# EQUITY IN EDUCATION THEMATIC REVIEW 

## COUNTRY ANALYTICAL REPORT

## RUSSIAN FEDERATION

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## Preface

This background report of the Russian Federation was carried out by the State University - Higher Scholl of Economics (SU-HSE). SU-HSE is one of the leading universities in Russia in the field of Economics and Social and Political Sciences, which the university mission is to project the social sciences to the heart of national debate on economic and social development through the quality and relevance of its research and teaching. The SU-HSE managers and researchers actively participate in the education policy elaboration and implementation process at national as well as institutional level.

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## CONTENT

Part I: The Context ..... 4
Chapter 1: The situation in the country and the contemporary state of the problem of ..... 4
justice
1.1. The national context of the development of education: economic, socio- ..... 4
demographic, and geographical aspects
1.2. The contemporary state of the problem of educational opportunities with its6
detailed analysis on different levels of the Russian Federation educational system 1.2.1 Pre-primary education ..... 8
1.2.2 Comprehensive education ..... 10
1.2.3 Vocational education and vocational training ..... 12
Part II: Opportunities and results ..... 17
Chapter 2: The structure of justice in education ..... 17
2.1 Social and economic differences ..... 17
2.2 Preparation to entrance examinations at higher educational establishments ..... 18
2.3 Regional differentiation ..... 19
2.4 Gender differentiation ..... 20
2.5 Material support ..... 21
Part III: The reasons and interpretations ..... 22
Chapter 3: Inheritance of injustice from one generation to another ..... 22
Chapter 4: The understanding of the reasons for injustice ..... 24
4.1 Motivation barriers ..... 24
4.2 Institutional barriers ..... 28
4.3 Social and cultural barriers ..... 30
4.4 Economic barriers ..... 34
Part IV: The policy, programs, and initiatives ..... 38
Chapter 5: Active influence of educational policy on the problem of justice ..... 38
5.1. Institutional bases and main trends of the policy aimed at equality of educational ..... 38 opportunities
5.2. The increase of educational opportunities for socially weak groups ..... 39
5.3 Social stratification and inequality in the sphere of education: search for new ..... 40
strategies
5.4 The solution of the problem of equality of educational opportunities in the ..... 41
process of modernization of the system of education
5.5 Monitoring of the programs aimed at providing equal educational opportunities ..... 42
Appendix 1. Russian education system via ISCED ..... 44
Appendix 2. Statistics and comments ..... 46
References ..... 78
List of tables ..... 80
List of figures ..... 81

## Part I: The Context

## Chapter 1: The situation in the country and the contemporary state of the problem of justice

The Russian system of education has been developing as the result of social, cultural, and economic changes of the early 90 -s. But at present we can see that the significance of the particular factors of transformation that is specific to Russia is declining as tendencies common to the majority of modern countries are coming to the forefront. While choosing strategic parameters for the development of the educational system it is necessary to take into account both vectors of changes those resulting from the reforms of the $90-\mathrm{s}$ and those that are connected with integration of Russia into the international community.

### 1.1. The national context of the development of education: economic, socio-demographic, and geographical aspects

The transition from the planned type of economy to a market, the start of the sweeping program of privatizing state property, production decline and a series of financial crises - all these economic factors have defined the vector of the Russian society's transformation. In the $90-\mathrm{s}$ all the indices of the system of national accounts tended to deteriorate. According to the data of the Centre of Macroeconomic Analysis and Short-term Forecasting the reduction of the volume of production (including the reduction of the production in the sphere of Military-Industrial Complex) was as much as $42 \%$ in the years 1991-1998. In those years the gross product declined by 1.7 times, agricultural industry - by 1.8 times, capital investment - by more than 3.5 times and real income - by 1.7 times.

The socio-economic recession was aggravated as a result of the severe financial crisis in 1998, which happened because of the default of the internally held public debt in August 1998, accompanies by a devaluation of the Russian Ruble to a fourth of its former value, an outbreak of inflation (doubling of retail prices), a crisis of the entire banking system and problems with repayment of the external debt. However, since 1999 there is evidence of production growth of and improving indices of the system of national accounts. In 1999 the GDP grew by $5.4 \%$, in 2000 - by $8.3 \%$, in 2001 and 2002 - by $5.5 \%$ and $4.5 \%$, correspondingly. Real cash income (after deduction of compulsory payments, and adjusted by the consumer price index) increased by $14 \%$ in the year 2003 compared to the year 2002.

The economic recession has significantly influenced the system of education. The amount of financial resources allocated to the system of education shrank by 2-3 times within the period from 1991 to 2003. In 2001 budget funding at all levels was $3.58 \%$ of the GDP, or even $4 \%$ of the GDP counting in receivables.. Another 1-1.5\% of the GDP was channeled into the system of education from private sources in payment for services rendered by educational establishments and teachers.

The reduction of the educational system funding has resulted in a reduction of budget spending by $40 \%$ per 1 comprehensive school student, by $70 \%$ per 1 higher school student, and by $75 \%$ per 1 student of primary vocational education as compared with the late $80-\mathrm{s}$ - early 90 -s. At present time economic stratification and fast differentiation of the society is the central factor in the reproduction of inequality. Sampling analysis of household budgets for the fourth quarter of the year 2003 shows that $27 \%$ are characterized by average per capita resources being less than the cost of living ( $32 \%$ in the year 2002). Among those $40 \%$ had children under 16 years old including $70 \%$ with three or more children. That analysis also reveals the fact that differentiation of the society on the basis of average per capita resources is also very high: $10 \%$ of the so-called well-to-do population spends $27 \%$ of the total available resources, whereas $10 \%$ of total population disposes of only $3 \%$.

According to the data of the 2002 National Census, the population of the Russian Federation is 145.2 mln people. Compared with the previous National Census (1989), the population of Russia declined by 1.8 mln people (by 1.6 mln in urban areas and by 0.2 mln people in rural areas).

The population decline was mainly due to natural reasons. Simultaneously with the natural decline of the population, migration has become the main source of compensation of the number of the population since 1992. Even in 1994, when the migration inflow was the highest in the last three decades ( 0.8 mln people) it was not able to compensate for the natural decline of the population. In the
period from 1989 to 2002, $75 \%$ of the natural population decline was compensated due to migration inflow, the main bulk of which came from the CIS and Baltic states.

Serious changes in the population in terms of age have taken place in the society. The sharp decline in the birth rate that began in the late $80-\mathrm{s}$ - early 90 -s of last century has accelerated the demographical ageing process. Compared to 1989, the average age of the country's residents has grown by 4.3 years resulting in 31.7. These figures are equal to 3.6 and 34.1 for men and 4.6 and 39.8 for women, correspondingly.

In comparison with 1989, the number of people above working age has grown by 2.6 mln people (by $9.5 \%$ ). At the same time the number of children and teenagers reduced by 9.7 mln people (by $27 \%$ ) within the same period. The sharpest reduction (by $43 \%$ ) came among children under 10 years old (the generation born within the last decade). At present time $16.4 \%$ (in $1989-23.1 \%$ ) of the population are 15 years old children.

At the end of November 2003 the number of the working people aged $15-72$ was 66.5 mln people or $92.1 \%$ of economically active population. This index decreased by $6 \%$ as compared to the year 1992. Specific proportion of women in the total number of the employed population remains practically unchanged at $49 \%$.

During the first half of the $90-\mathrm{s}$ the labor market of Russia was characterized by the appearance of new features< that is redundancies and a growing unemployment. At the end of November 2003, the number of unemployed people searching work was 5.7 mln or $7.9 \%$ of economically active population. From 1992 to 1997 the absolute number of unemployed people had a tendency to increase, having reached the maximum in 1999 ( $9.1 \%$ of economically active population). The following years witnessed a decrease of unemployment. Within the year 2003 the number of unemployed people fell by 0.4 mln people (by $7 \%$ ).

The average age of unemployed people at the end of 2003 was 34.6 years (32.7in 1992). The largest group among the unemployed is people aged 20-24 comprising $18 \%$ of the total number of the unemployed. The total number of unemployed people under 30 years old accounts for $41 \%$ of the unemployed. The number of people under 30 among employed workers is considerably less $-24 \%$.

The highest peak of unemployment occurred in the youngest group of population (under 20 years) $-29.8 \%$, when young adults are searching for work on the labor market then it gradually decreases reaching its minimal level for age groups of 55-59 and 60-72, i.e. among people who are close to the retirement age.

The territory of the Russian Federation is $17,075,400$ square kilometers accounting for $12.5 \%$ of the world total. Russia ranks first place in the world as far as the area is concerned. Although the Russian population is one of the largest in the world, there is obvious discrepancy between the size of its territory, the number of the population and the distribution of the population. The density of the population is 8.5 people per 1 square kilometer.

The most densely populated areas are those where the density of the population exceeds 50 people per 1 square kilometer. First of all this regards to Moscow and Moscow Region (317.7 people per 1 square kilometer on January 1, 2003), St. Petersburg and Leningradskay Region (72.3), Kaliningrad Region (62.3), as well as such republics as North Osetia (84.5), Chuvashiya (73.2), KabardinoBalkariya (62.4), Adygeya (58.5), Ingushetiya (56.7), Tatarstan (55.3), Krasnodarsky Region (65.4), and the following regions: Tula (64.8), Samara (60.5), Ivanovo (54.0), Vladimir (53.7), Belgorod (55.3), and Lipetsk (50.60. The less densely populated areas are those that are located in Eastern Siberia and the Far East.

Within the framework of the policy of centralizing and consolidating of the vertical structure of executive authority, the republics and regions of the Russian Federation are included in Federal Districts ("okrug"). A federal district is a large area made up of several regions of the Russian Federation: Central Federal District is made up of 18 regions, Northwestern of 11, Southern of 13, Privolzhsky of 15 , Uralsky of 6, Siberian of 16 and Far Eastern is made up of 10 regions.

From the socio-economical point of view Russia is differentiated not so much according to political and administrative regions, ethnical areas, and native zones, but rather according to the zones of accessibility.

In the conditions of the post-Soviet period with its disintegration of the single cultural and educational space, isolation of the subjects of the Federation - the opposite extremities of spatial differentiation in the society are associated with the center as opposed to the periphery, the capital
versus provinces. In the periods of economical instability the relations between the center and the periphery grow hostile thus influencing the differentiation between "central" and "regional" higher educational establishments.

Another vector of the territorial differentiation is "city - countryside". The significance of this differentiation is especially high oat the stage of secondary rather ran higher education. While the difference between higher educational establishments is mostly conspicuous in the perspective of "center - periphery", the differentiation between secondary schools (in terms of teachers qualification, provision with material resources, and quality of education) reflects the division into "urban" and "rural" educational establishments.

Realizing the scale of the problem, the Federal Government has conducted since 2000 a policy aimed at recovery of the single educational area. The introduction of the Unified State Exam as well as the project of restructuring the network of rural schools could be considered as steps in that direction.

Besides the territorial differentiation along the lines of "center - periphery" and "city countryside" special attention should be paid to the obvious problem of ethnic differentiation. Russia is one of the most multinational countries of the world. According to the data of the 2002 Russian National Census there are 23 nationalities accounting for more than 400 thousand people (compared with the 1989 National Census, when the number of such nationalities was 17). Due to the growth of their numbers this group now includes the Azerbaijani, the Kabardins, the Darginians, the Kumyks, the Ingushs, the Lezgins, and the Yakuts. This group has lost Jews due to a decrease of their number. The numbers of seven national groups exceeds 1 million people but this group has undergone changes: the Chechens and the Armenians are included in this group while the Byelorussians and the Mordva were excluded.

The Russians are still the most numerous group ( $80 \%$ of the total population of the country). The Tatars rank the second ( $4 \%$ ).

Thus, the analysis of the context of the functioning of the Russian system of education reveals the basic criteria of the society differentiation, which could be extrapolated on the differentiation of the educational opportunities depending on economic, territorial, and ethnic and cultural parameters.

### 1.2. The contemporary state of the problem of educational opportunities with its detailed analysis on different levels of the Russian Federation educational system

The system of education in the Russian Federation is regarded as a conglomeration of: educational programs and state educational standards; including educational establishments irrespective of their organizational and legal forms and forms of ownership; educational authorities and subordinate agencies and organizations. Educational programs are divided into comprehensive (basic and optional) and vocational (basic and optional). The former programs are used in pre-primary, primary comprehensive, basic comprehensive and secondary comprehensive education. The latter programs are used in primary, secondary, higher, and postgraduate professional education. The educational programs are implemented by educational establishments that may be of different organizational and legal forms: public, municipal and non-public (i.e., private, social or religious establishments). Educational establishments can be of different types: pre-primary, comprehensive, vocational, adult retraining, special, for orphans and children denied parental care, extra-curricular training for children, and others. The structure of the Russian Federation system of education is presented below. (Appendix 1 represents the correspondence between the levels of education in the Russian educational system and in the International Standard Classification of Education (ISCED).

In accordance with the Russian Legislation, the State guaranties to its citizens accessible and free primary, basic comprehensive, secondary (full) comprehensive, and primary vocational education. Besides that, the learners may obtain free education on the basis of competitive examinations at secondary, higher, and postgraduate educational establishments (public or municipal) in the framework of the state educational programs on condition that the citizen gets the education of the corresponding level for the first time ${ }^{1}$.

[^0]These provisions are fixed in the Constitution of the Russian Federation (1993), in the Federal Laws On Education (dated 1992 with revision and amendments in 1996, 2000 and 2004), On Higher and Postgraduate Education (1996), On Languages of the Peoples of the Russian Federation (1991), and other legislative acts which have defined the new organizational and financial structure of educational activity in Russia. They were further defined in the Federal Intentional Program called The State Support of the Integration of the Higher Education and Fundamental Studies for the Period 19972000 (1996) and in the Federal Program of Development of Education in Russia for the Period 20002005 (1999), as well as in the following fundamental documents - the National Doctrine of Education in the Russian Federation (2000) and The Concept of Modernization of the Russian Education for the Period up to the Year 2010 (2001).

Russia takes one of the first places in the world in terms of the formal parameters of the equality of educational opportunities (involvement of the population). For example, specific proportion of people with higher education among economically active population makes up $23 \%$. Only the USA, Norway, and the Netherlands can boast better figures; in such countries as Japan, Canada, Spain, and Great Britain this parameter is a bit lower than in Russia. In Germany this parameter is equal to $16 \%$, in Portugal and Austria it is only $8 \%$.

However, according to the number of students per 10,000 of the population Russia does not belong to the leading group. Finland and Norway are the first with the number of students per 10,000 people amounting to more than 400 . Very close to them are Korea, the USA, and Sweden. In Russia this parameter is 287 , or much lower than in many other countries, including Austria, which is four times less than Russia in terms of the specific proportion of people with higher education among economically active population.

It is necessary to note the fact that the number of the educational establishments and students in the segment of primary vocational education is decreasing. (The enrollment and graduation of qualified workers from the establishments of the primary vocational education have decreased by three times as compared with the year 1991). This has resulted from the fact that this type of education does not function as a channel of vertical mobility any more. "To become a specialist in the shortest time" is getting to be less attractive.

Paid educational service is developing non-uniformly. So far there is some demand for paid educational service only in the sphere of higher education. The demand for the services of non-public secondary professional educational establishments remains very low. Besides, at present we cannot speak about development of a structured system of non-public secondary schools: The share of these schools is less than $1 \%$, with only $0.4 \%$ of the whole number of pupils.

These tendencies, that come as a result from a decade of reforms, are combined with changes connected with Russia's involvement in the Bologna Process, i. e. introduction of a two-level system of university education, optimization of education management system, introduction of Unified State Exam, restructuring the system of educational establishments (the attempt to get rid of territorial inequality, provision of schools with E-learning technologies, and development of a single information environment for educational establishments. These recent tendencies are directed at eliminating educational barriers, which obstruct equal access to education.

The discussions concerning equality of educational opportunities are to a great extent devoted to the restriction of commercialism in education. These debates stem from the Amendment to the Law On Education adopted by the State Duma of the Russian Federation on May 26, 2004), which removes restrictions for admitting paying students to universities for such courses as law, economics, management, government and municipal management. From the point of view of those who oppose to this Amendment, the increase of the admittance to paid university courses will drastically limit opportunities for students from poor families. The authors of the Amendment believe that this legal act will help to end deterioration of the quality of education, which has resulted from rapid increase of the number of commercial universities and establishment of law and economics departments in many universities in the middle of the 90 -s. Now the public universities are independent as far as admittance is concerned.

Equal rights to education for men and women. Russian Legislation also guarantees to all citizens the equality in education irrespective of their gender. (Article 43 of the Constitution of the RF, Article 5 of the RF Law on Education). The educational level among women is higher than that among men: 483 women per 1,000 people have higher, unfinished higher, and secondary vocational
education, whereas the same parameter for men amounts to just 437. Women and girls make up a half or more of students (pupils) at various educational institutions: 50\% at comprehensive schools ( $56 \%$ in the $10-11$ (12) forms), $52 \%$ at secondary vocational institutions, and $58 \%$ at higher educational institutions. Only primary vocational schools have $37 \%$ girl students. Thus, on the whole Russian women have opportunity to realize their right on education.

State of repair and maintenance of educational establishments. $33 \%$ of pre-primary educational establishments and $37 \%$ of public comprehensive schools need urgent major repairs. The buildings housing $1.3 \%$ of pre-primary establishments as well as $4.1 \%$ of public comprehensive schools are considered to be dangerous structures. Only $81 \%$ of pre-primary educational establishments and $55 \%$ of schools have all necessary modern conveniences. Only $91 \%$ of kindergartens have running water, $89 \%$ have central heating and $86 \%$ - proper sewage systems. For comprehensive schools these figures are respectively, $72 \%, 81 \%$ and $59 \%$. One in every four public comprehensive school has no gymnasium; only $2 \%$ of schools boast swimming pools.

During the current school year $18 \%$ of the total number of pupils study in two or three shifts.
The overwhelming majority of non-public educational establishments do not have their own premises; the education is carried out in rented buildings. Lately tendency has emerged for better funding and facilities: whereas in 1994 the rented floor space accounted for $82 \%$ of total premises at non-public schools, in 2003 it decreased to $72 \%$, at non-public universities these figures are $81 \%$ and $79 \%$, respectively.

The construction of facilities for educational institutions has decreased. In 2002 different companies of all forms of ownership launched into operation educational facilities for 82.2 thousand students (only one third of those launched the year 1995), pre-primary educational facilities for 7.3 thousand children (one fourth of those launched in 1995) and primary vocational schools for 1.4 thousand students (half of those in 1995). At the same time there is more construction of secondary (thee times as much) and higher professional educational institutions ( $40 \%$ increase).

Interrelationship between education and payment at work. In the financial sector and in the sphere of management a high level of education corresponds to high level of payment, whereas in the agricultural industry, on the contrary, a low level of education corresponds to low payment. In the education sector, where every second employee has higher education, payment remains considerably lower than in other sectors of the economy.

Table 1. Interrelationship between education and labor payment: 2002

|  | Specific weight of people with higher professional education in the number of employment, $\%$ * | Rank | Correspondence of average monthly nominal wage to average Russian level, \% | Rank |
| :---: | :---: | :---: | :---: | :---: |
| Total in the economy | 23.4 | - | 100 | - |
| Industry | 18.0 | 9 | 117.6 | 5 |
| Agriculture | 6.3 | 11 | 40.2 | 11 |
| Construction | 18.5 | 8 | 120.4 | 3 |
| Wholesaling and retail trading, catering | 19.5 | 7 | 69.9 | 8 |
| Housing and communal services, non-productive spheres of services |  |  |  |  |
|  | 14.4 | 10 | 84.9 | 6 |
| Health protection, physical training, and social security | 29.5 | 6 | 74.0 | 7 |
| Education | 47.1 | 3 | 67.0 | 9 |
| Culture and art | 35.9 | 5 | 66.3 | 10 |
| Finance, credit, insurance, provision of pensions | 56.6 | 2 | 285.3 | 1 |
| Management | 38.1 | 4 | 118.2 | 4 |

Source: * The data from random survey of the population on the problems of employment

### 1.2.1 Pre-primary education

For the purpose of bringing up children of pre-school age, protecting and improving their physical and moral health, developing individual abilities, and sometimes, if necessary, correcting deviations, families need the help of the active network of pre-primary educational establishments. The State guarantees practically full financial and material support and accessibility of pre-primary educational services for all layers of the population. Parents cover no more than $20 \%$ of costs of the attendance of their children in pre-primary educational establishments. Some categories of parents can take their children to pre-primary educational establishments completely free of charge - for example, those who have children with mental or physical disorders or children with tuberculosis.

Before1990 the network of pre-primary educational establishments was constantly expanding but since the 1990s their number has decreased. It was caused by the reduction of the number of children of the corresponding age and inability of many firms to finance pre-primary educational establishments. Another reason is the fact that there was a decrease in parents' demand for services of pre-primary educational establishments due to reduction of real earnings with simultaneous availability of time for bringing up their children as a result of part time employment and problems with job placement.

In recent years the network of pre-primary educational establishments has continued to shrink, though the rate of reduction is slower compared with the beginning of the 1990s. As compared to 1991, the number of pre-primary establishments decreased by $46 \%$ and in rural areas by $49 \%$.

The reduction of the number of children attending pre-primary educational establishments has slowed down only recently. In the year 2003 in comparison with the year 2002 this parameter even grew, but if we compare it with the year 1991, the number of children attending pre-primary educational establishments has decreased by one half.

The level of coverage of children by pre-primary education in the year 2002 was $58 \%$ as compared to $64 \%$ in 1991. After a long period of decline, this parameter has been growing since 1999. Nevertheless, more than one third of children who live in cities and towns and almost two thirds of children in rural areas enter comprehensive schools directly and miss the level of pre-primary education. While this parameter amounts to $75 \%$, higher than average for Russia, in 8 subjects of the Russian Federation, in 9 regions it does not exceed 45\%. Those are Ingushetia (5\%), Dagestan (26\%), Karachaevo-Cherkesskaya Republic and Kursk Region (43\%).

At the beginning of the year 2004, 395 thousand children need to be admitted into pre-primary educational establishments (in 1995 the number was 295 thousand).

Figure 1. Children aged 3-6, attending pre-primary educational establishments (per 1000 children of that age)


Source: Rosstat. National Census of the Population. 2002.

The above mentioned tendencies in pre-primary education lead to the breach of right of citizens from all social layers to get educational services and result in unequal starting conditions, when some children go to school from kindergartens, while others do not.

One of the possibilities of solving of this problem in the current conditions consists in developing various comparatively inexpensive forms of education of pre-school children on the basis of short, part time attendance of pre-primary educational establishments. Last year 3.2 thousand pre-primary educational establishments ( $69 \%$ of the total number) had part-time groups that were attended by 48 thousand children ( 35 thousand in 2002). Every second child attended general development and preschool training groups, every fourth child attended adaptation groups. Additionally, there were groups aimed at rehabilitation of handicapped children (about one thousand of children). Part-time but systematic attendance of a child gives an opportunity to save budget funds; decrease fees paid by parents, and make the services of pre-primary education more accessible.

The most widespread types of pre-primary establishments are still kindergartens, which make up $63 \%$ of the total number of pre-primary educational establishments (in $1996-81 \%$ ). However recently there has been an increase of alternative types of pre-primary educational establishments: multipurpose establishments (from 13\% in 1996 up to $17 \%$ in 2003), establishments which are oriented at one or several types of education (from $2 \%$ to $9 \%$ ) and centers for child development (from $0.1 \%$ to $4 \%$ ).

At the end of the year 2003, 2.9 thousand of pre-primary educational establishments ( $6 \%$ of the total number) rendered payable back up services, which are not included in the framework of basic educational activity described in the State Educational Standard for pre-primary education. Every second establishment conducts payable music and dance classes (singing and dancing), every third offers foreign language classes and health services for children (inhalations, massage, phytotherapy, swimming, and so on).

Table 2. Basic parameters of pre-primary educational establishments' activity (by the end of the year)

|  | 1991 | 1995 | 2000 | 2001 | 2002 | 2003 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| The number of pre-primary <br> educational establishments, <br> thousands |  | $\mathbf{8 7 . 6}$ | $\mathbf{6 8 . 6}$ | $\mathbf{5 1 . 3}$ | $\mathbf{5 0 . 0}$ | $\mathbf{4 8 . 8}$ |
| Including: <br> $\quad$ in cities and towns <br> $\quad$ in rural areas |  |  |  |  |  |  |

## Source: Rosstat

### 1.2.2 Comprehensive education

Comprehensive education in Russia includes three stages: primary comprehensive, basic comprehensive and secondary (full) comprehensive education.

