



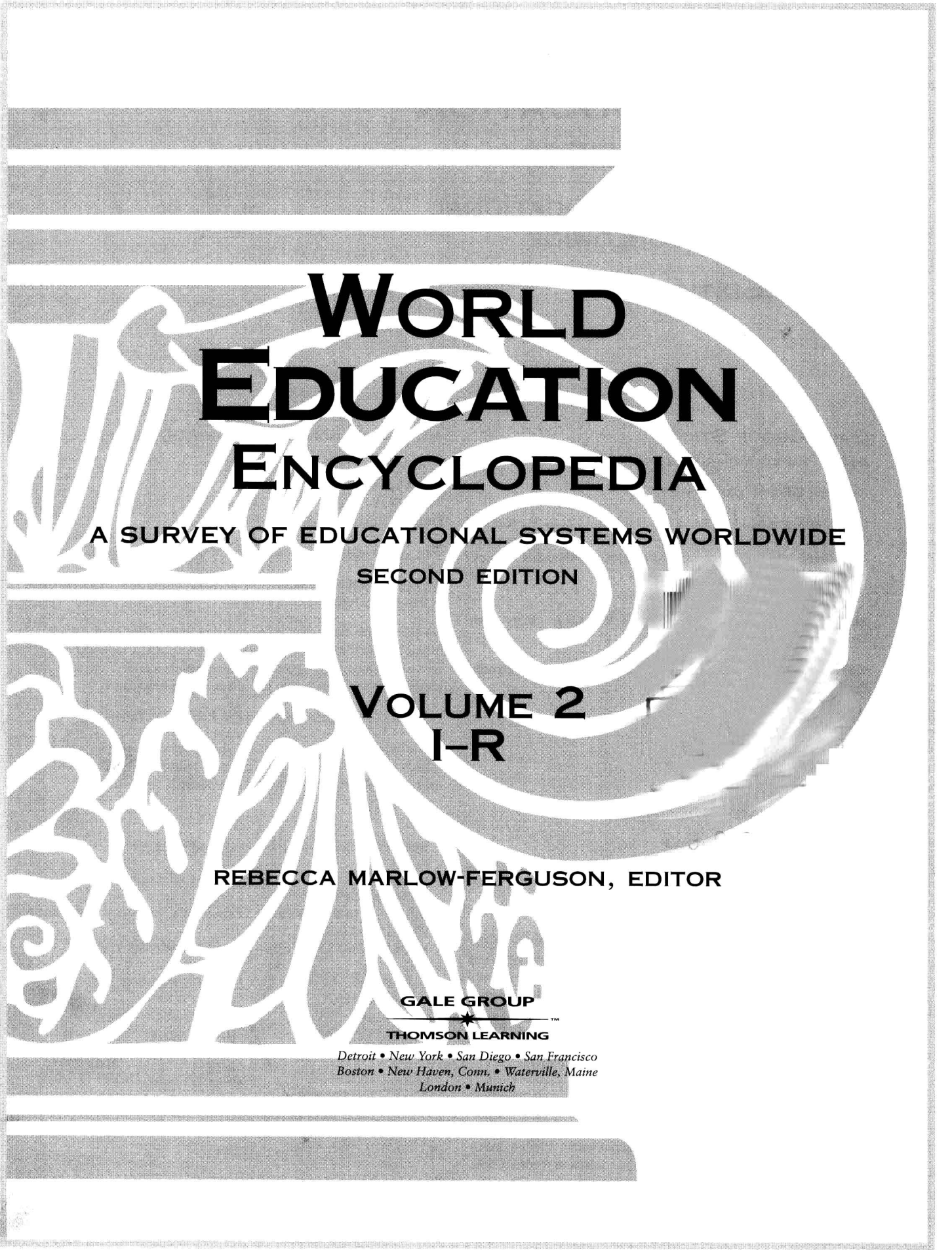
SECOND  
EDITION

# WORLD EDUCATION ENCYCLOPEDIA

A SURVEY OF EDUCATIONAL SYSTEMS WORLDWIDE

## VOLUME 2

REBECCA MARLOW-FERGUSON, EDITOR



# **WORLD EDUCATION ENCYCLOPEDIA**

**A SURVEY OF EDUCATIONAL SYSTEMS WORLDWIDE  
SECOND EDITION**

**VOLUME 2  
I-R**

**REBECCA MARLOW-FERGUSON, EDITOR**

**GALE GROUP**

  
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# WORLD EDUCATION ENCYCLOPEDIA

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## A SURVEY OF EDUCATIONAL SYSTEMS WORLDWIDE

### 2ND EDITION

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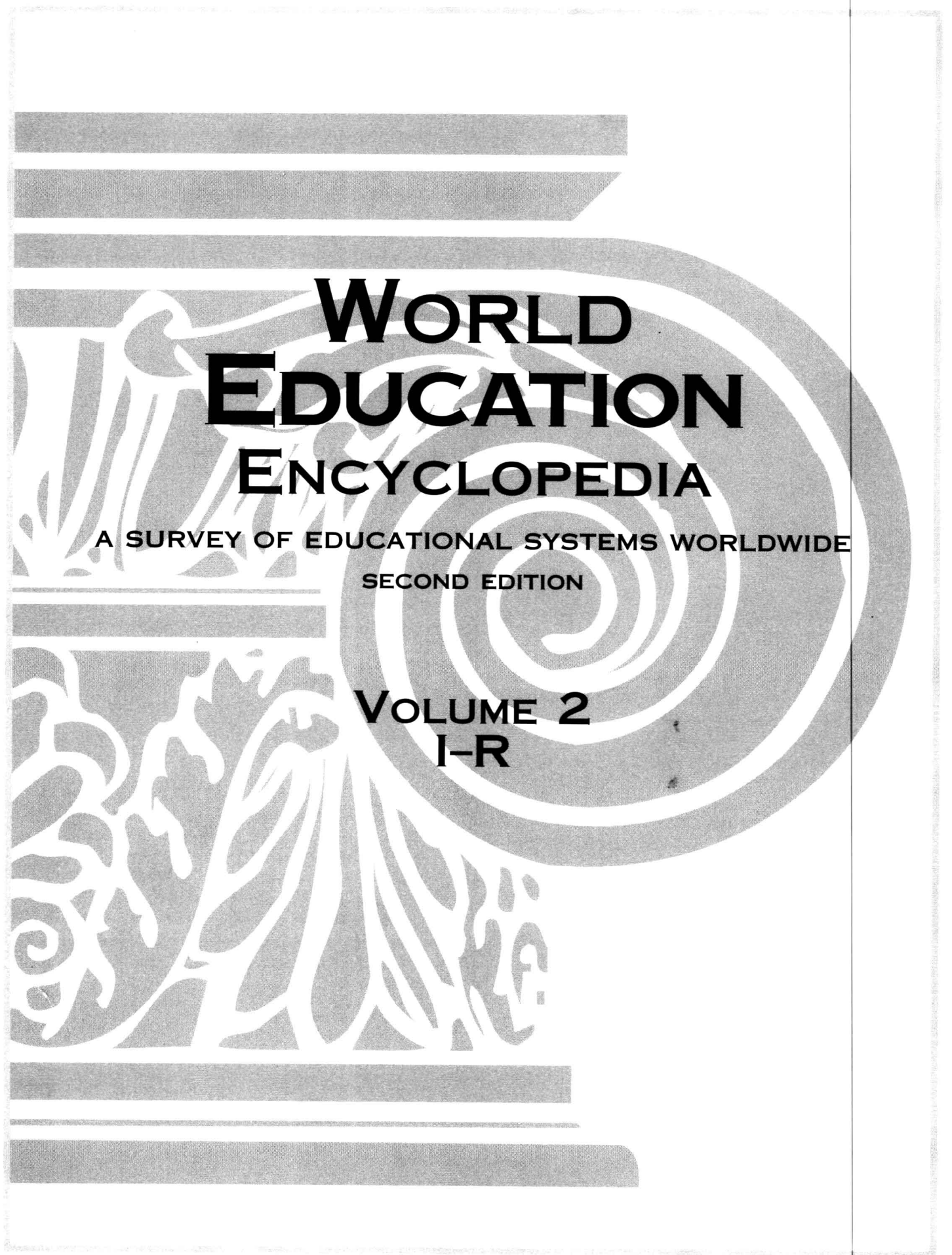
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## ICELAND

