



**Cross-sectoral cooperation focused solutions for preventing  
early school leaving project (CROCOOS)**

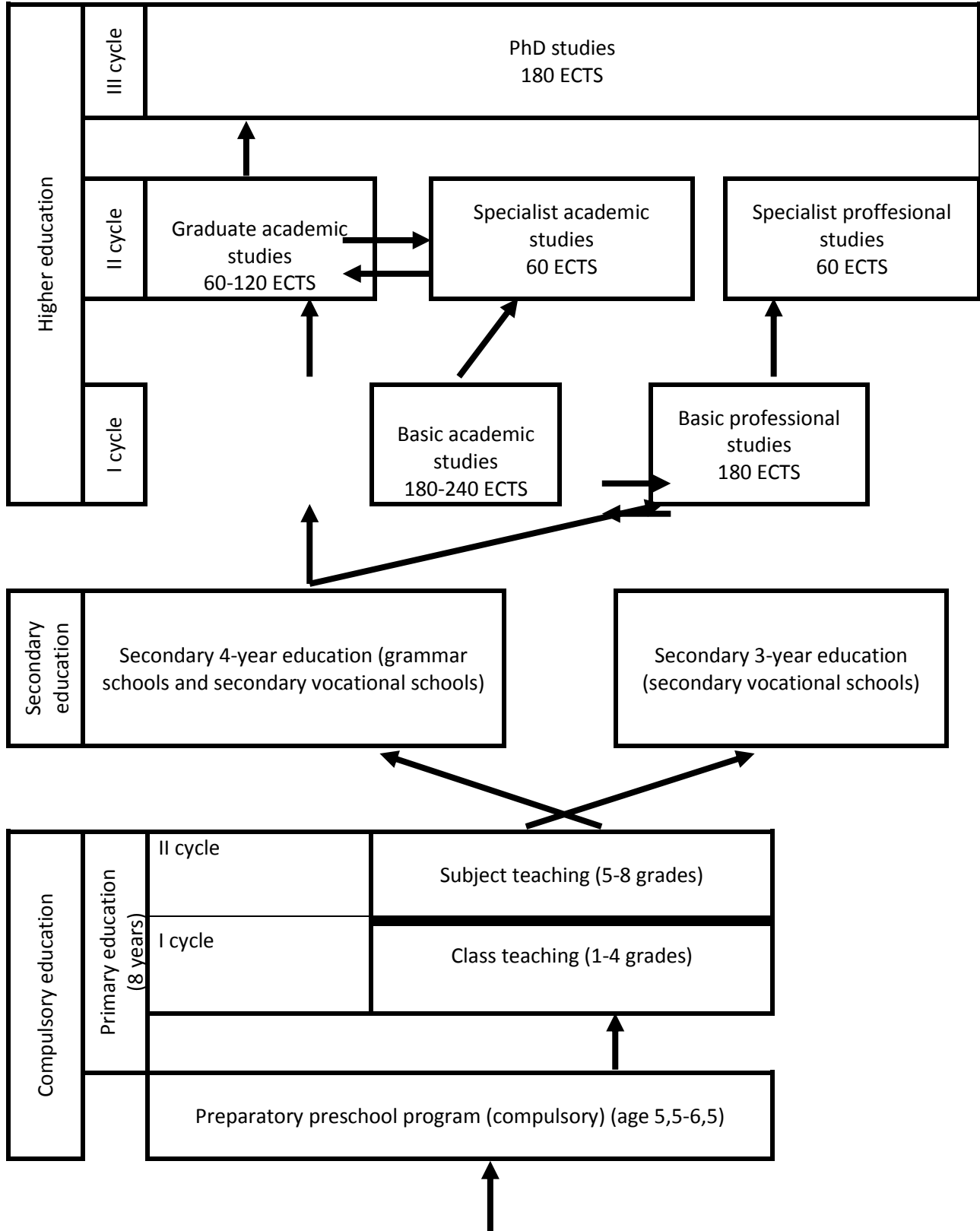
**SERBIA COUNTRY REPORT**

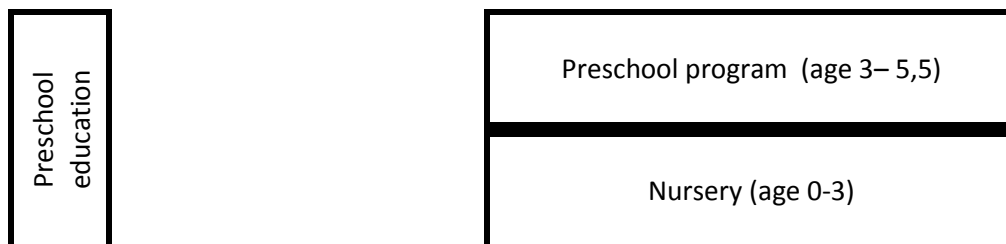
By

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# 1. Structure of the education system of Serbia





**2. What is the basis of the mainstream financial allocation to schools? If it is a normative system, what is the formula for state budget funding?**

Public sector expenditures on education include expenditures at all government levels (central, provincial and local) at all levels of education (preschool, primary, secondary and higher education), as well as expenditures not allocated by levels of education. According to European Union methodology, in 2012 the estimated public expenditures on education in the Republic of Serbia stood at 5.27% of the GDP, which is equal to the average public allocations in the EU-27 – 5.26% of the GDP.

Still, allocations are significantly lower than in the European Union in absolute terms. Public education institutions' annual expenditures per student, combined for all education levels on the basis of the FTE (*full-time equivalent number of students*)<sup>1</sup> in EU-28 stood at EUR PPS 6,914 in 2011. In the European Union, expenditures per student grow with education levels; thus, they amount to EUR PPS 5,851 in primary and EUR PPS 6,837 in secondary education. In the Republic of Serbia in 2012, public expenditures per student amounted to EUR PPS 2,449 in primary and EUR PPS 2,224 in secondary education.

The major portion of the total public expenditures earmarked for education is covered at the level of the Republic – 68.4%, followed by local governments – 31.3% and the Autonomous Province of Vojvodina – only 0.3%. In the Republic of Serbia, by education levels, 20.2% of the total expenditures on education is allocated to preschool education, 40.4% to primary education, 18.2% to secondary education and 14.5% to higher education. ( *Second National Report on Social Inclusion and Poverty Reduction in Serbia, 2014*)<sup>2</sup>.

<sup>1</sup> The unit that standardises student workload in hours studied, thereby ensuring comparability of student workload among countries, <http://www.uis.unesco.org/Pages/Glossary.aspx>

