I. Background and Accomplishments

To meet its ambitious EU income convergence ambitions, Romania’s labor market will need more and better-educated workers. Producing such workers, however, will be especially challenging, given the projected decline in young people who, traditionally, are the focus of education and training systems for the creation of new skills in the economy.

Upgrading the skills of the population will continue to be a key and continued priority in Romania, especially after the consequences of the current economic crisis start to subside. While the short term urgency of the financial crisis and its impact on the vulnerable may attract more immediate attention, the medium-term policies to ensure the country’s sustainable growth, such as education policies, will prove to be a critical factor to spark such growth. Romania has a good starting point to improve the skills of its population. Although there are lingering issues with regard to quality and equity in the provision of education (particularly with regard to the Roma population), the education system has been strengthened in a number of ways over the past decade. For instance, a revised and modernized curriculum has been introduced, a student assessment system has been set up, a new and better system of training teachers has been developed, and the finance and governance of the sector looks better today than a decade ago. Across the political spectrum, education is emphasized as a priority, exemplified by the broad support of the Report of the Presidential Commission for Analysis and Elaboration of Education and Research Policies (July 2007) and the National Pact on Education signed by all political parties (March 2008). More recently (October 2008), a new Education Strategy has been launched for public debate.

The various strategic documents mentioned above confirm that challenges remain for the sector, especially in light of the rapidly shrinking population. Reforms initiated in the past decade also need to be continued. This particular policy note focuses on only four of these challenges – ones that we judge of paramount importance in creating the labor market skills to move rapidly towards EU integration and income convergence. These challenges include: a) increasing participation in upper secondary; b) increasing quality and relevance of skills; c) expanding access to higher education, and; d) expanding adult education.

II. Key Issues and Challenges

Enrollment in upper secondary education is lower than in many other EU countries, and is mainly a problem of retaining socio-economically disadvantaged students.

While the educational attainment of Romania’s youth is impressive relative to Romania’s current per capita GDP, the proportion of 20-24 years which complete at least an upper

---

1 The main authors of this Policy Note are Lars Sondergaard and Mariana Moarcas. Sector Manager for Education is Mamta Murthi.
secondary education is lagging behind many EU countries (Figure 1) and the gap is even larger when compared to the United States and South Korea.

Household survey data from Romania suggests that it is mainly young people from rural, poor, and Roma households which are not completing upper secondary education (see Table 1). For example, only 5 percent of 19-20 year olds from households which identified themselves as “Roma” had completed a high school degree, compared to 57 percent of their peers who identified themselves as from “Romanian” households.

**Figure 1: Percentage of the population aged 20 to 24 having completed at least upper secondary education (1996, 2000 and 2006)**

