

OE-14095
Bulletin 1964, No. 9

EDUCATION IN SCOTLAND

ELLEN M. DOHERTY, *Research Assistant*
in collaboration with
GEORGE A. MALE
Specialist in Comparative Education
for Western Europe



U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Anthony J. Celebrezze, *Secretary*

Office of Education
Francis Keppel, *Commissioner*

U. S. DEPOSITORY COPY

DO NOT DISCARD

Superintendent of Documents Catalog No. FS 5.214 : 14095

U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1963

**For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C., 20402 - Price 25 cents**

Contents

	<i>Page</i>
Historical Background.....	1
Administration.....	2
General School Provisions.....	4
Types of Schools.....	6
Finance.....	6
Preschool or Nursery Education.....	9
Elementary School Education.....	11
Secondary Education.....	12
Further Education.....	15
Universities.....	18
Teachers and Teacher Training.....	19
Scholarship Provisions.....	22
Other Schools.....	23
Special Education and Training.....	23
Adult Education.....	26
Educational Research.....	27
Audiovisual School Services.....	27
Glossary.....	29
Scottish University Degrees.....	30
Selected References.....	31
Chart I: Scottish School Organization.....	8
Text tables:	
1. Timetable suggested for various elementary school subjects: by year and hours per week.....	10
2. Enrollment by age and year in Scottish public and state-aided elementary schools: January 1961.....	11
3. Enrollment in secondary schools by age and year: January 1961....	14
4. Number of 40-minute classes per week in senior secondary schools: by subject and year.....	15
5. Full-time and part-time enrollments in central institutions and further education centers, by subjects: Year ending July 31, 1961.....	18
Appendix tables:	
A. Population data and number of students, by various classifica- tions: school population and levels of education: Scotland. July 1961.....	37
B. Number of schools, by type and level: Scotland, July 1961.....	38
C. Number of certificated teachers, by degree level and area of em- ployment: Scotland, October 1961.....	39
D. Universities, by degrees offered, and length of courses: Scotland..	40
E. University enrollments by faculties, full- and part-time students: 1960-61.....	44
F. Full-time teaching staffs employed in universities, by rank: 1960-61.....	45
G. Scottish universities' income, by sources: 1960-61.....	46

Historical Background

Scotland has long cherished the ideal of a comprehensive school system with education available to everyone according to his ability to profit from it. Available evidence indicates the existence of schools in Scotland back to the beginning of the 12th century. A claim is made that Scotland's Act of 1496 was the first compulsory education act in Europe.¹ It required the sons of barons and freeholders to be sent to school from the age of 8 or 9 until they had perfect command of Latin and then to remain 3 years at the schools of art and "jures." The act does not appear to have been effective, and education continued to be associated with the churches. The First Book of Discipline in 1560 outlined a plan drawn up by leaders of the Reformed Church by which each town was to have a school and each parish a schoolmaster. Resources to carry out the provisions were often inadequate, but the ideal persisted, and the Scottish Parliament in 1696 decreed that it should be the duty of every parish to provide a "commodious house for a school" and salary for a teacher. Until the 19th century the churches and religious groups had principal responsibility in carrying on educational activities. With the advent of industrialization, private voluntary bodies and then the state began to play an important part in education.

The Education (Scotland) Act of 1872, considered the landmark in Scottish education, transferred the administration of government-aided schools in Scotland from church bodies (except Roman Catholic and Episcopal) to popularly elected school boards. These boards, nearly 1,000 in number, were empowered to levy taxes to meet school expenses, enforce school attendance of all children 5 to 13 years of age, and to provide evening schools for those over 13 years old. The Scottish Education Department was set up to supervise the system and administer grants from the British Parliament. In 1885 the Secretary for Scotland (later the Secretary of State) became the Vice President of the Scottish Education Department responsible to the Parliament for the administration of education in Scotland. Various acts since then have extended provisions for public education. The 1918 act

¹ Gibson, W. J. *Education in Scotland*. London: 1919. p. 37.

abolished the school boards and substituted 38 county and urban educational authorities chosen by local voters. It also ended the "dual system" by taking over voluntary (denominational) schools, subject to certain conditions designed to preserve their denominational character. It extended free education to the secondary school level. It gave the aforementioned authorities power to establish nursery schools or to aid already established private nursery schools, and to furnish financial assistance to promising students in secondary education or at universities. The authorities were also empowered to provide library service for the adult population. In 1929 the existing authorities were abolished and county and town councils were designated to act as the new educational authorities for their respective areas. The 1945 act, a counterpart of the English Act of 1944, made few changes, since many of its provisions were already in effect in Scotland. It raised the school-leaving age to 15, provided for further education on part-time basis for 15-18-year-olds, and for the registration of all private schools and for their subsequent inspection. The acts of 1949, 1955, and 1956 dealt with various minor aspects of education, principally with the duties and powers of the education authorities.

Administration

The administration of education in Scotland involves a partnership of central and local authorities. The Scottish Education Department exercises general control and direction from the national level, while local governmental units (education authorities) provide and manage schools within their respective areas.

The central functions of public education (excluding universities) are administered by the Scottish Education Department under the direction of the Secretary of State for Scotland.² The Scottish Education Department is separate from that of England and Wales, although the same Parliament legislates for all three. The department has headquarters in St. Andrews House, Edinburgh, with a liaison office in London for necessary contacts with Parliament, with the Ministry of Education of England and Wales, and with other government offices or departments.

The various Education (Scotland) Acts have conferred upon the Secretary of State certain powers and duties. The Scottish Educa-

² He is also responsible to Parliament for the Department of Agriculture and Fisheries for Scotland, Scottish Home and Health Department, and the Scottish Development Department.

tion Department on his behalf supervises the administration of these acts. The responsibilities of the department include supervision of education at elementary and secondary levels as provided by local education authorities; review of proposals of education authorities for new school buildings or the improvement of existing ones; inspection of schools; review of provisions of education authorities for "further education"; conducting the annual examinations for the Scottish Certificate of Education (previously the Scottish School Leaving Certificate) awarded normally on completion of 4 or 5 years of secondary schooling approved by the department; control of parliamentary grants; general supervision of "approved schools"; supervision of the training of teachers at colleges of education, and their certification; regulation of the standard scale of salaries for teachers on the recommendations of the National Joint Council, which is composed of representatives of the teaching profession and the education authorities; maintenance of the teachers' pension scheme; general administration and inspection of services relating to care of children without a normal home life. The Secretary of State is authorized to make financial allowances to Scottish students attending full-time courses in higher education.

An inspectorate within the Scottish Education Department has responsibility for seeing that department regulations are carried out. A senior chief inspector who coordinates the work of the inspectors heads the inspectorate. The country is made up of five divisions, each one under the administration of a chief inspector. The divisions are further subdivided into districts, each with one or more district inspectors. The inspector visits schools and reports on the premises, staffing, standards of work, and where necessary, offers guidance on curriculum and methods of instruction.

An Advisory Council of Education in Scotland advises the Secretary of State. Its members represent the views of those interested in education—universities, education authorities, the teaching profession, business and industry, etc. The council may appoint committees to make reports on various educational topics. Regional advisory councils may be established to advise education authorities and other managers of schools and educational establishments on the development of certain branches of education.

At the local government level, the town councils of the cities of Aberdeen, Dundee, Edinburgh, and Glasgow, the 29 county councils, and the two joint councils of Moray-Nairn and Perth-Kinross make up the 35 education authorities responsible for providing and directing education within their areas. Each education authority appoints

an education committee to which it delegates most of its powers, the principal exceptions being those involving the raising and expenditure of funds. The education committee consists of members of the council and outside persons experienced in education and aware of the needs of the various schools in the area. The education committee must include at least two persons nominated by churches in the area, and one to represent a denominational school managed by the education authorities.

The more important responsibilities of the local education authorities include: the provision of all forms of elementary, secondary, and further education in their respective areas, including facilities for recreation and physical training; the provision of books, stationery, and other materials free of charge; the provision in counties of books for general reading; the enforcement of school attendance, and exemption in certain cases for students over 14 years of age; arrangement of transportation for students as necessary, or payment of reasonable traveling expenses; providing medical inspection and treatment, milk supply, school meals, and clothing for students inadequately clad; special education for handicapped children, appointment and dismissal of teachers; payment of teachers' salaries; payment of students' fees in certain cases, and granting financial assistance to help students continue their education.

General School Provisions

All children 5 to 15 years of age are required by law to receive adequate education, unless there is an acceptable excuse, such as continued illness or lack of a suitable school with free education within a reasonable distance. The school year normally is 200 days extending from the end of August to about the end of June, and includes three terms, divided by Christmas and Easter holidays of about 2 weeks each, and summer vacations of about 7 weeks. The actual dates of the school year are fixed by the education authorities. The schoolday is generally from 9 a.m. to 4 p.m., with one hour off for lunch; a 5-day schoolweek is used. The Scottish law requires that a Progress Record Card in a prescribed form be kept of each student's attendance. When the student transfers to another school, his card must be sent to his new school.

Though not required to do so, education authorities may provide religious education in the denomination acceptable to parents. The time of such instruction must be specified on the school timetable approved by the Secretary of State, but he is prohibited by statute

from inspecting or influencing such religious instruction. In areas where there are large numbers of Roman Catholic children, schools are usually established separately for them. All grant-aided schools accept students of any denomination, but parents have the right under the "conscience clause" to withdraw their children, if they so desire, from any religious instruction or religious observance in the school without prejudice to the secular instruction given to the child. Religious instruction in all public grant-aided schools follows a syllabus prepared by a Joint Committee on Religious Education, representatives of the Scottish churches, the Education Institute of Scotland, and the Association of Directors of Education in Scotland. Exceptions to the rule are the former private schools taken over by the education authorities under the Education Act of 1918, and a few other public schools. In the case of the private schools managed by the education authorities, the religious instruction is supervised by the responsible denomination.

Education authorities, through their School Health Service, provide for examinations at regular intervals of all children in public or grant-aided schools, and for the treatment of any physical, visual, or dental defects found. Local authorities arrange for immunization against diphtheria and whooping cough. Vaccination against poliomyelitis is available, and during the year 1960-61, 80 percent of the schoolchildren had received two injections. Children 10 years and over are tuberculin tested, and vaccinated against tuberculosis when advisable.

Education authorities also may provide child guidance services for handicapped, backward, or difficult children; advise parents and teachers; and in certain cases, provide special treatment at child guidance clinics. There were 24 main clinics for children in 1961-62, including 2 with residential accommodations, and 33 subsidiary clinics. In thinly populated areas, education authorities usually employ educational psychologists who visit schools for counseling and guidance purposes.

