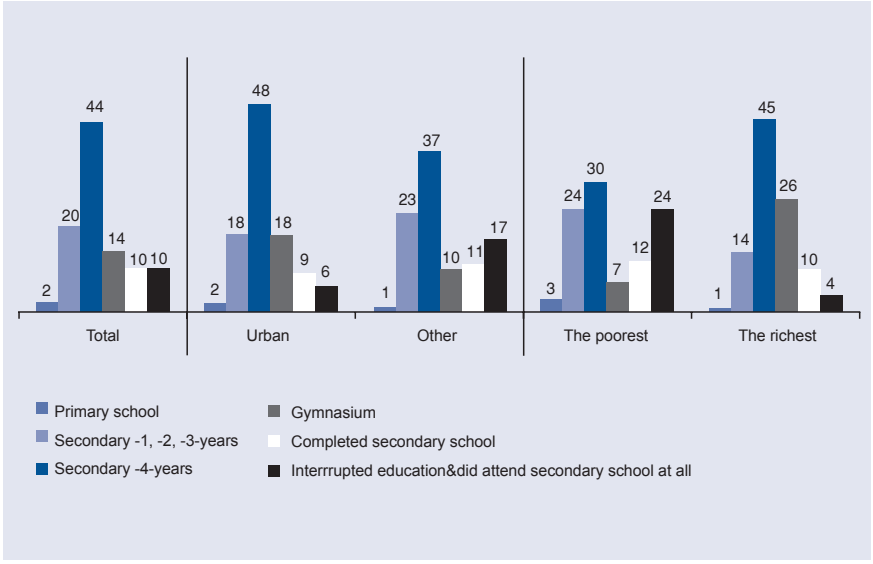
Primary School. The percentage of children attending primary school is high, however, one finding of this research points to the fact that children from poorer families gain less from this education (in other words – they learn less) than children from richer families. Unfortunately the LSMS does not track in any way the results of the pupils in subjects that are taught at school, which would be the best indicator of the quality of received education. However, questions about which grade the child attended in the previous year, and which one in the current year provide information about the number of children who repeated the same grade. Of course (and fortunately), the number of children who repeat the same grade is extremely small – 0.8 %, but it significantly rises in the group of households below national poverty line (4.4%), and 2.9% in the first quintile with the poorest households.

Secondary School. Analysis of secondary school attendance would be incomplete without a careful look at the kind of school which the child attends. Secondary education in Serbia is gained when the following types of schools are completed: high school (provides education necessary for further education), art schools and four-year vocational schools (granting IV level of qualification and admission standards for higher levels of education), three-year, two-year and one-year vocational schools (granting III, II and I level of qualification, and no admission standards for further education)[122].

121 World Bank, 2003, pp. 91-92
122 Statistical Office of Serbia and Montenegro, Statistical Year Book of Serbia and Montenegro 2003, pp. 355

The LSMS findings show that the majority of pupils included in secondary education attend four-year vocational schools, and then schools which award I, II or III level of qualification (20% of children aged 15 to 18 attend one of these three types of schools. As more detailed analyses obtained in other surveys show[123] such a high percentage of children in lower-level vocational schools is in disaccord with market needs, and these persons are often condemned to seek employment for years after they finished school. Further LSMS findings on employment status also show that 30% of the unemployed are the persons that acquired I, II or III level of qualification as opposed to 20% of their share among the employed.

Graph 6.4 Secondary School Attendance, Children Aged 15 to 18, 2002



According to the findings shown in Graph 6.4 it is obvious that the type of school which children attend differs considerably depending on the type of settlement and the financial status of the household. In non-urban areas and in the poor segment of the population, school attendance is more frequently terminated after primary school, as well as attendance of schools providing lower levels of qualification while attendance of four-year high-schools and secondary schools is more widespread in urban areas and among children from richer households.

One more important indicator illustrates the differences in bringing up children with different socio-economic backgrounds. This concerns private lessons which are taken at least twice a week (music, languages, sports,

123 Government of the Republic of Serbia, Poverty Reduction Strategy Paper for Serbia, 2003, pp. 138-139; World Bank, 2003, pp. 95

etc.). A total of 14% of children of all ages (from 3-18) have some form of organized private lessons. This percentage is considerably lower among the children of pre-school age (8%), while 19% of children of primary school age take private lessons, and 10% of children in secondary school. This indicator clearly reflects investments in the child and stimulation of cognitive development of the child. Considering that admission to secondary and tertiary education depends also on the entrance exam and the score which the child obtains on the entrance test, it is useful to look at the correlation between private lessons and poverty. (Appendix 1.6 Education)

As it can be assumed, this form of stimulation of child's development almost does not occur in poor households (less than 1% of children aged from 7 to 18 from the poorest quintile take private lessons). Moreover, taking private lessons is a much more widespread practice in Belgrade, and in other urban settlements in general, in contrast to south-eastern Serbia (22% in contrast to 9%). Children from households with 5+ members, and 3+ children, households in which the head of household has lower education, those from multi-generation families, and from households in which a number of household members do not have personal income, take private lessons to a much lower degree.

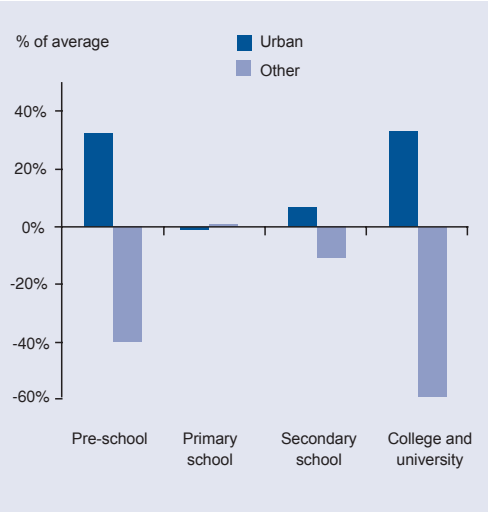
6.4 Geographic and Socio-Economic Inequality

The impact of the socio-economic milieu of the child on education is a well known fact, which has already been strongly verified by our findings. This impact is even more clearly shown on the following Graphs (Graphs 6.5, 6.6 and 6.7) that point to relative deviations from average attendance of the given educational level (pre-school, primary, secondary and tertiary level) depending on the type of settlement, education of the head of household and economic status of the household. As the graphs clearly show, education level of the head of household is a factor which is much more important than characteristics of the settlement or economic status of the household (particularly in case of pre-school and tertiary education). This also illustrates the closed circle of educational deprivation.

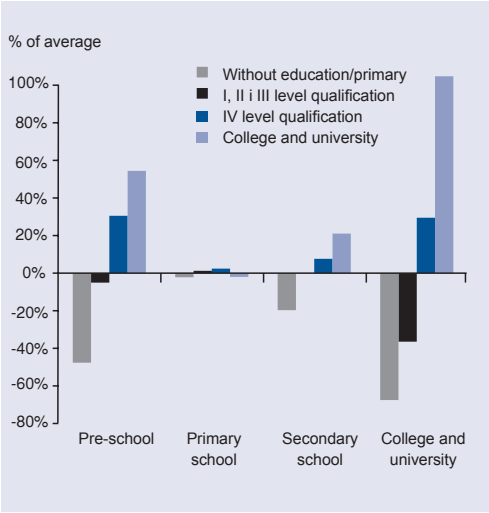
6.5 Tertiary Education

College and university education includes colleges, academies and faculties. The length of studies at academies and faculties is at least 4 years, and 2-3 years at colleges.

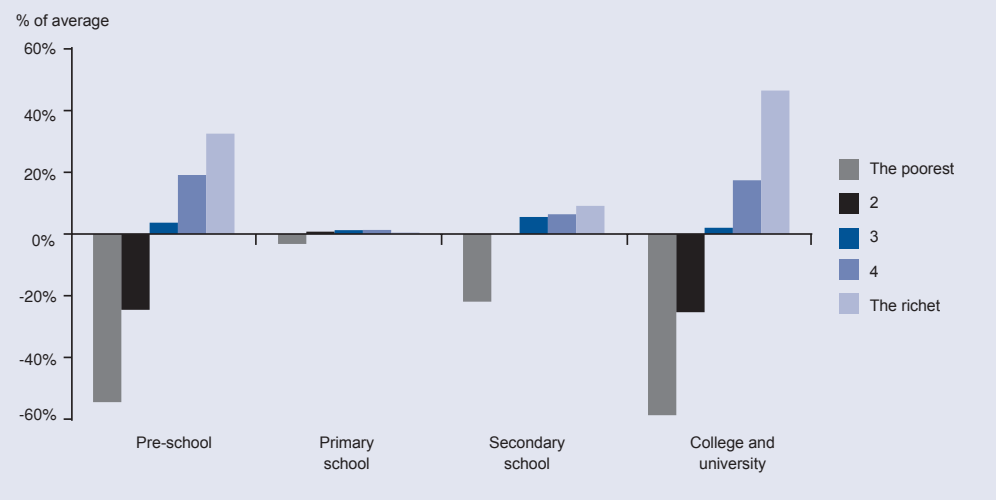
Graph 6.5 School Attendance, Relative Differences with Respect to Type of Settlement, 2002



Graph 6.6 School Attendance, Relative Differences with Respect to Education Level of Household Head, 2002

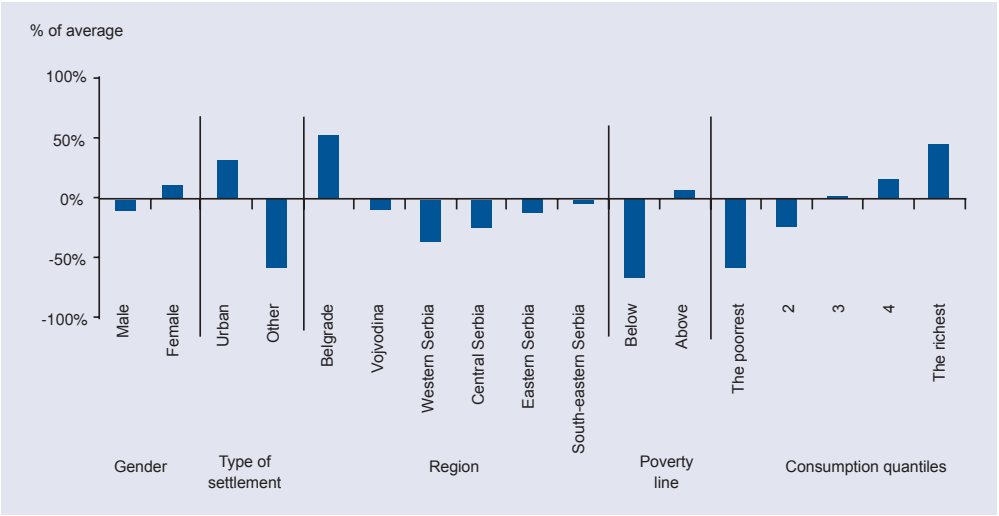


Graph 6.7. School Attendance, Relative Difference by Consumption Quantiles, 2002



A total of 34% of students aged 19 to 24 attend colleges or faculties (according to LSMS 2002). The biggest inequalities in terms of socio-economic variables occur in attendance of colleges and faculties, regardless of whether this is observed from the aspect of household consumption, type of settlement or education level of the head of household. Graph 3.8 shows some other relative deviations from the average attendance of tertiary education. It is evident that besides previously mentioned differences by type of settlement, there are also regional differences