<sup>2</sup> Government of the Republic of Serbia (2014). *Second National Report on Social Inclusion and Poverty Reduction in Serbia*. Available at: <http://sociojalnoukljucivanje.gov.rs/en/second-national-report-on-social-inclusion-and-poverty-reduction-in-the-republic-of-serbia-2011-2014-adopted/>

The existing pre-university education financing model in Serbia is a normative, input-based financing. Central budget provides salaries for teaching and non-teaching staff and municipalities are responsible for providing various types of maintenance and running costs. Serbia has not introduced lump sum budgeting and education expenditures are grouped in line items.

The main funding variable is *a class* and teaching salaries are calculated individually based upon fulfilment of teaching norm per week (20 hours of active teaching). Detailed rules determine number of non-teaching staff per each school.

Introduction of per capita financing has been prescribed by the Law on Education System Foundations and planned to start in school year 2014/15. However, the implementation has been delayed and there are no clear signs that the new financing model will be applied in near future.

The current education system consists of a network of 159 public **pre-school institutions** with 2,384 facilities, founded by local governments and 60 private institutions. Other, alternative organizational forms of pre-school upbringing and education, and special programs for children, mainly implemented by private entities, non-government organizations and others, and mostly created in larger urban areas (Belgrade, Novi Sad, Niš) have not been integrated into the system so the education system does not have data on the number of children covered by these forms. There are 3.512 public **primary schools** (1.468 of 8-grades schools; 2.042 of 4 grades schools; and 2 of 6-grades schools), 7 private primary schools; and 37 public schools for primary music education. There are 498 **secondary schools**, 121 general secondary schools – gymnasiums (14 are private), 31 music schools (which are also primary), 3 ballet schools, 9 art schools where visual arts, design and artistic craftsmanship are studied (all art schools are public), and 320 vocational schools (35 of them are private).