Youth Employment Services, operated either by education authorities with approval of the Minister of Labor or by the Ministry of Labor directly, collect and disseminate information regarding employment opportunities for young persons. They advise youths up to 18 years of age or over, if they are still in school, as to choice of career, and assist them in finding suitable employment; they also assist employers in filling vacancies for young workers. Education authorities in 12 areas representing 64 percent of the total school population provided such youth employment services in 1960-61.

The Education (Scotland) Act of 1918 requires education authorities to provide for the teaching of Gaelic in Gaelic-speaking areas. Although their number is diminishing, there were in 1960 about 1,400 children in school who spoke only Gaelic; and a larger number who spoke both English and Gaelic. In the former group, Gaelic is the language of instruction in the regular school subjects until the pupils' knowledge of English is sufficient for instruction in the language. Gaelic is taught as a subject for both groups throughout the elementary school. At the secondary level, it may be studied for the Scottish Certificate of Education examination.

Types of Schools

Scottish schools, elementary and secondary, fall into three categories:

- (1) "public schools" which are under the management of the local government and receive grants from the Secretary of State;
- (2) "State-aided" schools conducted by private managers which receive grants from the Secretary of State, and are required to meet standards set by the School Code and the Secretary of State. (There were 49 state-aided schools in 1961 with an enrollment of 21,788.)
- (3) "independent schools" managed by private agencies and receiving no grants from the Secretary of State.

A voluntary, or private school (usually denominational), which the act of 1918 allowed to be transferred to the management of the education authorities with provision for maintaining its denominational character, is known as a "transferred school."

As of September 1957, independent schools must be registered and meet the requirements of the Secretary of State as to standards of conduct and efficiency. The Secretary of State may serve notice of complaint with the proprietor of any independent school he considers objectionable due to unsatisfactory premises, inadequate facilities, inefficient or unsuitable instruction. Upon receiving such notice, the school officials may appeal to an Independent School Tribunal consisting of the sheriff of the county and two educators appointed by the Secretary of State. The tribunal may either uphold the appeal and order the complaint dismissed, or confirm the complaint and order the school removed from the register or the premises disqualified for use as a school.

Finance

Total educational expenditures for Scotland are estimated to be approximately \$294 million annually—about \$56 for each inhabitant. The central government supplies about two-thirds of the money and local sources about one-third.

Funds to finance public education come from exchequer grants (money from the Royal Treasury of Britain voted by Parliament in London) and from such local sources as local government taxes (rates), fees, and endowments. That part provided by the exchequer consists mainly of general and specific grants paid to the local education authorities by the Scottish Education Department. However, money is also provided by Parliament in the form of grants paid by the treasury to Scottish universities on the advice of the University Grants Committee; grants from the Department of Agriculture and Fisheries for Scotland to agricultural "central institutions"; and grants from the Ministry of Labor for Youth Employment Services.

Most of the national funds given to local education authorities by the Scottish Education Department are general grants, but specific grants are made, such as funds for milk and meals. The department also makes direct grants to some central institutions and to various organizations providing facilities for further education, to teacher-training authorities, to some voluntary secondary schools, also for residential educational development and research, and for special educational services. Some of these organizations also receive grants from local educational authorities.

The Scottish Education Department is responsible for payment of teachers' pensions, the costs of inspecting educational establishments, and for conducting the Scottish Certificate of Education examinations.

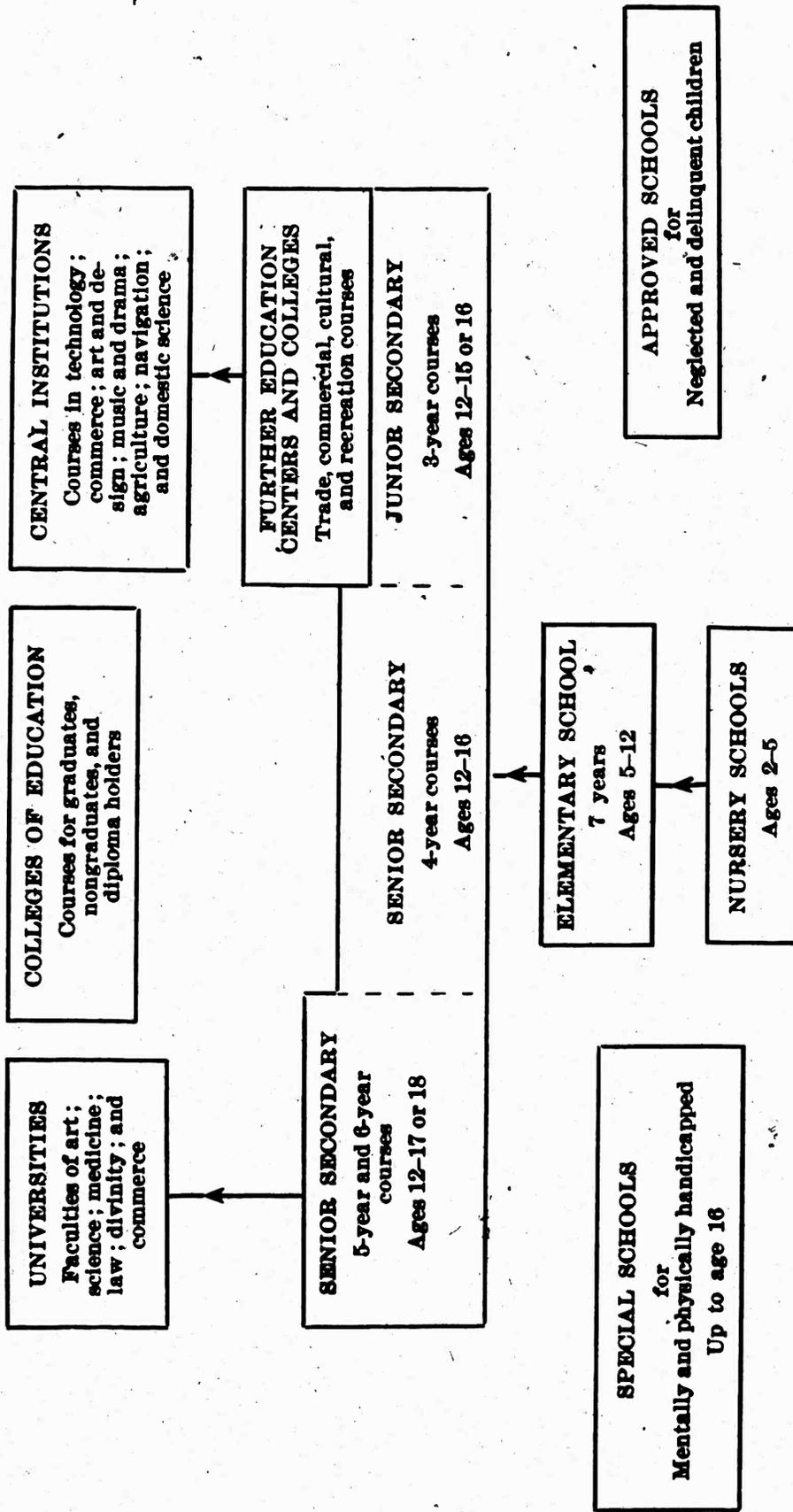
The cost of new buildings is usually provided for by loans; the interest and repayment are met by the local education authorities and the central government in the same manner as other school expenses. The salaries of teachers are paid by the authority employing them and according to the salary scale set by the Secretary of State with advice of the National Joint Council.

Education authorities may grant financial aid to students for short courses, for part-time study, and to students over 15 still in school. These bursaries and allowances are paid in accordance with regulations made by the Secretary of State. In certain cases where students attend schools charging fees, the education authorities may pay such fees.

Educational endowments are a traditional feature of Scottish schools, and provide an estimated annual income of \$1,932,000. This amount excludes other endowments of Scottish universities yielding annual income of \$560,000 for general purposes and about \$308,000 for scholarships, bursaries, and so forth; and income from the Carnegie Trust for Universities of Scotland of about \$344,000.³

³ Scottish Education Department. *Public Education in Scotland*. Edinburgh. 1961. H.M. Stationery Office. p. 61.

Chart I.—Scottish School Organization¹



¹ Adapted from *Public Education in Scotland*. Edinburgh: Scottish Education Department, 1961.

For the year 1961-62, the total expenditures of the education authorities were estimated as \$272,272,000, distributed percentagewise as follows:⁴

	Percent		Percent
Administration	2.2	School health service ¹	1.5
Salaries of educational staff --	52.0	County library service8
Maintenance of schools, etc. --	19.1	Capital expenses	9.5
Contributions to other educa-		Expenditures under Care for	
tion establishments	1.4	Children and Young Persons	
Bursaries (aid to students) ---	3.8	Act (Scotland)5
School meals, milk, services --	8.4	Other8

Preschool or Nursery Education

The 1946 act requires the education authorities to provide nursery schools or classes, where there is sufficient demand. Nursery education is provided in three ways: (1) nursery schools for children 2 to 5 years old; (2) nursery-infant schools for children 2 to 7 years old, with the 5-7-year-old division corresponding to the lower infant section of the elementary school generally; (3) nursery classes attached to the "infant" division of the elementary schools. Local conditions such as density of population, existing school provisions, and available sites usually determine the type of nursery education in an area.

The aims of the nursery schools or classes are to provide the child with the proper environment for natural development both as an individual and as a social being and to assist him in becoming self-reliant when he enters the elementary school. By regular medical checkups, any physical defects are discovered early. Most nursery schools are small, with 30-40 pupils. Some have a long day program with two or three meals, while others have a shorter day with perhaps one meal. All provide for a rest period. Shortages of buildings, equipment, and staff have hampered development, and long waiting lists exist at most nursery schools.

In 1958, the Scottish Council for Research in Education in its *Survey of Nursery Schools in Scotland* indicated that most of the public nursery schools and classes were in the cities of Edinburgh, Glasgow, Aberdeen, and Dundee, and in the counties of Ayrshire, Dumfriesshire, Fife, Lanarkshire, and Renfrewshire. Four other counties had one public nursery school each, but the remaining 22 counties had no provision for the schools. The council's survey pointed out that for children of the appropriate age, nursery education was available for 1 child in 20 in Scotland. In 1961, there were 5,449 pupils and 115 teachers in 164 nursery classes.