Teaching children at educational establishments, which realize the programs of primary comprehensive education starts at the age of six and a half years in case that there are no counterindications, but not later than at the age of eight years. On the application of parents (legal
representatives) the founder of an educational establishment has the right to allow admittance of children to studying at an educational establishment at an earlier age.

The duration of educational periods required covering basic curricula for primary comprehensive, basic comprehensive, and secondary (full) comprehensive education is fixed by the Federal Law.

At the beginning of the 2003/2004 school year, comprehensive education in Russia was carried out by 66.1 thousand comprehensive schools with about 18 mln pupils.

The main role in realization of comprehensive curricula of this stage is played by full-time public comprehensive schools, with $97 \%$ of pupils in the year 2003. After a long period of constant increase of the number of these schools there has been a decrease since 1998 (in 2003 the decrease was 1.1 thousand as compared with the year 2002).

Education of handicapped children is organized in the public sector of education. In 2003/2004 school year the network of special (correction) educational establishments for pupils with deviations ( 8 types), consisted of 1,969 schools with 257 thousand pupils with different deviations. Besides, special (correction) classes for handicapped children are attached to comprehensive schools. Thus, a great number of those children - 206 thousand - study together with their peers at general schools. About 37 thousand handicapped children study at home on an individual basis according to special syllabuses.

However, not all the subjects of the Russian Federation have special educational establishments of all types for handicapped children. Ust-Ordynsky Buryatsky, Aginsky Buryatsky and Chukotsky Autonomous Districts do not have them at all. This leads to the fact that many handicapped children do not get any education.

The network of comprehensive establishments of innovative type is being developed. It includes gymnasia and lyceums, which are aimed at providing a higher level of education and at revealing and developing children's talents. In 2003/2004 school year educational activity was carried out by 1,277 gymnasia (in 1992/1993 there were only 560) and 970 lyceums (325). Every fourth of them is located in Privolzhsky Federal District (about half of them in the Republics of Tatarstan and Bashkortostan).

At the beginning of 2003/2004 school year non-public sector of comprehensive education was represented by 707 comprehensive educational establishments ( 368 at the beginning of 1993/1994 school year), more than $14 \%$ of them ( $14 \%$ of pupils) are confessional schools, more than $34 \%$ ( $31 \%$ of pupils) are schools without in-depth study of any subjects. Non-public comprehensive educational establishments make up a little bit more than $1 \%$ of schools and cover only $0.4 \%$ of pupils. They do not influence significantly the system of comprehensive education. The development of non-public sector in the sphere of comprehensive education has mainly taken place in large agglomerations: about $40 \%$ non-public schools are located in Moscow, St. Petersburg, and Moscow Region. There are none in Tambov, Vologda, Kamchatka, Magadan or Sakhalin Regions or in the Republics of Kalmykia, Mordovia, Altay, Buryatia, Tyva, and some other regions.

The lack of own premises ( $72 \%$ of premises are rented) as well as growing rent and utility costs lead to the constant increase of the educational fees, thus restricting the demand for services at nonpublic schools.

The diversity of educational services is augmented by providing additional payable services. In 2003/2004 school years 4.6 comprehensive educational establishments rendered such services to 774.2 thousand of pupils ( $5 \%$ of the total number).

Table 3. Basic parameters of comprehensive educational establishment activities

| (by the be ginning of the school year) |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $1991 / 1992$ | $1995 / 1996$ | $2000 / 2001$ | $2001 / 2000$ | $2002 / 2003$ | $2003 / 2004$ |
| The number of comprehensive <br> educational establishments, <br> thousands | $\mathbf{6 9 . 9}$ | $\mathbf{7 0 . 7}$ | $\mathbf{6 8 . 7}$ | $\mathbf{6 8 . 7}$ | $\mathbf{6 7 . 5}$ | $\mathbf{6 6 . 1}$ |
| Full-time schools |  |  |  |  |  |  |
| public | 67.9 | 68.9 | 67.0 | 66.9 | 65.7 | 64.4 |
| $\quad$ cities and towns | 67.9 | 68.4 | 66.4 | 66.2 | 65.0 | 63.7 |
| $\quad$ rural area | 19.6 | 20.9 | 21.3 | 21.3 | 21.2 | 21.0 |
|  | 48.3 | 47.5 | 45.1 | 44.9 | 43.8 | 42.7 |


| non-public | - | 0.5 | 0.6 | 0.7 | 0.7 | 0.7 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Evening schools | 2.0 | 1.8 | 1.7 | 1.8 | 1.8 | 1.7 |
| The number of the pupils at <br> comprehensive educational <br> establishments, thousands of people | $\mathbf{2 0 9 3 6}$ | $\mathbf{2 2 0 3 9}$ | $\mathbf{2 0 5 5 4}$ | $\mathbf{1 9 9 0 9}$ | $\mathbf{1 8 9 1 8}$ | $\mathbf{1 7 7 9 8}$ |
| Full-time schools | 20427 | 21567 | 20074 | 19429 | 18440 | 17323 |
| public | 20427 | 21521 | 20013 | 19363 | 18372 | 17254 |
| $\quad$ cities and towns | 14529 | 15146 | 13998 | 13471 | 12784 | 12017 |
| $\quad$ rural area | 5898 | 6375 | 6015 | 5892 | 5588 | 5237 |
| non-public | - | 46 | 61 | 66 | 68 | 69 |
| Evening schools | 509 | 472 | 480 | 480 | 478 | 475 |

Source: Rosstat.
The government funding of comprehensive education is carried out from the local budgets and the budgets of the republics and regions of the Russian Federation. Non-public schools have the right to get budget funding under the conditions of their state accreditation. The latter means the acceptance by the educational authority of the correspondence of the level of realized curricula, contents, and quality of graduates' training to the requirements of the State Standards. Government funding of accredited non-public schools is conducted in accordance to norms, which are not lower than those for similar public and municipal schools in this region.

### 1.2.3 Vocational education and vocational training

Traditionally vocational education and vocational training have been integral part of the Russian system of education being represented through different levels, namely, primary, secondary, higher, postgraduate, and optional vocational education. The education of a definite level is confirmed by the respective diplomas, which ensure additional academic and professional rights to graduates. Besides, both inside and outside the system of education there are different institutions, courses, educational, training, and retraining courses, which give the opportunity to get new trades or skills that are confirmed by corresponding certificates.

Public establishments of primary vocational education of the Russian Federation admit people with basic comprehensive or secondary comprehensive education. Russian citizens have the right to get primary vocational education free of charge in state-run establishments of primary vocational education on condition that they get the education at this level for the first time.

In accordance with the Federal Law On Education, the following categories of people are admitted to public and municipal educational establishments of secondary vocational and higher professional education hors concurs (under the condition of successful passing of entrance examinations):

- orphans and children without parents' care, as well as people up to the age of 23 who were orphans or children without parents' care;
- handicapped children, invalids of the I and II groups who have no contra-indication to study in the corresponding educational establishments and this fact is certified by the State service of medical and social expertise;
- citizens up to the age of 20 years old who have only one parent, an invalid of the I group, and where average per capita income is lower than minimum subsistence fixed in the corresponding region of the Russian Federation;
- those who are discharged from military service and enter the corresponding educational establishments on the basis of recommendation letters from commanding officers of military units, combatants and invalids of military operations.
The priority rights to enter public and municipal educational establishments of secondary vocational education and higher professional education are enjoyed by those citizens who are discharged from the military service.

Primary vocational education. In 2004 in the Russian Federation there were 3,798 primary vocational educational establishments. The number of students was 1,649 thousand people, among which $63 \%$ are male.

Educational establishments of advanced type, mainly professional lyceums, which train highly skilled workers, make up $22 \%$ of the total number of the educational establishments of this type ( $28 \%$ of the total number of students). There are no such establishments in the Republics of Altai, Tyva, in Kamchatka, Evreyskaya Autonomous Region, and Chukotsky Autonomous District.

During reorganization of the educational establishments of this level their number dropped. In 2003 the number of educational establishments decreased by 523 schools as compared with the year 1991 (in 2003 only 50 schools disappeared).

In 1991-2003 the dynamics of training skilled workers in the establishments of this type is characterized by constant decrease in the number of students, in enrollment and graduation. The number of students reduced by 192 thousand people (by $10 \%$ ). Enrollment and graduation of skilled workers from the establishments of primary vocational education decreased by one third as compared with the year 1991.

In the establishments of this level of education there is an obvious increase of students who are orphans and children without parents' care up to 78.1 thousand people in the year 2003 as compared with 26.6 thousand people in the year 1990. Every year there is an increase of the number of students who have poor health. In 2003 there were about 22 thousand of such children in the establishments of primary vocational education.

In recent years there has been the increase in the volume of education, training and retraining for adults and unemployed people paid by employers, Labor and Employment Offices, as well as personally by the learners. In 2003 the number of learners was 416 thousand people, $20 \%$ studied at the expense of employers, $18 \%$ - at the expense of Labor and Employment Offices, $62 \%$ paid there own money for education.

The main problems in this sphere of education are as follows: reduction of investment from enterprises and companies for the development of educational and material facilities of educational establishments, absence of facilities for practical training, insufficient participation of employers in the funding of the system of primary vocational education, subordination of establishments to various branches of industry and orientation at industrial sphere of economy.

Government funding of primary vocational education is being conducted from the local budgets and the budgets of the republics and regions of the Russian Federation.

Secondary vocational training. Secondary vocational training has overcome negative tendencies of the end of 80 s - beginning of 90 s. Since 1995 it is characterized by the stable growth of enrollment and the number of learners, since 1996 - by the increase in the number of graduates.

Table 4. Basic parameters of secondary vocational establishments' activity

> (by the beginning of the school year)

|  | $1995 / 1996$ | $2000 / 2001$ | $2001 / 2000$ | $2002 / 2003$ | $2003 / 2004$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| The number of the establishments | $\mathbf{2 6 3 4}$ | $\mathbf{2 7 0 3}$ | $\mathbf{2 6 8 4}$ | $\mathbf{2 8 1 6}$ | $\mathbf{2 8 1 0}$ |
| public | 2612 | 2589 | 2595 | 2626 | 2628 |
| non-public | 22 | 114 | 89 | 190 | 182 |
| The number of students, thousands of |  |  |  |  |  |
| people |  |  |  |  |  |


| Graduation of specialists, thousands <br> of people | $\mathbf{4 7 4 . 0}$ | $\mathbf{5 7 9 . 3}$ | $\mathbf{6 0 8 . 6}$ | $\mathbf{6 6 9 . 7}$ | $\mathbf{7 0 1 . 3}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| public secondary educational <br> establishments | 743.0 | 567.7 | 277.1 | 301.1 | 321.7 |
| non-public secondary educational <br> establishments | 1.0 | 11.6 | 15.4 | 23.3 | 30.6 |

## Source: Rosstat.

Availability of the broad network of the educational establishments that are evenly distributed throughout the territories of the subjects of the Russian Federation alongside with orientation of the secondary vocational education at regional labor markets, relatively short period of education and correlation with other levels of the system of vocational education, make it rather attractive for young people. In 2003 entrance competition at public educational establishments of secondary vocational education was 153 people per 100 vacancies.

At present there are 2,810 functioning establishments of secondary vocational education, including 2,628 public institutions. The number of the students is 2,612.1 thousand people, including 2,501.6 thousand people in public secondary educational establishments.

Last year about a half of graduates from secondary educational establishments studied advanced courses in colleges, which, as a rule, are multifunctional and multi-discipline educational establishments. More than $10 \%$ of the graduates were received diplomas of the advanced level.

During the last ten years in this system of specialist training the leading role has belonged to specializations related to economics and management. However, such courses as engineering, metalworking, radio technology, communication, robotics and automatic control have slipped from the ten leading positions.

About 12 thousand young people with health problems graduated from public establishments of secondary vocational education in 2003/2004 school year, that is more than three times as many as in 1994/1995 but the share of the invalid students is less than one per cent.

Non-public establishments in the sphere of the secondary vocational education are not numerous and so far do not have significant influence on the volume of specialist training. However, this sector has positive dynamics.

The government funding of secondary vocational education is carried out from the federal budget and partly from the budgets of the republics and regions of the Russian Federation.

Higher professional education. The Russian system of higher education can flexibly react to the changes in the demand. The problem is that those requirements are not exactly shaped from the point of view of specialist training; there is no clear understanding of the country's economic development prospects, consequently, there is poor understanding of potential demands of the economy for qualified specialists.

The needs of the economy in the development of the system of education and training are formalized through the enrollment target figures for public higher educational establishments, which serve as a basis for performance of educational activities. Because of that the task of correction of the professional structure of specialist training must be adjusted exactly by enrollment target figures. The reaction of the higher school to the changes in demand is quite adequate. The establishment of the non-public system of higher education can serve as an example. This system mainly conducts training of specialists in business, law, and education. An active realization of the rights of public higher establishments to render educational services on the conditions of full compensation of costs also demonstrates adaptation potential of the higher school.

Russian citizens have the right to get free higher and postgraduate vocational education (on competitive basis) at public and municipal establishments of higher professional education in accordance with the State Educational Standards on condition that they get the education at this level for the first time.

The system of higher professional education in Russia includes public and non-public higher educational establishments (universities, academies and institutes).

Table 5. Basic parameters of higher professional education establishment activity
(by the beginning of the academic year)

|  | 1994/1995 | 1995/1996 | 2000/2001 | 2001/2000 | 2002/2003 | 2003/2004 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| The number of the higher educational establishments | 710 | 762 | 965 | 1008 | 1039 | 1046 |
| public | 553 | 569 | 607 | 621 | 655 | 654 |
| non-public | 157 | 193 | 358 | 387 | 384 | 392 |
| The number of students, thousands of people | 2644.6 | 2790.7 | 4741.4 | 5426.9 | 5947.5 | 6455.7 |
| public higher educational establishments | 2534.0 | 2655.2 | 4270.8 | 4797.4 | 5228.7 | 5596.2 |
| non-public higher educational establishments | 110.6 | 135.5 | 470.6 | 629.5 | 718.8 | 859.5 |
| Enrollment, thousands of people | 626.5 | 681.0 | 1292.5 | 1451.6 | 1503.9 | 1643.4 |
| public higher educational establishments | 567.7 | 628.6 | 1140.3 | 1263.4 | 1299.9 | 1411.7 |
| non-public higher educational establishments | 58.8 | 52.4 | 152.2 | 198.2 | 204.0 | 231.7 |
| Graduation of specialists, thousands of people | 409.9 | 403.2 | 635.1 | 720.2 | 840.4 | 976.0 |
| public higher educational establishments | 406.5 | 395.5 | 578.9 | 647.8 | 753.1 | 860.2 |
| non-public higher educational establishments | 3.4 | 7.7 | 56.2 | 72.4 | 87.3 | 116.7 |

## Source: Posstat.

In 2003/2004 training of specialists with higher professional education was carried out at 1,046 higher educational establishments ( 654 of them are public and 392 are non-public).

The number of the students in $2003 / 2004$ was $6,455.7$ thousand people ( $86.7 \%$ studied at public higher educational establishments), enrollment was equal to $1,643.4$ thousand people, graduation 976.9 thousand people.

During the period from 1994/1995 to 2003/2004 there was a positive dynamics of the basic parameters of higher professional educational establishments: the enrollment and the number of students grew by more than two times as well as the graduation of the specialists. These tendencies are specific both for public and non-public higher educational establishments, whereas non-public higher educational establishments were developing even faster.

There are a growing number of the students who study on the payment basis in higher educational establishments of different forms of ownership. In 2003/2004 academic year more than a half of students paid for their education (54\%) ( $13 \%$ in 1995/1996).

The possibility of getting higher education through different forms of study - full-time, part-time, distance, and other - also demonstrates the accessibility of education in Russia. In 2003/2004 about a half of students ( $50.8 \%$ ) studied at full-time departments, $5.4 \%$ - at part-time departments, $41.9 \%$ took correspondence courses, $1.9 \%$ - went for external studies. Recently there has been redistribution of students taking different types of courses: full-time education has become less popular whereas the demand for distance education has grown. Distance education has become more popular among students of non-public higher educational establishments, accounting for $62.7 \%$ of the students.

In higher educational establishments $58 \%$ of the students are female, and their number is constantly growing ( $53 \%$ in 1994/1995). In non-public higher educational establishments there are $64 \%$ female students and in public higher educational institutions they account for $57 \%$.

In the 2003/2004 academic year the number of handicapped students was 16.6 thousand people or $0.3 \%$ of the total number of students (c.f.: in 1995/1996 academic year there were only 2 thousand or $0.1 \%)$.

Almost half of public higher educational establishments are universities. They teach more than $70 \%$ of all the students; academies account for $17 \%$ and institutes for $11 \%$. In 2003, 70 public universities of the Russian Federation (without taking into account branches of higher educational establishments) accounted for approximately one fifth of all Russian students.

Those admitted to public higher educational establishments are mainly young people who have secondary (full) comprehensive education ( $69 \%$ of all those admitted) and more than $80 \%$ of them get their school education certificate in the same year.

The share of the students who want to get a second higher education is not very large (4\%), but this figure is constantly growing - by more than three times as compared with the year 1995.

Most graduates of higher educational establishments are awarded diploma of Specialist with higher professional education (90.3\%in 2003/2004). Despite the fact that Bachelor degrees were awarded in the year 2003 only to $8 \%$ of all graduates, and Master's degrees to $1.0 \%$ of graduates, the corresponding courses training are becoming more and more popular (as compared with the year 1996 the number of Masters and Bachelors has increased as much as four times).

Non-public sector in the system of higher professional education has been developing after adoption in 1992 of the Law of the Russian Federation On Education, which for the first time introduced the term "Non-public educational establishments." Whereas at the beginning of the 1993/1994 academic year there were 78 non-public higher educational establishments, in a year this number increased to 157 , and by the beginning of 2003/2004 academic year there were 392 non-public higher educational establishments in the Russian Federation. Most of them are situated in Moscow (103) and St. Petersburg (42), which are traditional centers of education and science, in Krasnodar and Stavropol Regions there are respectively 20 and 15, and 14 in Rostov Region.

The share of non-public educational establishments in the total number of higher educational establishments of Russia grew from $12.5 \%$ in $1993 / 1994$ to $36.5 \%$ in $1998 / 1999$; in the following years the proportion of non-public educational establishments hardly changed, remaining within the limits of $37-38 \%$. Despite the wide network of non-public educational establishments, the total number of their students makes up only $13 \%$ of the total number of students in the higher educational establishments of the country.

The average cost of education at a non-public higher educational establishment in December 2003 was 11,952 RUR (in December 1998 - 5,948). The cost of education at public higher educational establishments 12,186 RUR $(4,748)$.

Judging by the basic parameters of higher educational establishments activity, one third of its volume is carried out in the Central Federal District (more than half - in Moscow), approximately 12$15 \%$ at each of Northwestern, Southern, Privolzhsky Federal Districts. The contribution of higher educational establishments in other Russian territories is considerably lower.

The funding of higher professional education is carried out from the Federal Budget.
Additional vocational education. The system of additional education includes educational programs and services that are rendered at the establishments of comprehensive and vocational education beyond the basic curriculum as well as in the specialized establishments of additional education, such as retraining courses, centers for professional orientation and so on.

At present in the Russian Federation 1.2 thousand educational establishments and their structural subdivisions carry out the programs of additional vocational education. In 2003/2004 academic year $1,223.7$ thousand people (more than two times as much compared with the 6 years ago period) were educated in the system of additional vocational education. The provision of the educational process was conducted by 124.2 thousand teachers, among them 14.6 thousand are Professors, Doctors of Science; 40.9 thousand are Associate Professors, Candidates of Science. Educational establishments and structural subdivisions of the system of additional vocational education perform in the conditions of constant changes and growing requirements to the professionalism and competence of specialists of different levels, to retraining of dismissed and unemployed people, to urgent retraining of discharged military officers for civil specialities, to rendering aid and support for employment and adaptation on the labor market of graduates, to the support of small business and so on. Due to this the special significance in the system of additional vocational education is given to the realization of the principle of continuous education, which provides for satisfaction of the needs in additional training and retraining for different social groups and categories of employees. Training of specialists is conducted
in the conditions when it is necessary to constantly revise and create new syllabuses, to conduct special training for teachers.

In the solution of the problems stated above the specific role is given to organization of teacher retraining, developing their knowledge in the subjects in which they specialized, acquisition of new teaching technologies, special training in didactics, psychology, law, and so on.

In 2002-2003 among those who enjoyed additional vocational education $89.1 \%$ were company heads and directors, $3.9 \%$ - civil servants, $4.3 \%$ - teachers of vocational educational establishments, $2.1 \%$ unemployed people being sent by Employment Offices, and $0.6 \%$ - discharged from military service. $52 \%$ of those discharged officers prefer to study at programs of vocational retraining with 500 or more educational hours. Unemployed people sent by Employment Offices mainly raise the level of their professional skills ( $72 \%$ ), and got retraining courses ( $28 \%$ ).

The number of specialists educated for prior trends of market economy, science, and technology in 2003/2004 academic year made up a little bit more than a half of all the learners at the establishments and subdivisions of the system of additional vocational education. Almost every fourth of them had training in didactics and psychology. Every fifth of those retrained acquired knowledge and skills in management and every fifth of trainees studied various aspects of information and telecommunications technologies.

Table 6. Basic parameters of additional vocational establishments' activity

| ( the academic year) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | The number of the establishments and subdivisions in the system of additional vocational education | The number of retrained <br> specialists, <br> thousands of people | Including |  |
|  |  |  | raise of qualification | professional retraining |
| 1995/96 | ... | 770.3 | 717.8 | 52.5 |
| 1996/97 | ... | 701.6 | 658.1 | 43.5 |
| 1997/98 | 781 | 898.4 | 825.3 | 73.1 |
| 1998/99 | 1060 | 1059.4 | 997.4 | 62.0 |
| 1999/2000 | 938 | 1119.1 | 1059.9 | 59.2 |
| 2000/2001 | 1075 | 991.5 | 923.6 | 67.9 |
| 2001/2002 | 1455 | 1432.9 | 1319.0 | 113.9* |
| 2002/2003 | 1154 | 1223.7 | 1126.0 | 97.7* |

* Including specialists who had internship.

Source: Rosstat.

## Part II: Opportunities and results

## Chapter 2: The structure of justice in education

Sociological data show that the Russian system of education as a social institution at present time does not realize its main social functions, such as provision for equal conditions for a life start, creation of the conditions for social and territorial mobility. In spite of rather active state policy in the sphere of education and other spheres of social life (see the detailed analysis in Part IV) aimed at solution of problems of inequality in education, there are significant discrepancies in the opportunities for the citizens of Russia to get education. The roots of these discrepancies are studied by Russian researchers for both comprehensive and vocational education. The results of the research demonstrate how social inequality is becoming apparent at secondary school being more obvious in the sphere of vocational education with its constant strengthening. In particular this is evident in the sphere of higher education which is the most competitive. Through all this we can see the development of the trends that accompany further generations featuring in reproduction and deepening of social differentiation. The materials available give the possibility to depict the structure of inequality both in comprehensive and vocational education.

### 2.1 Social and economic differences

An obvious differentiation in the sphere of education in Russia is largely a result of the reduction of the material and financial resources provided to the education system by the government.

Table 7. Government spending on education in years, \% to the level of the year 1991

|  | Years |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 00 | 01 | 02 | 03 |
| Spending | 100 | 79 | 79 | 76 | 56 | 58 | 64 | 52 | 49 |  |  |  |  |

Source: Information bulletin "Monitoring of economy in education", № 2, Moscow, 2004/
In Russian legislation the fixed parameter of allocation in the sphere of education is equal to $10 \%$, however, it is not realized. The real funding from the budget makes up only one fourth of those cut requirements.

Comparison of parameters of funding in 32 countries shows that the Russian spending in the sphere of education (in \% of GNP) amounted to $2.9 \%$ in the year 2000 and $3.8 \%$ in 2002, whereas the leaders rated as follows: Korea $-7.1 \%$, the USA $-7.0 \%$, Denmark $-6.7 \%$, Sweden $-6.5 \%$. In this parameter Russia is inferior not only to the countries of Western Europe (Austria, Germany, Great Britain and other) but also to such countries as Poland, Hungary, and Slovakia. Unlike other countries (except Turkey) the Russian structure of education spending contains $100 \%$ of government funding (Monitoring of economy in education, № 2, 2004).