### **3. Trend of ESL statistics during the past 10 years (preferably use EUROSTAT data or compare to the data of the EU).**

Data on early school leaving (ESL) in Serbia vary significantly due to different definitions and methodologies used. Graph 1 is representing EUROSTAT data on ESL in Serbia<sup>3</sup>, but we cannot rely on this due to serious problem with educational statistics in Serbia<sup>4</sup>. The statistical

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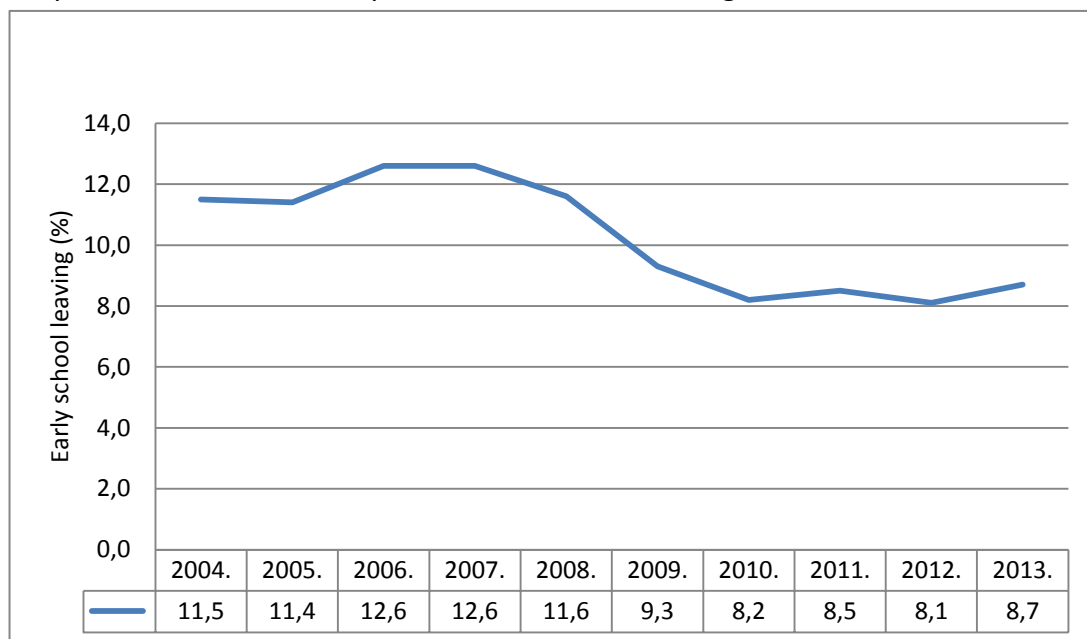
<sup>3</sup> Available at:

[http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do;jsessionid=i51l4HXD\\_TfZg2buqyIF\\_sHbY9uPcfTbxBZauFScpkMZ-U29Nps6!-1585438010](http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do;jsessionid=i51l4HXD_TfZg2buqyIF_sHbY9uPcfTbxBZauFScpkMZ-U29Nps6!-1585438010)

<sup>4</sup> See: Pešikan, 2012; Ivić i Pešikan, 2013; Pešikan i Ivić, 2009.

methodology is in the process of alignment with EUROSTAT's and integral information system in education is still not established. Available statistical data on important educational indicators is not reliable enough, particularly ESL data concerning both the national average and the data on socially vulnerable groups of children. The following is a description of ESL statistics by educational levels based on different resources and experts' analysis and estimations.

Graph 1 ESL in Serbia in the period 2004-2013 according to EUROSTAT



### Preschool education

The coverage is low and it does not meet the needs of children and families. The coverage of children of pre-school age (0.5– 6 years) in pre-school institutions is 41.36%. According to the age group, the coverage of children was as follows: children under 3 years of age made for 15%, 3-4 years old made for 34.80%, 4-5 years old made for 39.83%. Based on *Living Standards Measurement Survey*, the coverage of rural children between the ages of 3 to 5 is 14%, in case of the poorest families the coverage is 7% and 16% in case of children from families with low education level. The coverage of children with compulsory Preschool Preparatory Program (PPP) the ages of 5.5–6.5 is 92.65% of children in school year 2012/2013 (and it varied considerably by districts from 55% to 85%) so the dropout at this preparatory phase is about 7% (consisting mostly of children from vulnerable groups). So, **the full coverage has not been ensured, not even by the compulsory PPP**; the coverage is deeply unfair as the least coverage is provided to children from marginalized social groups for whom early developmental incentives are essential. The European goal is to achieve 95% coverage of children in this age group by 2020 and in Serbia there is a significant lag in comparison to the EU countries.