⁴ Scottish Education Department. *Education in Scotland in 1961*. Edinburgh. 1962. Cmnd. 1673. H.M. Stationery Office. p. 102-103.

Elementary School Education

Elementary schools provide 7 years of education for children 5 to 12 years of age. Classes in elementary schools are numbered PI through PVII. Usually, the 7 years are taken in one school, although in a few cases the first 2 years, known as the infant division, may be housed separately or with nursery classes; and in some instances, the elementary and secondary departments are housed in one school. The form of organization is determined by the education authorities of the particular locality.

The School (Scotland) Code requires that pupils shall be given instruction in reading, writing, and arithmetic; in the use and understanding of spoken and written English; music, art, and handwork; nature study; physical training; and, in appropriate classes, in history, geography, written composition; and for girls in needlework. Responsibility for planning the program of studies rests with the education authorities in consultation with the head teacher. Thus, programs may be adapted to the needs of various localities. The programs

Table 1.—Timetable suggested for various elementary school subjects: by year and hours per week ¹

Subjects	Year		
	Primary II	Primary IV	Primary VII
Hours per week			
English:			
Spoken English.....	2½	2	1
Speech training and recitation.....	1½		
Reading.....	3½	3½	4½
Composition.....		1½	2
Spelling.....		1½	¾
Nature study.....	¾	1	1
Arithmetic.....	3	4	4
History.....		¾	1
Geography.....		¾	1
Handwriting.....	1½	1	½
Art, handwork, needlework.....	2	3	3
Music.....	1½	1½	1½
Health education, games, etc.....	1½	2½	2½
Total.....	17½	22½	22½

¹ Adapted from Scottish Education Department. *The Primary School in Scotland*. Edinburgh, 1960. p. 2-12.

Table 2.—Enrollments by age and year in Scottish public and state-aided elementary schools: January 1961.

Age	Enrollment of students by year										Total
	PI	PII	PIII	PIV	PV	PVI	PVII	Backward or retarded classes			
1	3	3	4	5	6	7	8	9			10
Number under 5	2,368	2									2,370
5	70,379	2,219	6								72,604
6	15,631	65,427	2,108	4				33			83,203
7	318	17,870	61,289	2,213	11			143			81,844
8	32	436	19,208	57,864	2,426	10		255			80,231
9	7	30	776	19,461	56,526	2,305	18	326			79,449
10	6	11	75	1,213	21,312	55,424	2,336	459			80,836
11	1	3	7	106	1,561	21,739	56,232	415			80,064
12		2	2	19	91	1,405	20,814	141			22,474
13		1	2	1	14	44	227	23			312
Total	88,742	86,001	83,473	80,881	81,941	80,927	79,627	1,795			583,387
Normal age for year	5	6	7	8	9	10	11				

Adapted from *Education in Scotland in 1961*. Scottish Department of Education. Edinburgh: H.M. Stationery Office, Cmnd. 1673. 1962. p. 112-113.

of work for the school must be approved by the inspector in charge of the district in which the school is located.

The size of the classes varies, although the number of pupils under one teacher normally is restricted to 45. As a rule, no formal tests mark the end of elementary education. Transfer to secondary school takes place between ages 11½ and 12½ years. Following are the elementary school statistics for 1961.⁵

Elementary enrollments	583,387
Elementary schools	2,320
Secondary schools with elementary departments	525
Teachers employed in elementary departments	18,118

Secondary Education

After completing elementary school, students enter either a junior secondary or a senior secondary school, usually between ages 11½ and 12½. In each local school area a promotion board made up of representatives of the education authorities and teachers supervises the transfers. Upon the basis of teachers' recommendations, intelligence and attainment tests, the students are assigned to secondary school courses which are considered best suited to their talents and abilities. Due regard is given to parents' wishes, and parents who are dissatisfied with the promotion board's decision may appeal to the Secretary of State; an investigation is then made and a report given by the Chief Inspector for the area. A reconsideration of the student's original assignment may be made later if it seems desirable for him to attend a different type of school. Most secondary schools enroll both boys and girls, but some of the older schools in the larger cities are for boys or for girls alone. Comprehensive schools with junior and senior secondary courses in one building are usually found in smaller towns; larger towns may have both courses in the same building or in separate schools. Each education authority is free to adopt a form of organization best suited to the particular needs of its area.

There is no standardized curriculum for secondary schools and each head teacher plans the work for his school. The School (Scotland) Code, however, requires that the plan of work be approved by the inspector of the district in which the school is located.

The junior secondary schools provide general education courses of 3 years for students who expect to leave school at 15 years of age

⁵ Scottish Education Department. *Education in Scotland in 1961*. Edinburgh: H.M. Stationery Office, 1962. p. 111-112, 130.

(when compulsory education ends). The junior secondary school course usually includes religious instruction, English, history, geography, arithmetic, science, art, music, and physical education. Boys generally take handcraft, and the girls take homecraft and/or commercial subjects. The abler students may take a foreign language.

No external examination is taken or certificate is received by students upon leaving school at the age of 15. The school may provide a school-leaving record showing the courses they followed, their proficiency in the subjects taken, certificates of distinctions received, and their participation in school activities.

The senior secondary school provides 4-, 5-, and 6-year courses, beginning at about the age of 12. Approximately 30 percent of the youth enter the senior secondary program, which prepares for the Scottish Certificate of Education (previously the Scottish School Leaving Certificate) awarded by the Scottish Department of Education.

The examination for the School Leaving Certificate, in effect through 1961, was open to secondary school students only, at approximately age 17, and was given at a higher and a lower grade in March of each year. Starting in 1962, the Scottish Certificate of Education replaced the Scottish School Leaving Certificate. Examinations for this certificate are open to students from further education establishments, to individual candidates sponsored by education authorities and other recognized bodies, as well as to senior secondary school students. The examination is given in the different subjects at a higher and an ordinary grade. The ordinary grade replaces the School Leaving Certificate lower grade, and may be taken a year earlier—in the fourth year when the student is about 16 years of age. The higher grade remains the same as it was for the School Leaving Certificate. The examinations for the Scottish Certificate of Education are held each year in May instead of March as previously. Students take the examinations in the subjects and at the grade considered by their school officials to be appropriate for them. They receive certificates (passes) for the subjects in which they are successful, and admission to a university or other institution, or to professional bodies, depends upon their obtaining the required number of passes. For example, admission to a university usually requires a minimum of four passes at the higher grade, or three at the higher and two at the ordinary.

The senior secondary school curriculum is geared to the requirements for the certificate examinations, and students are required to study only those subjects they intend to take in the examination.

These usually include English; history and geography; one, two, or three foreign languages; mathematics; science; art and music. The student may also elect other subjects, including technical and commercial subjects, domestic subjects, and agriculture, depending on the size and resources of the school. Normally, physical education is included throughout the course.

Students in the sixth year comprise two groups. First are those concerned with obtaining additional passes for the certificate at either the Higher or Ordinary grade which they did not get in the fifth year. The second group is not concerned with the certificate examinations and take postcertificate courses for which some schools offer special classes of advanced instruction in certain subjects.

In 1961, 18,562 candidates were presented for the Scottish School Leaving Certificate examinations.* According to official reports in 1961, 10,626 certificates were awarded, approximately 4,660 of which were at a level which met the minimum requirements for university admission.

Table 3.—Enrollment in secondary schools by age and year: January 1961¹

Age	Number of students by year						Total
	SI	SII	SIII	SIV	SV	SVI	
1	2	3	4	5	6	7	8
10.....	19						19
11.....	2,432	9					2,441
12.....	61,164	2,192	16				63,372
13.....	27,312	64,297	2,795	13			94,417
14.....	1,838	26,507	55,188	1,132	2		84,667
15.....	15	458	6,979	11,449	512	2	19,415
16.....	3	12	476	4,692	7,613	385	13,181
17.....		1	16	497	3,684	4,109	8,307
18 and over.....			2	22	632	1,182	1,838
Total.....	92,783	93,476	65,472	17,805	12,443	5,678	287,657

¹ Adapted from Scottish Education Department. *Education in Scotland 1961*. Edinburgh: H.M. Stationery Office, Cmnd. 1673. 1962. p. 112-113.

* Scottish Education Department. *Education in Scotland in 1961*. Edinburgh: H.M. Stationery Office, Cmnd. 1673. 1962. p. 120.

Table 4.—Number of 40-minute classes per week in senior secondary school: by subject and year ¹

Year	I	II	III	IV	V	VI
Subjects	Classes per week					
	1	2	3	4	5	6
English.....	5-6	5-6	5-6	5-6	5-6	
Classics.....	5	5	5	7	7	
Modern languages.....	5	5	5	7	7	
History.....	2	2	2	6	6	
Civics, religious and moral education.....	2-3	2-3	2-3	2-3	2-3	2-3
Geography.....	2	2	2	6	5	
Mathematics.....	6	6	6	5-6	5-6	
Natural science, physics, chemistry, practical and laboratory work.....	6	6	6	7	7	
Technical, commercial, domestic subjects.....	6	6	6	8	8	
Physical education.....	3	3	3	3	3	
Art.....	2	2	2	8	8	
Music.....	2	2	2	8	8	

¹ Adapted from UNESCO/International Bureau of Education. *Preparation of General Secondary Curricula*. Paris/Geneva: the Organization/the Bureau, 1960. p. 330+.

Note:

Not all of the above subjects are taken by any one student, but usually 40 periods per week are selected. The IVth- and Vth-year time allotments are for the abler students. The less able would perhaps take 1 hour less each of modern and classical languages; 3 hours less respectively of history, geography, technical, commercial, domestic subjects, art, music; and 2 hours less of science. The minimum, however, remains the same for all students. The time allotment for the VIth year would depend upon the subjects and degree of specialization of the student.

Further Education

Two types of establishments provide "further education" courses in Scotland: Further education centers and central institutions.

Local technical colleges known as further education centers offer vocational education courses on the secondary school level for students who leave school at age 15. The centers are maintained by education authorities and offer both full-time and part-time training. The full-time courses, usually 1 to 3 years in length, include basic elementary training in the field of industry, or the craft which the student may desire to follow—such as the building industry, agriculture, baking and catering, domestic service, commercial or office work, nursing and training for engineering technicians. Young employed persons may take evening part-time courses on their own time, or they may be

released 1 day a week from regular work on the employer's time. "Sandwich classes," lasting 4 or 5 years, involve alternate periods (usually 6 months) of full-time theoretical education in a technical college and full-time work in industry.