As the result, higher educational establishments started to search for additional and sometimes major sources of funding. First of all they try to attract solvent students, upon who there depends the material well-being of both commercial and public universities which conduct training of budget students and those who pay for their education.

It is obvious that commercialization of the system of higher education should not be regarded unanimously positive or negative: education being a social institution contains both positive and negative social consequences of the Russian society reformation.

The positive side is that the coverage of population with higher education has increased, also by means of introduction of payable forms of education.

At present Russia takes one of the leading places in the world in terms of the relative number of the students of higher educational establishments. In 1999 in the USA there were 382 students per 10 thousand people of the population, in Canada -297, in Great Britain - 237, in Japan - 230, in Germany - 212, in Switzerland - 171 (Analytical Memorandum, IDE, 2003).

The total number of students in Russia is growing - in 2002 the number of "budget students" was 2,902.1 thousand people, in $1980-3,045.8$ thousand people. In addition to this figure in 2002 there were 2,902 thousand students who paid for their education, i.e. the total figure is 5,210 thousand. Thus, in 2002 the correspondent parameter per 10,000 of population was 401 people, including 202 people who studied on the account of budget funding (by 32 people or $19 \%$ higher than the norm as provided by law).

The graduates, who ten years ago did not manage to get 1 or 2 necessary points at entrance examinations could not study at the chosen universities are now able to study at those departments and practically those specializations on paid basis.

Besides, non-public (paid) higher education acts as an important factor of the formation of the market of educational services, creating competitive relations on the market of educational services, forcing public higher educational establishments be more mobile, innovative, flexible, as well as provide educational programs of higher quality. The negative side is that in the conditions of expansion of paid higher education and low level of living standards of the most part of the Russian population, the problem of higher education accessibility in contemporary Russia is no longer the problem of only socially weak layers of the population. It touches upon practically the whole population excluding the most reach people, who comprise, in accordance with different estimations, not more than $3-5 \%$ of the population. At present time the educational fee at Moscow universities, which provide quality education, is minimum 3 thousand US dollars per academic year, or 250 US dollars per month. Approximately $30 \%$ of Moscow population (the richest city in the country) has income of higher than 250 US dollars per month. For other people this educational fee can hardly make the main part of family spending.

Table 8. Household spending on payment of educational services among $20 \%$ groups of the population with different levels of income per capita*

| Income groups <br> $(1-5)$ | Spending on education (\%) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | per one <br> member of <br> household in <br> RUR per year | secondary <br> (full) | secondary <br> vocational | higher <br> professional | their share in <br> consumers <br> spending |
| $1-$ minimum <br> income | 29 | 33,9 | 22,1 | 22,7 | 0,4 |
| 2 | 78 | 22,8 | 21,8 | 42,6 | 0,7 |
| 3 | 159 | 17,7 | 13,9 | 52,4 | 1,0 |
| 4 | 380 | 12,7 | 15,0 | 62,7 | 1,6 |
| $5-$ maximum <br> income | 557 | 12,6 | 14,0 | 62,2 | 1,3 |

Education in the Russian Federation, M., 2003. P.58. The data of the sample survey of household budgets in 2001.
Source: M. Krasilnikova. Problems of higher education in the estimates of population. In "Vestnik of the Public Opinion", № 1 (69), 2004, pp.26-34.

Thus, the available researches witness that the factors of social and economic differentiation are limiting the accessibility of education for broad layers of the population. At that the most serious constraints are explained by differentiation of income levels (poor families suffer most of all), by differentiation in accordance with the place of living (taking into account both regional aspect and the vector of "city-countryside", the poorest conditions are for inhabitants of rural areas in depressive regions), by differentiation in terms of opportunities to get secondary comprehensive education (general reduction of the quality of education at comprehensive school with simultaneous existence of the limited number of elite schools, which provide higher level of education).

### 2.2 Preparation to entrance examinations at higher educational establishments

Differentiation of the level of accessibility to vocational education also results from the inequality in the level of preparation of school graduates to enter a higher educational establishment being complicated by non-uniformity of universities in their requirements to entrants as well as differentiation of the volume of knowledge which graduates acquire at comprehensive school. In fact nowadays we can see the whole system of preparation to entrance exams at higher educational establishments. This system functions on the payable basis. It includes tutoring, access courses, system of agreements between schools and universities, and bribes. Cash flows in this sphere are semitransparent. The research of SU-HSE shows that in 2002 family spending on transfer from comprehensive school to higher educational establishment are estimated as much as 0.9 billion US dollars (Analytical Memorandum, IDE, 2003). Only well prepared, well informed about the terms of entrance schoolchildren can overcome this barrier of accessibility.

In the opinion of the overwhelming majority of those surveyed the transfer from comprehensive school to higher educational establishment is the focal point of corruption, conflicts, material, intellectual, and emotional losses of the families. In accordance with the data of the Russian Center of Research of Public Opinion all this has become the highest point of problem (Table 9).

Table 9. Now people saying that without bribe, without present or service to some people in a university administration it is impossible to enter a university. Do you agree with this? (as a \% from the number of those surveyed in the groups divided according to the level of accessibility)

| Variants of reply | Accessible | Inaccessible | Diversity |
| :--- | :---: | :---: | :---: |
| 1 | 2 | 3 | $3-2$ |
| Yes | 40 | 67 | 27 |
| No | 49 | 15 | -34 |
| Could not answer | 10 | 17 | 7 |

Source: L.Gudkov, B.Dubin, A.Leonova. Education in Russia: attractiveness, availability, functions / In "Vestnik of the Public Opinion", № 1 (69), 2004, pp. 35-55.

The assurance of people of inaccessibility of quality vocational education is caused not by the very fact of tutoring and access courses, which existed and successfully functioned during the soviet period, but by the shadow character of relations at the stage of transfer from comprehensive school to higher educational establishment. Besides, the practicability of all this spending and efforts is very doubtful from the point of view of achievement of general objectives and tasks of education, development of an individuality and society, due to the fact that these efforts are aimed at coaching a person for the system of particular requirements and peculiarities of the exact higher educational establishments, but not at intensive investment in the general educational potential of learners.

### 2.3 Regional differentiation

First of all it is necessary to mention the sharp decrease of mobility for the sake of getting vocational education. About $80 \%$ study in their home region - in the capital of the region or large cities, more than half of students prefer to study at subdivisions of higher educational establishments that are located in their home town (Figure 2). The share of foreign students has decreased to nonsignificant figure $-0.9 \%$. In fact, Russia has turned to be a set of regional educational systems each of which is "self-sufficient".

Figure 2. The share of Russian citizens in the total number of the students of state higher education institutions of the Russian Federation (\%)


Source: Rosstat.
The share of the students who came from other cities to the higher educational institutions of the capital has also changed considerably as compared with the soviet times. One of the main problems is the lack and poor conditions of the students' hostels, absence of living conditions for students' families, and so on. The area of higher educational establishments' hostels within the period of 19932002 increased but not considerably whereas the area of the hostels for public educational establishments of secondary vocational education (ESVE) has even reduced. But despite the increase of higher educational establishments' hostels by $1,017.2$ thousand square meters the living area has grown by only 53.6 thousand square meters. The data available witness the worsening of the conditions of living premises, many of them are in dangerous condition, and, unfortunately, we can see that they are used in improper way, for example, being let on lease. Moreover, there is reduction of those who need rooms in hostels: at higher educational establishments from 878.2 thousand people in the year 1992 to 782.8 thousand people in the year 2002, at ESVE - from 475.5 thousand people in1993 to 402.2 thousand people in 2002. All this brings to the conclusion of the growing level of inequality in the accessibility of education for students from other territories. But the root of the problem is not in the availability and high payment for hostels but mainly in the entrance barriers.

The solution of the problem of territorial differentiation was seen in the development of educational networks on a contract basis - basic school-university. Nowadays this technology has reached its limits. Practically all higher educational establishments are aimed at stabilization of the structure of the basic educational establishments, develop complex procedures of selection on the basis of the parameters of learners' progress, the results of entrance exams at higher educational institutions in previous years, and so on. According to assessments of heads of local authorities and rectors of higher educational establishments such networks are becoming nowadays obstacles rather than provision of accessibility of quality education. Within these networks there can be seen division of schools and colleges into privileged and non-privileged, and the role of the educational establishments comprising the network is unequal.

By means of educational networks higher educational establishments arrange constant inflow of entrants and high competition, they begin to take upon themselves the function of learners selection, pushing out unpromising from their point of view people into non-privileged educational establishments. In accordance with the research carried out in Nizhegorodskaya Region more than half of students are admitted from basic schools. These students make up $70-90 \%$ of learners from the above mentioned schools or specialized classes. Practically this approach places the task of accessibility of education on the far away position. (Analytical Memorandum, IDE, 2003)

### 2.4 Gender differentiation

There is no considerable differentiation in terms of education between male and female population. Up to the latest time the average index of higher education was a little bit higher among male population but this is on the account of the older generation. At present time the analysis of
young and workable layers of the population shows that female population has a higher level of education than male population. This tendency is reflected in micro-census of the year 1994 thus confirming the data of the last National Census.

But in general the strategies for comprehensive education and preparation for professional activity among men and women are different. Women are more inclined to get full comprehensive education at secondary comprehensive schools, if we speak about vocational education we can see that they are aimed at the highest level of vocational education. Men are more inclined to get unfinished comprehensive education at comprehensive school with further studies at the system of primary vocational education.

These differences in educational strategies reflect the professional segregation and clear-cut distinctions in revenues on investment in human capital between men and women. Men are mainly involved in industrial sectors thus they require vocational education connected with production sphere. At the same time for women the possibility to have higher earnings is associated only with higher education. Among male population employment as a worker with secondary vocational education provides satisfactory revenue on educational investments.

Gender disproportion of educational level in favor of women proves that trivial equalization of the level of investment in human capital does not provide economical and social equality for men and women. The mechanisms of hidden discrimination at labor market devaluate the high level of women's education. We can say that women have to run faster than men in order to hope to finish simultaneously with him (Рощин С.Ю.). The high level of women's education leads to its redundancy, moreover, to the fact that educational signals on the labor market function in different ways for gender groups. An employer makes higher requirements to the educational level and other characteristics of women rather than to those of men.

Russian specificity of the problem of justice in higher education for different gender groups can not avoid such an actual problem as a mandatory military service for male population at the age from 18 to 28 . The age of draftees coincides with the age of the most active participation in the educational process. This factor influences the level of participation of young men in the educational process in different ways. Thus, on one side, annual draft results in long odds for young men as compared with girls and reduces their proportion at higher educational establishments. But on the other side, higher education is one of the effective ways to delay or avoid military service, thus, forcing young men to become the participants of the educational process being practically the single source of motivation to continue education. This, for sure, influences the results of their learning, and, consequently, the problem of adequacy of results of education for male and female students. The ways of solution of this problem have become to be regarded on the level of the Ministry of Defense and the Ministry of Education. But unfortunately the performance of the working group dealing with regulation and protection of interests of those two Ministries is hampered by the reject of the Ministry of Defense to show the required data, which are necessary for the development of measures aimed at elimination of inequality in this aspect of the problem of justice on the level of higher education.

### 2.5 Material support

In 2003 families spent about RUR 290 billion on education. (Monitoring of economy in education, 2003). It is evident that it is necessary to provide material support at least for most needy people.

The government policy in terms of material support of students does not adequately aid the development of equality for children from families with different levels of income. We speak about miserable scholarships, destroyed hostels, absence of the system of students' economic activity, support for young students' families, and so on. As the result, in the Soviet time in Moscow higher educational establishments there were about $75 \%$ of students who came from other territories, at present time this figure is less than $25 \%$.

The subjective side of the problem of accessibility is based on the fact that practically all social groups are confident that higher education is realized on the paid basis. Consequently, in the public opinion the country has lost one of the most important achievements - access to quality free of charge education for well-educated and well-prepared school leavers. This problem is very serious for the development of the society - the feeling of loss of social achievements.

## Part III: The reasons and interpretations

## Chapter 3: Inheritance of injustice from one generation to another

Longitude research gives the possibility to regard the reproduction of educational inequality as a "cumulative process that starts at the first stages of socialization"2. This is the basic assumption of the majority of research works, which are constructed on the scheme of "longitudinal shears" - the level of inequality at each stage of education is characterized by the "height" of barriers and their overcoming at each of the previous stages. Consequently, none of these stages should be analyzed as an isolated one, educational barriers at this or that part of the life time are always a result of cumulation, increase of inequality.

As distinct from OECD countries and the USA, where longitude research has been conducted for the last thirty five years, the similar system in Russia is only at the stage of development. Practically, not a single research conducts deep analysis of the problem of lifelong learning. The most part of the data available is devoted to the accessibility of the higher education, the smaller part deals with the accessibility of the secondary and primary vocational education. The attempts to summarize and analyze the available data of the dynamics of inequality have been made since the middle of the $90-\mathrm{s}^{3}$, but the understanding by the government authorities of the necessity of systematic research of the problem has appeared after adoption of "The Federal Program of Development of Education for the Period of 2000-2005". Nevertheless, the available at present time data of Russian researches make it possible to indicate the reasons for reproduction of barriers as well as translation of inequality of educational opportunities.

The study of social and economic barriers and approaches to investigation of intergenerational translation of inequality has been carried out within the framework of realization of the project "Monitoring of economy of education" realized by the SU-HSE on request of the Ministry of Education of the Russian Federation since 2002. The subjects of the analysis of this study are as follows, to name a few: economic strategies of families in the sphere of education, household spending at the market of higher education, as well as motivation and resources, which define the choice of educational strategies of children ${ }^{4}$. The Monitoring studies all the stages of the system of education from kindergartens to higher educational establishments as well as additional education for children and adults. This gives the opportunity to indicate the most "crucial points and stages" of this path. Consequently, an attempt has been made to trace the cumulation of inequality in lifecycle perspective.

The series of studies dealing directly with the problem of equality of educational opportunities was carried out in 2003 by a number of research teams within the program "The Analysis of Accessibility of Higher Education for Socially Weak Groups", which was realized by the Independent Institute of Social Policy (on request of Ford's Foundation) ${ }^{5}$. At most of these works a family serves as a starting point for research of reproduction, cumulation, and dynamics of inequality. Family acts an institution of reproduction of motivation and cultural barriers, and family capital is the main resource for overcoming institutional and economical barriers ${ }^{6}$.

[^1]The problems of equality in education, which are so important for Russia, are also studied in other serious researches of previous years regardless the fact that whether the accessibility of education was the subject of study or not. So, the materials concerning the assessment of the scale of territorial inequality in the accessibility of education are of great value ${ }^{7}$.

Russian scholars possess a unique bank of data which demonstrate the dynamics of orientation and real social behavior of the youth in the sphere of education since the beginning of the $60-\mathrm{s}$ up to present day. The investigations, which make up the basis of this bank of data, have been conducted in accordance with one and the same technology for 40 years. They demonstrate the dynamics of changes in accessibility of education for people from different social groups, from different places of living, and so on, depending on the changes of general social situation as well as changes in the sphere of education ${ }^{8}$. Within the framework of this project there has been made a step towards longitude studies: the study of orientation and real ways of those who get secondary (full) education (graduates from comprehensive schools, secondary vocational establishments, and primary educational establishments) in the year of graduation with consequent survey in a three year period ${ }^{9}$.

In the process of investigation of the problem of equality in education the usual practice concentrated on the so-called socially weak groups of population (invalids, children without parents' care, people with low level of income, national minorities). Taking into account the swiftly growing level of social and economic, territorial, and cultural differentiation of the society (and, correspondingly, development of new barriers on the way of getting education), it is impossible to be framed only by these parameters. The carried out researches demonstrate the existence of differentiation of opportunities of getting quality education between rural and urban settlers, between people with different levels of income, between children from different social groups.

The objective of such researches is a complex analysis of educational barriers at different stages of lifetime. This gives the possibility to adequately realize the mechanisms of inequality cumulation.

[^2]
## Chapter 4: The understanding of the reasons for injustice

### 4.1 Motivation barriers

There are two aspects of absence of motivation, which is regarded as an obstacle for getting education:

- To what extent is the absence of motivation, lack of readiness to get education caused by conditions of life in the family, its status, and dynamics of social mobility?
- To what extent does absence of motivation influence sending down, and refusal to study? At what stages of lifecycle does availability of motivation barriers play the decisive role?
The first question touches upon the causation of motivation barriers - causation that is characterized by intergenerational nature, whereas the second one is referred to cumulation of inequality in the lifecycle perspective.

The results of the research make us admit that we see the following dynamics of important functions of education: from social selection, which until the beginning of the XX century strengthened the existing stratification to meritocratic ideology, which served as a basis for attempts to provide equal opportunities in the sphere of education (to a certain extent it succeeded in introduction of universal secondary schooling but remained differentiation in the sphere of higher education), and now - to "parentocratic" model, according to which "education of a child to more and more extent depends on wealth and desire of parents rather than on his own capability and efforts" ${ }^{10}$. It is notable that this term was coined by the British scholar who analyzed the similarity of process in Great Britain and Russia.

So, the research of parents' choice of life strategy for their children, which was conducted within the framework of Monitoring of economy of education, has demonstrated that development and realization of educational and life strategies among Russian schoolchildren mainly depend on the inclination and potential of their parents. Parents' opinion concerning the necessity to continue/accomplish education in the most number of cases is decisive. Thus, motivation barriers are mainly the result of intergenerational translation.

The labor market does not give obvious signals which could prove that this is the more or less high level of income that opens the way to social benefits. Education and remuneration of labor were not closely connected even in the soviet period; nowadays this interrelation is not visible for the population either. Employment statistics does not give clear answer to the question which opportunities the education gives to a person at the labor market. In the mid of the $90-\mathrm{s}$ with first appearance of results of changes in the country there was plummeting of prestige of education and specialist professions, reduction of entrants to educational establishments as well as increase of sending down. Recently the prestige of education has recovered: The significant part of the population has realized that education is an important condition for occupation of privileged positions in the society. However, the prestige of education is considerably differentiated for different layers of population: it is high in the elite and close to it groups, and it is low among people who are involved in common labor. Besides, one can see the decrease of prestige of occupation in such spheres as health protection, industry, science, and education; the most attractive professions are those which show the perspective of high earnings in Russia: economist, financier, banker, lawyer, and so on.

The data of the state statistics and sociological research witness that in the last 15 years there are considerable changes at school. In particular, in all the classes there has increased the level of "screening" (reduction of number of pupils) from form to form. The "screening" was relatively small and stable at early 1980s; its intensification started in 1986-1987 with the evident indications of economic and social changes in the country, and reached its maximum in early 90 s. During the past years the "screening" has reduced but even now it is several times as high as it was in the 80 -s. The example of its dynamics is given in the Figure 3.

[^3]Figure 3. The reduction of the number ("screening") of pupils of the $\mathbf{7 - 8}$ forms (the difference of the number of pupils at the beginning of a school-year, in \%). Russia.


Source: Rosstat (preliminary data).

Comparing data for those who graduated from schools in different years, - analyzing to what extent they were involved in comprehensive education, - we, practically have the possibility to compare courses of life and to some extent destinies of the cohorts of the youth due to the fact that education in many respects determines life carrier (see the table). The data of the state statistics point at the fact that the cohort of graduates at the beginning of the 1990-s was involved in comprehensive education to a lesser degree than the cohort of the graduates at the beginning of the $80-\mathrm{s}$. Even incomplete secondary education, which now is called as a basic one, was given to a definitely less part of the cohort as compared with the 80 -s. Summing up "screenings" from different forms we get a sorrowful result - 1.5-2 million children and teenagers who neither study nor work11. Later the data concerning graduation from comprehensive school have approached the former figures but the share of schoolchildren who left incomplete comprehensive schooling has not reached $100 \%$.
Table 10. The number of pupils at the beginning of the school year and the number of graduates, \%

| School years | Entered the $1^{\text {st }}$ <br> form | Graduation from <br> incomplete <br> secondary <br> comprehensive <br> school | Entered the <br> senior forms of <br> secondary <br> comprehensive <br> school | Graduation from <br> secondary <br> comprehensive <br> school |
| :---: | :---: | :---: | :---: | :---: |
| $1973 / 74-1982 / 83$ | 100,0 | $102,9^{*}$ | 59,7 | 57,2 |
| $1984 / 85-1993 / 94$ | 100,0 | 85,5 | 45,6 | 41,0 |
| $1989 / 90-1998 / 99$ | 100,0 | 87,4 | 56,7 | 52,6 |
| $1992 / 93-2001 / 02$ | 100,0 | 88,7 | 59,5 | 55,5 |

[^4]*The number of the pupils includes those who remained in the sane form for the second year and migrants, thus, the sum can exceed $100 \%$.

Source: Rosstat (preliminary data).
"Screening" is social in its character (the same as saturation of senior forms during the policy of overwhelming general comprehensive education). The outflow of the youth from schools of some groups can remind rivers while of others - small rivulets.

It means that during times of changes pupils and their parents reacted upon the changes of the social situation; teenagers, we can say, "voted by their feet", or run away from schools. It is obvious that the decision of staying at school or leaving it at different stages of education is made by schoolchildren and their parents with consideration of a number of factors. Among those factors are the opportunities to get education of a certain level in the future, as well as corresponding rewards in the far away perspective.

The survey conducted among school-leavers shows the specific features of development of their orientations in the sphere of education. Higher educational establishment is a main vector for those who graduate from secondary comprehensive school, other educational establishments get those who can not be considered as leaders of the cohort. In the process of this research the survey also considered differentiation of individual strategies depending on social and professional status of parents. The higher is the status the stronger is orientation of graduates at the higher level of education.

Figure 4 clearly shows: the share of those who are planning to enter a higher educational establishment from that or another group of young people depends on social and professional status of parents. The higher is the status the larger is the share. Children of workers and peasants are aimed secondary vocational and primary vocational education. This dependence is true for all the regions where the research was conducted. The same results are specific for the groups differentiated in terms of the level of urbanization, and the family income.

Figure 4. The structure of individual strategies of senior forms pupils (\% to the number of the group). Distribution according to social and professional status of parents. Novosibirsk Oblast, 1998.


Source: Data of the survey conducted in Siberia is taken from: Konstantinovski D. Dynamics of the inequality. Russian youths in the changing society: orientations in the sphere of education (from1960s to 2000). Moscow,

Editorial URSS, 1999 (in Russian); Konstantinovski D. The Youths of 90-s: Self-determination in the new reality. Moscow, Russian academy of Education, 2000 (in Russian).

The materials received give the possibility to conclude that individual strategies of teenagers are based not only upon their personal inclinations. While finishing the secondary comprehensive school and thinking about their future, teenagers introduce in their vision of the future some significant elements of real life. They are able to give adequate estimation to their individual potential (both for the nearest and lifelong perspective) in the system of social relationships, which is waiting for them as independent individuals. A certain part of young people in the process of adaptation to the real life belittle the level of their pretensions. Taking into account the results of the research, we must admit that at this stage of socialization the teenagers from the groups which are placed on lower levels of social hierarchy, have to admit the factual inequality, which is in particular evident in the educational sphere. They have to adapt their life strategy to the existing reality: the consideration of the factors of reality, including social inequality, becomes obvious at the stage of transition from preferences to construction of individual strategies.

Motivational conditionality of differentiation in the sphere of education in Russia - differentiation that exists and deepens under the influence of the decrease in the past years of living standards, unemployment, change of prestige of education and highly qualified professions, introduction of paid services in education, as well as other factors, - can be in general interpreted in the following way.

In part teenagers and their parents do not show interest (and, consequently, activity) in realization of a number of opportunities, which is given by the system of education (they don't want). These teenagers and their parents either do not have motivation to achieve higher positions in the society or being available of the motivation, they are not searching for the ways towards these positions through getting education. The attitude towards education, as a number of researches show, correlates with the structure of values that prevails in this or that social group.

In part we can see the influence of inequality in the opportunity to get education, especially higher education. As the result the chances are not being equalized, there is no "social lift" with the help of education but we can see legitimation of inheritance of social status as well as reproduction of inequality. Among losers we can see those who display real wish to get quality education of high level, but who can not overcome really existing obstacles in order to take advantage of the opportunity which theoretically or p[potentially is given to all the members of the society. Here we can see explicit motivation to achievement of relatively high positions in the society by means of getting education, but social barriers make obstacles to its "feasibility".

Another significant category of actors of education are those who underestimate the level of their expectations (and, consequently, do not display activity) because they do not believe that they can overcome obstacles on the way to getting education and/or after graduation are not aimed at receiving benefits, which could correspond to the level of the prestige of the diploma; those who do not want only because they can not overcome barriers or think (forecast) that they would not be able to overcome. This is the result of perception of the reality, - its realization and adoption: young people set objectives depending on realistic (or pessimistic) assessment of the existing state of affairs. They have motivation to achieve higher social positions by means of education but the intentions are corrected depending on comprehension of social barriers.

