

TRANSITION FROM EDUCATION TO WORK

SERBIA COUNTRY REPORT

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Introduction

This background paper aims to present an overview of information and knowledge available about the wider context in which the transition from school to work occurs in Serbia and hence to provide the primary field research on school-to-work transition undertaken simultaneously by the Strategic Marketing with the necessary framework for analysis of empirical results obtained through the survey. But it is also meant to serve as an input for national public debate on the subject, to be conducted within a wider international project of European Training Foundation.

One of the key points encountered frequently in various qualitative analyses of the current situation in the field is that there is a sharp disconnect between the world of education and the world of work. Not surprisingly, this is also the case with most of the surveys and research available on the subject used here to prepare this overview – they approach the subject either from the dominantly labour market perspective or from the educational policy perspective. This duality is encountered also in the policymaking arena, despite the pledges to the opposite by the relevant ministries and agencies. And this duality is also firmly embedded in public opinion, as result of a long standing tradition.

Labour market perspective is brought largely by the author's rather detailed analysis of the data collected by the two most recent available Labour Force Surveys of the Republican Statistical Office, for 2004 and 2005, as well as by the summary information from earlier surveys, which have been conducted since 1995. In parts the analysis also uses results from labour market modules of a comprehensive Living Standards Measurement Surveys for 2002 and 2003, conducted by a private institute using the World Bank survey methodology. Other important sources of information for both labour market and education indicators are the two most recent Population Censuses of 2002 and 1991, which also serve as main sources for demographic trends and projections. Projections of labour market indicators by 2012 are adjusted from author's own contribution to the National Strategy of Economic Development of Serbia (2006, forthcoming). Several recent summary assessments of Serbian labour market (World Bank, 2006, forthcoming; CREP, 2006; ETF, 2005; Arandarenko and Paunovic, 2005) are used to support the statements and findings throughout the text, as well as the secondary sources of information.

Educational policy perspective is brought mostly by the situation assessments, such as those of ETF, 2005, and World Bank, 2004 and 2006, on one hand, and by the strategic documents outlining the desired strategic and policy changes, in the first place those representing official national education strategies. Unfortunately, very little is available in terms of empirical research of some peculiar aspects of school to work transition.

The author himself is a labour economist rather than an education policy specialist; this has apparently had an impact on the choice of material for analysis and on the dominant perspective from which the issues tackled by this overview are approached and explained.

The rest of the paper is organized as follows. In the second section, a general macroeconomic background is presented. Third section deals with the demographic background. Fourth section provides information on general labour market situation, including basic information on labour market institutions. Fifth section gives projections of the dynamics of basic labour market indicators for the forthcoming six-year period. Sixth section looks at the youth labour market in more detail, while seventh analyses youth participation in education and links between educational and labour market statuses, as revealed by the analysis of the two most recent available Labour Force Surveys. Section eight presents conclusions of recent sociological research on the attitudes of the population toward work, education and training. Ninth section provides a short situation analysis of the education system and gives main highlights from the education reform strategic documents. Tenth section analyzes features of education system most relevant for school to work transition, which include extent of standardization and patterns of differentiation. Eleventh section looks at the structure of labour market and its possible relation to school to work transition patterns. Twelfth section assesses the extent of interfaces between the education and training, on one hand, and labour market, on the other. Concluding, section thirteen summarizes main findings obtained throughout the text.

1. Economic structure and economic cycle

Despite the fast economic growth and overall success in the far-reaching economic reforms introduced after October 2000, Serbia still struggles to overcome economic and social damage she suffered during the 1990s. Serbia began the 1990s relatively well integrated with the world economy, and with a higher standard of living than many other transition economies. However, armed conflicts, international sanctions, and trade shocks caused by the break-up of the Socialist Federal Republic of Yugoslavia (SFRY) during the 1990s had a detrimental effect. Combined with economic mismanagement, these events resulted in hyperinflation and a virtual collapse of the economy by the end of 1993. Slight recovery started from 1994 with the introduction of stabilization program, but in 1999 as a consequence of bombing GDP fell again by around 20% in a single year. By 2000, recorded per capita GDP had fallen to below one half of its 1989 level. Foreign trade volumes also fell noticeably, while the country experienced chronic high inflation. Real earnings declined significantly, with absolute poverty roughly doubling since 1990; share of education in GDP fell significantly, social protection and health services deteriorated as available financing fell below entitlement levels.

Soon after the October 2000 democratic change, Serbia embarked on strong economic reform program. Already in January 2001, the country launched an ambitious program aimed at a rapid transition to a market economy, the normalization of relations with foreign creditors, and integration with regional, EU, and world markets. The Government's economic program rested on three pillars: (i) prudent macroeconomic policies; (ii) market-oriented structural reforms; and (iii) the mobilization of significant financial and technical support from donors.

Macroeconomic stability and good progress on structural reforms have helped to sustain positive economic growth (averaging around 5% per year) since 2000 without experiencing typical transition recession. According even to most conservative forecasts, economic growth will remain at around 5% at least through 2008 (IMF, 2006). Significant recent and expected influx of foreign direct investments coupled with ambitious Keynesian-inspired National Investment Plan (envisaging spending on road construction, agriculture and tourism infrastructure, health, education, science and culture in the amount of some 1.6 billion Euros over 4 years out of privatization proceeds) launched recently by the government could perhaps dent macroeconomic stability, but may well push the growth forecasts for the forthcoming years further up. By the end of 2008, it is expected that the privatization of socially owned firms will be largely completed, while the restructuring of the public enterprises should be speeded up and well under way.

However, substantial and almost uninterrupted economic growth has not been followed by the decline in unemployment, which has been traditionally high in Serbia. On the contrary, as a consequence of economic restructuring and privatisation, ILO defined unemployment rate practically doubled between 2001 and 2005, from 11% to 22%; and unemployment rate based on registration data also slightly

grew, hovering slightly below 30%. Traditionally higher rates of registered unemployment are largely due to two factors – first, there is a significant number of informally employed or self-employed persons; and second, many informally employed and working age non-participants in labour force have incentives to register as unemployed, since the status of unemployed secures health insurance and some other social benefits.

While rising unemployment could be seen as an inevitable consequence of restructuring, especially of the model of sales privatization, absolute decline of employment until 2004 and its stagnation at a rather low level according to LFS data thereafter, is a worrisome sign of a low capacity of Serbian economy to translate output growth into employment growth. This conclusion is additionally underlined by the fact that formal employment numbers (including self-employed) are slowly but steadily declining since 2001. However, Serbia's relatively poor job creation record is typical of countries in the early stages of transition (World Bank, 2006)

2. Demographic situation and development

For the last twenty years Serbia has been a country with the declining and ageing population, but these secular demographic trends are somewhat blurred because of significant parallel emigration and immigration processes with their autonomous and rather irregular dynamics. During the 1990s, several hundred thousand mostly young and well educated people left Serbia as a response to economic hardship and unstable political situation. In the same period, several waves of refugees and internally displaced persons (from Slovenia and Croatia, through Bosnia and Herzegovina to Kosovo) partially made up for demographic losses caused by the emigration, but less so in terms of human capital losses.

In the past half a decade, however, net brain drain continued, although with slower intensity, while there were (fortunately) no new refugees; and there has been reported a growing number of returnees to Croatia and Bosnia and Herzegovina. Consequently, during this decade Serbia will most likely continue to be a net emigration country. Temporary rise in the birth rate was reported in the first couple of years after the regime change in 2000; but this is to be ascribed to families postponing to have their planned children because of irregular conditions during the 1990s rather than to their decision to have more children in the 2000s.

Although the population is ageing, Serbia and Montenegro in 2004 (one country at that time, with Serbia also including the province of Kosovo, which has much younger population than the rest of Serbia) still had median age of 36.5 years, compared to median age of 39.0 years for Europe as a whole. Projections within medium variant for 2015 are 38.8 and 41.8, respectively (UN, 2004). However, without Kosovo, Serbia had a high mean age of 40.4 years and median age also above European average. Share of population over 65 in total population is around 14% with Kosovo, and 17% without it, compared for example to 18% in Italy, 19% in Germany, 22% in Greece and 16% in Spain (SY 2006). Long-term population projections by UN are presented in Table 1.