The courses in further education centers may lead to (1) the National Certificate, or (2) The National Diploma, awarded either by the school or jointly by the appropriate professional bodies and the Scottish Education Department.

The National Certificate courses involve part-time study. The Ordinary National Certificate is awarded after completion of a secondary school course of about 3 years which the student begins at the age of 15 years or over. The Higher National Certificate is granted after examination following completion of 2 or 3 years of part-time study beyond the Ordinary National Certificate.

The National Diploma courses are full-time programs. The Ordinary National Diploma is awarded after completion of a 2-year course by a student at approximately 17 or 18 years of age. The Higher National Diploma is awarded for approximately 3 years of study, which may be "sandwich courses." Admission to the Higher National Diploma course normally requires completion of full secondary education, or possession of the Ordinary National Diploma. These awards are generally regarded as qualifications for employment in the trade or technical fields rather than as academic achievements.

Central institutions generally concentrate on more advanced or specialized training in fields of technology or the professions. They are established on a regional or national basis and provide part-time as well as full-time day and evening classes. Responsibility for their administration rests with independent governing bodies which include representatives of local education authorities, of business and industry, and the arts. The 3 colleges of agriculture among the 16 central institutions are under the control of the Department of Agriculture and Fisheries for Scotland and receive government grants through that department. The other 13 central institutions come under the supervision of the Scottish Education Department which administers grants given by the national government to these institutions.

The central institutions offer courses at the higher education level in many fields of commerce, industry, or the professions. Admission requirements are usually similar to those for the universities, except that a foreign language is not needed. The full-time courses lead to the associateship and diplomas awarded by the central institutions with the approval of the Secretary of State. The associateship requires 3 or 4 years of study and is usually recognized as equivalent to a university degree. The central institutions prepare students

for the Higher National Diploma, for examinations of the City and Guilds of London Institute, for the intermediate and final examinations of professional bodies, and in some courses, for the external degrees of the University of London.

Following is a list of the present central institutions:

Dundee Institute of Art and Technology, Dundee

Edinburgh and East of Scotland College of Agriculture, Edinburgh

Edinburgh College of Art, Edinburgh

Edinburgh College of Domestic Science, Edinburgh.

Glasgow and West of Scotland College of Domestic Science, Glasgow

Glasgow College of Commerce, Glasgow

Glasgow School of Art, Glasgow

Heriot-Watt College, Edinburgh

Leith Nautical College, Edinburgh

North of Scotland College of Agriculture, Aberdeen

Paisley Technical College, Paisley

Robert Gordon's Technical College, Aberdeen

Royal Scottish Academy of Music, Glasgow

Royal College of Science and Technology, Glasgow

Scottish Woollen Technical College, Galashiels

West of Scotland Agricultural College, Glasgow

North of Scotland College of Agriculture and Robert Gordon's Technical College are associated colleges of the University of Aberdeen.⁷ All agriculture students at the first institution are matriculated students of the university. Robert Gordon's Technical College and the university officials cooperate in providing courses leading to the university B. Sc. (engineering) degree, and to diplomas or associateship of the college in civil, mechanical, and electrical engineering.

Heriot-Watt College is affiliated with the University of Edinburgh and offers courses for the university B. Sc. in mining engineering, chemical technology, and for the associateship in mechanical, civil, electrical and chemical engineering, applied chemistry, and other courses. The Edinburgh School of Agriculture is an associated college of the same university and offers university courses in agriculture.

The Royal College of Science and Technology and the West of Scotland Agriculture College are associated with the University of Glasgow.⁸ The Royal College of Science and Technology has been affiliated with the University of Glasgow since 1913 and recognized by the University Grants Committee since 1919. It provides courses for honor degrees at the university in civil, mechanical, and mining engineering; applied chemistry; pharmacy; architecture; applied bacteriology; food and textile sciences; and in applied mathematics and applied physics for the ordinary B. Sc. (technology) degree. Courses

⁷ *Commonwealth Universities Yearbook 1962*. London: The Association of Universities of the British Commonwealth, 1962. p. 1229.

⁸ *Commonwealth Universities Yearbook 1962*. London: The Association of Universities of the British Commonwealth, 1962. p. 1244, 1260, 1268.

Table 5.—Full-time and part-time enrollment in central institutions and further education centers, by subjects: Year ending July 31, 1961¹

Subjects	Full-time students		Part-time students			
	Central institutions	Further education centers	During work hours		Outside work hours	
			Central institutions	Further education centers	Central institutions	Further education centers
Total, all subjects-----	7, 184	5, 559	5, 421	32, 262	16, 053	207, 703
Vocational:						
Agriculture and forestry, building, chemistry and allied subjects, clothing and textiles, engineering-----	3, 283	2, 563	4, 385	26, 190	6, 594	37, 169
Commerce, librarianship, management, secretarial, wholesale and retail distribution-----	669	1, 562	560	3, 477	3, 950	36, 854
Domestic science, catering, etc-----	1, 584	1, 339	47	2, 193	341	2, 203
The arts, architecture, drawing and painting, sculpture, music, speech, and drama, etc-----	1, 619	-----	429	24	509	82
General and adult: Nonvocational, including general education and recreation-----	29	95	-----	378	4, 618	121, 245
Teachers and leaders-----	-----	-----	-----	-----	41	10, 150

¹ Adapted from *Education in Scotland in 1961*. Scottish Education Department. Edinburgh: H.M. Stationery Office, Cmnd. 1672. 1962. p. 121, 122-123.

leading to an associateship in these branches are also offered. The West of Scotland Agriculture College offers university courses in agriculture.

Universities

Scotland has four universities: University of Aberdeen, University of Edinburgh, University of Glasgow, and University of Saint Andrews. Three were founded in the 15th century and one in the 16th. St. Andrews (1411), Glasgow (1451), and Aberdeen (1494) were ecclesiastical foundations. Edinburgh University was founded in 1583 by the town council which continued control of it to 1858.

The Scottish Education Department exercises no jurisdiction over the universities. Their relationships with the department are mainly concerned with the training of teachers, the provision of adult education, and the award of scholarships and bursaries. The universities are self-governing and autonomous institutions. They establish their own courses of study, award their own degrees, formulate policies as to student admissions, and are free to appoint or choose their professors and lecturers. The universities receive aid from the state in the form of grants allocated from money voted by Parliament and administered by the University Grants Committee. Approximately 75 percent of university income is from the Parliamentary grants. Other sources of income consists of endowments, donations and subscriptions, grants from local authorities, and fees paid by students.

The academic year at Scottish universities is usually from October to June with 3 terms of 10 weeks each. For admission, all applicants must hold a Certificate of Attestation which is issued by the Scottish University Entrance Board to those who prove their educational fitness. Scottish applicants usually obtain admission on the basis of their Scottish Certificate of Education (Scottish School Leaving Certificate) and/or the Scottish Universities Preliminary Examination. A minimum of four passes at the higher grade, or three at the higher and two at the lower grade at not more than two sittings of the Scottish Certificate of Education Examination, is usually required.

The degrees offered by each of the four universities are listed in table B in the appendix, together with the length of the courses. While the first degree in the science field is called a bachelor's degree, its equivalent in the humanities (arts) is called an M.A. The term "bachelor of arts" is not used.

Teachers and Teacher Training

Scottish teachers take their professional training at colleges of education. The four main institutions—Dundee College, Jordahill College (Glasgow), Aberdeen College, and Moray House College (Edinburgh)—train both men and women; and maintain close connections with the local universities. In addition, there are three other colleges for women—Notre Dame College in Glasgow, Craiglockhart College in Edinburgh, and Dunfermline College of Physical Education, Aberdeen. Each college is managed by its own governing body, and is free in the control of its own routine affairs and academic matters generally. The governing bodies are made up of representatives of education authorities, universities, the teaching profession,

churches, and others. The Scottish Department of Education is responsible for regulations as to the subjects and the extent of the courses of training. The Scottish Council for the Training of Teachers (made up mainly of members from the governing bodies) acts as an advising and coordinating office to help the governing bodies with general policy and plans for development, and to assist the Secretary of State in the recruitment and training of teachers. Local authorities provide approximately 40 percent and the Scottish Department of Education 60 percent of the finances required for teacher training in Scotland.

The programs of study at the colleges of education lead to three types of teachers' certificates issued by the Secretary of State:

(1) *The Teacher's General Certificate* for teachers of elementary school subjects. It is awarded to those who hold a university degree and complete 1 year of professional training at a college of education, or to those who complete a 3-year course at the college of education.

(2) *The Teacher's Special Certificate* for teachers of one or more of usual academic subjects in secondary schools. It is awarded to holders of university degrees with first or second honors who complete a 1-year professional training course.

(3) *Teachers Technical Certificate* for teachers of technical subjects, art, applied science, agriculture or horticulture, commercial subjects, domestic science, physical education, handwork, and music. It is awarded to those with a university degree or technical diploma who take 1 year of teacher training. Some handcraft and homecraft and all physical education teachers take their 1 year of professional training concurrently with their subject training.

For the years 1962-63 and 1963-64, to obtain admission to the 3-year course leading to the Teacher's General Certificate, a person must pass the examination for the Scottish Certificate of Education with:

Two passes on the higher grade and three passes on the lower or ordinary grade obtained in not more than two sittings of the examination; or
two passes on higher and four on the lower or ordinary grade; or
three passes on higher and one on lower or ordinary grade; or
four passes on higher in not more than three examination sittings.

From 1964-65 on, the minimum requirements on the basis of the Scottish Certificate of Education will be:

Four passes on the higher grade; or
three passes on the higher grade and two on the lower or ordinary; or
two passes on higher grade and three on the lower grade; or
two passes on the higher grade and four on the ordinary grade with no limitations on the number of sittings. One higher pass must be in English and one pass in arithmetic or mathematics.

* *Scottish Education Journal*. May 18, 1962. p. 378.

The 1-year program for university graduates or holders of technical diplomas consists mainly of teacher-training courses, including methods, practice teaching, psychology, and education. The 3-year undergraduate program includes academic courses and teacher training. All men planning to teach, except holders of diplomas in technical subjects, art, music, and physical education, must be university graduates.

In 1961-62, the professional teacher-training enrollment was 5,514 in courses leading to various certificates.¹⁰ (See table A.)

Teachers employed by education authorities are paid on a scale set by the Secretary of State in consultation with the National Joint Council to deal with Salaries of Teachers in Scotland. These scales vary with type of qualifications and length of service. Regulations governing teachers' salaries are usually reviewed every 3 years. As of April 1961, women teachers are to receive pay equal with men.