Graph 6.8 Relative Deviations from Average Tertiary Attendance, Population Aged 19 to 25, 2002



caused by an extensive number of students who attend faculties in Belgrade, as the biggest university center in Serbia. It is interesting to note the gender-related differences – a higher percentage of females than males attend tertiary education (38% as opposed to 30%), which can be accounted for by the fact that men start working earlier and they are expected to contribute to the household budget more than women. Furthermore, only 11% of those aged from 19 to 24 below poverty line attend tertiary education. (Appendix 1.6 Education)

6.6 The Problem of Low Education among the Young Generation and Additional Training of Adults

Particularly important is the answer to the question of which segment of people in Serbia can be considered as educated less than it is necessary for life in modern society, or, in other words, what is the percentage of people who could be called "educationally poor ". There are various criteria for the definition of persons who are educationally deprived. A very frequently used criterion is the number of illiterate persons. According to 2002 Census, there are 3.6% of illiterate persons (population 15+) in Serbia[124], which indicates that this form of extreme deprivation is not widespread in Serbia. Another frequently used criterion is the percentage of population 15+ years of age who do not have a completed primary school. According to LSMS 2002 there are 18% of such persons in Serbia (the Census 2002 gives a figure of 22%). This is a very high percentage,

124 This refers to functional literacy – considered as literate persons are those with finished at least three grades of primary school, or persons who are able to write or read a short text concerning everyday life.

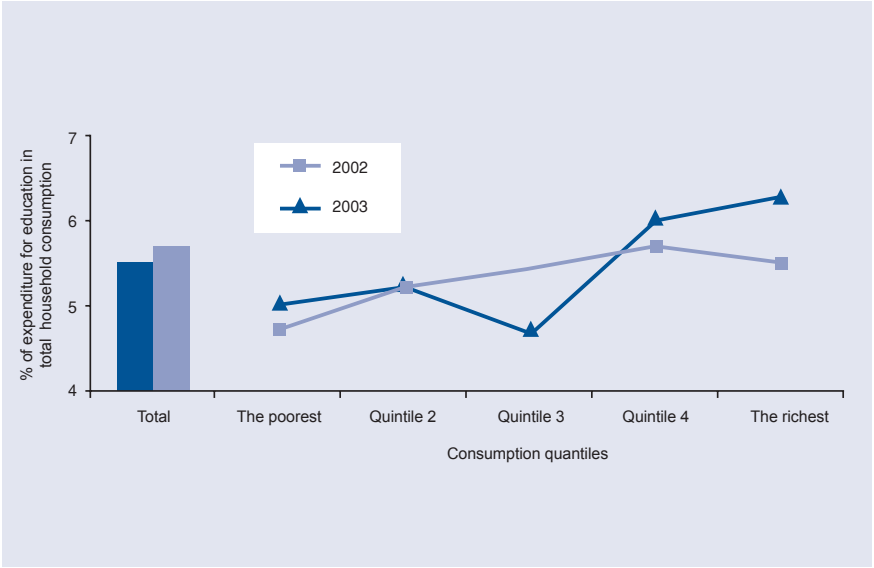
particularly having in mind that primary education is compulsory in Serbia. However, observed from the aspect of age structure, it is evident that the uneducated population are mainly older than 60 (in the group of those aged 60+ the percentage of the uneducated rises to 46%, LSMS, 2002). In the age group 15 to 60 this percentage is 7%.

A very significant indicator of the educational status of the population, to which is paid more and more attention worldwide, is the percentage of the young with low education. As it was the case in many countries, this group represents the base of the unemployed and is particularly vulnerable during the period of transition. If we take into consideration individuals aged 18 to 24, we find that in 2002 a total of 24% of this generation completed only primary school, and out of this number only 2% went through a retraining process and additional training. The most frequently given answer to the question of why they did not get any additional training was that they were planning to do so – up to 34% of the respondents gave this answer! However, as our data suggest, these young people most probably will not advance any further in their education, because additional training of adults is not a developed practice in the country, and the same is true of postponed regular education attendance. The next most often given answer was that they lacked financial means for additional training and this was stated as an obstacle by 24% of these young people. While a lack of interest in additional training was only given as the third most frequent answer (by 22% of the respondents).

Additional training of adults, as mentioned before, is a very rare phenomenon in Serbia. A total of 3.7% of the adults (15+) are involved in some form of additional training. The most frequently attended form of additional training are various courses (languages, driving, computers), and they are most present in the youngest generation, up to 30 years of age, from urban areas and from the richest households. However, training for various trades and retraining are almost non existent (less than 1% of the adults are involved in this form of additional education) particularly in the two poorest quintiles.

The following data illustrate specific skills important for life in a modern society: 23% of the population aged 15+ stated that they could speak at least one foreign language, 17% that they were computer literate and 39% that they had a driver's license. This percentage is, as expected, considerably lower among the older generation, non-urban population, as well as people from western, eastern and south-eastern Serbia, and among poorer population (only 8% of persons below the poverty line can speak a foreign language, 3% can use a computer, and 20% have driving license).

Graph 6.9. the Share of Education Expenditure in Total Household Consumption - Only Household wth Education Expenditure, 2002 - 2003



6.7 Education Expenditure

Comparison of the share of education expenditure in total household consumption recorded in 2002 and 2003 shows that there were no changes during the period of one year. (Graph 6.9) When we observe only households with education expenditure higher than 0, the share of these expenses in total consumption was 5.5% in 2002 and 5.7% in 2003.

The Graph shows that the share of education expenditure increases as we move from the poorest to the richest households. The poorer households set aside much smaller parts of their modest means for education than richer households.

In Table 6.1 expenditure for education is further analyzed. The table gives separate shares of expenditures for pre-school, primary, secondary school and university education in total household expenditure by quintiles of household living standard. It is noticeable that expenditure for pre-school and university education declines drastically among the poorest, which is logical, taking into consideration that poor households attend these two forms of education to a much lower extent. On the other hand, the share of expenditure for primary and secondary school is higher in the poorest households – these expenses are a much bigger burden for the budget of poor households than the rich ones.

Table 6.1 The Share of Expenditure for Specific Forms of Education, by Consumption Quintiles, 2002.*

	Total	Household quintile by total consumption				
		The poorest	2	3	4	The richest
Total monthly expenditure of household (in dinars)	35288	15928	22782	29943	36717	57580
Education expenditure share	5.5%	4.7%	5.2%	5.4%	5.7%	5.5%
Pre-school education expenditure share	0.6%	0.1%	0.4%	0.5%	0.5%	0.9%
Primary and secondary school expenditure share	2.7%	3.2%	3.2%	3.1%	2.7%	2.3%
Tertiary education expenditure share	2.2%	1.4%	1.6%	1.9%	2.5%	2.3%

**Households which had expenses for education in excess of 0*

Table 6.2 Average Monthly Expenditure for Specific Education Aids and Services and Average Total Monthly Expenditure for Primary and Secondary Education, by Consumption Quintiles (Per Month in Dinars) 2002

	Total	Household quintile by total consumption				
		The poorest	2	3	4	The richest
Total expenditure for primary and sec. education	1295	575	889	1171	1437	2289
Expenditure for school textbooks	186	149	166	201	208	199
Other expenses [127]	1109	426	723	970	1229	2090

**Only households that had the given expenditure*

What are the specific education expenses that are biggest burden on the budget of the poor? If we perform analysis on even more concrete data, the level of specific expenses for education aids and services in primary and secondary school, we find that the share of almost all individual expenses is reduced among the poorest – the share of expenses for transportation to school, excursions, membership fees, private tutorials. These are probably the expenses that the poorest households can give up most easily or expenses for which they have some kind of reduction. However, **expenditure for school textbooks show much less flexibility –** poor households with school age children spend an amount only 20% lower than the amount spent by average household with children in Serbia (1800 dinars as opposed to 2200 dinars per year in 2002). We can conclude that the purchase of school textbooks represents a serious burden for the poorest segment of households, particularly if we bear in mind that this purchase is not equally distributed over a period of several months, but is annual expenditure which is made each autumn.

125 Meals, transportation, excursions, field trips, membership fees, gifts for staff, etc.

6.8 Education of Children from Vulnerable Groups: From Roma Settlements and Households-Recipients of Family Income Support

The main characteristics of the Roma population from Roma settlements that are closely connected with poverty are very low level of education and low level of employment. Another important characteristic of Roma from Roma settlements is the very high percentage of children up to 18 years of age (this percentage reaches 42% in contrast to 19% in general population in Serbia). These data suggest that the issue of education of Roma is one of the key issues for understanding the depth and seriousness of their poverty.

Pre-school activities of Roma children. Generally children from Roma settlements do not attend kindergartens - just 8% of children aged 3 to 7 attend some form of pre-school institutions. These kindergartens are without exception state-owned. This percentage is 5 times lower than that for the general population (43%) and two times lower in comparison with children from the general population who live below the national poverty line (16%).

The most frequently given reason why children (aged 3 to 7) do not attend school is that the kindergarten service is too expensive (given by more than a third of Roma parents) while another third of parents state that they prefer to keep the child at home. We can see that the importance of various reasons significantly differs in comparison with the general population. The distance of pre-school institution and low quality of service are almost never given as reasons.

School attendance for Roma children. Only 56% of children from Roma settlements aged 7 to 14 attend school. Although primary school education in Serbia is compulsory by law, it is obvious that children from Roma settlements face numerous obstacles in exercising this right. The percentage of children who attend school at the age of 7 to 10 (the first four grades of primary school) is 65% (of whom 8% attend special schools for mentally handicapped children), whereas at the age of 11 to 14 this percentage is 46%.

Children from Family Income Support recipient households. A total of 17% of children from these households attend kindergarten. The most frequently stated reason why a child does not attend preschool is that the services are too expensive (26% of caretakers of children who do not attend kindergarten). A total of 80% attend primary school, while 36% of children of relevant age attend secondary school. Parents of

children aged 7 to 14 also stated that lack of financial means is the most frequent reason why their child is not attending school (58%). Only 5% of persons aged 19 to 24 are involved in college or university studies.

6.9 Conclusion

1. According to the LSMS, kindergarten attendance is very low in Serbia, particularly when compared to other countries in the region. Distance to kindergarten institutions emerges as a significant factor.

2. Primary education coverage is almost absolute, nevertheless, some indicators suggest that financial status does have an effect on the level of knowledge that a school child acquires.

3. A large number of children attend vocational schools. When observing one, two or three-year vocation schools which do not give a base for further education, a question is to what extent this distribution matches the needs of the market.

4. Although the educational system is designed in a way that education of all levels is available to all children, great inequalities are noticed in attendance of secondary and tertiary education depending on the social milieu of the child.