Demographic projections suggest that Serbia's working age population will start to decline in both relative and absolute numbers after 2010. The dependency ratio (measuring the share of population outside the working-age population, i.e. those below 15 and over 64) is rather stable now but after 2010 it will start its secular increase because of the rapid increase in older people. Working age population will decrease in absolute terms by some 200,000 between 2005 and 2020.

Table 1. Demographic Trends for Serbia (and Montenegro), 1990 – 2020

	1990	1995	2000	2005	2010	2015	2020	2025	2030
5-year cumulative growth rates									
0-15	0.5	-2.7	-9	-8.7	-5.8	-3	-2.4	-2.2	-2.3
15-64	2.7	3.3	0.3	0.6	1.3	-1.2	-3.1	-2.3	-2.2
65+	14.1	23.6	15.3	7.1	-0.3	5.5	11.3	5.7	3.7
Shares									
0-15	23.4	21.9	20	18.3	17.3	16.9	16.6	16.4	16.2
15-64	67.1	66.7	66.9	67.6	68.6	68.2	66.7	65.7	65.1
65+	9.5	11.4	13.1	14.1	14.1	14.9	16.8	17.9	18.8

Source: UN projections for Serbia and Montenegro <http://esa.un.org/undp/>

3. General labour market trends and structure

According to the LFS estimates, the unemployment rate is high and growing from year to year. The LFS unemployment rate stood at around 10% in 2000, grew gradually to 14.6% in 2003, then jumped in 2004 (partially due to changed methodology) to 19.5%, and again significantly rose in 2005 to 21.8%. This last increase is largely due to employment losses, as shown in Table 2.

Table 2. Labour market indicators for working age population, 2004-2005

	2004			2005		
	Total	Male	Female	Total	Male	Female
Labour force participation rate	66.4	75.1	57.9	65.2	74.3	56.2
Employment rate	53.4	63.1	44.0	51.0	61.3	40.8
Unemployment rate	19.5	15.9	24.1	21.8	17.6	27.4
Long-term unemployment (12 months and more)	77.5	75.7	79.0	79.0	78.4	79.6

Source: LFS 2004 and 2005

Labour market indicators according to LFS appear to be much below EU averages and the employment rate in 2005 – suggesting that only every second person in working age is actually employed - is 19 percentage points below the EU target for 2010. Similarly, Serbia's unemployment rate is more than double the EU average, and the worst compared to EU members, where Poland and Slovakia have the highest rates of 18.8 and 18.0, respectively. Only when compared to other Western Balkans countries, Serbia appears to be somewhere in the middle by most labour market indicators.

3.1 Structural characteristics of the workforce¹

Looking at the structure of labour force by age shown in the upper rows of Table 3, it becomes clear that the youngest members of the workforce (aged 15-24) have the worst performance, largely due to

¹ Analysis of structural characteristics of the workforce is based on the data from Labour Force Survey, which is conducted on a sample of around 6,500 households. While overall published estimates of LFS - results obtained for larger sub-groups within the sample, such as gender groups, or groups leaving in three main regions, or those belonging to three different labour market statuses, could be considered to reliably reflect the structure and characteristics of working age population, this is less the case if we look at the more detailed sub-groups. Since we are primarily interested in structural characteristics of age groups 15-25 (sometimes also 25-35), any statements we will make about them hereafter, should be seen as at best indicative, rather than conclusive.

extremely low employment within this age category. While youth unemployment rate is expected to be above average because of the fact that almost all young workers below 25 years need to look for a job for the first time, the share of employment of young working age population in total employment is very disappointing, only 7%, compared to its demographic share of 19.2%, implying the employment rate of only 18.7%, compared with 51% for general population, as shown in Table 4. On a more positive note, long term unemployment rate of 67.8% among the 15-24 age group is lower than for other age categories, but it is also a consequence of significant inflow of new entrants which tends to lower the LTU rate.

Table 3. Distribution of working age population, employed and unemployed by age and education, 2005

	Share in Population 15-64	Share in Unemployment	Share in Employment
Age			
15-24	19.2	23.1	7.0
25-64	62.1	71.6	80.0
55-64	18.6	5.3	13.0
Education			
Less than elementary	7.4	4.0	5.4
Elementary	24.1	16.9	17.2
Vocational	20.2	27.7	22.7
Secondary	35.3	40.4	36.5
College or more	13.0	11.0	18.2

Source: LFS, 2005

Table 4. Labour market indicators by age groups, 2005

	Total	15-24	25-54	55-64
Labour force participation rates	65.2	35.8	82.0	39.5
Employment rates	51.0	18.7	65.6	35.4
Unemployment rates (ILO definition)	21.8	47.7	20.0	10.3
Long-term unemployment	79.0	67.8	82.5	81.6

Source: LFS, 2005

While age appears to be the determining factor for the labour market status probabilities of individuals, this is, rather surprisingly, much less the case with education. As seen from the lower rows of Table 3 and summarized again in Table 5, education groups differ among themselves mostly with regard to participation and employment rates, so that those with primary education or less have below average participation rates, while those with vocational, secondary and college education have above average participation and employment rates. However, as shown in Table 5, unemployment rates are pretty even across the educational groups, which is a bit surprising. The highest unemployment rate of 25.4% is actually to be found among those with vocational education, and the second highest of 23.6% among labour force members with secondary education. This could be interpreted as an indication that the system of vocational and secondary education does not add enough skills and knowledge to decidedly assist labour force members in lowering their exposure to the risk of unemployment.

Table 5. Labour market indicators by level of education completed for working age population, 2005

	Less than elementary	Elementary	Vocational	Secondary	College or more
Labour force participation rates	45.6	46.3	76.7	69.1	83.2
Employment rates	37.8	36.3	57.2	52.8	71.5
Unemployment rates	17.2	21.6	25.4	23.6	14.4
Long-term unemployment	83.1	86.9	80.9	76.4	70.6

Source: LFS, 2005

While stocks of unemployment and other indicators observed in one point in time may reflect the impact of inertia factors, current prospects of different age and education groups may be better understood by looking at their transition probabilities from unemployment from one year to another. This feature could be analyzed thanks to the panel characteristics of the two most recent LFS for 2004 and 2005. As is visible from the Table 6, neither age nor education seems to be decisive factors in the probabilities to escape unemployment. Still, women and older workers have the lowest probability of finding a job from one year to the next. Furthermore, these groups are more likely to leave the labour force compared to men and younger workers.

Table 6. Transition probabilities from Unemployment by Age and Gender

	2005		
	Employed	Out of Labour Force	Unemployed
Gender			
Men	36.1	15.3	48.6
Women	20.5	23.4	56.1
Age groups			
15-24	27.9	21.6	50.5
25-54	28.3	17.5	54.2
55-64	15.9	49.3	42.9
Education groups			
Less than primary	28.3	23.9	47.8
Primary	25.7	24.1	50.2
Vocational	29.8	16.8	53.4
General secondary	26.2	20.0	53.7
College or more	29.7	17.1	53.1

Source: LFS

Table 6 is important because it shows that while the overall labour market position of young workers is clearly inferior, their marginal position is less so. Younger workers face similar chances to exit from unemployment into employment as prime age workers, and are only slightly more likely to exit from labour force into non-participation, most probably back to 'low intensity' education, as discussed in Section 7 below. Still, the quality of jobs for youth could be significantly lower than for the rest of the population, including high share of informal employment and very high percentage of fixed-term and temporary contracts.

Table 6, seems to confirm at the margin what has been already suggested in general for the impact of education on labour market statuses of individuals – higher education level does not bring any

significant advantage in exiting from unemployment into employment. If anything, it only slightly lowers the chances of another undesirable movement – from unemployment to non-participation.

3.2 Ethnic composition of the workforce

The data on ethnicity are not surveyed within the LFS or LSMS. However, extremely difficult general economic and labor market position of Roma population (estimated at 3-5% of general population), especially of those living in improvised settlements (slams) is well documented, for example by detailed paper of Krstic (2003), based on data assembled by the Standard of Living Survey of the Roma conducted in 2003. Roma living in slams have very low labour force participation rate of only 40.1%, and unemployment rate which is twice the rate for general population; furthermore, virtually all employment is in informal sector.

On the other hand, it appears that other ethnic minorities (Bosniaks/Moslems in Sandzak; Hungarians, Croats and various smaller groups in Vojvodina; and Albanians in Pcinjski district of Southern Serbia) share by and large economic and labour market position with their ethnic Serbian neighbours. There has been only one research so far on horizontal inequality², done for Sandzak (Milanovic, 2003), which was presented as a case of 'almost perfect horizontal equality', although with slight (on the border of statistical significance) advantage of Bosniaks over Serbs.