### BASIC DATA

Official Country Name:	Republic of Iceland
Region:	Europe
Population:	276,365
Language(s):	Icelandic
Literacy Rate:	99.9%
Academic Year:	September-May
Number of Primary Schools:	193
Foreign Students in National Universities:	185
Libraries:	194
Educational Enrollment:	Primary: 29,342 Secondary: 30,463 Higher: 7,908
Educational Enrollment Rate:	Primary: 98% Secondary: 104% Higher: 38%
Female Enrollment Rate:	Primary: 98% Secondary: 102% Higher: 45%

### HISTORY & BACKGROUND

Iceland, one of the world's first independent, democratic nations, is the second largest island in Europe (39,769 square miles). Located 180 miles south of the Arctic Circle, Iceland's nearest neighbor is Greenland to

the west (180 miles), followed by Scotland to the south east (495 miles), and Norway to the east (590 miles). Iceland is largely a classless society composed of the descendants of farmers and warriors who fled the tyranny of Scandinavia many centuries ago. The strength of the people, mirrored by the powerful landscape, is evident in the thriving independent culture. Visitors to Iceland typically find the people to be courteous and friendly, are surprised by the cold yet temperate climate (mild winters and cool summers), and are struck by the breathtaking natural beauty of the country. Despite physical isolation, Iceland has maintained its place in European civilization.

Iceland has a rich literary tradition and unusually high standards of education, with 15 percent of the national budget devoted to education. Illiteracy is unknown in the small island country. Icelanders are generally very open to new ideas and trends, and they have rapidly developed, implemented, and embraced new technology throughout their society. Approximately 82 percent of Icelanders between the ages of 17 and 75 have access to the Internet at home, school, or work. With artists frequently deriving inspiration from the extraordinary terrain and the ancestral culture, the arts are flourishing in Iceland. Painting in particular has thrived since the end of the nineteenth century. Nearly every district has its own museum reflecting the local cultural history, while magnificent galleries and museums grace the capitol. Literature has always played a prominent role in Icelandic culture. Manuscript illumination, woodcarving, and folk music have been associated with periods of heightened interest. There are numerous theater companies in Iceland, and Reykjavik is home to a symphony orchestra, an opera house, and a ballet company. The National Theater of Iceland celebrated its fiftieth anniversary in the year 2000. Icelandic nightlife is famous for its vibrancy, with night clubs, cafes, and cinemas in all major towns.

The Evangelical Lutheran Church is the official state church, but freedom of religion exists for all other congregations. Although the state provides financial support

to the church, it extends considerable freedom. The bishop is elected by pastors and members of the theological faculty at the University of Iceland; and the one diocese is divided into districts, which are further subdivided into parishes. An elected church congress serves as an advisory board to the church. Roughly 90-94 percent of Icelanders are Protestants (73 percent Evangelical Lutheran) and 1 percent are Catholic.

With an excellent health care system available to all citizens at no cost, the life expectancy in Iceland is among the highest in the world (76.5 years for males and 81.5 years for females) and infant mortality is among the lowest in the world (5.5 per 1,000 live births). The health-care system receives 40.5 percent of the national budget and the nation operates one of the most expensive health-care systems in the world. Welfare services include unemployment insurance, old age and disability pensions, family and childbearing allowances, and sickness benefits. The medical and welfare systems are jointly financed through taxation by the national and local government.

Geologically, Iceland is a very young country and the process of its formation is still in progress. Iceland's interior consists mostly of uninhabited mountains and high plateaus. Much of the uninhabited regions, encompassing more than 80 percent of the island, are covered with permanent snow and ice (glaciers) or volcanic surface, preventing many agricultural activities. The settlements are limited to a narrow coastal belt, valleys, and lowland plains in the south and southwest. With a population of approximately 272,000 people, Iceland is one of the smaller nations in the world, yet it is the least densely populated of all European nations. More than 60 percent of the country's population resides in or near the capital city of Reykjavik ("Bay of Smokes" named for the geothermal stream), situated in the southwestern region of the island. Since WWII Iceland has maintained a high standard of living that is comparable to other Nordic countries. The strong Icelandic economy is based on the use of renewable natural resources and a highly educated and skilled labor force. Unemployment is nearly nonexistent in contemporary Iceland. Over the course of the twentieth century, Iceland, which is situated on major shipping and air lanes of the North Atlantic Ocean, has effectively transformed itself from a subsistence economy to an exchange economy. The cost of living is very high because so many purchases from cars to paper are imported. Households require two or more incomes, with most women working outside the home and many men holding two jobs.

The principal employers are fishing, industry, agriculture, and health services. Icelanders as a group are very committed to their work regardless of the specific form. Whether employment involves intellectually chal-

lenging desk work, farming, or fishing, for the Icelander there seems to be an intrinsic association between one's work life and both one's personal contentment and the meaning ultimately attached to one's life. A common belief in Icelandic society is that an individual who is not very busy and actively involved in his or her work is not living life fully. Casual conversations over a meal frequently involve discussions about work. All Icelandic youth are expected to work as soon as possible, particularly during the summer months when school is out of session.

Although Irish monks were the first people to inhabit Iceland in the eighth century, it was not until the period extending from 870 to 930 A.D. that Iceland was systematically settled by both Norsemen from Scandinavia and Celts from the British Isles. The monks are believed to have left shortly after the arrival of the pagan Norsemen. Because the ruling class was Nordic, both the language and the culture have been predominantly Scandinavian from the beginning. There are, however, traces of Celtic influence in the literature and in the names of people and places. Immigration from other parts of the world has been minimal since the time of the first settlement.

Iceland's present day parliament, Althing, is the oldest existing national assembly in the world. When established in 930 A.D., the power of the Althing was distributed among four local courts and a supreme court. In 1000 A.D., Christianity was peacefully adopted at the Althing, which met for two weeks each summer and attracted a significant portion of the population. The first bishopric, or center for learning, was established at Skalholt in south Iceland in 1056, and a second was developed at Holar in the north in 1106. These first schools were devoted primarily to educating men for the priesthood, but many others who were prominent in secular affairs were taught as well.