The following salary scale for Scottish teachers came into effect July 1, 1961, under the Teachers Salaries (Scotland) Provisional Regulations 1961:¹¹

Elementary and Secondary Schools

<i>Scale I</i> —Secondary school teachers with 1st- or 2d-class honors degree.	\$2,352—\$4,480, by 10 annual increments.
<i>Scale II</i> —Secondary school teachers with 3d-class honors degree.	\$2,268—\$4,480, by 12 annual increments.
<i>Scale III:</i>	
Secondary school teachers with ordinary degrees; art teachers; certain vocational and music teachers.	\$2,156—\$3,724, by 12 annual increments.
Elementary school teachers with ordinary degrees; certain music and vocational teachers.	\$1,904—\$3,472, by 12 annual increments.
<i>Scale IV</i> —Physical education teachers; certain vocational teachers.	\$1,722—\$3,472, by 14 annual increments.
<i>Scale V</i> —Elementary teachers trained 4 years at colleges of education; certain music teachers; teachers of agriculture, speech and drama.	\$1,750—\$3,108, by 14 annual increments.
<i>Scale VI</i> —Elementary teachers trained 3 years at colleges of education; certain music and vocational teachers.	\$1,568—\$2,996, by 14 annual increments.
<i>Scale VII</i> —Certain vocational teachers-----	\$1,540—\$2,520, by 14 annual increments.
<i>Scale VIII</i> —Certain uncertificated teachers-----	\$1,484—\$2,338, by 14 annual increments.

¹⁰ Scottish Education Department. *Education in Scotland in 1961*. Edinburgh: Cmd. 1673. 1962. p. 132-133.

¹¹ Scottish Education Department. *Education in Scotland in 1961*. Edinburgh: Cmd. 1673. 1962. p. 80-81.

Further Education Centers

<i>Grade I</i> —Teachers with 1st- or 2d-class honors degrees doing advanced work.	\$2,688—\$4,900, by 10 annual increments.
Teachers with 1st- or 2d-class honors degrees doing intermediate work.	\$2,548—\$4,900, by 12 annual increments.
<i>Grade II</i> —Teachers with ordinary degrees doing intermediate work.	\$2,198—\$3,976, by 12 annual increments.
<i>Grade III</i> —Teachers without degrees (includes those with diplomas).	\$1,918—\$3,612, by 13 annual increments.

Teachers serving in remote areas, or those with special responsibilities as principal teachers, deputy head teachers, infant mistresses, and teachers of handicapped children, may be given increases above the basic salary scale. However, the highest salary payable is \$8,918.

Teachers must retire on reaching age 70 unless postponement of such retirement is approved by the Secretary of State, or they may retire at age 60 or earlier if disabled for teaching. Regulations prescribe that retirement contributions be paid by teachers and employers alike. Upon retirement a lump sum and an annual pension are payable, calculated on the teacher's average salary for the last 3 years of service. The lump sum is calculated on $1/30$ (of average salary) for each year of service up to September 30, 1956, and $3/80$ for each year of service thereafter. The pension is calculated on $1/80$ for each year of service up to a maximum of 45 years. A teacher retiring after 43 years of service with 39 years prior to October 1, 1956, and an average salary for the last 3 years of service of \$3,080 would receive:

(a) a lump sum of $39/30$ of \$3,080, or.....	\$4,004
plus $12/80$ of \$3,080, or.....	462
	4,466
(b) an annual pension of $43/80$ of \$3,080, or.....	1,655

Scholarship Provisions

Financial assistance is available to students in higher education through scholarships or bursaries offered by the universities on the basis of competitive examinations, and through students' allowances provided by the Secretary of State. The latter replaced the grants formerly handled by the education authorities as of October 1961.

University fellowships, scholarships, bursaries, and prizes are provided through income from endowments. One-half of the income of the Carnegie Trust for the Universities of Scotland, founded in 1901 with a capital of \$5,600,000, is used to assist needy students of Scottish

nationality or descent. The University Grants Committee stated that in 1960-61 approximately 72.8 percent of the university students were receiving some amount of financial assistance.¹²

A new system of grants aid to students from public funds came into effect in October 1961. The Secretary of State is responsible now for students' allowances to those taking full-time courses at universities, or colleges of education before entering teaching service; and to those in advanced full-time or "sandwich" courses at further education establishments. Under this plan it is expected that every qualified student will receive the financial assistance he needs, and that the conditions upon which awards are made will be uniform throughout the country. The maximum students' allowance includes the amount of the necessary fees; a maintenance allowance (\$518 for those living at home and \$686 for those away from home); and, in certain cases, allowances for dependents and additional special allowances.

The maximum allowance is paid for students whose parents' income is not more than \$1,960—\$2,520 if there is another child of the family in school, and \$3,080 if there are two other children of the family in school. As the family income increases, the student's allowance decreases, with consideration given to the number of other dependents in the family. The allowance may also be decreased if the amount of the student's income, including other awards, exceeds \$280. A minimum of \$140 is payable in all cases.¹³ Under the new central arrangement, approximately 20,000 awards were made for the year 1961-62.¹⁴

Other Schools

Special Education and Training

Scottish education authorities are responsible for providing properly maintained and supervised schools for children and young people who need special training or guidance for social adjustment. A number of "special" schools and classes offer educational treatment

¹² University Grants Committee. *Returns from Universities and University Colleges in Receipt of Treasury Grants Academic Year 1960-61*. London: H.M. Stationery Office, Cmd. 1855, 1962. p. 4.

¹³ Scottish Education Department. *Public Education in Scotland*. Edinburgh: H.M. Stationery Office, 1961. p. 21 and 22.

¹⁴ *Educational Developments in 1961-62, Scotland*. Report presented to the XXVth International Conference on Public Education, Geneva, July 1962. p. 13.

for children who are mentally and physically handicapped. "Approved schools" are also provided for the education and training of children who have been guilty of an offense or, in the opinion of the court, need care and supervision.

The age limit for children in programs for the handicapped is 16 years. Instruction for blind students includes spoken English, arithmetic, training in braille in reading, writing, and in the case of the more advanced student, the operation of a typewriter. Those who appear gifted in music receive particular attention in that field. Students may study other subjects of the regular curriculum, and occasionally a blind student has passed subjects in the School Leaving Certificate examination. Classes for the blind are limited to 15 students.

In classes for the deaf, instruction is given in lipreading so that the deaf child slowly learns to speak, and for those who appear unable to benefit from this instruction, training in finger signs. Instruction in reading, writing, and other subjects is carried on in connection with oral training. A few partially deaf children have taken some subjects in the School Leaving Certificate examination. The classes for the deaf are limited to 10.

Other types of physically handicapped children generally receive normal instruction. Classes are usually limited to 25. The problem of irregular attendance is met by various means of individual instruction.

Mentally handicapped children receive instruction in reading, writing, and arithmetic, and also have practical work. Progress is determined by the students' individual ability. Classes are usually restricted to 20. Most areas have committees to help handicapped students after they leave school.

In January 1961, 10,425 students were receiving instruction in special classes; 9,343 were day students and 1,082 resident. Enrollments by various types of handicap were as follows:¹⁵

Deaf	478	Epileptic	45
Partially deaf.....	315	Speech defect.....	9
Blind	184	Maladjusted	218
Partially blind.....	191	Physically handicapped.....	1,443
Mentally handicapped.....	7,547		

The approved schools which attempt to rehabilitate children and help them adjust socially are open to those between the ages of 10 and 17, although the minimum admission age is 8 years, and some may be detained until they are 19.

¹⁵ Scottish Education Department. *Education in Scotland in 1961*. Edinburgh: 1962. p. 116.

The name "approved schools" is derived from the Children and Young Persons (Scotland) Act, 1937, which states that such children or young persons are sent to certain specified residential schools "approved by the Secretary of State." The Approved Schools (Scotland) Rules, 1961 deal with the conduct and management of the approved schools. These schools are generally conducted by private boards of managers with the Scottish Education Department assuming responsibility of seeing that the premises, staff, curriculum, health arrangements are satisfactory, and that the followup care of children leaving the schools is adequate. Of the 22 approved schools in Scotland, only 2 in Glasgow are conducted by education authorities.

Three types of approved schools exist: Junior approved schools for students admitted at 8-13 years of age; intermediate approved schools for those aged 12-15; and senior approved schools for ages 15-17. These age limits are not strictly adhered to and may change depending upon available accommodations and variations in peak age of delinquency. The schools are further classified by sex and creed. When a child is to be placed in an approved school, the education authorities seek through consultation with the Scottish Department of Education to find the school best suited for the child's needs, taking into consideration his age, educational record, and social background.

The schools endeavor to help young people through work in the classroom, gymnasium, and workshops, as well as in leisure-time activities, sports, and hobbies. School-age students in some approved schools attend classes in the regular day schools conducted by the education authorities of the area. In other approved schools, selected students attend the regular schools. The students who attend classes within the approved school receive instruction from qualified teachers: Older boys in such practical subjects as building, carpentry, painting, shoemaking, tailoring, agriculture, gardening; and the older girls in laundry, homemaking, dressmaking, and commercial subjects. Physical training is provided and the health of the students is carefully supervised.

In general, the cost of approved schools is shared by the education authorities and the national government. In some instances parents financially able contribute toward the support of their children, and the schools may have small incomes of their own from such sources as sale of produce, work done for private industry, or legacies.

After leaving an approved school, the student remains under the supervision of the manager for 3 years or until age 21, whichever is sooner. Reports made in 1961 regarding the students who left the approved schools in the year ending March 31, 1958, indicate that approximately 67 percent of the girls and 52 percent of the boys had

found regular employment; and that 77 percent of the girls and 47 percent of the boys had not been before the courts during the 3-year period.

In January 1961, there were 22 approved schools in Scotland, 15 for boys and 7 for girls, with a total enrollment of 1,473—1,289 boys and 184 girls.¹⁶

Adult Education

Since educational opportunities and facilities have long been greater in Scotland than in some other countries, adult education has been of a more voluntary nature with a less utilitarian purpose. Courses in adult education are carried out through collaboration of education authorities, the Workers Education Association, and the university extramural education committees. The classes are usually administered and financed by the local education authority under regulations of the Scottish Education Department. In some cases the universities pay part of the costs from their own funds.

Generally, the classes consist of a winter session of 20-24 meetings, or a term of 10 or 12 sessions. Classes usually meet 1 evening a week for 1½ or 2 hours. The programs include literature, foreign languages, social sciences, philosophy, religious studies, art, music, and drama. Over 14,000 are reported enrolled in these classes annually.