5. Expenses for textbooks are quite a great burden to poor households.

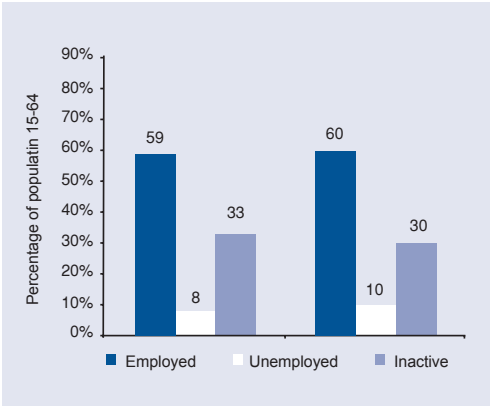
6. School non-attendance is one of the most important problems for Roma children – the population in these settlements lives in a vicious circle of poverty and lack of education.

LABOR ACTIVITY 7.

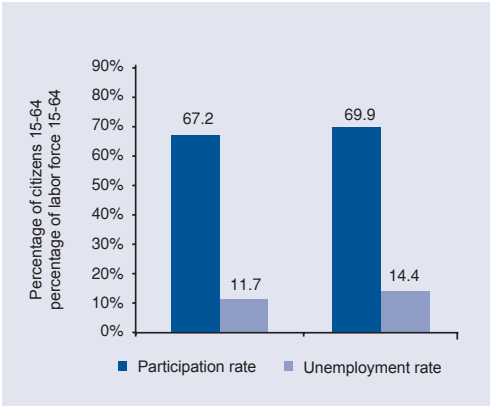
In the past 15 years transitional countries reached high economic growth and the poverty reduction in their progress towards market economy. However, most often this progress was not clearly visible from the very beginning and in the period from 1990 to 2002 poverty had more increasing than declining trend, while in the period from 1999 to 2000 it recorded a clear movement forward. Nevertheless, the process of transition has not led to expected improvements in the labour sphere. On the contrary, in many countries it led to a consistent problem of unemployment due to the collapse of economy at the beginning of transition.[126] Similarly to many other countries which are experiencing or have come out of transition, Serbia also shows general economic growth, which is most evident in the GDP growth. In movement towards market economy, privatization process has started, many companies have changed their ownership status while trying to fit into new market requirements. However, transition in Serbia is lagging behind other countries in the region due to decades of war conflicts and economic devastation. The level of GDP from 1991, most often taken as an indicator of success in the transitional process, is still beyond reach. Several questions are raised: What is Serbia's position in the process of transition? What are the effects of the started transitional process on the labour force market and who are the individuals most affected by it? Have the problems with unemployment typical for transition already emerged or are they yet to come? This is why in this chapter we will try to describe the basic trends in labour force both among the employed and the unemployed.

126 After 2000 there has been a certain increase in employment but it was not high enough to compensate previous losses and was significantly slower than the GDP growth.

Graph 7.1 Population 15-64 by Labor Activity, 2002-2003



Graph 7.2 Participation Rate and Unemployment Rate 2002-2003



**Participation rate: Ratio of the active population and working age population (aged 15 to 64)*

**Unemployment rate: Ratio of the unemployed and labour force (aged 15 to 64)*

7.1 Labour Activity and Changes in the Period of One Year

Overall economic growth in the country, most visible through the GDP growth in 2002 and 2003 did not lead to a comparable increase in employment. In the period of one year (from 2002 to 2003), the level of employment remained practically the same, while the level of unemployment increased. The participation rate according to LSMS in 2002 was 67%, and in 2003 it was as high as 70% (Graph 7.2.). This increase was primarily caused by the increase in unemployment rate from 12% to 14%.[127] In a period of one year huge labour force mobility was noticed – a large number of the unemployed in 2002 and 2003 found work, nevertheless, the reverse process has also taken place (see more details in Krstić, *Basic Poverty Indicators according to LSMS).*

7.1.1 Employment

The percentage of the employed among working age population (aged 15 to 64) remained the same for both years and amounted to 59% and 60% respectively[128]. This figure is similar to the one obtained in some other transitional countries in 2002 (Hungary – 61%, Romania – 62%, lower than the percentage in Russia – 67% and higher than in Poland – 54%)[129].

127 Discussion on the concept of unemployment in Box 7.1

128 The figures in Tables 7.1 and 7.2 referring to ILO definition according to LSMS, differ from the figures given in Graphs 7.1 and 7.2 since they monitor different age groups. Respondents aged 15+ included in the tables match the employment level in Serbia and this is the age group for which the LFS in Serbia publishes its official data. On the other hand, age group 15 to 64 matches the working age population in most countries and was taken in order to achieve easier international comparability (Graphs 7.1 and 7.2)

129 Data according to HBS and LSMS survey, Alam et al, 2005, p. 113, Rutkowski et al, 2005, pp. 75-76

Box 7.1 Basic Controversy about the Definition of Unemployment and Number of the Unemployed in Serbia

For the purpose of establishing the status of the labour force in Serbia, it is necessary to define clearly and unambiguously basic groups that this issue relates to. The division of population by labour status traditionally includes 3 exhaustive and separate categories: employed, unemployed and inactive citizens. However, there are various definitions of employment and unemployment and various institutions in fact see the unemployed as quite different groups. So, the statistics of Republic Bureau for Labour Market (in Serbian: Nacionalna služba za zapošljavanje) gives a number of 904,000 unemployed in December 2002 registered with the Bureau, while the Labour Force Survey (LFS) for the same year shows that number of the unemployed was 460 000 in 2002. Furthermore, if we look at the number of the employed according to statistics of the Republic Bureau for Labour Market for the same period we will find the figure of 1.8 million, while the LFS gives a figure of 3 million. How can this be explained?

The Republic Bureau for Labour Market defines the employed as those who are formally employed – persons with formal legal contract on their employment. The unemployed are those who are registered as unemployed with this Bureau[130] (persons who are registered with the Bureau, those without work who are actively seeking it). Regardless of this, these persons can have informal jobs and can engage in some activities which bring them some kind of income. In the second survey, the LFS the definition of International Labour Organization (ILO) is used, and this definition differs greatly from the one given by the Bureau. By this definition, the employed are those who worked at least for one hour in the previous week or those who have some kind of job that they will return to[131] and this job brings income or some other form of benefit in kind. The unemployed are all those who in the previous 4 weeks actively tried to find employment and would be willing to start working immediately if they were offered one, but who in the past week did not work. It is clear those definitions which differ to such an extent yield different data. The ILO definition offers better measurement of the informal sector and also a more precise picture of the labour market at a given date. Furthermore the ILO definition enables international comparability which is why it is becoming more and more important, both in our country and in other countries in Europe as well as worldwide. One more potential indicator of labour status of the population quite often used in surveys is self-declaration of respondents, i.e. respondents' own statement of their labour status.

In LSMS a possibility of obtaining information by using all three methods on labour status of an individual was used. The first way was by self-declaration, then there were questions required for calculation of the number of the unemployed by ILO definition and finally there was a question whether they were registered with the Unemployment Bureau. Tables 7.1. and 7.2. show percentages of employed, unemployed and inactive population in Serbia by these three data collecting methods in LSMS, as well as in comparison with LFS data and Republic Bureau for Labour Market (ZTR) data, for 2002 and 2003.

130 More details www.rztr.co.yu
131 More details webrzs.statserb.sr.gov.yu/axd/metodologije.htm

Table 7.1 Percentage of the Employed, Unemployed and Inactive in Total Population Aged 15+, 2002

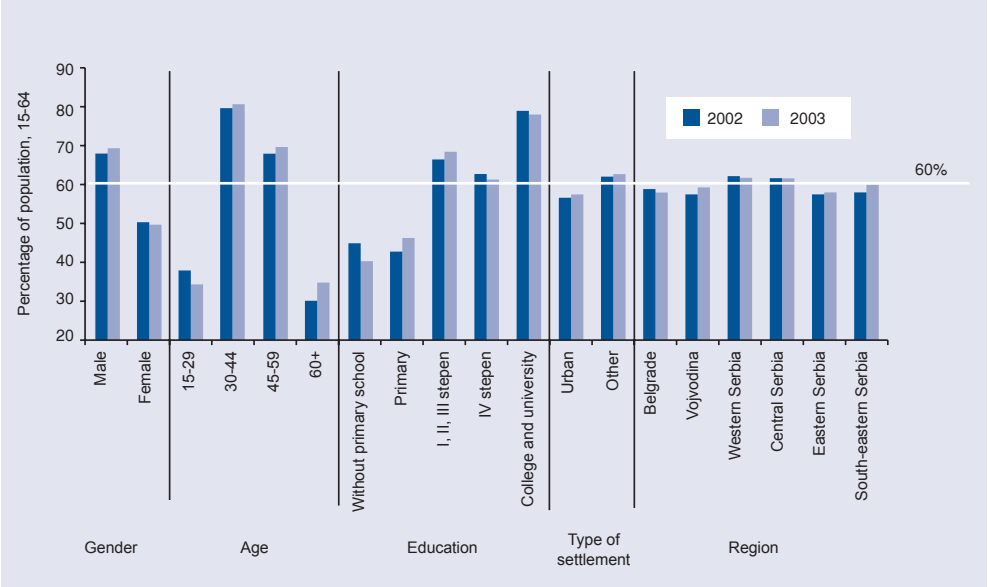
		Living Standard Measurement Study (LSMS)			Labour Force Survey (LFS)	Bureau for Labour Market (ZTR)
		Self-declaration	ILO definition	Registered with ZTR	ILO definition	ZTR definition
Population aged 15+		6315255	6315255	6315255	6315255	6315255
Employed	%	42.4	51.6		48.6	30.0
Unemployed	%	11.9	6.3	8.7	7.5	14.7
Inactive	%	45.8	42.2		43,9	
Total		100%	100%	100%	100%	

Table 7.2 Percentage of the Employed, Unemployed and Inactive in Total Population Aged 15+, 2003

		Living Standard Measurement Study (LSMS)			Labour Force Survey (LFS)	Bureau for Labour Market (ZTR)
		Self-declaration	ILO definition	Registered with ZTR	ILO definition	ZTR definition
Population aged 15+		6319182	6319182	6319182	6319182	6319182
Employed	%	42.1	50.6		47.6	29.5
Unemployed	%	11.0	7.8	9,1	8.2	15.4
Inactive	%	46.9	41.5		44.3	
Total		100%	100%	100%	100%	

As the above tables show, different definitions give different percentages of the employed, unemployed and inactive in Serbia, both in different surveys and within the same survey, i.e. LSMS. The tables also show that according to LSMS both in 2002 and 2003 the rate of unemployment measured according to ILO definition was to some extent exaggerated as opposed to results obtained in the LFS. This phenomenon is also noticeable in similar surveys (HBS and LSMS) in other countries.[132] On the other hand, the rate of unemployment is somewhat underestimated. The reason may lie in somewhat different formulation of the questions in the two surveys. Namely, the unemployed are considered to be all those who are actively seeking work. In surveys similar to LFS the respondents are asked in detail on 14 categories/ways of seeking jobs, while the LSMS formulated this question in 3 independent questions covering a total of 9 out of 14 categories. Still, it is important to notice that regardless of these differences, both surveys indicate the same trend in the same period of time - the increase in the rate of unemployment within a period of one year.[133]

Graph 7.3 Percentage of the Employed among Working Age Population, 15-64, 2002-2003



Graph 7.3 shows the percentage of the employed among working age population (aged 15 to 64). We can notice that, in terms of percentages, men are more employed than women (70% compared to 50%). A smaller percentage of the employed is noticed among the youngest and the oldest and higher education level is related to significantly higher level of employment. No significant regional differences were found. In a period of one year there was no significant change in the level of employment in any of the examined categories. The only noticeable change is a 4% decrease in the employment rate among those with lowest education – individuals without primary school education and among the youngest – those aged up to 30 (among whom the level of employment was already very low).