During the late twelfth and the early thirteenth century, dramatic Icelandic tales of early settlement, the colonization of Greenland, romance, disputes, and the development of Iceland were translated into a rich literary tradition dominated by Sagas. These fact-based works, which provided the early settlers with a source of entertainment as well as cultural heritage, represent some of the classics of world medieval literature and continue to be widely read and treasured by Icelanders. A common custom on farms was for families to sit with handiwork (weaving, tool making, carving, spinning, or knitting) while participating in shared reading, storytelling, and verse making. A study by Weingand conducted in 1989 revealed that 86 percent of well-educated Icelanders, 71 percent of the general population, and 53 percent of students reported recalling oral reading of sagas and folktales in the home during childhood.

The enlightened period of peace, or the “Golden Age,” lasted 200 years until internal feuds resulting in civil war led to submission to the king of Norway and a new monarchical code in 1271. The infamous *Sturlung* Age, which followed the era of peace, was marked by political treachery and violence. During this time, the eruption of Mt. Hekla brought physical destruction, widespread epidemics, and death. At the end of the fourteenth century, Iceland was brought under Danish rule and conflicts between church and state culminated in the Reformation of 1550 with Lutheranism declared the country’s official religion. The next three centuries were troubled by Danish profiteering, international pirates, a series of natural disasters, and famines.

Denmark’s hold on Iceland was significantly reduced in 1874 when a constitution was drafted granting Iceland permission to handle domestic affairs. In 1918 Iceland became an independent state under the Danish king. After the occupation of Denmark and Iceland’s declaration of sovereignty, the island’s vulnerability was responded to by British and U.S. troops. On June 17, 1944, the Republic of Iceland was formally declared at Thingvellir.

Iceland joined the United Nations in 1946 and it is a charter member of the North Atlantic Treaty Organization (NATO). In the post WWII era, Iceland has based its foreign policy on peaceful international cooperation and has participated in Western defense efforts. Iceland does not maintain armed forces. However, the United States, which has assumed responsibility for Iceland’s defense, maintains a naval air station at the Keflavik International Airport.

Icelandic, the national language, has changed very little from the original tongue of the Norse settlers. A strong movement for linguistic purism gained strength in the nineteenth century and has persisted unabated. English, Danish, and German are also widely spoken and understood. A governmental agency, the Icelandic Language Committee, was established in 1965 and officiates over all language issues. New Icelandic terms are introduced in each discipline and foreign influence on the vocabulary is actively resisted.

Literacy has been universal in Iceland since the end of the eighteenth century. In 1700, less than half of the population of Iceland could read. However, literacy was accomplished in the eighteenth century as children were taught to read by their families or clergy in their homes. This practice of family members frequently teaching children to read continues in present day Iceland.

## CONSTITUTIONAL & LEGAL FOUNDATIONS

Iceland is a republic with a parliamentary democracy and a president elected for a four-year term by popular

vote. The president functions as head of state but remains apolitical except when the two political parties fail to solve governmental crises. The *Althing* is a legislative body of 63 members elected by popular vote for a term of four years. With authority over finances, the Althing exercises considerable power over the executive branch of the government. The Althing also elects members of key committees and councils within state institutions. Local government is exercised by 162 separate municipalities.

Education in Iceland has historically been public with very few private institutions. Iceland’s modern school system dates back to the late nineteenth century and the early twentieth century. In 1880, an education act required that all children be taught reading, writing, arithmetic, and Christianity according to the Lutheran confession. The act stipulated that parents were responsible for teaching their children with supervision provided by the pastors of the Lutheran Church.

The first major education act, a bill establishing the basic objectives and policies to serve as the foundation of educational practices, was passed by the Althing in 1907. With the act, education became compulsory and free of charge for all children between the ages of 10 and 14. In addition, a regional and administrative structure was introduced whereby rural areas, towns, and villages were subdivided into educational districts. Each district was to have a primary school paid for and run by the local authorities with supplementary government funds available based on need. The central Education Office was ultimately responsible for supervising all types of public education, the provision of textbooks and equipment, appointing inspectors, and the administration of final exams. A commissioner of Education was assigned the role of directing and supervising public education for the whole country.

The 1946 education acts divided the school system into four levels (primary, lower-secondary, upper-secondary, and higher), established an entrance exam for upper-secondary education, and introduced a double-track vocational and academic system designed to divert a large number of students into the vocational fields. In 1955, the State assumed full responsibility for the industrial-vocational schools in order to secure the future of this form of education.

In the late 1960s controversy surrounding educational reform became heated and led to the Education Act of 1973, the Primary School Act and the School Systems Act both of 1974, and other reforms during the 1970s. This legislation formed the basis of the contemporary educational system. In addition to providing all citizens the right to free compulsory (primary and lower-secondary), upper-secondary, and higher education, the various laws



extended the compulsory education to grade 9, provided for municipalities to develop preschool classes for 5- to 6-year-olds, and enabled the establishment of an experimental comprehensive high school designed to balance the status of the two tracks (general academic and vocational) within one school.

Legislation adopted in 1995 and 1996 requires all compulsory and upper-secondary schools adopt methods for systematically evaluating the following components of educational practice: instruction and administrative practices, internal communication, and external relations. These methods of self-evaluation are examined by the Ministry in five-year cycles. Further, new legislation concerning compulsory schools placed the responsibility of operation with the local municipalities.

Educational discourse in the context of reform movements throughout the past few decades has revolved around topics such as active learning, mixed-ability grouping, hands-on math and science, thematic studies, projects and topic work, group work, peer tutoring, moral and social education programs, the whole language approach, and team teaching. Reform discussions have focused on school-based curriculum development, constructivist teaching and learning, performance-based assessment, teaching for multiple intelligences, learning styles, problem-based learning, life skills programs, inclusion, quality control and school self-evaluation, and information technology.

In 1996 the Ministry published a policy document regarding the role of information technology in education. Among the plans outlined was an extensive integration of information technology into instruction at all educational levels. All students are to have access to computers and high quality software.

Further, in 1998 the Ministry announced an ambitious education initiative with new school policy for compulsory and upper-secondary schools designed to provide Icelandic students with an education that is comparable to the best systems worldwide. The policy represents a concerted effort to create an efficient and flexible system that enables focused attention directed toward meeting the needs of individual students, and increased choices for students, while fostering academic discipline, good working skills, healthy competition, and enhanced student initiative and responsibility.

## EDUCATIONAL SYSTEM—OVERVIEW

Consistent with an overall philosophy of education based on tolerance, Christian values, and democratic-cooperation, perhaps the most fundamental principle embedded in the history of the Icelandic education system is that equal access to education should be granted to all

irrespective of sex, economic status, area of residence, religion, physical handicap, cultural or social background. In recent years, carefully considered and articulated general aims of the education system in Iceland have been to encourage and preserve Icelandic culture, history, and language and to ensure that the Icelandic education compares favorably to the education provided by the leading nations in the world. Clear objectives have been specified to focus programs toward achieving these broad goals with the Ministry receiving widespread political and popular support for their efforts.