## *Primary education*

In the school year 2012/2013, the coverage of primary school age children by primary education was somewhat higher than the previous school year – 97.24%.<sup>5</sup> The proportion of children from the overall population enrolled in the first grade of primary school in school year 2013/2014 was 97%, whereas it was substantially lower for children from Roma settlements – 69.1%. Despite high national averages, there are significant variations in primary school coverage across regions. For example, in 4 out of 25 regions in Serbia coverage is lower than 90%.

The dropout rate during primary school is high, although there is no accurate or precise data on it. The rate of children enrolled in the fifth grade is taken as an indicator in international reports (Millennium Development Goals, Laeken indicators, EUO). When we look at the national average, the situation has improved, the dropout rate in the fifth grade has been reduced to below 1% (from 1.14% to 0.87%, MDG, 2009). However, this average obscures a serious problem of internal injustice of the system in which there is an **upward trend of dropout rates among children from vulnerable groups**, primarily of the rural and Roma children, and there appears to be a difference between the girls and boys (a 1.2% lower rate of enrollment than the boys). In 2005, around 95% of children from urban and 92% of children from rural areas went to the fifth grade (MDG, 2006), and in 2008, according to estimates, the dropout rates among rural children was 14.25% and 50 % among Roma children (MDG, 2009).

According to the Statistical office of the Republic of Serbia, the primary education dropout rate stood at 0.90% in school year 2011/2012, compared to 0.70% in school year 2012/2013.<sup>6</sup> Children who quit regular schooling most often originate from marginalized groups (the Roma). They either do not continue schooling at all or continue in schools for adult education. The highest dropout rate for the above period was recorded between the fifth and sixth grade – 3.1%, and the lowest between the third and fourth grade – 0.7%.<sup>7</sup> The rate of primary school completion in the school year 2012/2013 was 96.60%.<sup>8</sup>

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<sup>5</sup> Coverage by primary education of children of the relevant age represents a ratio of children aged 7-14 who attend primary schools and the estimated number of children aged 7-14.

<sup>6</sup> Statistical Office of the Republic of Serbia, Education Statistics. The dropout rate represents a difference between the number of students at the beginning of a school year and the number of pupils at the end. This method of calculation does not register those who dropped out between the end of one school year and the beginning of the next.

<sup>7</sup> Combined data of the Ministry of Education and SORS.

<sup>8</sup> Statistical Office of the Republic of Serbia, Education Statistics. Primary education completion rate represents a ratio of the number of pupils who finished the final (eighth) grade of primary education to the number of children of the foreseen primary education completion age.

The rate of primary education completion is about 94%, however, the methodology used for calculating this number is such that it represents how many children completed eighth grade, not how many of those who entered the first grade also completed the primary education (no monitoring of the age group). The rate of primary education completion among the children from rural areas is significantly lower (74%). The dropout rate among Roma children in primary school is very high. A large number of children from Roma settlements who enroll in primary schools fail to finish it in time. According to the data on Roma children from segregated settlements, 78% of them enroll in primary school while only 36% complete it (MICS 2014). This percentage is considerably higher for children from Roma settlements compared to children from the general population (36% versus 6.6%).<sup>9</sup> There are no reliable data on the rate of completion of primary education for children with disabilities and special needs, there are data only on children who are in the system, but not how many of them were left out of the system.

European documents emphasize that the dropout rate of children in primary education should be below 10%. The total dropout rate for primary education consists of children who do not enroll in primary education (about 2%), who do not enter the fifth grade and who do not complete primary education, which is, according to the existing reports and estimates, **between 10-15% of an age group**, keeping in mind that it is **significantly higher among children from vulnerable groups**. (The fact that children from vulnerable categories are poorly prepared for school is one of the causes for the dropout rate.) This number should be added to the percentage of children who do not enroll in secondary schools, i.e. do not continue their education, which has been about 2% in the last couple of years.

