DOCUMENT RESUME

ED 151 265 95 SO 010 712

AUTHOR Bodenman, Paul S.
TITLE The Educational System of the Federal Republic of Germany.
INSTITUTION Office of Education (DHEW), Washington, D.C.
REPORT NO OE-76-19127
PUB DATE [76]
NOTE 27p.; Pages 4, 23-26 may not reproduce clearly in hard copy due to small type size in original document
AVAILABLE FROM Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (price not available)

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Admission (School); *Comparative Education; *Curriculum; *Educational Administration; Educational Assessment; *Educational Finance; *Educational Practice; Elementary Secondary Education; Enrollment; Foreign Countries; Higher Education; Primary Education; Private Schools; Public Schools; School Schedules; Special Education; Teacher Education; Vocational Education
IDENTIFIERS *West Germany

ABSTRACT

The history, administration, and structure of education in the Federal Republic of Germany, or West Germany, are described. In general, administration is centralized at the state level. Each state issues its own course of study, conducts secondary level examinations, revises curriculum, and approves textbooks. Building and equipment maintenance takes place at the local level. Federal government, states, and local units all participate in school finance. The educational system consists of preschool, a common four-year primary school, and a secondary level with three tracks including both general academic and vocational programs. Course requirements, evaluation programs, and graduation requirements of these programs are discussed at length. Schools for the handicapped and private schools are described, also. All teacher education occurs in institutions of higher education except that of kindergarten and vocational teachers. There are four types of higher education institutions: universities, colleges of education, colleges of the arts or sports, and specialized higher institutions, formerly higher technical schools. The pamphlet concludes with a glossary of German educational terms and a selected reading list. (AV)

THE FEDERAL REPUBLIC OF GERMANY

THE COUNTRY AND THE PEOPLE

Location: North-Central Europe.

Size: 95,930 square miles.

Main Subdivisions: 10 States (*Laender*) and West Berlin

Population: 61.2 million (1974 estimate)

People: An ethnically homogeneous German population (99 percent), with a small Danish minority along the Danish border. A large number of foreign workers and their families (2.4 million in 1972) have been in the country since the 1960's.

Official Language: German.

Literacy: 99 percent.

Type of Government: Federal republic.

Religion: Approximately 49 percent Protestant, 44.6 percent Roman Catholic, and 6.5 percent other.

THE BASIC SYSTEM

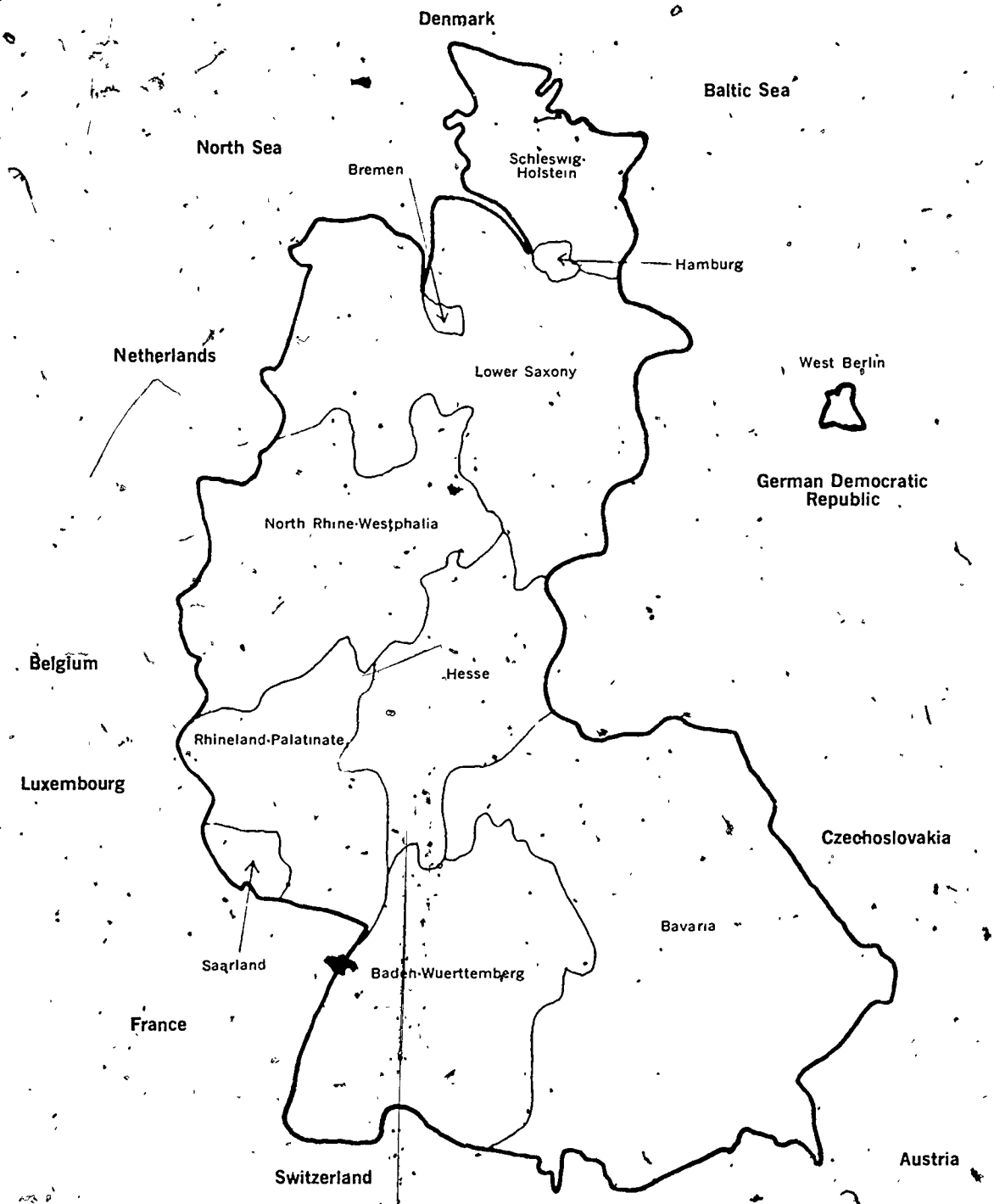
The Federal Republic of Germany (FRG), or West Germany, possesses a diversified system of education designed to meet a wide range of needs. The FRG has an elementary school system that enrolls all children and leads to a complex system of academic, vocational, and technical schools that prepare their students for advanced education or employment.

Universal literacy was achieved early in this century. In recent years, special efforts have been made to expand opportunities for academic secondary and higher education to a much broader segment of the population than in the past. As a result, in the decade from 1964 to 1974 enrollments in the academic secondary schools and in higher education increased 112 and 150 percent, respectively. Projections indicate that enrollments in higher education will exceed 1 million by 1980, up from 780,000 in 1974.

Historical Background

The Federal Republic consists of that portion of Germany that was occupied after the end of World War II in 1945 by the Western Powers—France,

Federal Republic of Germany



Source: Federal Republic of Germany, Press and Information Office.

the United Kingdom, and the United States. (The educational system of the other portion of Germany, the German Democratic Republic, is described in another recent U.S. Office of Education publication.)

Although each State developed its own educational system, a high degree of uniformity was maintained. This uniformity was fostered partly by the bonds of a common tradition, but especially by early awareness of the need for interstate cooperation to promote comparability of educational patterns and programs and thus mutual recognition of students' academic and vocational qualifications. To meet this need, the separate States in 1948—a year before establishment of the Federal Republic—organized the Permanent Conference of Ministers of Education and Cultural Affairs (*Staendige Konferenz der Kultusminister der Laender*, generally called the *Kultusministerkonferenz, KMK*). The *KMK* will be discussed on page 66.

A German parliamentary council, established on September 1, 1948, drafted a "Basic Law" (Constitution) for the western occupation zones. The Basic Law was adopted by the parliamentary council on May 8, 1949, and with the approval of the Western Powers was promulgated on May 23, 1949. Elections were held in August, and on September 20 the new Government of the Federal Republic of Germany, led by Chancellor Konrad Adenauer, assumed office. On September 21, 1949, the Occupation Statute, which governed relations between the Allies and the German authorities, granted virtually full self-government to the new Federal Republic, and the London and Paris Agreements of 1954 gave it full sovereignty.

The educational system of the Federal Republic strongly reflects its historical antecedents. Until late 1871, Germany was not a unified nation, but consisted of numerous independent states, each with its own educational system. Under the Empire (1871–1918) and the Weimar Republic (1918–33), education and culture remained the responsibility of its constituent parts and not of the national government. There were, however, strong centralistic traditions in most States; for example, Prussia, as an independent nation before 1871, established education as a national function, organized and controlled by the state. The principle of control of education by each State (*Land*, pl. *Laender*) was accepted by the Allies and anchored in the Basic Law of 1949.

After the national socialist period, which began in 1933 and ended in 1945 with the defeat of Germany in World War II, German educators in what is now the Federal Republic looked to the educational system of the Weimar Republic as a model, widely respected at home and abroad, on which to build an educational system that would supersede that of the national socialist period.

Legal Basis

The fundamental document from which education law is derived is the Basic Law (Constitution) of the Federal Republic of Germany of May 23, 1949, notably articles 5, 6, 7, 12, and 30. Article 30 establishes education as a responsibility of the individual States rather than of the Federal Government. Articles 75 (section 1a), 91a, and 91b, added as amendments to the Basic Law on May 12, 1969, give the Federal Government specific authority in education, notably at the higher education level and in educational planning at all levels. On the basis of these amendments, the Federal Government passed a series of laws, the most important of which are the following:

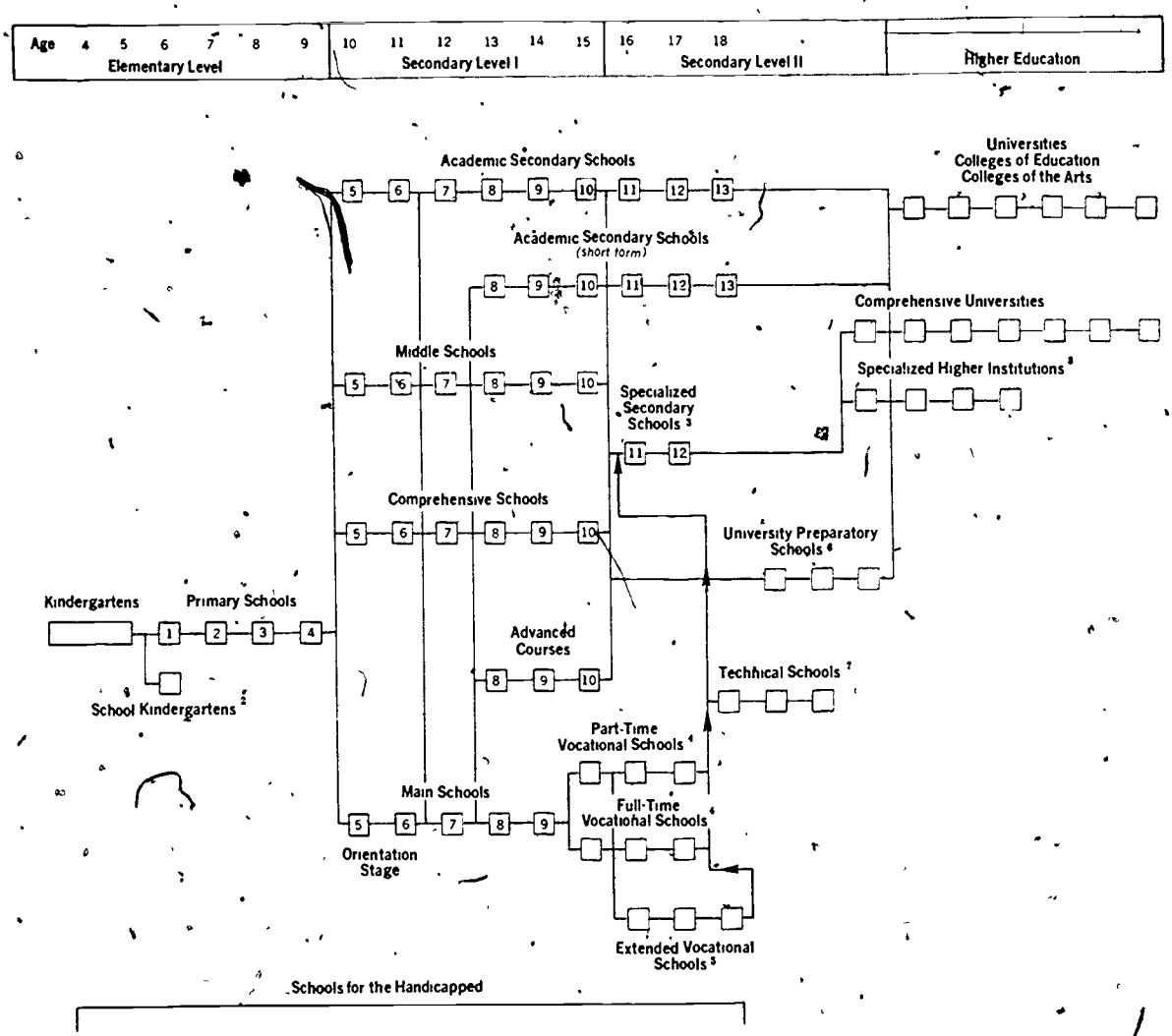
1. Law on the Promotion of University Construction—1969 (discussed under "Administration" on p. 5).
2. Law To Provide Student Aid—1971.
3. Law To Promote the Development of University Staff—1971.
4. Law for the Expansion of University Statistics—1971.
5. General Higher Education Law—1976.

The main body of education law consists of the constitutions and education laws of the individual States. These are augmented and given national significance by formal agreements among the States and between the Federal Government and the States. For example, one of the most important of these, sponsored by the Permanent Conference of Ministers of Education and Culture, is the "Agreement between the *Laender* of the Federal Republic of Germany on the Standardization of the Educational System of October 28th, 1964," which was revised in 1968. Generally called the Hamburg Agreement, it established a standard school year for all States, standardized terminology, adopted a uniform structure for the major elements of the school system, and provided for interstate recognition of State examinations. In 1972, an agreement among the States provided for assignment of scarce university study places to student applicants through a Federal distribution system, discussed on pages 17 and 18.

Administration

The 10 States of the Federal Republic are Baden-Wuerttemberg, Bavaria, Hesse, Lower Saxony, North Rhine-Westphalia, Rhineland-

The Basic Educational Structure: 1974 [1]



[1] This chart is limited to major elements of the educational system. Minor variations (some of which are mentioned in the text) are omitted.

[2] Children not ready for the primary school program are enrolled in school kindergartens and enter the primary system as soon as they are ready.

[3] Graduates may enter selected programs of higher education, primarily the specialized higher institutions or comprehensive universities.

[4] Most graduates go directly to work. However, opportunities for additional training are available in other vocational or technical schools or through special programs leading to higher education.

[5] Graduates may enter specialized secondary schools (frequently with advanced standing) or the university preparatory school; or go directly to work.

[6] Students must be 19 years old to enter. Academic prerequisites are flexible. Graduates receive the *Abitur*, thereby qualifying for general (unrestricted) university admission.

[7] Some graduates can enroll in specialized higher institutions or technical universities. Admission procedures are undergoing revision

[8] Students can transfer to universities (including comprehensive universities) in fields for which they have acquired the prerequisites, or can continue studies at the universities at an advanced level after graduating from the specialized higher institution.

Source. Adapted from Staendige Konferenz der Kultusminister, *Handbuch fuer die Kultusminister-Konferenz, 1974* (Bonn: Bundesdruckerei, 1974), p. 337.

Palatinate, Saarland, Schleswig-Holstein, and the two city-States of Bremen and Hamburg. Since education is a State function, educational administration differs in detail from State to State. However, broad principles are generally applicable to the country as a whole.

Legally, the status of West Berlin (the sectors of Berlin formerly occupied by the three Western Powers) is determined by agreements between the three Western Powers and the Soviet Union, in practice, however, the West German authorities govern West Berlin as if it were part of the FRG. The educational system of West Berlin is based on the same principles as those in the Federal Republic.

In each State except the two city-States (Hamburg and Bremen) and West Berlin, responsibility is divided between the State and the local level by State law. In a few States there is an intermediate level. The Federal Government also has specific administrative responsibilities that the 1969 amendments to the Basic Law assigned to it without restricting the fundamental rights of the States.

State level.—Of the 10 States and West Berlin, seven have established a single ministry of education and cultural affairs, while four (North Rhine-Westphalia, Hamburg, Bremen, and West Berlin) have established separate ministries for higher education and research. Each is headed by a minister of education. (German titles vary.) The organization of ministries differs from State to State, but each one usually has main divisions for each level of education under its control, and a division or sections concerned with general administration, personnel, finance, school buildings, and other technical matters.

In general, academic administration is centralized at the State level. Each State issues a detailed course of study and conducts State examinations at the end of the secondary school level. The States are involved in curriculum revision and take an active part in approval of textbooks. Teachers usually are members of the State civil service. In recent years, each State has passed higher education laws defining its relationship with its higher education institutions.

Local level.—Specific responsibilities for educational administration have been delegated by the States to the cities and counties (*Staedte* and *Landkreise*). The local level is usually responsible for school buildings and equipment, with financial help from the State as necessary. The local level also hires and pays nonteaching personnel—secretarial, custodial, maintenance. In many cases the counties have delegated some of this responsibility to local communities.

The local district is administered by a school office (*Schulamt*) headed by a superintendent (*Schulrat*). In recent years there has been a tendency to assign more academic responsibility for lower level schools to the local level, especially in large cities. As local school offices assume more responsibility, they expand their staffs to include specialists for various types of schools and for experimentation, counseling, and curriculum reform.

The city-States of Hamburg and Bremen and West Berlin administer their educational systems at the State level.

Intermediate level.—A few States have established intermediate administrative regions consisting of several counties (*Regierungsbezirke*). The office of the regional president (*Regierungspraesident*) usually contains an education section with direct or coordinating responsibility for designated parts of the educational system. North Rhine-Westphalia, for example, has established regional offices responsible for secondary education. Baden-Wuerttemberg, which has no *Regierungsbezirke*, has established regional offices (*Oberschulaemter*) responsible for all schools in assigned areas.

Federal level.—The amendments of 1969 to the Basic Law gave the Federal Government authority to issue general guidelines for higher education, to finance 50 percent of investments for expanding higher education facilities and constructing new universities, and to participate in educational planning at all levels through agreements with the States.

The Federal Ministry of Education and Science (*Bundesministerium fuer Bildung und Wissenschaft*) was established in 1969 by reorganizing and expanding the existing Ministry of Research. The Federal Government passed a series of laws dealing with higher education and student support, one of the most important of which was the 1969 Law on the Promotion of University Construction (*Hochschulbaufoerderungsgesetz*). This law established a Federal-State university planning committee (*Planungsausschuss fuer den Hochschulbau*), chaired by the Minister of Education, which plays the dominant role in planning, constructing, and financing higher education facilities. In January 1976 the General Higher Education Law (*Hochschulrahmengesetz*) was passed, establishing principles for all aspects of higher education and leading to greater standardization among the States. (This law will be discussed under Higher Education on p. 21.)

To carry out its responsibilities for planning at

all levels, the Federal Government entered into an agreement with the States under which a Federal-State commission for educational planning (*Bund-Laender-Kommission fuer Bildungsplanung*) was established in 1970.

In 1973 the Federal Ministry of Education and Science was divided into (1) the Federal Ministry of Education and Science, which retains its education functions but limits its research functions to general planning and to research carried on by the universities, and (2) the Federal Ministry for Research and Technology (*Bundesministerium fuer Forschung und Technologie*), which is responsible for all other federally sponsored research and its application to technology (e.g., the Federal Atomic Energy program). At the same time, the Ministry of Education and Science received Federal responsibility for vocational education from the Ministries of Labor and Commerce and for the National Student Aid Law from the Ministry of Youth, Family, and Health.

Coordination.—The need for coordination among the States was met in 1948 by organizing the Permanent Conference of Ministers of Education and Cultural Affairs of the States or *KMK* (mentioned earlier), which has its offices in Bonn. Each State is represented at a monthly meeting by its minister of education. A substantial staff and four major committees have been developed: The school committee, the higher education committee, the committee for the arts and adult education, and the committee for German schools abroad.

Although the *KMK* has no legal authority over the States, each minister is pledged to support unanimous decisions of the Conference before the legislative or administrative bodies of his own State.

Finance

The Federal Government, the States, and the local administrative units (cities, counties, and communities) all participate in school finance. Total public expenditures for education in 1973 were 46,256.3 million *deutsche Mark* (DM), of which 9 percent was provided by the Federal Government, 66 percent by the States, and 25 percent by the local administrative units.[1]

As a general rule, the States pay personnel costs for administrators, supervisors, and teachers, while the local units pay the physical costs—buildings, equipment, maintenance, transportation—as well as those for clerical, custodial, and maintenance personnel. Schools financed in this way are called State-communal schools. Some States have, in addition to the above, parallel State and communal schools, the former being completely financed by the State, the latter completely by local units. Usually the parallel schools are middle, secondary, or vocational and technical schools.

Under the constitutional amendments of 1969, all civil service salary regulations (both Federal and State) were assigned to the Federal Government. Consequently, although the States employ and pay teachers, uniform salary scales in all States are established by Federal civil service regulations.

The relationship between counties and communities is undergoing a basic change. Financial responsibility for the schools is increasingly being shifted from the communal to the county level.

Higher education is financed by the Federal and State levels. In fact, the primary incentive for expanding the role of the Federal Government in education was the need for massive Federal funds to meet the sharply rising costs of higher education. The Federal Government, which spends most of its education funds on higher education and research, provides funds for expansion and construction of higher education facilities, student aid, advanced education for future university staff, research, and development of comprehensive educational statistics. Substantial Federal funds are also provided for the nonschool aspects of vocational training and retraining.