As the result, the first of the stated above groups of actors (those who do not show interest in opportunities in the sphere of education) - through their attitude to education, and the third group (who underestimate their potential) - through their self-estimation (estimation of their own chances), as a matter of fact support the existing state of affairs and contribute to the preservation of differentiation in education as well as inequality in the society. The actors of the second group make efforts aimed at realization of those issues that are declared by the society. Leaders are quite capable to take more or less prestigious positions when they study at schools or during competition at entrance exams at higher educational establishments but as the research shows the significant part of those who come from lower social layers meet with failure.

The analysis of correlation between reproduction of motivation barriers at every stage of lifecycle with "the previous choice", the attempt to estimate cumulation of inequality, which in the case of motivation barriers is identical to the process of stage by stage reduction of the level of motivation, were made during monitoring. It shows that if a teenager does not enter any educational establishment
after finishing comprehensive or primary vocational school, the aim at higher education is plummeting: $67 \%$ of parents within this group don't have this motivation or it is very weak (lower than average or weak). Most of teenagers who are not involved into education have chosen other life strategies: $41 \%$ are working, $11 \%$ are looking for a job, $14 \%$ are at military service, and $32 \%$ have not realized what to do in life. It is necessary to note that overwhelming majority ( $65 \%$ ) of parents of teenagers who don't study have education not higher than secondary ( $43 \%$ - secondary comprehensive or lower, $22 \%$ - primary vocational schools). The estimation of monthly income in these families is at the minimum as low as $20 \%$ compared with average figures, and $40 \%$ as low as income of students' parents. However, the parameters of family income and parents' education are regarded as "External characteristics". In our case it is not less important so that the choice of strategy to be based on the continuous character of education. Every failure at entrance examinations reduces the chances to realize this strategy.

### 4.2. Institutional barriers

The system of education in Russia is in the process of transformation, consistent and not always balanced changes. On one hand it continues to develop riding the wave of social, cultural, and economic trends of the early 1990-s. At the same time the transformation of the system of education is conditioned upon the new reform and Bologna process. We can see that specific Russian factors of changes are combined and interact with the tendencies which are common for the majority of the countries in the world.

Let's indicate the basic educational stages. First of all this is preprimary education (children up to 6-7 years old), primary education (children up to 10-14 years old) with awarding of the certificate of basic comprehensive education. Further, those who get basic comprehensive education which lasts 9 years, can continue studies and get full secondary comprehensive education (15-17 years old, with the corresponding certificate) or primary vocational education (15-17 years old, with the document that certifies the primary vocational education), or secondary vocational education (also 15-17 years old, with the secondary vocational education diploma). Those who have full secondary comprehensive education can choose either to enter a higher educational establishment, or a secondary vocational establishment or primary vocational educational establishment. Those who have secondary vocational education can continue their studies at a higher educational establishment. After primary vocational education people can choose between a higher educational establishment and secondary vocational educational establishment. Introduction of two-level system of higher education gives the possibility to choose between five-year education at a higher educational establishment with "specialist" diploma and four/six year education in accordance with the scheme "bachelor-master". As far as adult learning and "lifelong learning" systems are concerned, they are at the stage of its development - separate programs do not bear systematic, complete character.

The Russian system of education basically replicates the Soviet institutional model. Decentralization and "pluralization" in this sphere, as well as introduction of the establishments of non-public education and payment for educational services, may be regarded as innovations of the 90s.

In the sphere of comprehensive education these changes have resulted in the distortion of the existing standard model of school and appearance of a broad scale of different schools - from those that provide high quality education, as a rule on the account of sufficient spending from the parents, to "weak", of no prestige, but cheap or free of charge, where they collect those teenagers who are unable or don't want to study. Also there appeared specialized, confessional schools, and so on.

The rate of growth of consumer services provided by secondary vocational education is not as large as that one provided by higher education, but the statistical data show the positive quantitative dynamics of training of specialists of this level. Since 1995 the commercial segment of secondary vocational education has been increasing but so far only about $3 \%$ of educational establishments are non-public with a little bit more than $2 \%$ of students who are studying at this level of education ${ }^{12}$. The rate of growth of the number of commercial secondary vocational establishments does not promise that their "niche" at the market of educational services will increase significantly within the next few

[^5]years. Introduction of payment for education in this sphere is also noticed at the public educational establishments, at those specializations which are considered promising from the point of view of carrier development.

Primary vocational education as compared with secondary vocational and higher education is considered to be in a worse situation. During the entire period of social and economic transformation we can see reduction of both the number of educational establishments and the number of students. Within the period of 10 years (from 1991 to 2001) these figure reduced by more than $10 \%{ }^{13}$.

In accordance with the opinion of the analysts there is a growth of demand for additional education. This education is initiated by the requirements of the labor market. In particular, there is a growth of demand for the second higher education: in 2003 only miserable number of students aimed at the second higher education studied at the first year of full-time departments but as far as part-time and extracurricular departments are concerned the shares of those students were 10 and 7 , correspondingly ${ }^{14}$.

On the whole there is a tendency of considerable growth of the realized demand for educational services. The consequence of "educational boom", which was "superimposed" on doubtless achievements of the Soviet educational system, has realized through the fact the level of education in the country, as compared with other countries, is very high. But the majority of both economically developed countries and countries with transition economy, demonstrates higher rates of growth of educational level of population due to considerably larger public and private investments in the systems of education.

What is the influence of modern tendencies on the situation of educational inequality? Pluralization is necessary for ordinary and natural development of the system of education. However, it is necessary to take into consideration that pluralization means differentiation of educational establishments. It has to acquire social character. As the result of differentiation we see the further separation of the layer of privileged educational establishments (this started long time ago from the establishment of the so-called special schools where mainly children of the Communist party and Government elite studied). During the last decade this type of educational establishments had an opportunity to strengthen its positions and expand. With all this going on the children from the lower layers are loosers. Those who are not able to find their places at the top are located on the lower levels of higher educational establishments' hierarchy. This hierarchy is well-known in every settlement, every region, and in the whole Russia.

The changes of the 90-s have led to the growth of the gaps in the institutional links of education both the links between different elements within this institution and the links of education with other social institutions. The enlarged "gap" between secondary school and higher educational establishment may serve as an example of the growth of the first - "internal" disintegration of the links. This has led to the further development of the institution of tutorship and "pseudotutorship" (making a routine of the practice of bribing for admittance at an educational establishment). The example of "external" misbalance is the problem of graduates' employment; they are not adapted to the requirements of the labor market. Partly the problems of internal disintegration are solved by the policy of agreements between different schools (primary vocational and secondary vocational establishments) and higher educational establishments. But this practice was not able to remove institutional barriers. The attempt to solve this problem in complex is made through the reforms of the past years - introduction of Unified Exam, federal organization-intermediates, differentiation of the system of higher education.

As a consequence of constant transformations families' strategies at the market of educational services are also non-stable. Before the introduction of the Unified State Examination it was considered that cumulation of resources at a secondary school is the best strategy as it gives benefits while transferring to the higher stage of education. According to the results of monitoring conducted by Independent Institute for Social Policy (IISP) pupils of secondary schools had more resources for mobilization of specific practices, which gave privileges while entering higher educational establishments. Among these privileges we can mention additional training at access courses and honors medals after leaving schools. Students of primary vocational schools do not show much effort

[^6]in achievement of these privileges. They also have less opportunity to benefit from the agreement between their vocational school and a higher educational establishment, so in general, the share of those who have privileges and advantages while entering a higher educational establishment is not very high (much less as compared with pupils of secondary comprehensive schools or students of secondary vocational educational establishments). Students of secondary vocational educational establishments also can not benefit much from the advantages that result from their own efforts to study well, but they can enjoy such an advantage as an agreement between their secondary vocational educational establishment and a higher educational establishment.

The choice of the form of education may serve an indicator of institutional resources differentiation, which influences the reproduction of inequality. According to the data of research conducted by IISP the majority of the schoolchildren are aimed at full-time education ( $92.4 \%$ ). The orientation at part-time (evening) and extracurricular forms of education for them is less than insignificant ( $2.3 \%$ and $4.0 \%$ ). The students of secondary vocational educational establishments are divided into two equal groups from the point of view of their preferences: $50.5 \%$ are aimed at full-time education and $42.3 \%$ - at extracurricular. As far as the students of primary educational establishments are concerned, the survey shows that they are situated in their opinions between the schoolchildren and the students of secondary vocational educational establishments: most of them are aimed at full-time education ( $55.9 \%$ ) but the attraction of extracurricular form is also rather significant (29.4\%). Parttime (evening) education is not very attractive for all the tree groups of learners, though the students of secondary educational establishments show more interest in it (12.7\%).

Actually, young people graduating from different types of educational establishments do not equally use potential opportunities to continue education (as a rule at higher stages) that are provided by the society. The overwhelming majority of those who study at full-time departments of higher educational establishments are former schoolchildren. The graduates of primary and secondary vocational educational establishments rather seldom enter full-time departments of higher educational establishments. Their proportion is ten times less than that one among comprehensive school leavers: from 2.0 to $2.2 \%$ have primary vocational education and from $7.8 \%$ to $8.5 \%$ have secondary vocational education.

During the years of changes there has remained and deepened another sign of differentiation of cultural character in the sphere of education - inequality from the point of view of the so-called "center". This name is primarily specific for the acknowledged intellectual capitals of Russia Moscow and St. Petersburg. There are many prestigious educational establishments there, with a great number of highly qualified scholars. To a great extent this characteristic may refer to Novosibirsk, Tomsk, and many other large cities.

Very close to this phenomenon is inequality in the sphere of education, which is connected with the level of urbanization of settlements. The educational system infrastructure can not be similar in the countryside and in cities, in a small settlement and in a regional center. The quality of school education, which seriously influences the chances of a school-leaver to continue his education, is different in a large city from the countryside. The socially conditioned opportunities to continue education after leaving school are also different: a former pupil from some village school has no possibility to enter a higher educational establishment without corresponding migration.

This inequality is conditioned by clear objective reasons and exists from ancient times. Nonuniformity of localization of intellectual forces and prestigious educational establishments was compensated by migration. Rural schoolchildren at senior forms moved to "stronger" schools in towns and cities. In order to continue education, especially at higher educational establishments, schoolleavers moved to large centers, to capitals. But in the past time migration oriented at continuation of education has sharply decreased (mainly due to material reasons). The most deprived territories that are located far from large centers are also internally heterogeneous. The high level of cost of living in large cities acts as a natural negative regulator of the inflow of entrants from other places of living. According to the results of monitoring of economy of education the chances for children from oblast centers to enter a higher educational establishment are estimated as 50:50, from rayon centers this relationship is 1 to 2 , from villages -1 to 3 . The social splits along the lines "city-countryside" and " center- periphery" define the specific features of the "territorial hierarchy" of the quality of education - the pyramid, on the top of which are Moscow educational establishments and in the bottom - rural schools.

Some problems are compensated by "branching" of the education - opening of more and more branches of educational establishments in the remote areas. At the same time the negative side of the growth of branches and subsidiaries in provinces is a lower level of education, and the universities becoming provincial.

Territorial barriers are closely connected with the so-called numerical inequality. In small towns, in rural areas, which suffer from badly developed communication systems, absence of constant access to the Internet, young people do not get the level of socialization, and, in particular, the level of education, which is necessary for joining the labor market and the contemporary society as a whole.

The solution of many problems connected with the accessibility of education depends on solution of more global problems. Institutional barriers can not be regarded as a full explanation for the existing inequality. It is wrong and senseless to address reproaches to the school, to the system of education, to make them responsible for all the drawbacks. Of course, in particular the differentiation of accessibility of education, especially the quality education, is formed due to peculiarities of the structure and functioning of the system of education, inside it. For sure it could take measures that to some extent would compensate negative influences. The society has a right to expect that it would undertake active measures. But at the same time do we have the right to accuse the social institution which is exhausted due to insufficient funding, outflow of specialists who do not want to work for miserable money?

### 4.3 Social and cultural barriers

"Screening" is social in its character (the same as saturation of senior forms during the policy of overwhelming general comprehensive education). The outflow of the youth from schools of some groups can remind rivers while of others - small rivulets.

The materials of surveys, which have been conducted in different regions of the country, being compared with data of National Census, show that redistribution of opportunities to get secondary comprehensive education basically takes place between children of workers and peasants on one hand, and children of directors and administrators on the other hand and, of course, in favor of the latter. They have confirmed their right to be the first everywhere. Also they were joined by children of newly appeared entrepreneurs. Children of workers and peasants were "screened" out of schools at earlier stages of education in more quantities than it had been earlier. Among graduates from secondary comprehensive schools there prevail children from those social groups that occupy higher position in the social hierarchy. This fact is illustrated by the survey conducted in Novosibirsk Oblast - highly developed industrial and agricultural region with the center, which is considered to be one of the most urbanized cities (Table 11) ${ }^{15}$.

Table 11. The dynamics of social structure of graduates from full-time secondary comprehensive schools (\%), Novosibirsk Oblast

| Groups | $\mathbf{1 9 6 3}$ | $\mathbf{1 9 8 3}$ | $\mathbf{1 9 9 4}$ | $\mathbf{1 9 9 8}$ |
| :--- | :---: | :---: | :---: | :---: |
| Children of directors | 7.4 | 3.8 | 26.9 | 22.2 |
| Children of specialists | 25.3 | 25.4 | 24.0 | 25.2 |
| Children of small business entrepreneurs | - | - | 1.4 | 13.4 |
| Children of employees | 23.7 | 31.8 | 27.2 | 24.2 |
| Children of workers and peasants | 36.3 | 37.4 | 14.9 | 14.2 |
| Other | 5.1 | 0.1 | 2.0 | 0.4 |
| No information | 2.2 | 1.5 | 3.6 | 0.4 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 |

[^7]Source: Data of the survey conducted in Siberia is taken from: Konstantinovski D. Dynamics of the inequality. Russian youths in the changing society: orientations in the sphere of education (from1960s to 2000). Moscow, Editorial URSS, 1999 (in Russian); Konstantinovski D. The Youths of 90-s: Self-determination in the new reality. Moscow, Russian academy of Education, 2000.

Partly these changes reflect the development of the social structure of the society, but to a great extent, as it is confirmed by the research analysis, they are connected with deepening of social differentiation in the sphere of education. It is evident that the analysis of the process in dynamics demonstrates not only some changes of the social structure. The changes are radical, they can be classified (by analogy with physical phenomena) as a replacement of social polarization of the youth, which is getting a school-leaving certificate as a permit for further movement and which is ready to take leading positions in the future society.

The resulting from the Siberian research distribution of life steps of the youth after graduation from secondary (full) comprehensive schools is also socially differentiated. This differentiation is becoming deeper with the transition from personal plans to life steps; for example, in $199877.8 \%$ of children of directors became students of higher educational establishments out of those $89.9 \%$ who were planning to enter HEEs ( $86.5 \%$ realized their plans), and only $39.1 \%$ of children of workers and peasants out of $57.8 \%$ of those who wanted to become students $(67.6 \%$ realized their intentions to become students of higher educational establishments).

Figure 5 shows the situation in the sphere of education for children of those groups that occupy relatively high position in the society. During the whole period of research we can see the obvious tendency that children of directors and specialists prevail in the number children who are intended to enter higher educational establishments as compared with the school-leavers from other social groups. This prevalence is even more obvious if we look at those who managed to enter higher educational establishments. And vice a versa, children of workers, peasants and employees are more seldom among those who are eager to enter a higher educational establishment. They are also not very often met among those who managed to enter higher educational establishments (Figure 16). No doubt that this selection during the transition from secondary education to higher education bears social character.

Figure 5. The dynamics of social structure during the period of transition from secondary education to higher education. Children of directors and specialists. Novosibirsk Oblast.


Figure 6. The dynamics of social structure during the period of transition from secondary education to higher education. Children of employees, workers, and peasants. Novosibirsk Oblast.


Table 12 demonstrates the distribution of the first steps in life of the youth after leaving schools in Novosibirsk Oblast in 1998. The previous years are characterized by the analogous figures. In other regions where the research was conducted, the results may be called as similar. The Table shows the correspondence between the social and professional status of the parents and the probability of entering one or another educational establishment; which social layers contribute to the number of students of higher educational establishments and which send their children to educational establishments of lower level. Higher, secondary vocational, and primary vocational - each of these levels of the system of education "serves" for a definite contingent of teenagers, being very largely defined by their social origin. Differences of destinies for children from directors' and specialists' families (higher educational establishments are their "ecological niche"), and destinies for children from the families of employees, workers, and peasants, are quite evident.

Table 12. The structure of life steps of school-leavers. Distribution in accordance with the social and professional status of their parents (\%). Novosibirsk Oblast, 1998.

| Groups | HEEs | SVEEs | PVEEs | Work | Other | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Children of directors | 77,8 | 15,2 | 4,0 | 1,0 | 2,0 | 100,0 |
| Children of specialists | 83,2 | 11,5 | 0,9 | 0,9 | 3,5 | 100,0 |
| Children of small business <br> entrepreneurs | 66,7 | 25,0 | 3,3 | 1,7 | 3,3 | 100,0 |
| Children of employees | 50,0 | 26,9 | 10,2 | 3,7 | 9,2 | 100,0 |
| Children of workers and peasants | 39,1 | 28,1 | 23,4 | 3,1 | 6,2 | 100,0 |

The revelation of differentiation between orientations and real behavior of various groups of young people in the sphere of education has brought to understanding of interconnection between these differences and the cultural capital of families. The analysis of the data from IISP has revealed that cultural resources of the family, no matter where the child studies, (at school, at a secondary
vocational educational establishment, or at primary vocational educational establishment), have significant influence on the formation of children's orientation at high level of education. There has been made an assessment of the role of inherited cultural capital in the development of orientations at a high level of education, the peculiarities of strategies of various groups of school-leavers (differentiated in accordance with this feature), and their perception of opportunities in the competition for the access to the sphere of higher education.

Children from highly educated families more often than children from the families where parents do not have higher education consider that the second higher education is the basis for life success $(24.7 \%$ against $17.5 \%)$. Children from the families where parents have lower than secondary education consider that the basis for life success is the secondary vocational education ( $13.8 \%$ against $5.2 \%$ ). This differentiation is rather symptomatic. The second higher education as a measure for solution of the problem of quality of education and increase of competitiveness on the labor market is especially popular among educated people: the contemporary situation forces the groups of population which were socially reproduced through the system of higher education (hereditary intelligentsia, people from highly educated families) to intensify investments in the education of their children. The "neophytes" in the sphere of higher education more often preserve their relative loyalty both to higher and secondary vocational education. They consider that the level of secondary vocational education can also secure success in life. They are less motivated in their decision to enter higher educational establishments. This group is characterized by undeveloped orientation at values, which are connected with education. They have very many doubts and hesitations concerning unconditional necessity of higher education.

The higher is the parents' level of education the more intensive is the preparation of the children for entering a higher educational establishment. The "successors" accumulate the educational resource during the entire period prior to entering a higher educational establishment; they do it by means of their own efforts, invested time, money, and specific strategies. In particular, this is confirmed by the data concerning additional studies during their education at a comprehensive school; in the group of the "neophytes" the share of those has never had additional studies besides comprehensive school $(69.9 \%)$ is two times as much as those who have acquired additional knowledge (30.1\%). At the same time among children from highly educated families the share of those who get additional knowledge is much higher, it reaches more than half of the entire group (55.4\%).

The specific character of their strategies is expressed through the forms of their additional studies. In general the most preferable forms of additional studies are access courses and tutorship, but the families with different educational status use these channels in different ways; these courses are attended by $37.4 \%$ of children from highly educated families and $21.2 \%$ of children from the families where parents do not have higher education; education with tutors is conducted among $24.5 \%$ of children from highly educated families and only $9.1 \%$ of the "neophytes" families.

Good progress remains the main and the most legitimate criterion, the main stake in the struggle on the field of education for leading positions, i.e. the positions of competitiveness and success. Good progress is accessible for those who are oriented at it not only by school, but also by the family, which highly perceives the values of knowledge and the ways of knowledge acquisition. "Work function" of cultural capital of the family leads to better progress of the "successors" as compared with the "neophytes".

On the whole these data demonstrate the real role of the cultural background in the development of orientations of the youth in the sphere of education. Hardly visible in value judgments this role is becoming more visible when we analyze motivation and choice of educational strategies adequate for people from different layers of the society.

### 4.4 Economic barriers

Economic inequality is a very significant obstacle on the way of getting education. In accordance with the data of research we can follow its role at various stages of educational cycle while analyzing the level of investments in the entrance and education at each of these stages.

The first stage - preprimary education - formally it remains to be free of charge, however, the results of the monitoring of economy of education show that it requires spending, thus making the preprimary education of children inaccessible for some groups of the population.

The share of the families which invest additional to the government funding money in the education of children at preprimary educational establishments, reaches $80 \%$, being practically equal to the share of families whose children attend these establishments (Table 13). More than $60 \%$ of the families with children of the corresponding age are co-investors of material and technical provision of preprimary establishments. They pay for redecoration and guarding of the premises, procurement of materials, equipment, and so on. Almost a quarter of the families pay for classes which are not directly connected with the preparation for school, $66 \%$ of families invest in preprimary education of children in the form of payments for excursions, parties and presents at the kindergarten.

Table 13. Investment of the families in preprimary education, \%

| Types of investments The share of investing <br> families <br> Payment for attendance a kindergarten 79 <br> Payment for excursions, parties, and presents at a kindergarten 66 <br> Payment for redecoration, guarding, procurement of materials, equipment, and so  <br> on  <br> Payment for classes which are not directly connected with the preparation for  <br> school  <br> Payment for services of preprimary educational establishments 64 <br> Unofficial payments to nurses 23 <br> Payment for classes which are connected with the preparation for school 18 <br> Payment for preparation for the 1 ${ }^{\text {si }}$ form of primary school 16 <br> Unofficial payments to employees of preprimary educational establishments 13 |
| :--- |

Source: Materials of the Monitoring of the economy of education.

At the same time there is a considerable differentiation of spending depending on the type of settlement (Table 14).

Table14. The level of family investments in the preprimary education of a child, \% of the total number and for the groups

| The level of family investments, $R U R$ per academic year | Total | The type of settlement |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | village | rayon center, small town | oblast center | federal city |
| No investment | 19 | 37 | 13 | 9 | 11 |
| Up to 1,000 | 17 | 27 | 15 | 15 | 2 |
| from 1,000-to 3,000 | 26 | 24 | 32 | 20 | 15 |
| from 3,000-to 6,000 | 23 | 9 | 30 | 30 | 22 |
| from 6,000-to 9,000 | 8 | 2 | 8 | 10 | 18 |
| 9,000 and more | 8 | 1 | 3 | 15 | 32 |

Source: Materials of the Monitoring of the economy of education.
Thus, more than 6,000 RUR per year is invested in the preprimary education by only $3 \%$ of rural families. In small towns the share of such families is $11 \%$, in oblast centers $-25 \%$, and in Moscow and St. Petersburg $-50 \%$. In federal cities one third of the families find the possibility to invest in education of children of pre-school age more than 9,000 RUR per year. This amount of spending is made by $15 \%$ of families living in oblast centers, but in small towns and villages practically nobody can afford it.

In order to attend a "good" (formally free of charge) comprehensive secondary school families have to make certain investments. In Table 15 one can see the differentiation of families in accordance with their readiness to this spending.

Table 15. The readiness to pay for entrance at a good comprehensive school, \% of the total number and for the groups

| To pay for entrance at a good comprehensive school... | Total | The type of settlement |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | village | rayon center, small town | oblast center | federal city |
| undoubtedly ready | 22 | 15 | 22 | 25 | 29 |
| rather ready than not | 23 | 24 | 25 | 22 | 20 |
| rather not ready than ready | 16 | 20 | 15 | 16 | 14 |
| undoubtedly not ready | 17 | 14 | 15 | 23 | 20 |
| find difficulty to answer | 22 | 27 | 23 | 15 | 17 |

Source: Materials of the Monitoring of the economy of education.
The data of research prove that almost a half of families (45\%) are aware of the practice of informal payments for getting children admitted to a good school. The largest number of those who are acquainted with this practice live in Moscow and St. Petersburg (67\%). In small towns the share of such families is $40 \%$, in villages $-27 \%$.

