## SCHOOL PARTICIPATION IN UPPER SECONDARY EDUCATION

A challenge for the current policies in Romania


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## School participation in upper secondary education A challenge for the current policies in Romania

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## List of acronyms

NIS - National Institute of Statistics
GPI - Gender Parity Index
ISCED - International Standard Classification of Education
IES - Institute of Education Sciences
IVET - Initial Vocational Education and Training
NEET - Not in Education, Employment and Training
OOSC - Out of School Children
SAC - Schools of Arts and Crafts
EU - European Union
UIS - UNESCO Institute for Statistics
UNESCO - The United Nations Education, Scientific and Cultural Organization
UNICEF - United Nations Children's Fund

## Executive Summary

## A. Background

This study continues and complements a recent study ${ }^{1}$ conducted by UNICEF and the Institute of Education Sciences (IES), together with the Ministry of National Education Directorate for Pre-university Education and Lifelong Learning, the National Institute of Statistics and the National Authority for Protection of Child Rights and Adoption, as part of the UNICEF and UNESCO Institute for Statistics (UIS) global initiative on out of school children (OOSC) ${ }^{2}$.

While the 2012 study focused on the participation in education of primary and lower secondary age children ( $7-14$ years old), the current study reviews the situation of children of upper secondary age ( $15-18$ years old), in order to have a more complete picture of this phenomenon, covering the entire primary and secondary education levels.

On the basis of relevant statistical data collected yearly by the National Institute of Statistics, the current research aims to provide a clear picture of the status quo on education participation of children and youth in this age group and a better understanding of the situation of out of school children. As a result, the study assessed the extent of the out of school phenomenon in the case of upper secondary age children and youth, exploring their characteristics, and identifying barriers and challenges to school participation in upper secondary education.

Hence, starting from the current research report data, we will be able to better detail the profile of children of upper secondary age who are out of school or at high risk of being out of school. This allows us to move forward in the complex process of identifying and eliminating the multiple forms of exclusion these children are faced with, through more effective and targeted education policies and interventions.

## B. Methodology brief

In order to assess the degree of enrollment in upper secondary education and to estimate the number of out of school children, the research used a methodology similar to the one used for the report All Children in School by 2015. Global Initiative on Out-of-School Children. Romania Country Study. Analysing the Situation of Out of School Children in Romania (UNICEF and IES, 2012).

As already mentioned, the present study took into account the 15-18 age group as the age corresponding to upper secondary education. Also we'd like to note that we have considered

[^0]as included in the education system those children in this age group already attending postsecondary (tertiary or non-tertiary) education and those who still attend the gymnasium.

In the out of school children/youth category - as in the study on the same topic previously mentioned, but with reference to children of primary and secondary education age - we have included those who have attended school in the past but dropped out, as well as children who never attended school. Thus, in this study, the out of school children represent the difference between the total population aged 15-18 and the sum of children of the same age in the following categories: children/youth enrolled in upper secondary education, those who already attend post-secondary schools (tertiary or non-tertiary), as well as children who still attend the gymnasium.

## C. Key Findings

Within the limits of the methodology used, it was established that nearly $\mathbf{1 8 3 , 0 0 0}$ children in the 2010/2011 school year and 174,000 children in the 2011/2012 school year were not enrolled in education. These figures account for 19\% of the population aged 15-18, a percentage that remains constant throughout the two reference years.

The population of upper secondary age with the highest risk in terms of participation in education is represented by children in rural areas. The dropout rate in the 2011/2012 school year shows a high risk for pupils in rural areas: the indicator is about $30 \%$ higher in their case versus their urban peers. Grade repetition rates in the same school year, for grades 9,10 and 12 , were over $40 \%$ higher for the population of pupils in rural areas compared to those in urban areas.

The dropout rate also highlighted the existence of certain gender inequalities. The differences of about 1 pp between girls and boys place girls at an advantage (the GPI registers values of $0.73-0.75$ which signals significant gender disparities).

The dropout rate by area of residence and gender indicates (at least for the 2011/2012 school year) that the highest risk of exclusion by dropping out is associated with boys from rural areas ( $6 \%$ that year, compared to $4.7 \%$ for boys in urban areas).

In 2011, the highest percentage of out of school pupils were aged 16 (almost $85 \%$ ) and about $81 \%$ had completed lower secondary education at most. This means that a significant percentage of the out of school pupil population aged 15-18 was at risk of exclusion from education before or, at most, upon graduating gymnasium.

The nearly $\mathbf{2 0 \%}$ share of Roma children in the out of school population aged 15-18 reflects their disadvantaged position in terms of education.
More than half the out of school children surveyed worked during the week prior to the interview, nearly two-thirds being boys. However, more than $99 \%$ of them worked without a labour contract.

Where participation in education is concerned, the gross enrolment rate in upper secondary education underlines the disparities between urban and rural areas, the differences reaching 27-28 pp, which only shows that a significant share of youth in rural areas do not
attend upper secondary education. The adjusted net enrollment rate allows for the identification of certain gaps in participation to upper secondary education and between different development regions, the differences reaching 23-26 pp. The lowest value of the indicator is recorded in the North East Region, a region with a lower level of economic development, while the highest shows in Bucharest-Ilfov Region, which holds the highest level of economic development.

## D. Key recommendations

Romania has undertaken the ambitious target of curbing the early school dropout rate to $11.3 \%$ by 2020 (from $17.4 \%$ in 2012) and therefore any measures in this area should continue and develop the interventions targeting the lower levels of education (ante and preschool, primary education, gymnasium).

In parallel, given the worrying dimension of the phenomenon of exclusion from upper secondary education (through non-schooling or drop out), a series of policies and focused interventions need to be among the priorities of the Ministry of National Education.

One way to directly address the curbing of the early school dropout trend is to support coherent education policies and national programmes for preventing school dropping out in primary, lower and upper secondary education, doubled by measures designed to assist those children with limited opportunities to continue their studies beyond the $8^{\text {th }}$ grade.

Given that participation in upper secondary education is marked by significant disparities between the areas of residence, to the detriment of rural areas, the youth in these areas need support programs, both to prevent dropout and to bring them back to school. Such measures may have certain development regions as a priority target, especially those regions registering the lowest adjusted net enrollment rate (N-E, S, S-W).

The measures designed to increase quality of education should also systematically address both upper secondary education units in rural areas (for instance, by taking into account that the grade repetition rate is much higher for pupils in rural areas versus those in urban areas) and all schools that enroll a large number of children at risk: children from very poor families, Roma children, children with disabilities.

Any intervention measures should also consider the fact that boys in rural areas present the highest risk of exclusion by dropping out, this category being currently insufficiently targeted by education policies.

Just as important is the fact that the education system in Romania needs to clarify the role and status of vocational and technical education (delivered via vocational schools and technical high schools) and promote clearer mechanisms and tools for tailoring the schooling network and supply to the realities of the labor market and employer engagement.

## Introduction

The present study continues an area of research on education participation in the preuniversity system that UNICEF Romania and the Institute of Education Sciences (IES) have initiated more than 10 years ago and which has mainly focused on the situation of children at high risk of exclusion. Also, this paper represents a sequel of a recent study ${ }^{3}$, developed by UNICEF and IES, together with the Ministry of National Education - Directorate for Preuniversity Education and Lifelong Learning, The National Institute of Statistics and the National Authority for Protection of Child Rights and Adoption, as part of the UNICEF global initiative on out of school children ${ }^{4}$.

While the 2012 study focused on the education participation of children of primary and secondary education age ( $7-14$ years old), in this case we reviewed the status of children of upper secondary age (15-18 years old) to obtain a more complete picture with regard to this phenomenon, covering the entire primary and secondary education levels.

The research conducted within this approach uses a methodology for the analysis of the status of out of school children that is similar to the one used in the 2012 study, based on the model of the five dimensions of exclusion that captures multiple aspects of disparity as well as experiences related to participation in education.

Capitalizing on the analysis of certain relevant statistic indicators calculated on the basis of data collected annually by the National Institute of Statistics, our study provides a snapshot of the education participation of children within this age group and contributes to a better understanding of the situation of out of school children of upper secondary education age. We sought to evaluate the extent of the phenomenon of school non-attendance among upper secondary age children/young people, to explore some characteristics thereof, starting from the risk categories identified in the UNICEF and IES 2012 study (children from socio-economically disadvantaged families, Roma children, rural children, children with special education needs) and to identify barriers and challenges in connection with participation in upper secondary education.

When interpreting the results of this study and extrapolating, for future reference, the trends arising from the analysis, one needs to consider the successive changes that occurred in the last decade in the upper secondary education system, in general, and in the compulsory and vocational education system, in particular. It was these changes that determined the choice for this report's time frame of reference (school years 2010/2011 and 2011/2012) and for the short series of data under analysis.

At the same time, in order to have a comprehensive analysis and policy proposals that would address the identified challenges, the available data needs further complementing. Specifically, additional data (some of which are currently being collected) is required on:

[^1]- The socio-economic status of families of upper secondary age children out of school or at risk of dropping out (parents' occupational status and education level, family income, number of siblings, the legal status of the family - legally formed families, cohabitating families, families disorganized as a result of divorce or death etc.);
- The school status of upper secondary age children out of school (non-enrolment, dropout, absenteeism, school record, grade repetition and repeat retention, participation in support/recovery activities etc.);
- The individual characteristics of these children (the level of learning motivation, the level of accommodation with school life).

Despite these limitations, we believe that this study makes an important contribution to a better understanding of the officially collected data, towards improving the system of collection and analysis of data which are yet to become available and enhancing the capacity of analysis and formulation of appropriate education policies.

Hence, based on this report's research data, we will be able to outline a more detailed profile of those upper secondary school age children who are out of school or at high risk of being out of school. This way, through targeted interventions, we can make a step forward in the complex process of identifying and eliminating the various forms of exclusion these children are faced with.

## Background

After the transition to the 10 year compulsory education, implemented in the 2003-2004 school year, the configuration of the upper secondary education underwent several successive changes. Thus, after completing the eighth grade, pupils could opt for a theoretical high school, a vocational high school (which could provide access to a higher education after passing the baccalaureate exams) or a technological high school (which can provide access both to a higher education, after passing the baccalaureate exam, and to the labour market, based on the level 3 qualification certificate obtained upon graduation). Another option, valid only until the 2009/2010 school year, was to attend the SAC (School of Arts and Crafts), which provided a level 1 qualification after two years of study or a level 2 qualification (after attending an additional year). In the latter case, the opportunity to attend high school was also provided (the additional year being a progressive route).

Starting with the 2011-2012 school year, vocational education was reinstated, with a twoyear duration, from the tenth grade to the eleventh grade. This action was promoted through a national program (www.alegetidrumul.ro) and sought to offer an alternative to those who wanted to follow a path of practical education and training in a specialized accelerated vocational training program, developed in close partnership with the business environment. Enrolment in this form of education was possible after completion of the ninth grade, as the education law stipulated that primary and secondary education include 10 years, from the preparatory grade to the ninth grade.

In addition, six months internships were introduced for those pupils who graduated ninth grade in high school and wanted to gain a level 2 vocational qualification.

According to the Emergency Ordinance which amends certain provisions of the Education Law (December 2013), compulsory education includes 11 years (from the preparatory grade to the tenth grade), which makes junior high school a part of the compulsory education. Also, following this decision, the three-year vocational education is established, designed to include grades $\mathrm{IX}, \mathrm{X}$ and XI and replace the two-year vocational education. Here, too, the main supplier is represented by the technological high schools, the difference being that one no longer needs one year of high school studies before opting for this type of education.

The percentage of young people enrolled in initial vocational training programs (IVET), which covers the pupils enrolled in technological and vocational high schools, is relatively high, $63.1 \%$, compared to the European average - $50.3 \%$. This shows that for upper secondary education, the trend in recent years has been to promote education that is relevant not only for the academic path, but also for the labour market needs. The data show that IVET graduates are more likely to get employed than the general education graduates, although the employment rate of $4.1 \%$ remains lower than the European $5.6 \%$ figure.

To understand the demographic context that is specific to upper secondary education, it should be noted that in the past 10 years, according to the NIS data, the number of pupils included in the Romanian pre-university education system decreased from one year to the other. This fact is a direct effect of the demographic trends: reduced birth rate, natural
increase (and hence lower negative rate of population growth) and external migration of Romanian nationals.

