

## **Belarus**

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# Principles and general objectives of education

The implementation of the policy of economic and social change in the Republic of Belarus depends to a considerable extent on the human resources and, by that token, on the nation's educational level. Reforming the country's socio-economic and political life, demands that education be treated as a priority area. The leading role of education will ultimately be decisive in effecting the transformation of the Republic of Belarus into a technologically-developed, democratic state. It will become the guarantor of stability and the source of social and economic development.

Within this framework, the State bases its policy on the creation and improvement of a high-quality national education system, and on public support being given, on a priority basis, to that system's development as a decisive factor in the achievement of scientific, technical, cultural and intellectual progress and the affirmation of national sovereignty.

The development of the national education system is based on the following main principles: priority status of universal human values; national culture as the basis of education; scientific approach; orientation towards international standards in education; humanism; linkage with public practice; ecological orientation; continuity and consistency; elimination of contradictions between teaching, on the one hand, and physical and moral education on the other; democracy; secular character of education; encouragement of talent and culture; and compulsory basic education.

The principal aim of the education system is to reproduce and constantly enrich the nation's intellectual, creative and cultural potential; to instill humanist ideals in children and young people; and to supply the production sector with highly-qualified and competitive specialists and workers. Other important general objectives of the national education system include:

- to ensure full accessibility of all forms and types of tuition and education, and to release the creative possibilities of people in all age brackets;
- to create conditions for the exercise of free choice of forms of tuition and education, and for combining main and subsidiary subjects at different levels of in-depth study;
- to develop and support non-State-funded forms of instruction (publicly supported, co-operative, private);
- to provide welfare funds for the education of children from low-income families, orphans, disabled children, and children deprived of parental care; to provide State support for the education of specially talented children;



- to create the conditions necessary for mastering the national language and other languages; to ensure the attainment of ecological, economic, legal, computer and psycho-pedagogical literacy by everyone living in the Republic;
- to promote respect and socio-psychological readiness for family life;
- to achieve a sound correlation between practical experience, school learning and individual opinion;
- to develop scientific, technical, industrial, commercial and cultural activities of educational establishments;
- to promote respect for political pluralism and democracy as forms of government and statehood, for a world order founded on the recognition of political, economic and social human rights, and for other countries and peoples and their cultural differences;
- to promote solidarity and humane relations within the society;
- to promote the shaping of harmonious and rounded personalities capable of further development and of rising to new social and political challenges;
- to support self-education, self-instruction and the intellectual and spiritual aspirations of the individual;
- to preserve and expand the intellectual property and the cultural and historic values of the Belarusian people and of the Republic's other national communities;
- to support and develop popular lore and folk crafts, national traditions, rituals and customs, to preserve and enrich the life of the mind.

# Current educational priorities and concerns

The main principles and goals of the national education system determine its immediate and long-term tasks. The most important are the following:

- to create an independent education system, to shape its national and cultural foundation, and to ensure its equivalence with education in other countries;
- to develop an appropriate legal and normative basis for education, and a set of basic concepts defining the educational reform strategy;
- to translate into reality to the priority status of education; to develop an appropriate socio-economic mechanism, confirmed at the legislative level, defining the respective responsibilities of the State, civil society, local governments, market structures, the family and the individual with regard to the status and development of education and training;



- to reform and rationalize the system of control over education, and to ensure its decentralization, humanization, democratization, regionalization and autonomy.
- to develop and introduce new educational methods, based on integration and continuity of the content and forms of education at all levels; to enhance their fundamental and logical nature; to provide variable multi-purpose programmes and teaching aids; to ensure broad differentiation of education and establish new types of educational establishments; to introduce new Information Technologies.

On 4 January 1996 the President of Belarus issued an Order "On preparations for the implementation of reform of schools of general education in the Republic of Belarus," which entrusted the Ministry of Education and Science with developing a concept and programme of school reform that would meet present-day requirements, while preserving the most valuable aspects of the old Soviet schools system. On 21 August 1996, the Cabinet of Ministers adopted a Decision "On the concept of reform of schools of general education in the Republic of Belarus," approving the concept of reform developed by the Ministry and scientific institutions under its control, and recommending that all ministries, departments and administrations concerned should adopt the reform programme, which provided for carrying out the preparatory work and the actual reform in separate stages.

According to the above-mentioned Decision, the main objectives of the reform are to bring the national education system up to a level corresponding to the best models worldwide, and to enhance the prestige of education, making the priority status of education a practical reality for the State and society. The main areas of reform are:

- the optimization of the duration of the course of schools of general education (SGE);
- the adoption of new educational contents and definition of a core component of general education, with the aim of ensuring the harmonious development of the personality;
- the modification of the organizational structure of secondary schools, in order to make them better adapted to present-day conditions;
- the introduction of specialization in the final stages of general secondary education:
- the definition of a mechanism for self-development within the framework of the SGE, timely and adequate response to changing conditions, making an effort to achieve the school's rapid development.



The central principles of the reform are:

- accessibility of education, equality of rights of all citizens to receive education irrespective of national, religious or social status, place of residence or income;
- combining the national, cultural and regional basis of education with orientation towards assimilation of the finest attainments of national and world culture;
- humanization, 'humanitarization' and democratization of education;
- use of flexible educational methods;
- health protection of young people;
- consistency of education and continuity between its various stages.

The concept of reform is based on the principle that the central tasks of SGE are to prepare the young for a full and active life in society, to acquaint them with the fundamentals of national and world culture, and to assist the harmonious development of the personality.

The issue of the educational contents is of paramount importance, and requires specific developments as regards the introduction of new teaching subjects, the revision of existing ones and the elaboration of new textbooks, curricula and syllabi. This must meet the following requirements:

- optimum combination of basic and practice-oriented knowledge; practice-oriented nature and natural science study in the basic school;
- elimination of study overload, through the definition of a core component within the framework of standards approved by the State; introduction of integrated courses of study, optimization of teaching methods;
- priority status of the individualized approach, a personality-oriented paradigm that facilitates a flexible response to the student's educational needs;
- modernization (in the sense of humanization) of the system used to assess the students' achievement;

The proposed twelve-year structure of general education meets the demand for an integrated education system; it is oriented towards creating optimum conditions for the socialization of the individual and for his/her intellectual, moral, creative, psychological and physical development. It implies the introduction of compulsory ten-year basic general education and of a five-day school week.

The education reform strategy, including its legal, organizational, administrative, scientific, methodological, staff and equipment aspects, as well as its



main sub-programmes and stages of implementation, are reflected in the programme of reform of SGE. The main goal of the reform is to place schools on a qualitatively new personality-oriented, humanist level while preserving past achievements and making creative use of worldwide experience. In this context, there is the need to:

- adopt a twelve-year school system, which presupposes school entry at age 6 and the introduction of a new structure for secondary SGE;
- develop and implement a new curriculum, ensuring a high quality level while reducing pressure on the student;
- review educational contents, based on an optimum combination of fundamental and practice-oriented study;
- develop, pilot and implement a new system for assessing students' achievement;
- establish an education system based on the promotion of patriotic and civic sentiments among children and young people.

The process of implementing the reform is also predicated upon the solution of problems of the education system's integration in the unified educational area of the union of Belarus with Russia, the Community of Independent States and the international community. The new model of the SGE will have three levels: years 1 to 4 (preparatory year and Grades I-III), primary general education; years 5 to 10 (Grades IV-IX), basic general education; years 11 and 12 (Grades X and XI), complete general secondary education.

The activities and objectives at each educational level reflect, on the one hand, the organization and structure and, on the other hand, the conceptual basis of the national education system. Contents, study load, standards and quality of schooling at pre-school, elementary, basic and complete general secondary education levels will be determined by an integrated and continuously interconnected system of national standards and curricula. The following are key issues in the elaboration of a new school curriculum:

- definition of the composition and structure of the basic curriculum, the State (or core) component and the time allocated to its variable part—the school component;
- determination of the optimum correlation between fundamental and technical education at each stage of the educational process;
- ensuring that the curriculum reflects an integral approach to the three main purposes of education—transmission of knowledge, inculcation of work habits and skills, and development of the personality;
- definition of the significance of each subject and course of study in the context of general education; defining the relationship between separate levels



and cycles of schooling; defining the optimum relative share of each discipline in the light of existing educational traditions, paradigmatic changes in the national educational sphere, and worldwide tendencies;

- definition of the weekly study load and the maximum study load per student, taking account of the school component of the curriculum;
- definition of the total number of study hours allocated to the core and school components.

In the light of the above, and on the basis of recommendations and opinions by educational experts and organizations expressed at various conferences, seminars and colloquia, the Ministry of Education in conjunction with the National Institute of Education has drawn up a draft basic (core) curriculum for the new twelve-year SGE. The draft preserves the most positive attainments of the previous Soviet school system and ensures the continuity of the new curriculum, especially of its core element, with those used in the past.

The 1994 Constitution, in its amended and expanded form, reflects the major changes currently taking place in the socio-economic and political life. The orientation towards the development of a socially-focused market economy and the realization of individual rights and freedoms has entailed the reform of the education system as a whole. Major changes introduced include: the creation of educational establishments of a new type; the emergence of a non-state sector in the field of education; new structures—bachelor's and master's degrees—in higher education; and the adoption of the twelve-year secondary school system as from the school year 1998/99, with the school entry age set at 6 years.

Since 2003, the general secondary school is being transformed through the implementation of the twelve-year model. In May 2004, the Ministry of Education submitted for consideration the Concept of Professional Training in institutions providing general secondary education (years 11 and 12). Another new element implemented since 2003 is the unified state examination, a national test in certain subjects taken by all students at the end of general secondary education. (Agranovitch, 2005).

# Laws and other basic regulations concerning education

The main legislative documents which regulate activities in the field of education in Belarus are the 1994 Constitution (as amended and expanded), adopted by referendum on 24 November 1996, and the Education Act, the Languages Act, the **Rights of the Child Act**, the **Rights of Minorities Act**, the **Act on General Principles of State Policy on Youth**, as well as other instruments.

Articles 49 and 50 of the **Constitution** provide as follows: "Everyone shall have the right to education. Access to free general secondary and vocational-technical education shall be guaranteed. Secondary special and higher education shall be accessible to all according to the capabilities of each. Everyone can, on a competitive basis, receive education free of charge at an appropriate State educational



establishment. [...] The State shall, in accordance with the law, guarantee freedom of choice of the language of education and tuition."

The **Education Act** was adopted by the Supreme Council on 29 October 1991. According to the Act "The Republic of Belarus guarantees the development of education on a priority basis, the appropriate social and economic conditions for the functioning of the education system, the rights of citizens to receive general and vocational schooling, the transmission of general cultural values, and the protection of intellectual property, talent and culture." Articles 2-13 list the main objects of legislation and the principles of State policy in the educational field; enumerate the goals of education; describe the rights of citizens with regard to education and to the language of tuition and education; and show the legislative linkages between education and culture, science, ecology, public health, the production sphere, and political activities. Articles 14-23 define the structure of the system, and the objects and contents of its various levels (pre-school, general secondary, extra-mural, vocational-technical, secondary special, higher, teacher-training and training of scientific and technical personnel, advanced training and retraining of senior staff, adult education). Articles 24-29 describe the functions of the education system and the status of its institutions, including non-governmental ones, and define the mechanism of management of education, the contents of education and the organization of the study process. Articles 30-35 define the rights and duties of all participants in the education process—pupils, students, parents and teachers. Articles 36 and 37 describe the system's material and technical infrastructure and the mechanisms used for funding the system.

