

Contemporary Research in the United States, Germany, and Japan  
on Five Education Issues: Structure of the Education System, Standards  
in Education, the Role of School in Adolescents' Lives,  
Individual Differences Among Students, and Teachers' Lives

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## **Preface**

To prepare for the Third International Mathematics and Science Study (TIMSS), the U.S. Department of Education, through its National Center for Educational Statistics, funded this review of the current literature relating to the psychological and social processes involved in teaching and learning mathematics and science in the United States, Germany, and Japan.

TIMSS is a large collaborative project involving the participation of thousands of students in grades 3–4, 7–8, and 12, in 41 countries and their teachers. In 1996, students responded to tests of their knowledge about mathematics and science, and answered questions about various facets of their lives at school and at home that may have affected test scores. Teachers answered questions about their everyday practices and attitudes. To help increase understanding of the systems of education and cultural factors that may underlie differences in academic achievement, this review presents the results of previous studies that have been conducted in the United States, Germany, and Japan. The TIMSS case studies conducted in each of these countries are reported in separate publications.

Germany and Japan were chosen for comparison because their students have fared much more successfully in prior comparative studies of academic achievement than have students from the United States. Indeed, one of the most compelling questions facing American education today is why our students perform so poorly in mathematics and science



in comparison with students from other industrialized countries. Looking at other countries may lead us to examine aspects of our own practices that might be improved.

Published sources present helpful descriptions of the school systems in the three countries; other reports augment this information by providing detailed accounts of everyday practices and experiences of students, parents, and teachers. The reviews of the literature were written by persons who were fluent in the language and had broad prior experience in the country whose literature they reviewed. Rather than attempt to cover the entire research literature from each country, the reviews were restricted to five topics considered to be central to educational achievement and of great interest to policymakers:

- The structure of the school in that country,
- The role of national standards in educational practice,
- The role of school in adolescents' lives,
- The influence of individual differences among students, and
- The training and working conditions of teachers.

Obtaining copies of the material for inclusion in these reviews proved to be a difficult task. Gaining access to the American literature posed few problems, but acquiring copies of the relevant books and articles from Germany and Japan was much more difficult. The first task was to locate articles that were judged by colleagues, both American and foreign, as being among the most important to include. However, many of the most recent books and journals were not available in American bookstores or libraries; thus, it was necessary to obtain them directly from Germany and Japan. Without the cooperation of many foreign

colleagues in helping us locate copies of the materials, up-to-date reviews would have been impossible.

In addition to the reviews, we have included glossaries and an extensive list of references. Whenever a German or Japanese word or phrase is used for the first time in the text, a translation is provided. If the term is used more than once, it is included in the glossary for easy reference. The reviewers were unable, of course, to discuss every article they read, but we have included a list of references to all of the literature the reviewers believed to be relevant or of potential interest to other readers.

We want to express our appreciation to the many individuals who helped us in preparing this volume, especially Cindy Andress, J. J. Abbott, Linda Bailey, Thomas Evans, and Margaret Mullins. We are also grateful to the many reviewers who gave us suggestions about material we should include and who made comments about the content of the reviews. The participation of our American, German, and Japanese colleagues was especially helpful. Finally, work on the volume was greatly aided by the facilities made available for the project at the Center for Human Growth and Development at the University of Michigan.

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**United States**

# **The Educational Structure of the United States School System**

**Roberta Nerison-Low**

## **Introduction**

The United States education system is divided into three levels: elementary (or primary), secondary, and higher education:

- Elementary schools are those schools enrolling students in the first through sixth grades. (In some statistical literature, elementary school encompasses students through the eighth grade.) They may also include kindergarten and prekindergarten classes.
- Secondary schools enroll students in the 7th through the 12th grades. Successful completion of the 12th grade results in the awarding of a high school diploma, which represents a significant achievement in an adolescent's life. The high school diploma is a prerequisite step for entrance into an institution of higher education and is becoming increasingly important for employment.
- Higher education includes all students enrolled in postsecondary educational institutions.