The most widespread forms of family investments in the secondary comprehensive education is the purchase of school supplies (almost $100 \%$ ), payment for redecoration, guarding, materials and equipment for schools ( $89 \%$ ), as well as payment for excursions, outings, and presents for teachers ( $84 \%$ ). $70 \%$ of families make contribution in the funds of a class (school); about $40 \%$ - pay for school catering and for after-class staying at school. Other types of investments in secondary school education are less common. About a quarter of families pay for Music or Art schools, less than 20\%for individual classes, which are additional to the standard educational program.

Not more than $1 \%$ of the families regardless the type of settlement declared that they did not invest in school education of their children. The largest amount of money invested in school education lays upon people who live in federal cities: $20 \%$ of families $-9,000$ RUR and more per school year, and $20 \%$ - from 6,000 to 9,000 RUR. In other cities the annual spending of more than 6,000 RUR are made by approximately $20 \%$ of the families; in the countryside (villages) - only $10 \%$.

Thus, the preschool and school education is free of charge only from the formal point of view. Every type of territories is characterized by its "threshold" amounts of investments, which function as "barriers" on the way to education for poor families. These threshold amounts define the choice of an educational strategy.

Let's analyze the functioning of this barrier at the stage of entering a higher or secondary vocational educational establishment.

The data given in Table 16 show that the choice of an educational strategy directly depends on the family income. In those families where the income is less than 1,500 RUR per capita, about two thirds do not regard the education at a higher educational establishment as a real educational strategy. The family income of 1,500 RUR per capita can be considered as a "threshold": having reached this level of income, the families are aimed at higher education.

Table 16. Preparation for entrance at a higher or secondary educational establishment
depending on family income, $\%$ of the groups

|  | Income per capita, RUR per month. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| The type of educational establishment | $\begin{aligned} & \text { up to } \\ & 1,000 \end{aligned}$ | $\begin{gathered} \text { from } \\ 1,000- \\ \text { to } 1,500 \end{gathered}$ |  |  | $\begin{gathered} \text { from } \\ 3,000- \\ \text { to } 4,000 \end{gathered}$ | $\begin{gathered} \text { from } \\ 4,000- \\ \text { to } 6,000 \end{gathered}$ | $6,000$ <br> and more |
| HEE | 33 | 37 | 72 | 72 | 65 | 83 | 100 |


| SVEE | 67 | 63 | 28 | 28 | 35 | 18 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Source: Materials of the Monitoring of the economy of education.

Another problem is the differentiation of "white" (officially paid in the system of education) spending and "grey" (officially not paid in the system of education) spending. The first include the official payment for redecoration, guarding, procurement of the stationery, books, materials, copying, official additional classes, official payment for access courses, for preliminary testing, fees for entrance examinations, and contributions to the funds of an educational establishment, catering, and hostels. The second ("grey") include payment to individuals for tutoring, entrance bribes or "pseudo tutorship", payment for course works, diploma works, rent of accommodation, and so on. The high share of "grey" spending enlarges the economic inequality, makes economic barriers insuperable for poor families, and creates additional differentiation of educational opportunities.

The data given below demonstrate the high level of readiness of the families, whose children are aimed at higher or secondary vocational education, to pay for entrance unofficially. This readiness is seen among 47\% of families, whose children are aimed at higher educational establishments, and 42\% of families, whose children go to secondary vocational educational establishments (Table 17).

Table 17. Readiness to pay for entrance at SVEE or HEE, \% of the groups

| For unofficial payments for entrance... | The share of the families, whose children are aimed |  |  |
| :--- | :---: | :---: | :---: |
| undoubtedly ready | SVEE | HEE |  |
| rather ready than not | 18 | 24 |  |
| rather not ready than ready | 24 | 23 |  |
| undoubtedly not ready | 18 | 18 |  |
| find difficulty to answer |  | 81 | 23 |

Source: Materials of the Monitoring of the economy of education.
Only 5\% of the families declare that they do not invest in the education; about one third of the families estimate this spending as 1-3 thousand RUR per year; large investments (more than 15 thousand RUR per year) are made by one third of the families.

In accordance with the survey of "Public Opinion" Fund (2001-2002), 63\% of the parents of children aged from 13 to 20 years old with this or that level of confidence replied that they would like their children to have higher education. The considerably less share of parents - $54 \%$ - realizes that nowadays it is practically impossible to enter a higher educational establishment without additional spending. $42 \%$ is ready to pay big money in order to reach this aim. This means that not less than $11 \%$ of the parents of children of 13-20 years old declare their desire to provide their children with higher education, but, referring to the coming spending, reject this strategy.

The analysts define five types of parents' aims at higher education for their children as well as their readiness for material spending. The first type - the parents who are strongly aimed at higher education ( $27 \%$ of the total number of those surveyed). This group includes those people who undoubtedly desire their child to get a higher education. They are conscious of the fact that it is impossible to enter a higher educational establishment without significant spending and they are ready for that. The second type - the respondents characterized by the higher than average level of aim (8\% of those surveyed). The representatives of this group undoubtedly desire their child to get a higher education. They agree to suffer significant material spending, but the majority of them consider that they can avoid this spending. The third type - the parents with average aim ( $8 \%$ of those surveyed). They "would rather like their child to get higher education" but they are not strongly assured of the necessity of material spending for getting higher education, and very likely to pay this money. The fourth type - the parents with lower than average level of aim ( $18 \%$ of those surveyed). They undoubtedly desire their child to get a higher education, the majority of them accept that this is
impossible without considerable spending, but they allege that they are not ready to pay money for it. The fifth type - the respondents with weak aim ( $8 \%$ of those surveyed). This group consists of the parents who are not very eager their children to get a higher education, with reservations they agree that it is necessary to pay for that and are likely not ready to invest money.

Education at SVEE requires from the parents less investment. More than two thirds of the families whose children study at secondary vocational educational establishments assess the volume of their annual investments equal to less than 9,000 RUR. Every tenth family pays 15 thousand RUR or more for educational needs. It is necessary to note that unofficial payment for exam, written assignment and test grades is also widespread (about $20 \%$ of families).

The population's perception of the inequality in the sphere of access of education is closely connected with the significance of economic barriers. It is clearly seen from the example of higher education. In accordance with the data of IISP the families with low level of income have the following opinion: "The higher education accessibility is characterized by so much injustice and inequality that I consider it inadmissible" ( $62.7 \%$ of respondents' answers). This opinion is adhered by only $29.5 \%$ of families with high or average income, who consider that "personal efforts and strive for knowledge can overcome obstacles on the way to the higher education" ( $43.8 \%$ against $25.4 \%$ among families with low level of income). The opinion that "access to the higher education is characterized by inequality and injustice, but I consider it quite admissible" is proper for the less part of those surveyed and mainly these are people with a higher level of income ( $8.4 \%$ of families with low level of income and $13.3 \%$ of families with high or above average level of income). These data demonstrate the prevalence of opinions concerning equality of educational opportunities in the perception of the masses.

## Part IV: The policy, programs, and initiatives

## Chapter 5: Active influence of educational policy on the problem of justice

### 5.1. Institutional bases and main trends of the policy aimed at equality of educational opportunities

Nowadays the securing of equality of educational opportunities is the priority of the government policy, which is fixed in the Russian Federation Constitution (Art. 43). The Russian Federation Law on Education (ed. of Federal Laws dated 13.01.96 N 12-ФЗ, 16.11.97 N 144-Ф3) serves as a legal basis for this policy. The priority of this direction of the educational policy is stated in "The National Doctrine of Education in the Russian Federation" and in "The Concept of Modernization of the Russian Education for the Period up to the Year 2010". The steps, which are aimed at its realization, are stipulated in "The Federal Program of Development of Education for the Years 2000-2005".

One of the central problems of the contemporary educational system as it is stated in the "Federal Program" is the recent tendency towards the reduction of the level of education among the population. The major part of the able to work youth does not study at the establishments of vocational education. This leads to decline of professional level of labor resources: "judging by the general indexes of access of the youth to the vocational education and acquisition of this education Russia remains considerably behind many countries of the world ${ }^{" 16}$. There are the following measures for provision of conditions of equal access to "the quality education of all the stages and levels...":
1.1.1. To develop by the year 2005 the legislative and information basis, economic and managerial mechanisms of realization of the government policy in the sphere of exercise of rights of citizens to get equal access to quality education of various levels. The organizations in charge: the government authorities, Academies of Science; educational societies...
3.1. To develop by the year 2005 the legislative acts aimed at improvement and provision of exercise of rights of citizens to get equal access to quality education of any level, state and social guaranties for learners. The organizations in charge: the government authority bodies, public organizations; trade unions; the bodies of the system of education; the unions of manufacturers and entrepreneurs. ("The Federal Program of Development of Education for the Years 2000-2005").

Thus, the priority of equality has been declared in all the fundamental documents, which define the role and the functions of education in the context of the pursued social policy and the policy of modernization. However, if the strategic approach to the necessity of the "policy of equality in education" is accepted univocally, the tactical steps are suffering from disagreements.

As a matter of fact we can speak about two types of strategies, which are exercised through the realized programs: "the strategies of leveling" and "the strategies of demolition of reasons of inequality". In the first case we can see the ascertaining of the fact of a significant social stratification and the necessity of "smoothening" of the social inequality by means of the system of education. In these programs the special attention is paid to the socially weak groups of population. The provision of the equality is understood as "leveling" of the existing differentiation, correction of injustice. Paragraph 5.2. of this chapter is devoted to the strategies aimed at facilitating access to education for the socially weak groups of population.

Another group of programs is based on the fact of the significantly increased level of the society differentiation (the Gini coefficient in 2002 was equal to $0,398^{17}$ ). Consequently, we can not be limited only by the problem of equality of access of education for the representatives of those groups, which have deliberately worse opportunities for participation in different types of activity as compared with the other groups of population. In the conditions of constantly growing commercialization of education, which goes on the background of the low level living standards of the considerable part of the population of the country, the problem of equality of educational opportunities seizes to be the

[^8]problem of only traditionally weak layers of the society - the children without parents' care, orphans, immigrants, compulsed immigrants, unemployed people, discharged military officers, and so on. Consequently, the problem of equality must be regarded first of all from the point of view of specific needs and educational opportunities of various groups of population, which are differentiated in accordance with a number of social and economic parameters. This aspect - the attempts of systematic solution of the problem of inequality as a consequence of the social stratification - is regarded in Paragraph 5.3. of this chapter.

Moreover, specific attention to the "social" component of the policy of equality neglects its "modernization" components. The programs that are aimed at modernization and computerization of the system of education, establishment of the unified e-learning environment, development of distant learning can also help to solve the problems of bettering of educational equality. These problems are touched upon in Paragraph 5.4. Consequently, "the problem of equality" happens to be in the crosspoint of two trends of the state policy - the policy of modernization of education and the social policy as such.

### 5.2. The increase of educational opportunities for socially weak groups

At present time there is no systematic policy aimed at increase of educational opportunities for socially weak groups of population. Meanwhile, there are programs, which make attempts to overcome inequality.

Foe example, within the framework of the federal task program "Children of Russia" (http://www.mto.ru/children/), there are subprograms, which are aimed at increase of the level of social adaptation among children-orphans (since 1994) and handicapped children (since 1993). However, their activity in the sphere of education is mainly concentrated at the functioning of the specialized educational establishments. Thus, the number of Children's Homes during the period from 1991 to 2001 increased from 569 to $1265^{18}$, whereas the number of Children's Homes-Schools in 2001 was only 82 . But the policy, which would stimulate the education of the children from socially weak groups, is becoming more and more urgent. For example, in 1991 there were registered 59,154 children and teenagers without parents' care, this figure in 2001 is equal to 128,075 . But every year only 1-2 per cent of them get in the primary, secondary, and higher professional establishments and other educational establishments which provide full social maintenance ( $1 \%$ in $1991,1.7 \%$ in 2001 $)^{19}$.

The establishment of a wide network of specialized educational and correctional establishments of open and closed types, which was declared as priority of the social policy in this sphere, can not serve as a solution of the problem of integration of children with special needs into the society. On the contrast we face the problem of their segregation. Unfortunately, the system of specialized correction educational establishments and programs, which are aimed at their development, does not overcome but preserves the social inequality in the sphere of education. The objective of these programs is provision of such children with the opportunity to study but the roots of inequality being based in the strongly stratified system of education are not being eliminated.

The other socially weak group, which is stimulated to the education, is discharged military officers. The right of the military officers to get education is stipulated in the Federal Law "On the Status of Military Servants" (Art. 19). All the costs connected with professional retraining of military servants for one of the civil professions are covered by the Government on the account of funds allocated in personnel retraining. The discharged officers enjoy privileges at entrance at a public higher educational establishment of higher and secondary vocational education. There are some additional measures that are taken by the Government and aimed at the increase of educational opportunities for military officers, they are: "The Program for Retraining and Employment of Discharged Military Officers, Members of their Families at the Places of their Living" (The Russian Federation Government Regulation dated June 5, 1997, N674) and "The Federal Task Program of Retraining and Employment of Discharged Military Officers, Members of their Families for the Period of the Years 1998-2000". The objective of these programs was declared to be the stimulation of labor market required education among military officers.

[^9]However, the Programs have revealed the insufficient amount of resources allocated in the carrying out of this policy. In 1998-2000 59 thousand discharged officers studied at retraining courses whereas the total number of those discharged was 200 thousand and $60 \%$ of them wanted to be retrained. Nowadays, some scholars declare of the necessity of distance learning to be the main technique for retraining of discharged military officers ${ }^{20}$.

Here we can see the close connection of the problem of equality of educational opportunities with the establishment of a system of "lifelong learning". At present time the task of establishment of this system has been declared as priority in all the fundamental documents, but the systematic policy is not being carried out.

To a great extent the function of social "leveling" is carried out by means of additional vocational educational establishments. The number of establishments and subdivisions of additional vocational education became two times as much during the period from 1997 to 2002 (1455 in the year 2002) ${ }^{21}$.

The Federal Program of Development of Education considers that the system of additional vocational education plays the main role in the provision of the rights for such socially weak groups of population as the unemployed, immigrants, and resettlers. The Program envisages professional training and raising the level of skills for 10 million specialists. In 2002 the system of additional vocational education embraced $1,432,9$ thousand people. 15 thousand of those people were recommended by Employment Offices ${ }^{22}$.

Thus, the increase of equality of educational opportunities on the account of stimulation of education of socially weak groups of population is closely connected nowadays with several parallel tasks:

- the development of the "lifelong learning" system;
- the increase of the role of additional vocational education for adults (it is closely connected with the first task);
- the overcoming of barriers between the systems of specialized (correction) education and comprehensive education.


### 5.3 Social stratification and inequality in the sphere of education: search for new strategies

The several programs, which are aimed at increase of educational opportunities for the weak groups of population, do not solve the problems connected with growth of social stratification in the Russian society. In accordance with the correct remark of Y.I. Kouzminov "in the conditions of spontaneous and to a great extent shadow development of market relationships in the system of education there has developed the system of social inequality when the access to quality education is open mainly for the children from wealthy layers of the population. It is fraught with sharp and hardly reversible social consequences. In the country there are prerequisites for transfer of material inequality into social, class inequality. The inaccessibility of the higher educational establishments, which are located in the capitals, leads to the establishment of the closed territorial systems of education, which reproduce the regionally oriented elites" ${ }^{23}$.

There are two basic social cleavages: territorial and economical inequality.
Economical inequality is expressed through the fact that children from the families with low level of income get less quality comprehensive education, they often have to give it up, losing the opportunities for vertical mobility in their future, and so, they have much less possibility to get quality vocational education. The stratified system of education strengthens the reproduction of the social inequality.

Territorial inequality is also characterized by a complicated structure. For example, we can speak about rural areas as the most disadvantaged territories, which are at the same time not uniform in within. (Children from rayon centers and villages, which are located not far from cities have more

[^10]opportunities to move to the capital of the Subject of the Federation and continue their education than children who live in the territory close to border-line in Tyva Republic). The transportation spending can be regarded as criteria for stratification. An exact opposite is Moscow - the city, which is "closed" for newcomers. The high level of cost of living is a natural negative regulator for the inflow of entrants from other territories.

The Unified State Exam (USE) may serve as an instrument of "smoothening" of the consequences of both forms of inequities at the stage of transition from the comprehensive education to the higher education. Its task is creation of a transparent system of examinational assessment, creation of favorable conditions for school-leavers from rural areas and disadvantaged territories to enter prestigious higher educational establishments, elimination of corruption at entering higher educational establishments. Prior to the introduction of this exam the reproduction of HEE entrance inequality was based on pseudo tutorship and payment for access courses. In 2001 such an exam took place in 5 regions, in 2002 - in 16 regions, in 2003 - 47 regions. In accordance with the assessment of the World Bank the introduction of the USE (at the first stage) can be regarded as a successful experiment in the sphere of increase of accessibility of higher education ${ }^{24}$. The survey conducted in a number of Moscow and regional higher educational establishments proves that on the basis of the USE results the grades of the first examination session can be forecasted with a high level of probability ${ }^{25}$.

Nowadays the introduction of the USE helps the recovery of links between the second and the third educational stages, with elimination of additional prerequisites of inequality, which appeared due to gap between comprehensive school and higher educational establishment. On one hand, the USE is an instrument of smoothening of territorial and economical differentiation, on the other hand, it serves as a mechanism of elimination of internal, specific for the system of education, institutional barriers. So, introduction of the USE is regarded as a necessary step in realization of social priorities of Bologna process.

Another experiment, which is aimed at elimination of social consequences of territorial inequality, is the Project for Restructuring of the Network of Rural Schools. The experiment was developed and launched by the Ministry of Education in 2001; its main objective is the optimization of educational process in rural areas, increase of social mobility of population of disadvantaged territories. The main goal is the increase of quality of education at rural schools in the conditions of paucity of pupils, out-of-date material and technical basis, insufficient level of personnel and financial provision, absence of modern computer technologies of teaching, and communication.

The experiment is planning:

- to create a federal and five regional centers of internet-education in rural areas, which will create a single e-learning field for the experiment as well as increase the access of rural school-children to quality knowledge by means of development of distance learning;
- to equip base experimental schools in rural areas with modern teaching materials in order to increase the quality of education;
- to train personnel for the successful carrying out of the experiment and increase of the quality of education;
- to conduct monitoring of the first stage of the experiment for in-time correction of the models of network restructuring;
- to probe teaching materials during the experiment at the rural schools;
- to provide the experiment with legislative basis;
- to ensure stabilization and development of the network of comprehensive education establishments in the rural areas on account of increase of functioning efficiency, creation of new and development of innovative forms of education, establishment of various forms of cooperation between educational and other types of social establishments in the rural area.

[^11]The experiment of rural school network restructuring is being carried out simultaneously with the Project "E-learning Provision of Rural Schools" (http://ccs.mto.ru/). Nowadays the pilot regions are ready to launch sociological research "Monitoring of Social Consequences of Rural Schools Network Restructuring".

The specific role in the development of new strategies for overcoming the consequences of the social stratification in education is given to the recently established Federal Educational Agency and Federal Service for Control in Education and Science. As a matter of fact this reform of the mechanism of management in education is the Russian variant of the accepted in the OECD countries model of delegation of the function of the Ministry to the intermediate organization.

### 5.4 The solution of the problem of equality of educational opportunities in the process of modernization of the system of education

The stated above examples demonstrate that the "policy of equality" happens to be the most efficient if the resources of several Ministries (the Ministry of Education and Science, the Ministry of Social Development, the Ministry of Information Technologies and Communication) are exploited in complex and systematically. The active implementation of e-learning and communication technologies into educational process, being declared as another priority of the reforms in the Russian education, will also provide equality of educational opportunities.

The Federal Task Program "The Development of the Unified Educational E-learning System" may serve as bright example of combination of the objectives of modernization and provision of equality. The basic goals of the Program are creation and development in the Russian Federation of the unified educational e-learning environment, which provides with a single educational space over the territory of the whole country; increase of the quality of education in all the regions of Russia; preservation, development, and effective usage of scientific and pedagogical potential of the country; creation of the conditions for step by step transition to another level of education on the basis of e-learning technologies; development of the conditions for rendering Russian educational services to the Russianspeaking learners, who live abroad. At present time there are deliveries of hardware and software to the rural schools, retraining of rural teachers, aimed at mastering skills of operation with e-learning technologies in education, courses for raising qualification among pedagogical, administrative, and engineering staff. Also, we can see the development of open education by means of distance learning technologies.

The development of the single educational environment solves another urgent problem of inequality in education, which has become evident only during the years of modernization - the problem of digital divide. Inequality in terms of access to e-learning resources for different educational establishments leads to their polarization: those learners who have access to the Internet actively exploit e-learning resources during education, they have much more opportunities rather than those who study in the "informational vacuum".

The immediate consequence of the realization of the Program of E-learning Provision is an active development in Russia of distance learning ${ }^{26}$. At present time about 80 higher educational establishments use the technologies of distance learning. The leading role in DL belongs to Moscow State University of Economics, Statistics, and Informatics (http://www.mesi.ru/). Nowadays the Institute of Distance Learning of Moscow State University of Economics, Statistics, and Informatics coordinates the activity of more than 280 educational establishments, which are located in every subject of the Russian Federation and abroad. Another bright example is the Modern University for the Humanities (http://www.muh.ru/), which specializes on the rendering of distance learning services. More than 100 thousand students study at various distance learning programs of this University. At present moment this is one of few commercial higher educational establishments which only specialize at distance learning. It has developed science intensive and highly technological programs of distance learning to the level of self-repayment and profit.

Nevertheless, despite the growth of popularity of distance learning and its positive consequences for solution of the problem of equality of educational opportunities, it is necessary to state that

[^12]distance learning do not solve the problem of stratification of educational establishments. As a matter of fact it adds a new segment into this colorful mosaic. The success of distance learning technologies in the programs of additional education and retraining does not guaranty their efficiency as a basis of educational process.

The first results of the realization of the Program of development of the unified educational elearning environment have stimulated the launch of new task programs in this sphere (e.g., the developed by the Higher School of Economics the task program "Electronic Russia").

### 5.5 Monitoring of the programs aimed at providing equal educational opportunities

At present time the system of monitoring of educational reforms is at the stage of development. Systematic complex study of social consequences of realization of changes is not being conducted (there is only the monitoring of the results of implementation of some initiatives). In the nearest future the functions of monitoring and control over the results of realization of programs, which are aimed at provision of equality of educational opportunities will be given to the Federal Service for Control in Education and Science.

The significant potential of the results of the "policy of equality" has been collected by the Center of Educational Policy and by the Center of Development of Education of the SU-HSE within the Projects "Monitoring of Economy of Education", "The Development of the Criteria and Mechanisms of the Assessment of the Results of The Conception of Russian Education Modernization for the Period up to the Year 2010 (Efficiency, Accessibility, Quality)", "The Development of Models of Small Rural Schools Network Restructuring on the Basis of Scientifically Proved Principles of Optimization of comprehensive Establishments Network", "The Development of Finance Norms for Establishments for Handicapped Children", "The Assessment of the Social Structure of HEEs' Students Entered in Accordance with the USE Results", "The Development of Alternative Models of the Independent System of Attestation and Quality Control of Higher Education", and the others ${ }^{27}$. The intensive research of the problem of equality of educational opportunities is being conducted by the Center of Research of Statistics of Science of SU-HSE.

The monitoring of the accessibility of higher education was conducted in January 2003 by the Independent Institute for Social Policy (under the support of Ford Foundation) ${ }^{28}$.

The first stage of the development of the distance learning system in the context of realization of the program of development of the unified e-learning system was analyzed by the monitoring of MSOPU named after M. A. Sholokhov and the Center of Information and Analytical Provision for Distance Learning System ${ }^{29}$.

[^13]
# Appendix 1. Russian education system via ISCED 

| ISCED-97 |
| :--- |
| ISCED 0 - Pre-primary education |
| Pre-primary education. It is aimed at small |
| children so that they could adapt to school |
| atmosphere. After this program children continue |
| their education at stage ISCED 1. |

## ISCED 1 - Primary education

Education of the first stage.
It is aimed at teaching reading, writing, and Mathematics with elementary comprehension of other subjects: History, Geography, Social Studies, Art, and Music. Certain schools include Religious Studies.

## ISCED 2/3 - Secondary education

Education of the second stage

## ISCED 2 Lower secondary education

Lower secondary education
The contents of education are aimed at completion of basic education, which starts at the first stage, creation of the basis for lifelong learning. The curricula are characterized by special orientation at definite subjects. The completion of this stage often coincides with the ending of the compulsory school education.