Source: Eurostat

<table>
<thead>
<tr>
<th>Income quintile</th>
<th>No formal schooling</th>
<th>Primary school (grades 1-4)</th>
<th>Middle school (grades 5-8)</th>
<th>Vocation/apprentice (grades 9-10)</th>
<th>High school (grades 9-12)</th>
<th>Post-secondary or foremen's school</th>
<th>Higher education</th>
<th>Total in sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (poorest)</td>
<td>4%</td>
<td>8%</td>
<td>36%</td>
<td>24%</td>
<td>28%</td>
<td>0%</td>
<td>0%</td>
<td>100% 24%</td>
</tr>
<tr>
<td>2</td>
<td>1%</td>
<td>2%</td>
<td>24%</td>
<td>26%</td>
<td>46%</td>
<td>0%</td>
<td>0%</td>
<td>100% 21%</td>
</tr>
<tr>
<td>3</td>
<td>1%</td>
<td>1%</td>
<td>19%</td>
<td>19%</td>
<td>61%</td>
<td>0%</td>
<td>0%</td>
<td>100% 20%</td>
</tr>
<tr>
<td>4</td>
<td>0%</td>
<td>0%</td>
<td>14%</td>
<td>15%</td>
<td>70%</td>
<td>0%</td>
<td>0%</td>
<td>100% 18%</td>
</tr>
<tr>
<td>5 (richest)</td>
<td>0%</td>
<td>1%</td>
<td>11%</td>
<td>9%</td>
<td>80%</td>
<td>0%</td>
<td>0%</td>
<td>100% 16%</td>
</tr>
<tr>
<td>Total</td>
<td>2%</td>
<td>3%</td>
<td>22%</td>
<td>19%</td>
<td>54%</td>
<td>0%</td>
<td>0%</td>
<td>100% 0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Self-reported nationality</th>
<th>No formal schooling</th>
<th>Primary school (grades 1-4)</th>
<th>Middle school (grades 5-8)</th>
<th>Vocation/apprentice (grades 9-10)</th>
<th>High school (grades 9-12)</th>
<th>Post-secondary or foremen's school</th>
<th>Higher education</th>
<th>Total in sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Romanian</td>
<td>1%</td>
<td>2%</td>
<td>21%</td>
<td>19%</td>
<td>57%</td>
<td>0%</td>
<td>0%</td>
<td>100% 89%</td>
</tr>
<tr>
<td>Hungarian</td>
<td>1%</td>
<td>2%</td>
<td>15%</td>
<td>31%</td>
<td>51%</td>
<td>0%</td>
<td>0%</td>
<td>100% 7%</td>
</tr>
<tr>
<td>Roma</td>
<td>19%</td>
<td>27%</td>
<td>43%</td>
<td>7%</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
<td>100% 3%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>9%</td>
<td>29%</td>
<td>35%</td>
<td>26%</td>
<td>0%</td>
<td>0%</td>
<td>100% 1%</td>
</tr>
<tr>
<td>Total</td>
<td>2%</td>
<td>3%</td>
<td>22%</td>
<td>19%</td>
<td>54%</td>
<td>0%</td>
<td>0%</td>
<td>100% 0%</td>
</tr>
</tbody>
</table>
Recent information from Romania’s participation in OECD’s Programme for International Student Assessment (PISA) suggests that there is significant scope to improve the quality of non-tertiary education. In particular, the results from the literacy portion of the test revealed that a large proportion of Romanian students – 26 percent of the 15-year-olds – scored at a level (“below level 1”) indicating that they are likely to have serious deficiencies in their ability to use literacy in everyday activities. An equally large proportion of students received a similar score on the mathematics component of the test.

**Figure 2: student performance on PISA 2006 science**

Source: OECD PISA database 2006, Table 2.1a.

---

2 PISA is an internationally standardized assessment that was jointly developed by participating countries and administered to 15-year-olds in schools in more than 50 countries around the world, see http://www.pisa.oecd.org/.
The Romanian education sector has a number of symptoms commonly observed where the accountability framework is weak. These symptoms include: a) a large share of households reporting that informal payments in education are needed\(^3\); b) real spending has been rising rapidly but desired results – whether measured in terms of test scores, drop-out and completion rates – have been largely stagnant; and c) little or no information is publicly disseminated about the quality of education at the school or municipal level, suggesting that parents and students have little or no objective information at their disposal to act upon.

While growth in higher education has been phenomenal, enrollments in neighboring countries have been even more impressive. Further growth in enrollment in higher education is likely to be constrained by the current scholarship scheme which favors students from relatively wealthy households.

As the sophistication of the Romanian economy deepens, more workers with higher level skills will be needed. This shift in demand is already visible in surveys of firms, and in the very high returns to graduates with tertiary degrees. Across the world, policy makers are coming to the same conclusion and, as a result, are setting ambitious targets for young people graduating with a tertiary degree. In this respect, Romania has already made impressive gains in recent years. According to Eurostat, the total number of students enrolled in higher education (ISCED 5-6) rose from 360,590 in 1998 to 738,806 in 2005. This increase is all the more impressive because it happened during a period in which the population aged 20-24 declined by an estimated 275,000.\(^4\)

Figure 3: Students (ISCED 5-6) all ages - as % of 20-24 years old in the population (2005)

Source: Eurostat

---

\(^3\) EBRD: Life in Transition Survey 2006
\(^4\) Author’s estimate based on UN 2006 population estimates.
Despite the increase, an enrollment gap with the rest of EU remains. Figure 3 shows that Romania expanded its student numbers in higher education at a time when almost all EU countries did the same. In fact, Austria and, possibly, France (and Luxembourg) are the only countries which did not expand enrollments in the past seven years. As a result, despite Romania’s expansion, a large enrollment gap persists with most of its EU neighbors.