School attendance is obligatory for all children between the ages of 6 and 16 in Iceland. Those desiring to continue their education beyond the compulsory period attend various specialized schools or upper-secondary schools. Students can enroll in four-year secondary schools at age 16, with graduation entitling the student to admission to a university. There are also a number of technical, vocational, and specialized schools. Approximately 74 percent of the Icelanders under the age of 29 participate in Iceland's formal education system. This includes more than 42,000 young people of compulsory education age (6-16).

The language of instruction is Icelandic, and all educational institutions are publicly funded. Although the majority of schools are fully supported by the State, 6 percent are private grant-aided institutions (operated by nongovernment agencies but receiving a portion of their finance through the public sector). Students with special education needs are most typically integrated into the main stream classrooms, with only .3 percent of the special needs students educated in separate schools.

Preprimary education in Iceland is available on a fee basis and focuses on the developmental and educational needs of children between the ages of 1 and 5. More than 80 percent of children between the ages of 3 and 5 are enrolled in pre-compulsory education.

Children are admitted to compulsory education at age 6, with students usually attending their local school. Parents are permitted to transport their children to a more distant district. In the rural areas, children frequently attend boarding schools. Tuition and textbooks are free of charge at the compulsory level. Students in compulsory education are not grouped according to ability and no formal division is made between primary and lower-secondary education. However, students at the primary level have one teacher; whereas, lower-secondary school students have different teachers for each subject area.

The Ministry of Education, Science, and Culture oversees the curriculum and publishes a National Curriculum Guide. Core subjects include Icelandic (grammar and literature), mathematics, foreign languages, natural

science, social science, religious study, arts and crafts, and physical education, with compulsory swimming practice. The curriculum guide also contains recommendations pertaining to assessment, progression, and examinations. Teachers select their own methods of classroom assessment and may adopt preferred instructional methods. The National Centre for Educational Materials publishes and distributes teaching and learning materials to assist compulsory education teachers. The school year runs for 170 days from early September through the end of May, with schools open 5 days per week.

Students who complete compulsory schooling have access to upper-secondary education, regardless of their achievement. Students pay an enrollment fee and may have to purchase books; however, there is no charge for tuition. The most prominent forerunner of the Icelandic upper-secondary schools is the Latin school devoted initially to training boys for the ministry. These schools eventually became more general as young people were trained for university education and civil service. Schools with a strong vocational mission and a classical academic curriculum were transformed into general education institutions. Upper-secondary education is of two forms in Iceland: general academic and vocational or specialized. The length of training varies from 6 months to 4 years depending on the course of study.

The upper-secondary school curriculum is set forth by the Ministry of Education, Science, and Culture in the National Curriculum Guide. All courses leading to matriculation include Icelandic, foreign languages, social studies, mathematics, computer science, and physical education. Academic education further includes compulsory specialist subjects and student electives. Vocational courses of study consist of the general core in addition to vocational theory and practice classes. Most of the upper-secondary schools award unit credits for individual courses and are flexible in terms of the amount of time students spend on given courses. Upper-secondary general and vocational assessment is based on two yearly examinations and, frequently, coursework. Students who fail to pass an examination are given three opportunities to try again.

Upper-secondary educational assessment had been the domain of the local school; however, national examinations in the general academic track were instituted. General academic training culminates in a General Certificate, which is a prerequisite to entering the higher education system in Iceland. Students completing vocational training are awarded a Journeyman's Certificate. Many schools offer both general academic and vocational training.

Higher education is offered at three universities in Iceland and 11 non-university institutions offering spe-

cialized training in areas such as the arts, agriculture, technology, preschool education, and physical education. Admission is dependent upon a matriculation certificate from an Icelandic upper-secondary school or an equivalent from an abroad institution. Instruction at most universities and colleges is conducted in Icelandic with many textbooks frequently written in foreign languages. Because the majority of the schools are financed by the state, tuition is free and students rarely have to pay fees.

## PREPRIMARY & PRIMARY EDUCATION

Preschools are housed in buildings that are physically well-suited for their activities and are always situated in a location that allows for ample outdoor play space (30-40 square meters per child). Indoors, the law requires 7 square meters of space per child. With only one exception, preschool education is co-educational throughout Iceland. Very few preschools will accept children under the age of one, with most children not enrolling until age two. Children attend preschools for 4 to 9 hours daily. In municipalities where there are an insufficient number of spaces available to accommodate the need, preference is given to children of single parents and students. Children are typically divided into separate groups based on age; yet in the smaller communities children of various ages are kept together in a single group.

Icelandic law concerning the conduct of preschool education emphasizes several aims. These aims are provided in abbreviated form below:

- 1) To provide children with a safe and healthy environment in which to play and grow.
- 2) To give children the opportunity to participate in and enjoy group games and activities under the direction of a preschool teacher.
- 3) To encourage the optimal development of each child through cooperation with parents and sensitivity to each child's unique nature, with special emphasis on providing the emotional and physical support children need to enjoy childhood.
- 4) To encourage tolerance and open-mindedness while providing equal developmental and educational opportunities to all children.
- 5) To support Christian ethical development and provide the necessary foundation for children to become independent, conscious, active, and responsible citizens of an ever-changing democratic society.
- 6) To foster the children's creative and expressive abilities in ways that fortify their self-image, sense of security, and ability to solve problems in a non-aggressive manner.

The Ministry issues a preschool program defining the educational and pedagogic role of preschools with

policy pertaining to how it should be implemented. The contemporary program is based on a child-centered philosophy emphasizing individuality and childhood as being a distinct stage of life with special qualities. A strong emphasis is placed on play, as it is believed to provide the best medium for fostering learning and socio-emotional development in preschoolers. Several specific educational areas are addressed in the preschool education program: caring and daily routine, play and playing conditions, speech and speech stimulation, visual creativity and expression, music, sound, and movement, nature, and society. Individual schools make decisions regarding the relative emphasis placed on each of these areas and decide how and when to integrate the different educational components. Preschool age children with special needs are accommodated with needed assistance and/or specialized training that is monitored regularly for results.

Preschools are not required by law to formally assess the progress of the individual children. In cases of suspected deviation from normal development, the preschool staff or specialists do, however, conduct appropriate assessments. The directors of preschools evaluate their programs regularly and the Ministry is responsible for conducting comprehensive assessments.

Icelandic law governing compulsory education renders school attendance obligatory for all children between the ages of 6 to 16. The law sets the length of the academic year, the minimum number of lessons to be given weekly, and identifies required subjects. The law further makes it the duty of parents to register their children and see to it that they attend regularly. The law makes it the domain of the state and local municipalities to insure that education is implemented in accordance with the dictates of the Ministry.

Primary education (grades 1-7) and lower-secondary education (grades 8-10) are considered part of the same general level of education. However, primary teachers instruct one class in most academic subjects; whereas in lower-secondary school, teachers usually teach one or more subjects to several different classes. There are no entrance requirements. Local school districts cover the costs of school construction, teaching, and other personnel-related instructional expenses, as well as the costs of daily operation. In addition, they provide specialist services including pedagogic counseling, counseling related to particular academic subjects, educational counseling, and school psychology services. On the other hand, the state monitors adherence to educational law and National Curriculum Guidelines by evaluating individual schools while also supplying educational materials including textbooks.