Private schools, which are relatively few, can obtain public financial support if they operate on a nonprofit basis, conform to the curricular pattern of public schools, and supplement or replace State schools.

Structure

Chart 1 on page 4 presents the typical structure of the educational system, which consists of preschool, a common 4-year primary school (*Grundschule*), and a secondary school with three major tracks. The secondary level is divided into a lower secondary (*Sekundarstufe* I) and an upper secondary (*Sekundarstufe* II) level. The Hamburg Agreement of 1964 adopted standard designations for the 3 tracks: *Hauptschule* or main school;[2] *Realschule* or middle school; and *Gymnasium*, the

[1] Exchange rate as of January 1976: $1.00 (U.S.)=2.57 DM.

[2] The *Hauptschule* is the former upper level of the elementary school (*Volksschule*), which was elevated to the secondary level by the Hamburg Agreement. Official German publications almost always translate *Hauptschule* as "main school." To avoid confusion with other types of schools at the secondary level, this translation has been retained in this report.

general term for all types of academic secondary schools leading to university matriculation.

Extensive experiments are in progress in most States to develop a comprehensive school *(Gesamtschule)* that will incorporate all three standard tracks from grade 5 through grade 10.

The main school generally extends through grade 9 and leads to a variety of part-time and full-time vocational schools *(Berufsschulen* and *Berufsfachschulen)*. The part-time vocational training, usually combined with an apprenticeship, is intended primarily to lead directly to the world of work.

The middle school, usually grades 5 to 10, is intended to lead to middle occupations that require more general training than the main school provides, but not the highly academic education of the *Gymnasium*. A new kind of specialized secondary school *(Fachoberschule)*, comprising grades 11 and 12, was introduced in 1968 to provide additional access to higher education for graduates of the middle school and for qualified leavers of the vocational training system.

The academic secondary school is the traditional school extending through grade 13 and qualifying a student for unrestricted university admission. There are several types, each with a different emphasis in its curriculum. Some States have also established university preparatory schools *(Kolleg)* to provide other opportunities to qualify for university matriculation to young adults who have completed grade 10 or vocational training.

A great variety of technical schools (*Fachschulen*) provide opportunities for further education to graduates of vocational schools and the middle school and to students transferring from the academic secondary school. In most fields, students from middle or academic secondary schools must present practical experience in the field they wish to enter in addition to their academic qualifications. The technical schools lead to numerous skilled occupations in agriculture, commerce, crafts, social work, technology, textiles and clothing, and other fields.

Higher education includes universities (general, specialized, and comprehensive), colleges of education, colleges of the arts, specialized higher institutions (*Fachhochschulen*), and a small number of theological colleges. Admission to these institutions generally requires completion of the academic secondary school or the equivalent.

There is considerable variation among the States in the detailed structure of education, especially in secondary level II. Major differences will be pointed out in subsequent sections of this publication.

Compulsory education begins at age 6 and extends full-time for 9 years. Specifically, children whose sixth birthday falls before June 30 begin compulsory education on August 1 of the same year. Part-time compulsory education continues for an additional 3 years for all young people under 18 not enrolled in a full-time school.

Enrollments at all levels of education are shown in table 1 on page 8.

Academic Calendar

The school year begins officially on August 1 in all States and ends on July 31 of the following year. However, by agreement among the States, 6- to 7-week summer vacations are spaced between July 1 and September 10 to avoid overcrowding travel and vacation facilities. Instruction for the new school year begins in each State upon termination of the summer vacation. Short vacations are scheduled during harvest periods and the Christmas and Easter seasons. Various other holidays are also observed. Vacation periods total 75 working days during the school year. Final examinations are given before summer vacations.

Most higher education institutions follow the semester plan, with the first semester extending approximately from October to March, the second from April to July. Some universities offer short courses during the summer.

Language of Instruction

German is the language of instruction throughout the Federal Republic. Since there are many foreign workers in Germany whose families speak little or no German, bilingual instruction is offered as needed at various school levels and in adult education.

Grading System

At the elementary and secondary levels, students are graded on individual assignments as part of the instructional process and receive a final grade in each subject at the end of the school year. A six-point scale is used: 1—very good; 2—good; 3—satisfactory; 4—adequate; 5—unsatisfactory; and 6—inadequate. To graduate from academic secondary school and qualify for university matriculation, students must pass a State examination. In recent years, general restructuring of the upper years of the academic secondary school have added a grade-point system to the State examination as a requirement for university admission (see p. 17).

Table 1.—Enrollment in educational institutions, by level and type of school: 1974

Type of school	Number of students
Elementary:	
Preschool [1]	1,600,000
Primary	4,114,000
Total	5,714,000
Secondary:	
General education:	
Main school and comprehensive school	2,356,000
Middle school	1,208,000
Academic secondary school	1,887,000
Evening academic secondary and university preparatory school	30,000
Total	5,481,000
Vocational/technical education:	
Part-time vocational school	1,676,000
Extended vocational school	32,000
Full-time vocational school	248,000
Specialized secondary school	126,000
Technical school	209,000
Total	2,289,000
Special schools	389,000
Higher education:	
Universities and equivalent institutions	478,000
Colleges of education	128,000
Colleges of the arts	15,000
Specialized higher institutions	159,000
Total	780,000
Grand Total	14,653,000
Adult education: [2]	3,327,000

[1] Estimated places available, exact enrollment figures not presented in source.

[2] Includes duplications, because persons enrolled in more than one course are counted in each

Source: Adapted from Bundesrepublik Deutschland, Der Bundesminister fuer Bildung und Wissenschaft, *Struktur Daten* Bonn, 1974, Pp. 8–10, 28, and 75

Grading at the higher education level is flexible. Examinations and grading systems vary with the type of program. For example, prospective teachers must take State examinations in the subjects they plan to teach. They can attend numerous other courses without incurring an obligation to be examined in them by the State. In professional fields such as engineering, law, or medicine, interim examinations are required. In all fields comprehensive terminal examinations—oral, written, or both—are required to obtain diplomas or degrees. A four-step scale for successful completion of examinations is generally used: 1—distinction; 2—good; 3—satisfactory; and 4—passed.

ELEMENTARY EDUCATION

Traditionally, the elementary school *(Volksschule)* was preceded by the kindergarten, usually for 3- to 5-year olds, and nurseries for younger children. The elementary school itself consisted of a 4-year lower level or primary school *(Grundschule)*, standardized in 1920, and an upper

level or main school *(Hauptschule)*, originally 4 years in length but extended to 5 years in recent times.

Since 1964, when the upper elementary level was elevated to the secondary level by the Hamburg Agreement, elementary education has consisted of all preschool programs and the former lower level or primary school (grades 1-4). Current German terminology frequently refers to preschool programs as the elementary stage *(Elementarstufe)* and to the first 4 years of school as the primary stage *(Primarstufe)*.

Preschool Education

All preschool programs are voluntary and usually not part of the formal school system. The terminology employed for German preschool education may lead to some confusion because of differences in German and English usage of similar words. The literal German translation of "preschool"—in English encompassing all programs preceding grade 1—is *"Vorschule,"* which is generally limited to preschool classes or programs that are part of the formal school system. The German term *Kindergarten* is generally applied to preschool programs that are *not* part of the formal school system—which are the great majority. To avoid confusion, "kindergarten" will be used in this discussion in the German sense.

In 1974 there were 23,000 kindergartens, 70 percent of which were supported privately. Publicly supported kindergartens generally are part of programs for youth under the supervision of welfare agencies. Privately supported kindergartens are maintained by churches, workers' organizations, industries, and individuals. In 1974, places were available for about 62 percent of the age group, a sharp increase from 1970, when the comparable percentage was only 38.5.

Nurseries and similar arrangements for very young children are usually available to help working mothers. These are supported by organizations of mothers, industries, or welfare agencies. Day-care homes or centers *(Kinderheime, Kinderhorte)* provide leisure-time activities for children of preschool and primary school age.

One-year programs have been established in public schools and in a few private primary schools for children of compulsory school age who are not ready for the primary school program. In some cases they have also been included in schools of special education. These are called school kindergartens *(Schulkindergaerten)* or *Vorschulen*, or special school kindergartens *(Sonderschulkindergaerten)* to distinguish them from the usual *Kindergaerten*.

The Primary School

The primary school *(Grundschule)*, usually includes grades 1 to 4, as shown in the chart on page 4. Exceptions to the 4-year primary school occur in Hamburg, Bremen, and West Berlin. In West Berlin, grades 5 and 6 are considered part of the primary school and transfer to all secondary schools follows grade 6. In Hamburg and Bremen, transfer to the middle school or the academic secondary school may be made at the end of either the fourth or the sixth grade. Most transfers, however, are made at the end of the fourth grade.

The primary school offers 23 to 27 class hours of instruction per week with about half the program devoted to German and mathematics. Social studies have emphasized familiarity with the community *(Heimatkunde)* and an introduction to history and geography. In the present decade, however, the *Heimatkunde* concept is increasingly being replaced by the concept of *Sachkunde*, comprising basic science and technology and understanding of the modern world in general. Religion, music, art, home arts and manual skills, and physical education round out the program. Small group sessions and intergrade activities are encouraged. The division into subject hours in the lower grades is flexible and does not exclude the organization of programs into large blocks combining several subjects.

SECONDARY EDUCATION

Secondary education includes all general and vocational/technical education from the end of primary school to higher education. General education grades are numbered consecutively from 5 to 13. Most vocational/technical courses are counted separately in years or half-years. Secondary education is divided into secondary level I *(Sekundarstufe I)*, grades 5 through 10, and secondary level II *(Sekundarstufe II)*, grades 11 through 13 or equivalent, as shown in the chart on page 4.

General Secondary Education

Secondary level I consists of three general education tracks—the main school *(Hauptschule)*, the middle school *(Realschule)*, and grades 5 through 10 of the academic secondary school *(Gymnasium)*. Only the *Gymnasium* extends through secondary level II. In recent years steps have been taken to combine these three tracks into a comprehensive school *(Gesamtschule)* from the 5th through the 10th grade. In some States, notably Hesse, and in West Berlin, this development is well advanced.

whereas in others it is still in an early experimental stage.

Upon completion of primary school, a student can advance automatically to the main school or the comprehensive school. Admission to the middle school or the academic secondary school, however, involves a selection process. In the past, this has consisted of an examination at the end of the fourth grade. This examination is currently being replaced by acceptance upon recommendation of the elementary school or by a 2-year orientation stage (*Foerderstufe*), usually within the main school. The final decision is thus postponed to the end of the sixth grade. In some States this has become standard practice, whereas in others it is still in the process of being adopted.

In all States it is possible to transfer from the main school or the comprehensive school to the middle school or the academic secondary school after the 6th or 7th grade. Requirements differ from State to State and an entrance examination is frequently required.