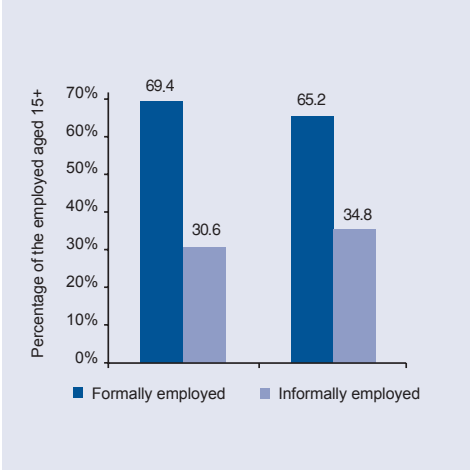
7.2 Structure of the Employed and Changes in Structure 2002-2003

As it was already discussed by Gorana Krstić in chapter *Basic Poverty Indicators* a great mobility of labour force was noticed within a period of one year, from employment towards unemployment and vice versa, and these trends represent the most important factor in positioning of

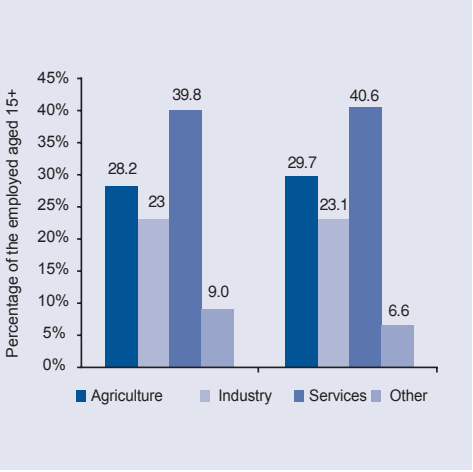
132 For more details see: Alam et al, 2005, pp. 113

133 In LSMS the number of people who registered with the Republic Bureau for Labor Market was also underestimated (9% in comparison to 15% obtained by the Bureau). The difference in figures was due to the fact that the question whether they were registered with the Bureau was answered only by those who did not have any labor activity in previous week.

Graph 7.4 Percentage of the Formally and Infomally Employed, 2002-2003



Graph 7.5 The Share of the Employed by Branch of Activity, 2002-2003



the people with respect to poverty line. Also, as Krstic stated, half of the unemployed in 2002 found work in 2003, primarily in the informal sector. However, question is what happens to those within the employed sector and whether some trends characteristic for transitional countries can be noticed. Further on, we will try to show the changes in the structure of the employed from May 2002 to May 2003.

7.2.1 Formal and Informal Employment (Grey Economy)

In 2002, a total of 69% of the employed had formal jobs while 31% were employed informally[134] (did not have regulated formal and legal employment status). In 2003 the number of the employed increased in the informal sector to 34%. This trend was in accordance with similar trends in other transitional countries.[135]

Almost half of the informal sector is related to work in agriculture, as unregistered farmers. In the informal sector, there is a slight prevalence of males, as well as those aged up to 30 and those from non-urban regions. Poorer social groups are over represented among informal sector workers. However, the main characteristic of the informal sector is the fact that it employs much more frequently those with lower education (23% of the informally employed do not have even primary school education, as opposed to 12% among all the employed).

134 LSMS examined as informally employed all those without regulated legal and formal employment – i.e. those who are not employed in registered companies or farms, do not have their own registered company or farm and insurance through their employment. The employed defined in this manner represent the measure of grey economy labor. Krstić, look at Bogićević et al, 2003, pp. 33-34

135 Rutkowski et al, 2005, pp.93

7.2.2 Branches of Activity – Agriculture, Industry and the Sector of Services

According to LSMS, in 2002 40% of all employed in Serbia worked in the sector of services, 28% in agriculture, 23% in manufacturing whereas 9% were employed in other sectors.

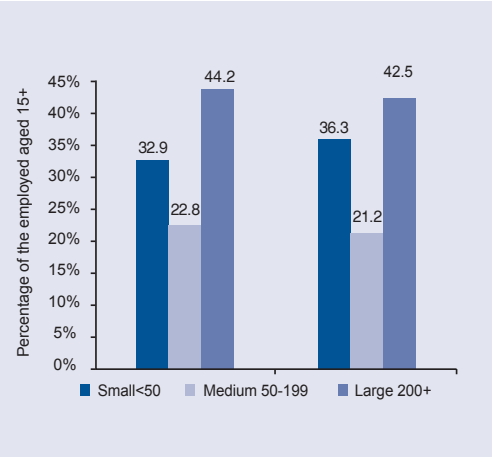
In the process of transition in countries of central and south-eastern Europe the nature of work has also changed due to the process of de-industrialization – the number of jobs in industry is falling while the number of jobs in the sector of services is increasing. A similar trend is noticed in Serbia as well. Although when we compare the share of these three branches among the employed there are no differences within the period of one year, taking into consideration the panel data[136] we can notice that the share of the employed is moving from the industrial sector into the sector of services, while the other two branches remain rather stable.

Table 7.3 Mobility of the Employed by Branches of Activity in 2002 and 2003

		Activity 2003				Total
		Agriculture	Industry	Services	Other	
Activity 2002	Agriculture	83.2%	8.5%	5.2%	3.1%	100,0%
	Industry	9.4%	69.0%	16.4%	5.2%	100,0%
	Services	3.3%	8.4%	82.2%	6.2%	100,0%
	Other	9.6%	27.4%	42.5%	20.5%	100,0%
	Total	27.0%	25.1%	41.8%	6.1%	100,0%

Panel data for the employed in 2002 and 2003. (only those who were employed in 2002 and 2003. 15+)

Graph 7.6. Percentage of the Employed in Enterprises by Enterprise Size, 2002-2003



Graph 7.7 Percenetage of the Employed by Enterprise Ownership, 2002-2003

136 The panel data were obtained for the same groups of people at two different time points – in 2002 and 2003. Look at the explanation of 2003 sample in chapter Methodology.

7.2.3 Employed in Enterprises – Mobility Depending on the Size and Ownership of Enterprise

If we take into consideration only the employed in enterprises (somewhat more than half of the total number of the employed – 56% of the employed in 2002 and 57% in 2003), we can notice that the number of the employed in small and private enterprises, which were creating new jobs, is on the increase (Graph 7.6 and 7.7), while employment in large firms and State sector, more destroying old jobs than creating new ones, is falling. However, the changes in the structure of the employed with respect to the size of enterprise in this one year are not large. The percentage of the employed in small companies increased from 33% to 36%, but this difference is not statistically significant on the level of 0.05[137]. However, the changes in the structure of the employed with respect to the ownership of enterprise are much more noticeable – the percentage of the employed in state-owned enterprises is declining from 71% to 65%, while the percentage of the employed in private enterprises (either registered or unregistered) is on the increase from 27% to 31% and both differences are statistically significant on the level of 0.05.

7.2.4 Additional Job

Additional jobs are characteristic for wage earners in state-owned enterprises and most often this refers to seasonal work at farming estates. A total of 11% of employed workers aged 15+ had additional jobs in 2002, while this percentage was 12% in 2003. The motivation for additional jobs as stated by two thirds of respondents is the need to secure their basic needs, while much less frequently the need to provide better living standards. Most often (in more than half of cases) it was a seasonal job in agriculture, on their own or someone else's farming estate. Additional jobs were also most often done by workers employed with state-owned enterprises. Also, three quarters of these workers were male, the head of household and workers between the age of 30 and 44.

We can conclude that in a period of one year almost all trends characteristic for transitional countries could be noticed: the shift from formal to informal employment, from manufacturing sector to the sector of services. Also, among the employed in enterprises restructuring of the employed in favour of small and private enterprises can be noticed.

137 Statistically significant difference on the level of 0.05 indicates that, with 95% of certainty, this data could be obtained in every future survey, i.e. that it gives a 95% certain picture of the realistic situation in surveyed population.

7.3 Employment, Poverty and the Wage Rate

7.3.1 Employment and Poverty Line

Table 7.4 shows the percentage of people aged 15+ years below the poverty line with respect to their employment status in 2002 and 2003. As expected, the persistently highest risk of poverty is noticeable among the unemployed. A certain reduction of risk of poverty among the unemployed in a period of one year (from 18% to 14%) can be noticed from the table. However, it should be stressed that this difference is not statistically significant[138].

Table 7.4 Percentage of People Below Poverty Line with Respect to Employment Status, 2002-2003

Employment status	Below poverty line 2002	Below poverty line 2003
Employed	8.7	9.5
Unemployed	17.8	13.6
Inactive	11.4	11.1
Total	10.6	10.5

Income from employment, for the majority of the population, helps them to overcome poverty, since the risk of poverty is much smaller in the group of the employed than among the unemployed and the inactive. However, although the risk of poverty among the employed is smaller than the average, it still exists. In 2002, 8.7% of the employed lived below poverty line and in 9.5% in 2003. Furthermore, the employed are the most numerous group among poor population aged 15+ (42%). The question is why there was no reduction of poverty within a period of one year among the employed, following the economic growth and growth in average wages (as we will see in next paragraph). Another important point is to establish who are the employed who did not manage to overcome poverty even though they were working.

7.3.2 Employment and the Wage Rate

Since income from basic labour activity represents the most important source of financing for the employed, it is necessary to analyze basic characteristics of income from work, i.e. wages in order to answer the previ-

138 The differences in the percentage of the poor by employment status between 2002 and 2003 are not statistically significant, so we can say that there were no changes in the percentage of the poor among the employed, unemployed and inactive.