According to the Act, the general secondary education system includes the following cycles: elementary, basic and secondary (eleven or twelve years of study, ages 6 to 17 or 18), which can exist separately or as part of a basic or secondary school. Education begins at age 6 or later in the light of medical indications and with the consent of the parents. The year 1 syllabus can be taught in kindergarten. The State, as represented by the relevant executive organs, defines a set of minimum standards for the contents of general secondary education, including a list of compulsory subjects and an indication of the minimum amount of tuition in each subject. School curricula, syllabi and textbooks take account of differences in students' interests and capabilities. Individual syllabi, extra-mural activities and optional subjects are introduced with a view to meeting students' individual needs and developing their creative abilities, and schools, gymnasiums and lyceums offering indepth study of specific subjects are established. Orphan children attend secondary SGE attached to children's homes, including family-type homes, or boarding schools with all expenses covered by the State. Basic and secondary schooling ends with final examinations, basic-school leavers receiving an attestation and secondary-school leavers a certificate according to their examination results. Together with the certificate, graduates of secondary schools, gymnasium or lyceum who have achieved excellent results are awarded a gold or silver medal or a special mention for excellence in a particular subject.

The bill "On amendments and additions to the Education Act of the Republic of Belarus" provides for the following new elements: modification of the main principles of State policy in the educational field; expansion of conditions for the enjoyment of citizens educational rights; proclamation of the equality of



Belarusian and Russian as the two main languages of tuition; recognition of the need to develop a national system of standards in the sphere of education; introduction of a new structure of the education system (with the addition of education in the family and of special education for children or adults with physical or mental handicaps); redefinition of levels of general education in conformity with the Concept of reform of SGE; definition of the multi-level character of higher education; definition of various educational levels and of procedures for the award and issuance of educational certificates of all kinds; delimitation of the respective jurisdictions of various State organs, public associations and educational institutions; definition of general requirements as regards the organization of the educational process and general procedures for the exercise of State control over the quality of education; and definition of procedures for funding the education system and for supplying it with technical and other materials.

The Languages Act of 1990 provided the legal framework for the adoption of Belarusian as the national language, and gave Russian the status of the language of communication between the Republic's various nationalities. By a referendum held in May 1996, citizens expressed their will to confer the status of national language on both languages. The Languages Act in force, therefore, no longer fulfils the function of regulating the utilization and development of Belarusian, Russian and other languages, and needs to be amended and supplemented as appropriate. The bill "On amendments and additions to the Languages Act" enshrines the use of both national languages on an equal basis in all spheres of public life, proclaims the exercise of the right to choose to be educated in one of the national languages, and guarantees the right of persons belonging to the Republic's other nationalities to be educated in their mother tongue.

Educational legislation also includes Cabinet decisions and Presidential decrees. In recent years the Cabinet of Ministers has adopted a number of decisions and other instruments aimed at improving the operation of the educational system at all levels, i.e. On payment for the care of children in pre-schools; On further education for workers; On student grants by the Cabinet of Ministers of the Republic of Belarus; Model decision on leading EE within the national education system; On the Concept of SGE reform; etc.

The President of the Republic has also issued a number of decrees and orders, including: On the adoption of the National Plan of Action on the Protection of the Rights of the Child for 1995-2000; Decision on a Special Presidential Fund for assistance to gifted schoolchildren and students; On priority steps towards the implementation of the national youth policy; On measures to improve the work of and the conditions in children's boarding schools and special institutions; On preparations for the implementation of secondary school reform; On the Belarusian State University; On grants to students attending State higher education establishments; as well as others.

During the period 2001-2005, the following laws were adopted: On Higher Education, On Professional and Technical Education, On Specialized Education, and On Textbook Publishing.



The Ministry of Education has drafted and adopted more than 300 normative documents, decisions, instructions, letters and recommendations, aimed at improving the education management system, reforming all sectors and levels of the national education system, and improving the social status and social security situation of pupils, students and teaching staff.

The Ministry's scientific departments have drafted concept documents on: education and training; State school education; education, training and preparation for life of children with mental and physical handicaps; the secondary school reform; the contents of general secondary education; educational standards; the Belarusian national school; etc. The main objective of these documents is to create a national education system that meets international standards and present-day requirements, and is capable of autonomous development in accordance with the needs of the individual and society.

# Administration and management of the education system

Education in Belarus is placed under the control of State organs: the National Assembly (Parliament) and the Cabinet of Ministers; the Ministry of Education (with its subordinate institutions and organizations), and local government bodies.

The management of the education system in Belarus is the responsibility of the State and society. The **Cabinet**'s duties in the educational sphere are the following:

- to define the requirements of the State in respect of education and to establish procedures for monitoring the manner in which these requirements are met;
- to approve model decisions concerning educational institutions and organizations and to define procedures for their establishment, reorganization and closure;
- to approve model documents relating to education and the procedure for their issuance;
- to define procedures for funding educational institutions and organizations, for paying staff salaries, and standards and procedures for the provision of social security to pupils, students and teaching staff.

### The **Ministry of Education**:

- implements State policy and conducts State monitoring within the educational field;
- approves standard curricula and other requirements in respect of SGE and special schools; organizes the preparation and publishing of textbooks, teaching aids and methodological materials;



- defines standards for funding educational establishments and providing them with material and technical supplies, subject to budget appropriations and resource availability;
- establishes, reorganizes and closes down State-managed educational establishments and institutions and registers their status;
- takes decisions on matters relating to extra-mural education in higher education establishments and specialized secondary schools;
- supervises the methods and co-ordinates the activities of all educational establishments and educational organizations in the territory of the Republic.

#### **Local (regional) councils** and their executive organs:

- ensure the development of education, taking into account the national particularities of the region and its social and economic development prospects, and define requirements in respect of the level and structure of the training of teachers and specialists;
- establish, reorganize and close down schools and other educational institutions in accordance with established procedures, and register their status.

The education management system is characterized by internal and external components. The internal component includes management organizations and institutions which directly belong to the education system. They can be subdivided as follows: institutions directly participating in management; institutions providing management support; and the educational establishments themselves. This component is made up of organizations and institutions of the national education system and its education and training institutions. It is a complex, widely-ramified structure of the hierarchical type, with external links at all levels.

The internal component can be divided into three levels. The top level is formed by the Ministry of Education, the higher education establishments under its control and their research institutes, experimental farms, health institutions, print shops, etc., as well as national-level schools and organizations providing various kinds of support to the education management process. National-level institutions carrying out activities and research within the definite educational branches include: the **National Institute of Education** (preschool and general school education); the **National Institute of Higher Education**; and the **National Institute of Professional Education** (vocational education).

The second level is formed by regional education boards, the Minsk City education board, and the educational establishments under their control. These boards report to the Ministry of Education, and are responsible for applying the unified policy at its own level. The third level includes district and municipal education departments, and pre-school establishments (kindergartens, nurseries, children's homes, etc.) and schools under their control. Education departments at this level report to the regional or Minsk City education boards.



The external component includes institutions and organizations outside the State education system which provide various forms of support to the central education management system (EMS) but do not directly belong to the national education system. They include various legislative, executive and supervisory bodies, foreign scientific and methodological centres and non-civil service institutions and organizations dealing with educational matters. The structure of the external component, which consists of institutions and organizations outside the State education system interacting with the Ministry in organizational matters, can be represented as having two levels.

Two bodies—the National Assembly and the Cabinet of Ministers—exercise direct control over the Ministry of Education, the most important unit of the EMS. The Minister of Education is nominated by the Cabinet and appointed by the President; his/her deputies are appointed by the Cabinet with the President's consent. In this way the National Assembly, the President and the Cabinet jointly provide the legal basis for the activities of the education system as a whole. The Cabinet also approves the structure, staff complement and payroll of the Ministry's central apparatus and the membership of the board established by the Ministry to deal with matters of first importance.

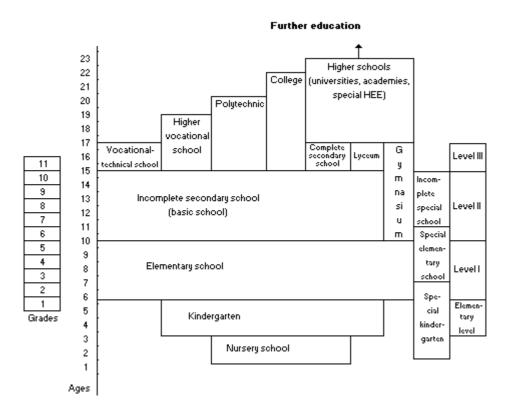
The **Inspection for Educational Establishments** is at the core of the national system of quality assurance. The Inspection is independent from the Ministry and educational establishments but it is subordinated to the Council of Ministers. It organizes attestation and accreditation procedures of the educational establishment. The evaluation and analysis are under the responsibility of independent evaluators who are recruited by the Inspection from the best specialist from universities, research institutes, etc. The evaluators are part of expert commissions but every evaluator acts separately. The Inspection formally revises the reports of the evaluators and takes the final decision.

The Ministry of Education collaborates with many governmental and non-governmental structures, national corporations and banks, the National Academy of Sciences and various private funds in matters pertaining to the development of educational projects and programmes, the definition of priority areas in education, and international cooperation.

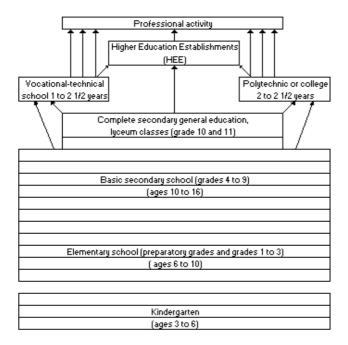


# Structure and organization of the education system

### Republic of Belarus: structure of the education system



### New structure of the education system according to the SGE reform



According to Article 14 of the Education Act, the national education system consists of: pre-school education; general secondary education; extra-mural forms of education; vocational/technical education; specialized secondary education; higher



education; teacher training and specialist training; retraining and advanced training of senior staff; and adult education.

Educational programmes at these different levels are offered in many types of State and non-state educational establishments: children's pre-school establishments (nurseries, kindergartens); schools of general education (complete and incomplete secondary schools, gymnasia, lyceums); extra-mural, special and boarding establishments (children's homes, boarding schools, corrective labour colonies for juvenile delinquents, etc.); technical/vocational schools, polytechnics, colleges, specialized higher education establishments, universities and academies; retraining and advanced training institutes; and various scientific and methodological institutions.

#### Pre-school education

Pre-school education caters to children aged less than 3 years (nurseries) and in the age group 3-6 years (kindergartens). There are public and private alternative pre-school establishments (nurseries, kindergartens, kindergarten-nurseries and play groups, family-type children's establishments and boarding homes of various kinds) using different types of programmes.

### **Primary education**

The reformed elementary school, oriented towards school entry at age 6, will provide a four-year course consisting of a preparatory year and Grades I-III. The first year syllabus can be taught either in the elementary school or in kindergarten. As mentioned, the new model of general education will have three levels: years 1 to 4 (preparatory year and Grades I-III), primary general education; years 5 to 10 (Grades IV-IX), basic general education; years 11 and 12 (Grades X and XI), complete general secondary education.