The main school.—Table 2 on page 11 presents the academic program of the main school (*Hauptschule*) in Rhineland-Palatinate. The relatively large number of subjects with only a few hours per week for each is characteristic of school programs at most levels. Mathematics, German, and English receive the most emphasis. Students who are particularly interested in English can participate in work groups for an additional 2 hours per week. Students whose level of achievement is inadequate for foreign language study may be assigned to additional work groups in German, mathematics, or industrial arts instead of English. Social studies are taught in addition to history and geography, and individual sciences (physics, chemistry, and biology) are offered rather than general science. Although home and industrial arts average the specific hours per week shown on the schedule; they generally are offered in larger blocks of time at more widespread intervals.

Recently, advanced courses (*Aufbauzuege*) in grades 8 through 10 have been offered to students in the main school to enable them to enter the academic secondary school in the 11th grade. In some States (e.g., North Rhine-Westphalia), good marks upon completion of the main school qualify students to enter a special 10th grade, completion of which is equivalent to completing the middle school.

Upon completing the main school, a student receives a certificate of completion (*Abschlusszeugnis*), usually without a terminal examination. Most graduates enter an apprenticeship with accompanying part-time vocational schooling leading to a trade. Various opportunities for continuing education, however, enable them to acquire the qualifications for entrance to higher education.

The middle school.—The middle school (*Realschule*) provides general education at a level more advanced than that of the main school, leading to positions in agriculture, industry, commerce, social service, and administration that do not require the highly academic training of the academic secondary school.

The middle school terminates with the 10th grade in all States. The length of the course usually is 6 years (grades 5–10), but a 4-year type (grades 7–10) is also well represented. Subjects in which most hours are required are mathematics, German, and a foreign language, usually English. Other subjects may be grouped in various options such as mathematics and science, French as a second foreign language, business courses, art, music, and industrial arts, or social service. Table 3 presents the middle school curriculum in Schleswig-Holstein, where the 6-year program has been the standard type for many years. The choice of emphasis in grade 10 indicates some early specialization in this State that does not occur in all States.

Graduates of the middle school receive a certificate of completion (*Abschlusszeugnis*). Some States require a terminal examination (*Abschlusspruefung*). Graduates with excellent records can transfer to the 11th grade of the academic secondary school. Most graduates enter some form of part-time or full-time vocational education, frequently combined with on-the-job experience in their chosen field.

The academic secondary school.—The standard academic secondary school (*Gymnásium*) offers a 9-year program (grade 5–13); a short form (grades 8 to 13) has also been developed, which students may enter from the main school or the middle school after completing the seventh grade. Both types lead to university matriculation. Entrance examinations are usually required. The upper 3 years (grades 11–13) represent general education in secondary level II.

Three standard types of academic secondary schools are found in all States: (1) the classical type, which offers Latin and Greek; (2) the modern language type, which emphasizes a modern language, usually English, and offers a second language that may be Latin or modern, and (3) the mathematics-science type, which reduces the time devoted to foreign languages and increases its offerings in mathematics and science. Other subjects, such as German or social studies, may be identical in all three types.

Table 2.—Number of hours per week in each subject in the main school (*Hauptschule*), Rhineland-Palatinate: 1972

Subject	School year				
	5	6	7	8	9
Total	29	32	31	32	31
Mathematics	5	5	4	4	4
German	4	4	3	3	3
English	4	4	3	3	3
Religion	3	3	3	3	3
History	1	2	2	2	1
Geography	2	2	2	2	1
Social studies	0	0	1	2	3
Physics/chemistry	1	2	2	2	2
Biology	1	2	2	2	2
Music	2	2	2	2	2
Art	1	1			
Manual arts (boys)	2	2	4	4	4
Home arts (girls)					
Physical education	3	3	3	3	3

Source. Adapted from Walter Schultze and Christoph Fuehr. *Das Schulwesen in der Bundesrepublik Deutschland.* Weinheim and Basel. Verlag Julius Beltz, 1973. Pp 286–287.

Table 3.—Number of hours per week in each subject in the middle school (*Realschule*), Schleswig-Holstein: 1972

Subject	School year				
	5/6	7/8	9	10	
				Language emphasis	Mathematics/ science emphasis
Total	32	35	35 (boys) 36 (girls)	34 (boys) 36 (girls)	34 (boys) 36 (girls)
Mathematics	6	4	4	4	6
German	6	4	4	4	4
English	6	4	4	4	3
French	—	4	3	3	—
Religion	2	2	2	2	2
History	—	2	3	—	—
Geography	2	2	2	—	—
Contemporary problems	—	—	—	5	5
Physics	—	2	2	2	3
Chemistry	—	1	3	1	2
Biology	2	2		2	2
Physical education	3	3	3	3	3
Music					
Art	5	5	5 (boys) 4 (girls)	4	4
Manual arts					
Textile arts					
Home arts	—	—	2 (girls)	2 (girls)	2 (girls)

Source. Adapted from Walter Schultze and Christoph Fuehr. *Das Schulwesen in der Bundesrepublik Deutschland* Weinheim and Basel: Verlag Julius Beltz, 1973. Pp. 288–289

Table 4 presents the curriculums of the modern language and mathematics-science types in Hesse. The total hours devoted to German, religion, history, geography, social problems, social studies, biology, art education and manual arts, music, and physical education are identical in both. The modern language type offers 75 hours per week distributed over 9 years in foreign languages and 19 in mathematics, physics, and chemistry. The mathematics-science type requires 58 hours in foreign languages and 66 hours in mathematics, physics, and chemistry. The lack of program differentiation before grade 11 illustrates the growing tendency to postpone specialization.

In addition to the three standard types of academic secondary schools, a number of other specialized types, frequently varying from State to State, have been developed in recent years. Among these are the commercial secondary school (*Wirtschaftsgymnasium*), which offers some business subjects in grades 11 to 13, the social science secondary school (*Sozialwissenschaftliches Gymnasium*), which is developing new curriculums leading to social service, and the technical secondary school (*Technisches Gymnasium* or *Technische Oberschule*), which leads to higher education in technical fields. All these types also teach most of the subjects appearing in the standard types, with the number of hours reduced to provide time for their own specializations. Thus the academic secondary school presents a proliferation of programs, with some differing only slightly from each other and others showing wide variations in emphasis.

In 1972 the Permanent Conference of Ministers of Education and Cultural Affairs adopted an extensive curricular revision for the upper 3 years of the academic secondary school. The major change consists of a reduction in the number of subjects, offset by emphasis on one or two subjects with as many as 6 hours per week. As a rule, the student is required to select two major subjects for intensive work (6 hours per week for the last 2½ years, organized in semesters) and three additional subjects in basic courses. The *Abitur* is based on grade-points achieved during these final years as well as in the oral and written final State examinations.

Upon completion of the academic secondary school, a student must take a comprehensive State examination (*Abiturpruefung* or *Reifepruefung*) to obtain the secondary school leaving certificate (*Abitur* or *Reifezeugnis*). The certificate is the primary requirement for unlimited admission to higher education (*Allgemeine Hochschulreife*). Students who enter the academic secondary school and find the program too difficult or not suited to their needs may transfer laterally to the main school or the middle school, or, after the ninth grade, to a vocational program.

The rigorous selection process for admission to the academic secondary school has always eliminated a substantial number of young people at an early age who later showed both the capacity and the desire to proceed to higher education. A major step toward solving this problem was introduction of (1) the orientation stage in the main school that defers program choice until after the sixth grade, (2) the short form of academic secondary school, with entry in the eighth grade, and (3) the advanced courses (*Aufbauzuege*) for students in the main school, enabling them to enter the academic secondary school in the 11th grade after 10 years of study.

"Second way" schools.—Special arrangements for obtaining the *Abitur* are frequently called the "second way" (*Zweiter Bildungsweg*), the "first way" being the usual route through the academic secondary school. These include the academic secondary evening school (*Abendgymnasium*) and a special university preparatory school for adults, called the *Kolleg*. The former offers regular *Gymnasium* courses in the evening. The latter has developed intensive full-time courses of 2 to 3 years. Entrance requirements may be met by completion of the middle school or some vocational schools, entrance examinations, or a combination of these. Substantial consideration is given to work experience. Both schools lead to the *Abitur* examination.

Enrollments.—In 1974 general education students in secondary level I were distributed among the types of school as follows: Main school (including comprehensive schools)—43 percent; special education (schools for the handicapped)—7 percent, middle school—22 percent; academic secondary school (grades 5–10)—27 percent; and the remaining 1 percent in various programs not readily classified under the major types.

Vocational/Technical Education

With the exception of the first year of the vocational education schools that begin after the ninth grade, secondary level I consists almost entirely of general education. Secondary level II, on the other hand, includes a great variety of vocational and technical schools. In 1974 about 52 percent of the total 15- through 18-year age group were enrolled in vocational or technical education. Among the many different specialized schools, five types are in common use: the part-time vocational school (*Berufsschule*), the full-time vocational school (*Berufsfachschule*), the extended vocational

Table 4.—Number of hours per week in each subject in the modern language and the mathematics-science academic secondary school *(Gymnasium)*, Hesse: 1972

Subject	School year													
	Both schools						Modern language school				Mathematics/ science school			
	5	6	7	8	9	10	11	12	13	Total	11	12	13	Total
Total	30	30	33	33	34	34	34	32	32		34	32	32	
Mathematics	4	4	4	4	4	4	3	3	3	33	4	5	5	38
German	6	6	4	4	4	4	4	5	5	42	4	5	5	42
1st foreign language	6	6	5	5	3	3	4	5	5	42	3	13	13	31 or 37
2d foreign language	--	-	5	5	4	4	5	5	5	33	3			21 or 27
Religion	2	2	2	2	2	2	2	2	2	18	2	2	2	18
History	-	-	2	2	2	2	2	-	-	10	2	-	-	10
Geography	2	2	2	2*	2*	2	3*	-	-	11½	3*	-	-	11½
Social problems	-	-	-	-	-	-	-	4	4	8	-	4	4	8
Social studies	-	-	-	2	2	2	2	-	-	8	2	-	-	8
Physics	-	-	-	2	3	2	4*	-	-	9	3	5	5	20
Chemistry	-	-	-	-	3	2	4*	-	-	7	3	-	-	8
Biology	2	2	2	2*	2*	2	3*	-	-	11½	3*	-	-	11½
Art education and manual arts	2	3	2	2*	2*	2*	2*	2	2	26	2*	2	2	26
Music	3	2	2	2*	2*	2*	2*				2*			
Physical education	3	3	3	3	3	3	3	3	3	27	3	3	3	27
Required elective	-	-	-	-	-	-	-	3	3	6	-	3	3	6

*Half-yearly subjects that alternate with other half-yearly subjects. Consequently they appear in the totals at half value

[1] Students must choose the same language for the 12th and 13th years

Source: Adapted from--Walter Schultze and Christoph Fuehr. *Das Schulwesen in der Bundesrepublik Deutschland*. Weinheim and Basel: Verlag Julius Beltz, 1973 P. 291.

school *(Berufsaufbauschule)*, the specialized secondary school *(Fachoberschule)*, and the technical school *(Fachschule)*.