Table 7.5 The Value of Wages in 2002 and 2003 and Real Wage Growth Rate in a Period of One Year (2002 - 2003) Deciles by Wage Value (in Dinars), Data: 2002, 2003

		Deciles by wage value									
	Total	1. decile	2. decile	3. decile	4. decile	5. decile	6. decile	7. decile	8. decile	9. decile	10. decile
Average wages 2002	8978	2147	3997	5130	6135	7258	8195	9114	10338	13350	24671
Average wages 2002 (panel data)	8551	1710	3428	4980	6013	7111	8174	9103	10320	12646	20723
Average wages 2003 (panel data)	10836	2310	4533	6069	7245	8531	10038	11764	13441	16017	27622
***Real wage growth rate**	**12.0%**	**19.5%**	**16.9%**	**7.7%**	**6.5%**	**6.1%**	**8.6%**	**14.3%**	**15.2%**	**12.0%**	**17.9%**

**Real wage growth was obtained through panel data.*

ously mentioned questions. According to LSMS data, the average wage in Serbia has increased in a year from 9,000 dinars a month to 10,900 dinars.[139] Allowing for inflation which for this year amounted to 13%, we obtain a figure which shows that the real increase in wages was 12%.[140]

Table 7.5 shows the figures for average monthly wages by deciles of wages values. By far the highest wage growth is noticed in the first, poorest decile and than in the last, 10th decile, the richest decile. Wage growth which is this high could be caused by different factors: the increase of minimal wage, the increase in wages in the state sector, more regular payments of wages, etc. However, as we mentioned before, this wage growth did not influence the reduction of poverty risk among the employed.

How do we explain this? If we observe the level of wages in the first decile, we can notice that the amount of average wages of this part of population even in 2003 remained far below poverty line (4,970 dinars) and due to this fact, the increase in wages was not sufficient to help most of the employed move above poverty. The loss of work of some other family members or other negative factors could further worsen the situation of the employed that are poor. Also, we should keep in mind that the employed are not only those individuals who receive wages. This might be one more reason which explains why the increase in wages had a weak effect on the increase in standard of the employed.

7.3.3 Wage Inequality

Wage inequality shows an increase over a period of one year. According to panel data, the value of Gini coefficient for monthly income in 2002 was

139 The wages were calculated as net income from main job. The rate of inflation in a period of one year was 1.131. The wages were calculated for the population of the employed aged 15+

140 These data highly coincide with the data released by RSO. On the basis of RSO data, real growth of net salaries in the period 2002 to 2003, on annual level was 13.6%

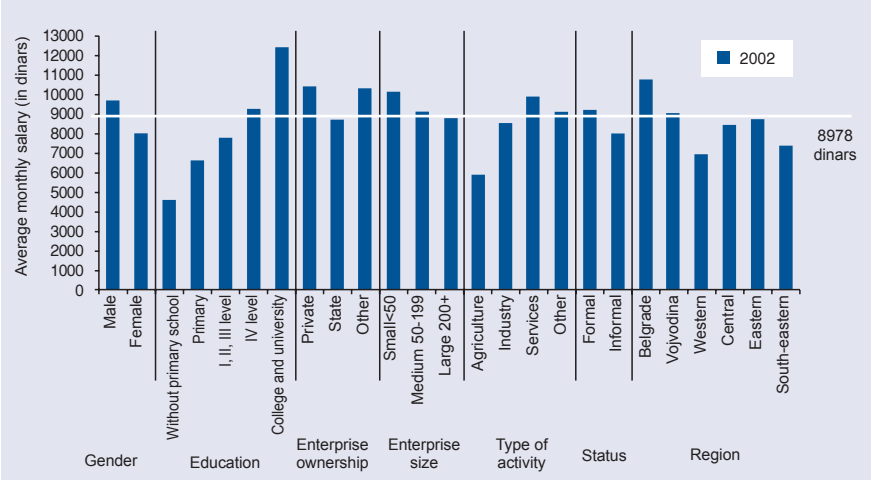
33.1 while in 2003 it was 34.0[141]. In comparison to data obtained in other central and south-eastern Europe countries, wage inequality in Serbia has average values (values for some neighbouring countries are: the Czech Republic 27.3, Slovenia 30.7, Romania 39.0, Poland 39.0, Russia 47.7).[142]

Another indicator of inequality is the quotient of wage rate 9/1 decile[143] (the quotient between the first and the ninth decile for wage rate) which in 2003 was 6.9 or in other words, the employed from the ninth decile (with almost highest income) earned 7 times more than the employed from the first decile, those with the lowest income.

Wage rate can be influenced by various factors: macroeconomic characteristics (branch of activity, geographical region, type of settlement, infrastructure, etc.), characteristics of the enterprise (size, ownership, etc.) as well as characteristics of workers (age, gender, education, position within a company, etc.). Graph 5.8 shows average salaries and wages in 2002 with respect to some of these characteristics.

If we look at demographic characteristics, the greatest differences are noticeable with respect to education – the salary for those with high education is almost three times bigger than the salary of those without primary school education and 1.5 times bigger than the salary of those with secondary education. Furthermore, with respect to age and gender, the oldest workers (over 60) have lower salaries than younger workers and women have slightly lower average salaries than men.

Graph 7.8 Average Value of Net Salaries from Basic Labor Activity in 2002, by Demographic Characteristics and Enterprise Characteristics, (in Dinars), 2002



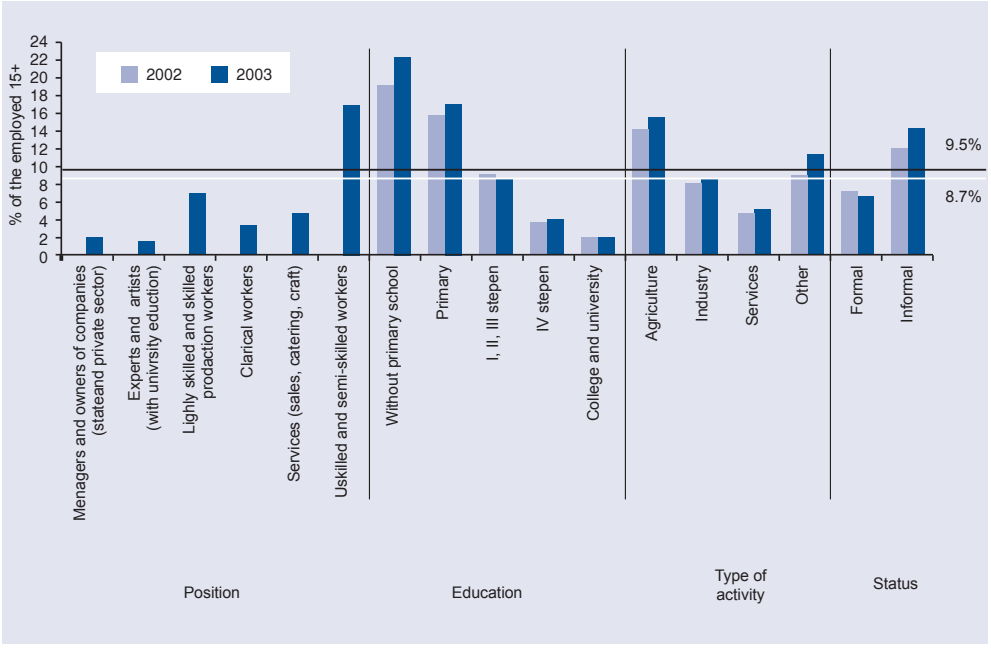
141 The difference is statistically significant 0.05
142 Mitra, Yemtsov, 2006, pp. 13. Source: UNICEF, TransMONEE Database
143 The measure of inequality, the quotient between average wage of the first and ninth decile by wage rate

Depending on the characteristics of work, the lowest salaries are in the agricultural sector whereas the highest are in the service sector. Formally employed people have slightly higher salaries than those employed informally. There are also differences with respect to the size and ownership of the enterprise: private and smaller enterprises generally provide higher salaries than state and large enterprises.

Finally, there are also some regional differences – an average salary in Belgrade is 50% higher than an average salary in western Serbia, the region with lowest salaries. What is more, salaries in urban settlements are higher by 25% than salaries in rural parts.

Since income from basic labour activity is the most important financial source for the employed, the data shown in Graph 7.9 confirm what we already said. This graph shows the indices of poverty among employed, depending on demographic characteristics and characteristics of the work. What is clearly noticed is the connection of education and poverty risks – poverty among the employed without primary school is eleven times more frequent than among those with high education! Furthermore, the index of poverty among unskilled and semi-skilled workers is almost double than the average for the employed. What can also be noticed are the big differences with respect to labour activity – those employed in agriculture have the highest index of poverty, followed by those

Graph 7.9 Percentrage of the Employed below Poverty Line, 2002-2003



employed in industry and finally those employed in the service sector. The risk of poverty is higher for workers in the informal sector, and also the risk of poverty for informally employed increased in 2003. There were no differences in poverty risk among the employed with respect to their age and gender, apart from the group of oldest workers (60+) where the poverty index is doubled. There were also no differences with respect to size and ownership of enterprise where the worker is employed.

7.4 Unemployment

According to LSMS findings, among active population aged 15 to 64, the unemployment rate in 2002 was 11.7% whereas in 2003 it increased to 14.4%.[144] The rise in unemployment in spite of the GDP growth is not surprising. This is a very serious problem in all transitional countries. For instance, in Poland and the Czech Republic unemployment rate is 19% and 18%, and in Macedonia, the country with the highest unemployment rate in the region, the percentage is 30%.[145] The unemployment rate in Serbia is similar to that found in some other countries in the region (Albania, Hungary and Bulgaria).

Graph 7.10 shows the unemployment rate among active population with respect to demographic characteristics. The first thing to note is that youth unemployment is extremely high – more than twice as big as the total unemployment rate in the country. (in 2002 - 28%, in 2003 - 33% of young, active people were unemployed). In other words a half of all unemployed are individuals aged up to 30. This situation can discourage a large number of young people and may lead to further inactivity. The situation in Serbia is similar to situation other countries in the region, where high unemployment rates among the young are noticeable, twice to three times higher than the national average.[146]

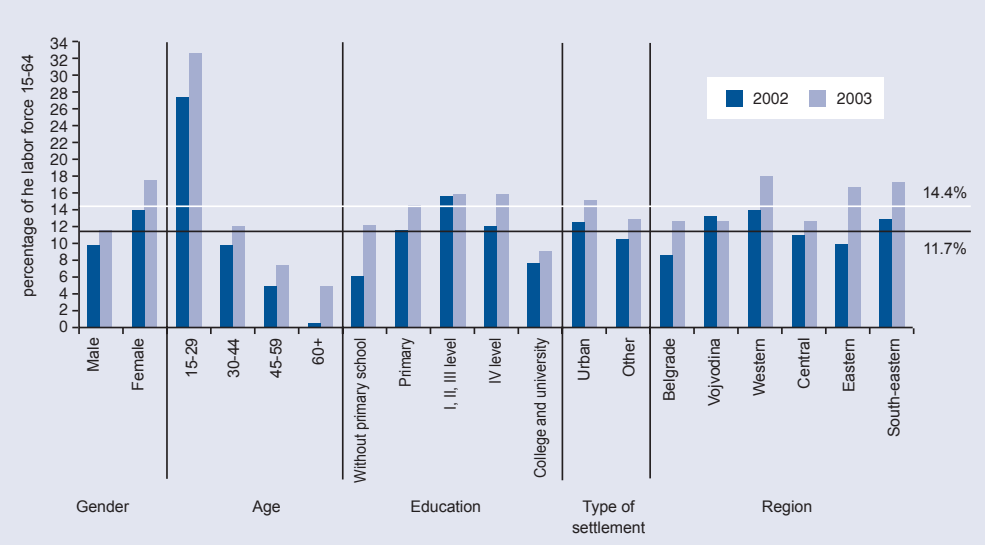
Furthermore, unemployment is higher among women, both in 2002 and in 2003. It is somehow surprising that unemployment is not at the highest level among the least educated, a trend noticed in all transitional countries[147], and besides that, all previously observed indicators (percentage of the employed, amount of salary, indicator of poverty among the employed) were highly correlated with level of education. A possible explanation is in the fact that persons with low education who

144 Statistically significant difference at 0.05 level
145 The percentages given refer to surveys based on Labor Force Survey in 2003, but since the rate of unemployment was almost identical according to LSMS, the percentages obtained are comparable. Rutkowski et al, 2005, pp. 8-10
146 Ibid, pp. 80
147 Ibid, pp. 77

are unemployed don't search for work, which is why they fall into the inactive category. This survey confirms that the unemployment rate is the highest among those with I, II and III level qualifications (16%). Unemployment is also high among urban residents. Regionally, unemployment is lower in Belgrade and in central Serbia, and higher in western, eastern and south-eastern Serbia.