Table 1. Pupil population trends, 2005-2012

|  |  | $2005 / 2006$ | $2006 / 2007$ | $2007 / 2008$ | $2008 / 2009$ | $2009 / 2010$ | $2010 / 2011$ | $2011 / 2012$ | $2012 / 2013$ |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Pre-school | Total | 648338 | 648862 | 650324 | 652855 | 666123 | 673736 | 673641 | 581144 |
| education | Urban | 320950 | 320682 | 332593 | 340394 | 352857 | 364115 | 369962 | 324288 |
|  | Rural | 327338 | 328180 | 317731 | 312461 | 313266 | 309621 | 303679 | 256856 |
| Primary | Total | 939330 | 919439 | 865175 | 859169 | 845679 | 828853 | 810126 | 931951 |
| education* | Urban | 451650 | 444696 | 418453 | 419318 | 414547 | 410576 | 407984 | 485036 |
|  | Rural | 487680 | 474743 | 446722 | 439851 | 431132 | 418277 | 402142 | 446915 |
| Lower | Total | 961231 | 922769 | 924518 | 893166 | 873997 | 862588 | 819280 | 812241 |
| secondary | Urban | 520062 | 492222 | 482133 | 462556 | 451433 | 444831 | 422467 | 418225 |
| education * | Rural | 441169 | 430547 | 442385 | 430610 | 422564 | 417757 | 396813 | 394016 |
| High-school | Total | 767543 | 778351 | 788827 | 782056 | 835343 | 864271 | 886521 | 829517 |
| education | Urban | 542784 | 543866 | 524977 | 500648 | 501650 | 492920 | 484086 | 445081 |
|  | Rural | 221759 | 234485 | 263850 | 281408 | 333693 | 371351 | 402435 | 384436 |
| Professional | Total | 284394 | 250366 | 220322 | 189234 | 115432 | 54531 | 12382 | 19732 |
| education | Urban | 144064 | 125877 | 103702 | 83836 | 51747 | 25348 | 6990 | 7064 |
|  | Rural | 140330 | 124489 | 116620 | 105398 | 63685 | 29183 | 5392 | 12668 |
| Post-high- | Total | 43596 | 37678 | 45497 | 55058 | 62538 | 69928 | 79396 | 92784 |
| school | Urban | 33286 | 29186 | 34781 | 41399 | 45835 | 52017 | 58326 | 64696 |
| education | Rural | 10310 | 8492 | 10716 | 13659 | 16703 | 17911 | 21060 | 28088 |
| Total |  | 3644432 | 3557465 | 3494663 | 3431538 | 3399112 | 3353907 | 3281346 | 3267369 |

* Includes both mass education and special education. Note: foreign pupils are not included.

Source: Data computed based on the information from NIS, 2005-2013.
In the general context of demographic trends, recent trends for high school and vocational education relevant to the situation of children aged 15-18 are contrasting. Thus, in high school education we see the most serious downward trend in the number of pupils compared to the previous year ( 829,5 thousand pupils in the 2012/2013 school year, 57,000 less than the previous year).

19,7 thousand pupils were enrolled in vocational education, during the same school year of 2012/2013 (after establishment of the practical training stages required to acquire the Level 2 vocational qualification and of the two-year vocational education), almost $60 \%$ more than in the previous year, but the percentage of pupils attending this form of education is still far from the one registered in the mid-2000s. Romania also records serious concerns regarding the early school dropout rate. 2008 marks the lowest value recorded in Romania for this indicator which reached $15.9 \%$. The economic crisis made it difficult for many families to support their children's participation in higher levels of education and training, which led to an increase of the indicator during 2008-2010 from 15.9\% (2008) to $18.4 \%$ (2010), according to the NIS. In 2012, a slight downward trend is present, as a result of the development of second-chance national education programs, along with the implementation of projects and measures designed specifically to lower this indicator, most of which were financed through POSDRU - the Sectorial Operational Programme - Development of Human Resources (according to NIS).

Table 2. Early school and vocational training dropout rate for 18-24 year olds

|  | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Target <br> 2020 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| EU | 16,1 | 15,8 | 15,5 | 15 | 14,8 | 14,3 | 14 | 13,5 | 12,8 | $\mathbf{1 0}$ |
| Romania | 22,4 | 19,6 | 17,9 | 17,3 | 15,9 | 16,6 | 18,4 | 17,5 | 17,4 | $\mathbf{1 1 , 3}$ |

[^2]Developments in recent years highlight the vulnerability of Romania in relation to this objective, given that the early school dropout rate, even if in a slight decrease compared to 2010, is still more than 7 percentage points above the target set by the EU Strategy at European level. This means that substantial institutional and financial efforts are needed in order to meet this target.

Fig. 1. Early school and vocational training dropout rate for $18-24$ year olds, 2012 comparative data


Source: Eurostat, 2013

This study is equally important for young people not currently in any form of education and training, or employment (NEET - Not in Education, Employment and Training). According to Eurostat (2013), at European level, the percentage of young people not employed and not in education or training is, in 2012, more than $13 \%$ of the EU population aged 15-24, which is almost 8 million people.

This percentage registers significant variations from one Member State to another: from under $5 \%$ in the Netherlands to over $20 \%$ in Bulgaria. In 2008-2012, Romania registered NEET percentages above the European average, most NEET youth being identified in 2011, representing $17.4 \%$ of the total population aged $15-24$, while in 2012 the percentage decreased to $16.8 \%$ - Table 3.

Table 3. Percentage of NEET youth in the 15-24 age category, by gender and level of education (2008-2012)

|  | Education level |  | 2008 | 2009 | 2010 | 2011 | 2012 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | All ISCED levels | EU 28 | 10.9 | 12.4 | 12.8 | 12.9 | 13.1 |
|  |  | Romania | 11.6 | 13.9 | 16.4 | 17.4 | 16.8 |
|  | Pre-primary, primary, lower secondary | EU 28 | 5.6 | 6.1 | 6.1 | 6.1 | 6.0 |
|  |  | Romania | 6.6 | 7.1 | 7.9 | 8.3 | 7.6 |
|  | Upper secondary, postsecondary, tertiary I, II | EU 28 | 5.2 | 6.3 | 6.6 | 6.8 | 7.1 |
|  |  | Romania | 5.0 | 6.8 | 8.6 | 9.0 | 9.2 |
| Boys | All ISCED levels | EU 28 | 9.7 | 12.0 | 12.3 | 12.5 | 12.9 |
|  |  | Romania | 8.8 | 11.2 | 14.0 | 15.9 | 15.1 |
|  | Pre-primary, primary, lower secondary | EU 28 | 5.3 | 6.1 | 6.2 | 6.2 | 6.2 |
|  |  | Romania | 4.6 | 5.2 | 6.2 | 7.6 | 6.8 |
|  | Upper secondary, postsecondary, tertiary I, II | EU 28 | 4.4 | 5.8 | 6.1 | 6.3 | 6.7 |
|  |  | Romania | 4.2 | 6.1 | 7.8 | 8.3 | 8.2 |
| Girls | All ISCED levels | EU 28 | 12.1 | 12.9 | 13.2 | 13.3 | 13.4 |
|  |  | Romania | 14.5 | 16.8 | 18.9 | 18.8 | 18.6 |
|  | Pre-primary, primary, lower secondary | EU 28 | 5.9 | 6.1 | 6.1 | 6.0 | 5.8 |
|  |  | Romania | 8.6 | 9.1 | 9.6 | 9.0 | 8.5 |
|  | Upper secondary, postsecondary, tertiary I, II | EU 28 | 6.1 | 6.7 | 7.1 | 7.3 | 7.5 |
|  |  | Romania | 5.8 | 7.6 | 9.3 | 9.8 | 10.1 |

Eurostat Data, 2013.

Starting 2010 and even 2009 in the EU, the percentage of NEET youth who graduated high school or upper education is higher than that of NEET youth who graduated lower levels of education. Girls are also more frequently placed among NEET than boys.

## Methodology

To assess the level of enrolment in upper secondary education and to estimate the number of out of school children, we used a methodology similar to that which formed the basis of the report All Children in School by 2015. Global Initiative on Out-of-School Children. Romania Country Study. Analysing the Situation of Out of School Children in Romania (UNICEF and IES, 2012.) Also the present analysis capitalises on the methodological aspects of the study Copiii care nu merg la şcoală. O analiză a participării la educație în învățământul primar şi gimnazial (UNICEF and IES, 2011) (Children out of school. An analysis of participation in primary and secondary education).

In contrast, however, here we have considered the $15-18$ age group as the age corresponding to the upper secondary level of education. When considering these ages we also took into account the fact that the amendments to the 2003 Education Law regarding the lowering of the school entry age from 7 to 6 have not significantly affected age-wise the cohorts examined in this study. Thus, we did not take the 14-17 age group as our reference because, on the one hand, these regulations have not had the desired effect (only part of the parents, especially in rural areas, chose to send their children to school at the age of 6), and on the other hand, because the generation of children who started school in 2003/2004 (including a certain percentage of 6 year olds) began their first grade of secondary education as late as 2011/2012 - the second school year subject to our present analysis.

Fig. 2. Identifying out of school children


Please note that we also considered as included in education those children in this age group already attending post-secondary (tertiary or non-tertiary) education and those who still attend the gymnasium.

In the category of out of school children/young people - as in the study on the same topic mentioned previously, but with reference to children of primary and secondary education age - we have included those who have attended school in the past but dropped out, as well as children who never attended school. Thus, in this study, the out of school children represent the difference between the total population aged 15-18 and the sum of children of the same age in the following categories: children/youth enrolled in upper secondary education, those who already attend post-secondary schools (tertiary or non-tertiary), as well as children who still attend the gymnasium.

According to the methodology established by the UIS and UNICEF report in 2005 regarding primary education ${ }^{5}$, what we call out of school children include three mutually exclusive categories, based on previous or future contact with the school: children who went to school in the past and dropped out, children who will never start school and children who will start school in the future. Given that data on young people's future intentions with regard to schooling are not currently collected in our country, reference to children/youth out of school only includes the first two categories.

The data used in this study are primarily those provided by the expert team of the National Institute of Statistics, drawn from the exhaustive surveys on the schooling of children and youth and from the exhaustive surveys on children and youth in education developed by NIS during this reports' time frame of reference (2010/2011 and 2011/2012 school years).

The definition of out of school children/youth used by the NIS in the exhaustive surveys is the following: a child of school age not included in any education or vocational program.

To highlight some of the characteristics of the out of school children and their status, we used data collected through the Household Budget Survey, 2011, conducted also by the NIS. In this survey, the definition of out of school children is as follows: the school-age population which has a different occupational status than that of pupil.

[^3]
## 1. Participation in upper secondary education. An analysis from the perspective of statistical indicators

In this chapter we will analyse the degree of enrolment in upper secondary education of upper secondary age children (those officially enrolled and attending that level), in 2010/2011 and 2011/2012 school years. Also, based on the results of this analysis, we will indirectly determine the number and percentage of children of the same age who are out of school, according to a series of characteristics. Finally, the situation and status of these children will be analysed.

### 1.1. Children enrolled in the education system

The number of children and youth enrolled in upper secondary education, regardless of age, was over 920,4 thousand in the 2010/2011 school year, and 901,1 thousand in the 2011/ 2012 school year, about $75 \%$ of which were of the official upper secondary age (Table 4).

Table 4. Number of pupils enrolled in upper secondary education, by gender

|  | Total pupils | 15-18 year old pupils |
| :--- | :---: | :---: |
|  |  | $\mathbf{2 0 1 0 / 2 0 1 1}$ |
| Male | 475941 | 348082 |
| Female | 444420 | 343974 |
| Urban | 518268 | $*$ |
| Rural | 400534 | $*$ |
| Total | 920361 | 692056 |
|  |  | $\mathbf{2 0 1 1 / 2 0 1 2}$ |
| Male | 464065 | 342797 |
| Female | 437085 | 337069 |
| Urban | 491076 | $*$ |
| Rural | 407827 | 601150 |

[^4]When analysing participation in education, the first indicator to be considered is the gross enrolment rate ${ }^{6}$. During our report time frame of reference (2010 and 2011), this indicator for upper secondary education was around $97-98 \%$, with some differences between boys and girls, in favour of the former: $97.7 \%$ for boys and $95.6 \%$ for girls in the 2010/2011 school year, and $98.8 \%$ and $97.6 \%$ in 2011/2012 (Table a-1, Annex). However, the Gender Parity Index (GPI) ranges between acceptable limits ( 0.98 in the first year and 0.99 in the following ${ }^{7}$ ).

With regard to the same indicator, important gaps are noted, however, by areas of residence, namely 28 percentage points for the 2010/2011 school year ( $111.0 \%$ versus $82.6 \%$ ) and 27 percentage points for the following school year ( $112.3 \%$ and $85 \%$ ). The increase of nearly 3 percentage points of the gross enrolment rate for rural school population is a result of the 2003 regulations on lowering the school entry age to 6 , which affected rural areas to a higher degree, as we mentioned previously. These regulations have led to an increase in the number of children who entered the first grade in the 2003/2004 school year (a certain percentage of children aged 6 joining those aged 7), and who, in 2011/2012 are included in the first grade of upper secondary education (ninth grade).

Fig. 3. Gross enrolment rate, by areas of residence


As can be observed from the data above, the gross enrolment rate in upper secondary education registers high values both overall and by gender, as well as in the urban area. For pupils studying in rural schools, the rate is significantly reduced, a sign that a significant percentage of the youth in these areas do not continue their studies in upper secondary education (some of them drop out just before completing this level).

A more detailed analysis of this indicator also allows us to observe that high percentages of pupils in secondary education, ranging from about $19 \%-21 \%$ in the total population (Table a2, Annex) exceeded the official age corresponding to this level of education. This percentage is even higher for boys, especially in the 2010/2011 school year ( $24 \%$ versus $18.9 \%$ for girls).

[^5]Exceeding the official age corresponding to upper secondary education is mainly a result of:

- certain delays in beginning school (upon enrolment in the first grade);
- grade repetition over the years of study (with significant effects on the efficiency of education);
- the return to school after discontinuing studies due to temporary dropout during different grades of primary, secondary and upper secondary education, and sometimes after secondary school graduation (also with effects in terms of efficiency of education).

The analysis by age groups of children enrolled in upper secondary education also reveals that $2.4 \%$ pupils in the 2010/2011 school year, and more than $5 \%$ in the following year (no significant gender differences) are aged 14 , as a result of starting the school at the age of 6 . By eliminating from our calculations those pupils who are older, as well as younger than the official upper secondary age, we have a net enrolment rate ${ }^{8}$ in upper secondary education of about $73-74 \%$ for the two years of reference. The net rate recorded a particular advantage of girls versus boys (about 2 percentage points).