The part-time vocational school.—By far the most common vocational school, the part-time vocational school *(Berufsschule)* provides the compulsory part-time schooling required of all young people who have completed 9 years of full-time schooling and are not enrolled in a full-time school beyond that level. It enrolled almost three-fourths of all vocational students (or roughly half the 16–18 age group) in 1974. As a part-time school, it is designed to be combined with an apprenticeship. The major fields of study in this category are trade and industry, business, home economics, mining, and agriculture. Formal courses, generally offered 1 or 2 days per week, provide theoretical background to accompany the practical apprenticeship training. The formal courses, which contain some general education, follow State guidelines; the practical training follows Federal Government directives for about 500 vocations. This dual system, combining guided training and direct experience in the world of work with additional training in the vocational school, provides the usual route to the trades. Costs are shared by industry and the educational system—the former supporting the practical training, and the latter the accompanying school programs. The combined program usually lasts 3 years.

Upon completion of the part-time vocational school, a student receives a certificate *(Abschlusszeugnis)*, which is a prerequisite for the final apprenticeship examination *(Lehrabschlusspruefung)* given by the industry or other establishment that provided the training. A graduate who passes this examination is qualified as a *Facharbeiter*—skilled worker, craftsman, salesclerk, etc.

Most graduates go directly to work. Opportunities for additional training, however, are available in other types of vocational or technical schools or

through some of the special programs leading to the *Abitur*, such as that of the university preparatory school.

The full-time vocational school.—In recent years there has been a growing tendency to develop vocational training to the skilled worker level or equivalent for certain vocations by means of full-time schooling. As a result, the full-time vocational school *(Berufsfachschule)* has been developed as an alternative to the part-time vocational school, with essentially the same objectives. It differs from the part-time school in that it offers a full-time program without accompanying apprenticeship. Graduates of the main school, comprehensive school, or middle school may enter for a program of 1 to 3 years, depending on the field. Fields most frequently represented are commercial and hotel trades, medical and other laboratory work, child care, hairdressing, and occupations in large households and institutions. Industrial trades have tended to retain the traditional part-time schooling with apprenticeship.

Upon completion of a full-time vocational school, a student receives a certificate *(Abschlusszeugnis)* that qualifies him as a skilled worker *(Facharbeiter)*, with the same rights and privileges as a graduate of the part-time school.

The extended vocational school.—The vocational schools, both part-time and full-time, offer whatever general education is needed to fulfill the requirements of the chosen vocational field (e.g., additional mathematics or German) and also provide some citizenship courses. The emphasis, however, is on vocational training. There has been a widespread belief among educators that the general education content of vocational education has been inadequate, especially for able students. Thus the extended vocational school *(Berufsaufbauschule)* was designed as an intermediate institution between general academic and vocational schools, offering much more and more advanced general education and more advanced vocational training than the other vocational schools. General education courses include German, a foreign language, history and citizenship, mathematics, and science; and the vocational courses are offered in the same variety of fields as in the other vocational schools.

Students may be admitted upon completing at least half a year of the part-time vocational school or presenting some other higher qualification. At the end of the program students must pass an examination *(Abschlusspruefung)* that certifies them for positions in business or industry at a more advanced level than that for which they would be qualified by the other vocational schools. In addition, they are qualified for further study in a technical school *(Fachschule)*, a specialized secondary school *(Fachoberschule)*, or a university preparatory school *(Kolleg)*.

The specialized secondary school.—Introduced in 1968 as a new type of full-time school, the specialized secondary school *(Fachoberschule)* comprises grades 11 and 12 and was designed especially to provide additional general and vocational education opportunities for graduates of the middle school and others with equivalent qualifications, including those obtained through part-time or full-time vocational schools. In fact, graduates of vocational schools are frequently admitted at the 12th grade level. Upon completion of the specialized secondary school, the student receives a certificate *(Abschlusszeugnis)* that admits him to specialized higher institutions and other selected programs of higher education. The level of education attained by a graduate of the specialized secondary school is known as *Fachhochschulreife*.

The technical school.—The technical school *(Fachschule)*, with a long history in German education, is the most advanced secondary vocational school and provides full-time training in practically all trades. To be admitted, a student generally must have completed part-time vocational school or the equivalent, and frequently must have had additional practical experience. Because of the great variety of schools and the numerous variations in entrance requirements, specific requirements must be obtained from the schools themselves. Courses vary from 1 to 3 years, depending on the field of study. Technical schools specialize in narrow areas, including agriculture, business and administration, chemical technology, data processing, home economics, industry, machine technology, maritime trades, mining, social work, and textile and clothing industries. Two special types are *Meisterschulen*, which train master craftsmen, and *Technikerschulen*, which train advanced industrial technicians.

Before 1968, technical schools included a large number of advanced schools known as higher technical schools *(hoehere Fachschulen)*. The largest group among these consisted of over 100 engineering schools *(Ingenieurschulen)* which extended beyond the secondary level. Other groups comprised advanced commercial schools and schools of social work. In 1968 the entire group of higher technical schools was advanced to the tertiary level under the general name of *Fachhochschulen*, or specialized higher institutions (discussed on p. 20). The technical schools themselves *(Fachschulen)* remained at the secondary level. The program of the specialized secondary school, pre-

viously discussed, was specifically designed to provide admission to these now tertiary schools and offers specialized programs corresponding to the main fields of the specialized higher institutions.

Upon completion of the technical school, including the terminal examinations, students receive a certificate *(Abschlusszeugnis*—the titles vary according to the course pursued) that entitles them to enter numerous occupations as highly skilled technicians. Because of their specialized nature, technical schools in general do not qualify their students to enter higher education. For many years, however, students could proceed from the former higher technical schools, especially engineering schools, to technical universities (an example of the "second way"). Regulations that raised the higher technical schools to tertiary level as specialized higher institutions did not specifically provide for admission from the technical schools. Revision of regulations to make this possible are in progress.

The development of new types of vocational/technical schools and variations in patterns among the States have led to some overlapping and duplication among schools. For example, there is substantial overlapping between the extended vocational school and the specialized secondary school. Because of the multiplicity of types, entrance requirements, programs, and certificates, it is not possible to classify all schools in an orderly sequence on the basis of levels and offerings.

SPECIAL EDUCATION

Schools for the handicapped *(Sonderschulen)* parallel general and vocational education, beginning at the lower level with the kindergarten *(Sonderschulkindergarten)* and terminating with special vocational schools *(Berufssonderschulen)*. Programs are well developed in all States and are designed to meet the great variety of needs of physically and mentally handicapped and disturbed children. Special classes are frequently included in regular schools, but special schools are available for cases requiring separate treatment. General and vocational objectives are highly individualized. Some children may be absorbed in regular schools as they overcome their handicaps, while others continue their training in special schools to whatever level they can attain.

PRIVATE SCHOOLS

The Basic Law of the Federal Republic authorizes establishment of private schools. Although relatively few in number, private schools have augmented the State school system and have frequently led in educational innovation. Those that operate on a nonprofit basis and are acknowledged as equivalent to public schools are eligible for public support, sometimes as much as 90 percent of operating costs.

Private schools that parallel public schools award comparable certificates. Private schools that have no public school counterpart (e.g., schools of foreign language, gymnastics, dance, etc.) award certificates that reflect the nature and level of their programs.

Enrollments

A survey of all private schools in the Federal Republic for the year 1968 (1969 in some instances), conducted by the Federal Statistical Office, showed a total of 3,152 schools with a total enrollment of 399,213. By type and level, the enrollments were distributed as follows:

Total	399,213
Primary and main schools	30,018
Academic secondary schools	148,493
Middle schools	53,254
Vocational and technical schools	135,001
Schools for the handicapped	18,860
Other	13,587

Types of Schools

Private schools include denominational private schools, Free Waldorf Schools, country residential schools, members of the Association of German Private Schools, and a variety of schools having no affiliation with any group.

Denominational private schools.—The largest number of denominational private schools are Roman Catholic schools, frequently connected with religious orders and usually providing residential facilities. The majority are academic secondary schools for girls. Schools for the handicapped are also well represented. In 1970, there were 1,027 Roman Catholic schools with a total enrollment of about 200,000; similar Protestant schools enrolled about 30,000 students.

Free Waldorf Schools.—Based on the educational philosophy of the Swiss educator, Rudolf Steiner, Free Waldorf Schools are comprehensive schools that include both the elementary and secondary levels. Their graduates qualify for the *Abitur*. In 1970 there were 30 such schools with about 15,400 students.

Country residential schools.—Following English models, country residential schools (*Landerziehungsheime*) originated as part of a school reform movement around the turn of the 20th cen-

tury and were especially popular in the post-World War I Weimar Republic. Two widely known founders were Hermann Lietz and Kurt Hahn. The basic purpose of the schools was to take education out of the city by developing a total school environment in a residential setting. They emphasized full-time close personal relationships between teachers and pupils. Always few in number, country residential schools numbered about 14 and enrolled about 3,000 students in 1968. They generally include the primary and main school levels. A few are comprehensive and a few include secondary level II.

Members of the Association of German Private Schools.—Over 300 private schools belong to the Association of German Private Schools (*Verband Deutscher Privatschulen*). These schools have a great variety of objectives and programs at the elementary and secondary level, both general and vocational. A large number of private schools similar to the above have no affiliation with any group.

TEACHER EDUCATION

Almost all teacher education in the Federal Republic has been elevated to the higher education level and will be discussed under that heading. The following exceptions remain.

Kindergarten Teachers

Kindergarten teachers (*Kindergaertnerinnen*) are trained in special institutes called *Kindergaertnerinnenseminare*, which are classified at the technical school (secondary) level. Students can enter after completing the middle school or with similar qualifications. Some experience as a helper in a nursery, kindergarten, or child care center is sometimes required. The course lasts 2 years and combines theoretical instruction and practical experience in the kindergarten. Upon completing the program, the student is certified as a kindergarten teacher (*Kindergaertnerin*). Teachers in preschool programs of the formal school system (*Schulkindergarten, Vorschule, Sonderschulkindergarten*) are trained in colleges of education in programs similar to those for primary school teachers.

Vocational Teachers

Vocational teachers can be classified in two major groups: Those who teach theoretical subjects and those who teach practical skills, usually by demonstration. The training of the former is similar to that of secondary school teachers and takes place at the higher education level. The training of the latter varies greatly from State to State and frequently does not involve higher education.

Most teachers of practical skills were trained as master craftsmen rather than as teachers and have had extensive experience in their specialty. Upon entering teaching in vocational schools they usually receive some pedagogical training, but requirements and procedures vary greatly.

HIGHER EDUCATION

The general German term for a higher education institution is *Hochschule*. This term is used for both universities and specialized institutions not called universities because their programs are limited. Almost all higher education institutions in the Federal Republic that are not universities include *Hochschule* in their titles.