Over a one year period the unemployment rate has increased rather steadily and independently of demographic characteristics. However, the highest increase was registered among the young (from 28% to 33%). Also noticeable is the significant increase in eastern Serbia, which in 2002 was a region with a lower than average unemployment while in 2003 it was one of the highest in Serbia (the unemployment rate jumped from 10% to 17%). Unemployment among those with low education is also on the increase (which is one of the characteristics of labour force mobility in the process of transition).[148]

Graph 7.10 Unemployment Rate, 2002-2003



Another important indicator is long-term unemployment. Long-term unemployment represents the number of people who have been unemployed for more than a year among the active population aged 15 to 64. Long-term unemployment is particularly serious because it brings along significant social and political consequences – it leads to a decrease in qualifications and capabilities to find new jobs, accumulation of poverty and social marginalization.

148 Ibid, pp. 77

The percentage of the long-term unemployed has been defined according to LSMS panel data (all active individuals who were registered as unemployed in both surveys). In this way we obtained the figure which shows that the percentage of long-term unemployed in Serbia in 2003 was 3.9%. If we take into consideration that the total percentage of the unemployed was 14.4%, then we come to a conclusion that 27% of the unemployed fall into the category of long-term unemployed.[149] This is a low percentage in comparison to other countries in transition for the same period (2002, 2003). However, since the process of transition has reached the advanced stage in other countries it can be expected that the percentage of long-term unemployed will increase in Serbia as well (e.g. the percentage of long-term unemployed among the employed in Poland in 2002 was 48%, in the Czech Republic – 50%, whereas these percentages five years earlier were 38% and 28% respectively[150]).

7.5 Conclusion

1. Over a period of one year (from may 2002 to may 2003) in spite of the significant GDP growth, the level of employment remained the same, while the level of unemployment increased.

2. Even in such a short period of time, the characteristics of the process of market restructuring, typical for transitional countries are striking: the nature of work is being changed. There is a mobility trend from formal to informal jobs as well as a shift from the industrial sector to the service. Among the employed in enterprises, the share of small private enterprises increased.

3. Poverty is most prominent among the unemployed. However, although it is not visible, poverty is present among the employed as well. Poverty risk among the employed is most related to education, branch of activity and type of employment (formal/informal), which also have the highest impact on the rate of salaries received.

4. Particularly striking is the problem of youth unemployment, as well as the problem of long-term unemployment which is at present a serious problem in Serbia, although Serbia is still at the beginning of the transitional process.

149 Similar figure is obtained in LFS which found that 26% of the unemployed were long-term unemployed

150 Alam et al, 2005, pp. 123-124

SOCIAL WELFARE PROGRAMS IN SERBIA 8.

A developed system of social welfare is one the basic components of a strategy against poverty. Of course the fight against poverty cannot exclusively rely on welfare systems. The most important factor in reducing poverty is economic growth which creates conditions for new jobs, higher standards of living and improves the system of social welfare through larger funds in the state budget. Although programs of social welfare cannot eradicate poverty, they are certainly a prop for the most vulnerable groups and are particularly important in the transition period when economic liberalization and privatization bring along restructuring of economy as well as an increase in prices, jeopardizing the living standard of one segment of the population. This is why in this chapter we aim to analyze the capabilities and take-up of the social welfare in Serbia in assisting the most vulnerable social groups.

8.1 Basic Programs of Social Welfare

Social welfare programs in Serbia aim to overcome "the state of social need" [151]. They are quite numerous and varied in their objectives, target groups and methods of targeting, as well as in sources of financing and institutions involved. The aid for the poor is carried out through state

151 Vuković (2005), pp. 1

institutions and NGOs. Some programs are financed directly from the republic budget, while others depend on the budget of local authorities.

The Ministry of Labour, Employment and Social Policy (earlier called Ministry of Social Affairs) is the most important and most responsible institution in carrying out government programs for assistance and aid for the poor. The system of social protection is implemented through the following state programs: 1. Financial support for families; 2. Allowance for aid and care by other individuals; 3. Assistance in job training; 4. House assistance, daily care, temporary accommodation in shelters, institutions or families: 5. Social work services; 6. Assistance for users of social protection institutions or other families. 7. One-off financial aid and various benefits for the poor (subventions for heating and electricity expenses, rents, transportation expenses).[152] Activities of the non-governmental sector, primarily humanitarian aid, are conducted through special programs, most of which are financed from donations or specially allotted funds from the budget.

Family Income Support is a kind of transfer to the poor and their families, representing the most important form of state assistance to the poor in the social protection system. Another important transfer is Child Allowance. Although up to 2002 this form of assistance was not aimed exclusively at the poor, it represents an important form of support for poor families.[153]

In 2002 recipients of Family Income Support and Child Allowance accounted for 79% of the total number of recipients of different forms of state assistance to the poor and nearly 60% of the total amount from the Republic budget aimed at financing different instruments of state assistance to the poor was spent on this program.[154]

This is why our analysis of the social welfare programs will focus primarily on Family Income Support and Child Allowance. Analysis of the social welfare program will be conducted based on LSMS with respect to the four most important indicators:

1. take-up
2. targeting
3. efficiency and adequacy of social transfers
4. adequacy.

152 Ibid, pp.1

153 Until June 2002 Child Allowance was a combined instrument of both social and population policy (since every family, regardless of its material status was entitled unconditionally to Child Allowance for the third child.) When the new law was passed, Child Allowance turned into primarily social policy instrument.

154 Bogićević, look at Bogićević et al, 2003, pp. 76

We will also show to what extent social transfers contribute to a reduction of poverty and what the average amounts of transfers given to families were in 2002. [155]

8.2 The Take-Up of Social Welfare Programs

What Percentage of the Poor Receives Some Kind of Assistance?

Social welfare programs should be aimed primarily at the poor. Therefore the first logical question is what segment of the poor population is covered by some form of social transfer.

Special attention will be paid to households below the poverty line, since social welfare programs should primarily be aimed at this segment of the population. We will also follow the incidence of social transfers in households in the first quintile of the poorest (20% of the poorest), which is adequate for materially insufficiently supported individuals[156], i.e. groups of individuals who also require social transfers.

If different forms of social assistance[157] are looked at collectively, we can find that in April/May 2002 15% of the households were covered by some form of social assistance. This percentage is significantly higher among households below poverty line and amounts to 27%, which speaks in favour of focusing social transfers primarily on the poor. However, if social transfers exclude Child Allowance (which in 2002 had general population component along with social), we can see that the number of poor recipients of social assistance in a stricter sense is significantly smaller – only 15% of the households below poverty line were recipients of these programs.

Child Allowance as the most inclusive of all social welfare programs in 2002 covered 14% of the households below the poverty line (or more precisely 33% of the households with children below the poverty line).

We can conclude that the **share of social transfers is higher among the poor than those who are not poor, but also that a very small number of the poor were covered by social programs**

155 More detailed analysis by the same indicators is given in Milanović, look at Bogićević et al, 2003

156 See the chapter on Basic Poverty Indicators according to LSMS

157 The questions in the questionnaire referred to all members of the households for the referent period of the past month with respect to the following transfers: transfers for care and assistance by other individuals, family income assistance, humanitarian aid, one-off municipal financial assistance, Child Allowance.

Table 8.1 Take-Up: Percentage of Households, Recipients of Social Welfare - among the Poor and in Total Population, 2002 and 2003

	2002			2003		
	Below poverty line~ 10%	The first quintile of the poorest=20%	Total population	Below poverty line~ 10%	The first quintile of the poorest=20%	Total population
N	659	1246	6386	237	473	2548
% of households receiving:	Col %	Col %	Col %	Col %	Col %	Col %
Social assistance (including Child Allowance)	26.9% (4.0)	23.9% (2.8)	15.1% (1.0)	24.7% (6.5)	22.2% (4.4)	13.8% (1.6)
Social assistance (excluding Child Allowance)	15.4% (3.3)	12.6% (2.2)	6.1% (0.7)	11.0% (4.7)	9.9% (3.2)	5.0% (1.0)
Family Income Support	4.7% (1.9)	3.2% (1.2)	1.1% (0.3)	4.1% (3.0)	3.3% (1.9)	1.0% (0.5)
Transfers for care and assistance by other individuals	3.3% (1.6)	2.9% (1.1)	1.7% (1.4)	4.9% (3.3)	5.4% (2.4)	2.8% (0.8)
Humanitarian aid	8.8% (2.6)	7.3% (1.7)	3.4% (0.5)	2.2% (2.2)	2.5% (1.7)	1.5% (0.6)
One-off municipal aid	1.3% (1.0)	0.9% (0.6)	0.5% (0.2)	0.4% (1.0)	0.4% (0.7)	0.1% (0.2)
Child Allowance	14.4% (3.2)	14.1% (2.3)	10.1% (0.9)	17.3% (5.7)	14.8% (3.8)	9.5% (1.4)

**Standard errors at 0.05 level of significance are given in brackets*

(only about a quarter of poor households),[158] which is the result of the low take-up of individual social welfare programs.

In April/May 2003, a similar situation was registered – 14% of households in the total population and 24% among the poor received some form of social transfer. Although there was slightly smaller coverage in 2003, this difference was not statistically significant so we cannot conclude that there has been a change in take-up of social transfers.[159]

158 What we should keep in mind is that the questionnaire did not cover all kinds of social programs, although the most important and most frequent transfers were included

159 The difference between 2002 and 2003 is not statistically important at 0.05 level

Table 8.2 Average Monthly Value of Social Transfer Given to the Poor Households and Households in Total Population, 2002

	2002		
	Below poverty line~ 10%	The first quintile of the poorest=20%	Total population
Average value of transfers:	In din	In din	In din
Social assistance (including Child Allowance)	2112	1974	1735
Social assistance (excluding Child Allowance)	2150	1810	1899
Family Income support	3310	3045	2761
Transfers for care and assistance by other individuals	2200	2166	2514
Humanitarian aid	1011	1018	1039
One-off municipal aid	1062	1154	1462
Child Allowance	1639	1589	1450

Unfortunately, the sample in 2003 was not large enough to offer more precise data on trends in social programs within a year. The standard error in 2003 for the segment of population below poverty line was very large: e.g. the take-up of Family Income Support of 3.8% has a standard error of +/-2.9%, which means that this figure replaces the values of 0.9% to 6.8% of the take-up of this assistance. With such a large standard error, we cannot compare 2002 and 2003 and talk about analyses of social welfare program in 2003. The only conclusion that can be drawn is that, based on this research, no difference was found in characteristics of social transfers in 2002 and 2003.