Newbattle Abbey College, a residential college of adult education at Dalkeith, was established in 1937. It offers 1-year courses for adults in the following subjects: English literature, philosophy, psychology, economics, British history, social and political theory, human relations in industry, mathematics, and French. Short intensive courses are also held, normally during holiday periods.

Another recent development known as "university weeks" consists of series of lectures by university professors in one place or area. Here intensive courses in further education are given in the space of about 1 week.

Other classes described as "cultural" have been provided by education authorities in physical recreation, such as country dancing, homecraft, handicraft, and hobbies. Reports indicate that approximately 83,000 are enrolled in these classes each year.

The Scottish Institute of Adult Education was formed in 1949 as the successor to the Scottish Branch of the British Institute of Adult Education. It serves as a center of information on research in edu-

¹⁶ Scottish Education Department. *Education in Scotland in 1961*. Edinburgh: H.M. Stationery Office, Cmd. 1673. 1962. p. 112.

cation, arranges for exchange of experiences between organizations concerned with adult education and publicizes new techniques in adult study. Three times a year it publishes *Scottish Adult Education*, a magazine containing news, comments, and articles on adult education.

Educational Research

The Scottish Council for Research in Education was established in 1927 to conduct research into various educational problems, and to publish its findings. The council is controlled by a body made up of representatives of the Educational Institute of Scotland, associations of education authorities, teachers, colleges of education, universities, and others interested in education. It is financed by grants from the Scottish Education Department and contributions from education authorities and the Educational Institute of Scotland.

The council has conducted research into such problems as evaluation of students' intelligence, methods of teaching various subjects, the prognostic value of examinations, and selection of students for secondary education. It has conducted research surveys on Gaelic-speaking children in elementary and secondary schools, on the value of nursery education, and the loss or retention of basic English/arithmetic skills by "minimum age" leavers. The council also publishes shorter bulletins in simple, less technical terms for teachers already in the classroom.

It furnishes advice, lends rare reference works, and in many ways assists outside individuals working on worthwhile research projects. The council also cooperates with similar research organizations outside of Scotland. The council in its annual report provides information and lists of publications relating to research projects in process, and mentions those that have been proposed.

Audlovisual School Services

Films program.—The Scottish Educational Film Association was set up in 1934 by teachers and others interested in the use of films for educational purposes in schools. It aids and advises the schools, conducts research into the use of various kinds of visual aids, and conducts special showings of films for children. The Scottish Film Council, a Scottish branch of the British Film Institute, is also concerned with the development of educational films. With the Scottish Educational Film Association, it reviews and assesses the relative merits and

qualities of existing films. A Joint Production Committee of these two bodies was formed in 1948, which later became Educational Films of Scotland. With financial aid from the Scottish Education Department, the Joint Production Committee assists in the development of education films by commercial firms and supervises government-made films. Since 1950, it has produced and placed in the Scottish Central Film Library 133 films, filmstrips, and sets of slides. Twelve films and three sets of slides were completed during 1961; 14 more were in production.

In order that teachers may have access to film supply sources, a Scottish Central Film Library was started in 1938, aided by a grant from the Carnegie United Kingdom Trust. About 80 percent of the films borrowed from the library are used in schools. As of April 1961, the library had 3,568 titles and 9,440 prints, of which 2,183 and 3,593, respectively, were sound. In 1961, the library issued over 61,089 reels of educational films to schools.¹⁷

Broadcasting.—Radio broadcasts for schools were begun by the British Broadcasting Corporation (BBC) in 1924. School broadcasts are now planned, prepared, and produced by the School Broadcasting Department of BBC with help and supervision from the School Broadcasting Councils (one for the United Kingdom as a whole and one each for Scotland and Wales). The councils represent education departments, school authorities, and teachers' organizations. The School Broadcasting Department of BBC sends out over 55 sound transmissions a week. The programs cover a variety of subjects and include a series for Scottish schools. Radio sets are now installed in 89 percent of all public and grant-aided schools in Scotland. In 1961, there were 2,688 schools reported as listening regularly and 191 occasionally in Scotland; 51 made no use of sets due to technical reasons.

Television programs for Scottish schools were begun in 1957 by BBC and ITA (Independent TV Authority) with a series of short programs. These were designed principally for junior secondary school courses. During the year 1960-61, BBC broadcast 10 TV education programs each week, and ITA 6. There were 353 schools equipped with TV receivers in 1961.¹⁸

During the 1960-61 school year, 269 schools in Scotland reported watching one or more series of transmissions regularly and 67 watched occasionally, and 17 other schools did not use their sets for various reasons.

¹⁷ Scottish Education Department. *Education in Scotland in 1961*. Edinburgh: H.M. Stationery Office, Cmd. 1678. 1962. p. 31.

¹⁸ *Ibid.*

Glossary

- Approved School**—a school approved by the Secretary of State for the education and training of children and young persons sent there by a court.
- Bursary**—financial allowance given by government to students attending educational institutions.
- Central Institution**—an institution of higher learning giving instruction in technology, art, domestic science, music, commercial subjects, or agriculture.
- College of Education**—a college for the training of teachers.
- Elementary School**—school providing education suitable for pupils from age 5 to secondary school, usually 7 years.
- Further Education Centre**—institution offering full- or part-time courses mainly vocational in nature, other than central institutions, universities, or colleges of education.
- General Certificate**—certificate recognizing the holder as qualified to teach elementary school subjects.
- Grant-Aided School**—school other than public school to which grants are made by the Secretary of State.
- Junior Secondary School**—secondary school offering 3-year courses for students up to 15 years of age.
- Independent School**—school other than public or grant aided which provides full-time education for five or more pupils of school age.
- Nursery School or Class**—training suitable for pupils aged 2 to 5.
- Public School**—any school under the management of an education authority.
- Senior Secondary School**—secondary schools offering 4-, 5-, and 6-year courses.
- "Sandwich" Course**—course involving alternate periods of full-time theoretical training in a technical college or a college of advanced technology with practical training in industry.
- Scottish Leaving Certificate**—certificate awarded on the results of an examination taken by most senior secondary school students at the end of a 5-year course. The examination is conducted by the Scottish Education Department. (Replaced by the *Scottish Certificate of Education* in 1962.)
- PI, PII, . . . PVII**—official method of numbering the classes in elementary schools or departments by yearly stages from the youngest class upward.
- SI, SII, SIII, . . . SVI**—official method of numbering classes in secondary schools or departments by yearly stages from the youngest class upward.
- Special Certificate**—a certificate recognizing the holder as qualified to teach the secondary school subjects in which he took first- or second-class honors.
- Special School**—school providing special educational treatment for pupils physically or mentally handicapped.
- Technical Certificate**—certificate recognizing the holder as qualified to teach such subjects as a branch of applied science or technical industry, domestic science, physical education or music.

Scottish University Degrees

Many of these degrees are awarded at different levels and are ordinary or honors degrees, such as M.A. (ord.) or M.A. (hons.). The curriculum for the honors degrees often involves courses distinct from corresponding ordinary degree courses, and usually requires a longer period of study—generally an additional year.

- B. Arch.—Bachelor of Architecture
- B. Com.—Bachelor of Commerce
- B.D.—Bachelor of Divinity
- B.D.S.—Bachelor of Dental Science
- B. Ed.—Bachelor of Education
- B.L.—Bachelor of Law
- B. Litt.—Bachelor of Letters
- B. Mus.—Bachelor of Music
- B. Phil.—Bachelor of Philosophy
- B. Sc.—Bachelor of Science
- B. Sc. (Appl. Sci.)—Bachelor of Science in Applied Science
- B. Sc. (Agr.)—Bachelor of Science in Agriculture
- B. Sc. (Eng.)—Bachelor of Science in Engineering
- B. Sc. (For.)—Bachelor of Science in Forestry
- B. Sc. (Pure Sci.)—Bachelor of Science in Pure Science
- B. Sc. (Tech.)—Bachelor of Science in Technology
- B.V.M. & S.—Bachelor of Veterinary Medicine and Surgery
- Ch. B.—Bachelor of Surgery
- Ch. M.—Master of Surgery
- D.D.—Doctor of Divinity
- D.D. Sc.—Doctor of Dental Science
- D. Litt.—Doctor of Letters
- D. Mus.—Doctor of Music
- D.V.M. & S.—Doctor of Veterinary Medicine and Surgery
- D. Sc.—Doctor of Science
- Ed. B.—Bachelor of Education
- LL.B.—Bachelor of Laws
- LL.D.—Doctor of Laws
- M.A.—Master of Arts
- M.B.—Bachelor of Medicine
- M.D.—Doctor of Medicine
- M.D.S.—Master of Dental Science
- M. Sc.—Master of Science
- Ph. D.—Doctor of Philosophy

Selected References

- Bereday, George Z. F., and Lauwerys, Joseph A., eds. *The Yearbook of Education 1950, 1951, 1952, 1953, and 1957*. Prepared under the auspices of the University of London Institute of Education and Teachers College, Columbia University. Yonkers-on-Hudson, N.Y., World Book Co. 1950, p. 239-258; 1951, p. 329-348; 1952, p. 179-195; 1953, p. 171-192; 1957, 228-234.
- Britton, Robert. "Tradition and Trend in Scottish Education." *Panorama 2*: 26-27, Autumn 1960. [Quarterly. Available from the World Confederation of Organizations of the Teaching Profession, Washington, D.C.]
- Commonwealth Universities Yearbook 1962—A Directory to the Universities of the British Commonwealth and the Handbook of Their Association*. The Association of Universities of the British Commonwealth, 36 Gordon Square, London. p. 1222-1280, 1455-1463.
- Craig, Hewan. "The Teacher's Function: Some Observations on the Aspect of the Teacher's Job in Scotland." *Journal of Educational Sociology*, September 1960. p. 7-16.
- Dent, H. C., ed. *The Yearbook of Technical Education and Careers in Industry 1962*. London: Adam & Charles Black. 1,200 p.
- Education in Britain*. Revised November 1960. London: Central Office of Information. London. 1960. 64 p.
- Education in Great Britain*. Revised August 1960. Reference Division. British Information Services. New York. p. 24-25, 35-37.
- Fraser, Elizabeth. *Home Environment and the School*. Publication of the Scottish Council for Research in Education (XI.III) London: University of London Press, Ltd., 1959. 83 p.
- Gibson, W. J. *Education in Scotland*. London and New York: Longmans, Green & Co., 1912. 151 p.
- Grant, James. *History of the Burgh Schools of Scotland*. London and Glasgow: Wm. Collins, Sons & Co., 1876. 571 p.
- Higher Education in the United Kingdom—A Handbook for Students from Overseas*. Published for the British Council and the Association of the Universities of the British Commonwealth. London: Longmans, Green & Co., 1958. 206 p.
- Jacobson, Edward S. "Junior Secondary Education in Scotland." *Comparative Education Review*, February 1962. p. 208-211.
- Kerr, Anthony. *Schools of Europe*. Westminster, Md.: The Canterbury Press. 1960. p. 121-130.
- . *Schools of Scotland*. Glasgow, Scotland: William McClellan, 1962. 213 p.
- . *Universities of Europe*. Westminster, Md.: The Canterbury Press. 1962. p. 118-126.