The percentage of children attending school, by age, for upper secondary school ages ( $15-18$ years), indicates a similar situation, as well as differences in the two years of reference. Thus, if at ages 16 and 17, the percentages of children in upper secondary education are very close in 2010/2011 and 2011/2012 school years - about 78-79\% and 76$75 \%$ (a difference of less than 1 percentage point), at 15 and 18 years of age, the percentage of pupils is higher by almost 3 percentage points in 2011/2012 versus the previous year (approximately $79 \%$ versus $76 \%$ and $64 \%$ versus $61.5 \%$ ) - Table a-3, Annex.

Fig. 4. Percentage of children aged 15 and over who attend school, by levels of education, in the 2011/2012 school year


[^6]The trend observed from one year to another for the whole upper secondary school population is generally recorded also by gender, the evolution of the indicator at different ages being a similar one.

Other than certain differences between the two school years, the analysed indicator reveals more significant differences in the percentage of children enrolled in upper secondary education by age. The largest gap is recorded between the percentages corresponding to ages 15,16 and 17 (which range between $75-79 \%$ ), on the one hand, and the percentage specific to age 18, on the other hand (61-64\%). It should be noted, however, that approximately $8-10 \%$ of the 18 year old children are already enrolled in post-secondary education (post high school and higher), the percentage of their school enrolment reaching $71-72 \%$. Nevertheless, the difference between the 18 year old children enrolled in upper secondary or post-secondary schools and those aged 15 to 17 in upper secondary education remains at 4-7 percentage points. This difference is a consequence of the fact that, in the period under review, some of the children completed their secondary education upon graduation of vocational schools (which require fewer years of study than high schools), therefore at an age below 18.

The difference between ages 15,16 and 17 , on the one hand, and 18 , on the other, in terms of the percentage of enrolment in education, is also found in the analysis by gender. Thus, for girls, for ages 15,16 and 17, the percentage of enrolment in the 2 school years varies between $76-81 \%$, for age 18 being $62-64 \%$ (or $74 \%$ if we include the 18 year old girls in post-secondary education). For boys, the corresponding percentages are $73-78 \%$ and 61 $64 \%$ (or 69-70\% if we consider the boys in post-secondary education).
A certain gap between male and female population aged 15-18 and over in terms of participation in education (at any level) is found at all ages. However, as opposed to ages 15 and 16 where boys hold a slight advantage (GPI between acceptable levels), at ages 17, 18 and over 18, girls have the upper hand. At these ages, the age gap is more important, GPI ranging between 1.04 and 1.24 (outside gender parity limits).

Table 5. Enrolment rate for children aged 15-18 and over (regardless of level), by age and gender, and the Gender Parity Indices

| Age | School Years |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010/2011 |  |  | 2011/2012 |  |  |
|  | Enrolment rate |  | GPI | Enrolment Rate |  | GPI |
|  | M | F |  | M | F |  |
| 15 years | 90,2 | 90,0 | 1,00 | 90,0 | 89,6 | 1,00 |
| 16 years | 88,5 | 85,7 | 0,97 | 89,8 | 86,8 | 0,97 |
| 17 years | 74,4 | 77,2 | 1,04 | 73,3 | 76,2 | 1,04 |
| 18 years | 68,8 | 74,3 | 1,08 | 70,2 | 74,2 | 1,06 |
| 19-21 | 56,6 | 68,6 | 1,21 | 53,6 | 66,4 | 1,24 |

Source: NIS.

The data on the percentage of children enrolled in education, by age and level of education (Table a-3, Annex), also highlight the fact that 11-14\% of children aged 15 and $9 \%$ of those aged 16 still attend the gymnasium, although they are over the official age corresponding to this education level. In other words, on average, one in four pupils of high school or vocational education age is still at a lower level of education, which may indicate an increased risk of dropping out (especially for those who have exceeded by two years the theoretical age corresponding to the respective grade).

The respective percentages are higher for boys than girls: $16 \%$ at the age of 15 , versus about $12 \%$ in $2010 / 2011$, and $12.5 \%$ versus $9 \%$ in $2011 / 2012$, while at the age of $16,11 \%$ compared to $6 \%$ (equal values for the two years).

The presence of $15-16$ year old children in the gymnasium confirms the findings we formulated above, during the analysis of the gross enrolment rate, by age groups, according to which the exceeding of the official age corresponding to upper secondary education is due to certain delays in beginning school, as well as to situations of grade repetition and dropout (and return to school) during primary or secondary education. Considering that the percentage of boys in this category is higher than that of girls, it can be concluded that these phenomena occur with greater frequency during their education route.

Another indicator that measures participation in education is also the adjusted net enrolment rate. Unlike the net rate (more commonly used), when calculating this indicator which more accurately reflects current status, in addition to pupils aged 15-18 in upper secondary education, we also consider pupils in the 15-18 age group already attending postsecondary education. As can be seen from Table a-4 (Annex), the adjusted net enrolment rate, for the whole school population in the two years of reference, is about $75-76 \%$, with differences of 3 percentage points per gender, to the advantage of girls: about $74-75 \%$ for boys and $77-78 \%$ for girls. For this indicator, the calculated GPI is 1.05 and 1.04 , reflecting gender inequality.

Fig. 5. Adjusted net enrolment rate in upper secondary education, by gender


Regionally, the adjusted net enrolment rate recorded the lowest value in the North East region. Also, the South East, South and Centre regions have a lower adjusted net enrolment rate corresponding to the level of economic development. By comparison, the rate for Bucharest-llfov region is more than 20 percentage points higher, as shown in the table below, reaching almost $95 \%$.

Table 6. Adjusted net enrolment rate in upper secondary education, by regions and gender (2011/2012)

| North-East | 69.1 |
| :--- | ---: |
| South-East Dobrogea | 71.6 |
| South Muntenia | 71.4 |
| South-West Oltenia | 76.0 |
| West | 76.6 |
| North-West | 74.7 |
| Centre | 72.0 |
| Bucharest-llfov | 94.7 |

Note: Calculations of the adjusted net rate take into account both upper secondary pupils and post-secondary pupils (post high-school and higher).
Source: NIS.
In all 8 regions we also note the existence of gender differences throughout the report reference time frame, consistently favouring girls (the only exception is recorded in the year 2011/2012 in the North East Region, where the net enrolment rate for boys is higher than for girls). Thus, for the 2010/2011 school year, the adjusted net rate for boys is between $65 \%$ (North East) and $88 \%$ (Bucharest-Ilfov), compared to $70.5 \%$ and $94 \%$ for girls, while in the following school year, the extreme values recorded in the same regions mentioned above, are $73 \%$ and $93 \%$ for boys and $71.5 \%$ and over $96 \%$ for girls. Gender differences are also proven by the GPI which, in some cases, is recorded just outside the acceptable limits. This is the case for the North East and Bucharest-llfov regions where the GPI is 1.08 and 1.06 respectively, in the 2010/2011 school year, as well as the Western and Central regions where the GPI in $2011 / 2012$ is $1.05,1.04$ respectively.

The analysis of the adjusted net enrolment rate, by age, highlights the same situation as that found when analysing the indicator for the percentage of enrolment of children in upper secondary education, by age. We therefore observe, as mentioned before, that the rates were higher at ages 15-17, these varying between about 76-78\% in 2010/2011, and 75-79\% in $2011 / 2012$. At age 18, the rate, significantly lower, is about $71 \%$ and $72 \%$ respectively (Table a-5, Annex).

The gender-specific analysis of the indicator also confirms the existence of disparities based on this criterion, the GPI for all ages except age 16 being outside the gender parity, as can be seen from the data shown below.

Table 7. Adjusted net enrolment rates in upper secondary education, by age and gender, and the Gender Parity Indices

| Age | School Years |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010/2011 |  |  | 2011/2012 |  |  |
|  | Adjusted net rate |  | GPI | Adjusted net rate |  | GPI |
|  | M | F |  | M | F |  |
| 15 years | 74.3 | 78.2 | 1,05 | 77.5 | 80.8 | 1,04 |
| 16 years | 77.4 | 79.6 | 1,03 | 78.1 | 80.5 | 1,03 |
| 17 years | 74.4 | 77.2 | 1,04 | 73.3 | 76.2 | 1,04 |
| 18 years | 68.8 | 74.3 | 1,08 | 70.2 | 74.2 | 1,08 |

Source: NIS.

The analysis of one of the indicators relevant for the evaluation of participation in education - the gross enrolment rate - allowed us to highlight the presence of significant disparities between the urban and rural areas, differences reaching $27-28$ percentage points (pp) - 111$112 \%$ in urban areas, compared to $82-85 \%$ in rural areas. The significantly lower value of the gross enrolment rate for the rural population indicates the fact that a significant percentage of young people in these areas do not attend upper secondary schools.

In terms of the percentage of children enrolled in upper secondary education, by age, an important disparity is registered between the figures corresponding to ages 15,16 and 17 , on the one hand, and the one for age 18, on the other. The difference is approximately 14-15 pp . and 4.7 pp . respectively, if for age 18 we also include children already attending postsecondary education, in addition to those in upper secondary education. This difference is a result of the fact that, in the period under review, some of the children were completing their secondary education upon graduation of vocational schools, i.e. at an age below 18.

Unlike the gross rate, the percentage of enrolment in education (at any level) of children aged $15-18$ shows a certain gap between male and female population at all ages. At ages 15 and 16, boys have a slight advantage (GPI ranging within acceptable limits), and at ages 17, 18 and over 18, girls are in the lead, this time outside the boundaries of gender parity (GPI ranges between 1.04 and 1.21).

The gender inequalities favouring girls are also highlighted by the adjusted net enrolment rate in secondary education, calculated:

- both for the overall population aged 15-18 years, the differences in this case being of 3-4 pp (about $74-75 \%$ for boys and $77-78 \%$ for girls) and the calculated values of the GPI being 1.04-1.05;
- and by age: except for age 16, the GPI values fall outside the limits of gender parity, ranging from 1.04 to 1.08 .

Other disparities regarding participation in upper secondary education highlighted by the adjusted net enrolment rate are those occurring between the different development regions. The differences are up to $23-26 \mathrm{pp}$, the lowest value of the indicator recorded during the two school years being in the North East region, which has a lower level of economic development (68-69\%) and the highest in Bucharest-llfov region, which includes the capital (91-95\%).

It should also be noted that the gender differences highlighted by most of the indicators evaluating participation in education are also found at a regional level. In all of the 8 regions and over the entire reference period, the differences constantly occur in favour of girls, with one exception. The gender differences are also proven by the GPI which in some cases falls outside acceptable limits. This is the case for the North East and Bucharest-llfov regions where the GPI is 1.08 and 1.06 , respectively, in the 2010/2011 school year, as well as the Western and Central regions where the GPI in 2011/2012 is 1.05 and 1.04 respectively.

### 1.2. Out of school children of upper secondary age and the risk of exclusion

As presented at the beginning of the chapter, we considered as included in the education system both the pupils aged 15-18 attending upper secondary education and those still enrolled in lower secondary school or the youth enrolled in post-secondary education; out of school children are those children and youth who represent the difference between the total population aged 15-18 and the sum of children in the three categories mentioned before belonging to the same age group.

Thus, based on this method, it could be established that nearly 183,000 children in the 2010/2011 school year and 174,000 in 2011/2012 were not included in the education system. This accounts for $19 \%$ of the $15-18$ year old population, percentage that remains constant for the two years under analysis (Table a-6, Annex).

As for the gender differences according to this indicator, although the percentages for girls appear close to those for boys ( $19-20 \%$ for boys and $18.5 \%$ for girls), the GPI values of 0.93 and 0.95 in the two years analysed reflect important gender disparities, in favour of girls. Numerically, the difference is 11 thousand in the first year and 8,400 in the following year.

Fig. 6. Percentage of out of school children of upper secondary education age, in the 2011/2012 school year


The percentage of children out of school varies greatly by age. Thus, if at age 15 and 16 they represent about $10 \%$ and $12 \%$ respectively, at age 17 the percentage rises to $24-25 \%$, and to $28 \%$ at age 18 (Table a-6, Annex). In explaining these differences we should primarily take into consideration that the regulations in force during the reference period of time established a 10-year compulsory education, in other words children attended school until age 16. Also, during that same period of time, some of the pupils already enrolled in upper secondary education were attending the School of Arts and Crafts (vocational education) which included fewer years of study than high school, thus leaving the education system upon graduation at age 16-17.

With reference to the age differences in the percentages of out of school children, we should keep in mind that a significant share of pupils aged 15 and 16 were still attending secondary school (11-14\% and 9\% respectively). Some of them will limit their studies to the completion of this education cycle without further accessing upper secondary education, which places them, after this age, in the out of school category.

The differences between the two age subgroups (15-16 and 17-18), observed for the overall out of school population, are also found in the male and female population. In terms of gender disparities, it is more important to point out that the gap between girls and boys, in general, as mentioned above, is recorded at every age, the percentage of boys who do not attend school being lower than that for girls aged 15 and 16 and significantly higher for at ages 17 and 18 . In other words, the percentage of girls who have not completed the 10 -year compulsory education is higher than that for boys; however, the percentage of the female population who do not continue their studies in high school is lower compared to the male population.

Fig. 7. Percentage of out of school children of upper secondary education age, by age and gender, in the 2011/2012 school year


This is shown by the GPI whose values considerably exceed the acceptable limits: boys hold the upper hand at the age of 16 (1.24 to 1.29), while girls are in the lead at ages 17 and 18 (0.89 and 0.82-0.87 respectively) - Table below.