At this point we would like to take a look at the take-up of social programs in LSMS with respect to Administrative data.[160] In comparison to administrative data LSMS gives somewhat underestimated take-up rates of Family Income Support and Child Allowance, i.e. according to this data the take-up of Child Allowance was 16.5% and of Family Income Support was 2.1%.

When we consider an average value of social transfer distributed to the poor in 2002, we can notice that generally speaking larger sums were given to those from poor households. Family Income Support and Child Allowance deserve the credit in this case since households below poverty line received even smaller amounts in other monitored programs (assistance for care and help by other individuals, humanitarian aid and one-off municipal assistance) than the amount received by average household in Serbia. Also, **in 2002 the largest average**

160 Detailed comparison can be found in Milanović, look at Bogićević et al, 2003, pp. 48 (Serbian version of the text)

monthly amounts given to the poor were in Family Income Support – 3,310 dinars, as opposed to other forms of assistance with monthly amounts not larger than 2,200 dinars.

8.3 Targeting and Efficiency of Social Welfare Programs

When analyzing social programs it is important to identify the distribution of these programs among the poor and the non poor – what percentage of households recipients belong to the category of poor households, i.e. **the targeting of social transfers**, as well as the percentage of total financial means distributed to the poor, i.e. **efficiency** of social transfer. Tables 8.3 and 8.4 show this ratios.

How should Table 8.3 be interpreted? In 2002 out of all households that received social assistance, 18% were households below poverty line and 31% were households from the poorest quintile.

Table 8.3 Targeting: Percentage of Social Assistance Paid to the Poor, 2002

	2002		
	Below poverty line~ 10%	The first quintile of the poorest=20%	Total population
N	659	1246	6386
% of all households -recipients:			
Social assistance (including Child Allowance)	18.4%	30.9%	100%
Social assistance (excluding Child Allowance)	26.1%	40.4%	100%
Family Income Support	43.4%	56.6%	100%
Transfers for care and assistance by other individuals	20.5%	34.6%	100%
Humanitarian aid	26.8%	41.7%	100%
One-off municipal aid	25.9%	33.0%	100%
Child Allowance	14.8%	27.4%	100%

Targeting is higher when Child Allowance is excluded (if we look at social transfers without Child Allowance, in April/May 2002[161], 26% of all recipients were households below the poverty line; in the case of social assistance where Child Allowance was included, out of all recipients the poorest were represented by 18%). This was due to low targeting of Child Allowance itself (out of all households-recipients of Child Allow-

161 Respondents were asked to refer to benefits received in the previous month

ance only 15% were below the poverty line, in comparison to other programs of social assistance where at least a quarter of recipients were below the poverty line). The best targeting was registered in Family Income Support – almost half of the recipients (43%) were households below the poverty line.

A similar situation is evident in **efficiency** of material transfers, i.e. material value of social transfers given to the poor. The highest efficiency was noticed in relation to Family Income Support (more than half of the total transfers end up with those who need them most), while in other programs of social assistance less than a quarter of the amount goes to the poorest (in humanitarian aid – 26%).

Table 8.4 Efficiency: Percentage of Money Given to the Poor, 2002

	2002		
	Below poverty line~ 10%	The first quintile of the poorest=20%	Total population
N	659	1246	6386
% of total financial resources:			
All social transfers	22.4%	35.2%	100%
Social programs (excluding Child Allowance)	29.6%	41.7%	100%
Family Income Support	52.0%	62.4%	100%
Transfers for care and assistance by other individuals	18.0%	29.8%	100%
Humanitarian aid	26.1%	40.9%	100%
One-off municipal aid	18.8%	26.0%	100%
Child Allowance	16.7%	30.0%	100%

8.4 Adequacy: Significance of Social Assistance in Financing the Expenditure of Recipients

Current indicators illustrated the take-up and targeting of social assistance. Another important issue is to what extent is social assistance capable of restraining poverty in individual cases, i.e. to what extent does social assistance contribute to better living standard of individual households. Adequacy of social assistance is measured by percentage of household expenditure which can be taken as the contribution of social assistance[162]. Of course, adequacy of social assistance can only

162 Only the households which received social assistance

be monitored in poor households, since richer households on the one hand should not receive any socially assistance and on the other hand, it is logical to assume that social assistance in these households will not finance a large share of total expenditure. For the sake of comparison, we will monitor the relative increase in household expenditure enabled by social transfers to recipients below poverty line, in the first quintile of the poorest and in total population.

Table 8.5 Adequacy: Percentage of Expenditure of Recipient Households Financed by Certain Social Assistance Programs (Only the Households Which Received Social Assistance), 2002[165]

	2002.		
	Below poverty line~ 10%	The first quintile of the poorest=20%	Total population
% expenditure of recipient household which is financed:			
Social transfers	20.0%	15.6%	7.0%
Social programs (excluding Child Allowance)	26.0%	19.3%	10.3%
Family Income Support	40.6%	32.1%	18.9%
Transfers for care and assistance by other individuals	21.9%	17.9%	10.6%
Humanitarian aid	12.2%	10.2%	6.2%
One-off municipal aid	14.3%	14.6%	9.7%
Child Allowance	12.4%	10.4%	5.1%

Table 8.5 suggests that social programs increase expenditure of recipient households below poverty line by 20% in cases when all forms of social assistance are taken into consideration, including Child Allowance, or by 26% when Child Allowance is excluded. The decrease in adequacy of social transfers when Child Allowance is included in social assistance is explained by the fact that Child Allowance has a wide base of recipients (the widest of all surveyed social programs – Table 8.1), but on the other hand, its influence on individual recipients is rather low (Child Allowance itself contributes to the increase in expenditure of a single household recipient below poverty line by only 12%). Family Income Support program shows the largest adequacy in financing up to 40% of the expenditure of households recipients below poverty line.

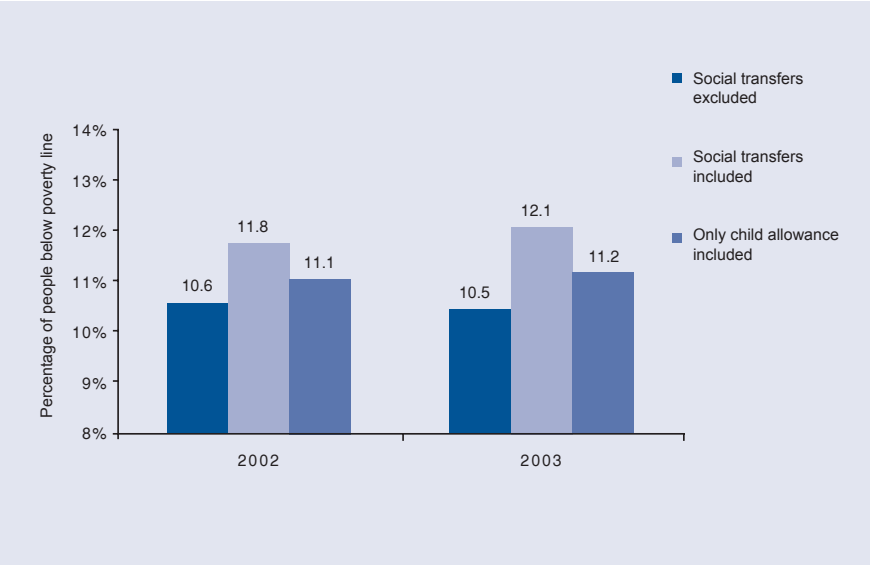
163 Values somewhat differ with respect to values in text of Milanović (Bogićević et al, 2003), since here, due to comparability with previous analyses, household consumption was taken before indexing with regional prices

8.5 Effects of Social Assistance Programs and Poverty Reduction

What Percentage of the Poor Has Overcome Poverty Due to Social Welfare Programs?

Finally, Graph 8.1 shows the estimation of number of households which have overcome poverty due to social transfers. On the whole, all surveyed social transfers (transfers for care and assistance by other individuals, family income support, humanitarian aid, one-off municipal assistance, Child Allowance) reduce poverty by one tenth in 2002, i.e. if it were not for these programs the percentage of people below poverty line would amount to 11.8% instead of 10.6% (larger by 11%). In 2003, the effect was even more significant – the percentage of people below the poverty line would be 12.1% instead of 10.5% (larger by 15%). Child Allowance itself reduces poverty rate by 5% and by 7% in 2003 (without this program, the percentage of people below poverty line would be 11.1% in 2002, and 11.2% in 2003, respectively) which confirms that **Child Allowance was a very important factor in poverty reduction in 2002**, regardless of the fact that its role was not exclusively social, **and that its importance increases even more after the changes in the policy of implementation of this social program transfer were introduced.** The importance of other programs for poverty reduction is much smaller (and does not exceed 1%).

Graph 8.1 Estimation of Number of the Poor - with Included and Excluded Social Transfers, 2002-2003

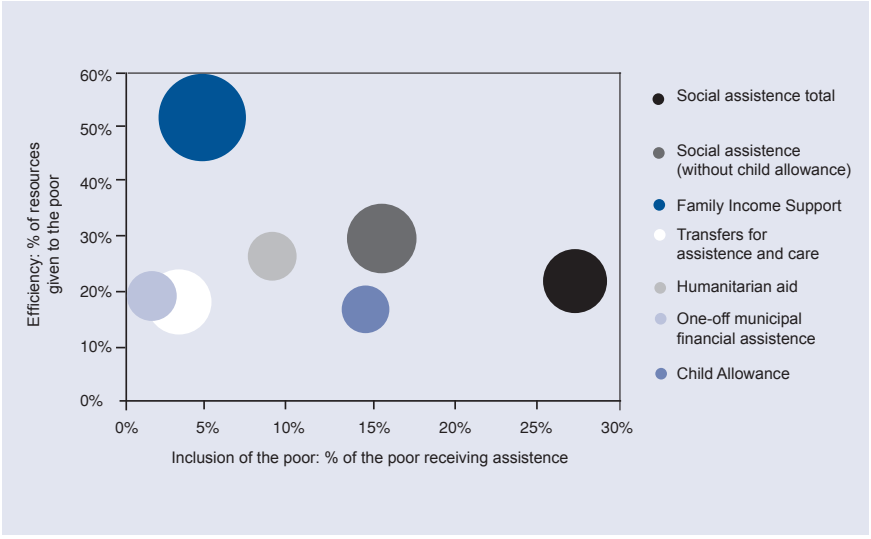


8.6 Final Analysis of Social Assistance Programs

Graph 8.2 describes surveyed programs of social assistance in terms of three important characteristics:

1. The take-up of the poor: what percentage of households below poverty line receive the given form of social assistance;
2. Efficiency: what percentage of financial resources out of each social assistance form goes to households below poverty line?
3. Adequacy: the importance of social assistance in financing expenditure of the poorest recipients (illustrated by the size of the circle) [164]

Graph 8.2 Take-Up, Efficiency and Adequacy of Transfers in Expenditure of the Poor, 2002



As the graph suggests, **the take-up of individual programs of social assistance is low,** even when all the programs are considered collectively, only about a quarter of the poor are covered by some form of social transfers. **The highest take-up by far is Child Allowance** followed by humanitarian aid.