- Knox, H. M. *Two Hundred and Fifty Years of Scottish Education 1696-1946*. Edinburgh: Oliver & Boyd, 1953. 253 p.
- MacGregor, Gregor. *Achievement Tests in the Primary Schools, A Comparative Study With American Tests in Fife*. Publication of the Scottish Council for Research in Education (VI). London: University of London Press, Ltd., 1934. 136 p.
- Mackintosh, M. *Education in Scotland Yesterday and Today*. Glasgow: Robert Gibson & Sons, 1962. 248 p.
- MacMeeken, M. A. *The Intelligence of a Representative Group of Scottish Children*. Publication of the Scottish Council for Research in Education. (XV). London: University of London Press, Ltd., 1939. 143 p.
- MacPherson, John S. *Eleven-Year-Olds Grow Up*. Publication of the Scottish Council for Research in Education. (XLII). London: University of London Press, Ltd., 1958. 186 p.
- McClellan, William. *Selection for Secondary Education*. Publication of the Scottish Council for Research in Education. (XIX). London: University of London Press, 1942. 264 p.
- Morgan, A. *The Rise and Progress of Scottish Education*. Edinburgh: Oliver & Boyd, 1927. 234 p.
- . *Scottish University Studies*. London: Oxford University Press, 1933. 216 p.
- Scottish Council for Research in Education. *Educational and Other Aspects of the 1947 Scottish Mental Survey*. (XLI). University of London Press, 1958. 150 p.
- . *The Scottish Council for Research in Education—Its Aims and Activities*. (XXIV). London: University of London Press, Ltd., 1945. 46 p.
- . *Social Implications of the 1947 Scottish Mental Survey* (XXXV). London: University of London Press, 1953. xxiii+356 p.
- Scottish Education Department. *Education in Scotland in 1961. A Report of the Secretary of State for Scotland*. Presented to Parliament by the Secretary of State for Scotland by Command of Her Majesty, May 1962. Cmnd. 1673. 141 p.
- . *The Curriculum of the Senior Secondary School. Report of the Working Party*. Circular No. 412. Edinburgh: 1959. 11 p.
- . *Junior Secondary Education*. Edinburgh: H.M. Stationery Office, 1955. 286 p.
- . *Primary Education in Scotland*. Presented by the Secretary of State for Scotland to Parliament by Command of His Majesty. Edinburgh. Cmnd. 6973. 1946.
- . *The Primary School in Scotland*. Edinburgh: H.M. Stationery Office, 1950. 181 p.
- . *Public Education in Scotland*. Edinburgh: H.M. Stationery Office, 1961. 71 p.
- . *Pupils with Mental or Educational Disabilities. A Report of Advisory Council on Education in Scotland*. Presented to Parliament by the Secretary of State for Scotland by Command of His Majesty. 1951. H.M. Stationery Office, Cmnd. 8401. 59 p.
- . *Report of the Working Party on the Curriculum of the Senior Secondary School — Introduction of the Ordinary Grade of the Scottish Leaving Certificate*. Edinburgh: H.M. Stationery Office, 1959. 67 p.

- *Scottish Certificate of Education — Examination Arrangements 1963.* Edinburgh: H.M. Stationery Office, 1962. 91 p.
- *Technical Education in Scotland — The Pattern for the Future.* Presented to Parliament by the Secretary of State for Scotland by command of Her Majesty, January 1961. Edinburgh: H.M. Stationery Office, Cmnd. 1245, 1961. 15 p.
- Strong, John A. *History of Secondary Education in Scotland.* Oxford: The Clarendon Press, 1909. 303 p.
- Technical Education in Britain.* Central Office of Information. London: 1962. H.M. Stationery Office, 39 p.
- UNESCO/International Bureau of Education. *Education Planning 1962.* Paris/Geneva: the Organization/the Bureau, 1962. (Pub. No. 242) p. 176-7.
- *In-Service Training for Primary Education.* Paris/Geneva: the Organization/the Bureau, 1962. (Pub. No. 240) p. 157-159.
- *International Yearbook of Education 1961.* Paris/Geneva: the Organization/the Bureau, 1961. p. 421-425. (Pub. No. 236)
- *Organization of Pre-Primary Education.* Paris/Geneva: the Organization/the Bureau, 1961. (Pub. 230) p. 263-266.
- *Preparation of General Secondary School Curricula.* Paris/Geneva: the Organization/the Bureau, 1960. (Pub. No. 216) p. 312-314.
- *Primary Teacher Training.* Paris/Geneva: the Organization/the Bureau, 1950. (Pub. 117) p. 237-241.
- *School Inspection.* Paris/Geneva: the Organization/the Bureau, 1956. (Pub. No. 174) p. 344-346.
- *Secondary Teacher Training,* Paris/Geneva: the Organization/the Bureau, 1954. (Pub. No. 154) p. 175-177.
- *Teaching of Art in Primary and Secondary Schools.* Paris/Geneva: the Organization/the Bureau, 1955. (Pub. No. 165). p. 294-298.
- *Expansion of School Building.* Paris/Geneva: the Organization/the Bureau, 1957. (Pub. No. 184) p. 227-229.
- UNESCO. *World Survey of Education — Handbook of Educational Organization and Statistics.* Paris: the Organization, 1955. p. 650-667.
- *World Survey of Education II — Primary Education.* Paris: the Organization, 1958. p. 1046-1057.
- *World Survey of Education III — Secondary Education.* Paris: the Organization, 1961. p. 1171-1179.
- University Grants Committee. *Returns From Universities and University Colleges in Receipt of Treasury Grant Academic Year 1960-61.* London: H.M. Stationery Office, Cmnd. 1855. 1962. 48 p.
- *University Development, Interim Report on the Years 1957-1961.* London: H.M. Stationery Office, Cmnd. 1691. 1962. 28 p.

Periodicals

- Scottish Adult Education* published 3 times yearly by The Scottish Institute of Adult Education in April, August, and December.
- The Scottish Educational Journal* published weekly as the official organ of The Educational Institute of Scotland.

APPENDIX TABLES

Table A.—Population data and number of students, by various classifications: school population and levels of education: Scotland, July 1961¹

Population of Scotland.....	5, 183, 930
Population of compulsory school age, 5-14.....	864, 000
Percent receiving education.....	97. 7
Population age 15-17.....	228, 800
Percent receiving education.....	19. 1
<hr/>	
Grand total enrollment, all levels.....	1, 205, 333
<hr/>	
Receiving primary and secondary education, total.....	906, 922
<hr/>	
In public and state-aided schools, total.....	886, 918
<hr/>	
Nursery.....	5, 449
Elementary.....	583, 387
Secondary.....	287, 657
Special.....	10, 425
<hr/>	
In other schools, total.....	20, 004
<hr/>	
Receiving public education elsewhere than in schools.....	1, 220
Independent schools.....	17, 311
Approved schools.....	1, 473
<hr/>	
Receiving further education, total.....	274, 182
<hr/>	
Full-time study.....	12, 743
Part-time study.....	261, 439
<hr/>	
College of education enrollment for various certificates, total.....	5, 514
<hr/>	
General certificate.....	4, 088
Special certificate.....	308
Technical certificate.....	1, 091
General and technical.....	25
General and special.....	2
<hr/>	
University enrollment, total.....	18, 715
<hr/>	
Full-time study.....	16, 834
Part-time study.....	1, 881

¹ Adapted from *Education in Scotland in 1961*. Scottish Education Department. Edinburgh: Cmnd. 1673. 1962. p. 112, 141; and *Returns from Universities and University Colleges in Receipt of Treasury Grant Academic Year 1960-61*. University Grants Committee. London: H.M. Stationery Office, Cmnd. 1865. 1962.

Table B.—Number of schools, by type and level: Scotland, July 1961¹

Grand total, all schools.....	3,463
Public and state-aided, and special, total.....	3,301
Nursery.....	88
Elementary.....	2,320
Secondary, total.....	771
4- or 5-year senior secondary:	
With elementary departments.....	149
Without elementary departments.....	157
3-year secondary:	
With elementary departments.....	376
Without elementary departments.....	89
Special schools.....	122
Other schools.....	162
Independent, total.....	140
Fully registered.....	129
Provisionally registered.....	11
Approved schools.....	22

¹ *Education in Scotland in 1961*. Scottish Education Department. Edinburgh: H.M. Stationery Office, Cmd. 1673, 1962. p. 111.

Table C.—Number of certificated teachers, by degree level and area of employment: Scotland, October 1961¹

By degree level: total.....	38, 327
Graduates (holding university degrees).....	17, 475
Nondegree holders.....	20, 852
By areas of employment: total.....	38, 327
Nursery schools and classes.....	115
Elementary schools and classes.....	18, 118
Secondary schools and classes.....	15, 802
Special schools and classes.....	667
More than 1 school (organizers, supervisors, visiting and relief teachers).....	2, 072
Further education ²	1, 426
Administrative.....	127

¹ *Education in Scotland in 1961*. Scottish Education Department. Edinburgh: H.M. Stationery Office, Cmnd. 1672, 1962. p. 130, 74.

² Teaching in further education centers does not require certification. A total of 2,335 teachers was reported as employed in all further education establishments during the year.