Compulsory school in Iceland is divided into 10 grades, many schools housing all ten grades, some

schools with grades one through seven, and others with grades eight through ten. The total number of Icelandic compulsory schools is slightly more than 200, and the size of schools varies from from 700 to 800 pupils in the largest schools located in and around the capital city to fewer than 10 students in some remote rural districts. Nearly 50 percent of all compulsory schools in Iceland have fewer than 100 pupils. All compulsory schools enroll both boys and girls. Home-room or advisory teachers offer pupils advice on their studies, with special school counselors employed mainly at the larger schools.

National Curriculum Guidelines developed by the Ministry set parameters with respect to the organization, execution, and evaluation of education within the compulsory schools. The staff at each school must write a school working guide or administrative plan based on the Guidelines with sensitivity to the unique features and circumstances of the institution. The plan, which includes an annual calendar, must detail the organization of teaching, the content and objectives of education provided, student assessment procedures, assessment of school-related work, extra-curricular activities, and various other aspects of school operation.

The Ministry issues guidelines regarding the hours of instruction required for each grade as well as the proportion of total teaching time to be devoted to individual subjects. The number of lessons increases lightly during the 2001-2002 academic year with 30 weekly lessons slated for grades 1 through 4, 35 lessons per week for children in grades 5 through 7, and finally, 37 lessons provided for students in grades 8 through 10. At the conclusion of 10 years of compulsory education, students' time will have been partitioned in the following way: Icelandic, 18 percent; mathematics, 15 percent; arts, crafts, and home economics, 20 percent; modern languages, 9 percent; natural sciences, 6 percent; social studies, 7 percent; religious studies, 3 percent; physical education, 10 percent; and electives and miscellaneous studies, 12 percent. Danish is studied from the sixth through the tenth grades, with English studied during grades 7 through 10.

Children are expected to cover the same material in approximately the same amount of time and the students are not separated into instructional groups based on ability. However, students who experience difficulty are provided with remedial help. Teachers are free to select the methods that they find best suited for their students, the instructional goals, and the teaching conditions. Teachers generally strive to use as much variety as possible in their instruction. Children with special needs are assisted by a remedial teacher within the regular classroom environment or they are brought to another small room for one-on-one help by the remedial teacher. Many schools also have special departments for students with severe learning disabilities.



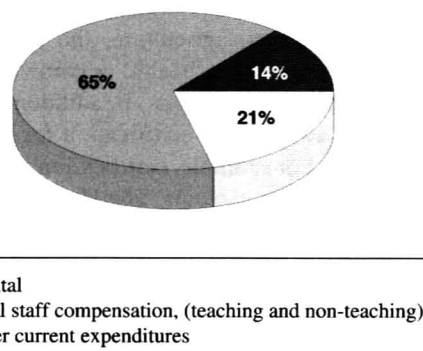
Examinations and other forms of assessment are designed and administered by individual teachers and schools. Methods for reporting student progress varies considerably across schools. Many compulsory schools assign numerical or letter grades, while others use oral or written comments. All schools issue some form of student progress report at regular intervals throughout the academic year. When students complete compulsory education, they take a nationally coordinated exam in Icelandic, mathematics, English, and Danish. Grades ranging from 1-10 are assigned by the Institute of Educational Research, which is also responsible for designing the test. The results provide information related to the student's relative standing in their group and are used to assist students in choosing a course of study in upper-secondary school. Beginning in 1995, nationally coordinated exams in Icelandic and mathematics have been administered to children in grades 4 and 7. Similar to the requirement for preschools, each compulsory school must undertake extensive periodic self-evaluations that consider teaching, administration, and internal and external communication. Every five years the schools' methods of assessment are evaluated by an external agent and the Ministry regularly evaluates compulsory schools to ensure compliance with the law.

## SECONDARY EDUCATION

In Iceland, upper-secondary education is governed by law that was enacted in 1996, with certain provisions having taken effect in stages and becoming fully implemented (2000-2001 school year). The law defines the framework for upper-secondary education outlining aims as well as the role of the state and local municipalities. Further, in accordance with the law, the Ministry issues National Curriculum Guidelines describing the content and objectives of each program of study. Although upper-secondary education is not obligatory, everyone who completes compulsory education has a right to pursue this level of education. Between 87 and 89 percent of students completing compulsory education enroll in upper-secondary programs, but the dropout rate is rather high. All upper-secondary schools are co-educational and free of charge. However, students must pay enrollment fees, cover textbooks, and provide partial costs for materials if in a vocational program. The law allows for different entrance requirements to the different programs depending on the demands of the courses of study. Students not meeting the minimal requirements for a desired program are offered the opportunity to receive remedial training in the core courses.

There are approximately 40 upper-secondary schools varying in size from fewer than 50 to more than 1,500. Four different types of upper-secondary schools are operated in Iceland:

**Primary and Secondary Educational Expenditures by Category**



Source: OECD, "Education at a Glance, OECD Indicators" p. 103

- 1) general academic schools that offer four-year academic programs concluding with the matriculation examination that is required for entrance into the higher education programs;
- 2) industrial-vocational school offering theoretical and practical programs of study in skilled and some non-skilled trades;
- 3) comprehensive schools that provide programs of study comparable to those offered in the general academic and vocational-industrial schools in addition to other specialized vocational training programs; and
- 4) vocational schools that offer programs of study designed for specialized employment.

The law stipulates that four general types of programs should be offered at the upper-secondary level. These include vocational programs, fine arts programs, a general academic program that leads to matriculation, as well as a shorter general academic program. Students in vocational programs are given the opportunity to complete additional course work if they are interested in university studies.

General academic education is organized into three subject areas: general subjects that all students are required to enroll in (approximately two-thirds of the curriculum), specialized subjects that fit with the aims of particular programs, and electives. There are three different academic programs leading to matriculation (foreign languages, natural sciences, and social sciences) with possibilities for more focused study within each of these broader programs. A shorter academic program is designed for students who are undecided about what particular course of study to pursue and for those who need

additional preparation prior to committing to the longer academic track or a vocational program.

Although the length of vocational programs varies, most are four years with students choosing training in various skilled trades, agriculture, the travel industry, fisheries, food production, health, or commerce. A number of the vocational programs, in addition to those for skilled trades, award legal certification for certain types of employment. For example, certification is provided for nurses' aides and sea captains. The law of 1996 requires vocational councils composed of representatives from employers and employees in each vocation along with one representative from the Ministry to convene regularly for the purpose of defining knowledge and ability needs of each vocation and to make curricular recommendations.

The academic year is divided into autumn and spring terms with students attending 32 to 40 forty-minute lessons per week. Most upper-secondary schools operate under a unit-credit system that allows students to regulate the amount of time it takes to complete their programs. In this type of system each subject is divided into a number of defined course units lasting for one semester.