Types of Institutions

Higher education institutions are generally classified in four main groups: (1) Universities, including technical universities and a few other specialized institutions of equal rank (*Universitaeten, Technische Universitaeten* or *Technische Hochschulen, Medizinische Hochschulen* or *Medizinische Akademien, Tieraerztliche* [Veterinary] *Hochschulen*); (2) colleges of education (*Paedagogische Hochschulen*); (3) colleges of the arts (*Kunsthochschulen*), including the college of sport (*Sporthochschule*) in Cologne, which is usually listed in this category; and (4) specialized higher institutions, formerly higher technical schools (*Hoehere Fachschulen*), elevated to the tertiary level in 1968 and termed *Fachhochschulen*.

Recently comprehensive universities (*Gesamthochschulen*) have been established by combining several of the four types into a single institution. For statistical purposes, comprehensive universities are classified with the other universities.

In addition to the four main groups, there are about a dozen very small church-related schools (Roman Catholic—*Philosophisch-Theologische Hochschulen*; Protestant—*Kirchliche Hochschulen*) enrolling about 1,000 students. These frequently are omitted from statistical tabulations and general discussions of higher education.

Table 5 shows the number of higher education institutions by type in each State in 1974. In the same year, approximately 780,000 students in higher education were distributed by percentage as follows:

Total	100.0
Universities	61.3
Colleges of education	16.4
Colleges of the arts	1.9
Specialized higher institutions	20.4

Universities and Equivalent Institutions

Higher education in what is now the Federal Republic began with the founding of the University of Heidelberg in 1386, and for several centuries all higher education took place at the universities. In the 18th and 19th centuries new types of institutions—*Technische Hochschulen*—emphasizing mathematics, science, and engineering were developed and achieved university status in 1899. A few specialized types—a college of agriculture, a college of veterinary medicine, a medical academy, and a college of commerce—were added to the list. Since 1970, seven comprehensive universities (*Gesamthochschulen*) have been organized, bringing the total number of the university group to 55. All are State institutions.

Administration.—Two basic principles form the basis for higher education administration: The preeminence of the State in education and the principle of university autonomy. University administration is thus a cooperative effort of the State government and the university. Broadly speaking, the State is responsible for financing facilities, equipment, staff, and other requirements, while the university is responsible for academic administration.

The administrative agencies of the university are the office of the rector or president and his staff, the university senate, and the university assembly, frequently called the *Konvent*. The rector, the chief executive officer of the university, is assisted by one or more prorectors (vice rectors). Traditionally the rector was elected on an annual basis by the faculty, but in recent years this position has been greatly strengthened by lengthening the term or replacing the rectorship with a presidency of 6 to 9 years.

The need for close cooperation between the State and the university has been recognized by the addition to the rector's (or president's) staff of a chancellor (*Kanzler*), who administers all fiscal matters.

The senate generally consists of the deans of the academic departments (*Fachbereiche*), members of the rector's staff (without a vote), and sometimes representatives of the student body. The rector serves as chairman. The senate approves financial and academic plans of the university, approves nominations for professorships submitted by the departments, and exercises general supervision over the teaching, research, and examination program.

The university assembly (*Konvent*) is the general legislative body with representation from all elements of the university—administration, professors, assistants, students; and nonacademic personnel. The assembly is generally responsible for (1) electing the rector and prorectors (who must be approved by the State), (2) adopting the university constitution (which must also be approved by the State), (3) enacting university statutes and regulations including study, examination, and degree regulations presented by the senate, and (4) approving structural, development, and financial plans.

The problem of student participation (*Mitbestimmung*) in university administration has been a highly volatile issue in recent years. Today students are represented in all university assemblies and in many university senates.

The Federal General Higher Education Law of 1976 requires some changes in university organization, staff structure, and student participation, and will ultimately lead to greater uniformity among the States. However, since the law is limited to general "framework" regulations, variations among the States will continue.

Admission.—The traditional requirement for unrestricted admission to an institution in the university group is the *Abitur*, which can be obtained in various ways, as described earlier. Restricted admission (*Fachgebundene Hochschulreife*) can be obtained from specialized academic secondary schools or from some vocational and technical programs. Also, students of the specialized higher education institutions (*Fachhochschulen*) may transfer for advanced study.

The basic right of a holder of the *Abitur* to enroll in any university in the Federal Republic has been sharply curtailed by a very rapid increase in the number of qualified applicants and a lack of facilities in higher education. Admissions, limited at first only in the medical sciences, have now been restricted to available spaces in almost all fields. (This restriction is known as *numerus clausus*.) To assist academically qualified students to find places in higher education institutions, a central registry was established in Hamburg in 1971. Following a 1972 agreement among the States and including West Berlin, this registry was replaced (in 1973) with a mandatory federal selection process involving all new student applications in those fields in which the number of applications exceeds available study spaces. The selection center, located in Dortmund, ranks all students according to their average grade-point and *Abitur* examination marks, and allots the available spaces accordingly. A small number are allotted on the basis of "waiting time" of former graduates, and some are allotted to social hardship cases (handicapped, etc.). Since grades are not standard among individual schools and among States, the system has

Table 5.—Higher education institutions, by States and types: 1974[1]

State	Types				
	Universities and equivalent institutions	Colleges of education	Colleges of the arts	Specialized higher institutions	Total
Totals	55	20	29	66	170
Baden-Wuerttemberg	9	10	7	22	48
Bavaria	9	[2](0)	5	8	22
Bremen	1	1	1	3	6
Hamburg	1	[2](0)	2	2	5
Hesse	5	[2](0)	2	4	11
Lower Saxony	8	1	2	7	18
North Rhine-Westphalia	14	3	6	9	32
Rhineland-Palatinate	3	1	0	3	7
Saarland	1	1	1	1	4
Schleswig-Holstein	2	2	1	3	8
West Berlin	2	1	2	4	9

[1] Does not include 12 very small theological colleges.
[2] Teacher education is included in the universities.
Source. Adapted from Bundesrepublik Deutschland, Planungsausschuss fuer den Hochschulbau. *Vierter Rahmenplan fuer den Hochschulbau, 1975–1978*. Bonn: Bundesdruckerei, 1974. Pp. 76–80.

been open to severe criticism. The new Federal General Education Law contains detailed regulations aimed at a more equitable distribution of places; e.g., objective tests to supplement *Abitur* marks.

Academic programs.—Students enroll at the university in their particular field of specialization. Traditionally the universities were divided into faculties in fields such as philosophy (arts and sciences), medicine, law, and theology. In recent years faculties have generally been replaced by smaller, more flexible academic departments (*Fachbereiche*), which have become units of academic administration.

Program requirements for traditional university disciplines in the sciences and humanities are based on 8 semesters. In some fields, programs are considerably longer and in others shorter; e.g., in medicine, the program is 12 semesters, and in law, economics, and agriculture, it is only 7. However, students tend to spend more than the required time at the university, and in practically all fields there are students without the first degree enrolled for more than 12 semesters.

Several factors contribute to this situation. Students are not required to register for a specific number of subjects nor to attend classes. Semester examinations are not used, and intermediate examinations are still uncommon in many fields. Coordination between course requirements, course offerings, and examinations is frequently inadequate. Furthermore, a 1975 survey showed that changes of study program from field to field are frequent, contributing substantially to the time spent at the university. This is caused in part by the enrollment limitations in many fields. For example, an applicant for medical studies who is not placed may enroll in any open subject until a vacancy in medicine occurs. Because the large number of students enrolled for long periods of time contributes significantly to the problem of overcrowding, substantial reforms are under consideration, including limiting length of study and introducing more interim examinations.

The lecture and seminar are typical methods of teaching. The former is declining in favor and increasing emphasis is being placed on small group procedures. Overcrowding is a major hindrance to progress in this direction.

Degrees.—University studies are terminated by academic examinations and degrees (diploma, Master of Arts, Doctorate) or by State examinations. The latter are required in fields that traditionally prepare for the public service (teaching,

law, public administration) or in which the State regulates admission to practice (medicine, pharmacy, dentistry).

Diplomas are awarded primarily in engineering, the sciences, and social sciences (economics, business administration, sociology). Examples are *Diplom-Ingenieur*, diploma in engineering, *Diplom-Volkswirt*, diploma in economics; and *Diplom-Psycholog*, diploma in psychology. Diploma examinations were originally administered by higher education institutions on behalf of professional associations, but are now recognized by law for entering the corresponding professions.

Students in arts and sciences who plan to teach in secondary schools take State examinations in the subjects (usually two) they plan to teach. The minimum requirement for secondary level I is 6 semesters of study, for secondary level II, 8 semesters. Similarly, students in law take State examinations after 6 semesters of study. Both teachers and lawyers must complete an additional 2 years of inservice training and experience and take a second State examination in order to qualify fully for the civil service.

In medical fields students who have completed 2 years of study are required to take a preliminary examination (*Physikum*) that they must pass in order to continue their studies. Upon completing the remaining 4 "clinical" years of their medical studies, they must pass a State examination to be licensed for practice. Traditionally the great majority fulfill the requirements for the academic degree of *Dr. med.* (Doctor of Medicine) concurrently with their preparation for the State examination since the requirements for both are similar.

The academic degree of Master of Arts (M.A.) has been introduced in recent years (after a lapse of centuries) for students in academic fields who do not plan to teach or to complete a doctorate, or who study in fields in which neither a State examination nor a diploma is offered (e.g., journalism).

The doctorate is the advanced academic degree in all fields. In some fields the degree may be acquired without a prior lower degree, but usually it follows a diploma or State examination. It does not require a specific period of university study beyond the typical 8 semesters required for first degrees, but is acquired by independent study and research, usually under the direction of a senior professor. It is terminated with comprehensive examinations and successful defense of a dissertation. In the arts and humanities the usual degree is *Dr. phil.* (Ph. D.) and in the sciences, *Dr. rer. nat.* (Dr. of Science). Examples in other fields are *Dr. ing.* (Doctor of Engineering), *Dr. iur.* (Dr. of Jurisprudence), *Dr. oec.* or *Dr. rer. pol.* (Dr. of Economics), *Dr. theol.* (Dr. of Theology or Doctor of Divinity).

The holder of a doctorate frequently has both State and academic qualifications. For example, all secondary school teachers must pass State examinations, and a large number also acquire the Ph. D. in their academic field. Many lawyers complete the doctorate in addition to their mandatory State examination. The comparable practice in medicine has already been noted. Similarly, many holders of diplomas as first degrees complete doctorates in their fields.

Prospective university professors must present a second dissertation and give sample lectures before their colleagues, after which they receive a second doctorate called the *Habilitation* (*Dr. habil.*). Candidates for this degree usually spend several years at a university as assistants to professors while completing their degree requirements. It is possible, but rare, except in engineering or technology, to appoint to a professorship persons who have not obtained the *Habilitation* or even the doctorate.

Colleges of Education

Traditionally, German teachers were trained according to the type of school rather than the age group to be taught. Teachers for the *Gymnasium* (grades 5–13) were university trained, while teachers for the compulsory elementary schools (grades 1–8 or 9) were trained in institutions of less than higher education rank, generally called teacher training institutes (*Institute fuer Lehrerbildung* or *Paedagogische Institute*). Teachers for the middle schools were usually recruited from the ranks of elementary school teachers. In recent years the institutes have been elevated to the tertiary level and renamed *Paedagogische Hochschulen*, generally translated as colleges of education.