### **Secondary education**

The basic secondary school (years 5 to 10) is principally responsible for carrying out the tasks of general education and for preparing pupils for life in society. Students can receive instruction at different levels (with in-depth study of certain subjects) from year 7 or 8 onwards, and can specialize (in the natural sciences, the humanities, technology, the arts or sports) in year 9 or 10. Students successfully completing the ten-year course and obtaining the state certificate of secondary education earn the right to continue their studies in the form of combined vocational and general training at a vocational-technical or specialized secondary educational establishments, or else they can continue their general education in gymnasium or lyceum classes. Lyceum or gymnasium classes (two-year course) offer a continuation of general secondary education and prepare students for higher education. The following organizational forms are envisaged: (a) lyceum or gymnasium (grammar school) classes incorporated in a secondary school of general education; (b) lyceums offering courses in natural sciences, technical sciences and humanities as independent educational establishments (sixth-form colleges); (c) lyceums attached to higher education establishments, with classes corresponding to the establishment's special subject or subjects (such lyceums will also provide social support for young agricultural and industrial workers in a



manner similar to preparatory courses); and (d) twelve-year gymnasia will serve a purpose similar to that of lyceums. Successful completion of the lyceum or gymnasium course (in any of the organizational forms listed above) confers the right to enrol in a higher education establishment

Vocational/technical education (elementary-level vocational schools) offers the possibility of obtaining the qualifications needed in order to practice a trade. Completion of a secondary vocational technical school (two- or three-year course) will correspond to a full secondary education on the same footing as a lyceum education, and will confer the right to enrol in a higher education establishment. Higher vocational technical schools will offer extended study courses and will issue diplomas of equal value to those of technical colleges.

Polytechnics and colleges within the specialized secondary education system offer three- or four-year courses for middle-range specialists who have completed the general education curriculum. Graduation from a polytechnic or college confers the right to enter higher education (for a shortened course of study if the student continues to specialize in the same branch); students of higher technical colleges will qualify for the first academic degree (bachelor's degree).

Courses at higher education establishments generally last five to seven years, and they are concluded by state examinations and/or the submission of a diploma project. Students successfully completing the course can, in the light of their examination results, be awarded a master's degree and/or the appropriate professional qualification; they also receive a diploma corresponding to the established form.

The school year begins on 1 September for all grades and lasts thirty-four weeks; holidays take up a total of thirty calendar days. The school year ends on 25 May. School-leaving examinations at Level II (Grade IX) are held from 1 to 10 June, and at Level III (Grades X and XI) from 1 to 25 June.

# The financing of education

The financing of education has its legal basis in the Act "On the budgeting system of the Republic of Belarus"; the national and local annual budgets and other legislative acts and normative documents; and the Education Act.

Article 37 of the Education Act (Funding of the education system) defines the governmental and other sources and means of funding educational and research establishments. These include: funds from the State budget and local budgets; income derived from fee-paying educational services and from research and other scientific activities; contract-based staff training fees; and contributions from enterprises and sponsors.

National and local funds are apportioned in accordance with a procedure established by the Cabinet of Ministers. The Act categorically prohibits payment for tuition (except extra tuition) and other State-funded educational services in State educational establishments. Fees may be charged if a student repeats a course or decides to specialize in a second or third subject or branch of study, and this is duly



spelled out in the relevant Government documents. The Act provides, in particular, that, with a view to preserving and enlarging the nation's intellectual potential, not less than 10% of the national income shall be set aside for funding the education system, with the possibility of supplementing this amount out of non-plan and extrabudgetary funds.

In addition to the Ministry of Education and its local organs, which control some 85% of all budget funds, there are 24 other ministries and departments exercising control over the main sector of State education funding. In addition to this main sector, funds are also derived from: the State programme for the liquidation of the consequences of the Chernobyl disaster; the State fund for the promotion of employment; the social welfare fund; enterprises; organizations; the population; trade unions; and other extra-budgetary public and charitable funds. There are also acts of law and normative documents regulating specific financial matters relating to taxes and privileges in the field of education.

According to figures supplied by the Ministry of Statistics and by the Planning and Economics Department of the Ministry of Education, the main indicators used in worldwide comparisons to assess the share of national resources devoted to education systems have steadily risen in Belarus from the mid-1980s until recent years.

The traditional structure of State budget expenditure on education has changed little in the 1990s. Slightly over one-fifth of the funds is redistributed by the central budget, and about four-fifths by the consolidated budgets of regional and local organs of government. The central budget takes care of the whole of higher education, the nationally-controlled polytechnics and colleges, and an insignificant proportion of SGE and departmentally-managed pre-school establishments. Practically all SGE (99% of funds), pre-school establishments (over 90%), all teacher training colleges, and all vocational-technical schools, are funded out of local budgets. Other items of expenditure are generally funded at more than one management level.

In the 1990s, and especially in the last few years, the formula used for apportioning national budget funds has begun to change. A functional approach has come to supplement the traditional principles of ownership of funds. For some years now the Government has assumed responsibility for acquiring textbooks for schools, and for dealing with the problem of teachers' salary rises and the rising cost of school dinners. The 1998 budget will include a separate item on the funding of activities connected with SGE reform. The Ministry of Education, acting in pursuance of a decision of the First Congress of Teachers and of an instruction issued by the President of the Republic, has elaborated programmes relating to some of the most urgent problems facing schools. The programmes included in the budget reflect the Government's desire not only to increase funding out of supplementary State resources, but also to mobilize local budgets and other funding sources.

State budget funding also reflects a tendency towards the gradual diversification of higher and secondary education, and towards developing new and different ways of offering support to educational establishments. Education is the most important item of expenditure in the country's local budgets. The percentage share of education in the overall structure of local spending rose sharply in the 1990s, from 19.4% in 1991 to 32% in 1997.



The current mechanism makes local budgets very dependent on donations, subsidies and transfers from higher levels. The smallness of local budgets is a serious problem. Local authorities are increasingly faced with the problem of welfare for the most vulnerable sectors of the population. Relative increases in the size of local budgets, therefore, do not always mean a corresponding increase in education spending, which continues to be maintained at subsistence level.

In recent years there have been developments in regional approaches to the financing of education. One of the areas in which funding policies are being refined is the creation of a mechanism for the reapportionment of funds from different budget levels to educational purposes. Another important policy consists in making greater use of extra-budgetary funds and of introducing incentives for the expansion of feepaying educational services.

The relative share of extra-budgetary funds in the funding of State higher education establishments (HEEs) and specialized secondary educational establishments (SSEEs) is steadily rising, with the result that their financial situation is improving. In the period 1994-97, the share of extra-budgetary funds in total spending on education in schools controlled by the Ministry of Education rose from 7.8 to 18%. The same tendency is observed in schools controlled by other ministries and departments. The share of extra-budgetary funds is at its highest in the funding of higher education, where it accounts for 20% of the total.

Fees represent the main and still developing source of supplementary funding of education as a whole and especially of HEEs and SSEEs. Tuition fees paid to HEEs accounted for over 75% of all supplementary funds in 1996. In vocational-technical schools, the main funding source is income derived from workshop and shop-floor products, products from experimental farms, and services to the population. This source corresponds to about 10% of the budget expenditure.

The possibility of introducing compulsory fee-paying in State SGE seemed promising in the early 1990s, but owing to the low income level of the population it has not developed into a significant source of education funding. Contributions by enterprises and sponsors towards the development of SGE are highly personalized and account for only a small share of the budget as a whole.

After an adverse situation lasting several years, the tendencies which had begun to develop in 1993 were maintained in 1996. With more money being spent on education, actual spending on pre-school establishments rose by 45.1% over the 1990 level (by 4.9% over the 1994 level) and that on day-time SGE by 8%. Expenditure per student was the same as in 1990. As a percentage of per capita GDP (Gross Domestic Product), expenditure per student rose over seven years from 10% to 16.4%. The period from 1991 to 1993 saw an absolute as well as a relative increase in running expenditures on vocational establishments of all types. In real terms, appropriations in 1993 rose by 8.6% over the 1990 level in vocational-technical education establishments, by 3.8% in SSEEs and by 3.3% in HEEs.

The level of appropriations for SSEEs showed an increase in real terms by 33%; for primary staff training courses it rose by 53%, and for advanced training courses and institutes by 44%.



Education as a priority area in Government policy also calls for an early review of the State's spending policy. This applies first and foremost to spending on SGE and HEEs, to the State's investment policies, and to the question of taxation privileges intended to attract private investors. Policy changes in school funding call not only for mobilizing additional State resources, but also for the adoption of new techniques of allocating them where they are most needed on the basis of a system of special-purpose programmes. The level of funding for such programmes presupposes the implementation of the programme of SGE reform on the basis of purpose-oriented allocation of national and local budget funds; raising teachers pay to the level of the national average wage; the implementation of a programme of production of teaching materials and equipment that will ensure the availability of the necessary minimum to students at all schools within the next few years; the replacement of the present generation of computers and a general rise in the level of school computerization; and the creation of conditions enabling teachers to develop their creative potential and upgrade their skills.

## The educational process

## **Pre-primary education**

According to the Education Act, the objective of pre-school education is to develop the children's natural desire to learn and to familiarize them with their environment, and to assist the children's physical and mental development. The leading role in pre-school education is played by the family. Pre-school establishments educate the child by introducing it to the language, culture and traditions of its people and to the culture of other nationalities living in the territory of the Republic.

Nurseries, kindergartens, kindergarten-nurseries and play groups with flexible, daytime or round-the-clock hours of attendance, family-type children's establishments and boarding homes of various kinds are established in the light of the requirements of the family and of society at large. State organs, enterprises, public associations and individual citizens give financial, psychological and pedagogical assistance to families.

The main tasks of pre-school education are:

- to teach the skills and work habits necessary for the child's orientation and adequate performance in the world he/she is learning to know;
- to identify and develop individual capabilities and gifts, to form the personality and to develop its creative potential;
- to protect and strengthen the child's health and to instil basic habits of a healthy lifestyle;
- to facilitate the child's timely and trouble-free transition to the next stage of the education system the school.



Within this framework, the activities of pre-school establishments are focused on the following objectives:

- to meet parents wishes with regard to their children's instruction and education (parental right to choose the form, type, operating conditions and educational contents of their child's pre-school establishment);
- to involve parents in the pre-school education process;
- to create a model of an open and flexible kindergarten;
- to overcome the authoritarian model of interaction between adult and child, to promote the personality-oriented model of pre-school education in the family and the pre-school;
- to transform the pre-school from a closed unit isolated from the rest of society into a public centre of activity involving young children and their parents.

There are public and private alternative pre-schools using different types of programmes. Many children do not enter school at 6 years and prefer to repeat the last year of pre-school education. The possibility of taking the first year of general education in kindergarten has created additional problems. Furthermore, financial and material difficulties increased.

There is freedom to choose from different educational programmes, all of which are drawn up by the National Institute of Education and the State Pedagogical University. These programmes, which have titles such as *Harmony*, *Enchantment*, *The family*, etc., are based on the personality-oriented model of interaction (child-parent-pre-school teacher). The most interesting and effective programme, called *First Steps*, is still in the draft stage. With this programme it will be possible to continue the transformation of pre-school and elementary education into a system that incorporates the latest attainments of national and world practice in that field, to develop and introduce new forms of co-operation between the kindergarten, the family and the social environment, to establish centres for work with families in different parts of the country, and to develop and support new alternative methods of teaching and bringing up infants.

The programme has four main components: education (of children, parents and teachers); involvement of parents in the education and instruction process; health (physical and mental); and the provision of socio-psychological services to all participants in the pre-school education system (children, parents, teachers).