Table 8. Percentage of out of school children, by age and gender, and the Gender Parity Indices

| Age | 2010/2011 |  | 2011/2012 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |

Source: NIS.
The percentage of out of school children of upper secondary age also registers important differences in terms of the socio-economic status of the population they come from, evaluated on 5 levels/quintiles. As the results of the NIS Household Budget Survey show, this percentage is continuously shrinking from the category of children included in the first quintile, represented by the population with the lowest level of socio-economic status, to those in quintile 5 , which includes the population with the highest socio-economic level.

Table 9. Percentage of out of school children, by socio-economic and gender levels (quintiles)

|  | Quintiles |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 |
|  | 2010/2011 |  |  |  |  |
| Male | 27.3 | 11.7 | 9.5 | 11.0 | 4.9 |
| Female | 26.8 | 10.8 | 7.3 | 5.8 | 4.3 |
| Total | 27.1 | 11.3 | 8.3 | 8.4 | 4.6 |
| 2011/2012 |  |  |  |  |  |
| Male | 23.8 | 10.2 | 7.5 | 4.4 | 6.5 |
| Female | 24.7 | 11.4 | 6.5 | 4.7 | 10.8 |
| Total | 24.2 | 10.8 | 7.0 | 4.6 | 8.6 |

Source: NIS.

During the two years of reference, the differences in the percentages of out of school children belonging to quintiles 1 and 5 amount to 22 and 16 pp. respectively ( $27 \%$ versus $5 \%$ in the first year and $24.2 \%$ versus $8.6 \%$ in the second year).

Fig. 8. Percentage of out of school children by levels (quintiles) of socio-economic conditions


This trend is also maintained in the gender-specific analysis. However, here it should be pointed out that some important differences occur in certain population groups. Thus, in 2010/2011, for the population in quintile 4, the percentage of girls who do not attend school is 5 pp lower than the percentage of boys (GPI is 0.52 ), while in 2011/2012, for the population in quintile 5 , the percentage of girls out of school is higher by 4 pp than that of boys (GPI-1.66).

Fig. 9. Percentage of out of school children by levels (quintiles) of socio-economic conditions and gender, in 2010


Fig. 10. Percentage of out of school children by levels (quintiles) of socio-economic conditions and gender, in 2011


The analysis of the out of school population of upper secondary age was also conducted based on other indicators from the field of education, likely to highlight the potential risk of exclusion. A first indicator in this series is the rate of transition ${ }^{9}$ from secondary to upper secondary education. For the years analysed in the study, the value of this indicator is about 92-93\% (lower in the second year of reporting) - Table a-7, Annex. If we add to this figure the percentage of children who had to repeat the eighth grade in the previous school years (approx. $2 \%$ ), for which we believe that the transition to upper secondary education is still possible in the coming years, we obtain, by difference, a ratio of at least $5 \%$ of children at risk of exclusion, of being out of school after completing secondary school. In recent years, for the population of secondary education age, we noticed an almost $6 \%$ rate of children who did not participate in education (they dropped out during gymnasium or were never enrolled in school), and $5 \%{ }^{10}$ for the primary education cycle. Therefore, we conclude that a significant percentage of children fall out of school during the primary and secondary education cycles or their completion thereof (i.e. at ages below 15-18).

The analysed indicator - the transition rate - records insignificant differences according to gender, the indicator value for both the population groups being similar to that calculated for the total school population (about 92-93\%). These differences are below 1 pp and favour girls: $93.2 \%$ versus $92.8 \%$ in the 2010/2011 school year and $92.6 \%$ versus $91.8 \%$ in 2011/2012. Moreover, in the two years, GPI highlights gender equality (GPI is 1 and 1.01, respectively).

Another indicator in the series illustrating the risk of exclusion is grade repetition rate ${ }^{11}$. Although most of the repeat pupils continue their studies after repeating that certain grade (which requires additional education costs), there are cases where the repetition phenomenon leads to drop out and exiting of the school system. This risk is higher in cases where grade repetition occurs two or more times, for the same grade or for different grades.

[^7]For the pupils under analysis, the grade repetition rate is generally quite low. It is noted, however, that the rate decreases throughout the years of study: the highest value is recorded in the ninth grade $-1.8 \%$ in the 2010/2011 school year and $2.6 \%$ the following year (due to pupils' difficulties in adapting to specific high-school tasks and/or to the difference, in terms of quality of education, between some secondary schools, located particularly in rural areas, and high-schools located mainly in urban areas), and the lowest in the twelfth grade -$0.3-04 \%$ (Table a-8, Annex). This trend occurs both for the whole school population, as well as for the groups in urban and rural areas.

Fig. 11. Grade repetition rates in upper secondary education, by grades and areas of residence, in the 2011/2012 school year


At the same time, one can observe the increasing repetition rate in the 2011/2012 school year in relation to the previous year, especially for the first two grades of upper secondary education. This increase reaches $25 \%$ in the ninth grade (from $1.8 \%$ to $2.4 \%$ ), while for the tenth grade the rate almost triples (from $0.6 \%$ to $1.6 \%$ ). The upward trend is also visible in urban areas, but it is more obvious in rural areas: for the ninth grade the repetition rate increases by about a third in urban areas ( $2.3 \%$ versus $1.6 \%$ ), while in rural areas it doubles $-3.2 \%$ versus $1.6 \%$, then for the tenth grade it is twice and a half higher in urban areas and almost 4 times higher in the rural area.

For the other two grades of secondary education, although the repetition rate is low (below $0.5 \%$ ), the same upward trend from one year to another draws attention. Thus, in the case of the ninth grade we witness a doubling of the repetition rate, registered only in rural areas from $0.3 \%$ to $0.5 \%$ (in urban remaining at $0.4 \%$ ), while for the twelfth grade the indicator doubles in the urban area (from $0.2 \%$ to $0.4 \%$ ) and triples in the rural area ( $0.6 \%$ vs. $0.2 \%$ ).

The considerable increase of the repetition rate in the 2011/2012 school year, in general, and particularly for pupils in rural areas (as well as of the dropout rate, as shown below), is most likely a result of the measures designed to increase the number of pupils enrolled in secondary education, following the takeover of seats that belonged to the Schools of Arts and Crafts (starting the 2009/2010 school year, pupils could no longer enrol in the Schools of Arts and Crafts ninth grade, the SACs undergoing dissolution).

Fig. 12. Grade repetition rates in upper secondary education, by grades and school years


Based on the grade repetition rate analysis, one can notice that the mentioned upward trend is especially given by the evolution of the indicator values for rural population. In other words, although the data set analysed is small (only two school years), we can still say that the greatest risk of exclusion by grade repetition occurs especially for pupils from rural areas. It is worth mentioning that the data analyzed by areas of residence reflect the situation according to the areas where the schools are located (U/R) and not the areas in which the pupils reside ${ }^{12}$. Also, it should be taken into account that the number of high schools in rural areas is much lower than in urban areas: in 2012, out of a total of 1606 independent education units ( 351 high schools and 1,255 school groups in which high schools also functioned), 1335 were located in urban areas and only 271 in rural areas. In other words, data distribution rather illustrates the quality of education in urban and rural areas, respectively, and not the level of training of pupils residing in urban or rural areas.

Unlike the grade repetition rate, the dropout rate ${ }^{13}$ (another indicator for risk of exclusion) is significantly higher. Its value, on all levels of upper secondary education in the two reference years, is $4.2 \%$ (Table a-9, Annex); therefore, every year this percentage joins the category of out of school children and youth.

As in the case of the total pupil population, the analysis by gender reflects a constant dropout rate during the reference years, for both girls and boys, and hence a constant difference between the two groups analyzed according to this indicator. The approximately 1 pp difference ( $4.8 \%$ versus $3.5-3.6 \%$ ) puts girls at an advantage. This advantage is confirmed by the GPI whose values ( 0.73 to 0.75 ) indicate significant disparities.

[^8]Fig. 13. Dropout rate in upper secondary education, by areas of residence and gender, in the 2011/2012 school year


As regards the indicator values by gender and areas of residence, the situation varies from one year to another. Thus, in the 2010/2011 school year, the highest risk of exclusion (the highest dropout rate) is recorded for boys in urban areas $-4.8 \%$, followed by boys in rural areas $-4.4 \%$. For the following year, this situation is reversed, the highest rate being associated with the male school population in rural areas - $6 \%$, versus $4.7 \%$ for urban school boys.
The same situation reversal occurs for the female population as well, which generally has the lowest dropout rates: in 2010/2011, the lowest rate is for girls in rural areas - 3.2\% versus $3.4 \%$ for girls in urban areas, while in 2011/2012, the rate is $3.5 \%$ for girls in urban areas versus $4.4 \%$ in rural areas.

Since the highest dropout rate is recorded for boys in rural areas and given that the only advantage these have over urban boys in one of the 2 school years under analysis is a low one ( 0.4 percentage points), the highest risk of exclusion by dropping out seems to be in their case.

As far as the evolution by school grades is concerned, the school dropout rate registers oscillating values. Thus, for the total population of pupils, the indicator value for the two reference years for the ninth grade is $4.3-4.2 \%$, for the tenth grade - $2.5-2.7 \%$, for the eleventh grade $5-6.1 \%$ and for the twelfth grade - 4.7-4.3\% (Table a-10, Annex). The evolution, by grades, for the whole population and the two school years, is also similar for pupils in urban areas $-4.5-4.1 \%$ in ninth grade, 2.8 to $2.7 \%$ in the tenth grade, $5.1-4.5 \%$ - the eleventh and 4.9-4.2\% - the twelfth. In rural areas, however, the dropout rate is lower in $2010 / 2011$ in the ninth and twelfth grades $-2.1 \%$ and $1.3 \%$, and slightly higher in the tenth and eleventh grades $-2.3 \%$ and $2.5 \%$ respectively. In 2011/2012 the trend changes: the highest rates are seen in the starting and ending grades of the cycle ( $5.1 \%$ and $5.8 \%$ ), and the lowest is recorded in the tenth ( $3.3 \%$ ) and eleventh grades ( $2.3 \%$ ).

Fig. 14. Dropout rate in upper secondary education, by grades and school years


The differences found according to area of residence, generally change their meaning from one school year to another. Thus, while in 2010/2011, the dropout rates for pupils in urban areas, for all grades, are significantly higher (about twice as high as those in rural areas), in 2011/2012 the situation is reversed - the risk of exclusion by dropping out is higher for the population in rural areas. This reversal is the result of the fact that while the dropout rate for the urban school population slightly decreases from one year to another, the risk of exclusion by dropping out in the case of pupils in rural areas keeps growing, the respective rates increasing more than twice for all the years of study, except for the tenth grade where the growth is relatively insignificant. As with the grade repetition rate, when interpreting dropout data by areas of residence, one should bear in mind that these reflect the situation according to the areas where schools are located (U/R) and not the areas in which the pupils reside.

The assessment of the share of out of school children has allowed us to identify nearly 183,000 children in the 2010/2011 school year and 174,000 in 2011/2012 who are out of school, which accounts for $19 \%$ of the population aged $15-18$. Based on the same indicator, important gender gaps were also revealed (GPI registered 0.93 and 0.95 in the two years under analysis), girls being in the lead. Numerically, the difference is 11 thousand in the first year and 8,400 the following year. The differences between girls and boys are recorded for every age, the percentages of boys that don't attend school are lower than for girls at the age of 15 and especially at 16 , and significantly higher at ages 17 and 18 . In other words, the percentage of girls who have not completed the 10 -year compulsory education during the period of reference is higher than the one recorded for boys; however, the percentage of female population who don't continue their studies in high school is lower than the percentage of male population.

The analysis of the indicators targeting children at risk of exclusion has shown the fact that the population of upper secondary age with the highest risk in terms of participation in education is represented by children in rural areas. Thus, the grade repetition rate analysis
shows that for the 2011/2012 school year, for the ninth, tenth and twelfth grades, the indicator values were over $40 \%$ higher for the rural school population compared to the urban school population. The dropout rate by areas of residence also seems to reflect a higher risk for pupils in rural areas, in the same school year: the indicator value is approximately $30 \%$ higher for these compared to pupils in urban areas $-5.3 \%$ versus $4.1 \%$ (previous year values are similar).

The dropout rate also highlighted the presence of gender inequalities. The approximately 1 $\mathrm{pp}(4.8 \%$ versus $3.5-3.6 \%)$ difference between girls and boys puts girls at an advantage. This advantage is confirmed by the GPI whose values (0.72-0.75) indicate significant disparities. The analysis of the dropout rate according to the two criteria - area of residence and gender - indicates that (at least for the 2011/2012 school year) the highest risk of exclusion by dropping out is associated with rural boys ( $6 \%$ in said year, compared to $4.7 \%$ for urban boys). The high share of the out of school population aged 15-18, as well as the one of pupils at risk of exclusion by dropping out require effective measures to stimulate participation in education, in general, with special focus on the population in rural areas (particularly boys in these areas).

### 1.3. Participation to vocational education

A series of education policy measures implemented in recent years and targeting the development of vocational education, have determined the need for an analysis that focused on youth participation in the education provided by this training option which is part of upper secondary education.