Further growth in enrollments is likely to be constrained by the current system of financial support which favors students from wealthier backgrounds. With student cohorts expected to decline, maintaining or expanding current enrollments will involve tapping into a pool of students who will have fewer financial resources available. This reality implies having a system of financial support. The current scholarship system, however, is almost exclusively based on a student’s past academic performance rather than an assessment of financial need. As a result, state support tends to reinforce rather than ameliorate the inequities observed in participation given the close correlation between student performance and family income.

**Figure 4: Estimate of distribution of support to students in public universities and the monthly amount of support (in RON) (a negative amount implies that the student is paying, rather than receiving) (2008)**

The exact distribution does not exist because each faculty has some freedom in designing how it distributes the public resources earmarked for scholarships. MERY is currently in the process of contacting all public universities to get a more precise figure.
Adult education is surprisingly low, and this is likely to become a binding constraint on the ability of Romania’s economy to grow and innovate.

So far, adults in Romania participate only to a very limited extent in continuous education and training. Although there is still an ongoing discussion amongst statisticians on how to accurately measure the extent to which adults participate in learning – with the discussion revolving around what constitutes training – there is clear evidence that adults in Romania are amongst the least likely in Europe to participate in adult training and education (see Figure 5). In fact, according to a commonly used measure, only 1.3 percent of Romanian adults participate in adult training and education compared to more than 30 percent of adults in Denmark and Sweden.

Given that rapid growth associated with convergence will imply that workers’ skills will depreciate much more rapidly than they once did, as less efficient firms will be replaced by new, more agile and innovative firms, workers need to be able to upgrade their skills on a continuing basis to be competitive. Moreover, given Romania’s demographics, if Romania’s economy will, indeed, grow by more than 5 percent per year in the coming decades, change in the economy will be so rapid that firms will not be able to rely solely on new graduates or new labor market entrants as the primary source of new skills and knowledge.

**Figure 5: Percentage of the adult population aged 25 to 64 participating in education and training**

![Figure 5: Percentage of the adult population aged 25 to 64 participating in education and training](image)

Source: Eurostat

---

6 Life-long learning indicator refers to persons aged 25 to 64 who answered they received education or training in the four weeks preceding the survey (numerator). The denominator consists of the total population of the same age group, excluding no answers to the question ‘participation to education and training’. Both the numerators and the denominators come from the European Union Labour Force Survey (LFS). Life-long learning is computed on the basis of the variable ‘participation in education and training in the last four weeks’ from the EU Labour Force Survey. From 2004, this variable is derived from two variables ‘participation in regular education’ and ‘participation in other taught activities’. Self learning activities are no longer covered.
Why are so few adults participating in adult education? A recent survey of firms in Romania by European Training Foundation (ETF 2004a) provides insights into the possible constraints to expanding opportunities for adult education and training. These include:

- Lack of incentives for firms and workers to participate in adult training;
- Lack of clarity in terms of public sector’s role (e.g. financing, provision, regulation, etc);
- Perception among firms that adult training is not a priority;
- Relatively large number of small and recently established firms which tend to provide less training to their workers;
- Lack of sufficient number of providers (across the country) to tailor to specific training needs.

III. Inter-Sectoral Linkages

This policy note is specifically targeted towards linkages between education and the skills needed for labor force development in the context of EU integration. Other linkages worth mention include the need to put in place incentives for more students to enter the medical professions at the tertiary level, in order to meet the forecast personnel shortages in this area.