## ISCED 3 Upper secondary education

## Upper secondary education

This begins at higher stages of compulsory education. The level of specialization is very high. The curricula require education during 9 years or combination of education with professional experience.

Equivalent in the Russian system of education

## ISCED 0 - Pre-primary education

In the Russian system of education the successful completion of this stage cannot be regarded as a parameter for any level of education. It is organized on the basis of an educational establishment and is aimed at preparation of children for school. This stage is not obligatory for continuation of education at the following stage.

## ISCED 1 - Primary education

This stage is aimed at pupils of preparatory classes, which in ISCED are included in pre-primary stage ISCED 0.

In the Russian system of education this stage (1-3 (4) forms) is the first step of education as such and coincides with the beginning of compulsory education at comprehensive educational establishments. The successful completion of this stage is enough to get a primary level of education.

Education of the second stage provides a comprehensive preparation on the basis of primary education at secondary schools, lyceums, gymnasiums as well as primary vocational education. This stage also includes the learners of primary vocational establishments, who get a Diploma of secondary vocational education.

ISCED 2 - Basic comprehensive education
In the Russian system of education this stage (5-9 forms of comprehensive school) is the second stage of compulsory education. The completion of this stage coincides with the ending of compulsory education at comprehensive educational establishments. It is sufficient for achievement of basic comprehensive level of education.

ISCED 3 - Secondary (full) comprehensive education (10-11 forms of comprehensive establishments), primary vocational education. Primary vocational education is included in this stage independent of the fact whether the learner has or not the Certificate of secondary (full) education.

## ISCED 4 - Post-secondary non-tertiary education

Post-secondary non-tertiary education
The curricula of this stage are between upper level of the second stage of education and the third stage of education, very often it is a little bit above the curricula of higher secondary education and are aimed at expanding of the already received knowledge; it is more specialized and detailed and presuppose more complicated practical appliance.

## ISCED 5/6 - Tertiary education

Tertiary education
This stage includes the curricula of higher education.

## ISCED 5B Tertiary-type B education

5B Tertiary-type B education
The curricula of this stage do not lead to awarding of scientific qualification and presuppose practical and professional orientation.

## ISCED 5A Tertiary-type A education

5A Tertiary-type A education
The curricula of this stage do not directly lead to award of scientific qualification and presuppose theoretical (research) preparation.

ISCED 4 - To this stage can be referred access courses, which are aimed at entrance at higher educational establishments, but statistics does not have full volume of data. Also it can include education at primary educational establishments of those students who have secondary (full) education.

Education of tertiary stage provides vocational education of three levels - secondary, higher, and postgraduate.

ISCED 5B provides secondary professional education in secondary vocational establishments and at the departments of secondary vocational education under the aegis of a higher educational establishment.

ISCED 5A provides higher professional education at higher professional educational establishments.

## ISCED 6 Advanced research programs

The curricula are aimed at award of scientific qualification.

ISCED 6 Postgraduate courses, doctorate courses

[^14]
## ANNEX 2 Statistics and Comments

Theme 1: The degree of participation in the Programs for early-aged children, 1980-2002.
Table 1. Children aged 1-2 attending preprimary educational establishments (at the end of the year; percent of the total number of children of that age)

| (at the end of the year; percent of the total number of children of that age) |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{1 9 9 6}$ | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ |
| Total | $\mathbf{3 0 . 2}$ | $\mathbf{2 9 . 2}$ | $\mathbf{2 9 . 0}$ | $\mathbf{2 9 . 2}$ | $\mathbf{2 9 . 8}$ | $\mathbf{3 1 . 8}$ | $\mathbf{3 2 . 3}$ | $\mathbf{3 2 . 5}$ |
| Urban areas | 33.5 | 33.0 | 33.1 | 33.7 | 34.6 | 36.8 | 36.9 | 36.8 |
| Rural areas | 23.2 | 21.3 | 20.0 | 19.4 | 19.3 | 20.7 | 21.8 | 22.5 |

## Specific notes for Table 1

The Programs for early-aged children are aimed at children under 3 years old.

## Comments on the national data

The Table gives the data on children under 3 years old attending preprimary educational establishments. A preprimary educational establishment is a type of educational establishment that realizes comprehensive programs of preprimary education aimed at various trends. Preprimary educational establishments provide education, upbringing, care, and nursing for children aged from 2 months to 7 years old.

The Russian Statistics has the technique of calculating the number of 1-6 year-old children attending preprimary educational establishments. The given Table that shows children under the age of 3 (as of the end of the year under review) also includes children aged 1-2 (the number of full years as of January 1 of the following calendar year).

## The sources for the national data

Form N85-k of the Federal Statistical Survey "Information on the activity of a preprimary educational establishment's activity" and the data on assessment of the number of the population with the stratification for ages and places of residence (urban versus rural areas) serve as the source of the necessary data.

The data on the number of children aged 1.5 years old inclusive and the data of the children aged from 1.5 to 3 years old are given in Form N85-k with the stratification for places of residence (cities versus towns).

This Form does not regard the distribution of children attending preprimary educational establishments from the point of view of their nationality and immigrational status.

Gender distribution is only valid for the total number of children attending preprimary educational establishments. There is no possibility to present separate data on gender distribution for children under 3 years old.

The distribution of the number of children in accordance with language (linguistic) groups (the distribution of the number of children in accordance with the languages of the peoples of the Russian Federation which are used for education of children) is carried out by the Form of Statistical Survey that does not separate children into age groups. Consequently, it is impossible to conduct this type of segmentation for children under 3 years old. However, it is necessary to take into account the fact that the share of children who are educated and cared for in their mother tongue environment(when it is not Russian) is less than $5 \%$.

## Non-generalized data and research

The information on educational programs for early-aged children on regional levels can be calculated for separate regions individually.

Theme 2: The degree of participation in the first stage (preprimary) of education (basic data for the year 2002), 1980-2002

Table 2. Children aged 3-6 attending preprimary educational establishmentsu
(by the end of the year; percent of the total number of children of that age)

|  | $\mathbf{1 9 9 6}$ | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | $\mathbf{6 6 . 1}$ | $\mathbf{6 6 . 7}$ | $\mathbf{6 6 . 5}$ | $\mathbf{6 6 . 0}$ | $\mathbf{6 8 . 0}$ | $\mathbf{6 8 . 6}$ | $\mathbf{7 1 . 2}$ | $\mathbf{7 3 . 4}$ |
| Urban areas |  |  |  |  |  |  |  |  |
|  | 74.7 | 76.3 | 77.0 | 76.8 | 79.1 | 79.5 | 81.8 | 84.3 |
| Rural areas | 46.7 | 45.4 | 43.8 | 42.2 | 43.4 | 44.1 | 47.1 | 48.8 |

## Specific notes for Table 2

Preprimary Educational Programs include all the children aged from 3 years old to the age of compulsory schooling.

## Comments on the national data

The Table gives the data on children over 3 years old attending preprimary educational establishments. Preprimary educational establishment is a type of educational establishment that implements comprehensive programs of preprimary education aimed at various trends. Preprimary educational establishments provide education, upbringing, care, and nursing for children aged from 2 months to 7 years old.

The Russian Statistics has the technique of calculation of 1-6 year-old children attending preprimary educational establishments. The given Table that shows children over the age of 3 years old includes children aged 3-6 with consideration of the number of children aged 5 and 6 years old who study at comprehensive educational establishments (schools). Those children who study in the $1^{\text {st }}$ form at preprimary educational establishments are not taken into cinsideration as they study in accordance with the Programs of the first stage of education.

## The sources for the national data

Form N85-k of the Federal Statistical Survey "Information on the activity of a preprimary educational establishment's activity" and the data on assessment of the number of the population with the stratification for ages and places of residence (urban versus rural areas) serve as the source of the necessary data.

The data of the number of children over 3 years old are given in Form N85-k with the stratification for places of residence (cities versus towns).

This Form does not regard the distribution of children attending preprimary educational establishments from the point of view of their nationality and immigrational status.

Gender distribution is only valid for the total number of children attending preprimary educational establishments. There is no possibility to present separate data on gender distribution for children over 3 years old.

The distribution (breakdown) of the number of children in accordance with language (linguistic) groups (the distribution of the number of children in accordance with the languages of the peoples of the Russian Federation which are used for education of children) is carried out by the Form of Statistical Survey that does not distinguish children into age groups. Consequently, it is impossible to conduct this type of segmentation for children over 3 years old. At that, it is necessary to take into account the fact that the share of children who are educated and upbrought by means of their mother tongue (non-Russian) is less than $5 \%$.

## Non-generalized data and researches

The information on educational programs for the first stage (preprimary) education on regional levels can be calculated for separate regions individually.

In addition, we introduce the data on children aged 1-6 attending preprimary educational establishments

Table $1-2$. Children attending preprimary educational establishments
(at the end of the year; percent of the total number of children of that age)

| (at the end of the year; percent of the total number of children of that age) |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{1 9 8 6}$ | $\mathbf{1 9 9 1}$ | $\mathbf{1 9 9 6}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ |  |
| Total | 68.3 | 66.4 | 55.5 | 54.9 | 56.0 | 57.2 | 58.1 |  |


| Urban areas | 74.6 | 70.5 | 62.4 | 63.6 | 64.8 | 65.7 | 66.4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Rural areas | 52.9 | 56.1 | 39.8 | 35.5 | 36.4 | 37.9 | 39.0 |

For each Preprimary Program aimed at support of children being in adverse conditions we request to fill in the Table given below.

## Theme 3: Special Preprimary Programs

Table 3. The number of children attending specialized preprimary educational establishments (at the end of the year under report; thousands of people)

|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total |  |  |  |  |  |  |  |  |  |
| The number of children in specialized programs: |  |  |  |  |  |  |  |  |  |
| children with hearing impairment | 3.7 | 3.3 | 3.3 | 3.4 | 4.8 | 4.6 | 4.1 | 4.6 | 4.3 |
| children with speech disorders (without hearing impairment) | 173. | 190. | 215. | 221. | 220. | 231. | $\begin{gathered} 240 . \\ 4 \end{gathered}$ | $\begin{gathered} 248 . \\ 6 \end{gathered}$ | $\begin{gathered} 257 . \\ 9 \end{gathered}$ |
| children with visual impairment 29.0 30.7 31.7 32.6 32.0 33.2 34.8 34.6 35.8 <br> Children with mental disorders          |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | 9.3 | 10.1 | 11.5 | 11.4 | 12.7 | 12.3 | 12.7 | 12.6 | 12.0 |
| children with motor impairment |  |  |  |  |  |  |  |  |  |
|  | 12.0 | 15.1 | 17.4 | 20.6 | 24.0 | 27.6 | 30.0 | 32.4 | 33.8 |
| sanatoriums for TB patients |  |  |  |  |  |  |  |  |  |
|  | 38.6 | 41.7 | 43.6 | 43.4 | 46.0 | 45.0 | 48.6 | 48.0 | 47.9 |
| other types | 7.5 | 10.2 | 15.5 | 19.4 | 20.9 | 20.9 | 24.4 | 25.8 | 27.2 |
|  | Urban | areas |  |  |  |  |  |  |  |
| The number of children in specialized programs: |  |  |  |  |  |  |  |  |  |
| children with hearing impairment children with speech disorders (without | 3.6 | 3.2 | 3.2 | 3.3 | 4.7 | 4.5 | 4.0 | 4.5 | 4.3 |
| hearing impairment) | 167. 4 | 182. | 208. | 212. | 211. | 222. 2 | 230. | $\begin{gathered} 236 . \\ 9 \end{gathered}$ | $\begin{gathered} 244 . \\ 7 \end{gathered}$ |
| Children with mental disorders |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | 9.2 | 10.1 | 11.3 | 11.3 | 12.6 | 12.3 | 12.7 | 12.5 | 12.0 |
| children with locomotorium impairment |  |  |  |  |  |  |  |  |  |
|  | 11.9 | 15.0 | 17.2 | 20.3 | 23.7 | 27.4 | 29.7 | 32.1 | 33.5 |
| sanatoriums for TB patients |  |  |  |  |  |  |  |  |  |
|  | 37.9 | 41.0 | 43.0 | 42.4 | 45.3 | 44.2 | 47.7 | 47.0 | 46.9 |
| other types | 7.4 | 10.2 | 15.3 | 19.1 | 20.7 | 20.7 | 24.2 | 25.4 | 26.7 |
|  | Rural | areas |  |  |  |  |  |  |  |
| The number of children in specialized programs: |  |  |  |  |  |  |  |  |  |
| children with hearing impairment children with speech disorders (without | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| hearing impairment) | 5.8 | 7.1 | 7.7 | 8.7 | 8.9 | 9.5 | 10.5 | 11.7 | 13.1 |
| children with visual impairment children with mental disorders | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 0.0 |
|  | n | a | 0.2 | 0.1 | 0.1 | n | a | n | n |
| children with motor impairment |  |  |  |  |  |  |  |  |  |
|  | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 |
| sanatoriums for consumptives |  |  |  |  |  |  |  |  |  |
|  | 0.6 | 0.7 | 0.7 | 0.9 | 0.7 | 0.8 | 0.9 | 0.9 | 1.0 |
| other types | 0.1 | 0.1 | 0.1 | 0.3 | 0.2 | 0.3 | 0.2 | 0.4 | 0.5 |

## Comments on the national data

The Table gives the data on the number of children attending preprimary educational establishments (kindergartens) and groups focusing on correction of physical and mental disorders. Such establishments (groups) are intended for children with disphasia, with phonetic and phonemic speech disorders, with impaired hearing, and the deaf, with poor eyesight, and the blind, with motor impairment< those with mental disorders, and the retarded, children with tuberculous, with complex disorders, and other.
The sources for the national data
Form N85-k of the Federal Statistical Survey "Information on the activity of a preprimary educational establishment's activity" serves as the source of the necessary data.

The data of the number of children attending preprimary educational establishments (groups) of compensatory type of education are given in Form N85-k with the stratification for places of residence (cities versus towns versus rural areas).

This Form does not regard the distribution of children attending preprimary educational establishments from the point of view of their nationality and immigrational status.

Gender distribution is not reviewed at federal level.

## Non-generalized data and researches

The distribution of the number of children in accordance with language (linguistic) groups (the distribution of the number of children in accordance with the languages of the peoples of the Russian Federation which are used for education of children) can be calculated for separate regions individually. It is also possible to show gender distribution.

| Theme 4: The degree of participation in upper secondary education, subgroups of population, 1980-2002 <br> Table 4. The number of population aged 15-19 attending educational establishments of upper secondary education (percent of the total number of people of that age) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Total | 34.6 | 35.1 | 36.0 | 36.8 | 37.7 | 38.0 | 37.3 | 36.8 | 37.0 |
| Men | m | m | m | m | m | m | 36.9 | 36.5 | 36.8 |
| Women | m | m | m | m | m | m | 37.8 | 37.2 | 37.3 |
| Urban areas | m | m | m | m | m | m | 33.4 | 39.4 | 39.8 |
| Rural areas | m | m | m | m | m | m | 28.2 | 27.8 | 27.8 |

## Comments on the national data

The Table gives the data on young people aged 15-19 attending educational establishments of upper secondary education (ISCED 3). This stage covers students of the 10-11 (12) forms of full-time comprehensive educational establishments except those in specialized (correctional) establishments (classes) for learners with disorders as well as students of primary vocational educational establishments regardless of whether they have a Certifificate of secondary (full) education.

## The sources for the national data

The Forms of the Federal Statistical Survey serve as sources of necessary data:

- "Information on full-time comprehensive educational establishments" (Form N 76рик);
- "Information on non-public comprehensive educational establishments" (Form N ОШ-1 (НОУ));
- $\quad$ "Information on the number of educational establishments, availability and mobility of students of primary vocational educational establishments and information on education on the basis of contracts" (Form N1 (vocational) aggregated);
- The data of the number of resident population of the correspondent age on January 1 with the stratification for places of residence (urban versus rural areas).
The calculation of the participation at this stage of education is characterized by approximate character due to some restrictions:
- absence of age breakdown for the learners of upper secondary education for fulltime comprehensive educational establishments;
- gender breakdown is presented only for students of full-time and part-time departments of primary vocational educational establishments;
- place of residence (urban versus rural areas) breakdown is given only for full-time primary vocational educational establishments.
Due to the mentioned above restrictions there is possibility to only calculate the gross number for the young people attending establishments of upper secondary education.

The Forms of Statistical Survey do not reflect the data concerning distribution (breakdown) of students in accordance with their immigration status, nationality, language, and social and economic potential.

## Non-generalized data and researches

At the district level of the regional stage it is possible to carry out the breakdown of the total number of learners in accordance with their place of residence (location of an educational establishment).

Theme 5: The degree of participation in comprehensive/academic programs of upper secondary education, subgroups of population, 1980-2002
Table 5. The number of population aged 15-19 attending comprehensive/academic programs of educational establishments of upper secondary education (percent of the total number of people of that age)

|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 18.8 | 19.6 | 20.7 | 21.9 | 23.1 | 23.6 | 23.3 | 23.3 | 23.7 |
| Men | m | 16.0 | 17.0 | 18.2 | 19.4 | 19.9 | 19.8 | 20.0 | 20.3 |
| Women | m | 23.3 | 24.5 | 25.7 | 26.9 | 27.4 | 26.9 | 26.8 | 27.1 |
| Urban areas | m | 19.0 | 20.2 | 21.5 | 23.0 | 23.6 | 23.5 | 23.7 | 24.2 |
| Rural areas | m | 21.1 | 22.0 | 22.8 | 23.5 | 23.6 | 22.7 | 22.4 | 22.4 |

## Comments on the national data

The Table gives the data on young people aged 15-19 attending comprehensive/academic programs of upper secondary education (ISCED 3). This stage comprises pupils of the 10-11 (12) forms of full-time comprehensive educational establishments except for pupils of specialized (correctional) establishments (classes) for learners with disorders.
The sources for the national data
The Forms of the Federal Statistical Survey serve as sources of necessary data:

- "Information on full-time comprehensive educational establishments" (Form N 76рик);
- "Information on non-public comprehensive educational establishments" (Form N ОШ-1 (НОУ));
- $\quad$ Information on the number of educational establishments, availability and mobility of students of primary vocational educational establishments and information on education on the basis of contracts" (Form N1 (vocational) aggregated);
- The data of the number of resident population of the correspondent age on January 1 with the stratification for places of residence (urban versus rural areas).
The calculation of the participation at this stage of education is characterized by approximate character due to several limiting facors:
- absence of age breakdown for the learners of upper secondary education for fulltime comprehensive educational establishments;
- gender breakdown of full-time non-public educational establishments has been introduced only since the beginning of 1999/2000 academic year. Gender parameters for previous years were calculated only for public full-time comprehensive educational establishments.
Due to the mentioned above restrictions there is possibility to only calculate the gross number for the young people attending comprehensive/academic programs of upper secondary education.

The Forms of Statistical Survey do not reflect the data concerning distribution (breakdown) of students in accordance with their immigration status, nationality, language, and social and economic potential.

## Non-generalized data and researches

Not available.

Theme 6: The degree of participation in vocational/technical programs of upper secondary education, subgroups of population, 1980-2002

Table 6. The number of people aged 15-19 attending vocational/technical programs of educational establishments of upper secondary education
(percent of the total number of people of that age)

|  | $\mathbf{1 9 9 5}$ | $\mathbf{1 9 9 6}$ | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 15.8 | 15.5 | 15.2 | 14.9 | 14.6 | 14.4 | 14.1 | 13.5 | 13.4 |
| Programs that provide access to <br> higher education | 12.4 | m | 12.3 | m | 12.1 | 12.1 | 12.0 | 11.5 | 11.4 |
| Programs that do not provide <br> access to higher education | 3.4 | m | 2.9 | m | 2.5 | 2.3 | 2.1 | 2.0 | 2.0 |
| Men | m | m | m | m | m | m | 17.1 | 16.5 | 16.5 |
| Women | m | m | m | m | m | m | 10.9 | 10.4 | 10.2 |
| Urban areas | m | m | m | m | m | m | 9.9 | 15.7 | 15.6 |
| Rural areas | m | m | m | m | m | m | 5.5 | 5.4 | 5.4 |

Special notes to Table 6: If there is a difference between programs that provide access to higher education and programs that do not provide access to higher education, it is necessary to give detailed tables for each of them.

## Comments on the national data

The Table gives the data on young people aged 15-19 attending vocational/technical programs of upper secondary education (ISCED 3). This stage comprises students of primary vocational education regardless of whether they have or have not the Certifificate of secondary (full) education. The programs that provide access to higher education (the graduates from primary vocational educational establishments have the right to enter higher educational establishments ISCED 5A) are conducted for those students who graduate with basic comprehensive education or secondary (full) education. The programs that do not provide access to higher educational establishments are conducted for those students who will not get secondary (full) education. The same refers to the students of part-time (evening) vocational schools, specialized vocational schools, work-farm primary vocational educational establishments, drivers' courses for the Army, and courses for machine operators. At that it is necessary to note that the mentioned above students will have the right to enter secondary vocational educational establishments (ISCED 5B) in case that they have already got the Certificate of basic comprehensive education.
The sources for the national data
The Forms of the Federal Statistical Survey serve as sources of necessary data:

- $\quad$ Information on the number of educational establishments, availability and mobility of students of primary vocational educational establishments and information on education on the basis of contracts" (Form N1 (vocational) aggregated);
- The data of the number of resident population of the correspondent age on January 1 with the stratification for places of residence (urban versus rural areas).
The calculation of the participation at this stage of education is characterized by approximate character due to some restrictions:
the breakdown in accordance with the educational programs is made only for the students of full-time primary vocational educational establishments, the other students are conditionally regarded as belonging to the programs that do not provide access to higher education;
- age breakdown is carried out only for full-time and part-time (evening) primary vocational educational establishments, not being specified for different educational programs;
- place of residence breakdown (urban versus rural areas) is carried out only for fulltime primary vocational educational establishments, not being specified for different educational programs.
Due to the mentioned above restrictions there is possibility to only calculate the gross number for the young people attending vocational/technical programs of upper secondary education.

The Forms of Statistical Survey do not reflect the data concerning distribution (breakdown) of students in accordance with their immigration status, nationality, language, and social and economic potential.

## Non-generalized data and researches

It is impossible to get other data without additional surveys.

Theme 7: The number of students attending comprehensive/vocational programs of upper secondary education, subgroups of population, 1980-2002

## Table 7. The number of students of upper secondary education <br> (thousands of people)

|  | $\mathbf{1 9 9 5}$ | $\mathbf{1 9 9 6}$ | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 3726 | 3824 | 3939 | 4112 | 4336 | 4471 | 4461 | 4497 | 4573 |
|  |  |  |  |  |  |  |  |  |  |
| Comprehensive programs | 2027 | 2135 | 2269 | 2445 | 2660 | 2777 | 2781 | 2848 | 2922 |
| Vocational programs | 1699 | 1689 | 1670 | 1667 | 1676 | 1694 | 1679 | 1649 | 1651 |
| Men |  |  |  |  |  |  |  |  |  |
| Women | m | m | m | m | m | m | 2236 | 2261 | 2310 |
| Urban areas | m | m | m | m | m | m | 2225 | 2236 | 2262 |
| Rural areas |  |  |  |  |  |  |  |  |  |

## Comments on the national data

The Table gives the data on young people aged 15-19 attending educational establishments of upper secondary education (ISCED 3). This stage comprises pupils of the 10-11 (12) forms of fulltime comprehensive educational establishments except for pupils of specialized (correctional) establishments (classes) for learners with deviations as well as students of primary vocational educational establishments regardless of whether they have or have not the Certifificate of secondary (full) education.

## The sources for the national data

The Forms of the Federal Statistical Survey serve as sources of necessary data:

- "Information on full-time comprehensive educational establishments" (Form N 76рик);
- "Information on non-public comprehensive educational establishments" (Form N ОШ-1 (НОУ));
- $\quad$ "Information on the number of educational establishments, availability and mobility of students of primary vocational educational establishments and information on education on the basis of contracts" (Form N1 (vocational) aggregated);
The calculation of the number of the students at that stage is characterized by some restrictions:
- $\quad$ place of residence breakdown (urban versus rural areas) is carried out only for fulltime primary vocational educational establishments;
- the Forms of Statistical Survey do not reflect the data concerning distribution (breakdown) of students in accordance with their immigration status, nationality, language, and social and economic potential.


## Non-generalized data and researches

At the district level of the regional stage there is possibility to carry out the breakdown of the total number of learners in accordance with their places of residence (location of an educational establishment).