Programs differ a lot in terms of efficiency, i.e. the rate of success in directing financial means towards the poor: the lowest efficiency is noticed in Child Allowance, one-off municipal financial assistance and transfers for care and assistance by other individuals, while **Family Income Support is extremely efficient in targeting** – more than half of the

164 More detailed analysis by the same indicators is given in World Bank, 2003, pp. 130-134

total resources of this program goes to households below poverty line. In other words, for every two dinars given to recipients of the program, one dinar goes to poor households.

The importance of given programs for poor households is reflected in the relative increase in household expenditure enabled due to this social transfer – which led us to conclude that the **highest adequacy (most significant program for household recipients) is Family Income Support which almost doubles the increase in household expenditure for those households which are recipients of this program** (40% of the household expenditure is financed by this program).

8.7 Awareness of Social Assistance Programs

A question remains: *Why doesn't a larger number of the poor receive social assistance - Family Income Support, Child Allowance, humanitarian and municipal aid?* Further analyses suggest a conclusion that awareness of social programs availability is quite low, particularly among those who are in greatest need of this form of assistance.

In 2002 a small percentage of households below the poverty line applied for the above mentioned forms of social assistance: only 8% for Family Income Support, 14% for humanitarian aid, only 3% for one-off municipal assistance. Only Child Allowance registered a significant number of applicants from households with children below the poverty line – 50%.

Looking at the first quintile of the poorest households (20% of the poorest) we can notice a similar situation: a total of 6% applied for Family Income Support, 12% for humanitarian aid, only 3% for one-off municipal assistance and 39% of households with children applied for Child Allowance. If we remember that in almost all cases, necessary but not a sufficient condition for receiving assistance is to apply for a social program (less than 1% of all the poor receive assistance without applying for it earlier), then we can conclude that the **main reason for low frequency of reception of social assistance is the low incidence of applications.**

A similar situation was seen in 2003 – a very small number of poor households applied for these forms of assistance (in the first quintile of the poorest 7% applied for Family Income Support, 6% for humanitarian aid, only 1% for municipal one-off assistance), while 54% of the households with children applied for Child Allowance.

This is why it is important to look into reasons which made such a small number of poor households apply for social assistance. Applications for Family Income Support might be a good example, since this transfer includes the question on why an applicant did not apply for this assistance.

Table 8.6 Reasons for Not Applying for Family Income Support, the Poorest 20% of the Households (The First Quintile), 2002-2003

	2002	2003
N	1186	441
I don't need it	19.9%	23.1%
I was not aware that such a program was available	34.8%	24.1%
I didn't know how to apply	16.4%	19.4%
Administrative procedure is too complicated	5.9%	7.0%
I know I am not eligible	19.1%	26.4%
I have already been receiving it	1.2%	

We will focus only on the first quintile of the poorest households. **The main reason they did not apply in 2002 was insufficient awareness that a program like this was available.** More than a third (35%) of the poor who did not apply for this program saying that the main reason was that they were not familiar with it. In 2003, in comparison to 2002, awareness was higher, but on the other hand, there was also the increase of number of those who knew that they did not meet the criteria for obtaining it. (26% of the poor in 2003 stated that they did not meet the criteria in comparison to 19% in 2002), and also the number of those who did not know how to apply. We can conclude that **within a year general awareness of this program has increased to a certain point, but the frequency of applying for it did not since poor households either did not know how to apply or thought they would be turned down.**

8.8 Family Income Support Recipients

As we mentioned before, Family Income Support represents the most important form of state assistance to the poor in the system of social protection.

This is why the 2002 survey included a booster sample of Family Income Support[165]. We will give a short explanation of this social program.

165 The booster sample of Family Income Support recipients included a total of 456 households; Additional 73 households were included in the national representative sample, which bring us to the total number of 529 households – Family Income Support recipients

Family Income Support is a form of monthly financial aid for the poor and their families who lack sufficient means to meet their basic needs. Families that meet legally required criteria are entitled to Family Income Support. The most important criterion is that their income is below the social security level.[166] Social security level is defined as the percentage of average wages[167] depending on the number of household members (e.g. in 2003 this percentage was 16% of the average wages for one-member family). Family Income Support amount represents the difference between social security level and income of an individual or a family.

Table 8.7 shows the number of Family Income Support recipients in 2002 according to data provided by Ministry of Social Affairs.

Table 8.7 Number of Recipients of Family Income Support Program in 2002

	Family Income Support1	Family Income Support2	Total
Number of recipient households	38,797	11,483	50,280
Percentage of recipient households	1.6%	0.5%	2.1%
Number of individual recipients	88,483	27,672	116,155

**Family Income Support1 are recipients financed from the budget, Family Income Support2 are recipients financed from the donations.*

8.8.1 Poverty among Family Income Support Recipients

Family Income Support program analysis has already been done along with analysis of all social welfare programs for general population. However, in order to understand the efficiency of this program, it is particularly important to establish the level of poverty among its recipients which was hard to achieve on the general population sample due to a very small share of this program. This is why we aim to provide an answer to all these questions by analyzing the booster sample of Family Income Support recipients.

Table 8.8 shows basic poverty indicators among Family Income Support recipients: index, depth and severity. Detected poverty among Family Income Support recipients in 2002 was extremely high. Two out of three Family Income Support recipients (60%) still lived below poverty line although they received this social transfer.[168] Every fifth Family Income Support recipient (18%) was extremely poor[169].

166 Detailed description of the criteria for eligibility for this form of social welfare is given in Bogićević, look at Bogićević et al, 2003, pp. 70-72

167 Since August 2001, it has been calculated with respect to average wages in Serbia, up to that time it had been calculated with respect to average wages in the municipality.

168 Consumption aggregate and poverty line were calculated in the same way as in case of Roma population. We accentuate this because consumption aggregate and poverty line in case of Roma from Roma settlements did not cover imputed rent for owners of flat/house (see: Krstić, Basic Poverty Indicators)

169 Extreme poverty is defined as total consumption lower than the value of minimal food consumer basket, which amounted to 2.083 dinars per consumer unit per month - see explanation of terms in chapter Basic Poverty Indicators

Table 8.8 Poverty Indicators for Family Income Support Recipients and Basic Population in Serbia in 2002

	% of extremely poor	% of the poor total	Depth of poverty	Poverty severity
Basic population 2002	0.5%	10.6%	2.2%	0.8%
Family Income Support recipients 2002	17.7%	59.5%	22.0%	11.1%
Family Income Support recipients (if Family Income Support program assistance excluded)*	31.4%	73.2%	33.6%	20.1%

**The table shows only recipients who claimed that they were receiving this program and stated the amount of financial aid (N=465), and recipients with difference between consumption and Family Income Support assistance higher than 0 (N=448)*

Depth and severity of poverty among Family Income Support recipients was also very high. Poverty depth amounted to 22%, which indicated, under the consumption of perfect targeting, the need to invest additional monetary funds in the amount of one fifth of the poverty line for each individual, recipient of Family Income Support program (poor and those who are not poor), in order to eliminate poverty among these individuals (so that all Family Income Support recipients are placed above poverty line). Severity of poverty, an indicator which reflects the fact that some of the poor are more severely stricken by poverty (giving them bigger weight), amounted to 11%.

In comparison to the general population, poverty among Family Income Support recipients was far more evident. Their poverty was five times more frequent than population poverty, and it was especially high in cases of extreme poverty! Furthermore, poverty among Family Income Support recipients was significantly deeper (ten times) and more severe (almost fourteen times) in comparison to the population.

This raises the question of what the situation would be like if all these households had not received Family Income Support.[170] As Table 8.8 suggests, the situation would be much more drastic – 73% would live below poverty line, depth of poverty would be 34% and severity – 20%. These indicators show that 14% of Family Income Support recipients managed to live above poverty line solely due to this support, otherwise they would be below poverty line. Since poverty severity is higher before inclusion of this transfer, we can conclude that those who were further from poverty line were covered more by this transfer.

Finally, in order to compare the data obtained from the sample of Family Income Support recipients and those obtained from total population (Table 8.5), we will once again calculate the adequacy of Family

170 In order to verify this assumption we used the similar method as in calculating adequacy, that is, the value of Family Income Support transfer of specific household was taken from the consumption of that household.

Income Support[171], this time by using the data obtained from the sample of recipients. As we mentioned before, adequacy of social assistance is measured by the percentage of household expenditure which can be taken as the contribution of social assistance, and the value obtained from the national sample in case of Family Income Support recipients below the poverty line was 40.6% (Table 8.6.). Analyses from the recipient sample give a slightly lower adequacy: Family Income Support contribution is 36.9% in the expenditure of Family Income Support recipients below the poverty line. However, it has to be stressed that this percentage is still significant and higher than the contribution of all other surveyed social programs (Table 8.5).

This analysis enables us to draw the following conclusions about the Family Income Support program in 2002:

1. Poverty was very noticeable among Family Income Support recipients, which indicates good targeting of this program (73% of the recipients would live below poverty line without this program).

2. However, poverty among Family Income Support recipients was still striking even after they received this social transfer, suggesting that this program manages to improve the living conditions of its recipients only to a certain degree.

3. However, Family Income Support manages to cover on average more than a third of household expenditure, and a significant percentage of recipients manage to overcome poverty by participating in this program.

It can be concluded that Family Income Support is extremely efficient in fighting poverty of its recipients, and this finding further supports the previous analyses of the general population.

8.9 Conclusion

1. Incidence of social transfers is larger among the poor than among those who are not poor, although a very small number of the poor is covered by the surveyed social programs (only about a quarter of poor households). The basic reason lies in the low incidence of application some of which stems from a lack of information.

2. The two most significant programs of social assistance in 2002 were Family Income Support and Child Allowance.

171 See explanation, ways of measuring adequacy and results of analysis on the national sample

3. Child Allowance in 2002 included the biggest part of the poor population, more than any other social assistance program and was a very significant factor in reducing poverty.

4. Family Income Support, although not as wide in its take-up (5% of the poor), is extremely efficient and successful in targeting – more than half of the total resources from this program goes to the households below poverty line. This program also shows the highest significance for poor households - it increases the expenditure of the poor households which are recipients of this program by one third.

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