However, ethnic groups tend to have very different birth rates, which impacts age structure and demographic prospects for labour markets in the regions where they live. This has been implicitly documented by the recent comprehensive study of regional labour markets (Arandarenko, 2006) which used an indicator 'share of youth (below 18) in total population'. While Bosniaks and Albanians have above-average birth rates, Hungarians and most other minorities have below-average birth rates, in all cases actually mirroring the trends in their respective nations.

3.3 Labour law and social protection system

The most recent World Bank assessment of Serbian labor market (World Bank, 2006) sees the changes made by the 2005 Labour Code (which replaced the 2001 Labour Code) as important, but not introducing fundamental reforms. The overall conclusion from the analysis of formal rules is that Serbia's labour market regulations are not particularly rigid compared to other countries in the region of South East Europe and in the OECD. Employment protection legislation (EPL) indexes for Serbia have recently been calculated by OECD and World Bank with slightly different methodologies and comparator countries, but results consistently show Serbia in the middle of the distribution of countries by the strictness of the EPL index. Moreover, large informal economy and limited inspection capacity in the formal sector undoubtedly further reduce the extent to which labor legislation actually affect labor market outcomes, improving further Serbia's relative position at least compared to the OECD members if not within the SEE region.

A number of recent surveys of firms done by World Bank and some other institutions also show that, compared to other constraints, the issue of labor regulations is not high on the list of problems firms face in doing business in Serbia. However, roughly one third of firms did indicate the labor regulation as a problem in both 2002 and 2005, compared to only one fourth of firms in the ECA and SEE regions. On the other hand, in EU8 such perception is shared by almost two fifth of the surveyed firms (World Bank, 2006). But more surprisingly, while in other regions the share of firms perceiving labor regulation as a problem significantly increased between 2002 and 2005, only in Serbia that share remained practically the same, despite the introduction of a new Labor Code, which has been widely criticized by the business community as re-introducing over-protection of workers which characterized Serbian labour legislation prior to 2001.

Labour legislation do not contain a separate set of rules for young workers, apart from the regulation of probationary work and specific flexible forms of employment for students and young people below

² Horizontal inequality is a concept which attempts to establish if there are systematic differences between the members of different ethnic groups with regard to economic situation (measured most often by disposable income and/or consumption) on a certain territory.

26. Unemployment benefits are strictly insurance-based and therefore eligibility criteria require a minimum uninterrupted period of formal employment of 5 years, excluding thus all first-time job seekers and large majority of unemployed below 25 years of age. Minimum wage is adjusted twice a year by the Socio-economic Council, and has been pretty stable at around 40% of average wage in the last several years; it is universal, i.e. there is no lower minimum wage for young workers. Social assistance is strictly family based, and instances of young labour force members qualifying for it as family heads rather than family members are hence rare.

Recent changes in the laws on Personal Income Taxation and on Social Security Contributions (adopted in July 2006), however, offer a powerful set of incentives for employers to hire younger workers (below 30 years of age), by introducing significant tax and contributions reliefs. More precisely, employer who hires a person defined by the Labor Code as an apprentice, who is also younger of 30 on the day of employment contract and is registered as unemployed at the National Employment Service, is exempt from the obligation to pay income tax withheld from the salary of the newly employed person, for the period of 3 years. If it is not the persons' first employment, and she has been registered at the NES for at least three months, the employer will be exempt from the obligation to pay income tax withheld from the salary of the newly employed person, for the period of 2 years. An employer is eligible for the above tax exemption if the new hire increases the total number of employees compared to the cutoff date of September 1, 2006. Analogous reliefs are introduced for the social security contributions paid at the expense of employer – three years for apprentices and two years for all other new employees below 30 years of age.

Since the implementation of this large scale programme has only started, it would be premature to make judgments on its effectiveness. However, it is clear that its universalistic design opens the room for some well known undesirable effects of active labour market programmes, most notably the deadweight effect, which will occur in every instance when an employer gets the subsidy although he would be willing to employ the same young person even without it, or if the subsidy were less generous. It could be expected that the deadweight effect will be the strongest among the young university graduates in some highly sought after occupations, such as economists, managers, IT experts and the like; but also more generally in the regions with relatively tight labour market. Another questionable aspect of the current design is that the subsidy is proportional to wage (rather than flat or subject to some ceiling rule), which additionally emphasizes the program's vulnerability to deadweight effect.

4. Projections of general labour market trends for the period 2006-2012³

4.1 Projection of the basic contingents on the labour market for the period 2006-2012

The projection of the trends in key labour market contingents is based on a number of key assumptions. First assumption relates to the existence of a significant labour hoarding in the firms which are yet to be privatized and restructured, within social and public sectors. Second assumption relates to the existence of significant number of 'jobs of last resort' (practically, involuntary employment in an inferior, 'secondary' sector), especially among the farmers and self-employed. From the latter assumption follows the prediction that, parallel with the faster increase in wage employment after the completion of privatization process, a reverse trend can be expected within the two sectors of 'last resort', implying that the productivity growth will be much faster than the employment growth. Third assumption relates to the procyclical character of the participation of working age population in labour force – in other words, it follows empirical rule that, parallel with employment growth, one can expect an increased number of those who move from non-participation to participation, usually by first entering the group of unemployed. As much as this feature will in the

³ Projections in this section are the result of author's self-developed approach and own calculations. They have been developed as a background input for the 'Strategy of economic development of Serbia' (2006, forthcoming), commissioned from the Economics Institute, Belgrade, by the Government, and further adjusted for the purposes of this paper.

first sub-period (until end 2008), characterized by the stagnation or slight decline in employment, keep the unemployment rate rather stable, in the second period it will, given the expected employment growth, slow down the decline in unemployment rate. At the same time, this is the fourth assumption – unemployment rate will be pretty stable in the first sub-period, mostly due to slight decline in participation; in the second sub-period it will have a potential to substantially fall, but will remain relatively high, partially because of the increase in participation rate.

However, coinciding with the end of the first sub-period, one can expect the emergence of an increasing **skills gap**. Since the labour market will gradually become tighter, and the restructured economy will require more people with modern skills, the skills gap may become more pronounced. Lack of relevant skills thus at that point may occur as a significant bottleneck which may slow down further economic restructuring, economic and employment growth.

These projections suggest that the quantitative indicators of the labour market will show significant stability in the forthcoming years and that, even under the optimal growth scenario, one cannot expect spectacular success in the lowering of unemployment. However, what could be expected is a significant improvement in the quality of employment, especially as a result of increased productivity and wages, as well as through the elimination of surplus labour in the sector of firms and its diminishing in the sector of self-employment and agricultural employment. Table 7 sums up and projects main contingents in the labour market based on these assumptions from year to year.

Table 7. Projection of basic labour market contingents: working-age population (15-65), employment, labour force, and unemployment

	2005	2006	2007	2008	2009	2010	2011	2012
Working-age population	4990000	4975000	4960000	4945000	4930000	4915000	4900000	4885000
Labour force	3429000	3403000	3393000	3377000	3367000	3377000	3381000	3385000
Employment	2709000	2693000	2700000	2690000	2693000	2736000	2782000	2830000
Unemployment (LFS)	720000	710000	693000	688000	674000	641000	599000	555000
Participation rate	68.7	68.4	68.4	68.3	68.3	68.7	69.0	69.3
Unemployment rate	21.0%	20.86%	20.42%	20.37%	20.01%	18.98%	17.72%	16.4%
Employment rate	54.29%	54.13%	54.44%	54.4%	54.62%	55.67%	56.78%	57.93%

Explanations:

Working age population is estimated on the basis of RSO projections for the period 2002-2012, as linear annual drop of 15,000 persons aged between 15 and 65 years.

Employment numbers are based on the projections of employment by the ownership sectors

Participation rate is estimated as procyclical variable of employment trend (drop in employment rate lowers participation rate and vice versa). For the starting year it was calculated by adding estimated employment for 2005 to the number of unemployed according to LFS in 2005

Labour force is calculated by multiplying working age population by participation rate

Number of unemployed is calculated as a difference between labour force and employed

Unemployment rate is calculated by dividing the number of unemployed by the labour force, multiplied by 100

Employment rate is calculated by dividing the number of employed by potential labour force, multiplied by 100

4.2 The dynamics of labour supply based on demographic projections

Although it is expected that the share of working age population in the total population will increase from 67.1% in 2002 to 68.3% in 2012, its absolute number will record the drop of almost 150,000, from 5,030,000 in 2002. to 4,885,000 in 2012, as a result of net population loss of some 350,000 in the ten-year period. Between 2006 and 2012, consequently, an average annual drop of the working age population by some 15,000 is to be expected. In this period the process of ageing of the population, including the labour force, will be additionally intensified.