### *Secondary education*

In the recent years, the enrollment rate in secondary schools has been increasing (from 76.40% in 2005 to 81.58% in 2008), but only one quarter of students go to general secondary schools (GSS) and secondary art schools. In 2010, the coverage was 25.38% (23.35% of students in gymnasiums, and 2.03% in art schools). In Serbia, there is a much smaller proportion of general secondary school education compared to other in the other European countries (about 50%). The percentage of attendance of secondary education is lower among children from vulnerable groups – only 74% of the poorest children (68.2% of boys and 83.3% of girls) attend secondary education. As regards children from Roma settlements, 21.6% attend secondary education, specifically only 14.9% of the girls and 28% of the boys of secondary school age.<sup>10</sup>

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<sup>9</sup> Statistical Office of the Republic of Serbia and UNICEF, 2014 Serbia Multiple Indicator Cluster Survey and 2014 Serbia Roma Settlements Multiple Indicator Cluster Survey, preliminary results.

<sup>10</sup> Statistical Office of the Republic of Serbia and UNICEF, 2014 Serbia Roma Settlements Multiple Indicator Cluster Survey, preliminary results.

Students from vulnerable groups, despite their abilities, often do not have access to education in general secondary and art schools, mostly due to the poor social status of families who are unable to pay the costs of education out of their place of living (cannot pay for transport or for the child living in another place), and this type of education does not lead directly to employment, is time-consuming and requires investments. **General secondary schools are not finished by 10% of the enrolled students.** According to the official data (Statistical Office of the Republic of Serbia) dropout rate is much smaller: before completion of secondary education in three-year schools is 3.21%, and in four-year schools, 1.29% (the overall dropout rate in secondary education 1.54%). However, some other data indicates that this rate is much higher, as much as around 30% in the secondary education (Strategy of development of education in Serbia). According to the Ministry of Education and Science, **a poll conducted for the 2000–2008 age group shows that the dropout rate was 7.3%.** There is no accurate data on dropout rates in vocational schools. The percentage of **people who have not acquired the initial secondary vocational education in Serbia is 10.0%** (EUROSTAT, 2010). In contrast to these figures, the *Living Standard Measurement System* comes to the conclusion that one-fifth of children from Serbia still do not attend secondary school, especially boys and young people from socially vulnerable areas. There is no accurate data on the coverage of adults in the system of training, additional training and retraining.

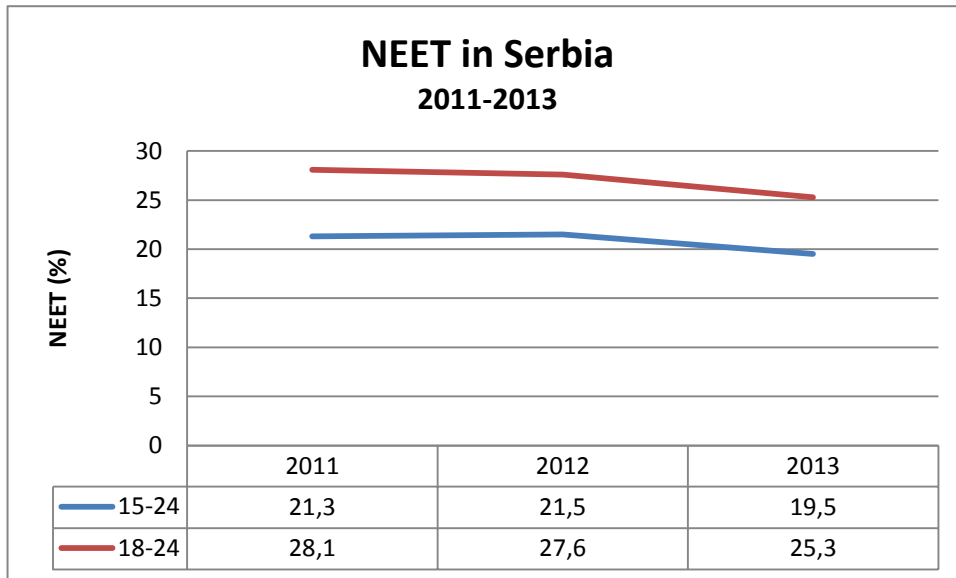
#### 4. Diagram of NEET of the past 5 years.