Theme 8: The degree of participation in tertiary education, subgroups of population, 1980-2002
Table 8_1. The number of population aged 15-29 attending tertiary education
(percent of the total number of people of that age)

|  |  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tertiary education - total (ISCED 5/6) |  |  |  |  |  |  |  |  |  |
|  | educational | 15.0 | 15.6 | 16.2 | 17.0 | 17.9 | 19.4 | 21.8 | 23.9 |
| establishments |  |  |  |  |  |  |  |  |  |
| Public |  | 14.7 | 15.1 | 15.6 | 16.3 | 17.1 | 18.3 | 20.2 | 21.8 |
| Non-public |  | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1.1 | 1.6 | 2.1 |
|  | Tertiary education, type 5B (ISCED 5B) |  |  |  |  |  |  |  |  |
| All | educational | 6.1 | 6.3 | 6.4 | 6.4 | 6.4 | 6.6 | 7.1 | 7.4 |
| establishments |  |  |  |  |  |  |  |  |  |
| Public |  | 6.1 | 6.3 | 6.4 | 6.4 | 6.4 | 6.6 | 7.0 | 7.2 |
| Non-public |  | n | n |  | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 |
|  | Tertiary education, type 5A (ISCED 5A) |  |  |  |  |  |  |  |  |
| All | educational | 8.7 | 9.1 | 9.6 | 10.3 | 11.2 | 12.4 | 14.3 | 16.2 |
| establishments |  |  |  |  |  |  |  |  |  |
| Public |  | 8.3 | 8.6 | 9.0 | 9.7 | 10.4 | 11.4 | 12.9 | 14.3 |
| Non-public |  | 0.4 | 0.4 | 0.5 | 0.6 | 0.8 | 1.1 | 1.4 | 1.9 |
|  |  |  |  | Terti | y educa | on (ISC | D 6) |  |  |
| All establishments | educational | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 |

Table 8_2. The number of population aged 15-29 attending tertiary education: 2002 (percent of the total number of people of that age)

|  | Total | Men | Women |
| :--- | :---: | :---: | :---: |
|  | Tertiary education - total (ISCED 5/6) |  |  |
| All educational establishments | 23.9 | 24.7 | 23.2 |
| Public | 21.8 | 23.1 | 20.6 |
| Non-public | 2.1 | 1.6 | 2.6 |
|  | Tertiary education, type 5B (ISCED 5B) |  |  |
| All educational establishments | 7.4 | 6.6 | 8.1 |
| Public | 7.2 | 6.4 | 7.9 |
| Non-public | 0.2 | 0.2 | 0.2 |
| All educational establishments | Tertiary education, type 5A (ISCED 5A) |  |  |
| Public | 16.2 | 17.6 | 14.7 |
| Non-public | 14.3 | 16.2 | 12.3 |
| All educational establishments | 1.9 | 1.4 | 2.4 |

Specific notes for Table 8: If possible, present separate tables for establishments of different types of tertiary education - the first, the second, and the third, and for different types of degrees scientific, humanities, and so on.

## Comments on the national data

The Table gives the data on the population aged 15-29 attending educational establishments of tertiary education (ISCED 5A,5B,6). This stage comprises students of secondary vocational educational establishments regardless of whether they have or have not the Certifificate of secondary (full) education and the level of the future Diploma (of primary or secondary vocational education), higher
professional education, postgraduate students, and the attendants of doctorate courses. These data do not include foreign students (except for the students from the former Soviet Republics).

## The sources for the national data

The Forms of the Federal Statistical Survey serve as sources of necessary data:

- "Information on federal and municipal secondary vocational educational establishment, which realizes the programs of secondary vocational education" Form N2-HK);
- "Information on education of specialists with secondary vocational education at a non-public educational establishment" (Form N2-HK(HOY);
- "Information on federal and municipal higher educational establishment" (Form N3-HK);
- "Information on education of specialists with higher education at a non-public educational establishment" (Form N3-HK(HOY);
- "Information on postgraduate and doctorate courses" (Form N1-HK);
- The data of the number of resident population of the correspondent age on January 1 with the stratification for places of residence (urban versus rural areas).
The calculation of the participation at this stage of education is characterized by approximate character due to some restrictions:
- the breakdown of the tertiary education students is carried out for different age groups depending on the level of the tertiary education: for the students of secondary vocational educational establishments these age groups are as follows: 15 years old and younger, 16 years old, 17 years old, 18 years old, 19 years old, 20 years old, 21 years old, 22 years old, 23 years old and older; for the students of higher educational establishments: 17 years old and younger, 18 years old, 19 years old, 20 years old, 21 years old, 22 years old, 23 years old and older; for postgraduate students: 26 years old and younger, 27-30 years old, 31-34 years old, 35-38 years old, 39 years old and older; for doctorants: under 39 years old, 40-49 years old, 50-59 years old, 60 years old and older.
- age breakdown is carried out only for students of public secondary and higher professional establishments;
- the process of breakdown of students of public secondary and higher professional educational establishments in accordance with the rules of the Forms of Federal Statistical Survey is to be carried out once in three years: the latest Survey was carried out at the beginning of 2001/2002 academic year (in 2002 in terms of ISCED).
Due to the mentioned above restrictions there is possibility to only calculate the gross number for the population aged 15-29 attending tertiary education.

The Forms of Statistical Survey do not reflect the data concerning distribution (breakdown) of students in accordance with their immigration status, nationality, language, and social and economic potential, place of residence (urban versus rural areas).

## Non-generalized data and researches

Not available.

Theme 9: The degree of participation in tertiary education, subgroups of population (with differentiation (breakdown) in accordance with the type of a higher educational establishment and the level), 1980-2002

Specific notes for Table 9: This Table must be filled for each type of upper secondary education. If available, the data should be presented for each type of tertiary education (stages and types).

All the data available are presented in Table 8.
Theme 10: The share (in \%) of teenagers aged $15-19$ who are not involved in education or employment, subgroups of population, 1980-2002

The following Russian documents present this information:

- Form N1-HД of the Federal Statistical Survey "Information on the number of children and teenagers aged 7-15, who do not study at educational establishments, but the age group of children does not meet the requirements;
- the survey of population employment (age 15-72) gives the data on the unemployed and economically inactive population aged under 20 years old (practically of the age 15-20), but these data do not reflect the information concerning their participation in educational process. The survey has been conducted since 1992; - due to the fact that some stages of education have restrictions in terms of age for learners/students, there is no possibility to exactly define the participation of the population aged 15-19 in all the educational stages, thus, it is impossible to derive the exact specific weight of the youth of that age who do not participate in the educational process;
- the statistical coverage of continuously learning population is not available.

Table 10.1. Unemployment level for the population aged 15-19 years old (percentage)

|  | Total | Men | Women |
| :--- | :--- | :--- | :--- |
| 1995 | 28.7 | 24.4 | 33.8 |
| 1996 | 31.7 | 28.6 | 35.1 |
| 1997 | 41.4 | 39.4 | 43.4 |
| 1998 | 45.7 | 44.3 | 47.2 |
| 1999 | 31.0 | 25.8 | 40.5 |
| 2000 | 29.2 | 26.9 | 32.5 |
| 2001 | 28.8 | 26.4 | 32.3 |
| 2002 | 27.3 | 23.8 | 31.8 |

Table 10_2. The specific weight of unemployed aged 15-19 years old in the total number of the unemployed

| (percentage) |  | Total | Men |
| :--- | :--- | :--- | :--- |
| 1995 | 11.1 | 9.4 | Women |
| 1996 | 10.3 | 8.8 | 13.1 |
| 1997 | 9.2 | 7.9 | 12.0 |
| 1998 | 7.9 | 7.3 | 10.7 |
| 1999 | 7.0 | 7.2 | 8.5 |
| 2000 | 7.0 | 7.0 | 6.8 |
| 2001 | 8.6 | 8.5 | 6.9 |
| 2002 | 8.9 | 8.0 | 8.6 |

Theme 11: The share (in \%) of young people aged $20-24$ who are not involved in education or employment, subgroups of population, 1980-2002

The following Russian documents present this information:

- the survey of employment (age 15-72) gives the data on the unemployed and economically inactive population aged 20-24 years old but these data do not reflect the information concerning their participation in educational process. The survey has been conducted since 1992. Learners/students are regarded as unemployed if at the moment of survey they are looking for job or they are ready to start working; - due to the fact that some stages of education have restrictions in terms of age for learners/students, there is no possibility to exactly define the participation of the population aged 20-24 in all the educational stages, thus, it is impossible to derive the exact specific weight of the youth of that age who do not participate in the educational process;
- the statistical coverage of continuously learning population is not available.

Table 11_1. Unemployment level for the population aged 20-24 years old
(percentage)

|  | Total | Men | Women |
| :--- | :--- | :--- | :--- |
| 1995 | 15.3 | 15.3 | 15.3 |
| 1996 | 15.6 | 15.2 | 16.0 |
| 1997 | 18.9 | 19.1 | 18.7 |
| 1998 | 22.8 | 23.1 | 22.4 |
| 1999 | 20.0 | 19.8 | 20.2 |
| 2000 | 16.5 | 17.1 | 15.8 |
| 2001 | 15.2 | 14.9 | 15.6 |
| 2002 | 14.4 | 13.8 | 15.1 |

Table 11_2. The specific weight of unemployed aged 20-24 years old in the total number of the unemployed
(percentage)

|  | Total | Men | Women |
| :--- | :--- | :--- | :--- |
| 1995 | 18.3 | 18.6 | 18.0 |
| 1996 | 18.0 | 17.8 | 18.4 |
| 1997 | 17.4 | 17.9 | 16.7 |
| 1998 | 18.3 | 18.9 | 17.6 |
| 1999 | 16.3 | 16.5 | 16.1 |
| 2000 | 17.3 | 17.7 | 16.8 |
| 2001 | 17.7 | 17.6 | 17.8 |
| 2002 | 17.0 | 16.4 | 17.8 |

Theme 12: The share (in \%) of adult population aged 35 and older participating in education of all the stages, lower and upper secondary and tertiary education, subgroups of population, 1980-2002

The age group of 35 years old and older is practically not presented in the Forms of Federal Statistical Survey of the activity of educational establishments that realize educational programs of different stages. The oldest age group for primary vocational education is 21 years old and older, for secondary vocational education -23 years old and older, for higher professional education -24 years old and older; the youngest age group for postgraduates it is 39 years old.

The age group which is close in its parameters to that under analysis is the group of postgraduate students ( 31 years old and older), but this stage of education does not reflect the real situation. It is impossible to present data on this theme.

Theme 13: The participation of adult population in continuing education and retraining, subgroups of population, 1980-2002

## Nowadays statistics does not cover one of the most important elements of education - the establishment of the system of continuing (lifelong) education.

In the contemporary situation in Russia the concept of lifelong learning is being widely developed. This reflects the growing understanding of importance of knowledge acquisition and retraining as a factor of the successful development of the economy. This concept serves as a basis for objectives of development of the system of education. The objectives were declared in the National Doctrine of Education of the Russian Federation. However, the elaboration of the educational policy has not been supported by the adequate statistical coverage. The existing statistics does not adequately describe this phenomenon because it exploits a rather narrow approach to the continuing education as organized forms of adult learning. In particular, the statistics only traces the improvement of professional skills and professional retraining of specialists as well as training of civil servants.

This year the Institute of Statistical Research and Economy of Education under SU-HSE is planning to develop Methodological recommendations for statistical analysis of participation of population in continuing education. This analysis is to be carried out within the framework of research of population employment. After it has been implemented into the statistical practice there will be information to be filled in the given tables.

## Table 13 Improving professional skills and retraining of specialists at educational establishments of additional vocational establishments

(per academic year; thousands of people)

|  | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| The number of learners | 770.3 | 701.6 | 898.4 | 1059.4 | 1119.1 | 991.5 | 1432.9 | 1223.7 |
| Including those who: |  |  |  |  |  |  |  |  |
| have improved professional skills | 717.8 | 658.1 | 825.3 | 997.4 | 1059.9 | 923.6 | 1319.0 | 1126.0 |
| among them: |  |  |  |  |  |  |  |  |
| Specialists | 687.6 | 635.9 | 788.1 | 983.2 | 1043.5 | 909.0 | 1258.2 | 1012.7 |
| including Directors | 119.2 | 103.8 | 146.1 | 183.1 | 190.9 | 178.7 | 225.6 | 174.8 |
| Discharged from military service | 0.7 | 1.4 | 0.6 | 1.7 | 0.9 | 0.5 | 0.6 | 3.8 |
| The unemployed with recommendation from | 9.6 | 7.2 | 10.7 | 12.5 | 15.6 | 14.1 | 22.8 | 18.0 |
| Employment Offices |  |  |  |  |  |  |  |  |
| have got professional retraining among them: | 52.5 | 43.5 | 73.1 | 62.0 | 59.2 | 67.9 | 113.9* | 97.7* |
| Specialists | 35.1 | 24.9 | 54.1 | 47.6 | 46.9 | 55.0 | 89.4 | 77.9 |
| including Directors | 9.2 | 4.6 | 12.8 | 11.8 | 11.2 | 13.1 | 18.1 | 18.6 |
| Discharged from military service | 4.3 | 5.7 | 6.5 | 5.8 | 3.2 | 3.9 | 3.8 | 4.1 |
| The unemployed with recommendation from Employment Offices | 9.2 | 8.9 | 7.1 | 8.6 | 9.1 | 9.0 | 15.0 | 7.1 |

[^15]The results: the rate of "screening", graduation, testing of skills, participation in the labor market, and earnings

The rate of "screening"

Theme 14: The rate of "screening" from the secondary stage of education, subgroups of population, 1980-2002

Table 14 The rate of "screening" from the secondary stage of education, subgroups of population: 2001-2003

|  | 2001 | 2002 | 2003 |  |
| :--- | :---: | :---: | :---: | :---: |
| Public full-time comprehensive establishments: |  |  |  |  |
| 5-9 forms | 0.79 | 0.78 | 0.83 |  |
| 10-11(12) forms | 2.84 | 2.74 | 2.94 |  |
| Primary vocational educational establishments | 5.72 | 5.48 | 5.49 |  |

The rate of "screening" is defined as relation of the number of learners who left an educational establishment to the total number of learners, in percentage.

While calculating this parameter for learners of the 5-9 forms of comprehensive schools the number of "screened" learners (who left the secondary stage of education) includes those pupils who moved to educational establishments (classes) for disabled children, to part-time (evening) comprehensive schools, to specialized work-farm educational establishments, as well as those who were expelled for misbehavior, poor progress, or had to give up learning due to serious illness, those employed, and those who left the educational establishment and neither work nor study. While calculating this parameter for learners of the 10-11 (12) forms the mentioned above categories of people are added by those who moved to secondary vocational educational establishments (the tertiary stage of education) and the graduates who were not awarded with the Certificate of secondary (full) education.

The data of the Federal Statistical Survey of full-time public comprehensive educational establishments serve as the source of this information.

The statistical data concerning the "screening" of learners from non-public comprehensive educational establishments at present time are not available.

While calculating this parameter for primary vocational educational establishments the number of students who left these establishments includes those who had to give up learning due to serious illness, were drafted to military service before they could finish an educational establishment, expelled for misbehavior, poor progress, as well as those who left the primary vocational educational establishment voluntarily. The given data include all the forms of education.

The Russian Statistics does not differentiate the dropouts in accordance with various parameters (social and economic status of parents, place of residence, sex, immigration status, nationality, mother tongue).

The Institute of Statistical Research and Economy of Education under SU-HSE has only available the data of the number of people who were dropped out of comprehensive educational establishments and primary vocational educational establishments for the years 2001-2003. However, these data for previous years can be taken at the Federal Agency of the State Statistics (on comprehensive educational establishments) and at the Ministry of Education and Science of the RF (on primary vocational educational establishments).

## Theme 15: The rate of "screening" from the tertiary stage of education, subgroups of population, 1980-2002

Specific notes for Table 15: The rate of "screening" is the share (\%) of dropouts, who leave educational establishments of the tertiary stage of education without the corresponding degree. If possible, the rate of "screening" should be presented in accordance with the type of the educational establishment of tertiary stage of education, as well as in accordance with the type of the secondary stage of education which the student graduated from

Table 15. The rate of "screening" from the tertiary stage of education, subgroups of population: 2001-2003

|  | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Public secondary vocational <br> educational establishments: | 11.15 | 9.80 | 9.31 | 9.22 | 8.70 | 9.24 | 10.14 | 10.36 |

The rate of "screening" is defined as relation of the number of students who left an educational establishment to the total number of students.

While calculating this parameter for secondary vocational educational establishments the number of students who left these establishments includes those who were drafted to the military service before they could finish an educational establishment, and expelled for poor progress.

The given data include all the forms of education.
The statistical data concerning the "screening" of learners from non-public secondary vocational educational establishments at present time are not available.

The Russian Statistics does not differentiate the dropouts from the secondary vocational educational establishments in accordance with various parameters (social and economic status of parents, place of residence, sex, immigration status, nationality, mother tongue), as well as in accordance with the previous education of an expelled student.

At present time the Statistics does not have available data on "screening" from higher educational establishments (both public and non-public).

The Institute of Statistical Research and Economy of Education under SU-HSE has only available the data of the number of people who were dropped out of secondary vocational educational establishments for the years 1995-2003. However, these data for previous years can be taken at the Federal Agency of the State Statistics.

## The number of graduates

Theme 16: The share (in \%) of people aged 19 and older who graduated the upper secondary stage of education, subgroups of population, 1980-2002

The main source of information concerning the educational level of the population (those who graduated a certain level of education) is the National Census.

According to the National Census the educational level of the population is broken down on the following age groups (years old): $15-19,20-24,25-29,30-34,35-39,40-44,45-49,50$ $-54,55-59,60-64,65-69,70$ and older.

Table 16. The specific weight of the population aged 20 and older with secondary (full) comprehensive and primary vocational education (ISCED 3)
(percent of the total number of population of that age)

|  | Total |
| :--- | :--- |
| 1989 | 30.2 |
| 2002 | 29.2 |

## Non-generalized data and researches

The information on the educational level of the population is available in the materials of population survey (age 15-72) on the problems of employment, which has been carried out since 1992. Starting from 1999 the survey has been carried out once a quarter with analysis of different for each quarter combinations of objects under observation. The volume of quarter sampling is about 65 thousand people or $0.06 \%$ of the population aged 15-72, with total 250-260 thousand people per year ( $0.24 \%$ of the population).

Theme 17: The share (in \%) of people aged 25-29 years old who graduated the upper secondary stage of education, subgroups of population, 1980-2002

The main source of information concerning the educational level of the population (those who graduated a certain level of education) is the National Census.

According to the National Census the educational level of the population is broken down into the following age groups (years old): $15-19,20-24,25-29,30-34,35-39,40-44,45-49,50$ $-54,55-59,60-64,65-69,70$ and older.

Table 17. The specific weight of the population aged 25-29 years old with secondary (full) comprehensive and primary vocational education (ISCED 3)
(percent of the total number of population of that age)

|  | Total | Men | Women |
| :--- | :--- | :--- | :--- |
| 1989 | 47.6 | 54.6 | 40.5 |
| 2002 | 32.3 | 35.9 | 28.6 |

## Non-generalized data and researches

The information on the educational level of the population is available in the materials of population survey (age 15-72) on the problems of employment, which has been carried out since 1992. Starting from 1999 the survey has been carried out once a quarter with analysis of different for each quarter combinations of objects under observation. The volume of quarter sampling is about 65 thousand people or $0.06 \%$ of the population aged 15-72, with total 250-260 thousand people per year ( $0.24 \%$ of the population). However, the operational tables do not contain the data on the distribution of the population in terms of the educational level and age grouping. These data are specific only for description of economically active population, employed and unemployed.

Theme 18: The share (in \%) of people aged 50-54 years old who graduated the upper secondary stage of education, subgroups of population, 1980-2002

The main source of information concerning the educational level of the population (those who graduated a certain level of education) is the National Census.

According to the National Census the educational level of the population is broken down into the following age groups (years old): $15-19,20-24,25-29,30-34,35-39,40-44,45-49,50$ $-54,55-59,60-64,65-69,70$ and older.

Table 18. The specific weight of the population aged $\mathbf{5 0} \mathbf{- 5 4}$ years old with secondary (full) comprehensive and primary vocational education (ISCED 3)
(percent of the total number of population of that age)

|  | Total | Men | Women |
| :--- | :--- | :--- | :--- |
| 1989 | 18.8 | 21.2 | 16.7 |
| 2002 | 32.5 | 36.4 | 25.9 |

## Non-generalized data and researches

The information on the educational level of the population is available in the materials of population survey (age 15-72) on the problems of employment, which has been carried out since 1992. Starting from 1999 the survey has been carried out once a quarter with analysis of different for each quarter combinations of objects under observation. The volume of quarter sampling is about 65 thousand people or $0.06 \%$ of the population aged 15-72, with total 250-260 thousand people per year ( $0.24 \%$ of the population). However, the operational tables do not contain the data on the distribution of the population in terms of the educational level and age grouping. These data are specific only for description of economically active population, employed and unemployed.

Theme 19: The number of graduates of the upper secondary stage of education (comprehensive education), subgroups of population, 1980-2002

Theme 20: The number of graduates of the upper secondary stage of education (vocational and technical education), subgroups of population, 1980-2002

None of the existing forms of state statistical survey contain information concerning age structure of the graduates, thus, it is impossible to present the corresponding data for any stage of education.

Theme 21: The number of people who entered the tertiary stage of education, types of graduated upper secondary stage of education, subgroups of population, 1980-2002

Specific notes for Table 21: This Table must be filled in for each type of upper secondary education. If available, the data should be presented for each type of tertiary education (stages and types).

Table 21. The specific weight of people who entered the tertiary stage of education in the year of graduation from the upper secondary stage of education (percent of the total number of graduates from the corresponding type of educational establishment)

|  | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | The total number of the graduates from the upper stage of education |  |  |  |  |  |  |
| Total <br> public secondary vocational educational establishments (ISCED 5B) public higher educational establishments (ISCED 5A) non-public higher educational establishments (ISCED 5A) | 35.3 | 36.2 | 38.6 | 39.8 | 43.0 | 50.6 | 53.2 |
|  |  |  |  |  |  |  |  |
|  | 13.6 | 13.9 | 14.5 | 15.1 | 16.6 | 17.4 | 17.3 |
|  | 21.7 | 22.3 | 24.1 | 24.7 | 26.5 | 29.8 | 31.5 |
|  |  |  |  |  |  |  |  |
|  | m | m | m | m | m | 3.4 | 4.4 |
|  | Graduates (school-leavers) from full-time comprehensive schools |  |  |  |  |  |  |
| Total <br> public secondary vocational <br> educational establishments 64.0 63.0 64.9 64.4 67.0 75.9 79.0 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| (ISCED 5B) | 24.5 | 23.9 | 24.1 | 24.2 | 25.5 | 25.7 | 25.3 |
| public higher educational |  |  |  |  |  |  |  |
| establishments (ISCED 5A) | 39.5 | 39.1 | 40.8 | 40.2 | 41.5 | 45.1 | 47.4 |
| non-public higher educational establishments (ISCED 5A) |  |  |  |  |  |  |  |
|  | Graduates from primary vocational educational establishments |  |  |  |  |  |  |
| Total <br> public secondary vocational <br> educational establishments 3.5 4.0 4.4 4.6 5.3 6.9 7.8 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (ISCED 5B) | 1.5 | 1.8 | 2.0 | 2.1 | 2.5 | 2.9 | 3.2 |
| public higher educational |  |  |  |  |  |  |  |
| establishments (ISCED 5A) | 2.0 | 2.1 | 2.4 | 2.5 | 2.8 | 3.4 | 3.7 |
| non-public higher educational establishments (ISCED 5A) |  |  |  |  |  |  |  |

## Comments on the national data

The presented data are not provided directly by statistical surveys. They can be deducted with a certain degree of reliability by means of calculation. The calculation can be carried out on the basis of the data concerning the number of the students who graduated from the upper secondary stage of education (graduates (school-leavers) from comprehensive schools, who got the Diploma of the secondary (full) comprehensive education and graduates from primary vocational educational establishments) and the number of students who started their education at the tertiary stage of education (at secondary and higher professional educational establishments) immediately after graduation from the previous stage. At that some restrictions must be taken into consideration:

- the number of graduates (school-leavers) from comprehensive educational establishments is calculated as the result of the school-year, whereas the number of
graduates from primary vocational educational establishments as the result of the calendar year;
- the existing forms of the statistical reporting give the data concerning those students of secondary and higher professional educational establishments who graduated from full-time comprehensive schools in the year of being enrolled at those establishments. However, these data include also those who graduated from fulltime departments of part-time (evening) comprehensive educational establishments. These learners do not belong to the upper secondary stage of education. It is necessary to take into consideration that the figures of entrance at the tertiary stage of education proves to be somehow enlarged for full-time comprehensive educational establishments;
- the distribution (breakdown) on the basis of educational level of those who were admitted to non-public secondary vocational educational establishments is not available; the same parameter for non-public higher professional educational establishments was introduced into the reporting in the beginning of 2000/2001academic year (the year 2001 in accordance with ISCED).
- the calculation of this parameter seems to be adequate only on the federal level, regional parameters will be shifted towards regions, which have more secondary and, moreover, higher professional educational establishments. It is impossible to give a clear picture from which regions the future students of the tertiary education arrived and where they got their upper secondary education.