4.3 The dynamics of labour force participation rate

Participation rate in Serbia will have pro-cyclical character in relation to the dynamics of employment. In other words, it is expected that it continues to slightly fall following the slight fall in employment until the turning point of the completion of privatization in 2008, and after that point a reverse trend could be expected. The increase in participation rate will occur not only as a result of increased employment, but also due to return to labour force of formerly discouraged members of working age population, as well as because there will be more incentives for first time entrants to labour force to complete the transition from school to work.

4.4 The dynamics of unemployment rate

Unemployment rate is derived from the estimated values for employment and participation rates. It is expected that it will be stable until 2008, falling slightly thereafter. That fall will be induced more by the increase in the number in employed than by the decrease in the number of unemployed.

4.5 Summary projections of the structural changes within the labour market (by age, gender, education and economic sectors)

Changes in the structure of labour force and employment by demographic, educational and sectoral characteristics will be taking place with the increased intensity in the entire projection period (2006-2012). With regard to age structure of working age population and labour force, a process of their gradual ageing will continue. However, with regard to the structure of employment and unemployment,

it is expected that the employment rate of the young (15-24) will increase and that at the same time youth unemployment rate will drop from present very high levels. However, youth labour force participation rates will remain rather low, among other factors because of the expected permanent increase in the size of student population. For the older members of working age population (50-65) reverse trends are expected – the decline in currently rather high employment and participation rates, accompanied by the increase in unemployment rate. These trends for older members will be more pronounced in the first sub-period (2006-2009), while for the youth in the second sub-period (2009-2012).

With regard to gender structure of labour force, present trends point at the gradual worsening of the position of women, especially when it comes to unemployment rate, which is higher by almost 50% than the corresponding rate for men. Further perspectives of gender inequalities in the labour market are unclear, but it is obvious that a targeted intervention for institutional promotion of gender equality is needed in order to reverse the existing trend.

With regard to educational structure of labour force, a tendency of its improvement is expected, as a rational response to the increase in returns to education, typical for transition. Especially important goal would be increasing the share of higher educated in working age population, because in that respect Serbia is significantly lagging behind the EU countries.

With respect to sectoral structure of employment, faster growth in the service sector is expected, but also a rather stable share of employment in secondary sector in the total employment. Agricultural employment will remain very high, with a significant component of hidden unemployment, especially during the first sub-period, while in the second sub-period a gradual process of reduction in agricultural employment will start.

5. Youth labour market

Analysis in this section is primarily based on the data collected by two most recent Labour Force Surveys, from 2004 and 2005. Since these two surveys have panel features, it has sometimes been possible to look at the transitions from one labour market status to another between these two points in time, which is the closest one can get in analyzing school to work transition without a specific survey.

Youth labor market in Serbia is characterized by very high unemployment rate (48.1% in 2004 and 47.7% in 2005), as shown in Table 8.

Unemployment rate is particularly high for the age group 15-19, amounting to almost 60%, of less than 20% members of that age group who participate in the labor market.

Labour market situation significantly improves after the age of 25, as seen in the last two columns of Table 8. However, young prime age workers in the age group 25-29 still have labour market indicators worse than average (except participation rate), especially in 2005⁴. Significant difference between the main labour market indicators for this particular age group in 2004 and 2005 again reminds us of an insufficient sample size, thus allowing for only very conditional and illustrative analysis.

⁴ Again, large differences between labour market indicators from 2004 to 2005 within 5-year age groups are due to small number of observed units – hence, the results could be distorted

Table 8. Main labour force status statistics for youth (15-24) and younger prime age workers (25-34)

	15-19	20-24	15-24	25-29	30-34
2004					
Total	466,936	512,382	979,318	466,935	470,820
Active	82,036	280,581	362,617	420,057	420,095
Employed	33,979	154,167	188,146	306,007	341,409
Unemployed	48,056	126,414	174,471	114,050	78,686
Inactive	384,900	231,801	616,701	117,364	50,724
2005					
Total	479,238	490,288	969,527	487,514	472,882
Active	91,328	255,672	347,002	372,048	418,669
Employed	43,795	137,539	181,335	243,484	323,032
Unemployed	47,533	118,133	165,667	128,564	95,637
Inactive	387,910	234,614	622,524	115,466	54,212
Rates (%)*					
Labor participation	17.6%	54.8%	37.0%	90.0%	89.2%
Employment	7.3%	30.1%	19.2%	65.5%	72.5%
Unemployment	58.6%	45.1%	48.1%	27.2%	18.7%
2005					
Labour participation	19.1%	52.1%	35.8%	76.3%	88.5%
Employment	9.1%	28.1%	18.7%	49.9%	68.3%
Unemployment	52.0%	46.2%	47.7%	34.6%	22.8%

Source: LFS 2004 and 2005

*labor participation and employment - as a % of corresponding age population; unemployment rate - unemployment as a % of labor force

Labor market situation according to subjective status (self-reporting) is similar to objective regarding the participation in labor market, but becomes rather worrisome when it comes to self-perceived unemployment status – almost 60% of young people consider themselves as being unemployed, as seen in Table 9.

Table 9. Subjective labour force status of youth, aged 15-24

	2004		2005	
Active	369,544	37.7%	345,123	35.6%
Employed	159,381	16.3%	155,161	16.0%
Self-employed (with employees)	2,346		2,685	
Self employed (without employees)	7,901		6,760	
Employed (private sector)	85,173		90,556	
Employed (public sector)	41,837		35,290	
Helpers	22,125		19,870	
Unemployed	210,163	56.9%	189,962	55.0%
Inactive	609,774	62.3%	624,404	64.4%
Pupil/Student	549,455		571,837	
Housewife	29,219		25,114	
Pensioner*	..		319	
Other	31,099		27,134	
Person with other income	584		685	
Incapable for work	5,078		8,232	
Person in the army	22,219		15,025	
Other	3,218		3,192	
Total	979,318		969,527	

Source: LFS 2004 and LFS2005

* Pensioners among youth are disability pensioners.

Youth unemployment rate in Serbia is exceptionally high both in EU and regional context. Youth unemployment in Serbia exceeds adult unemployment (in 2004) by more than 3 times. However, although the difference is very high such a gap is not unusual even for developed countries (Figure 1)⁵.

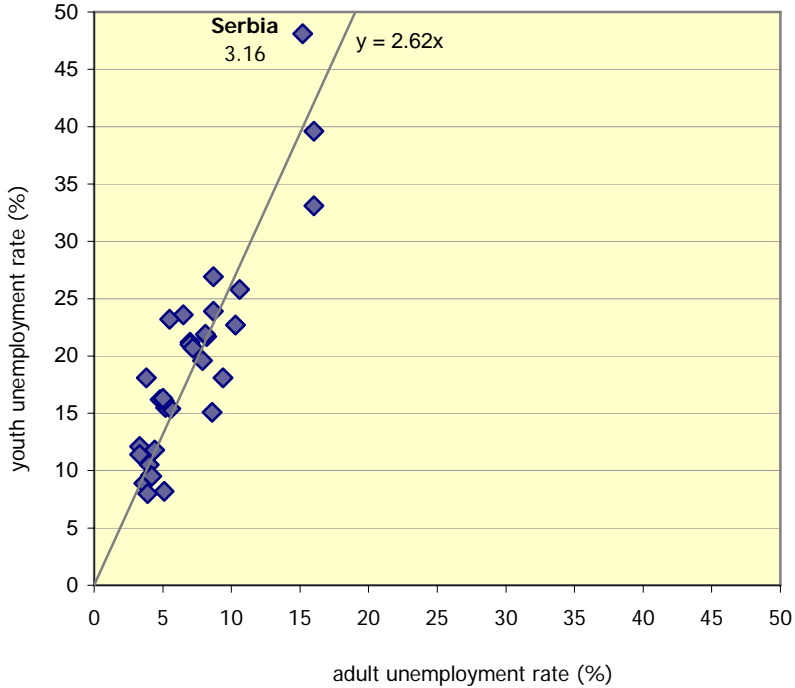
Table 10. Main indicators on youth labour market – Serbia and selected countries

	Youth unemployment rate	Adult unemployment rate	Ratio	Youth labor force participation
EU 25	18.9	7.7	2.45	45.1
EU 15	16.7	6.9	2.42	47.6
EU 10	31.7	11.9	2.66	35.0
Romania	23.2	5.5	4.22	35.8
Bulgaria	25.8	10.6	2.43	28.9
Serbia	48.1	15.2	3.16	37.0

Source: Eurostat for EU, LFS 2004 for Serbia (Adjusted from WB, 2006)

⁵ Ratio of youth to adult unemployment, for example, is 3.16 for Slovenia; 3.26 in Sweden; 3.38 in Malta; 3.63 in Italy; 4.76 in Luxembourg, etc.