The first national experience-based programme, *Praleska*, does not set out to regulate teachers' activities but only to guide them in their work and to help them to refine the methods used to assess and correct the child's physical and mental development. At the same time it also encourages the teacher to provide each child with its own development programme, which must then be adjusted and correlated with the common programme. Work done on the basis of Praleska has demonstrated the need for consultant psychologists to work in PSE, side by side with trained teachers on the preparation of such individual development programmes.



The tendency is towards developing variable programmes, methods and teaching aids from among which the teacher can choose when carrying out different activities with the children. A new model of pre-school establishment—the "open" kindergarten, where parents participate directly in the educational process by acting as assistants to the kindergarten teacher or play-group leader—has been developed with the same end in view.

The further development of the pre-school education system within the context of the general school reform includes, among other, the preservation of the existing system of State pre-school establishments; the elaboration of standards for pre-school education and a system of licensing and accreditation of pre-school establishments; different possible scenarios of receiving elementary education; improved co-operation with the family; improved training of pre-school teaching staff; the necessary conditions for the introduction of compulsory pre-school education from age 5.

In 1997, there were 4,511 pre-school establishments in operation in the country, including 2,852 managed by the central level and 1,659 under departmental management. A breakdown by type of establishment shows: 2,756 general and 1,027 special pre-school establishments; 13 infant development centres; 27 sanatorium-type establishments; 28 establishments for children with physical or mental handicaps; 497 combined-type establishments; and 163 kindergarten schools, attended by a total of 444,200 children. About 52% of all pre-school establishments were attended by 75 children or fewer; 20.9% by up to 150 children; 12.1% by up to 225 children; 12.5% by up to 300 children; and 12.1% by more than 300 children. About 76% of all pre-school establishments work a five-day week and 24.2% a six-day week; 0.4% of the kindergartens and nurseries open round the clock. 61.2% of the country's 5-year-olds (71.5% in towns and 48.7% in rural areas) attend senior kindergarten groups. The number of children per teacher is between 8 and 10.

In the same year, pre-school education employed 55,500 teachers, 99.9% of whom were women. Their educational qualifications were as follows: 35.1% had higher education; 22.7% incomplete higher education; 59.2% specialized secondary education; and 3% general secondary education. 12.3% of the total number of college-educated staff, 1.5% of staff with incomplete higher education, and 41.5% of staff with specialized secondary education had obtained a special qualification in pre-school education. Training for pre-school specialists is provided at three pedagogical universities, one pedagogical institute, three colleges and eight teacher training schools.

According to the UNESCO Institute of Statistics, in 2004 there were 266,975 children enrolled in pre-primary education and the number of teachers was 43,606. The gross enrolment ratio was estimated at 104%.

### **Primary and secondary education**

The aims of elementary education are not limited to the three 'Rs'-reading, writing and arithmetic. The following objectives are of particular importance at this stage: education in the broader sense; development of the child's personality; acquisition of elementary knowledge about nature, man and society, of basic work and study habits, of fundamental ideas about interpersonal relations, correct speech, personal hygiene



and a healthy lifestyle. Continuity, which is of the utmost importance in the transition from play to study, is established in the first years of school and in pre-school establishments of the kindergarten-school type. Differentiation is achieved principally by varying the teaching process itself, i.e. the rate at which a subject is studied, offering a wide choice of activities, adapting study requirements to individual capabilities, organizing remedial groups on the basis of psychologists' and doctors' recommendations.

Reform of the elementary school presupposes the definition of its role and place within the education system as a whole, and the identification of its main structural components, which must be filled with fresh contents. Elementary education must not be seen as a closed, self-sufficient unit but, rather, as part of the pre-school and basic education systems. The Concept of reform of schools of general education (SGE) defines the main tasks at this stage of general education as follows: to develop further the individual child's physical and mental capacity and moral and spiritual instincts; to instil a steady interest in study; and to impart basic reading, writing and numeracy skills, the rudiments of social behaviour and study habits, thus laying the foundations for the child's understanding of the world and enabling it to proceed to the next level of education.

Elementary school teaching is adapted to the stages of the child's intellectual development and the growth of its cognitive activities. It begins with an integrated course based on an integral, figurative concept of reality, that being the way in which children of this age perceive the world around them. The predominant form of instruction at this stage is didactic play. Subject teaching, which presupposes the child's ability to identify separate components of the surrounding reality (subject definition stage), as well as specific phenomena (subject teaching stage), is introduced in the next phases of elementary general education. The transition to subject teaching is an essential precondition for cognition and for the satisfaction of the child's nascent interest in study. Elementary education may thus be structurally represented as follows: development of practical reading, writing and numeracy skills and habits (preparatory year); laying the foundations for subject study (language, literature, nature study, mathematics) (Grades I-II); preparation for the transition to systematic subject study (Grade III).

The changes introduced in the objectives, tasks and contents of elementary education call for modifications of the structure and size of the curriculum, and for the development of new educational techniques that will provide the child with an integral world picture based on the assimilation of the universal principles and laws of nature and human life. To this end, the Ministry of Education and the National Institute of Education have elaborated a new elementary school curriculum:

The use of pre-school establishments to prepare 6-year-olds for school entrance at Grade I level will not require any special arrangements and, at the same time, will help to overcome a certain psychological resistance on the part of parents. In terms of the main parameters of the educational process, the preparatory year will correspond to the present Grade I. Children will be able to take the preparatory year either in a pre-school establishment or in a school of general education, provided these establishments meet the requisite conditions from the teaching and educational points of view.



The basic school curriculum is characterized by its logical completeness, in other words, a full range of subjects is offered within the framework of State-approved standards. The secondary school-leaver must have acquired knowledge which he/she will use in later life irrespective of the trade or profession chosen and of whether he/she opts for further education or vocational training. The school must make the student aware of available possibilities, equip him/her with the means of exercising a choice, help him/her to discover and develop his/her capabilities and show different ways in which those capabilities can be applied. Education in civics, transmission of knowledge about the state and society, and preparation for fulfilling one's civic duties are a special task.

The new curriculum makes practically no change in the study loads of the existing eleven-year school curriculum, while at the same time resolving the main problems through the elimination of study overload and the introduction of the five-day school week from year 1 (preparatory grade) to year 12.

The new basic curriculum contains less study courses and subjects. This was achieved by: integrating the contents of the subjects taught; structuring them according to their fundamental or secondary nature; rearranging lesson contents in a structurally logical way, in accordance with the new objectives, tasks and functions of instruction at each level; designing open-ended study courses on the modular principle; etc.

Thanks to the school component and the five-day study week (six-day school attendance week), the new curriculum offers extensive opportunities for taking account of students individual needs and interests, the particular features of each specific educational establishment and the socio-cultural environment in each region. Two elements (basic and differentiated) are to be found in the contents of general secondary education at all levels. The senior grades of SGE and gymnasia, lyceums and colleges are becoming progressively more divided into sections, preparing their students for entrance to higher education establishments (HEEs) or specialized secondary educational establishments (SSEEs).

On 24 June 1997 the Ministry of Education issued an Order "On the curricula of SGE in the Republic of Belarus for the school year 1997/98," which served as the normative basis for the gradual introduction of new educational contents and for changing the number of hours allocated to each subject, and which also specified the length of the school year, including school holidays. The Levels I-III curricula and timetables approved by the Order are shown in the tables below:



## First level of general secondary education (Grades I–IV): weekly lesson timetable

Subject t	Number of weekly periods in each grade				
	I	II	III	IV	
I. Core component (compulsory): *Introduction to school (1st month) Belarusian language Russian language Language of national minorities Foreign language Mathematics Man and the world My Motherland Belarus Arts and crafts Visual arts Practical training Music Physical training	* 6 2 2 - 4 2 - 2 - 1	- 7 3 2 - 4 2 - 2 - 1 3	- 7 3 2 0-3 4 2 - 2 - 2	- 7 3 2 0-4 4 1 2 2 0-1 0-1 1 3	
Total core component (max.)	20	22	22	23	
II. Optional subjects (max. two weekly periods): foreign language; rhythm and dancing; rudiments of linguistic culture; theatre; drawing and decorative crafts; swimming	2	2	2	2	
III. School component (1)					
Total weekly periods (max.)	23	26	27	28	

<sup>(1)</sup> Defined and allocated by the school board on the basis of the difference between the total prescribed number of hours and the number of hours included in the core and optional components. (Each teaching period lasts 45 minutes).



# Second level of general secondary education (Grades $V{-}IX$ ): weekly lesson timetable

Subject	ubject Number of weekly periods in each grad					
	V	VI	VII	VIII	IΧ	
I Core common out (commulators):						
I. Core component (compulsory):	_	5	2	2	2	
Belarusian language	5 2	5	3	2 2	2	
Belarusian literature	3	2	3		3 2	
Russian language		3	3	2	2	
Russian literature	1	2	2	2	2 2 2 2	
Language of national minorities	3	3	3	2	2	
Literature	1	1	1	1	2	
Foreign language	3	3	2	2		
Mathematics	5	5	5	4	5	
Data processing	-	_	-	2	1	
History of Belarus	1	1	1	1	1	
World history	2	1	2	1	1	
Man and society	_	_	_	1	1	
The World	2	2	-	_	-	
Geography	_	2	2	2	2	
Biology	_	_	1	2	2	
Physics	_	_	2	2	2	
Chemistry	_	_	_	2	2	
Technical drawing	_	_	1	1	_	
Music	1	1	1	1	_	
World artistic culture	_	_	_	_	1	
Physical training	3	3	3	3		
Practical training	2	2	2	2	3 2	
Specialized training	_	1	1	1	_	
Total core component (max.)	30–31	34–35	34	35	35	
II. Optional subjects: second foreign language (L2); L2 literature; study of the country (according to L2 chosen); technical	2	2	2	7	1.4	
translation; typing (in L2); astronomy; introduction to economics; basics of business studies; nature and society; pre- vocational training.	2	2	2	7	14	
III. School component (1)						
Total weekly periods (max.)	37	39	40	40	40	

(1) Defined and allocated by the school board on the basis of the difference between the total prescribed number of hours and the number of hours included in the core and optional components. (Each

teaching period lasts 45 minutes).



# Third level of general secondary education (Grades X and XI): weekly lesson timetable

Subject	Number of weekly periods in each grade				
	X	XI			
I. Core component (compulsory):					
n <u>core component</u> (compaisory). Belarusian language	1	1			
Belarusian literature	3	3			
	1	1			
Russian language Russian literature					
	3 3	3			
Language of national minorities	2	3 2			
Foreign language					
Mathematics	4	4			
History of Belarus	1	1			
World history	2	2			
Man and society	1	1			
Geography	2	_			
Biology	2	_			
Physics	3	3			
Astronomy	_	1			
Chemistry	2	2			
World artistic culture	2	_			
Physical training	3	3			
Practical training	2	2			
Specialized training	1	1			
Total core component (max.)	35	30			
II. Optional subjects:					
Second foreign language (L2); L2					
literature; study of the country	7	7			
(according to L2 chosen); technical					
translation; typing (in L2).					
Technical drawing	2	4			
Introduction to economics	1	i			
Basics of business studies	2	2			
Rudiments of law	2	2			
'Rudiments of criminal law'	1	1			
World artistic culture	_	1			
III. School component (a)					
To tal weekly periods (max.)	40	40			

<sup>(1)</sup> Defined and allocated by the school board on the basis of the difference between the total prescribed number of hours and the number of hours included in the core and optional components. (Each teaching period lasts 45 minutes).