The objectives of upper-secondary level education, outlined by law, encourage the overall development of students to equip them for active participation in a democratic society, preparing students for employment and further study, and fostering several personal qualities including responsibility, broad-mindedness, initiative, self-confidence, tolerance, discipline, independence, critical thinking, appreciation for cultural values, and the desire to seek lifelong learning. The National Curriculum Guidelines prescribe the framework for individual courses of study including the content, duration, and assessment requirements. As with education at lower levels, students with special needs are provided appropriate instruction and training in the mainstream classrooms to the fullest extent possible.

Regardless of the type of school, upper-secondary schools typically have examinations at the conclusion of each semester, with grades on other course assignments figured into the final grades. For the skilled trades, there are the journeyman's and nationally coordinated subject area exams. Upper-secondary schools are required by law to write School Working Guides describing program offerings, teaching methods employed, and the role of the administration. They must also conduct regularly sequenced self-evaluations addressing teaching, administration, and communication.

## HIGHER EDUCATION

Contemporary higher education in Iceland dates back to 1847 with the formation of the Theological Sem-

nary. In 1876 the Seminary was followed by the Medical School and then in 1908 the School of Law. These three institutions merged in 1911 with the foundation of the University of Iceland in Reykjavik. The contemporary higher education system encompasses three universities with research responsibilities and more than one program of study in addition to 11 specialized technical, vocational, and art colleges. With the exception of the University of Iceland, fewer than 1,000 students are enrolled at all other higher education institutions. The University of Iceland with an enrollment of 5,900 students (59 percent female), remains the principal institution and it hosts nine faculties (economics and business administration, dentistry, engineering, humanities, law, medicine, natural sciences, social sciences, and theology). Many of the faculties are subdivided into departments. For example, the Faculty of Social Sciences offers majors in ethnology, library and information science, political science, psychology, social anthropology, and sociology. The University of Iceland is a rapidly expanding and diversified institution with a total of more than 50 degree programs. The National and University Library, with 15 branches on and off campus, contains approximately 700,000 volumes with regular subscriptions maintained for 2,600 foreign journals.

The University of Iceland does not have restrictions on admission for those who have passed the matriculation exam. However, in the Faculty of Medicine, the Departments of Medicine, Pharmacy, Nursing, and Dentistry operate under a system wherein the number of students permitted to continue their studies beyond the first semester is limited and based on their performance on an examination. Further, the Department of Pharmacy and the Faculty of Science require students to have matriculated from upper-secondary programs emphasizing math, physics, or natural science.

The University of Akureyri has four departments: Health Science, Management Study, Fishery Studies, and Education. The University College of Education is primarily responsible for the education of teachers at the compulsory school level. This institution also offers a Master of Education Degree with specialization in curriculum studies, special education, educational administration, and educational theory.

Colleges in Iceland offer technical and vocational courses in addition to training in the arts. Most colleges specialize in a single field of study with some colleges belonging formally to the upper-secondary school level while actually operating higher education programs. Courses of study are offered in several areas: physical education, social pedagogy, preschool education, drama, music, fine and applied arts and design, computer studies, management, civil and electrical engineering technology,

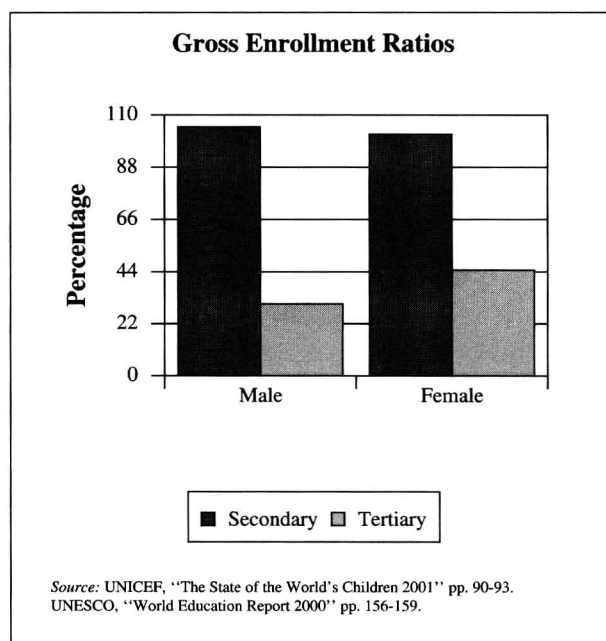
laboratory and radiology technology, and agricultural science.

Icelandic is the primary language of instruction in higher education, although textbooks are frequently in English, a widely understood language in the country. Operating under a semester system, the academic year begins in September and lasts until May. There are no tuition fees at state-run Icelandic institutions, students only pay registration fees. The few private institutions do charge tuition. Icelandic students attending institutions of higher learning are eligible for state loans. The total loan amount is based on the student's income, with repayment deferred until two years after completion of one's studies. Grants are offered for post-graduate research-oriented studies at universities in Iceland and are based on proposals submitted jointly by a student and a professor.

Higher education assessment in Iceland is typically in the form of oral or written examinations in addition to other course-related assignments. Moreover, university degrees are only conferred with successful completion of a final thesis or research project.

A diploma or certificate is awarded for 2 to 3 years of postsecondary study in drama, fine and applied arts and design, music, computer studies, management, and civil and electrical engineering. A BA degree is granted to students who have completed 3 to 4 years of study in humanities, theology, and social sciences and have finished a final thesis or research project. The BS degree is awarded to students who have completed 3 to 4 years of study in economics, business administration, natural sciences, health subjects, fishery studies, agricultural sciences, and engineering. A BE degree is earned after 3 years of course work designed to prepare students to teach at the preschool, compulsory, or upper-secondary level or for 3 years of study in the area of social pedagogy. A *BphilIsl* degree (*Baccalaureatus Philologiae Islandicae*) is granted upon completion of the program in Icelandic for foreign students. A *Candidatus* degree is offered only at the University of Iceland and qualifies the recipient for a particular profession or office. This type of degree is essentially an academic/professional degree offered in the fields of theology, medicine, pharmacy, law, business administration, engineering, and dentistry.

The University of Iceland offers a number of post-graduate degree programs. One year post-bachelor degree programs lead to certificates in education, social work, journalism, and mass communication. The MS degree is awarded following successful completion of two years of post-graduate study and a thesis research project in the faculties of medicine, economics and business administration, engineering, and natural sciences. Similarly, the MA degree is awarded after two years of post-graduate study in the Humanities and the Social Sciences



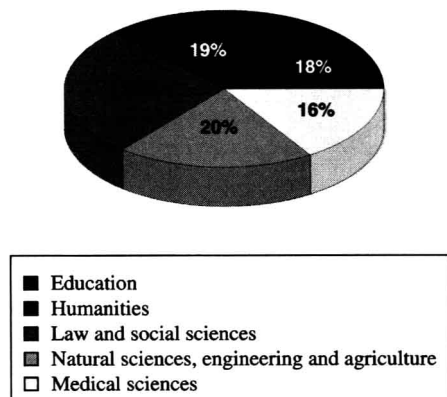
in conjunction with a thesis research project. The MED degree is awarded at the University College of Education following two-years of post-graduate study and completion of a thesis research project. Doctoral level training is only offered at the University of Iceland. There are two types of doctoral programs: a doctor of philosophy degree in Icelandic literature, language, and history and one that is not based on a predefined course of studies, but instead involves independent research by a candidate. As a rule, admission to doctoral programs requires completion of a professional degree (*candidatus*) or a master's degree.