**Table D.—Universities, by degrees offered and length of courses:
Scotland¹**

[See "Scottish University Degrees," glossary, for definitions]

UNIVERSITY OF ABERDEEN		<i>Length of courses (years)</i>
First degrees:		
<i>Ordinary degrees:</i> M.A., B. Sc., B. Sc. (agr.), B. Sc. (for.) B. Sc. (eng.).		3
<i>Honors degrees:</i> M.A., B. Sc., B. Sc. (agr.), B. Sc. (for.), B. Sc. (eng.).		4
M.B., Ch. B.		6
Higher degrees:		
Ed. B. (after 1st degree)		2
LL.B (after 1st degree)		2
B.D. (after 1st degree)		3
Research degrees:		
Ph. D. (after 1st degree)		3
M. Sc. (after 1st degree)		1 (at least)
D. Sc., D. Litt. (candidate admitted after 5-year interval from 1st degree; 2 years' residence may be required).		
LL.D. (candidate admitted 7 years after first degree).		
M.D., Ch. M. (candidate admitted if 24 years of age, after interval of 1 year from 1st degree).		
Honorary degrees: D.D., LL.D., D. Litt.		
Diplomas:		
Education (after 1st degree)		1
Statistics (after 1st degree)		2
D.P.H. (Diploma in Public Health): 1 year full-time study; 15 months full-, part-time, or 18 months part-time.		
No external degrees.		

UNIVERSITY OF EDINBURGH		
First degrees:		
<i>Ordinary degrees:</i>		
M.A., B. Sc. in pure science, engineering, and forestry; LL.B.		3
B. Sc. in agriculture, chemistry, technology, mining; B. Mus.		4
<i>Honors degrees:</i>		
M.A., B. Sc., in pure science, chemistry, technology, engineering, forestry, mining; LL.B.		4
B. Sc. in agriculture; B. Mus.		5
B. Com.		3
B. Arch., B.D.S., B.V.M.S.		5
M.B. and Ch. B.		6
Higher degrees:		
M. Arch., M. Sc., Ph. D. (after 1st degree)		2

¹ From the *Commonwealth Universities Yearbook 1962*. London: The Association of Universities of the British Commonwealth, 36 Gordon Sq., 1962. p. 1222-1230.

**Table D.—Universities, by degrees offered and length of courses:
Scotland—Continued**

UNIVERSITY OF EDINBURGH—Continued		<i>Length of courses (years)</i>
Higher degrees—Continued		
B. Ed., B.D. (after 1st degree).....		3
M.D., M.D.S. (approved thesis after interval of 2 years from 1st degree).		
D. Mus., D.V.M.S. (approved thesis or composition after interval of 3 years from 1st degree).		
Ch. M., D. Litt., D. Sc. (approved thesis or published work after interval of 5 years from 1st degree).		
LL.D. (approved work or thesis after interval of 7 years from 1st degree).		
Honorary degrees: M.A., LL.D., D.D., D. Mus., D. Litt.		
No external degrees.		
Diplomas:		
Actuarial mathematics (open to students previously admitted to Faculty of Actuaries).		2
Animal genetics; applied dynamics; applied linguistics; biology; education; electronics and radio; admin. law and practice; English studies; geography; general linguistics; phonetics; Islamic studies; rural science; social anthropology; social study; public health (open to graduates of appropriate university courses, usually honors).		1
Certificates:		
Educational studies (open to persons without degree holding teachers' certificate).		1
Medical social work (open to persons 21 years of age with social study degree or diploma).		1
Nursing studies (open to registered general nurses and graduates of approved university courses with nursing qualifications).		2
Psychiatric social work (open to holders of social study diploma or certificate or degree in sociology).		2
Public administration (open to those with qualifications equivalent to university admissions).		2
Social study (same as for public administration).....		2
UNIVERSITY OF GLASGOW		
First degrees:		
<i>Ordinary degrees:</i>		
M.A., LL.B., B. Sc. in pure science, B. Sc. in agriculture, B. Sc. in technology.		3
<i>Honors degrees:</i>		
M.A., LL.B., B. Sc. in applied chemistry, B. Sc. in architecture, B. Sc. in pharmacy, B. Sc. in pure science, B. Sc. in agriculture, B. Sc. in technology.		4
B. Mus.....		3

**Table D.—Universities, by degrees offered and length of courses:
Scotland—Continued**

UNIVERSITY OF GLASGOW—Continued	
	Length of courses (years)
First degrees—Continued	
B. Sc. in engineering (aeronautical, chemical, civil, electrical, mechanical, mining, architectural, naval)	4
B.D.S., B.V., M.S.	5
M.B., Ch. B.	6
Higher degrees:	
B. Litt., B. Educ., M. Sc. (science and engineering)	2
B.D. (bachelor of divinity), Ph. D. in all faculties	3
M.D. and Ch. M., M.V.S., D.V.M., M.D.S., D. Litt., D. Sc. (public health) for others than Glasgow graduates (no period stipulated for Glasgow graduates)	2
D. Mus. (other than Glasgow graduates)	3
LL.D. (open to graduates 7 years after 1st graduation)	
Honorary degrees: M.A., M. Sc., D. Litt., D.D., LL.D.	
Diplomas:	
Education (for holders of degrees)	1
Dramatic studies	2
Public administration	3
D.P.H. (public health); diploma for subjects of special study: Islamic history, Greek history and archeology; Roman history and archeology; comparative philology; Romance philology; psychology; agricultural economics; social geography; sociology.	1 (minimum).
Certificates:	
Social studies (degree holders, 1 year)	2
Dramatic studies	3
Industrial administration	1
Certificates in special studies: Semitic philology; Greek history; Roman history; Islamic history; psychology; and sociology.	1 (minimum).
UNIVERSITY OF ST. ANDREWS	
First degrees:	
<i>Ordinary:</i> M.A., B. Sc., B. Sc. in engineering, M.A. in social science.	3
<i>Honors degrees:</i> M.A., B. Sc., B. Sc. in engineering, M.A. in social science.	4
LL.B.	3
B.D.S.	5
M.B., Ch. B.	6
Higher degrees:	
Educ. B. (after 1st degree)	2
B.D. (after arts degree)	3
B. Litt.—by examination jointly with/or after M.A. honors degree.	

**Table D.—Universities, by degrees offered and length of courses:
Scotland—Continued**

UNIVERSITY OF ST. ANDREWS—Continued

*Length of courses
(years)*

Higher degrees—Continued

- B. Phil.—approved dissertation and 1-year interval from 1st degree.
- D. Sc.—7-year interval from 1st degree and approved thesis or published work.
- M.D., Ch. M.—1 year of scientific work bearing on profession after M.B. or Ch. B.
- M.D.S.—2 years of work related to profession after 1st dental degree and examination.
- D.D. Sc.—5-year interval from 1st dental degree and approved thesis embodying original research.
- Ph. D.—3 years of approved research after 1st degree.....
- D. Litt.—7-year interval from 1st degree and approved published work.
- LL.D.—7-year interval from 1st degree and approved written work.

Diplomas:

- Education—for degree holders..... 1
- Social administration—for degree holders..... 1 (minimum).
- D.P.H. (public health) and D.P.D. (public dentistry)—candidates admitted 1 year after receiving medical or dental 1st degree. 1

- Certificate: Social administration—for nondegree holders..... 2
- Honorary degrees: D.D. and LL.D.

Table E.—University enrollment by faculties, full- and part-time students: 1960-61¹

[Total enrollment, all institutions: Full-time students, 16,834; part-time students, 1,881]

UNIVERSITY OF ABERDEEN		UNIVERSITY OF GLASGOW	
Full-time students, total	2, 016	Full-time students, total	6, 223
<i>Faculties</i>		<i>Faculties</i>	
Arts (humanities)	899	Arts (humanities)	2, 008
Pure science	456	Social studies	433
Technology	137	Pure science	1, 453
Medicine	433	Technology	781
Agriculture and Forestry	91	Medicine	997
		Dentistry	238
Part-time students, total	243	Agriculture and forestry	84
		Veterinary science	229
UNIVERSITY OF EDINBURGH		Part-time students, total	230
Full-time students, total	5, 963	ST. ANDREWS UNIVERSITY	
<i>Faculties</i>		Full-time students, total	2, 632
Arts (humanities)	2, 614	<i>Faculties</i>	
Social studies	113	Arts (humanities)	998
Pure science	1, 124	Social studies	118
Technology	387	Pure science	775
Medicine	1, 027	Technology	180
Dentistry	254	Medicine	419
Agriculture and forestry	153	Dentistry	142
Veterinary science	291		
Part-time students, total	1, 328	Part-time students, total	80

¹ University Grants Committee. *Returns From Universities and University Colleges in Receipt of Treasury Grant—Academic Year 1960-61*. London: H.M. Stationery Office, Cmnd. 1855. 1962. p. 27.

Table F.—Full-time teaching staffs employed in universities, by rank: 1960-61¹

Institution	Professors	Readers and independent lecturers	Senior lecturers	Lecturers	Assistant lecturers	Others	Total
1	2	3	4	5	6	7	8
Total	220	61	325	914	298	71	1,889
University of Aberdeen.....	39	12	49	139	40	18	297
University of Edinburgh.....	66	35	107	312	117	637
University of Glasgow.....	68	6	113	299	101	49	636
St. Andrews University.....	47	8	56	164	40	4	319

¹ University Grants Committee. *Returns From Universities and University Colleges in Receipt of Treasury Grant—Academic Year 1960-61*. London: H.M. Stationery Office, Cmnd. 1855, 1962. p. 35.

Table G.—Scottish universities' income, by sources: 1960-61¹

	University of Aberdeen	University of Edinburgh	University of Glasgow	University of St. Andrews
Total	\$3,550,033.20 (100)	\$8,594,227.60 (100)	\$8,579,726.40 (100)	\$3,663,881.20 (100)
Endowments	106,940.40 (3.0)	227,203.20 (2.6)	319,480.00 (2.6)	84,352.80 (2.3)
Donations and subscriptions	11,460.40 (0.3)	60,222.40 (0.7)	21,982.80 (0.2)	7,954.80 (0.2)
Grants of local authorities	65,800.00 (1.9)	142,240.00 (1.7)	136,360.00 (1.6)	61,600.00 (1.7)
Parliamentary grants	2,820,448.40 (79.5)	6,494,670.00 (75.6)	6,403,387.20 (74.6)	2,903,980.80 (79.3)
Fees	288,201.20 (8.1)	866,776.40 (10.1)	845,829.60 (9.9)	377,554.80 (10.3)
Payments for research	142,592.80 (4.0)	422,856.00 (4.9)	537,045.60 (6.3)	111,720.00 (3.0)
Other	114,590.00 (3.2)	380,259.60 (4.4)	315,641.20 (3.6)	116,718.00 (3.2)

¹ University Grants Committee. Returns from Universities and University Colleges in Receipt of Treasury Grant—Academic Year 1960-61. London: H.M. Stationery Office, Cmnd. 1856, 1962, p. 39.