# General secondary education: weekly lesson timetable for the school year 2003/04

	Number of weekly periods in each grade								
Curricular area/discipline	First stage			Second stage					
	I	II	III	IV	V	VI	VII	VIII	ΙX
Language and communication: Belarusian language and literature	б	б	7	_	_	_	_	_	_
Belarusian language	_	_	_	3	3	4	3	2	2
Belarusian literature	_	_	_	2	2	2	2	2	2
Russian language and literature	2	3	3	-	-	-	-	-	-
Russian language	-	-	-	3	3	3	3	2	2
Russian literature	-	-	-	2-1	2-1	1-2	2	2	2
Foreign language	-	-	-	2	2	2	2	2	2
Mathematics and sciences: Mathematics	4	4	4	5	5–4	4–5	5–4	5–4	4–5
Biology	_	_	_	_	_	_	2	1	2
Physics	_	_	_	_	_	_	1-2	2	2
Chemistry	_	_	_	_	_	_	_	2	2
Computer studies, ITCs	_	-	-	-	-	-	-	2	1
The world	-	-	-	_	_	1	-	_	-
Humanities: Geography History of Belarus Universal history	- - -	- - -	- - -	- 0-1 1	1-2 0-1 1	2-1 1 2-1	2 1 1	1 1 1	2 1 2
Man, state and society	_	_	_	_	_	_	_	1	1
My Motherland Belarus	_	_	1	_	_	_	_	_	_
Man and the world	2	2	1	1	1	_	_	_	-
Arts: Music education Arts World artistic culture	1	1	1	1	1 1	1	1 _	- -	- - N-1
word arms ac currence	_	_	_	_	_	_	_	_	0-1
Technology: Practical training	1	1	1	2	2	1	1	1	_
Sports: Physical education	3	3	3	3	3	3	3	3	3
Total weekly periods (min.)	20	21	22	26	27	28	29	30	30
Elective subjects	2	2	2	2	2	2	2	2	2
Total weekly periods (max.)	22	23	24	28	29	30	31	32	32

Note: Each teaching period lasts about 45 minutes. The school year consists of 35 working weeks in Grades I—III and 36 working weeks in Grades IV—XI.



The main aim of vocational and technical education is to train senior personnel and to equip citizens with work habits and professional skills, combined with a general education and mental and physical development. The requirement for entering a vocational and technical education establishments (VTEE) is completion of general secondary education, basic nine-year education (in which case the VTEE must also provide a general secondary education course), or practical experience in a trade. Vocational education is offered in vocational-technical schools (VTS); inter-school training and production *kombinats*, centres and other establishments; or directly at the work-place. Training is concluded by examinations, and successful students are awarded the appropriate qualification (professional category) and receive a formal document of the established type.

In 1997, there were 249 VTEE, including 241 controlled by the Ministry of Education with a total enrolment of over 122,000 students. They include one higher technical school, twenty-six higher vocational schools and five regional centres of vocational education. The vocational and technical education system provides training in 400 industrial trades. Training in VTEE is provided by 13,951 specialists, including 3,906 teachers and 7,363 holders of the master of production training diploma.

There are 226 daytime VTS, 192 of which also offer general education courses. In the last few years the student intake has stabilised at around 52,000 a year, including some 16,500 at the complete secondary education level and some 35,500 at the basic secondary education level, 31,500 of whom attend VTS offering the general education course. The intake figures testify to a steady interest in vocational-technical education on the part of SGE-leavers. The competition for VTS places is approximately 1.3 applicants per place. The number of young people in special need of social protection (those without a basic education, the physically or mentally handicapped, the disabled, orphans, and those from single-parent or very low-income families) entering VTS is rising year by year.

The VTEE are changing over to a system of training industrial workers for a range of integrated trades, with specialization in a particular trade or trades in the final stage of training, depending on the needs of industry and of the students' own wishes. The practice of training in only one trade is losing ground. In 1996, 33% of VTEE graduates (compared with 45.9% in 1993) obtained a qualification in one trade; 42.5% (36.6%) in two; 24% (12%) in three; and 4.2% (0.9%) in more than three trades. The 1998 figures are even higher. Since 1996/97, some VTEE have been training qualified workers who also receive a general education with in-depth study of certain general-education subjects; in other words, these VTEE are beginning to introduce lyceum classes.

Organizational conditions are being improved with a view to enabling successful students to proceed to a higher level of vocational education (specialized secondary or higher). One higher technical school and twenty-six higher vocational schools providing integrated vocational-technical and secondary special education have been established, and are operating within the continuous education system. Ten associations between VT and specialized secondary schools have been established, allowing the most successful graduates from either type of educational establishments to take a shortened course at a polytechnic. A total of eighteen schools have concluded agreements with HEEs to admit their graduates to shortened courses. A



new register of the trades taught is being drawn up; new standard curricula are being drafted and models produced. The new register will include broader groupings of existing trades, as well as more than ten new trades oriented towards the labour market and new types of activities in the service sector.

In order to obtain a professional qualification, students are offered several general education scenarios: based on completion of nine years of general education; without previous secondary education; vocational training combined with general secondary education (three to four years); based on general secondary education (one to one and a half years); secondary special education (polytechnic) following nine years of general education (four years); or following completion of general secondary education (two years).

The vocational school curriculum has three components: general education; general vocational; and special. The general education component includes a range of humanities subjects, a range of science and mathematical subjects, and physical training. The general vocational component ensures the breadth and fundamental character of the vocational education the student receives. It also involves the study of the objects, subjects, nature and contents of his/her future vocational activity. The special component ensures the assimilation of specialized knowledge, habits and skills and incorporates special theoretical disciplines, as well as two forms of practical training – production training and production practice. Each component includes a time reserve which can be used in the light of regional particularities, the special features of the educational establishment and the student's chosen trade, the qualifications to be obtained, and the individual student's anticipated chances of obtaining them.

In addition to the main components mentioned above, students are offered supplementary extra-curricular educational services in the form of optional classes and vocational counselling.

The activities of specialized secondary educational establishments (SSEEs) are determined by the need for middle-range specialists felt in sectors of the national economy and other areas. Specialized secondary education forms a distinct stage in the continuous education system. It is offered by institutions of several kinds–polytechnics, schools and colleges.

There are 149 State SSEEs (74 polytechnics, 26 colleges, and 49 schools) and four higher colleges, as well as eight non-state SSEEs. The total number of students enrolled in State SSEEs is 125,000, including 99,600 attending day-time schools, 1,300 taking evening classes, and 24,100 taking correspondence courses. In addition, second-level training of specialists having completed the specialized secondary education course is being provided at 25 higher vocational schools and one higher technical school. SSEEs offer special training in 154 trades. The annual student intake of SSEEs is 34,000, including: 16,000 students with basic education (47%); 15,000 with general secondary education (44%); and 3,000 with completion of VTS (9%). Day-time SSEEs have a total enrolment of 101,500 students.

One of the areas of SSEE reform is the preparation of a new register of specialized subjects, branches and qualifications. The underlying principle consists in



broadening the specialized subjects and grouping them together into several branches, so as to make it easier for school-leavers to find employment or to switch to another speciality or qualification. More than twenty new specialized subjects have begun to be taught in the Ministry-controlled SSEEs over the past few years. For the most part they are subjects in the humanities and economics fields. In the last three years, 25 higher technical schools have started offering training in such new subjects as: business studies, banking, environmental studies, biochemical production, design, social work, etc. The further development of specialized secondary education entails the creation of new types of institutions, such as colleges and educational/scientific and educational/scientific/industrial associations involving various combinations of vocational/technical, specialized secondary and higher education establishments.

The elaboration of standard national curricula for SSEE is proceeding on the basis of the following principles: ensuring a unified level of general secondary education (at the level of eleven-year general secondary school) in accordance with national standards; providing the future specialists with general fundamental training by supplementing the teaching of grouped specialized vocational and professional subjects, with teaching the rudiments of general science, economics, law, management, computer and data processing techniques, and industrial safety.

SSEE training includes theoretical instruction, production practice, and tests designed to evaluate the results of training at the end of each term and at the end of the whole training period. The final training stage is planned depending on the specialization chosen, and can take the form of presenting a diploma project, passing State examinations in certain subjects, or passing a State examination in an entire branch of study. During the practical training period students can obtain a qualification in one or several working trades within their chosen branch of study.

The model structure of a standard curriculum for an SSEE is as follows:

#### A. General education component (44 to 46%):

- Social studies and humanities cycle: philological subjects; historical subjects; rudiments of social and human sciences; optional subjects. Natural sciences and mathematics cycle: mathematics; physics (including an astronomy section); chemistry; biology.
- Physical training.
- Specialized training.

### *B. Professional/vocational component (54 to 56%):*

General vocational cycle: basic general science subjects (in line with the specialization branch); general technical; electrotechnical; chemical-biological; natural sciences; mathematical economics; psycho-pedagogical; social-economic. Core (compulsory) subjects: industrial safety; ecology; economics; management; law; computer science; computer software.



- Special cycle: techniques in the special sector or industry; equipment; techniques and organization of production processes (in the professional/vocational activity chosen).
- Specialization cycle.

Practically all SSEEs are fee-paying on a contractual basis. Contracts are of different kinds—bilateral between educational establishments and private citizens, or educational establishments and enterprises (State-owned or privately-owned); or trilateral between educational establishments, citizens and enterprises. Special-purpose admission and training of specialists for specific enterprises and institutions is practiced.

According to the UNESCO Institute of Statistics, in 2004 there were 403,841 pupils enrolled in primary education (years 1-4) and the number of teachers was 26,151. In 2003, there were 969,768 students enrolled in general secondary education (years 5-11) and the number of teachers (in 2004) was 104,999.

### Assessing learning achievement nationwide

Standards developed to assess the knowledge, skills and work habits of school pupils serve as the basis for defining the level of each pupil's attainments in each subject of the curriculum.

Standards are based on the syllabus for the respective grade and are designed to ensure a unified approach to the pupil's degree of assimilation of the study material and his/her skill in making practical use of the knowledge acquired. Four marks (5, 4, 3 and 2) are used, and written and oral tests are given. Effective monitoring is assisted by the use of different forms and methods of assessment; in addition to examinations of the traditional type, the use of term reports, spot checks, dialogue-type tests, etc., is recommended. In organizing the monitoring process it is essential to keep in mind the essential requirements of regularity, objectivity, comprehensiveness and a differentiated approach. All forms of assessment–continuous, thematic, result-based–are used. The knowledge, skills and work habits acquired by the student in the course of each term are evaluated by means of a result-based assessment which relies on oral and written tests, considerable importance being attached to written end-of-term papers.

# **Higher education**

The main goal of higher education is to train high-level specialists for the production and social spheres. The specialist must possess an in-depth knowledge of general science, as well as specialized knowledge in a particular field, combined with training in the humanities and social, political and economic sciences. Furthermore, he/she must possess the necessary practical knowledge of his/her chosen area of activity.

Graduates from general secondary or secondary vocational education are trained in more than 200 subjects at universities, academies, institutes and other higher education establishments (HEEs). Courses at HEEs generally last five to seven



years, and they are concluded by State examinations and/or the submission of a diploma project. Students successfully completing the course can, in the light of their examination results, be awarded a master's degree and/or the appropriate professional qualification; they also receive a diploma corresponding to the established form.