Hamburg has included teacher education in its university since 1924. Bavaria and Hesse combined their colleges of education with their universities in recent years. Lower Saxony and Rhineland-Palatinate have single colleges of education with branches throughout the State, North Rhine-Westphalia has three central colleges with a total of 12 branches, and Baden-Wuerttemberg maintains each of its 10 colleges of education as a separate institution.

Admission requirements for colleges of education are essentially the same as for universities; i.e., the *Abitur* or equivalent.

Colleges of education remain primarily responsible for training teachers for the primary school and the main school. The typical course lasts 6 semesters and includes general studies, profes-

sional subjects (e.g., education, psychology, methods of teaching), and practical experience in the schools. Upon completing the program, students take the first State examination, which entitles them to teach but is not permanent certification. Most colleges are authorized to give master's degrees or diplomas (*Diplom-Paedagog*). The latter are frequently employed in guidance, experimental programs, planning, and research. A few colleges also offer the doctorate.

In eight States and West Berlin, a prospective teacher for the middle school either (1) studies for 6 semesters at a university and takes the first State examination, or (2) completes a teacher-training program for the main school, takes some additional courses at a university or college of education, and then takes a special examination for teaching in the middle school. In the other two States (Bremen and Hesse), a prospective teacher for the middle school is qualified by the same training as a teacher for the main school.

After 2 years of experience teachers take a second State examination that gives them permanent certification.

The training of teachers for the academic secondary school has been standardized throughout the Federal Republic for many years. Students complete a minimum of 8 semesters at a university, take a substantive examination in the subjects they plan to teach, and are then assigned to a selected secondary school for 2 years. Here their time is divided between supervised teaching and pedagogical studies in an institute (*Studienseminar*) operated by the secondary school. At the end of the program they take a second State examination emphasizing pedagogical studies and receive permanent certification with the title *Studienrat*. Teachers of theoretical subjects in vocational/technical schools usually follow this pattern. Plans are in progress for training lower-level vocational teachers at specialized higher institutions.

Teachers for special education schools must qualify for teaching in general education schools, demonstrate their proficiency, and then enter special training programs of several years' duration, usually at a university.

Teachers at all levels are civil servants, usually employed by the State, and have tenure after passing the second State examination.

Colleges of the Arts

Over a period of many years, colleges of the arts (*Kunsthochschulen*) have been founded by States, cities, or private groups in music, theater, dance, painting, sculpture, and similar fields. Most of these, regardless of origin, became State institutions and achieved higher education status although they are not included with the "scientific higher institutions." To these have been added a college of television and film and a college of sport. A few institutions in the group are private. The two main types are generally called colleges of music and colleges of art although their exact titles and teaching fields vary.

The *Abitur* is the general admission requirement. However, students without the *Abitur* can be admitted upon demonstrating a high level of talent in an artistic field. The standard length of courses varies from 6 to 8 semesters. In 1974 students were enrolled an average of 9 semesters. Upon completing their programs, students are awarded diplomas and can undertake advanced studies for the doctorate.

Specialized Higher Institutions

As noted previously, specialized higher institutions (*Fachhochschulen*) were created in 1968 by elevating higher technical schools to the tertiary level. The largest group in this category were the schools of engineering (*Ingenieurschulen*), not to be confused with the technical universities (*technische Hochschulen*). The schools of engineering offered 3-year programs leading to a certificate called *Ingenieur-Graduiert* (graduate engineer), in contrast to the *Diplom-Ingenieur* diploma awarded by the technical universities.

Other schools in this category include schools of business and economics, social work, design, rural engineering, and navigation. Many specialized higher institutions combine several former types of schools—such as those of engineering, design, and social work—into a single institution.

Specialized higher institutions differ from all other higher institutions in that they normally admit students at the level of 12 years of preparation (*Fachhochschulreife*) instead of 13 years and the *Abitur*. Most programs require 3 years of study and lead to certificates indicating the fields studied. On the average, students spend about 9 semesters completing the requirements. The objectives and curriculum of these institutions are being revised.

In addition to providing advanced training for a variety of professions, specialized higher institutions serve as an additional channel to general higher education. The situation is changing, and numerous efforts toward standardization are in progress. For example, a student in engineering at the specialized higher institution can usually transfer to a technical university without difficulty, or a student in social work can transfer to advanced work in social science leading to the

doctorate. The problem of comparability is especially acute in comprehensive universities.

Comprehensive Universities

Combining several types of existing institutions, the comprehensive university (*Gesamthochschule*) was established primarily to increase diversification of offerings and length of programs in a single institution. The major problem in the organization of these universities has been to develop programs for students entering with widely differing backgrounds. For example, the first institution, opened in 1971, included elements of all four existing categories of higher institutions. Consequently some students entered with 12 years of preparation (*Fachhochschulreife* level from the specialized secondary schools), some with 13 years of preparation and the *Abitur*, and some with predominantly artistic qualifications. A fundamental principle of the comprehensive university is that every student, regardless of his entrance qualification, can proceed to the highest level of offering in any field that his ability permits. Substantial progress toward this objective is being made. Numerous leaders in higher education expect the comprehensive university to become the predominant type of the future.

General Higher Education Law

After 5 years of intense debate, the parliament in December 1975 passed a General Higher Education Law (*Hochschulrahmengesetz*), effective as of January 1976. Based on the constitutional amendments of 1969, the law represents a substantial departure from the principle of State autonomy in education and enables the Federal Government to assume effective leadership in many higher education matters. Many of the provisions are not new, but have developed in recent years either by independent action of the States, by agreements among the States, or by agreements between the Federal Government and the States. Their codification in Federal law, however, gives them added influence and prestige.

Major provisions of the law include:

1. A statement on the functions of the university in teaching, research, and study.
2. Provisions for the reform of higher education programs and examinations, primarily through reform commissions at the State level.
3. Admission of students through a central agency at the Federal level in all subjects that have enrollment restrictions (discussed on p. 17).
4. Provisions for increased standardization in university administration, including definition of the roles of all elements of the university (professors, academic assistants, students, and other personnel) in decisionmaking.
5. Organization of higher education institutions, with the academic department as the primary unit.
6. Revision of faculty ranks and designations.
7. Provisions for higher education planning, requiring each State to develop status reports and long-term plans for each higher education institution and for the State higher education system as a whole to be kept up-to-date on a continuous basis.

In addition, the law requires the States to amend their own higher education laws within 3 years to conform to the Federal law.

ADULT EDUCATION

The major institution offering adult education is the *Volkshochschule*, sometimes translated as "people's college," which has played a prominent role in German education since the 1920's. In 1973 there were 1,096 institutions with a total of 3,599 branches, a full-time and part-time administrative staff of 2,[illegible]7, and a part-time teaching staff of 56,625. About 166,000 courses were offered, with a total enrollment of 3.3 million.

Offerings are grouped in 12 areas: Society and politics; education, philosophy, religion, psychology; art and music; geography and nature study; mathematics, science, and technology; administration and business practice; languages; manual and artistic practice, including lay theater; homemaking; health and physical care; preparation for school certificates; and special programs. Standard school certificates at various levels may be earned. In 1973, 8,576 participants completed school certificates at the main school, middle school, academic-secondary school, or technical school level, with the great majority in the first two levels.

EDUCATIONAL PLANNING AND RESEARCH

Major steps toward educational planning on a national level have been taken since the 1950's. In addition to the ministries of education at the State and Federal levels, four agencies have been established with specific responsibilities for educational planning: The Science Council, The German Education Council, the Planning Committee for

University Construction, and the Federal-State Commission for Educational Planning.

The Science Council (*Wissenschaftsrat*) was organized in 1957 to develop long-range plans for higher education. Its recommendations were instrumental in establishing a number of new universities, developing financial plans on a Federal level, and laying the groundwork for university reforms in both the administrative and academic spheres.

The German Education Council (*Deutscher Bildungsrat*) was established in 1965 to perform a similar planning function for the elementary and secondary (including vocational) levels.

Under the requirements of the Law on the Promotion of University Construction (*Hochschulbaufoerderungsgesetz*), the Planning Committee for University Construction (*Planungsausschuss fuer den Hochschulbau*), chaired by the Federal Minister of Education and Science, was established in 1969. This body has issued four consecutive plans that have systematized the distribution of Federal funds for higher education among all institutions and established priorities for expanding higher education.

The planning functions of the Federal Government and the States were brought together into a single organization in 1970 with establishment of the Federal-State Commission for Educational Planning (*Bund-Laender-Kommission fuer Bildungsplanung, BLK*) responsible for structural, academic, and financial planning at all educational levels. The *BLK* published a two-volume report in 1973 showing projections of enrollments, space requirements, and expenditures at 5-year intervals from 1970 to 1985. (An abridged version of the report in English appears in the selected reading list, p. 26.) The report provides the basis for educational legislation and appropriations. It appears that the *BLK* may become the central educational planning agency in the Federal Republic, with the others cooperating with it in an advisory capacity.

Educational research and innovation in the Federal Republic have been intensified in recent years through active participation in the various educational programs of the Council of Europe, the UNESCO center at Hamburg, and the Organization for Economic Cooperation and Development (OECD). Much of the research is done by universities, nonuniversity research institutes, institutes associated with ministries of education, and individuals. Two organizations have been particularly active in educational research: The German Institute for International Educational Research (*Deutsches Institut fuer Internationale Paedagogische Forschung*) in Frankfurt and the Max Planck Institute for Educational Research (*Max-Planck-Institut fuer Bildungsforschung*) in Berlin. The former has the status of a nonteaching university, and the latter is the educational arm of the largest and most influential research organization in the Federal Republic, the Max Planck Society for the Advancement of Science (*Max-Planck-Gesellschaft zur Foerderung der Wissenschaften*).

NONSCHOOL INFLUENCES

Youth Organizations

A large number of youth organizations, enrolling more than 6 million members, provides a great variety of out-of-school activities for young people of all ages. These organizations are promoted at the Federal level through the Federal youth plan (*Bundesjugendplan*), which, according to its own guidelines, is designed to help youth to develop physically, occupationally, intellectually, and morally in free associations and to fulfill its obligations to the family, society, and state.

Youth programs emphasize independence in organization and programs, and foster the ability to participate in social and political affairs. The organizations have no direct relationship with the schools and the schools have no responsibility for them, although many young teachers work in the youth organizations by choice. The organizations play a supplementary educational role and provide opportunities and facilities for leisure-time activities that are generally not available in the schools.

Parents' Councils

Parent-school relations find expression through parents' councils at various levels. Councils are organized at the classroom level (*Klassenelternbeirat*) and at the school level (*Schulelternbeirat*). In several States, councils are also organized at the county or city and State levels. Parents' councils serve as advisory bodies to school authorities and as important links between the school and the community. The councils have no supervisory responsibility nor legal authority over school affairs.