IV. Policy Options/Recommendations

Policy options to boost enrollment in upper secondary should be targeted to the weakest students. Romania is not alone in searching for ways to keep rural (and socio-economic disadvantaged) youth in school, and there are valuable lessons to learn from other countries’ experience dealing with the same problem. Options which have been tried elsewhere to reduce drop-out rates and are relevant for Romania include:

- Addressing infrastructure needs, especially related to sufficient and appropriate spaces, sanitation, basic endowments, internet access, etc.
- Acting early! Research has shown that the origins of differences in performance between high school graduates and dropouts occur as early as kindergarten;\(^7\)
- Introducing means-tested grants paid to secondary students (e.g. UK project from 1999 which subsidizes children to remain in school for up to two years beyond the statutory age);\(^8\)
- Expanding capacity to monitor progress of students at risk of dropping out. Administrative data on enrollments and attendance is probably not sufficient!


• Introducing targeted interventions to improve quality of education in rural schools (e.g. Romania’s Rural Education Project);
• Making attainment of an upper-secondary education a national priority.

Increase the quality and relevance of skills. What can be done to raise the quality of general education? This policy note proposes that policy makers focus on addressing two key ailments of the sector, namely, the problem of weak accountability and of unfinished reforms related to curriculum, assessment and evaluation, and teacher training as binding constraints to improving quality.

Policy measures which have helped other countries improve accountability include:

• Introducing per capita funding to increase transparency of funding flows, and provide better incentives to education managers to optimize resource use. It is also an effective way to curtail spending pressures in an environment with declining student populations (see Abu-Ghaida (2008);
• Linking budgets to strategic planning and reform agenda, outcome based policies, strategies and programs; tying budget increases more clearly to demonstrable results;
• Developing a coherent human resources strategy, which includes improved incentives that tie teacher salaries to performance (especially in the context of the latest salary increase of 50%), pedagogic innovation, changes in working hours, and changes in the way teachers are deployed, hired, fired, promoted, and granted tenure (World Bank 2007). This includes setting standards for both pre-service and in-service teacher training.

Policy measures initiated in the nineties have stagnated over the last years and need to be continued by:

• Improving the quality and relevance of the curriculum to ensure a competence based approach and relevance of skills for school graduates, personal development and knowledge economy;
• Revising the teacher training policies and assessment and evaluation procedures to align them to a competence based curriculum, as the barometer of change of the education system.

Raise participation rates in higher education through:

• Redirecting funds based on financial need, and introducing a student loan scheme. As a guiding principle of a re-designed assistance package, the bulk of fiscal resources should be spent on the financially neediest students and not on the strongest. Thus, the main eligibility criteria should be financial need and not past academic performance. Some limited amounts could still, as incentive measure, be allocated to the very best-performing students regardless of means. Such an approach will be more effective in encouraging
desired outcomes. Under the current financial support schemes, the bulk of fiscal resources end up supporting students who would most likely have pursued a tertiary degree even without the public support. Moreover, fiscal resources end up supporting students who are more likely to come from resource-strong families who have motivated them, paid for tutoring, and provided them with an environment conducive to learning.

Introducing a student loan scheme as part of a redesigned system of financial support could serve a number of purposes. First, more students can be supported with a loan scheme compared to a grant scheme (because, partly, the loan can be recovered). Second, a student loan scheme is an instrument which can be used to serve a number of purposes in addition to the purposes commonly sought by a grant scheme (i.e. to help needy students). For instance, a student loan scheme would allow all students and parents the possibility to contribute a larger share to the high (and rising) cost of higher education. Such contributions are likely to be vital in the coming years as Romanian universities seek to narrow the quality gap with other EU members.

- Continue to rely on financial leverages from families and our private institutions to support further expansions in higher education. Private financing and provision have played a crucial role in Romania’s booming higher education sector, with almost a third of all student being enrolled in a private university and half of all students paying a fee (in either public or private universities). The use of public delivery of higher education with private financing, and the use of public financing (for the poor) with private delivery has been models widely explored around the world to expand participation in tertiary education.

Expand Adult Education Opportunities. The survey results from Romanian firms as well as the experience of the EU countries with highly developed adult education systems suggests that the state can play an important role in developing a market for adult education. For instance, the state can play an important initial role by:

- Announcing what role it will provide in the market (e.g. accredit providers, provide subsidies, cover costs initially, etc);
- Educating firms and workers of the importance of continuous education;
- Providing financial incentives at the outset to encourage workers and firms to participate, and providers to establish themselves.