An important element of the normative basis for higher education is the system of standards, in particular: the Concept of standardization in the field of education; the draft higher professional education standards elaborated by the National Institute of Education; and the general model of an educational standard elaborated by the State University's Institute of Higher Education. This model outlines a set of principles and a structure for the elaboration of standards in specific human sciences disciplines, as well as draft educational standards for HEEs in twelve human sciences subjects. The standards are accompanied by model syllabi and methodological documents. They define the requirements as to the contents and length of training of senior staff at various levels, requirements as to the professional qualifications of specialists, and the assessment system to be used. They serve as the basis for documents on the attestation and accreditation of establishments, and for those relating to the equivalence status of diplomas outside Belarus.

In 2000, the higher education system included 42 State and 15 non-state HEEs, as well as the Academy of Management Studies attached to the office of the President, which retrains university-educated specialists and trains students on a feepaying basis. At the beginning of the academic year 1995/96, State HEEs were employing 15,100 teachers (not including teachers who combined this activity with another post on the civil service payroll) and there were 174,200 students enrolled. The number of students attending non-state HEEs was 23,100. Admissions to feepaying study courses at State HEEs are showing a noticeable upward tendency: 4,796 (13%) in 1993; 5,967 (16.4%) in 1994; 7,512 (19.5%) in 1995; and 12,410 (28.3%) in 1996.

In 1996, the number of graduates from State HEEs was 31,718 (as against 31,877 the previous year), including 23,298 (20,424 in 1995) daytime students, and 10,314 (10,899) and 531 (554) students taking evening classes and correspondence courses, respectively. In 1995, 627 out of the total number of HEE graduates obtained a B.Sc., and 46 an M.Sc.

The reform of the higher education system begun in September 1994 (date of the introduction of a new subject register), and was aimed at renewing the contents and structure of the national model of specialist training. That is also the main goal of the higher education reform today, aimed at introducing a multi-level system of specialist training based on a new generation of curricula and syllabi.

The structure and contents of the new generation of curricula and syllabi take account of the particularities of the national higher education system and of the need to integrate it in the worldwide education area. The structure of the curriculum includes human and socio-economic disciplines (25-35%); general science and general professional disciplines (35-45%); special disciplines (25-35%); and specialization disciplines (10-15%).



The reform of higher education is proceeding in three stages. The first began in 1993-94 and saw the elaboration of a new national system of education. The second, lasting two to three years, is devoted to establishing a new legislative and normative basis and analyzing the effectiveness of separate parts of the system. The third stage will see the integration of the national system in the world system of higher education. During the first and second stages, multiple scenarios of new structures are used with a view to analyzing their adaptability to present-day conditions and evaluating them on a comparative basis. The third stage ought to confirm that the new system corresponds to its international analogues. At that stage, the Ministry will work together with international associations towards making national diplomas in the majority of subjects homologous with those issued in other countries, and towards the unconditional fulfilment of the requirements of the UNESCO international classification. All three stages of the higher education reform are coordinated with the general educational reform process taking place in the Republic.

According to the UNESCO Institute of Statistics, in 2004 the total enrolment at the tertiary and higher education level was 507,360 students; the number of teaching staff was 42,872.

# **Special education**

Special education occupies an important place in the development of the national education system. According to statistical data, 10.9% of children in Belarus belong to the category of children with abnormalities of physical or mental development, and therefore require special education. They include children with sensory handicaps—the hearing-impaired or deaf-and-dumb; the vision-impaired or blind; children with physical problems; the mentally or psychologically backward; children with serious speech defects; and those with complex combinations of handicaps.

In 1997/98, the special education system included: 27 children's homes; 31 boarding SGE (18 of which were orphanages); 25 sanatorium-type boarding schools; 80 boarding schools for the mentally or physically handicapped; 22 family-type children's homes; 27 centres for diagnosis and rehabilitation; 707 *defectological* centres; and 417 special classes attached to SGE. These 185 establishments are attended by about 26,000 children, and a further 2,059 handicapped children are being educated at home.

The main documents regulating these establishments include: the Rights of the Child Act (1993); the Social Welfare for the Disabled Act (1994); the Supreme Council decision "On the prevention of disablement and the rehabilitation of disabled persons" (1994); the National Plan of Action for the protection of the rights of the child in the years 1995-2000 (1995); as well as other documents.

In recent years, the status and activities of all boarding establishments have taken a substantial turn for the better. Funding has increased and funds are being allocated on a priority basis. More and more of these establishments are of an open type, with conditions approximating those within the family. Funds for the provision of financial assistance to pupils have been set up in all boarding schools other than those specifically intended for orphans (who receive assistance in a different form).



The network of establishments for the diagnosis and correction of handicaps and for the education of handicapped children continues to develop. Standards governing special education are being elaborated. A network of pre-school establishments for handicapped children is being developed, and conditions enabling handicapped children to receive secondary and higher vocational education are being created. From the 1995/96 school year onwards, special schools have begun to introduce new educational contents. A national compendium of educational and methodological materials, including syllabi, textbooks, methodological recommendations, teaching aids and special textbooks for the blind is being prepared, and model group and individual systems of tuition are being developed.

## Private education

Non-state educational establishments in Belarus are subject to the Education Act, where it is specified that "non-state educational establishments may provide education of all types and at all levels." (Art. 29). 'Non-state educational establishments' means privately-owned educational establishments. These include establishments founded by organizations, public associations and trade unions. Their structure and organization follow the standard patterns applicable within the State education system.

In order to carry out their activities, non-state educational establishments must first obtain a special license from the Ministry of Education, issued in the light of the curricula and syllabi proposed, the potential availability of staff and of technical and other supplies, the current demand for school-leavers or graduates, etc. In conducting their work, non-state educational establishments must ensure the harmonious development of the student's personality, open up his/her potentialities, and promote the development of scientific, technical and cultural activities in accordance with the needs of society.

At the beginning of 1998, there were 41 non-state educational establishments, including 16 HEEs, nine SSEEs, and 16 schools and gymnasia (sixth-form colleges). The total number of students was 99,085, of whom 921 were enrolled in schools and sixth-form colleges, 3,667 in SSEEs, and 34,497 (or 18.2% of the total number of students in higher education throughout the country) in HEEs. Of the total number of students in non-state educational establishments, 16,913 were enrolled in day-time classes, 16,913 in evening classes, and 133 in correspondence course.

In the main, the non-state HEEs and SSEEs provide specialized training in economics and finance, and in social, commercial, legal and cultural studies. Their relative proportion in the total number of educational establishments increased over the past few years. Thus, whereas in 1995 there had been only five non-state SSEEs, by 1998 their number had risen to nine; similarly, the six schools and sixth-form colleges existing in 1996 had grown to sixteen by 1998.

Fees are determined by the educational establishments themselves, depending on their public image and the prestige of the specialization offered. Fees have risen over the past few years, and today average US\$650-1,200 per year in HEEs, US\$450-500 in SSEEs, and US\$250 in schools and sixth-form colleges.



Some non-state educational establishments (HEEs and SSEEs) have set up regional branches, faculties or educational counselling centres in various parts of the country. This helps to reduce tuition costs, and ensures that specialists are available in the regions where they are most needed. Staff can retrain or change their specialization without having to leave the region. These branch activities are also subject to licensing. There are currently fifteen branch HEEs and five branch SSEEs.

Teachers are appointed on a competitive contractual basis. Often these appointments depend on the possibilities of the region in which the educational establishment is located. Thus, there are many more qualified teachers to choose from in the capital and the regional centres than in the regions themselves. For example, the average proportion of teachers with academic degrees or diplomas at non-state HEEs is 54% in the capital, while elsewhere it averages less than 30%. The lack of highly qualified teachers is particularly strongly felt in correspondence courses for students in higher education. Teachers at schools and sixth-form colleges are generally members of the permanent staff, while those at HEEs and SSEEs often combine these jobs with other employment. For example, 263 of the 415 teachers employed at non-state SSEEs have jobs elsewhere. In the majority of cases this means that the teacher works only part-time. Most of the teachers are aged 30-56, although older specialists are also employed.

The educational process in non-state schools follows the standard curricula and syllabi. There are also individual curricula based on the standard ones for HEEs and SSEEs. These curricula have to be tested and approved by the Ministry of Education. The syllabi in use are either the standard ones or are prepared directly by the non-state school itself, in which case they require the approval of the Ministry of Education. Subject syllabi are approved by the director of the establishment concerned. In general, they correspond to the curricula and syllabi in use in the State sector of the education system.

The intensive growth of the number of non-state educational establishments seems today to have come to a halt. Five non-state establishments (four HEEs and one SSEE) were closed down in the past two years. The main causes for such closures are: failure to achieve the requisite level of specialist training; declining student intake due to high tuition fees; insufficient profitability, failure of the establishment to correspond to the status assigned to it; etc.

# Means of instruction, equipment and infrastructure

Existing legislation defines the material infrastructure of education as consisting of the land, buildings, machines and equipment, vehicles and other property used for instruction, education, child health and other education-related purposes. It may be the property of the educational establishment or may be used by them on leasehold or other terms. The material infrastructure—as well as the enterprises and organizations which develop the material and social basis for education, and provide opportunities for work practice and training—enjoy tax privileges or are completely exempt from taxation.



State organs, enterprises and organizations of education, as well as educational establishments and other educational institutions, are responsible for the renewal and development of the material infrastructure in the light of increasingly stringent requirements as regards the level and quality of education. Land, buildings, structures, equipment and materials are ceded on favourable terms. The law prohibits any action that may cause the material infrastructure of education to diminish or deteriorate.

With the disintegration of the Soviet Union and the worsening of the socio-economic situation, the material and technical infrastructure of education, especially of SGE, declined steadily. Schools built before 1987 had no classrooms for 6-year-olds and no computer rooms and other premises essential for the purposes of modern education. More than half of rural schools had a weak material infrastructure, lacking running water, central heating and drainage systems.

Between 1989 and 1995, construction of SGE declined steadily. Only 6,990 new places were created in 1995, compared with 63,600 in 1989. No major repairs of school buildings or transfers from unsuitable buildings were undertaken. The upshot is that today there are 1,644 school buildings (33.8%), that is, 500 more than in 1993, in need of major repairs.

At the beginning of the school year 1997/98, there were 4,820 SGE and 4,511 pre-schools. Of these, 3,532 schools and 2,189 kindergartens were located in the countryside; 329,724 children in 1,366 schools, or 27%, attended the second shift, and 3,698 children in 22 schools the third shift. A total of 3,124 schools had running water and drainage, 1,968 had central heating, 2,566 had classrooms equipped for computer studies, and quite a few had swimming pools.

New SGE with capacity for 13,400 student places were opened in 1997, and for 18,700 places in 1998. Despite shortage of funds, local authorities are also building annexes to existing schools, carrying out repairs and providing furniture and other school equipment. In addition, the government is devoting special attention to schools in radiation pollution areas (Chernobyl). Today there are 811 pre-schools, 911 SGE, 19 boarding schools, 44 VTEEs, 20 SSEEs, and four HEEs, with a total of 483,869 students enrolled, located in such areas.