Disagreements between parents and the school sometimes arise in the selection of secondary school tracks for their children. If these disagreements cannot be settled by discussion or compromise, the final decision rests with the school since the Constitution defines education as a State function.

SELECTED GLOSSARY

German	English
	A
Abendgymnasium	Academic secondary school, evening program
Abitur	Secondary school leaving certificate, the primary requirement for unlimited admission to higher education
Abiturpruefung	Examination for the *Abitur*
Abschlusspruefung	Terminal examination for a specific school program
Abschlusszeugnis	Certificate of completion at various levels
Allgemeinbildende Schule	School of general education
Allgemeine Hochschulreife	General (i.e., unrestricted) admission to higher education
Aufbauzug (pl. *-zuege*)	Advanced classes
	B
Beruf	Occupation
Berufsaufbauschule	Extended vocational school
Berufsfachschule	Full-time vocational school
Berufsschule	Part-time vocational school
Berufssonderschule	Vocational school for the handicapped
Bildungsforschung	Educational research
Bildungsplanung	Educational planning
Bund	Federation
Bundesjugendplan	Federal youth plan
Bundesminister (or *Ministerium*) *fuer Bildung und Wissenschaft*	Federal Minister (or Ministry) of Education and Science
Bund-Laender-Kommission fuer Bildungsplanung	Federal-State Commission for Educational Planning
	D
Deutscher Bildungsrat	German Education Council organized in 1965 to develop long-range plans for the elementary and secondary levels
Diplom	Diploma
Diplom-Ingenieur	Engineer with diploma
Doktor	Doctorate (academic degree)
Doktor Habilitation (Dr. Habil.)	Second doctorate required of university professors
	E
Elementarstufe	Preschool level
Elternbeirat	Parents' council
Erwachsenenbildung	Adult education
	F
Facharbeiter	Skilled worker
Fachbereich (pl. *-bereiche*)	Academic department
Fachgebundene Hochschulreife	Level of education that qualifies for admission to higher education in specific subject areas
Fachhochschule	Specialized higher institution
Fachhochschulreife	Level of education that qualifies for admission to the specialized higher institution (*Fachhochschule*), obtained by completing the specialized secondary school or an equivalent program
Fachoberschule	Specialized secondary school
Fachschule	Technical school
Fachschulreife	Level of education that qualifies for admission to technical school
Forschung	Research
	G
Gesamthochschule	Comprehensive university
Gesamtschule	Comprehensive school, grades 5 through 10
Grundschule	Primary school, grades 1 through 4
Gymnasium	Academic secondary school, grades 5 through 13
	H
Hauptschule	Main school, grades 5 through 9 (before 1964, the upper elementary level); provides general education
Heimatkunde	Local geography and community study; literally, "knowledge of home"
Hochschule	Higher education institution
Hochschulrahmengesetz	General higher education law
Hochschulreife	Level of education that qualifies for admission to higher education
Hoehere Fachschule	Higher technical school. Before 1968, at the secondary level; after 1968, at the tertiary level as a special higher institution (*Fachhochschule*)
	I
Ingenieur-Graduiert	Certificate received by a graduate of the engineering school before 1968
Ingenieurschule	Engineering school, a type of higher technical school before 1968
Institut (pl. *Institute*) *fuer Lehrerbildung*	Teacher-training institute (below higher education level) for training elementary school teachers; recently elevated to the higher education level as a college of education (*Paedagogische Hochschule*)
	K
Kanzler	Chancellor, university staff member responsible for all fiscal matters

Kindergaertnerin (pl. *-gaertnerinnen*)	Kindergarten teacher (feminine)
Kindergaertnerinnenseminar	Institute for training kindergarten teachers (technical school level)
Kindergarten	Preschool education that is *not* part of the school system
Kinderheim	Children's home
Kinderhort	Children's care center (There is no sharp distinction between the *Kinderheim* and the *Kinderhort.*)
Kirchliche Hochschule	Protestant Church-related higher education institution
Klassenelternbeirat	Classroom level parents' council
Kolleg	Special university preparatory school for adults
Konvent	University parliament or assembly
Kunsthochschule	College of the arts

L

Land (pl. *Laender*)	State
Landkreis	Rural county
Landerziehungsheim	Country residential school, a private school generally including the primary and main school levels
Lehrabschlusspruefung	Final apprenticeship examination

M

Meisterschule	Technical school for master craftsmen
Medizinische Akademie or *Medizinische Hochschule*	Medical school (higher education level)
Mitbestimmung	Participation in decisionmaking, here with special reference to higher education administration

N

Numerus Clausus	Latin phrase referring to restriction on enrollments in numerous higher education fields because of lack of facilities

O

Oberschulamt (pl. *-aemter*)	Regional education office

P

Paedagogisches Institut (pl. *Paedagogische Institute*)	Same as *Institut fuer Lehrerbildung*
Paedagogische Hochschule	College of education (higher education level)
Planungsausschuss fuer den Hochschulbau	Planning Committee for University Construction
Philosophisch-Theologische Hochschule	Roman Catholic Church-related higher education institution
Physikum	Preliminary examination in medical school
Primarstufe	Primary school level

R

Realschulabschluss	Completion of the *Realschule*
Realschule	Middle school, grades 5 through 10. Provides general education at a more advanced level than that of the main school.
Regierungsbezirk	Regional administrative unit
Reifepruefung	Same as *Abiturpruefung*
Reifezeugnis	Same as *Abitur*
Rektor	Rector: head of a university; today, frequently renamed president

S

Sachkunde	Study of basic science and technology and general knowledge of the modern world (the revised elementary social studies course); literally, "knowledge of things"
Schulamt	City or county school office
Schule (pl. *Schulen*)	School
Schulelternbeirat	School-level parents' council
Schulkollegium	Regional school office
Schulrat	Superintendent of schools
Sekundarstufe I, II	Secondary level I, II
Sonderschule	School for the handicapped
Sonderschulkindergarten	Kindergarten for the handicapped
Sozialwissenschaftliches Gymnasium	Social science (academic) secondary school
Sporthochschule	College of sport
Stadt (pl. *Staedte*)	City
Staendige Konferenz der Kultusminister der Laender	Permanent Conference of Ministers of Education and Cultural Affairs of the States
Studienseminar	Professional training institute for secondary school teachers
Studienrat	Title of secondary school teacher with permanent certification

T

Technikerschule	Technical school that trains advanced industrial technicians
Technisches Gymnasium	Technical (academic) secondary school
Technische Hochschule	Technical university (institute of technology)
Technische Oberschule	Same as *Technisches Gymnasium*
Technische Universitaet	Same as *Technische Hochschule*
Tieraerztliche Hochschule	College of Veterinary Medicine

U

Universitaet (pl. *Universitaeten*)	University

V

Verband Deutscher Privatschulen — Association of German Private Schools

Volkshochschule — School of adult education or "people's college"

Volksschule — Elementary school, including what is now called the *Grundschule* and the *Hauptschule*

Vorschule — Preschool education that is part of the formal school system

W

Westdeutsche Rektorenkonferenz (WRK) — West German Rector's Conference, an association of West German rectors and presidents of institutions of higher education

Wirtschaftsgymnasium — Commercial (academic) secondary school

Wissenschaftliche Hochschule — Universities, equivalent institutions, and colleges of education; literally, "scientific higher institution"

Wissenschaftsrat — Science Council, organized in 1957 to develop long-range plans for higher education

Z

Zweiter Bildungsweg — "Second way," designating special arrangements for acquiring the *Abitur*

SELECTED READING LIST

Bodenman, Paul S. "Academic Reforms in Selected Universities of the Federal Republic of Germany." Unpublished Ph. D. dissertation, University of Maryland, 1973. 311 pp.

Boenig, E. and K. Roeloffs: *Case Studies on Innovation in Higher Education. Three German Universities–Aachen, Bochum, Konstanz.* Paris: Organisation for Economic Co-operation and Development (OECD), 1970. 168 pp.

Burn, Barbara B. et al. *Higher Education in Nine Countries A Comparative Study of Colleges and Universities Abroad.* Chapter 7: "Higher Education in the Federal Republic of Germany." New York: McGraw-Hill Book Company, 1971. pp. 165–195

Federal Republic of Germany. *Basic Law for the Federal Republic of Germany as Adopted by the Parliamentary Council on May 8, 1949.* Bonn: Deutscher Bundestag, 1955. 41 pp.

____. Bund-Laender Commission for Educational Planning. *General Plan for Education Abridged Version* Stuttgart: Ernst Klett Verlag, 1973. 64 pp.

____. ____. *Information on the Bund-Laender Commission for Educational Planning.* Bonn, 1974 15 pp. and annexes.

____. Permanent Conference of Ministers of Education and Cultural Affairs of the States (KMK). *Development of Education in the Laender of the Federal Republic of Germany 1973/74 and 1974/75* (for the 35th session of the International Conference on Public Education, Geneva, 1975) 1975. 26 pp.

____. *Higher Education in the Federal Republic of Germany. Problems and Trends.* Bonn-Bad Godesberg: German Academic Exchange Service, 1965. 61 pp

____. Science Council. *Recommendations by the Science Council for the Structure and Expansion of Higher Education after 1970: Summary.* Tuebingen: J.C.B. Mohr (Paul Siebeck), 1970.

Geimer, Reinhold and Hildegard Geimer. *Science in the Federal Republic of Germany. Organization and Promotion.* Bonn-Bad Godesberg. Deutscher Akademischer Austauschdienst, 1971. 72 pp.

Organisation for Economic Co-operation and Development (OECD). Center for Educational Research and Innovation. *Innovation in Education—Germany: Technical Report.* Paris: OECD, 1971. 58 pp.

____. Directorate of Scientific Affairs. "Reviews of National Policies for Education: Germany: Annexes to the main report on Educational Policy and Planning in Germany, prepared by the German Authorities." Reference: Ed (71) 13 Paris: OECD, 1971. 292 pp. (Mimeograph.)

____. Education Committee. "Reviews of National Policies for Education: Germany." (Prepared jointly by the Federal Government and the Laender Ministries of Education and Cultural Affairs of Germany). Reference: Ed (71) 13: Paris: OECD, 1971. 286 pp. (Mimeograph.)

____. ____. "Reviews of National Policies for Education: Germany. Examiners' Reports and Questions." Reference: Ed (71) 19. Paris: OECD, 1971. 97 pp. (Mimeograph.)

Schultze, Walter and Christoph Fuehr. *Schools in the Federal Republic of Germany.* Weinheim and Basel: Verlag Julius Beltz, 1967. 180 pp.

United Nations Educational, Scientific and Cultural Organization (UNESCO). *World Survey of Education—V: Educational Policy, Legislation and Administration.* Paris: UNESCO, 1971, pp. 495–513.

West German Rectors' Conference. *Documentation Concerning University Reform, 1968–69.* Bonn-Bad Godesberg: The conference, 1969. 119 pp.

____. *Documentation Concerning University Reform II, 1969–70.* Bonn-Bad Godesberg: The conference, 1970. 70 pp.

☆U.S GOVERNMENT PRINTING OFFICE: 1977-229-939/973