Diagram represents data from the *Labour Force Survey*, Statistical Office of the Republic of Serbia from 2011 to 2013 for the age spans 15-24 and 18-24. As indicated in the diagram, NEET shows slow decreasing rate in the last three years<sup>11</sup>. NEET rate is higher in the population aged 18-24, then in the population aged 15-24, presumably because the high portion of the age group 15-18 is attending secondary education.

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<sup>11</sup> Government of the Republic of Serbia (2014). *Second National Report on Social Inclusion and Poverty Reduction in Serbia*. Available at: <http://socijalnoukljucivanje.gov.rs/en/second-national-report-on-social-inclusion-and-poverty-reduction-in-the-republic-of-serbia-2011-2014-adopted/>





**5. Most relevant measures taken during the past 5 years which might affect the trends.**

Adopting *Strategy of development of education in Serbia up to 2020 and beyond 2012* by Serbian Government and Action Plan (January 2015).

**6. Is there any kind of early warning system presently applied by the educational governance or by the schools to prevent early school leaving?**

There is no early warning system presently applied by the educational governance. However, since September 2014, through the project “Combating Early School Leaving in Serbia” 10 schools in Serbia have been testing early warning system developed by UNICEF and Center for Education Policy.

**7. Is the statistical system of education and the schools’ system of data provision capable of monitoring the students on an individual level?**

No, now the system is not capable neither to monitor the age group of students (cohort) nor the students on an individual level. Although the Law on Foundations of the Education System from 2009 stipulates establishment of an integral information system in education, it has not been established yet. On the other hand, schools keep records of students, usually in paper,

which disables aggregation of data on the school, local and national level, and therefore hinder monitoring the students on an individual level.

**8. What are the educational effectiveness (participation and learning outcomes) related indicators that the external inspections of schools apply in the course of evaluation?**

External inspections of schools are not looking at the educational effectiveness. Learning outcomes are checked by some national and international assessments programs (such as PISA or TIMSS) and the final exams in the end of primary (“mala matura”- semi graduation) and secondary (“matura”-graduation) schooling. Establishing of quality assurance systems in schools is envisaged by Educational Laws and Strategy but with no full application in practice. The external evaluation of schools has started few years ago, and still is in the stage of interplay. Average grades of students in elementary and secondary schools are each year higher, and grades are inversely proportional with students’ achievement. Students’ achievement according to the external evaluations is low (according to PISA testing the most of our 15-years old student are at the level 1 or 2).

**9. Where/when does the problem of dropping out start? At what level of education is it the most significant?**

There is no reliable data on dropout in Serbia (see the question 3). There are some unsystematic data from different sources. But, the problem starts from pre-school level (low enrolment of children by preschool education, and no complete coverage by compulsory PPP). Most of the data is available for primary education. The most significant fact is that there is about 12-15% of dropout (according to experts’ estimation and analysis) from primary education that is obligatory since 1958 by Constitution and Education Act. Therefore, the right to education is threatened for some children in Serbia. Evidence show that dropout is present in all levels of education at some rate. The highest dropout rate is presented in secondary education, since the Serbia is one of the few countries where secondary education is not yet mandatory, although the Strategy for the Development of Education in Serbia until 2020 foresees the introduction of mandatory secondary education. There are large disparities in dropout rate across municipalities. Data indicate a negative correlation between municipal development levels and dropout rate.

**10. Are there any incentives for the teachers/schools to identify students at risk? What kind of measure makes them motivated or counter-motivated in this regard?**

There are neither systematic, nor explicitly stated incentives for the teachers/schools to identify students at risk. Although, primary school teachers have legal responsibility to contact parents if student does not turn out in school for two days, and if truancy prolongs for 3 more days, school has to contact local self government.

**11. What kinds of internal (within the school) methods are available, both in theory and in practice to care about students identified by the teachers as being at risk?**

Remedial teaching, Individualization and Individual Education Plan, Career orientation,

Human resources:

Pedagogical assistants, Personal assistants, School counselors, School Team for Inclusive Education, Teachers/Home-room teachers

**12. What kinds of external supportive systems (outside the school) are available, both in theory and in practice to care about students identified by the teachers as being at risk?**

Local institutions: Centre for Social Protection, Local Self-government, health institutions, Intersectorial Commissions...