An important problem is the provision of computer equipment and instruction in data processing. More than thirty types of computer equipment which are mutually incompatible in terms of both hardware and software are currently in use in schools. Only 12.3% of the equipment is IBM-compatible. The average computerization level corresponds to 0.48 computers per SGE. All computers are obsolete, and almost all are to be found in secondary schools. The Ministry of Education has recently approved a standard register of teaching aids, techniques and equipment for SGE, SSEEs, pre-schools and VTEEs in the school year 1997/98, and has embarked upon the gradual computerization of schools in accordance with this register. The number of classrooms equipped with computers rose from 2,096 in 1995/96, to 2,122 in 1996/97. The SGE reform programme presupposes the parallel elaboration of an integrated programme of school computerization.

Before the collapse of the Soviet Union, over 80% of the SGE textbooks were provided through the centralized services of all-Union ministries and departments.



Only textbooks and teaching aids in specific subjects specific (i.e. Belarusian language and literature, Belarusian history and geography), as well as translations of textbooks for schools which used Belarusian as the language of instruction, were locally published. At the beginning of the 1990s, this system virtually came to a halt. For this reason, and also because of the change-over to new educational contents, the problem of supplying pupils and teachers with textbooks and teaching aids has become extremely acute.

To deal with this problem, the Ministry of Education established in 1993 the Scientific and Methodological Centre for Textbooks and Teaching Aids. In the past few years, over 250 authors' collectives have been set up in order to produce textbooks for SGE, and 860 textbooks (including 450 new ones with contents substantially different from those of existing ones), have been published. Seventy-one titles of textbooks and teaching aids were published for the 1997/98 school year alone.

The total number of titles of textbooks and teaching aids in use in secondary schools today exceeds 1,000, and 860 have been published in the Republic. The number of textbooks being published is steadily increasing. Thus, 527 titles were published between 1995 and 1997, including 259 for elementary schools and 268 for secondary SGE.

The adoption of new curricula has led to the publication of nationally-produced textbooks in geography, history, Belarusian language and literature, and data processing. Experimental mathematics textbooks for Grades V-VIII are being published. Cartographic materials for history and geography classes are also being produced. Grades I-X have been fully supplied with textbooks on Belarusian language and literature. Textbooks are being published in Polish for schools where Polish is the language of instruction. The publication of books in the "School Library" series continues. Over the past years, 162 titles of literary works included in the curriculum have been published. For the first time, books in this series are being published for elementary schools. Extensive use is made of the high scientific potential of teaching staff at HEEs and the National Institute of Education, and of the experience of the best teachers and methodologists.

The production of textbooks for use in elementary schools is receiving a special attention. Of the 236 titles currently in use, 204 were published in Belarus. The supply of nationally-produced textbooks (both in Russian and Belarusian) to children in Grades I-IV of elementary schools is practically assured. A characteristic feature of these textbooks is the predominance of the developmental over the informative aspect; the child's development, founded upon universal values as well as national cultural values and traditions, is given the highest priority.

In 1995, 122 titles of elementary school textbooks were published, with a total of 13,588,580 copies for a total cost of 90,473,430 roubles. The corresponding figures for 1996 were 100 titles and 7,605,040 copies (52,385,010 roubles); those for 1997 were 79 titles and 3,811,450 copies (64,086,450 roubles). The overall cost in US\$ was 12.4 million, according to the weighted exchange rate of the Belarusian National Bank. Seventy-four titles of new and adapted textbooks and teaching aids have been prepared as part of the initial stage of the SGE reform now in progress.



Supplying textbooks and teaching aids to special school pupils and teachers is another important aspect of the national textbook publishing effort. In the Soviet era, special schools were supplied from Moscow, but since 1992 this system has been gradually phased out. Of sixty-seven titles ordered from Moscow, only five were received between 1994 and 1996, and none at all in 1997.

Upon instructions of the Ministry of Education, the National Institute of Education has been engaged since 1993 on preparing curricula for all types of special schools, with a view to developing a national system of special education. On the basis of these curricula, the Textbooks and Teaching Aids Centre has set up groups of authors to prepare the Republic's first-ever teaching aids for handicapped children. To date, sets of textbooks for Grades I-II have been published for children with severe speech defects, those with retarded psychological development, the hearing-impaired and the intellectually backward. A total of 276 titles have been produced for Grade I, and 17 titles for Grade II pupils. The first nationally produced textbooks in Braille were published in 1997.

## Adult and non-formal education

According to Article 23 of the Education Act, citizens are entitled to independent self-education. To this end several opportunities are available such as people's universities and schools, including evening and correspondence courses run by SSEEs and HEEs, extra-mural courses and many different adult retraining and advanced training courses, national cultural centres, etc. Adult education enjoys the assistance of libraries and other information centres, public associations and the media.

At the beginning of 2001, the total number of establishments and divisions for adult education was 377, including 36 in the private sector.

# **Teaching staff**

In 1996, there were 54,196 teachers working in pre-school establishments, including 37% with higher, 2% with incomplete higher, more than 58% with specialized secondary, and 3.5% with general secondary education. The level of qualifications of teaching staff working in pre-schools was as follows: 3.2% in the top category (2.9% in 1995), 22% in category I (18.2% in 1995), 40.2% in category II (40.2%), and 34.6% were unclassified.

In Grades I-IV of day-time schools of general education there were 32,200 teachers, including elementary school head teachers, of whom 62.9% had higher, 3.5% incomplete higher, 33% specialized secondary, and 0.6% general secondary education. Of the teachers in Grades V-XI(XII) of such schools, 87.9% had higher, 2.8% incomplete higher, 8.3% specialized secondary, and 1% general secondary education. Among the total number of teachers teaching special subjects, 5.3% had no special qualifications in the subject taught. The qualification level of Grades I-IV teachers was as follows: 6.7% in the top category; 24.4% in category I; 41.9% in category II; and 27% were unclassified. The corresponding figures in the 1993/94 school year were 6.2%, 23.8%, 39% and 31%, respectively. The figures for Grades V-XI(XII) teachers were: 11% in the top category; 31.6% in category I; 36.2% in



category II; and 21.1% were unclassified. The corresponding figures for the school year 1993/94 were 10.3%, 31.7%, 35.4% and 22.6%, respectively.

The number of teachers employed in schools of general education of all types totals more than 144,000, including 80% with higher, 16% with specialized secondary, 3% with incomplete higher, and 1% with general secondary education. The 1993 figures were, respectively, 79.4, 15.4, 3 and 2%. As for the qualification level, 11% of all schools of general education (SGE) teachers are in the top category; 29% in category I; 39.2% in category II; and 20.8% are unclassified. In the school year 1994/95, the corresponding figures were, respectively, 9.9, 29.9, 37.7 and 26.6%. In the school year 1997/98, 79.2% of SGE teachers had top category, or category I or II qualifications, compared with 73.2% in 1993/94 and 75.2% in 1994/95.

There are twice as many teachers in the top category in urban schools as in rural ones (12.7 as against 5.9%). The figures for Grade I-IV teachers are, respectively, 9.2 and 3%, and for Grade V-XI(XII) teachers, 11.2 and 7.9%.

Women account for 82.2% of all teachers and headteachers of day-time schools of general education. Of the women teachers, 30.3% are under 30; 55.4% between 30 and 50; 8.9% between 50 and 55 (the official retiring age for women); and 5% over 55. Of the men, 22% are under 30; 61.4% between 30 and 55; 10.8% between 55 and 60 (the retiring age for men); and 4.8% are over 60. About 42% of all headteachers of day-time secondary schools of general education are women. The age patterns in this group are comparable to those of headteachers of day-time schools of general education.

The staffing problem in schools has been more or less resolved, especially with regard to physics, mathematics, chemistry, biology, Russian language and literature teachers, as well as elementary grade teachers and pre-school educators. In recent years, the seven universities, two pedagogical institutes, ten pedagogical schools and eight teacher training colleges which train teaching staff, have expanded the range of subjects on offer by 20-25% or, in some cases, even more, especially for student teachers taking two special subjects. Secondary school-leavers from areas affected by the Chernobyl disaster and those from rural areas are admitted on a priority basis.

However, there is a shortage of specialists in foreign languages, physical training, Belarusian language and culture and social sciences, although sufficient numbers are being trained in HEEs and SSEEs. The main reason is that foreign language and physical training specialists can get better pay in other sectors of the economy and on the commercial market.

The Republic's vocational-technical education establishments (VTEEs) employ 1,921 teachers of general education subjects, whose professional qualifications are as follows: 13.2% in the top category; 37.9% in category I; 35.4% in category II; and 13.5% unclassified. These teachers include 97% with higher, 0.7% with incomplete higher, 1.4% with specialized secondary, and 0.1% with general secondary education, which makes them the best educated group. The total number of staff (including administrative as well as teaching and technical staff) in the Ministry's VTEEs is approximately 13,000, of whom 3,900 are teachers and 7,100 are



masters of industrial training. In terms of professional qualifications, 7% of the teachers are in the top category; 29.5% in category I; and 37.5% in category II; 48.9% of the teachers are women.

In spite of difficulties, the professional skills of teachers in VTEEs are, on the whole, improving. For purposes of comparison, here are some figures for the school year 1993/94: 5.1% of all supervisory and professional-level technical staff and 11.4% of teachers in general education subjects were in the top category; 26.2 and 38.7%, respectively, in category I; and 38.0 and 39.7% in category II. However, some 60% of teachers in VTEEs have received no special pedagogical training, and the existing schools providing training for vocational/technical teachers (three industrial teacher training SSEEs and three HEEs) can meet only partially the schools requirements, and that only in a very limited number of subjects.

SSEEs employ over 11,000 teachers, 93% of whom have higher, 4% incomplete higher, and 2.1% specialized secondary education. The qualifications level is as follows: 65% in the top category and category I; 26% in category II; and 9% unclassified. The level of professional qualifications among SSEE principals is high.

At the beginning of the 1996/97 academic year, State HEEs were employing 15,400 teachers, including 6,252 (or 41.3%) women. This total included 843 with doctorates and 6,889 with masters degrees, of whom 101 and 2,312, respectively, were women; 917 held the academic title of professor and 5,047 that of lecturer. Private HEEs were employing 626 teachers, of whom 32 held the title of professor and 148 that of lecturer.

In recent years the relative percentages of lecturers, M.A., professors and Ph.D. employed in educational institutions has evolved considerably. For example, in 1990 lecturers employed at HEEs under the Ministry of Education accounted for 68.4% of the country's total number of master's of arts or science, whereas in 1997 the corresponding figure was 81.1%. Professors working in HEEs in 1990 accounted for 90.1% of all Ph.D.s, while in 1997 the figure had risen to 105.3% owing to doctorates *honoris causa* being awarded massively to experienced M.A. and M.Sc.

Specialist teachers (those with a pedagogical training) are trained at teacher training schools and colleges if they have basic or general secondary education, and at pedagogical institutes or universities which admit secondary school graduates on the basis of the Standard Rules for Admission to Educational Establishments in the Republic of Belarus and of their own admission rules.

The age pattern has changed considerably. The number of teachers aged between 30 and 40 years declined from 32.2% in 1990 to 23.8% in 1996. On the other hand, the percentage of teachers aged less than 29 rose from 7.9% in 1990 to 8.9% in 1996 and of those above the age of 61 also rose (from 6.2% in 1990 to 8.4% in 1996).