Figure 1. Youth and adult unemployment rates (ratio) – Serbia and selected countries: EU 25, Romania and Bulgaria



Source: Eurostat and LFS 2004 for Serbia

As already seen for the general population, education does not appear to be a significant determinant of youth unemployment. Although unemployment rates are high for all education levels, higher rates can be related to the lower education levels, as seen in Table 11. Participation rate is low, especially for those with low level of education. However, according to a probit regression of youth unemployment, young people with general secondary education and those with college and more do not have lower probability of being unemployed compared to those with less than primary education (World Bank, 2006).

Table 11. Labour market status of youth aged 15-24 by education level

	Participation (activity) rate	Employment rate	Unemployment rate
2004			
No education	42.0%	12.8%	69.6%
Incomplete primary education	45.2%	24.1%	46.7%
Primary education	14.3%	7.6%	46.6%
High school education	51.2%	26.1%	48.9%
2-year college education	71.0%	42.1%	40.7%
4-year university education	68.4%	52.6%	23.1%
2005			
No education	31.4%	8.1%	74.1%
Incomplete primary education	35.0%	17.1%	51.0%
Primary education	15.6%	8.7%	44.6%
High school education	48.5%	25.3%	47.9%
2-year college education	74.8%	37.6%	49.8%
4-year university education	63.2%	25.4%	59.8%

LFS 2004 and 2005

6. Youth participation in education and links to labour market statuses

Analysis in this section is again primarily based on the data from Labour Force Surveys for 2004 and 2005.

School enrollment in Serbia for age category 15-24 is slightly lower than the EU average, especially EU 10, but higher compared to selected countries in the region. In comparison with the OECD data, participation in education is particularly lower for age 15-19 (OECD average 81.7 %).

Table 12. Participation in formal education⁶ by age group (as a % of corresponding age population)

Age group	2004		2005	
	In education	Out of education	In education	Out of education
15	92%	8%	91%	9%
16	94%	6%	88%	12%
17	83%	17%	85%	15%
18	62%	38%	63%	37%
19	48%	52%	48%	52%
20	39%	61%	45%	55%
21	38%	62%	41%	59%
22	32%	68%	38%	62%
23	30%	70%	35%	65%
24	25%	75%	27%	73%
15-19	76%	24%	75%	25%
20-24	33%	67%	37%	63%
15-24	53%	47%	56%	44%

Source: LFS 2004 and 2005

NB Participation in formal education – current enrollment in any of ISCED 1-6 levels⁷

Table 13. School enrolment of population aged 15-24 - as % of corresponding age population

EU25 European Union (25 countries)	59.2
EU15 European Union (15 countries)	58.3
NMS10 New Member States	62.7
Bulgaria	47.0
Romania	46.1
Croatia	47.1
Albania	26.3
Serbia	53.3

Source: Eurostat (data for 2003); LFS 2004 for Serbia

NB Students (ISCED 1_6) aged 15-24 years - as % of corresponding age population

Labour force participation rate of youth out of education is rather low – around 75% of total out of school youth population⁸. Furthermore, as shown in Table 14. less than 40% of persons 15-24 years

⁶ Formal education refers only to active pupils/students – question asked is “whether you have attended any of the listed educational institutions in the past 4 weeks”

⁷ ISCED 1-6 levels for Serbia are: 1 level – I-IV grades of primary school; 2A level – V-VIII grades of primary school; 3A – general 4-year secondary school (so called gymnasium); 3B – professional (vocational) 4-year secondary school; 3C- vocational 2-3 year secondary schools; 5A – 4 (to 6) year university education; 5B – 2 (to 4) year college education

old not attending formal education is employed, and only every fourth out-of-education person belonging to age group 15-19 is employed.

Table 14. Youth out of (formal) education by labour force status

	2004			2005		
	Employed	Unemployed	Not in the labour force	Employed	Unemployed	Not in the labour force
15-19	26.9%	58.9%	34.5%	31.6%	52.9%	32.9%
20-24	41.7%	44.6%	24.7%	42.2%	46.0%	21.9%
15-24	38.1%	47.8%	27.1%	39.2%	47.7%	25.0%

Source: LFS 2004 and 2005

Looking at the education structure of those out of formal education and not participating in the labor market points that young people without education or having very low level of education have lower activity rates, as seen in Table 15. More surprisingly, inactivity of those with university degree is also significant – 28% in 2004 and 20% in 2005. However, this result is unreliable because of small share of university graduates in the observed age group, as seen in Table 16 (pointing at yet another problematic feature of Serbian higher education, which is late graduation, often beyond the age limit of 25).

⁸ For example, more than 90% of youth out of education in the OECD is participating in the labour market.

Table 15. Youth out of (formal) education by labor force status and level of educational attainment

	Not in education (rates %)			
	Employment	Unemployment	Unemployment (% of labor force)	Not in labor force
2004				
No education	13	31	70	56
Incomplete primary education	32%	28	47	39
Primary school	29	28	49	43
Secondary school	40%	37	48	22
3-year vocational	42%	39	48	19
4 year schools	39	36	48	25
2-year college education	49	33	40	18
4-year university education	53	18	26	28
Postgraduate	100	0	0	0
2005				
No education	9	25	74	66
Incomplete primary education	27%	25	48	48
Primary school	33	28	46	39
Secondary school	42%	38	48	20
3-year vocational	48%	36	43	15
4 year schools	37	40	52	23
2-year college education	43	41	49	16
4-year university education	32	48	60	20
Postgraduate	..	..	..	..

Percentages of corresponding out of school age population

Source: LFS 2004 and 2005

Table 16. Out of school and not in labor force by education level

	15-19	20-24	15-24
2004			
Not in labour force	34.5%	24.7%	27.1%
No education	8.9%	6.3%	7.1%
Primary school	49.0%	21.4%	30.1%
Secondary school	42.1%	67.7%	59.7%
2-year college	..	3.0%	2.0%
4-year university	..	1.6%	1.1%
2005			
Not in labor force	32.9%	21.9%	25.0%
No education	15%	4%	10%
Primary school	33.3%	23.3%	31.3%
Secondary school	25.9%	68.7%	56.1%
2-year college	..	2.6%	1.7%
4-year university	..	1.4%	0.9%

Source: LFS 2004 and 2005

However, it would be misleading to conclude that a large number of out-of-education out-of-labour-force young people are so called discouraged workers. On the contrary, only few percents do not look for a job due to discouragement – 2.6% in 2004 and 1.2% in 2005, as shown in Table 17.

Interestingly, LFS data point that almost 30% of out-of-school-inactive do not look for a job because of education or training. This may be just a survey definition problem, rather than an encouraging sign that one third of inactive out-of-education young people pursues active informal education or training strategies. These persons tend to be formally unemployed, but inactive by the LFS criteria; and loosely attached to education mostly as extraordinary students, but again not actively studying by the LFS criteria.

Table 17. Out of school inactive by reason for not looking for a job

	2004	2005
Expecting to go back to work	0.6%	
Found job	0.9%	2.1%
Incapable	5.2%	8.5%
Personal reasons	23.3%	20.7%
Education/training	23.2%	29.0%
Other revenue	0.5%	0.7%
Discouraged	2.6%	1.2%
Army	17.9%	14.0%
Other and no answer	25.9%	23.9%
Total	100.0%	100.0%

Source: LFS 2004 and 2005

As shown in Table 18, between 20 and 30% of young people aged 15-24 in Serbia are neither attending formal education nor are employed (close to 40% of age group 20-24). Their education structure is dominated by those with secondary education. And this largely remains the case among the two older age groups (25-29 and 30-34), where naturally somewhat stronger presence of university graduates is also noticeable.