Provisions: Free textbooks for students from some vulnerable groups

Primary school students are issued with free transportation when they live more than 4 km from the school or if they are students with disability, but in underdeveloped municipalities is not so easy to realize this rule.

Social cash transfers

**13. EWS initiatives in respective countries (using a matrix format or boxes to answer each question related to each initiative when there are more than one)**

In *Serbia* <http://www.cep.edu.rs/news/implementation-of-the-project-combating-early-school-leaving-in-serbia-starts/42>

The core value of the project is holistic approach which combines individualized support for the students at risk of dropout through providing measures customized to particular circumstances and students' needs, as well as continuous support to whole schools in capacity building, improvement of the school culture and cross-sectoral cooperation in order to secure sustainability of the system addressing dropout and early school leaving issues.

*By whom (person, expertise, organisation)?*

UNICEF and Centre for Education Policy in cooperation with Ministry of Education, Science and Technological Development. Project board is composed of representatives of the following institutions: Ministry of Labor, Employment and Social Protection, Ministry of Youth and Sport, Ministry of Health, National Education Council, Council for Vocational Education and Adults Education, Social Inclusion and Poverty Reduction Unit and Republic Institute for Social Protection.

*When (what level of schooling, which part of the academic year, is it recurring)?*

It will be implemented in 4 primary and 6 secondary vocational schools during the two school years (2014/2015 and 2015/2016).

*How (what data, process, tools are used)?*

Project combines universal (whole-school) and targeted measures (student at risk of dropping-out).

Universal measures aimed at changing school ethos and practices are developed on the basis of the school's SWOT analysis and on the results of the base-line study conducted in these schools by CEP. Universal measures include activities aimed setting up an early-warning system for students at risk of dropping out; improving cooperation with parents and fellow students, developing a new concept on remedial teaching; and changing the school culture so that teachers take responsibility for preventing dropout.

As for the targeted measures (based on the review of relevant international literature), CEP developed Tool for identification of students at risk of dropout. Using the Tool, teachers identified students at risk of dropping-out and developed plan and of individualized support for them. According to the individualized plans, students at the risk will be supported.

Planning and implementation of all these activities are supported by mentors.

*Why (is there a research background, legal enforcement)?*

The findings in the literature show that consequences of dropping out of school are serious and numerous, not just for students, but also for families and wider society. Since 2013, the legal framework in Serbia, for the first time, has recognized the need to address dropout related issues, prescribing that National Education Council (NEC) and Council for Vocational Education and Adults Education (CVEAE) should monitor, analyze and make recommendations to reduce the drop out of students and recommend measures for continuation of education of persons who have left the system, while schools should integrate in school development plan measures for prevention of drop out. Bearing in mind that legislation does not specify the measures, this project aims to contribute to decreasing dropout and early school leaving of children and adolescents through the development, establishment and implementation of the school based mechanisms for early identification of children at risk of dropping out and intervention

#### **14. Evaluative comments on each initiative above (using the matrix format or boxes again)**

##### *a. What works well and what doesn't?*

Pilot study is still ongoing, but despite that mentors' support to the schools proved to be effective mechanism for strengthening school capacity to recognize students at risk of ESL and to intervene. Besides that, application of the instruments for the EWIS by teachers helped to raise their awareness on risk factors for early school leaving.

##### *b. Why?*

Mentors are seen as school's valuable critical friends. They are included in each phase of the EWIS, supporting and guiding schools, as well as facilitating cross-sectorial cooperation at school level.

Teachers had to assess each student in its classroom, using the Tool for identification of students at risk of dropping out. This contributed to the raising awareness of teachers on out-of-school factors affecting students' educational achievements, as well as on their role in the prevention of dropout.

Besides that, application of the instruments for the EWIS by teachers helped to raise their awareness on risk factors for early school leaving.

##### *c. What should be done differently?*

Results of the pilot project will be available in October 2016.

##### *d. What practice should be abandoned?*

Results of the pilot project will be available in October 2016. Until now, data available do not suggest the need for abandonment of any practices.

## Acknowledgment

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