In the past 10 years, as a result of related policies in this area, vocational schooling trends fluctuated in terms of participation in education. Thus, after the establishment of the Schools of Arts and Crafts in 2003 (according to Law No. 268/13 June 2003 for the amendment and completion of Law no. 84/1995), the gross enrolment rate recorded a certain increase compared to previous years: from approximately $25-26 \%$ in 2001/2002 and 2002/2003 school years to $27-28 \%$ in 2003-2006. Over the following two years (2007/2008 and $2008 / 2009$ ), it dropped slightly to about $25-26 \%$. However, starting 2009/2010, it decreased dramatically once the number of seats in the Schools of Arts and Crafts was severely cut back and the SACs basically underwent dissolution (according to Decision no. 77/2009 regarding the approval of the enrolment numbers for state pre-university and higher education in the 2009-2010 school/academic year), reaching $1.8 \%$ in 2011/2012.

The education policy measures implemented in recent years (Minister's Order no. 5730/2010 regarding the approval of the Methodology for organizing and developing the practical training stages required to acquire level 2 vocational qualification Methodology; Minister's Order no. 3168/2012 on the organizing and functioning of the 2-year vocational education; Government Decision nr. 1062/2012 on state subsidizing of costs for pupils attending vocational education) led more pupils to turn to vocational education. This phenomenon can be seen when analysing the enrolment rates: after they plummeted as a result of the SACs dissolution in the 2012/2013 school year, the gross enrolment rate increased from $1.8 \%$ in $2011 / 2012$ to $3 \%$, as can be seen in the table below.

Table 10. Gross enrolment rate in vocational education

|  | $2005 /$ | $2006 /$ | $2007 /$ | $2008 /$ | $2009 /$ | $\mathbf{2 0 1 0 /}$ | $2011 /$ | $2012 /$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2006 | 2007 | 2008 | 2009 | 2010 | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ |
| Total | $\mathbf{2 7 , 6}$ | $\mathbf{2 6 , 8}$ | $\mathbf{2 5 , 8}$ | $\mathbf{2 5 , 3}$ | $\mathbf{1 5 , 8}$ | $\mathbf{7 , 8}$ | $\mathbf{1 , 8}$ | $\mathbf{3 , 0}$ |
| Urban | 24,6 | 24,1 | 22,6 | 17,5 | 11,4 | 7,6 | 2,1 | 5,5 |
| Rural | 31,5 | 30,1 | 29,6 | 29,0 | 17,3 | 8,1 | $\mathbf{1 , 5}$ | 0,9 |
| Female | 21,0 | 20,7 | 20,0 | 19,2 | 11,9 | 5,7 | 1,3 | 1,5 |
| Male | 33,3 | 32,6 | 31,4 | 31,0 | 19,5 | 9,7 | 2,2 | 4,4 |

Note: Foreign pupils were not included in the calculation of the indicator. The indicator value was obtained by referring to the population aged 15-17, which is the official vocational education age.
Source: Data computed based on NIS information, 2005-2013.
Given the reduced degree of enrolment in vocational education, the average attendance duration for this education route ${ }^{14}$ significantly and constantly decreased starting with the 2009/2010 school year (when SACs were subject to dissolution). The reported indicator value for the 2012/2013 school year was 0.1 years - most likely to increase in the coming years, during the ongoing measures to revitalize vocational education.

Table 11. Average vocational education attendance rate

|  | $2005 /$ | $2006 /$ | $2007 /$ | $2008 /$ | $2009 /$ | $2010 /$ | $2011 /$ | $2012 /$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
| Total | 0,7 | 0,7 | 0,7 | 0,6 | 0,3 | 0,1 | 0,0 | 0,1 |
| Female | 0,6 | 0,5 | 0,5 | 0,5 | 0,3 | 0,1 | 0,0 | 0,0 |
| Male | 0,9 | 0,8 | 0,8 | 0,8 | 0,4 | 0,2 | 0,0 | 0,1 |

Source: Data computed based on NIS information, 2005-2013.

The difference between the average duration of high school attendance and of vocational education attendance is determined by the impact of the higher youth enrolment rate in high school education compared to vocational education and, of course, by the different official duration of schooling in the two training routes. Thus, high school duration is generally 4 years, except for certain profiles/types that take longer, 5 or even 6 years ${ }^{15}$. The Schools of Arts and Crafts had a duration of two years, graduates having the opportunity to undertake a year of completion studies that allowed them to access the third year of high school (eleventh grade). As we have already mentioned in the background chapter, the two-year vocational education (starting with the tenth grade) was introduced in the 2011/2012 school year and as off the $2014 / 2015$ school year, a three-year vocational education will be introduced (from the ninth grade).

The SAC dissolution starting 2009/2010 led to a sudden decrease in the enrolment rates for vocational education at all ages corresponding to this level of education (Table 12). In the coming years, it is expected that the restructuring measures planned for this training route will determine an increase in the specific enrolment rates for both age group 15-17 and for older ages, given that a wider access to vocational education is encouraged, for different

[^9]groups (pupils in high school, people who dropped high school studies, SAC graduates, etc.).

Table 12. Specific enrolment rate by age - vocational education

|  |  | $\begin{aligned} & 2005 / \\ & 2006 \end{aligned}$ | $\begin{aligned} & 2006 / \\ & 2007 \end{aligned}$ | $\begin{aligned} & 2007 / \\ & 2008 \end{aligned}$ | $\begin{aligned} & 2008 / \\ & 2009 \end{aligned}$ | $\begin{gathered} 2009 / \\ 2010 \end{gathered}$ | $\begin{aligned} & 2010 / \\ & 2011 \end{aligned}$ | $\begin{aligned} & 2011 / \\ & 2012 \end{aligned}$ | $\begin{gathered} 2012 / \\ 2013 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14 years | Total | 3,5 | 2,4 | 2,5 | 1,7 | 0,0 | 0,0 | 0,0 | 0,0 |
|  | Female | 3,1 | 2,1 | 2,0 | 1,4 | 0,0 | 0,0 | 0,0 | 0,0 |
|  | Male | 3,8 | 2,7 | 3,0 | 2,1 | 0,0 | 0,0 | 0,0 | 0,0 |
| 15 years | Total | 23,6 | 24,0 | 21,7 | 18,3 | 0,5 | 0,0 | 0,0 | 1,1 |
|  | Female | 19,6 | 19,5 | 17,4 | 13,5 | 0,4 | 0,0 | 0,0 | 0,5 |
|  | Male | 27,5 | 28,3 | 25,9 | 22,9 | 0,6 | 0,0 | 0,0 | 1,6 |
| 16 years | Total | 27,2 | 23,9 | 25,3 | 22,3 | 14,8 | 1,2 | 0,0 | 3,0 |
|  | Female | 21,1 | 19,0 | 19,9 | 17,1 | 11,0 | 0,9 | 0,0 | 1,4 |
|  | Male | 33,1 | 28,7 | 30,5 | 27,2 | 18,5 | 1,5 | 0,1 | 4,6 |
| 17 years | Total | 21,6 | 21,2 | 18,8 | 20,9 | 18,2 | 11,1 | 0,7 | 2,2 |
|  | Female | 16,6 | 15,7 | 14,3 | 16,0 | 13,5 | 7,8 | 0,3 | 0,8 |
|  | Male | 26,3 | 26,4 | 23,1 | 25,7 | 22,6 | 14,2 | 1,1 | 3,5 |
| 18 years | Total | 5,6 | 6,1 | 5,7 | 4,7 | 6,2 | 4,0 | 0,5 | 0,8 |
|  | Female | 5,5 | 4,2 | 4,0 | 3,3 | 4,3 | 2,5 | 0,2 | 0,3 |
|  | Male | 5,7 | 7,9 | 7,3 | 6,0 | 7,9 | 4,5 | 0,7 | 1,2 |
| 19 years | Total | 1,4 | 1,3 | 1,5 | 1,6 | 1,5 | 1,4 | 0,5 | 0,3 |
|  | Female | 0,9 | 1,0 | 1,0 | 1,1 | 1,0 | 0,9 | 0,3 | 0,2 |
|  | Male | 1,8 | 1,7 | 1,9 | 2,0 | 1,9 | 1,8 | 0,6 | 0,5 |
| 20 years | Total | 0,3 | 0,5 | 0,5 | 0,6 | 0,7 | 0,4 | 0,4 | 0,3 |
|  | Female | 0,2 | 0,3 | 0,4 | 0,5 | 0,5 | 0,4 | 0,3 | 0,2 |
|  | Male | 0,4 | 0,6 | 0,6 | 0,8 | 0,9 | 0,3 | 0,5 | 0,3 |
| 21 years and over | Total | 0,3 | 0,5 | 1,1 | 2,1 | 2,7 | 2,8 | 2,1 | 1,0 |
|  | Female | 0,2 | 0,3 | 0,9 | 1,9 | 2,5 | 2,5 | 1,8 | 0,8 |
|  | Male | 0,4 | 0,6 | 1,3 | 2,2 | 2,9 | 3,1 | 2,4 | 1,1 |

Source: Data computed based on NIS information, 2005-2013.

The trend of the transition rate to vocational education has constantly decreased, particularly since 2006/2007, with a sharp drop recorded when the SACs underwent dissolution in 2009/2010. In 2012/2013, 4.5\% of the pupils enrolled the previous year in the eighth grade shifted towards vocational education, during the implementation of various measures designed to revive this training route. Also worth noting is that, for vocational education, the transition rates remained consistently higher for the male population (Fig. 15).

Fig. 15. Vocational school transition rate, 2005-2012


The analysis of the dropout rate in vocational education shows a slight upward trend until 2005-2009, followed by extensive increases occurring once this training route began its dissolution. Thus, at the end of 2011/2012 when the education system recorded only the SAC pupils in the additional year of studies, the dropout rate was $30.4 \%$ ( 3,8 thousand pupils) - Table 13, Fig. 16.

Table 13. Vocational school dropout

|  | $2005 /$ | $2006 /$ | $2007 /$ | $2008 /$ | $2009 /$ | $2010 /$ | $2011 /$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Total | 6,6 | 8,2 | 8,5 | 8,3 | $\mathbf{8 , 6}$ | $\mathbf{1 9 , 8}$ | $\mathbf{3 0 , 4}$ |
| Female | 6,8 | 8,2 | 8,7 | 8,3 | 9,7 | 21,9 | 35,8 |
| Male | 6,5 | 8,2 | 8,3 | 8,2 | 7,9 | 18,6 | 27,4 |

Source: Data computed based on NIS information, 2005-2013.
Fig. 16. Vocational school dropout rate, 2005-2012


As a comparison, the high school dropout rate fluctuated between 2005-2012, with increases until 2006/2007 and constant decreases until 2009/2010.

However, we notice here an effect of the SAC dissolution process and the subsequent absorption of the SAC seats by high schools, in terms of participation in secondary education: part of the pupils who traditionally would have chosen the vocational route entered high school education, but dropped out along the way. Thus, in 2011/2012, 3.8\% of high school pupils ( 33,9 thousand pupils) were recorded as dropped out, 1.6 percentage points more than in the year of SACs dissolution - as shown in the table below.

Table 14. High school dropout

|  | $2005 /$ | $2006 /$ | $2007 /$ | $2008 /$ | $2009 /$ | $2010 /$ | $2011 /$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Total | 2,7 | 3,3 | 2,9 | 2,4 | 2,2 | 3,2 | 3,8 |
| Female | 2,2 | 2,5 | 2,3 | 1,9 | 1,8 | 2,7 | 3,2 |
| Male | 3,2 | 4,1 | 3,5 | 3,0 | 2,5 | 3,7 | 4,4 |

Source: Data computed based on NIS information, 2005-2013.

Fig. 17. High school dropout rate, 2005-2012


By training branches, pupils from the vocational branch recorded the lowest dropout rate, whereas pupils from the technological high schools recorded the highest. Overall, we can see that over two-thirds of the pupils who dropped out come from these schools, especially from fields of study such as forestry, agriculture, administrative and veterinary.

Such data support the hypothesis that pupils that used to attend vocational education in the past and currently attend high school education, the technological branch, have a direct impact on the growing high school dropout trend.

Table 15. High school dropout, by branches and fields of study, 2011/2012

|  | No. of pupils at the beginning of the school year | No. of pupils at the end of the school year | No. of pupils who dropped out | School dropout rate |
| :---: | :---: | :---: | :---: | :---: |
| Total | 888768 | 854883 | 33885 | 3,8 |
| Theoretical Branch | 343000 | 335786 | 7214 | 2,1 |
| - sciences | 215876 | 209395 | 6481 | 3,0 |
| - humanities | 126713 | 125001 | 1712 | 1,4 |
| Technological Branch | 497015 | 470830 | 26185 | 5,3 |
| - technical | 274278 | 258089 | 16189 | 5,9 |
| - natural resources and environment protection | 73362 | 69576 | 3786 | 5,2 |
| - services | 149375 | 143165 | 6210 | 4,2 |
| Vocational Branch | 48753 | 48267 | 486 | 1,0 |

The analysis of school dropout by grades highlights the highest values at the beginning of high school, then in the eleventh and thirteenth grades (final grades for pupils in vocational training branches), while the lowest values are recorded in the twelfth grade (Fig. 18).
As with vocational education, depending on the school area of residence, the school dropout is higher in rural high schools compared to those in urban areas, situation supported by the analysis presented in the previous chapters.

Fig. 18. High-school dropout in the 2012/2013 school year, by school area of residence


The data also reveals that boys drop out of high school at a higher rate than girls (4.4\% for boys and $3.2 \%$ for girls). Again, the situation is similar to that recorded in the case of vocational education.