Table 18. Youth non-employment (neither in school nor in employment) by level of educational attainment

Out of education and not employed														% of corres. age group	
	No education ¹⁾		Primary education		Secondary education		2-year college		4-year university		Upper - Master and Phd		Total		
2004															
15-19	6,510	7.9%	29,066	35.2%	46,522	56%	364	0.4%	..	..	..	..	82,463	100%	17.7%
20-24	7,980	4.0%	32,936	16.4%	150,790	75%	6,792	3.4%	2,278	1.1%	..	..	200,775	100%	39.2%
15-24	14,490	5.1%	62,001	21.9%	197,312	70%	7,157	2.5%	2,278	0.8%	..	..	283,238	100%	28.9%
25-29	9,640	5.1%	35,429	18.7%	79,687	42.0%	10,106	5.3%	12,707	6.7%	..	..	189,590	100%	35.3%
30-34	5,575	4.5%	28,799	23.4%	73,623	59.7%	4,778	3.9%	10,444	8.5%	..	..	123,219	100%	26.2%
2005															
15-19	11,739	14.1%	28,758	34.5%	42,797	51%	..	..	..	..	..	..	83,294	100%	17.4%
20-24	4,020	2.3%	28,758	16.2%	134,751	76%	6,362	3.6%	3,234	1.8%	..	..	177,124	100%	36.1%
15-24	15,759	6.8%	28,758	12.4%	177,548	77%	6,362	2.7%	3,234	1.4%	..	..	231,660	100%	23.9%
25-29	9,567	5.0%	41,609	21.7%	119,565	62.3%	7,311	3.8%	13,298	6.9%	721	0.4%	192,071	100%	39.4%
30-34	6,578	4.5%	29,763	20.2%	97,369	66.2%	5,392	3.7%	7,883	5.4%	..	..	146,985	100%	31.1%

1) No education includes those with incomplete primary education

Youth unemployment is high for each educational level, but because of lower share of university graduates within the below-25 age group, it is heavily concentrated among young population with primary and secondary education. More than 95% of unemployed young people have at most upper secondary education, while more than 75% of unemployed are those with secondary education, and almost two thirds of them are looking for job more than one year, as seen in Table 19. Among the younger prime age workers (aged 25-34), however, the unemployment situation more resembles that of general working age population, but with more pronounced advantage of more educated over those with lower educational achievements, as seen in Table 19a.

Table 19. Unemployment by Education Level

	2004			2005		
	Unemployment rate	Share in unemployment	Share of long term unemployment	Unemployment rate	Share in unemployment	Share of long term unemployment
Total	48.1%	100%	62.9%	47.7%	100.0%	67.8%
No education	69.6%	1.1%	58.4%	74.1%	1.1%	81.9%
Incomplete primary education	46.7%	2.2%	79.0%	51.0%	2.1%	47.7%
Primary education	44.6%	14.6%	71.8%	44.6%	15.9%	71.3%
Secondary education	48.9%	78.7%	62.7%	47.9%	76.1%	68.5%
2-year college education	40.7%	2.9%	19.9%	49.8%	3.4%	52.6%
4-year university education	23.1%	0.5%	28.2%	59.8%	1.4%	51.5%

Source: LFS 2004 and 2005

Note: Unemployment rate as a % of labor force

Table 19a. Unemployment by Education Level (age group 25-34)

	2004			2005		
	Unemployment rate	Share in unemployment	Share of long term unemployment	Unemployment rate	Share in unemployment	Share of long term unemployment
Total						
No education	23.1%	0.4%	100%	59.0%	0.6%	100%
Incomplete primary education	28.6%	1.5%	100%	34.4%	1.9%	79.3%
Primary education	27.5%	17.7%	85.3%	34.5%	16.5%	91.4%
Secondary education	23.3%	66.9%	84.3%	27.8%	67.9%	81.5%
2-year college education	18.9%	5.6%	69.9%	28.3%	5.1%	86.3%
4-year university education	17.3%	7.8%	66.4%	22.3%	7.7%	45.7%
Postgraduate level	..	..	..	14.5%	0.2%	100%

Source: LFS 2004 and 2005

NB: Unemployment rate as a % of labor force

Apart for college and university graduates, it does not appear that the increase in education level shortens the period of job search. As shown in Table 20, average duration of incomplete unemployment spells is rather similar for young people with vocational and secondary education, on one hand, and for those with primary school or less.

Table 20. Average Unemployment duration (length of job seeking in years) by education status

	2004	2005
No education	1.40	2.17
Incomplete (1-4 years)	1.67	0.33
Incomplete (5-7 years)	2.11	0.86
Primary education	1.41	1.86
Vocational (3 year)	1.41	2.03
Secondary education (4year)	1.35	1.56
2-year college	0.57	0.67
4-year university	0.67	0.67

7. Values and societal views on work, education and training

A couple of recent studies have looked at the attitudes of either general population (Bolcic, 2004) or youth urban and rural population (Mojic, 2004) toward work in general and labour market strategies they would be ready to pursue.

In his research on attitudes of general working age population in Serbia toward various individual labour market strategies, Bolcic (2004) has found out that the sub-group of employed showed significantly greater readiness for adaptability in the labour market than those who are unemployed or out of labour force. For example, 63% of employed persons would be willing to move to another town in pursuit for (better) job, compared with 46% of general working age population. They showed much more readiness to acquire new knowledge and skills (70% compared to 50% of general working age population), to take a job below their qualifications (75% compared to 60%), to start a new firm (50% compared to 35%), even to work in informal economy (32% compared to 26%).

While employment status does increase pro-active attitude toward various work option, it is interesting to note that this is much less the case with the educational status. For example, readiness for geographical mobility in pursuit for job declare 29% of those with primary school or less, 49% of those with incomplete secondary education, 62% of those with vocational or general secondary education, and 55% of those with college or university degree. Age, on the other hand, plays an important role – young people (below 30) show greater readiness to move and accept various flexible work options than their older counterparts. Along the time dimension (similar researches were done in 1994 and 1999), there is a significant shift toward more pro-active attitudes, both among the general and among the youth population.

8. Education and training system

8.1. Situation analysis

Although available education data may indicate solid level of formal educational attainment in Serbia (according to 2002 Population Census, 81.4% of young people of the age 20-24 attained at least secondary education; in 2004/2005 school year according to SY 2006 the gross enrollment rate in primary education is 99% and in secondary education 77%, up from 64,4% in 1999/2000 etc.), according to most assessments education system in Serbia faces serious problems regarding its quality. Situation analyses typically point out at some obsolete features, most often emphasizing the weakness of vocational and, to a somewhat lesser degree, general secondary and higher education.

According to the recent ETF (2005) analysis, the educational attainment structure of the population 25-65 years (summarized in Table 21 below) old demonstrate a relative disadvantage with respect to

the EU average, with a higher percentage of those with low education levels and a lower percentage of those with higher education (though equal to that of the EU new Member States). Some positive aspects still could be noted, such as decreasing illiteracy levels during the last 10 years, but mostly due to attrition, and a better educational attainment structure for the younger population groups who are the most dynamic part of the labour force. The share of poorly educated among younger groups is the lowest and the share of those who have accomplished secondary education is the highest. However, the percentage of people with higher level of education is stagnant across different generations and actually has been deteriorating for men. In that respect Serbia seems to follow the pattern of the central European countries (Czech Republic, Hungary, Poland, Slovakia and Slovenia) that have showed improvements in secondary rather than tertiary education (Arandarenko and Paunovic, 2005).