An approximate breakdown of teachers employed at different levels of the education system by the type of studies completed is shown in the following table:



# Training of teachers and educators at various levels of the education system (1997/98)

Level and type of education	Type of EE	Conditions of admission	Breakdown by syllabus taken	Qualification/type of diploma
Pre-school education	Teacher training school or college, pedagogical university (institute), level I	Competitive examination – applicant must have incomplete secondary (9 grades) or secondary education	Social studies and humanities, 20-22%; natural sciences and mathematics, 10-12%; psycho-pedagogical studies, 12-13%; special subjects, 40-45%	Diploma of specialized secondary education, qualified as teacher or educator
Incomplete general secondary education	Teacher training school or college, pedagogical university (institute), level I	Competitive examination – applicant must have incomplete secondary (9 grades) or secondary education	Social studies and humanities, 20-22%; natural sciences and mathematics, 10 -12%; psycho-pedagogica 1 studies, 12-13%; special subjects, 40-45%	Diploma of specialized secondary education, qualified as teacher or educator
Complete general secondary education	Pedagogical university (institute), level I	Competitive examination – applicant must have completed secondary education	Social studies and humanities, 20-25%; general science, 35-45%; special cycle, 25-30%; special subjects, 10-15%	Qualified as basic school teacher
Complete general secondary education	Pedagogical university (institute), level II	Competitive examination - applicant must have completed secondary education	Social studies and humanities, 20-22%; natural sciences and mathematics, 10-12%; psycho-pedagogical studies, 12-13%; special subjects, 40-45%	Diploma of higher education, qualified as secondary school teacher
Technical and vocational secondary education	Industrial- pedagogical polytechnic	Competitive examination - applicant must have completed vocational-technical or secondary school	36 hours of study per week	Diploma of specialized secondary education, qualified as master of industrial training
Higher education	Pedagogical university (institute), level III, HEE according to specialization		Social studies and humanities, 20-25%; general science, 35-45%; special cycle, 25-30%; special subjects, 10-15%	Diploma of higher education

Curricula and syllabi introduced in the last few years place special emphasis on training in psychological disciplines. In teaching educational methods, attention is



focused on psychological aspects, aiming at equipping each graduate with a professional grasp of psychology which will help him/her to find the right individual approach to each student.

The system of certification of teaching and schools management staff is an important aspect of the staffing issue. The idea underlying this system is that the professional skills and management abilities of graduates from teacher training establishments must be assessed not only by persons from the world of education, but also by representatives of other sectors of the economy. Here a distinction must be drawn between the State system of certification of teacher training college graduates, and the systems used on the open market. The former is governed by specific legal regulations, while the latter may apply more stringent criteria than the legal norms in force. What is needed is a normative system with certificates specially designed for each category of teacher training establishments that will take account of the interests of the graduates' potential future employers and of the whole of society.

The abandonment of the centralized system of management has made it necessary to review the role and place of the post-diploma training system of senior staff, and to bring it into line with the new socio-economic reality. The objective has been to adapt the existing system to the demands of the market in the light of the national economy's development prospects, and to ensure the system's effective operation on that basis.

Between 1995 and 1997, fifteen educational establishments for the retraining and advanced training of senior staff were established (one academy, four institutes, five university departments and five training centres). During the same period, licenses were issued for 21 new non-state educational establishments or branches thereof serving the same purpose.

As a result of the reorganization of regional Teacher Upgrading Institutes into educational establishments of a new type, the level of the teaching provided has greatly improved in terms of both scientific content and teaching skills. The old institutes, which had been set up in the 1940s, had not been subdivided into departments or faculties, and this lack had been reflected in the quality of their work.

Twelve normative legal documents were drafted and adopted between 1995 and 1997, with the aim of improving the organization and operation of post-diploma training of senior staff. The role of higher and secondary special schools and of the vocational-technical education system in retraining teachers in market-oriented subjects has been strengthened. Practically every educational establishment now offers retraining and advanced training courses to its own teaching staff. The years 1995 to 1997 saw the accreditation of 130 educational establishments within the retraining and advanced training system.

A special programme entitled "Development of the system of retraining and advanced training in the Republic of Belarus in the years 1998-2000" was drawn up in 1997 with the aim of enhancing the effectiveness of post-diploma education. A Council on problems of retraining and advanced training of senior staff was established by a Decision of the Cabinet of Ministers dated 15 August 1995, with a remit to ensure the application of a unified policy in the field of post-diploma



education, co-ordinate all aspects of work being done in that sphere, and strongly enhance the Ministry of Education's influence on that work.

The decision was taken to create within the education system a number of educational establishments that will focus their attention on specific areas of education, the provision of scientific and methodological materials to those areas, and the training and advanced training of senior teachers and educationalists. The Institute of Professional Education and the Institute of Innovative Techniques, attached to the State Polytechnic Academy, were established to this end.

The parent organization of the advanced training system is the Academy of Post-Diploma Education. Its duties include the organization, scientific direction, coordination and methodological guidance of purpose-oriented training of teaching and research staff for regional retraining and advanced training institutes. The Academy operates a data bank of advanced innovative teaching methods and experiences, providing advisory and methodological services to regional and other institutes and to the teaching profession in general. The Academy's computer system is linked to the Internet.

The State policy on post-diploma education is based on the following principles: to meet as fully as possible the needs for highly qualified teaching staff; to develop an operational strategy for the development of the staff training and retraining system; and to provide economic, legal, organizational and other guarantees in this area.

The rights and duties of teachers and the main socio-economic parameters of their activities are set forth in Articles 33-35 of the Education Act, the Trade Unions Act, and the relevant articles of the new bill amending and expanding the Education Act, which has been prepared by the Ministry of Education, the National Committee of Educational Trade Unions and the Cabinet of Ministers.

Teachers in Belarus have had to face many social, economic and professional problems in recent years, including: the teaching profession's loss of social status and prestige; low salaries and an inadequate system of payment; poor housing and other living conditions; heavy and sometimes excessive workloads, which often entail the deterioration of teaching quality; and insufficient use made of the socio-economic and professional privileges available to teachers.

Teachers' salary continues to be the greatest problem, although Belarus is perhaps the only CIS (Community of Independent States) country to date where workers are being paid on time. In the first half of 1997, the average salary of all staff employed in education was 1.64 million roubles (US\$69.6 at the average weighted National Bank rate), or 74% of the average monthly wage in all branches of the economy. During the same period, the average teachers' salary was 1.96 million roubles, or 74% of the average earnings of industrial employees, a lower figure than in the first half of the preceding year. Young trained teachers and pre-school staff on a monthly wage of 1.3-1.5 million roubles, which corresponds to only 60% of the minimum consumer budget, find themselves below the official poverty line.



### Pay rates of separate categories of HEE staff, 1998 ('000 roubles)

Title of the post	Official pay rate, including supplement for seniority						
	(years of work in the special field)						
	A B C D E						
Professor (Chair)	2,665.0	2,798.3	2,931.5	3,064.8	3,198.0		
Professor	2,540.0	2,667.0	2,794.0	2,921.0	3,048.0		
Lecturer	2,305.0	2,420.3	2,535.5	2,650.8	2,766.0		
Senior teacher	2,195.0	2,304.8	2,414.5	2,524.3	2,634.0		
Assistant lecturer, teacher	1,990.0	2,089.5	2,189.0	2,288.5	2,388.0		
Trainee teacher	1,740.0	1,827.0	1,914.0	2,001.0	2,088.0		

(A = less than one year; B = 1-5 years; C = 5-10 years; D = 10-15 years; E = more than 15 years).

The salary scales of educational staff are determined depending on the qualifications and the professional category awarded, and are supplemented by up to 20% depending on seniority (5% after 1-5 years; 10% after 5-10 years; 15% after 10-15 years; and 15% after 15 years in the special field).

The teachers' pay system was established in the 1930s, and is based on a mixed form of piece-work and time rates. Hours of work within the standard workload are paid by tariff grade and professional category, which are determined on the basis of certification results, professional training and seniority. Higher tariff rates are paid to staff working with physically or mentally handicapped children, those requiring special education, and orphans. Extras are also paid for quite a number of tasks forming part of the teacher's obligatory duties (correcting written work, being a class teacher, running a laboratory or a class library, etc.).

The Ministry of Education considers that the present pay system fails to take full account of the special nature of the work of teaching, and does not allow sufficient room for adjustments of pay rates for staff in different tariff groups and categories. The system is incapable of responding adequately to social change or to innovations in teaching practice, and does not encourage the teacher to be creative or to strive for better results. This inevitably undermines the social importance and prestige of the teaching profession. A new system has been developed by the Ministry and was introduced on an experimental basis from 1 September 1997 in four educational establishments at different educational level, some located in the countryside and some in towns.

The issue of teachers' housing is another important and as yet unresolved problem. In January 1998, 18,000 teachers (about 10% of the total number of teaching staff) had no homes of their own or were living in accommodation in need of repair. Low wages, poor housing, inadequate welfare, loss of privileges, heavy workloads, a negative demographic pattern within the profession, declining motivation, reduced social status and prestige—all these factors are inducing large numbers of teachers to take up jobs in private education or switch to other occupations.



### Educational research and information

In a period of transition to intensive methods of development of socio-economic systems, the problem of making the most effective possible use of the country's scientific potential and limited financial resources is becoming more and more important.

Guided by the legislative and normative acts adopted over the past few years with the aim of promoting the development of science and technology, higher education establishments (HEEs) have striven to achieve substantial improvements in their activities and to enhance the effectiveness of research.

Of a total of 3,310 research projects in progress at five research institutes, twenty-one Ministry-controlled HEEs and other scientific organizations, 1,610 were completed in 1996, work on programmes at all levels accounting for 12.8% of the activities these establishments. Ministry-controlled HEEs participated in the completion of 124 national scientific projects, with funding in the amount of 26,486 million roubles, and acted as the chief executing agencies in the case of five of these programmes. Research was also conducted on sixteen inter-HEE fundamental research programmes, which were allocated 13.4% of total funding under the national budget.

The effectiveness of the work of Ministry-controlled HEEs and research institutes was reflected in the publication of 152 monographs, 141 textbooks and teaching aids and 10,816 articles and the award of 79 patents. In 1996, 2,613 of the projects completed by the Ministry's HEEs were brought into practical use, 1,923 of them in schools. The proportion of work carried out on a contractual basis by HEEs and research institutes rose by 10% over the 1995 level, accounting for 33.1% of their total funding (as against 21.5% in 1995). This testifies to stronger links being forged between the HEEs and the production sphere. Thirty Ph.D. and 105 master's theses were accepted in 1996.

Great attention is devoted to expanding international relations. More than 900 articles and monographs were published abroad; 218 grants from international funds were received in 1996 by HEEs and research institutes. In the same year, 77 international events and 39 exhibitions were held and twenty contracts concluded with international firms. The number of Belarusian scientists travelling and working abroad and of foreign scientists visiting HEEs has risen, and many research projects in the field of education have been carried out.

Most of the research projects in the field of education are being conducted at the National Institute of Education, the Institute of Vocational Education, the Institute of Higher Education attached to the State University, the Academy of Post-Diploma Education, the Maxim Tank State Pedagogical University at Minsk, as well as other institutes.



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[Note: most of publications listed above are in Russian].

## Web resources

Ministry of Education: <a href="http://www.minedu.unibel.by/">http://www.minedu.unibel.by/</a> [In Russian. Last checked: October 2007.]

National Institute for Higher Education: <a href="http://www.nihe.niks.by/">http://www.nihe.niks.by/</a> [In Russian. Last checked: October 2007.]

For updated links, consult the Web page of the International Bureau of Education of UNESCO: http://www.ibe.unesco.org/links.htm