# 2. The status of out of school children aged 15-18 

According to the 2011 Household Budget Survey, the out of school population aged 15-18 has the following age distribution: $6.2 \%-15$ years, $84.7 \%-16$ years, $1.1 \%-17$ years and $3 \%-18$ years. Of the total population aged $15-18$ with occupational status of pupil or student, $80.8 \%$ completed secondary education at most (of which only $18.6 \%$ graduated primary school), and $3.3 \%$ had not graduated any school. This finding confirms the assessments made during the present study, according to which a high percentage of the population aged 15-18 not enrolled in school was at risk of exclusion from education prior to or at most upon graduating from secondary school, hence before turning 15.

The distribution of the population targeted by our study, by areas of residence, is a balanced one $-49.2 \%$ live in rural areas and $50.8 \%$ in urban areas. It is worth mentioning that all respondents aged 15 or 16 and not enrolled in school, live in rural areas.

By nationality, $76.2 \%$ of the out of school $15-18$ age group population is Romanian and $18.9 \%$ are Roma ethnics; the remaining 4.9\% are other nationalities (Hungarians, Germans). Given the distribution of the entire Romanian population according to ethnicity, where Roma population is $4.3 \%$ (according to the last census), the share of nearly $20 \%$ of the out of school Roma children aged 15-18 reflects their disadvantaged position in terms of participation in education.

At the same time, the Household Budget Survey has established that the main occupations of out of school 15-18 year olds are as follows: unpaid family worker (family support) ${ }^{16}$ ( $22.8 \%$ ), unemployed ( $19.5 \%$ ) or self-employed in agriculture (19.5\%). Note that many of the unemployed in this category are 17 or 18 years old ( $85 \%$ ).

Table 16. Occupational status of out of school children aged 15-18

| Occupational status | $\%$ |
| :--- | :---: |
| Employed | 2,6 |
| Owner | 8,8 |
| Self-employed (in agriculture) | 19,5 |
| Unpaid family worker (family support) | 22,8 |
| Unemployed | 19,5 |
| Domestic | 13,4 |
| Other status | 4,6 |

[^10]Fig. 19. The distribution of out of school 15-18 year olds, by occupational status


Source: Household Budget Survey, 2011.

More than half the entire surveyed population (54.17\%) said that, during the previous week (compared to the time frame of the interview), they worked for wages or other income in cash or in kind; almost all, however (99.4\%), without a labour contract. Almost two thirds of those who said they had worked ( $65.1 \%$ ) were male, the girls probably being disadvantaged on the labour market.

## Conclusions

## Upper secondary school attendance

During this Report's time frame of reference (2010 and 2011), the gross upper secondary school enrolment rate was around $97-98 \%$, registering certain genderrelated differences that benefited boys over girls, but nevertheless remained within reasonable levels (the GPI was 0.98-0.99).
Significant gaps were recorded between urban and rural areas, reaching $27-28 \mathrm{pp}$, which indicates a high percentage of upper secondary school nonattendance among young people in rural areas.
The age-specific enrolment ratio registered a significant gap between the values recorded for ages 15,16 , and 17 and that recorded for age 18 . This is due to the fact that, during the time frame of reference, some of the children were completing their secondary studies upon graduation of vocational schools, at an age under 18.
The school enrolment ratio (regardless of education level) for children aged 15-18 also indicates a certain difference between male and female population groups, at all of the ages in the spectrum. At ages 15 and 16, boys are at a slight advantage (the GPI is within reasonable levels), whereas at ages 17,18 and above 18 , girls are the ones ahead (here, the GPI between 1.04 and 1.24 indicates serious gender inequalities).
The gender inequalities favouring girls are also reflected by the adjusted net enrolment rate in secondary education calculated both by age and by overall 15-18 age group (the GPI is outside the gender parity limits, fluctuating between 1.04 and 1.08).

The adjusted net enrolment rate allows for identification of certain disparities in the participation in upper secondary school education registered among the various development regions, differences reaching up to 23-26 pp. The lowest value of the indicator was recorded in the North East Region, one of the regions with a lower economic development level, while the highest value was recorded in Bucharest-llfov Region listed as most economically developed.
Most of the indicators evaluating participation in education reflected gender disparities at regional level. In all 8 Regions and all throughout the time frame of reference, disparities consistently featured girls in the lead, and for some, the GPI was outside the acceptable levels (the Northeast, Bucharest-Ilfov, West and Central Regions registered GPI above 1.03).

## > Vocational high school attendance

Over the last 10 years, vocational high school attendance (evaluated via the gross enrolment rate) was highly influenced by various educational policy measures: the establishment of the Schools of Arts and Crafts (SAC) in 2003 led to a slight increase in the enrolment rate, by about 2 pp , up to $27-28 \%$, while their dissolution in 2009 brought the indicator down to $1.8 \%$ during the 2010/2011 school year. As a result of the measures taken in the more recent years, focused on promoting vocational education, the enrolment rate went up to $3 \%$ in

2011/2012 and it probably continued its ascending trend in the following years as well.
The age-specific enrolment rate mirrored the descending trend registered for the overall population.
The rate of transition to vocational education also registered a consistent decline, starting particularly with the 2006/2007 school year, and dropping abruptly when the Schools of Arts and Crafts underwent dissolution during school year. In 2012/2013, the indicator reached 4,5\% following the measures taken to revitalize this educational path. It is also to be noted that, where vocational education is concerned, transition rates were consistently higher among the male population.
When compared to the other education levels, the vocational school dropout rate consistently registered the highest values. During 2006-2009, it was above 8\%, while in 2010/2011, once the SAC insolvency measures were announced, it reached almost $20 \%$, and later $30.4 \%$ ( 3,8 thousand pupils), at the end of the 2011/2012 school year, when only the pupils enrolled for the additional year of studies remained with the SACs. However, a significant share of these (2.4 thousand pupils) went on to high school studies.
The transfer of some of the pupils from the SACs to high schools affected the level of high school dropout rate which almost doubled in the 2011/2012 school year, compared to $2009 / 2010-3.8 \%$ versus $2.2 \%$. The highest rate was registered in the field of technological studies chosen by the SAC pupils or by those who had intended to attend vocational education schools: $5.3 \%$ versus $2.1 \%$ in the theoretical field, and $1 \%$ in the vocational field, respectively.

## Out-of-school children of upper secondary education age

During the 2010/2011 and 2011/2012 school years, 183 thousand children and 174 thousand children, respectively, were out of school, which accounts for $19 \%$ of the 15-18 age group population. At the same time, significant gender disparities occurred, with girls being once again in the lead (GPI registered 0.93 and 0.95 for the two years under analysis).
Differences between girls and boys were recorded for each age in the given age group: the school nonattendance percentage is lower for boys than for girls aged 15 and especially 16, and significantly higher for ages 17 and 18. Thus, the percentage of girls who did not complete the mandatory 10 year education studies during the mentioned period of time is higher than the one for boys; however, the percentage of girls who did not continue their high school studies is lower than the one for boys.
Children in rural areas represent the population of upper secondary education age most at risk of school nonattendance. The rates of grade repeaters during the 2011/2012 school year, for grades 9-12, were more than $40 \%$ higher for pupils in rural areas versus pupils in urban areas. The school dropout rate in the same school year also shows an increased risk for pupils from rural areas: the indicator is $30 \%$ higher in their case versus urban pupils. The dropout rate also revealed gender inequalities. The differences between girls and boys, of almost 1 pp, place girls in the lead (the GPI registered 0.730.75 which indicates significant disparities).

The school dropout rate by area of residence and by gender shows that, at least for the 2011/2012 school year, the highest risk of education exclusion following school dropout is registered among boys in rural areas (6\% in the mentioned school year, versus $4.7 \%$ among urban boys).

## > Characteristics of out-of-school children of upper secondary education age

In 2011, the highest percentage of out-of-school population was registered among children aged 16 (almost $85 \%$ ), while about $81 \%$ had completed gymnasium studies at most. This shows that a significant percentage of the out-of-school 15-18 age group was subject to potential exclusion from education prior to or, at best, upon graduation of gymnasium studies.
The overall out-of-school child distribution by residential areas, regardless of age, is a balanced one $-49.2 \%$ live in rural areas, whereas $50.8 \%$ in urban areas. However, all out-of-school young people aged 15 and 16 interviewed during the 2011 Household Budget Survey, live in rural areas.
The share of Roma children accounting for almost $20 \%$ of the out-of-school 15-18 age group indicates their vulnerable status when it comes to education, considering that Roma ethnics represent $4.3 \%$ of Romania's total population, according to the latest population and housing census.
The main occupations of the out-of-school youth in the 15-18 age group are the following: without pay - about 23\%, unemployed - almost 20\% (most aged 17-18) or self-employed farmers (19.5\%).
More than half of the out-of-school children that were interviewed in the survey had worked during the previous week, of which almost two thirds were males. However, more than $99 \%$ of these worked without a labor contract.

## Recommendations

The extent of the phenomenon of exclusion from education (as a result of school nonenrolment or dropout) in upper secondary education is a topic of concern and should be a policy priority on the agenda of the Ministry of National Education in the near future, both in terms of the mandatory education (completion of grade 10), and of the extension of the three-year high school or vocational education.

One way to directly address the curbing of the early school dropout trend (youth in the 18-24 age group who did not complete at least the mandatory studies) is to support national programmes for the prevention of school dropout in secondary education, doubled by measures designed to assist those children with limited opportunities to continue their studies beyond the $8^{\text {th }}$ grade. Romania has undertaken to reach the ambitious target of bringing this indicator down to $11.3 \%$ by 2020 and therefore any measures in this area should continue and develop the interventions addressing the education lower levels (ante and pre-school, primary education, gymnasium).

Overall, the aim is to reverse the current ratio between the percentage of available admission seats in the theoretical and vocational high schools (60\%) and those in the technological high schools ( $40 \%$ ). However, the education system should clarify the role and status of vocational and technical education (provided as part of the study programmes of vocational schools and technological high schools) and promote clearer mechanisms and tools for adjusting the school network and supply to the actual needs and capacity of today's labour market and employer engagement. This is the only way to accurately estimate the proper relation between theoretical and vocational/ technological education in upper secondary education, as well as the supply of initial training required for various secondary education-based qualifications.

Given that upper secondary school attendance continues to be characterized by significant disparities by residential areas, with rural areas lagging behind, new support programmes for the rural youth become a necessity, both preventive and intervention ones that encourage school re-enrolment. Such measures can focus on those development regions that register the lowest adjusted net enrolment rates (N-E, S, S-V).

The measures designed to increase quality of education should also systematically address both upper secondary education units in rural areas (e.g. take into account that the grade repeaters rate is much higher for pupils in rural areas versus those in urban areas) and all schools that enroll a large number of children with limited opportunities: children from very poor families, Roma children, children with special educational needs.

Any intervention measures should focus on the fact that boys in rural areas present the highest risk of exclusion by dropping out, a category which is currently insufficiently targeted by educational policies.

## References

1. Dobrică, P. şi Jderu, G. (2005). Educația şcolară a copiilor romi. Determinări socioculturale. UNICEF, Bucureşti: Ed. Vanemonde.
2. Duminică, G., Ivasiuc, A. (2010). O şcoală pentru toți? Accesul copiilor romi la o educație de calitate. Raport de cercetare. UNICEF, Bucureşti: Ed. Vanemonde.
3. Fartușnic, C. (coord.) (2012). All Children in School by 2015. Global Initiative on Out-ofSchool Children. Romania Country Study. Analysing the Situation of Out of School Children in Romania. UNICEF and ISE, Buzău: Alpha MDN Publishing House.
4. Fleck, G. şi Rughiniș, C. (2008). Vino mai aproape: incluziunea şi excluziunea romilor în societatea românească de azi. Bucureşti: Human Dynamics.
5. Grădinaru, C. şi Manole, M. (coord.) (2010) Învățământul gratuit costă! Cercetare cu privire la costurile „ascunse" din educație. Salvați Copiii. Bucureşti.
6. Grigore, D. et al (2009). Evaluarea politicilor publice educaționale pentru rromi. UNICEF, Buzău: Ed. Alpha MDN.
7. Horga, I. şi Jigău, M. (coord.)(2009). Situația copiilor cu cerințe educative speciale incluşi în învățământul de masă. UNICEF, Bucureşti: Ed. Vanemonde
8. Ionescu, M. şi Matache, M. (2011) Rroma Early Childhood Inclusion Report, UNICEF.
9. Istrate, G. (coord.) (2012). Sistemul educațional în România. Date statistice. Bucureşti: Institutul Național de Statistică.
10. Jigău, M. (coord.) (2002). Participarea la educație a copiilor romi. Probleme, soluții, actori. UNICEF, Bucureşti: Ed. Marlink.
11. Jigău, M. (coord.) (2002). Învățământul rural din România: condiții, probleme şi strategii de dezvoltare. UNICEF, Bucureşti: Ed. Marlink.
12. Jigău, M. şi Fartuşnic, C. (coord) (2012): Estimarea dimensiunii fenomenului de abandon şcolar folosind metodologia analizei pe cohortă. UNICEF, ISE, Buzău: Ed. Alpha MDN.
13. Surdu, L. (coord.) (2011). Participare, absenteism şcolar şi experiența discriminării în cazul romilor din România. UNICEF, Rromani Criss, Bucureşti: Ed. Vanemonde.
14. Ulrich, C. (coord.) (2009). Programele PHARE „Acces la educație pentru grupuri dezavantajate". Studiu de impact. Bucureşti.
15. Vasile, M. (2010) Stiluri de viață în România post-comunistă. Ce modele comportamentale adoptăm şi de ce. Iaşi: Ed. Lumen.
16. Voicu, L. (coord.) (2010) Renunțarea timpurie la educație: posibile căi de prevenire. UNICEF, Bucureşti: Ed. Vanemonde.
17. Vrăjmaş, T. (coord.) (2010) Incluziunea şcolară a copiilor cu cerințe educaționale speciale. Aspirații şi realități. UNICEF, Bucureşti: Ed. Vanemonde.
18. UNICEF, ISE, (2012) Copiii care nu merg la şcoală. O analiză a participării la educație în învățământul primar şi gimnazial, Buzău: Ed. Alpha MDN.
*** Raport privind starea învățământului din România (2011, 2012) Ministerul Educației
Naționale.
*** Cartea Albă, 2008: Ministerul Educației, Cercetării, Tineretului şi Sportului.
*** Caiete statistice INS 2005-2012 privind învățământul profesional şi liceal din România, Institutul Național de Statistică.