Table 21. Educational attainment rate of population aged 25-65, 2002

	Low	Medium	High
Serbia total	36	49	15
Men	30	54	15
Women	41	45	14
EU-15	35	43	22
New Member States	19	66	15

Source: ETF 2005, based on Serbian Census 2002, ETF Key indicators data base, Eurostat

Low: accomplished primary education or less (ISCED levels 0-2)

Medium: accomplished secondary or post-secondary non tertiary education (ISCED levels 3 or 4)

High: accomplished tertiary education (ISCED levels 5 or 6)

Modern labour market demands highly independent individuals with broader competence, more adaptive for changing environment. Instead of traditional competences employers more and more require the overall competences i.e. problem-solving individuals (Strategy, 2005). However, as in many other formerly planned economies, the predominant approach to teaching and learning in Serbian educational institutions is based on memorization, which only builds strength in the acquisition of facts or just solving familiar problems (WB, 2004). This has been confirmed recently, as PISA 2003 (Programme for International Student Assessment), an internationally standardized evaluation tool of the education achievements of students of 15 years of age, highlighted the above mentioned weaknesses of the Serbian education system, and pointed at the quality problems of primary education, despite its practically complete coverage. In all four disciplines covered by PISA tests (mathematics, reading, science and problem-solving), Serbian school students scored below their counterparts in all other European countries. Even compared with students from countries with communist legacy in education, such as Russia, Latvia or Slovak Republic, scores of Serbian students were worse by some 20%.

One of the main drawbacks of Serbia's education system are vocational schools (3 and 4 years secondary schools), which in pre-crisis and pre-transition times provided straightforward links to the labor market. Regional distribution of vocational schools mimicked the regional distribution of large socialist enterprises. While many transition countries have moved away from this model, a very high 77 percent of Serbia's secondary enrollment is still in such schools. This high number of pupils enrolled in vocational schools does not reflect their real preferences, since most of the pupils who finished primary school would like to enroll gymnasium school (general secondary school) instead of vocational school. This disproportion is the result of limited capacity of gymnasiums. The current concept of vocational secondary education and training is still largely based on requirements of manufacturing based economy and does not fully reflect the more diversified and service oriented needs of labor market of today and especially of tomorrow. True, within the group of four-year vocational schools many provide a rather comfortable avenues for the continuation of schooling, such

as high schools for economy, law, administration; culture, art and public information, etc. The structure of the secondary education in Serbia by the vocational groups is presented in the Table 22.

Table 22. Secondary education in Serbia, 2004/2005, by the fields of activities

Field of activity	Schools	Pupils Total	Female Pupils	Pupils completed school
Gymnasium	138	70984	42728	17163
Agricultural production and food processing	61	22807	11644	6203
Forestry and wood processing	24	4824	1352	1233
Geology, mining and metalurgy	9	860	344	250
Machinery and metal processing	124	34993	4825	9900
Electrical engeeneirng	74	32162	2166	8366
Chemistry, non-metals and printing	38	9716	6503	2504
Textile and leather industry	51	7794	6369	2591
Geodesy and construction	28	8449	2546	1960
Transport	34	12133	3131	3357
Trade, catering and tourism	93	27527	16288	7542
Economics, law and administration	85	35111	35469	8625
Natural sciences and mathematics	1	353	248	74
Culture, arts and public information	34	5073	3224	1211
Public health and social welfare	29	22273	17923	5514
Other (personal services)	30	4393	3460	1147
Ecclesiastical	3	521	150	106
Total	485	299973	148370	77746

Source: Statistical yearbook of Serbia 2006, p. 347

Although efforts have been made during the last years by the Ministry of Education to ensure a better correspondence between students' preferences and available places, discrepancies are still present. Data on students' preferences and available places of the Ministry of Education coming from the intake process to secondary education during the last years demonstrate the following: an (unfulfilled) higher demand for general education rather than for secondary VET (however, this trend has been reversed in the school year 2004/2005); an (unfulfilled) higher demand for 4 years vocational education programmes in the fields of (i) trade, catering and tourism (ii) health and social welfare (iii) traffic (iv) personal services and (v) economy, law and administration which are economic growing sectors; lower demand for 3 year vocational programmes in all fields of study (except in personal services); and a big discrepancy between places offered and students' preferences in the two biggest vocational fields in terms of overall enrolment, i.e. electric engineering and machinery and metal processing, which actually correspond to declining economic sectors (ETF, 2005).

The aim of the reform of VET should be to provide a framework for rapid integration of Serbian vocational education in the general European VET system; opening for new needs of the economy oriented towards European and wider economic space; and making vocational education in Serbia more open and equitable, more efficient and effective. This will require the development of educational standards and systems of profiles (system of qualifications); optimizing the systemic structure of VET; adaptations in the legislative framework; modernization of the curriculum content and VET programs, providing for flexibility; advancement and development of new skills among teachers and instructors involved in VET; development of social partnerships, linking VET and labor market; revitalization of adult training institutions including the measures for their legislation and inclusion into the overall VET system.

Serbia is still in the beginning of the process for setting up an education and training system able to support the economic and social development of the country. All the work that has been done until now demonstrates that Serbia is quite advanced in terms of conceptual thinking, terminological clarity and overall grasp of different components of a modern VET system. The question is to which extent the implementation of the ambitious reforms is feasible in the current context taking into account the low capacity of implementation (at both national and education and training provider level) and the limited available funds (ETF, 2005; CREP, 2006).

Serbia's tertiary education system also fails to provide a steady supply of graduates with appropriate skills for successful adaptation to a changing labor market (WB, 2004). Only 11% of students graduate in time, while the average length of study is approximately 8 years. For example, recent survey conducted by Belgrade University's Faculty of Economics on the census of those graduated in 2003 shows that their average study period, meant to last 4 years, was 7.2 years. Therefore the tertiary education statistics is somewhat obscured due to the system of education. Namely, each student is supposed to pass a certain number of exams in order to be allowed to enroll in the next year. If a student fails to achieve this requirement he/she is required to enroll again in the same year, though most of the time he/she is not attending any courses, but only sitting the exams. In addition, upon attending the courses in the final year student is expected to enroll once again, thus extending his/her status for another year. This explains the difference between the total number of the enrolled students and the so-called `active` students that are attending the courses (Turajlic, 2003). The trends in student population in the past five years broken down by the years of study are presented in the Table 23 below.

Table 23. College and university students by years of studying and way of financing studies

	Total		Budget financed				
	All	Budget financed	I	II	III	IV	V
2001/02	182941	82115	25046	25607	16587	9629	5246
2002/03	197322	100558	24955	32994	22762	14007	5840
2003/04	203909	107299	26038	35229	24974	14686	6372
2004/05	218368	108161	25453	33952	25872	15992	6892
2005/06	229335	110520	25947	34068	26714	16791	7000

Source SY 2006

Numbers and structure of graduated students in the period 2002-2004 are presented in the Table 24 below.

Table 24. Graduated students, 2002-2004

	2002	2003	2004
Total	18079	19748	22047
of which female	10564	11590	13344
Humanities and Sciences	11609	12590	14265
Theological	-	-	56
Arts	490	511	594
2 year Colleges	5980	6647	7128

Source: SY 2006

Short description of the education system in Serbia

Compulsory education lasts 8 years, from age 7 to 15. The first and most decisive choice for students comes at the age of 15 when those who have decided to continue their studies (around 87% of those ending primary education according to calculations of the MoES) have an option between the

- 4 year Gymnasium, leading to the Matura qualification and provides the possibility for entry to University (23% of the total enrolment in secondary education in 2004/05)
- 4 year vocational education, which provides the possibility for entry to the university, (56% of the total enrolment in secondary education in 2004/05)
- 3 year vocational education (21% of the total enrolment in secondary education in 2004/05)

Secondary education in 2004/5 (SY 2006) was delivered in

- 138 general education schools (gymnasia)
- 347 vocational schools
- art schools
- vocational schools for children with special needs

Vocational schools offer a choice of around 312 profiles grouped in 15 fields.

Participation rates in education in 2004/2005 (SY 2006)

- 7-14 years old 99.03%
- 15-19 years old 77.09%

Tertiary education was delivered in

- 135 faculties for humanities and sciences
- 25 art faculties
- 79 2-year colleges

9. Features of education system relevant for school-to-work transition

9.1. Extent of standardisation

This feature refers to the extent to which curricula, examinations and certification are standardised and 'quality assurance' standards are ensured on a national or regional basis – if educational processes and related qualification are not standardised then they cannot be taken as accurate signals of educational achievement.

Curricula standardisation of **primary and general secondary education** in Serbia is traditionally high (it used to be extremely high, to the level of single textbooks for courses up to the university level). Examination methods, grading etc. are also highly standardised. Quality assurance standards,

however, were deteriorating throughout the 1990s, hence widening the performance gap at the entry to further education depending on the quality of individual schools.