Although the United States education system is distinguished by the three main levels of elementary, secondary, and higher education, some school districts further subdivide their elementary and secondary student populations to create separate schools at the middle school or junior high level. Middle schools generally encompass the fifth through the eighth grades and junior high schools generally encompass the seventh through the ninth grades (U.S. Department of Education [USED] 1993b). The structure of a school system is the result of decisions made at the community level, and is often influenced by factors such as population growth, funding sources, and availability of appropriate structural facilities. As a result, the use of middle schools or junior highs as an intermediate step from the elementary level to the secondary level varies from school district to school district.

## Enrollment

All children in the United States have access to public schools and are required to be enrolled in school, either public or private, by the time they have reached the age of 6. Enrollment rates among children 6 through 15 years old are essentially 100 percent (USED 1993a). Enrollment in school is mandatory until the age of 16 in the majority of states. The remaining states require enrollment until age 17 or 18. At the elementary levels, enrollment rates for both male and female students of all races are consistently near 100 percent.

## Public and Private Schools

Although the majority of students in the United States attend public schools, private schools provide an alternative to the public school system for families who want and can afford an alternative. Many private schools have religious affiliations, although private nonsectarian schools also exist in many communities. Because private schools do not receive funding from state or local tax revenues, students who enroll in private schools pay tuition directly to the school. Table 1 demonstrates the distribution of public and private schools in the United States.

Table 1—Distribution of public versus private schools in the United States during 1993–94, and enrollment numbers at each school type

School type	Number of public schools	Number of private schools	Public school enrollment	Private school enrollment
Elementary	60,052	15,539	31,515,485 (K–8)	2,803,359 (K–8)
Secondary	20,059	2,551	11,960,783	811,087
Combined & other elementary & secondary	5,282	8,004		1,356,199
Total	85,393	26,094	43,476,268	4,970,645

SOURCE: United States Department of Education, 1995.

A majority of schools provide kindergarten classes, and in the 1992–93 school year, 97 percent of these classes met 5 days a week (USED 1993e). A survey of schools in the United States by the U.S. Department of Education shows that in the 1990–91 academic year, 77 percent of public schools and 79 percent of private schools offered kindergarten programs.

Prekindergarten programs such as daycare centers and nursery schools are not widely available within the public education system, being offered in only 17 percent of public elementary and combined schools (USED 1993f). Instead, such programs are typically limited to privately operated preschools.

While most children attend kindergarten before starting first grade, access to prekindergarten classes is often determined by the families' socioeconomic status. In 1991, 53 percent of 3- and 4-year-olds from high-income families were enrolled in prekindergarten programs compared with 22 percent of those from low-income families (USED 1993a). Of those children from low-income families attending prekindergarten programs in 1992, 621,000 were attending federally funded Head Start programs (USED 1993b).

Another study conducted in 1991, The National Household Education Survey (USED 1992), found that children's attendance at prekindergarten programs was clearly related to parental education level. Children whose parents had a high school education or less, and particularly those whose parents did not complete high school, were more likely to enter first grade without attending a prekindergarten program.

## **Ethnic and Racial Compositions**

Since access to elementary and secondary education is both free and mandatory, the ethnic and racial composition of student populations in U.S. public schools reflects the ethnic and racial diversity of the country's overall population. However, the ethnic and racial composition of individual schools can vary greatly depending on location. Urban schools have a higher proportion of minorities than suburban or rural schools. In 1990, 16 percent of public school children were black, 12 percent were Hispanic, and 3 percent were Asian. However, 33 percent of students enrolled in public urban schools were black and 20.6 percent were Hispanic (USED 1993a). The relevance of the disproportionately larger numbers of minorities living in urban areas is evident when issues of inner-city poverty rates and local funding of schools are examined. Historically, free access to public education has not always meant equal quality of education resources.

## **Participation Levels**

As students reach age 16 (approximately the 10th grade), when enrollment is no longer mandatory, participation levels begin to change. Dropout rates in high school are strongly associated with family income, type of community, race and ethnicity, and sex:

- In 1991, only 3 percent of 19- to 20-year-olds in high-income families were high school dropouts, compared to 14 percent of those in middle-income families and 30 percent of those in low-income families (USED 1993a).