## Annexes

Table a-1. Gross enrolment rate in upper secondary education, by areas of residence and gender

|  | $2010 / 2011$ | $2011 / 2012$ |
| :--- | :--- | :--- |
| Male | 97.7 | 98.8 |
| Female | 95.6 | 97.6 |
| GPI | 0,98 | 0,99 |
| Urban | 111.0 | 112.3 |
| Rural | 82.6 | 85.0 |
| Total | 96.7 | 98.3 |

Note: Foreign pupils were not included in the data calculations by residence.
Source: NIS.
Table a-2. Gross enrolment rate in upper secondary education, by age groups and gender

|  | 14 years | $15-18$ years | $18+$ | Total |
| :--- | :--- | :--- | :--- | :--- |
|  | $2010 / 2011$ |  |  |  |
| Male | 2.2 | 71.5 | 24.0 | 97.7 |
| Female | 2.7 | 74.0 | 18.9 | 95.6 |
| Total | 2.4 | 72.7 | 21.6 | 96.7 |
|  | $2011 / 2012$ | 73.0 | 21.0 | 98.8 |
| Male | 4.8 | 75.3 | 16.6 | 97.6 |
| Female | 5.7 | 74.1 | 18.9 | 98.3 |
| Total | 5.3 |  |  |  |

Note: Percentages are calculated based on the population aged 15-18.
Source: NIS.
Table a-3. Percentage of children attending school, by age and levels of education

|  | Lower Secondary | Upper Secondary | Postsecondary | Total | Lower Secondary | Upper Secondary | Postsecondary | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010/2011 |  |  |  | 2011/2012 |  |  |  |
| Male |  |  |  |  |  |  |  |  |
| 15 | 15.9 | 74.3 |  | 90.2 | 12.5 | 77.5 |  | 90.0 |
| 16 | 11.1 | 77.4 |  | 88.5 | 11.7 | 78.1 |  | 89.8 |
| 17 |  | 74.4 |  | 74.4 |  | 73.3 |  | 73.3 |
| 18 |  | 60.9 | 7.9 | 68.8 |  | 63.6 | 6.6 | 70.2 |
| 19-21 |  | 24.6 | 32.0 | 56.6 |  | 22.7 | 30.9 | 53.6 |
| Female |  |  |  |  |  |  |  |  |
| 15 | 11.8 | 78.2 |  | 90.0 | 8.8 | 80.8 |  | 89.6 |
| 16 | 6.1 | 79.6 |  | 85.7 | 6.3 | 80.5 |  | 86.8 |
| 17 |  | 77.2 |  | 77.2 |  | 76.2 |  | 76.2 |
| 18 |  | 62.1 | 12.2 | 74.3 |  | 64.3 | 9.9 | 74.2 |
| 19-21 |  | 19,3 | 49.3 | 68.6 |  | 17.9 | 48.5 | 66.4 |
| Total |  |  |  |  |  |  |  |  |
| 15 | 13.9 | 76.2 |  | 90.1 | 10.7 | 79.1 |  | 89.8 |
| 16 | 8.7 | 78.4 |  | 87.1 | 9.0 | 79.3 |  | 88.3 |
| 17 |  | 75.8 |  | 75.8 |  | 74.7 |  | 74.7 |
| 18 |  | 61.5 | 10.0 | 71.5 |  | 63.9 | 8.2 | 72.1 |
| 19-21 |  | 22.0 | 40.5 | 62.5 |  | 20.4 | 39.5 | 59.9 |

[^11]Table a-4. Adjusted net enrolment rate in upper secondary education, by regions and gender


Note: Both pupils in upper secondary education and in post-secondary education (post-high-school and upper) are taken into account when computing the adjusted net rate.
Source: NIS.
Table a-5. Adjusted net enrolment rate in upper secondary education, by age and gender

| Age | Male |  | Female |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Adjusted net rate | Number of children | Adjusted net rate | Number of children | Adjusted net rate | Number of children |
| 2010/2011 |  |  |  |  |  |  |
| 15 years | 74.3 | 84599 | 78.2 | 84672 | 76.2 | 169271 |
| 16 years | 77.4 | 93628 | 79.6 | 91834 | 78.4 | 185462 |
| 17 years | 74.4 | 90138 | 77.2 | 89668 | 75.8 | 179806 |
| 18 years | 68.8 | 90114 | 74.3 | 93106 | 71.5 | 183220 |
| 2011/2012 |  |  |  |  |  |  |
| 15 years | 77.5 | 88553 | 80.8 | 87762 | 79.1 | 176315 |
| 16 years | 78.1 | 88769 | 80.5 | 86996 | 79.3 | 175765 |
| 17 years | 73.3 | 88599 | 76.2 | 87829 | 74.7 | 176428 |
| 18 years | 70.2 | 84815 | 74.2 | 85948 | 72.1 | 170763 |

Note: Both pupils in upper secondary education and in post-secondary education (post-high-school and upper) are taken into account when computing the adjusted net rate.
Source: NIS.

Table a-6. Percentage of out of school children upper secondary education age, by age and gender

| Year2010/2011 | Age | Male |  | Female |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \% | Number | \% | Number | \% | Number |
|  | 15 | 9.8 | 11139 | 10.0 | 10822 | 9.9 | 21961 |
|  | 16 | 11.5 | 13935 | 14.3 | 16481 | 12.9 | 30416 |
|  | 17 | 25.6 | 31044 | 22.8 | 26438 | 24.2 | 57482 |
|  | 18 | 31.2 | 40871 | 25.7 | 32204 | 28.5 | 73075 |
|  | Total | 19.9 | 96989 | 18.5 | 85945 | 19.2 | 182934 |
| 2011/2012 | 15 | 10.0 | 11468 | 10.4 | 11293 | 10.2 | 22761 |
|  | 16 | 10.2 | 11535 | 13.2 | 14323 | 11.7 | 25858 |
|  | 17 | 26.7 | 32229 | 23.8 | 27390 | 25.3 | 59619 |
|  | 18 | 29.8 | 36069 | 25.8 | 29874 | 27.9 | 65943 |
|  | Total | 19.4 | 91301 | 18.5 | 82880 | 19.0 | 540049 |

Note: The percentage of out of school pupils of upper secondary age does not include children of the same age attending post-secondary and lower-secondary schools.
Source: NIS.
Table a- 7. Transition rate from lower secondary education to upper secondary education, by gender

| Year | Male | Female | Total | GPI |
| :--- | :--- | :--- | :--- | :--- |
| $2010 / 2011$ | 92,8 | 93,2 | 93,0 | 1.00 |
| $2011 / 2012$ | 91.8 | 92.6 | 92.2 | 1,01 |

Note: Given the enforced measure for increasing the number of pupils in secondary education, following the absorption of the SAC seats, no new entries in the SAC ninth grade occurred starting 2009/2010 school year, as the SACs went into dissolution.
Source: NIS.
Table a- 8. Grade repetition rates in upper secondary education, by grades and areas of residence

| Year | Area of residence | Grades |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IX | X | XI | XII |
| 2010/2011 | Urban | 1.6 | 0.6 | 0.4 | 0.2 |
|  | Rural | 1.6 | 0.6 | 0.3 | 0.2 |
|  | Total | 1.8 | 0.6 | 0.5 | 0.3 |
| 2011/2012 | Urban | 2.3 | 1.5 | 0.4 | 0.4 |
|  | Rural | 3.2 | 2.2 | 0.5 | 0.6 |
|  | Total | 2.4 | 1.6 | 0.4 | 0.4 |

Note: Data by areas of residence present the situation according to the areas where schools are located (U/R) and not the areas in which pupils reside.
Source: NIS.
Table a- 9. Dropout rate in upper secondary education, by areas of residence and gender

| Year | Area of <br> residence | Male | Female | Total |
| :--- | :--- | :--- | :--- | :--- |
| $2010 / 2011$ | Urban | 4.8 | 3.6 | 4.2 |
|  | Rural | 4.4 | 3.2 | 3.9 |
|  | Total | 4.8 | 3.5 | 4.2 |
| $2011 / 2012$ | Urban | 4.7 | 3.5 | 4.1 |
|  | Rural | 6 | 4.4 | 5.3 |
|  | Total | 4.8 | 3.6 | 4.2 |

Note: Data by areas of residence present the situation according to the areas where schools are located (U/R) and not the areas in which pupils reside.
Source: NIS.

Table a-10. Dropout rate in upper secondary education, by grades and areas of residence

| Year | Area of | Grades |  |  | XI |
| :--- | :--- | :--- | :--- | :--- | :--- |

Note: Data by areas of residence present the situation according to the areas where schools are located (U/R) and not the areas in which pupils reside.
Source: NIS.
Table a- 11. Population aged 25-64 having completed at least upper secondary education (\%)

| geoltime | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EU (28 countries) | : | 65,9 | 67,2 | 68,3 | 69,4 | 70 | 70,7 | 71,4 | 72 | 72,7 | 73,4 | 74,2 |
| EU (27 countries) | 64,9 | 65,8 | 67,2 | 68,3 | 69,3 | 69,9 | 70,7 | 71,4 | 72 | 72,6 | 73,3 | 74,2 |
| Euro area (17 countries) | 60,7 | 61,5 | 62,7 | 63,9 | 65 | 65,5 | 66,4 | 67,2 | 67,8 | 68,4 | 69,3 | 70,1 |
| Belgium | 59,5 | 60,8 | 62 | 64,3 | 66,1 | 66,9 | 68 | 69,6 | 70,6 | 70,5 | 71,3 | 71,6 |
| Bulgaria | 71 | 71,6 | 71,2 | 71,7 | 72,5 | 75,5 | 77,4 | 77,5 | 77,9 | 79,4 | 80 | 81 |
| Czech Republic | 86,3 | 87,9 | 88,5 | 89,1 | 89,9 | 90,3 | 90,5 | 90,9 | 91,4 | 91,9 | 92,3 | 92,5 |
| Denmark | 80,7 | 81,1 | 80,5 | 81,2 | 81 | 81,6 | 74,3 | 73,8 | 74,8 | 75,6 | 76,9 | 77,9 |
| Germany | 82,5 | 83 | 83,5 | 83,9 | 83,1 | 83,2 | 84,4 | 85,3 | 85,5 | 85,8 | 86,3 | 86,3 |
| Estonia | 87,1 | 87,6 | 88,5 | 88,9 | 89,1 | 88,5 | 89,1 | 88,5 | 88,9 | 89,2 | 88,9 | 89,8 |
| Ireland | 59,2 | 60,3 | 62,2 | 63 | 65,2 | 66,6 | 68,1 | 70 | 71,1 | 72,8 | 73,6 | 74,6 |
| Greece | 52,1 | 53,9 | 55,7 | 59 | 60 | 59 | 59,8 | 61,1 | 61,2 | 62,5 | 64,5 | 65,7 |
| Spain | 40,4 | 41,7 | 43,2 | 45 | 48,5 | 49,4 | 50,4 | 51 | 51,5 | 52,6 | 53,8 | 54,4 |
| France | 63,2 | 64,1 | 65,2 | 65,9 | 66,7 | 67,3 | 68,5 | 69,6 | 70,2 | 70,8 | 71,6 | 72,5 |
| Croatia | . | 70,4 | 70 | 71,2 | 72,8 | 74,1 | 75,3 | 75,9 | 76,8 | 76,7 | 77,3 | 79,3 |
| Italy | 43 | 44,1 | 46,4 | 48,6 | 50,1 | 51,3 | 52,3 | 53,3 | 54,3 | 55,2 | 56 | 57,2 |
| Cyprus | 62,9 | 65,1 | 64,7 | 64,4 | 66,6 | 69,5 | 72,1 | 73,1 | 72,3 | 74 | 75,2 | 77,4 |
| Latvia | 79,6 | 82,2 | 83,2 | 84,6 | 84,5 | 84,5 | 85 | 85,8 | 86,8 | 88,5 | 87,9 | 89,1 |
| Lithuania | 84,2 | 84,9 | 86,1 | 86,6 | 87,6 | 88,3 | 88,9 | 90,6 | 91,3 | 91,9 | 92,9 | 93,3 |
| Luxembourg | 59,2 | 61,6 | 59,1 | 63,2 | 65,9 | 65,5 | 65,7 | 67,9 | 77,3 | 77,7 | 77,3 | 78,3 |
| Hungary | 70 | 71,4 | 74,1 | 75,3 | 76,4 | 78,1 | 79,2 | 79,7 | 80,6 | 81,3 | 81,8 | 82,1 |
| Malta | 19,3 | 18,4 | 19,8 | 23,6 | 29,4 | 31,1 | 32,3 | 34 | 34,4 | 35,2 | 38,1 | 38,1 |
| Netherlands | 66,9 | 67,8 | 69,2 | 70,9 | 71,8 | 72,4 | 73,2 | 73,3 | 73,4 | 72,3 | 72,3 | 73,4 |
| Austria | 77,5 | 78,3 | 79 | 80,2 | 80,6 | 80,3 | 80,1 | 81 | 81,9 | 82,5 | 82,5 | 83,1 |
| Poland | 80,2 | 80,9 | 82,3 | 83,6 | 84,8 | 85,8 | 86,3 | 87,1 | 88 | 88,5 | 88,9 | 89,6 |
| Portugal | 20,2 | 20,7 | 22,8 | 25,2 | 26,5 | 27,6 | 27,5 | 28,2 | 29,9 | 31,9 | 35 | 37,6 |
| Romania | 70,6 | 71,1 | 70,5 | 71,5 | 73,1 | 74,2 | 75 | 75,3 | 74,7 | 74,3 | 74,9 | 75,9 |
| Slovenia | 75,8 | 77 | 78,1 | 79,7 | 80,3 | 81,6 | 81,8 | 82 | 83,3 | 83,3 | 84,5 | 85 |
| Slovakia | 85,1 | 86 | 86,7 | 87 | 87,9 | 88,8 | 89,1 | 89,9 | 90,9 | 91 | 91,3 | 91,7 |
| Finland | 73,8 | 75 | 76 | 77,6 | 78,8 | 79,6 | 80,5 | 81,1 | 82 | 83 | 83,7 | 84,8 |
| Sweden | 80,5 | 81,4 | 82,1 | 82,9 | 83,6 | 78,9 | 79,4 | 80 | 80,7 | 81,2 | 81,6 | 82,4 |
| United Kingdom | 64,6 | 66,3 | 70,2 | 70,7 | 71,8 | 72,7 | 73,4 | 73,4 | 74,6 | 76,1 | 76,4 | 77,9 |
| Iceland | 56,3 | 58,7 | 59,6 | 61 | 62,9 | 63,3 | 63,9 | 64,1 | 65,9 | 66,5 | 70,7 | 71 |
| Norway | 85,7 | 85,8 | 86,4 | 87,4 | 88,2 | 78,5 | 78,7 | 80 | 80,5 | 80,9 | 81,3 | 82,1 |
| Switzerland | 82 | 82,4 | 81,9 | 82,5 | 83 | 85,2 | 86 | 86,8 | 86,9 | 85,8 | 85,6 | 86,3 |
| Former Yugoslav Republic of Macedonia, the | : | : | : | : | . | 57,6 | 60,5 | 59,2 | 61,2 | 62,5 | 63,7 | 64,9 |
| Turkey | : | : | : | : |  | 26,1 | 26,6 | 27,4 | 28,2 | 28,4 | 29,2 | 30,9 |