The level of standardisation of **vocational education**, however, is rather low. *The Concept of Secondary Education and Training* demands the delivery of a series of individual documents that would elaborate and operationalise the solutions for improvement in standardisation. VET reform strategy (2005) demands the delivery and implementation of the following documents:

- Methodology of Developing New Unique Curriculum of Secondary VET at National and School Level;
- Instructions for Organisation and Realisation of the New Unique Curriculum of Secondary VET (forms, organisation, normative, role of teachers);
- Methodology of Development of Secondary VET Standards (educational standards, trainings standards);
- System of Professional Development of Teachers, School heads and school administration staff in secondary VET (system of pre-service and in-service training, promotion in carrier, system of licensing);
- Quality Assurance System in Secondary VET (function, performance standards, monitoring and evaluation, information management in quality assurance);
- Methodology of Setting Occupational Standards in Secondary VET;
- Certification system in Secondary VET;
- Instructions for Processing Exams in VET and in adult education (final exams, vocational Matura, masters' exam and specialists' exam);
- Social Dialogue in Secondary VET (horizontal and vertical approach);
- School Network of Secondary VET Schools in Serbia;
- Roles and Functions of Institutions in Secondary VET in Serbia;
- Impact of Secondary VET Reforms on the System of Financing (based on the example of pilot schools in the nine fields of work).

9.2. Extent of differentiation

Extent of differentiation will be assessed along the three standard dimensions – track, outcome and 'progress' differentiation.

a. Track differentiation

Track differentiation refers to the different education routes which young people could take after primary education, the most prominent being the choice between academic/general and vocational/technical routes. Serbia is characterized by early track differentiation (like, among European countries, Germany and Netherlands), since this decision is to be made after 8 years of primary education, at the age of 15. Again similar to German and Dutch system, the movement between tracks is very limited, since these two tracks are based in different institutions and, less pronounced in Serbian case, on different modes of instruction/learning. Track differentiation in Serbia appears to be very high within the VET system itself, because of large number of occupational tracks within it.

b. Outcome differentiation

The grading structure in Serbia is moderately differentiated and is basically unified in both general secondary and vocational education – grades vary from one (failing) to five (passing with distinction). Grade point average is usually used to screen students who want to enter university education alongside with results obtained at specific entry exams.

c. 'Progress' differentiation

Progress differentiation is assessed along two dimensions – the progress from one year to another within a chosen track, and progress to the next stage in the education system. Along the first dimension, while the extent of grade retention is not particularly high, dropping out is relatively significant, particularly in vocational schools. In the last five years the dropout rate has been below 1% in primary education but around 2.5% in secondary education (SY, 2006). Progress to the next stage in the education system is not possible for those completing three-year vocational programs; however, it is possible for all four-year vocational programs.

Interestingly, schools offering economics, electrical engineering, and health are now attracting many of the most able students, i.e. those who would have been expected to go to a grammar school. Their motivation is to follow a route that can give them entry to university while developing employment-related knowledge and skills. This may be considered a distortion of the system firstly, because these students need an educational preparation akin to the General Matura and secondly because this consumes scarce resources providing practical training that they do not need. On the other hand, from the standpoint of individuals, this behaviour is rational since it introduces flexibility of options which are mostly denied by the system of early track differentiation.

Most European systems recognise that young people tend to fall into three broad groupings:

- Those who are committed to the idea of going to university
- Those who (while they might later wish to consider higher education) want to be educated or trained for entry to employment
- A 'middle group' who are interested in the possibility of higher education (particularly vocational/professional higher education) or postsecondary education or employment and may wish to keep their options open as long as possible

The Serbian system does not yet adequately cater for the 'middle group'. It is important to address their needs, not only for the sake of these students themselves but also to avoid the danger of 'academic drift' in the route designed to provide practical training for employment.

In creating a structure that meets the different needs of young people, it is also important to ensure that there is flexibility and mobility between routes to take account of changing aspirations and circumstances. There is a need to define a school system and VET structure that reflects the needs of the labour market, offers adequate choice to young people, especially outside the cities, meets the needs of students who want to keep open the option of entering university and acquiring employment-relevant skills, provides a practical and occupationally-relevant route for young people who want to enter employment or perhaps progress to one or two year postsecondary education or university education in a related field and allows for mobility between general and vocational routes (Tuck, 2005)

11. Labour market structure

As a country in transition, Serbia still has 'old' sector of social and public enterprises alongside the growing 'new' sector consisting of both privatized 'old' firms and *de novo* firms. In addition, there is a significant informal labor market, which, according to most recent estimates, engages over 25% of wage employees (World Bank, 2006).

Within the traditional sector there is still a significant labour hoarding in the firms which are yet to be privatized and restructured. But 'bad jobs' are also to be found within the private sector, and they include many farmers and self-employed persons. Large majority of informal employment is characterized by low wages, extreme insecurity and other characteristics of inferior segments of the labour market.

Defining the dominant structural type of labour market under the extremely volatile circumstances of transition is not an easy task. Still, based on the insight in the actual functioning of these three rather different parts of the labour market, a very tentative classification could be made. The primary segment of the new sector, mostly comprising of successful firms bought often by the international companies is characterized by the domination of internal labour markets. Its secondary segment, consisting of privatized but still struggling firms as well as of a large number of small *de novo* firms, often established as last resort for redundant workers from 'old sector', is characterized by the domination of external labour markets.

The traditional 'old' sector, which is now shrinking and is in the final stage of the process or restructuring and privatization, and as a consequence in the last years its labour market better fits the model of external labour market. However, because of its long crisis and constant attrition of labour force, young workers are rarely employed within this sector.

Informal labour market has always been characterized by the extreme job insecurity and hence fully fits the model of external labour market. This is where a great number of youth could be found. Occupational labour markets could be found only within specific highly sought after occupations and are not often encountered within the vocational labour markets as is the case e.g. in Germany.

12. Interfaces between Education and Training System and Labour Market

One of the most often emphasized weaknesses of Serbian education system is a clear disconnect between the 'school' and the 'work'. Labour Code of 2005, Article 47, stipulates that the employer can employ the trainee (apprentice) for the period of up to one year, if this is the first employment of the person, for the job which requires education level and skills of the trainee. However, the Law does not explicitly allow for a German-type 'dual system'. On the contrary, in Article 25 of the same Code, among the legal conditions for employment of persons under 18 years of age, apart from the written approval of parents and health clearance, there is a requirement that the employment contract 'does not threaten young person's moral, health and education'.

On a more general note, the scope for co-operation between the education and economy side is widely emphasised and proposals are made on how to ensure it. Also at this moment it seems that the room for co-operation is open and the good will exist between the different partners (ministries and governmental agencies, employers associations and trade unions, Chamber of Commerce, local governments, etc), despite the fact that the capacity of the stakeholders is limited. The two main partners for the skills development of the present and future labour force, namely the MoES and MoLESA, are also declaratively open for closer co-operation. However, the institutions and processes that can ensure this co-operation are lacking or are weak (CREP, 2006).

13. Concluding remarks

Youth labour market in Serbia is characterized by low participation and employment rates and by a very high unemployment rate. Still, as the process of transition unfolds, it seems that young people face more possibilities on the labour market than before, since their relative position have not further deteriorated in the last couple of years and their labour market transition probabilities are not different compared with the group of prime age workers.

However, it would be too optimistic to conclude that the process of transition to a market economy, coupled with the declining inflow of new age cohorts into the working age population, would gradually

solve the problem of youth unemployment. There is at least one important obstacle for this to happen, and it is a largely unreformed education system. There are significant problems arising at all three levels of education – primary, secondary and higher.

Although the coverage of primary education is practically complete, it still does not equip pupils with enough problem solving and critical thinking skills, as suggested by their poor performance at the recent PISA tests. There is a general agreement that, despite some scattered progress, mostly in pilot areas, vocational education is not sufficiently tuned to the changing needs of employers, nor it provides enough practical skills and opportunities for smoother school-to-work transition. Finally, ever increasing demand for higher education as a response to more favorable signals from the corresponding job market, is being largely met by the flourishing of new private universities, most often of doubtful quality. Public universities are undergoing reforms along the lines of Bologna process, but modest funding, high student to teacher ratio and space problems all prevent the full implementation of Bologna principles in practice.

Because of generally low level of job creation, skills gap at this moment does not appear to be a major source of youth unemployment. However, this may change rather soon, especially after the completion of privatization and expected stronger growth of private sector employment, particularly in modern services and high-tech manufacturing. Closing the emerging skills gap may well be one of the major challenges for sustaining high rates of GDP growth in the forthcoming years.

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