## The sources for the national data

The Forms of the Federal Statistical Survey serve as sources of necessary data.

## Non-generalized data and researches

Not available, but there is a possibility to get additional information from educational establishments of the tertiary stage of education.

Table 21_1. The specific weight of people who graduated from the upper secondary stage of education from those who were enrolled at public secondary vocational educational establishments (ISCED 5B)
(at the beginning of the academic year; percent of the total number of those who were enrolled)

|  | $\mathbf{1 9 9 5}$ | $\mathbf{1 9 9 6}$ | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total <br> graduates (school-leavers) | 58.5 | 59.2 | 60.4 | 61.8 | 62.9 | 65.6 | 66.5 | 65.4 | 64.3 |
| from comprehensive <br> schools <br> graduates from primary | 53.9 | 54.2 | 54.9 | 55.8 | 56.7 | 58.7 | 59.0 | 57.6 | 56.3 |
| vocational educational <br> establishments | 4.5 | 5.0 | 5.5 | 5.9 | 6.2 | 7.0 | 7.6 | 7.8 | 7.9 |
| current year graduates <br> among them the | 37.2 | 38.0 | 39.6 | 40.5 | 42.4 | 44.5 | 44.6 | 43.6 | 43.0 |
| graduates from full-time <br> comprehensive <br> educational | 34.1 | 34.5 | 35.7 | 36.7 | 38.5 | 40.3 | 40.3 | 39.6 | 38.8 |
| establishments <br> previous years' graduates | 21.2 | 21.3 | 20.9 | 21.2 | 20.5 | 21.2 | 22.0 | 21.8 | 21.3 |

Table 21_2. The specific weight of people who graduated from the upper secondary stage of education from those who were enrolled at public higher professional educational establishments (ISCED 5A)
(at the beginning of the academic year; percent of the total number of those who were enrolled)

|  | $\mathbf{1 9 9 6}$ | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total <br> graduates (school-leavers) | 79.8 | 78.5 | 77.1 | 75.1 | 72.4 | 70.9 | 68.8 | 69.6 |
| from comprehensive schools <br> graduates from primary | 75.0 | 73.2 | 72.3 | 70.4 | 67.8 | 66.4 | 64.1 | 65.0 |
| vocational educational <br> establishments | 4.9 | 5.2 | 4.8 | 4.7 | 4.6 | 4.5 | 4.7 | 4.6 |
| current year graduates <br> $\quad$ among them the graduates <br> from full-time comprehensive <br> educational establishments | 58.7 | 57.4 | 56.7 | 54.4 | 53.1 | 52.3 | 49.9 | 50.6 |
| previous years' graduates |  |  |  |  |  |  |  |  |

Table 21_3. The specific weight of people who graduated from the upper secondary stage of education from those who were enrolled at non-public higher professional educational establishments (ISCED 5A)

|  | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ |
| :--- | :---: | :---: |
| Total | 66.8 | 65.7 |
| graduates (school-leavers) from comprehensive schools | 60.8 | 59.2 |
| graduates from primary vocational educational | 6.0 | 6.4 |
| establishments |  |  |
| current уеar graduates | 49.9 | 47.8 |
| из них дневных общеобразовательных учреждений | 44.0 | 42.4 |
| previous уеаrs' graduates | 16.9 | 17.8 |

Theme 22: The degree of participation in the labor market in accordance with the types of upper secondary education graduates, subgroups of population, 1980-2002

Specific notes for Table 22: This Table must be filled in for each type of upper secondary education. If available, the data should be presented for each type of tertiary education (stages and types).

The Table presents the data of the sampling survey of the population dealing with the problems of employment. The objective of this survey is to get information on the number and content of the economically active population, those employed and unemployed, the level of economic activity and unemployment, and their dynamics. The survey has been carried out in Russia since 1992 in all the regions, except for the Chechen Republic, on the basis of sampling technique with the consequent extrapolation on the total number of population of the correspondent age.

The data for the years 1992-1995; 1997-1998 are given for the end of October; 1996 - for the end of March; for the years 1999-2003 - for the end of November.

The level of participation of able to work population in the economy characterizes the level of employment (The specific weight of the working population compared to the total population, calculated in percentage).

The population employed (involved in economic activity) are those people, who within the period of survey (the week while the survey was carried out) were hired for at least one hour a week in order to earn money, who were free-lancers aimed at earning money; were temporarily absent at work; worked as aids at a family business. People are also considered as employed if they are involved in a family business aimed at gaining profit.

Table 22_1. The total number of people involved in economy and the number of people who have upper secondary education (ISCED 3)

|  | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Involved in | 7106 | 6864 | 6478 | 6414 | 6292 | 6002 | 5843 | 6308 | 6446 | 6466 | 6576 | 6649 |
| economy | 8 | 2 | 5 | 9 | 8 | 1 | 7 | 2 | 5 | 4 | 6 | 6 |
| men | 3714 | 3605 | 3409 | 3372 | 3308 | 3155 | 3058 | 3283 | 3337 | 3343 | 3361 | 3402 |
|  | 5 | 1 | 1 | 0 | 7 | 4 | 7 | 8 | 4 | 5 | 5 | 3 |
| women | 3392 | 3259 | 3069 | 3042 | 3984 | 2846 | 2785 | 3024 | 3109 | 3122 | 3215 | 3247 |
|  | 3 | 1 | 5 | 9 | 1 | 7 | 0 | 4 | 1 | 9 | 1 | 3 |
| Including those who have education: primary vocational* | m |  |  |  |  |  | 4362 |  | 7084 |  |  |  |
|  | m | m | m | m | m |  |  |  |  |  |  | 7 |
| men | M | m | m | m | m | 2294 | 2682 | 3508 | 4211 | 4844 | 4668 | 6856 |
| women | M | m | m | m | m | 1406 | 1680 | 2048 | 2873 | 2775 | 2735 | 4210 |
| secondary (full)comprehensive |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2338 | 2223 | 2125 | 2131 | 2092 | 1599 | 1478 | 1527 | 1513 | 1475 | 1534 | 1532 |
|  | 8 | 8 | 3 | 2 | 7 | 2 | 2 | 0 | 8 | 4 | 3 | 0 |
| men | 1341 | 1283 | 1241 | 1248 | 1225 | 9219 | 8528 | 8808 | 8657 | 8325 | 8635 | 8761 |
|  | 9 | 3 | 7 | 7 | 4 |  |  |  |  |  |  |  |
| women | 9969 | 9405 | 8836 | 8826 | 8673 | 6772 | 6254 | 6462 | 6481 | 6429 | 6708 | 6559 |

* In 1992-1996 those people who had primary vocational education were regarded in accordance with the corresponding level of comprehensive education.

Table 22_2. The total number of people involved in economy and the number of people who have upper secondary education (ISCED 3)

| (percents) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Involved in economy | 66.7 | 64.1 | 60.1 | 58.7 | 57.6 | 54.9 | 53.0 | 57.2 | 52.4 | 58.6 | 59.6 | 60.3 |
| men | 73.6 | 71.1 | 66.8 | 65.2 | 63.9 | 60.9 | 58.5 | 62.8 | 63.7 | 63.8 | 64.2 | 65.1 |
| women | 60.4 | 57.8 | 54.0 | 52.9 | 51.9 | 49.5 | 48.1 | 52.2 | 53.7 | 53.8 | 55.4 | 56.0 |
| Including those who have education: primary |  |  |  |  |  |  |  |  |  |  |  |  |
| vocational* | m | m | m | m | m | 64.2 | 63.1 | 65.9 | 68.9 | 69.7 | 70.2 | 75.2 |
| men | M | m | m | m | m | 69.0 | 68.0 | 71.3 | 74.1 | 74.8 | 75.5 | 79.0 |
| women | M | m | m | m | m | 57.7 | 56.6 | 58.2 | 62.4 | 62.2 | 62.6 | 69.9 |
| secondary (full) |  |  |  |  |  |  |  |  |  |  |  |  |
| comprehensive | 74.0 | 71.6 | 67.7 | 64.9 | 64.2 | 57.6 | 54.4 | 56.6 | 58.1 | 54.9 | 55.4 | 54.0 |
| men | 79.5 | 78.3 | 74.8 | 72.0 | 71.1 | 64.5 | 61.1 | 62.1 | 63.5 | 61.5 | 61.9 | 60.5 |
| women | 67.6 | 64.1 | 59.8 | 56.9 | 56.4 | 50.3 | 47.4 | 50.4 | 52.1 | 48.2 | 48.8 | 47.2 |

* In 1992-1996 those people who had primary vocational education were regarded in accordance with the corresponding level of comprehensive education.

Theme 23: The degree of participation in the labor market in accordance with the types of graduated tertiary education, subgroups of population, 1980-2002

Specific notes for Table 22: This Table must be filled in for each type of upper secondary education. If available, the data should be presented for each type of tertiary education (stages and types).

The Table presents the data of the sampling survey of the population dealing with the problems of employment. The objective of this survey is to get information on the number and content of the economically active population, those employed and unemployed, the level of economic activity and unemployment, and their dynamics. The survey has been carried out in Russia since 1992 in all the regions, except for the Chechen Republic, on the basis of sampling technique with the consequent extrapolation on the total number of population of the correspondent age.

The data for the years 1992-1995; 1997-1998 are given for the end of October; 1996 - for the end of March; for the years 1999-2003 - for the end of November.

The level of participation of able to work population in the economy characterizes the level of employment (The specific weight of the working population compared to the total population, calculated in percentage).

The population employed (involved in economic activity) are those people, who within the period of survey (the week while the survey was carried out) were hired for at least one hour a week in order to earn money, who were free-lancers aimed at earning money; were temporarily absent at work; worked as aids at a family business. People are also considered as employed if they are involved in a family business aimed at gaining profit.

Table 23_1. The total number of people involved in economy and the number of people
who have tertiary education (ISCED 5/6)
(thousands of people)

|  | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Involved in | 7106 | 6864 | 6478 | 6414 | 6292 | 6002 | 5843 | 6308 | 6446 | 6466 | 6576 | 6649 |
| economy | 8 | 2 | 5 | 9 | 8 | 1 | 7 | 2 | 5 | 4 | 6 | 6 |
| men | 3714 | 3605 | 3409 | 3372 | 3308 | 3155 | 3058 | 3283 | 3337 | 3343 | 3361 | 3402 |
|  | 5 | 1 | 1 | 0 | 7 | 4 | 7 | 8 | 4 | 5 | 5 | 3 |
| women | 3392 | 3259 | 3069 | 3042 | 3984 | 2846 | 2785 | 3024 | 3109 | 3122 | 3215 | 3247 |
|  | 3 | 1 | 5 | 9 | 1 | 7 | 0 | 4 | 1 | 9 | 1 | 3 |
| Including those who have education: higher professional |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1146 | 1162 | 1165 | 1177 | 1182 | 1207 | 1207 | 1275 | 1395 | 1540 | 1538 | 1541 |
|  | 9 | 6 | 7 | 7 | 3 | 0 | 7 | 2 | 3 | 7 | 2 | 9 |
| men | 5561 | 5625 | 5641 | 5675 | 5709 | 5812 | 5780 | 6028 | 6595 | 7215 | 6966 | 7077 |
| women | 5907 | 6002 | 6016 | 6102 | 6114 | 6258 | 6297 | 6724 | 7357 | 8192 | 8416 | 8341 |
| unfinished higher |  |  |  |  |  |  |  |  |  |  |  |  |
| education | 1234 | 1176 | 1132 | 963 | 1066 | 1098 | 1107 | 1423 | 2900 | 1595 | 1618 | 1355 |
| men | 674 | 636 | 622 | 541 | 583 | 601 | 578 | 722 | 1393 | 796 | 791 | 677 |
| women | 559 | 540 | 511 | 422 | 483 | 497 | 529 | 700 | 1507 | 800 | 827 | 678 |
| secondaryvocational |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2245 | 2225 | 2112 | 2134 | 2096 | 1958 | 1956 | 2091 | 1850 | 2010 | 2117 | 1783 |
|  | 8 | 5 | 3 | 2 | 3 | 7 | 8 | 2 | 8 | 7 | 4 | 3 |
| menwomen | 9821 | 9882 | 9322 | 9445 | 9338 | 8848 | 8874 | 9521 | 8465 | 9059 | 9632 | 7372 |
|  | 1263 | 1237 | 1180 | 1189 | 1162 | 1074 | 1069 | 1139 | 1004 | 1104 | 1154 | 1046 |
|  | 7 | 2 | 1 | 7 | 5 | 0 | 4 | 0 | 3 | 8 | 2 | 1 |

Table 23_2. The total number of people involved in economy and the number of people who have tertiary education (ISCED 5/6)

|  | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Involved in economy | 66.7 | 64.1 | 60.1 | 58.7 | 57.6 | 54.9 | 53.0 | 57.2 | 52.4 | 58.6 | 59.6 | 60.3 |
| men | 73.6 | 71.1 | 66.8 | 65.2 | 63.9 | 60.9 | 58.5 | 62.8 | 63.7 | 63.8 | 64.2 | 65.1 |
| women | 60.4 | 57.8 | 54.0 | 52.9 | 51.9 | 49.5 | 48.1 | 52.2 | 53.7 | 53.8 | 55.4 | 56.0 |
| Including those who have education: higher |  |  |  |  |  |  |  |  |  |  |  |  |
| professional | 85.6 | 83.9 | 81.3 | 79.7 | 79.4 | 77.6 | 76.1 | 77.5 | 79.2 | 79.9 | 79.6 | 80.7 |
| men | 89.8 | 88.0 | 85.2 | 84.2 | 83.8 | 82.3 | 79.8 | 81.8 | 63.9 | 82.9 | 82.4 | 83.9 |
| women | 82.0 | 80.4 | 78.0 | 76.0 | 75.7 | 73.7 | 72.9 | 73.9 | 75.5 | 77.4 | 77.5 | 78.3 |
| unfinished higher |  |  |  |  |  |  |  |  |  |  |  |  |
| education men | 50.9 54.7 | 47.0 50.4 | 46.8 50.9 | 43.1 47.7 | 44.5 48.7 | 40.3 44.1 | 39.0 40.9 | 44.4 44.9 | 55.8 58.0 | 41.4 44.7 | 42.4 | 43.4 48.3 |
| women | 46.9 | 43.6 | 42.7 | 38.3 | 40.3 | 36.6 | 37.1 | 43.9 | 54.0 | 38.5 | 40.1 | 39.5 |
| secondary |  |  |  |  |  |  |  |  |  |  |  |  |
| vocational | 82.6 | 79.7 | 76.6 | 75.0 | 73.5 | 70.6 | 68.7 | 71.7 | 73.0 | 72.2 | 73.6 | 74.2 |
| men | 86.9 | 84.1 | 81.3 | 79.9 | 78.4 | 75.7 | 73.6 | 77.3 | 78.8 | 77.8 | 78.5 | 79.9 |
| women | 79.6 | 76.5 | 73.2 | 71.5 | 70.0 | 66.9 | 65.2 | 67.6 | 68.7 | 68.2 | 70.0 | 70.6 |

Theme 24: The share (in \%) of people aged 30 and older who graduated the tertiary stage of education, subgroups of population, 1980-2002

The main source of information concerning the educational level of the population (those who graduated a certain level of education) is the National Census (microcensus).

According to the National Census the educational level of the population is broken down into the following age groups (years old): $15-19,20-24,25-29,30-34,35-39,40-44,45-49,50$ $-54,55-59,60-64,65-69,70$ and older.
Table 24. The specific weight of people aged 30 and older who have secondary, higher, and postgraduate education (ISCED 5/6)
(in accordance with the data of the National Census; percentage of the total number of population of the corresponding age)

|  | $\mathbf{1 9 8 9}$ | $\mathbf{1 9 9 4}$ | $\mathbf{2 0 0 2}$ |
| :--- | :--- | :--- | :--- |
| Total (ISCED 5/6) | 38.2 | 43.5 | 49.6 |
| Higher professional (ISCED 5A/6) | 12.6 | 15.2 | 18.2 |
| Unfinished higher professional | 7.0 | 6.0 | 1.6 |
| Secondary vocational (ISCED 5B) | 18.6 | 22.3 | 29.7 |

*microcensus of the population

## Non-generalized data and researches

The information on the educational level of the population is available in the materials of population survey (age 15-72) on the problems of employment, which has been carried out since 1992. Starting from 1999 the survey has been carried out once a quarter with analysis of different for each quarter combinations of objects under observation. The volume of quarter sampling is about 65 thousand people or $0.06 \%$ of the population aged 15-72, with total 250-260 thousand people per year ( $0.24 \%$ of the population).

Theme 25: The share (in \%) of people aged $30-34$ who graduated the tertiary stage of education, subgroups of population, 1980-2002

The main source of information concerning the educational level of the population (those who graduated a certain level of education) is the National Census (microcensus).

According to the National Census the educational level of the population is broken down into the following age groups (years old): $15-19,20-24,25-29,30-34,35-39,40-44,45-49,50$ $-54,55-59,60-64,65-69,70$ and older.
Table 25. The specific weight of people aged $30-34$ who have secondary, higher, and postgraduate education (ISCED 5/6)
(in accordance with the data of the National Census; percentage of the total number of population of the corresponding age)

|  | Total |  | Men |  | Women |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1989 |  |  |  |  |  |
| Total (ISCED 5/6) |  | 45.0 |  | 37.2 |  | 53.0 |
| Higher professional (ISCED 5A/6) |  | 16.5 |  | 14.9 |  | 18.2 |
| Unfinished higher professional |  | 1.4 |  | 1.6 |  | 1.3 |
| Secondary vocational (ISCED 5B) |  | 27.1 |  | 20.7 |  | 33.5 |
|  | 1994* |  |  |  |  |  |
| Total (ISCED 5/6) |  | 50.8 |  | 43.0 |  | 58.2 |
| Higher professional (ISCED 5A/6) |  | 19.3 |  | 17.4 |  | 21.2 |
| Unfinished higher professional |  | 1.6 |  | 1.7 |  | 1.4 |
| Secondary vocational (ISCED 5B) |  | 29.9 |  | 23.9 |  | 35.6 |
|  | 2002 |  |  |  |  |  |
| Total (ISCED 5/6) |  | 61.4 |  | 55.4 |  | 67.5 |
| Higher professional (ISCED 5A/6) |  | 21.2 |  | 18.4 |  | 24.0 |
| Unfinished higher professional |  | 3.1 |  | 3.2 |  | 3.2 |
| Secondary vocational (ISCED 5B) |  | 37.1 |  | 33.8 |  | 40.3 |

*microcensus of the population

## Non-generalized data and researches

The information on the educational level of the population is available in the materials of population survey (age 15-72) on the problems of employment, which has been carried out since 1992. Starting from 1999 the survey has been carried out once a quarter with analysis of different for each quarter combinations of objects under observation. The volume of quarter sampling is about 65 thousand people or $0.06 \%$ of the population aged 15-72, with total 250-260 thousand people per year ( $0.24 \%$ of the population).

Theme 26: The share (in \%) of people aged $50-54$ who graduated the tertiary stage of education, subgroups of population, 1980-2002

The results of educational skills testing (TIMSS, IALS, PISA)
The main source of information concerning the educational level of the population (those who graduated a certain level of education) is the National Census (microcensus).

According to the National Census the educational level of the population is broken down into the following age groups (years old): $15-19,20-24,25-29,30-34,35-39,40-44,45-49,50$ $-54,55-59,60-64,65-69,70$ and older.

Table 26. The specific weight of people aged $50-54$ who have secondary, higher, and postgraduate education (ISCED 5/6)
(in accordance with the data of the National Census; percentage of the total number of population of the corresponding age)

|  | Total |  | Men | Women |
| :--- | ---: | ---: | ---: | ---: |
|  |  | $\mathbf{1 9 8 9}$ |  |  |
| Total (ISCED 5/6) | 32.5 |  | 31.9 | 33.0 |
| Higher professional (ISCED 5A/6) | 13.4 | 15.2 | 11.9 |  |
| Unfinished higher professional | 0.6 |  | 0.7 | 0.5 |
| Secondary vocational (ISCED 5B) | 18.5 | 16.0 | 20.6 |  |
|  |  | $\mathbf{1 9 9 4 *}$ |  |  |
| Total (ISCED 5/6) | 39.2 |  | 37.8 | 40.3 |
| Higher professional (ISCED 5A/6) | 16.8 | 18.3 | 15.5 |  |
| Unfinished higher professional | 0.8 | 0.9 | 0.7 |  |
| Secondary vocational (ISCED 5B) | 21.6 | 18.6 | 24.1 |  |
|  |  | $\mathbf{2 0 0 2}$ |  |  |
| Total (ISCED 5/6) | 54.9 |  | 50.1 | 59.0 |
| Higher professional (ISCED 5A/6) | 20.2 |  | 20.4 | 19.9 |
| Unfinished higher professional | 1.4 |  | 1.6 | 1.3 |
| Secondary vocational (ISCED 5B) | 33.3 | 28.1 | 37.8 |  |

*microcensus of the population
Non-generalized data and research
The information on the educational level of the population is available in the materials of population survey (age 15-72) on the problems of employment, which has been carried out since 1992. Starting from 1999 the survey has been carried out once a quarter with analysis of different for each quarter combinations of objects under observation. The volume of quarter sampling is about 65 thousand people or $0.06 \%$ of the population aged 15-72, with total 250-260 thousand people per year ( $0.24 \%$ of the population).

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## List of tables

Table 1. Interrelationship between education and labor payment: 2002
Table 2. Basic parameters of pre-primary educational establishments' activity (by the end of the year)

Table 3. Basic parameters of comprehensive educational establishment activities (by the beginning of the school year)

Table 4. Basic parameters of secondary vocational establishments' activity (by the beginning of the school year)

Table 5. Basic parameters of higher professional education establishment activity (by the beginning of the academic year)

Table 6. Basic parameters of additional vocational establishments' activity ( the academic year)

Table 7. Government spending on education in years, $\%$ to the level of the year 1991
Table 8. Household spending on payment of educational services among $20 \%$ groups of the population with different levels of income per capita*

Table 9. Now people saying that without bribe, without present or service to some people in a university administration it is impossible to enter a university. Do you agree with this? (as a \% from the number of those surveyed in the groups divided according to the level of accessibility)

Table 10. The number of pupils at the beginning of the school year and the number of graduates, \%

Table 11. The dynamics of social structure of graduates from full-time secondary comprehensive schools (\%), Novosibirsk Oblast

Table 12. The structure of life steps of school-leavers. Distribution in accordance with the social and professional status of their parents (\%). Novosibirsk Oblast, 1998.

Table 13. Investment of the families in preprimary education, \%
Table14. The level of family investments in the preprimary education of a child, \% of the total number and for the groups

Table 15. The readiness to pay for entrance at a good comprehensive school, \% of the total number and for the groups

Table 16. Preparation for entrance at a higher or secondary educational establishment depending on family income, \% of the groups

Table 17. Readiness to pay for entrance at SVEE or HEE, \% of the groups

## List of figures

Figure 1. Children aged 3-6, attending pre-primary educational establishments (per 1000 children of that age)

Figure 2. The share of Russian citizens in the total number of the students of state higher education institutions of the Russian Federation (\%)

Figure 3. The reduction of the number ("screening") of pupils of the 7-8 forms (the difference of the number of pupils at the beginning of a school-year, in \%). Russia

Figure 4. The structure of individual strategies of senior forms pupils ( $\%$ to the number of the group). Distribution according to social and professional status of parents. Novosibirsk Oblast, 1998.

Figure 5. The dynamics of social structure during the period of transition from secondary education to higher education. Children of directors and specialists. Novosibirsk Oblast

Figure 6. The dynamics of social structure during the period of transition from secondary education to higher education. Children of employees, workers, and peasants. Novosibirsk Oblast


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