Source: Eurostat 2014.

Table a- 12. Population aged 20-24 having completed at least upper secondary education, by gender (\%)

| Total |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| geoltime | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| EU (28 countries) | : | 76,8 | 77,2 | 77,4 | 77,6 | 78,1 | 78,3 | 78,6 | 78,8 | 79,2 | 79,6 | 80,3 |
| EU (27 countries) | 76,6 | 76,7 | 77,1 | 77,2 | 77,4 | 77,9 | 78,1 | 78,5 | 78,6 | 79 | 79,5 | 80,1 |
| Euro area (17 countries) | 73,2 | 73,4 | 73,8 | 74,2 | 74,2 | 74,6 | 75 | 75,6 | 75,7 | 76,2 | 76,9 | 77,7 |
| Belgium | 81,7 | 81,6 | 81,2 | 81,8 | 81,8 | 82,4 | 82,6 | 82,2 | 83,3 | 82,5 | 81,6 | 82,8 |
| Bulgaria | 78,1 | 77,4 | 76,3 | 76,1 | 76,5 | 80,5 | 83,3 | 83,7 | 83,7 | 84,4 | 86,7 | 85,8 |
| Czech Republic | 90,6 | 92,2 | 92,1 | 91,4 | 91,2 | 91,8 | 91,8 | 91,6 | 91,9 | 91,9 | 91,7 | 90,9 |
| Denmark | 78,4 | 78,6 | 76,2 | 76,2 | 77,1 | 77,4 | 69,4 | 68,9 | 69,9 | 68,6 | 70 | 72 |
| Germany | 73,6 | 73,3 | 72,5 | 72,8 | 71,4 | 71,9 | 72,9 | 74,1 | 73,7 | 74,4 | 75,3 | 75,6 |
| Estonia | 79,8 | 81,4 | 81,5 | 80,3 | 82,6 | 82 | 80,9 | 82,2 | 82,3 | 83,2 | 82,6 | 81,3 |
| Ireland | 83,9 | 84 | 85,1 | 85,3 | 85,8 | 85,8 | 86,8 | 87,7 | 86,4 | 86,3 | 86,7 | 87,2 |
| Greece | 80,2 | 81,1 | 81,7 | 83 | 84,1 | 81 | 82,1 | 82,1 | 82,2 | 83,4 | 83,6 | 85,4 |
| Spain | 65 | 63,7 | 62,2 | 61,2 | 61,8 | 61,6 | 61,1 | 60 | 59,9 | 61,2 | 61,7 | 62,8 |
| France | 81,8 | 81,7 | 82,8 | 82,9 | 83,3 | 83,2 | 82,4 | 83,8 | 83,6 | 83,2 | 83,9 | 84,4 |
| Croatia | . | 90,6 | 91 | 93,5 | 93,8 | 94,6 | 95,3 | 95,4 | 95,2 | 95,7 | 95,6 | 94,8 |
| Italy | 67,9 | 69,6 | 71 | 72,8 | 73,4 | 75,5 | 76,3 | 76,5 | 76,3 | 76,3 | 76,9 | 77,6 |
| Cyprus | 80,5 | 83,5 | 79,5 | 77,6 | 80,4 | 83,7 | 85,8 | 85,1 | 87,3 | 86,2 | 87,6 | 87,8 |
| Latvia | 71,7 | 77,1 | 75,4 | 79,5 | 79,8 | 81 | 80,2 | 80 | 80,5 | 79,9 | 80,6 | 84,1 |
| Lithuania | 80,5 | 81,3 | 84,2 | 85 | 87,8 | 88,2 | 89 | 89,1 | 86,9 | 87 | 87,7 | 89,3 |
| Luxembourg | 68 | 69,8 | 72,7 | 72,5 | 71,1 | 69,3 | 70,9 | 72,8 | 76,8 | 73,4 | 73,3 | 71,5 |
| Hungary | 84,7 | 85,9 | 84,7 | 83,5 | 83,4 | 82,9 | 84 | 83,6 | 84 | 84 | 83,3 | 83,5 |
| Malta | 40,1 | 39 | 45,1 | 51 | 58,8 | 57,9 | 64,3 | 64,6 | 67,5 | 70,7 | 73,9 | 73,6 |
| Netherlands | 72,7 | 73,1 | 75 | 75 | 75,6 | 74,7 | 76,2 | 76,2 | 76,6 | 77,6 | 78,2 | 79 |
| Austria | 85,1 | 85,3 | 84,2 | 85,8 | 85,9 | 85,8 | 84,1 | 84,5 | 86 | 85,6 | 85,4 | 86,6 |
| Poland | 89,7 | 89,2 | 90,3 | 90,9 | 91,1 | 91,7 | 91,6 | 91,3 | 91,3 | 91 | 90,1 | 89,8 |
| Portugal | 44,4 | 44,4 | 47,9 | 49,6 | 49 | 49,6 | 53,4 | 54,3 | 55,5 | 58,7 | 64,4 | 67,5 |
| Romania | 77,3 | 76,3 | 75 | 75,3 | 76 | 77,2 | 77,4 | 78,3 | 78,3 | 78,2 | 79,6 | 79,6 |
| Slovenia | 88,2 | 90,7 | 90,8 | 90,5 | 90,5 | 89,4 | 91,5 | 90,2 | 89,4 | 89,1 | 90,1 | 90,1 |
| Slovakia | 94,4 | 94,5 | 94,1 | 91,7 | 91,8 | 91,5 | 91,3 | 92,3 | 93,3 | 93,2 | 93,3 | 92,7 |
| Finland | 86,1 | 85,8 | 85,3 | 84,5 | 83,4 | 84,7 | 86,5 | 86,2 | 85,1 | 84,2 | 85,4 | 86,3 |
| Sweden | 85,5 | 86,7 | 85,8 | 86 | 87,5 | 86,2 | 86,5 | 86,7 | 87,6 | 87,2 | 87,2 | 86,4 |
| United Kingdom | 76,9 | 77,1 | 78,6 | 77 | 78,1 | 78,8 | 78,1 | 78,2 | 79,3 | 80,4 | 80,1 | 81,8 |
| Iceland | 46,1 | 48,5 | 51,2 | 51,7 | 50,8 | 49,3 | 52,9 | 53,6 | 53,6 | 53,4 | 56,9 | 58,3 |
| Norway | 96,2 | 94,8 | 93,7 | 95,1 | 96,2 | 68,6 | 67,9 | 70,1 | 69,7 | 71,1 | 71,2 | 71,3 |
| Switzerland | 80,4 | 79,4 | 77,5 | 78,7 | 78,3 | 78,1 | 81,2 | 82,6 | 79 | 82,3 | 83 | 84,3 |
| Former <br> Yugoslav <br> Republic of Macedonia, the | : | : | : | : | : | 75,8 | 79,2 | 79,7 | 81,9 | 82,8 | 85,3 | 87,1 |
| Turkey | : | : | : | : | : | 46 | 47,7 | 48,9 | 50 | 51,1 | 52,6 | 54 |

[^12]Institute of Education Sciences 37 Stirbei Voda Street, Bucharest www.ise.ro

## unicef (3)

UNICEF Romania 48A Primaverii Blvd, Bucharest www.unicef.ro


[^0]:    ${ }^{1}$ Fartuşnic, C. (coord.) 2012. All Children in School by 2015. Global Initiative on Out-of-School Children. Romania Country Study. Analysing the Situation of Out of School Children in Romania. Buzău: Alpha MDN Printing House.
    ${ }^{2}$ In early 2010, UNICEF and the UNESCO Institute for Statistics (UIS) launched the Global Initiative on Out-ofSchool Children in order to boost a more complex, more informed and better monitored response at policy level regarding this phenomenon.

[^1]:    ${ }^{3}$ Fartuşnic, C. (coord.) 2012. All Children in School by 2015. Global Initiative on Out-of-School Children. Romania Country Study. Analysing the Situation of Out of School Children in Romania. Buzău: Alpha MDN Printing House.
    ${ }^{4}$ In early 2010, UNICEF and the UNESCO Institute for Statistics (UIS) launched the Global Initiative on Out-ofSchool Children in order to boost a more complex, more informed and better monitored response at policy level regarding this phenomenon.

[^2]:    Source: Eurostat, 2013

[^3]:    ${ }^{5}$ United Nations Education, Scientific and Cultural Organization Institute for Statistics (UIS) and United Nations Children's Fund (UNICEF), Children Out of School: Measuring Exclusion from Primary Education (UIS, Montreal, 2005)

[^4]:    * No data on the distribution of pupils by areas of residence and age

    Note: Foreign pupils were not taken into account for the distribution by areas of residence, only Romanian pupils for whom there is information on parents' area of residence.
    Source: NIS.

[^5]:    ${ }^{6}$ The total number of children enrolled in a certain level of education regardless of age, as a percentage of the total population of the official age corresponding to the respective level, in a certain school year.
    ${ }^{7} \mathrm{GPI}$ - Indicator values ranging from 0.97 to 1.03 indicate gender parity.

[^6]:    ${ }^{8}$ The number of pupils of official upper secondary age enrolled in that level of education, as a percentage of the total population in the official upper secondary education age group (14-18 years).

[^7]:    ${ }^{9}$ Number of pupils admitted in the first year of upper secondary education in a given school year, expressed as a ratio of the number of pupils enrolled in the final year of secondary education in the previous school year.
    ${ }^{10}$ UNICEF and IES, Copiii care nu merg la şcoală. O analiză a participării la educație în învățământul primar şi gimnazial, Bucharest, 2011.
    ${ }^{11}$ Total number of pupils enrolled in the same grade, who repeat the same year as the previous one, expressed as a percentage of all pupils enrolled in that particular grade.

[^8]:    ${ }^{12}$ NIS does not collect such data by pupils' area of residence.
    ${ }^{13}$ The difference between the number of pupils enrolled at the beginning of the school year and the number of pupils enlisted at the end of that school year, expressed as a ratio of the total number of pupils enrolled at the beginning of the school year.

[^9]:    ${ }^{14}$ The (average) number of school years attended by a student of the official age corresponding to the respective level, assuming that he/she will be enrolled in the schools of that level.
    ${ }^{15}$ Upper secondary education includes high schools that provide day classes, for four or five years (ninth to twelfth or thirteenth grades) according to specialization. For programs offering evening courses or distance learning, the duration increases by a year.

[^10]:    ${ }^{16}$ The person who works in a family lucrative unit led by a family member or relative, who does not receive compensation in the form of salary or payment in kind. The farming household is considered such a unit. If more persons in the household work for their own farming household, one of them - usually the head of the household is considered self-employed, while the others are unpaid family workers.

[^11]:    Source: NIS

[^12]:    Source: Eurostat 2014.