Although there is no general legislation governing higher education, each institution is directly responsible to the Ministry of Education, Science, and Culture. The law pertaining to the operation of each institution defines its mission as related to education and research, the internal structure, and administrative roles. Within the framework outlined by the state, each university or college designs and updates the aims, scope, and length of programs offered as well as the content of courses.

Students in Iceland have a long history of traveling abroad to study, with 20 percent of higher education students (mostly post-graduate) studying overseas at any given time. The number of foreign exchange students enrolled in Icelandic universities and colleges has increased throughout the last several years. In response to their presence, the number of short intensive Icelandic courses has expanded along with services designed to enrich the daily lives of foreign students. For example, excursions and lectures pertaining to the country and Icelandic society are regularly available.



### Tertiary Education -- Students Enrolled by Field of Study



Source: UNESCO, "World Education Report 2000" pp. 160 - 163

## ADMINISTRATION, FINANCE, & EDUCATIONAL RESEARCH

The Icelandic parliament is responsible for education in Iceland, developing the basic objectives and administrative framework. More specifically, all forms of education fall under the jurisdiction of the Ministry of Education, Science, and Culture. Directed by a Secretary General, the Ministry is divided into three offices: 1) the Office of the Minister and Secretary General, which encompasses four departments (Administration, Financial Affairs, International Relations, and Legal Affairs), 2) the Office of Educational Research and Development, and 3) the Office of Cultural Affairs. Each of the offices is supervised by a Director General. The Ministry is directly responsible for insuring that legislation is implemented, planning system changes, and issuing educationally-based regulations. For example, the Ministry issues National Curriculum Guidelines for compulsory and upper-secondary schools that offer detailed educational objectives with specific information pertaining to how they should be met. However, responsibility for compulsory education shifted from the State to authorities within the local municipalities. While upper-secondary schools are managed by school boards with representation from the Ministry, the local authority, teachers, and students, higher education institutions are the sole responsibility of the Ministry. In general, supervision of education occurs at the local level with final responsibility residing with the Ministry. Eight regional authorities share responsibility for primary education; each authority, headed by a superintendent, appoints an education council of three to five members for four year terms. The eight educational regions are further subdivid-

ed into districts with local school boards responsible for running primary schools.

Between 1968 and 1995 an experimental Lab-school operated in conjunction with the University College of Education. The teachers experimented with various teaching methods and arrangements. Many of them were active in teacher education, and were promoters of topics such as educational drama, team teaching, integrated curriculum, the Scottish storyline approach, media-studies, hands-on science, new math, creative writing and inquiry-based reading instruction.

For more than a decade, two funds have assigned grants to developmental projects at the compulsory school level. Each year between 40 and 60 projects are provided support. The projects differ in size and scope, but most are small scale projects dealing with curriculum development in a limited area, small surveys, special education efforts, particular teaching projects, the compilation of curriculum materials or experimentation with teaching methods or assessment procedures.

Ingvar Sigurgeirsson, an Icelandic educational researcher, attempted to identify the extent to which innovative teaching methods have been adopted in schools throughout the country. Head teachers and deputy heads in 200 Icelandic schools (96.6 percent of all compulsory schools in 1994) were interviewed. Respondents in 28 schools (14 percent) emphasized that alternative (to the traditional model) teaching methods were frequently applied (thematic studies, topic work, work with various resources) in their classrooms. The remainder continued use of the traditional form of teaching. Despite this, pedagogical research has expanded dramatically and there has been considerable growth related to teaching ideas and models. In particular, research has focused on cooperative learning, "effective school" and "effective teaching" research, developments in authentic and constructivist learning, and the assessment and promotion of teacher research.

## NONFORMAL EDUCATION

An Adult Education Act was introduced in the Althing in 1979 as an effort to organize and coordinate the various educational programs available for adults in Iceland. The Reykjavik School of Adult Education was founded in 1939 and is operated by the city. A variety of afternoon and evening courses are offered. Similar schools run by local authorities have been established throughout the country. In addition, there are private adult education schools devoted to adult education in foreign languages, fine arts, and music.

A few compulsory school and upper-secondary institutions have courses open to mature students. These

schools have evening classes with programs comparable to those offered during the day in traditional schools and designed to meet the needs of adults with daytime commitments. Upper-secondary schools generally have educational counseling available to assist students in the selection of programs of study, design of a plan of study, and with academic and personal problems.

Distance education has a relatively strong presence in Iceland. A number of college courses and a few college programs are offered using only network communication. For example, the College of Education at the University of Iceland offers a B.Ed. distance education program. Available data gathered from both lecturers and students suggest some discrepancy in their views regarding the efficacy of the program. The majority of the lecturers felt that all of the aims of the curriculum were equally well-served in the distance program and the traditional program. However, students expressed a need for face-to-face courses as a supplement to the distance learning. A few secondary schools in Iceland have likewise adopted distance learning programs. For example, one program evolved in a rural school based on widespread adult interest in evening courses. When the interest spread beyond commuting distance, correspondence courses and a distance learning program were instituted to fulfill the need.

The Adult Education Center is located in Reykjavik with annexes in other locations throughout the country. Students range in age from 17 to 67 years and the center provides short courses for people who do not have access to other educational opportunities. The courses provide training for independent or semi-independent living to people possessing widely varying physical and psychological handicaps with the goal of enhancing their quality of life. The curriculum is divided into basic living skills training, reading, writing, arithmetic, computer skills, physical exercise, swimming, home economics, arts and crafts, music, and drama. The format of education is very flexible and the each student has his or her own curriculum that is constantly evaluated and modified. As is characteristic of other forms of education in Iceland, there is a strong emphasis on values and needs of the individual.

## TEACHING PROFESSION

All teachers in Iceland are civil servants with the nature and length of training varying as a function of the educational level. Although preschool teachers are generalists and compulsory education teachers are specialists in one or more subject areas, at both levels, teachers must complete a three-year bachelor of education course of study. Upper-secondary teachers finish a four-year BA or BS degree in addition to 30 credits in pedagogy and didactics.

Teachers in Iceland's preschools complete a 3-year course of study that is two-thirds academic or theoretical

and one-third practical at either the Icelandic College for Preschool Teachers or at the University of Akureyri. In-service training for preschool teachers is not officially mandated by law, yet preschool personnel frequently supplement their education after working for 3 or more years in a preschool setting.

Compulsory education teachers complete a three-year course at a teacher training college, and as with preschool teaching, participation in in-service training is not mandatory. However, collective bargaining agreements enable teachers to attend training sessions.

Legislation requires upper-secondary general academic school teachers complete at least four-years of university-level education. A minimum of two years needs to be devoted to a major subject and one year to the study of education and instructional methodology. Teachers of vocational subjects must be qualified in their field or be a master craftsman with a minimum of two years experience working in the trade in addition to one year of study in education and instructional methodology. Teachers are paid by the state but hired locally. In-service training courses are held annually for upper-secondary school teachers.

Teacher education in Iceland has a history extending more than a century and leading to the founding of the Iceland University of Education. Legislation in 1997 resulted in the merging of three other colleges with the former University College of Education (founded in 1907). These three colleges were the Icelandic College of Early Childhood Education, The College for Developmental Therapists, and the College of Physical Education at Laugavatn. There are two departments at the Iceland University of Education (the Department of Undergraduate Studies with five divisions and the Department of Graduate Studies).

The postgraduate program offers courses ranging from 15 to 60 units for professionals in education and social work. Study at this level is largely in the form of distance education, with a few periods of residency required. Students either complete their training with a diploma in Education (15-30 units) or with a Med degree (60 units). A full year of study is 30 units. Graduate students specialize in administration, curriculum and instruction, educational theory, special education or educational technology. Approximately 200 students are enrolled in graduate programs.

Icelandic teachers show considerable interest in keeping up with current developments in the education field. Most seminars, workshops, and in-service courses are well attended as are education conferences. A relatively large Institute of Continuing Education also operates within the University. The main purpose of the

Institute is to provide education for professionals in education and social work. In addition, the Institute occasionally provides training for other groups and fosters research and development projects. There is a strong emphasis on distance learning and use of information technology within the Institute.

The Iceland University College of Education has approximately 170 faculty members and other permanent staff. All assistant, associate, and full professors teach and maintain a program of research. The University of Iceland has a Department of Education within the Faculty of Social Sciences. This Department offers a Teaching Certification Program designed to train lower-secondary and upper-secondary school teachers. The program is for four years (129 units) and involves specialized study in a particular discipline (BA/BS) along with one year of instructional methodology. An average of 50 students graduate from the program each year.

The University of Akureyri is the youngest of the three Universities offering teacher training. The Faculty of Education began operation in the Fall of 1993 with a BEd program for compulsory school teaching. A Pre-school Program and a Teaching Certification Program are offered as well. The Compulsory School Program has a special focus on science and training teachers for small rural schools. In 1998 the Ministry of Education, Science, and Culture released a report of an extensive external assessment of the Teacher Certification Program at the University of Iceland, the programs offered at the University College of Education, and both the Compulsory School Program and the Teaching Certification Program at The University of Akureyri. The review team, chaired by Dr. Benjamin Levin, Dean of the Continuing Education Division at the University of Manitoba, concluded that all three programs were making ambitious efforts to meet the needs of teachers in training. They commended the Icelandic institutions' use of information technology in teacher education training, concluding that efforts went well in comparison to similar institutions in other nations.

The team also identified areas needing more focused attention. For example, they recommended more long-range planning or a vision. Future aspirations seemed to be contingent upon the actions of others such as the Ministry, and the review team felt that the faculty at each institution should develop a public document outlining their plans for initial and continued training, graduate programs, and research. Other recommendations included greater coordination among the three institutions related to curriculum development, continuing education efforts, and access to and delivery of distance education, increased availability of computer facilities, the need for more active collection of student data, and improving conditions for research.

Teachers in Iceland have historically been relatively poorly paid by international standards. However, there is evidence that this trend is reversing. According to a wage contract, upper-secondary teachers with a BA or BS will receive a starting salary of US\$2,083 rising to \$2,380 by 2004. According to the previous contract, the minimum starting wage was US\$1,309. Teachers with 10 to 15 years of experience will receive raises of US\$773. The agreement also included fewer compulsory overtime hours. Although the status of teaching as an occupation has been rather low in the past, there is evidence to suggest that this is changing. One recent study of the vocational plans of Icelandic teenagers revealed that becoming a primary school teacher ranked in third place.

## SUMMARY

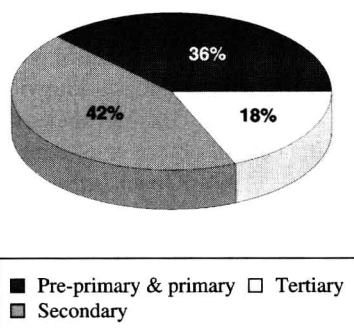
Compulsory education in Iceland is targeted for all children between the ages of 6 and 16, with those desiring to continue their education beyond the compulsory period pursuing programs of study of various forms in upper-secondary schools. A matriculation certificate from an Icelandic general academic upper-secondary school or an equivalent from an abroad institution is necessary for admission to a higher education institution. There are also a number of technical, vocational, and specialized upper-secondary schools that prepare students to enter the workforce upon completion of required class work and supervised practical experiences. Higher education is offered at three universities in Iceland and several colleges provide training in the arts, agriculture, technology, pre-school education, and physical education.

The majority of Icelandic schools at all levels are fully supported by the State (over 90 percent), yet private schools have become more common. Students with special education needs are usually taught in inclusive-type classrooms, with less than 1 percent of the special needs population educated in separate schools. More than 80 percent of Icelandic children between the ages of 3 and 5 are enrolled in fee-based pre-compulsory education.

The Ministry of Education, Science, and Culture generally oversees the curriculum and publishes a National Curriculum Guide for all levels of compulsory education and for both vocational and academic upper-secondary education. The curriculum guides also contain recommendations pertaining to teaching and assessment; however, teachers actually choose their own methods of classroom assessment and may adopt preferred instructional methods. No general legislation governs higher education in Iceland, but each institution is held accountable to the Ministry. Laws define the mission of each institution with respect to education and research, the internal structure, and administrative roles. However, each university or college is granted relative autonomy



**Percentage Distribution of Educational Expenditures by Level**



Source: UNESCO, "World Education Report 2000" pp. 168 - 171

to develop and update the aims, scope, and length of programs.

Icelanders have an admirable respect for and interest in their past as well as a contemporary perspective that embodies enthusiasm for current trends and technology and careful planning for the future. Public education in Iceland combines a long history of devotion to learning, cultural values (tolerance, open-mindedness, responsibility to others), emphasis on the unique educational and socio-emotional needs of individual students, and appreciation for contemporary pedagogical knowledge.

Various cultural factors have unfortunately impeded the process of modernization of the educational system in the country over the last few decades. For example, the system has been one that has been highly regulated by a national government that has swayed considerably in terms of support for educational reform based on differing political party agendas. Another problem has been that language barriers have limited teachers' access to primary educational literature. Efforts to evaluate strengths and weaknesses of the education system at all levels have been less than systematic. Further, Icelandic teachers have been underpaid and the profession has tended not to be one associated with high status.

Nevertheless, several recent trends suggest that the future will bring a respectable system to compete with the best educational systems in the world. These trends include the following: 1) unified effort on the part of the state and the public to more effectively replace traditional teaching practices with contemporary ones by developing specific methods for translating accepted theory into practice, 2) transfer of many educational operations from the state to the local level, 3) more focused effort to gather data on school effectiveness, teaching competence, and teacher training, 4) higher pay for teachers and higher sta-

tus associated with the profession, and finally 5) enhanced interest and use of technology in the classroom.

Iceland has experienced profound cultural shifts over the course of the last century from gaining independence to radical changes in the economy. Compared to transformations that occurred relative to these other realms, modifications to the educational system have been far less dramatic. However, with the consciousness shared by the government, industry, businesses, and the public, it seems inevitable that Icelanders will work to put their ideas into practice.

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