- Differences in retention can be seen between rural and urban communities. Within the public sector, the percent who graduated (in 1990–91) was somewhat lower in central cities (87 percent) than in urban fringe/large town or rural/small town communities (91 percent and 96 percent, respectively) (USED 1993a).
- Dropout rates among all persons 16 to 24 years old in 1991 reflect an overall rate of 12.5 percent for the United States. However, by race 8.9 percent of dropouts were white, non-Hispanic; 13.6 percent were black, non-Hispanic; and 35.3 percent were Hispanic (USED 1993b). In addition, ethnic differences in retention become notable in the 16–17-year-old age range. Enrollment rates in 1992 for 16–17-year-old students were 95.3 percent for white, non-Hispanic students; 93.0 percent for black, non-Hispanic students; and 87.2 percent for Hispanic-origin students (USED 1993a).
- Further differences in enrollment rates are also evident for male and female students in the 16–17-year-old range. In 1992, 95.4 percent of all males were still enrolled in school, compared to 92.7 percent of all females of the same age. And, among enrolled female students, ethnic origin also plays a role in retention. In 1992, enrollment rates for 16– and 17-year-old females were 94.1 percent for white, non-Hispanic students; 91.4 percent for black, non-Hispanic students; and 85 percent for Hispanic students (USED 1993a).

## Curricular Structure

Although minimum requirements exist for each level of the educational system, the curriculum is most structured at the elementary school level and becomes less structured as students progress into junior high and high school. Throughout all levels, programs exist in varying degrees to meet the needs of all students: those planning to attend college, those needing vocational education, and those needing some form of special education.

### **Elementary Level**

At the elementary level, academic subject courses generally consist of language arts, mathematics, social studies, and science. However, a significant portion of the school day is often spent in required nonacademic courses such as art, music, drama, dance, and physical education. One study of 38 schools found that only 54 percent of the weekly instructional time at the elementary level was devoted to reading, language arts, and mathematics (Goodlad 1984).

### **Secondary Level**

Academic courses continue to maintain a strong presence in the curriculum through junior and senior high. However, there is a definite decline in the emphasis on academic courses, since the curricular and noncurricular options are so numerous at this level. Although a basic set of classes is required for graduation, students are able to supplement these with a variety of elective classes (Hallinan 1987). A recent study by the National

Education Commission on Time and Learning (1994) showed that in 42 states, only 41 percent of secondary school time must be spent on academic subjects. The number and type of elective classes available to particular students will depend almost entirely on the school in which they are enrolled. Funding often plays a determining role in a school's ability to provide elective courses, and therefore the poorer school districts are able to offer fewer educational opportunities in the form of elective courses.

Public schools, particularly at the secondary level, accommodate students with diverse interests and ability levels by providing curricular tracks. The U.S. Department of Education's Statistical Profile of Schools and Staffing in the United States for 1990–91 (1993f), states that 80 percent of all schools with 12th grade offered a college preparatory program with an average enrollment of 60 percent of their 10th- to 12th-grade students. Also, 78 percent of public schools that served 12th-graders offered a general program for students who did not plan to attend college, and in these programs had an average enrollment of 45 percent of 10th- to 12th-graders.

### **Vocational Education**

Vocational education classes are provided within the public secondary schools. In most cases, students interested in vocational courses do not attend a separate secondary school or follow a predetermined series of courses toward mastery of a particular trade. Instead, students integrate one or more vocational courses of their choosing into their course schedule, and in many junior and senior high schools, vocational education emerges as a subject nearly paralleling social studies and science in emphasis. However, the delivery of

secondary vocational education can vary from state to state and even within states and school districts. Many states rely on area vocational schools to provide vocational classes that supplement the local high schools' curricular offerings, and in some large city school districts, full-time vocational high schools offer a complete program of academic and vocational studies. These vocational high schools differ only in that their focus is vocational rather than academic, and despite their vocational focus, graduates are permitted to progress to postsecondary educational institutions (Hoachlander, Kaufman, Levesque, and Houser 1992).

### **Special Education**

The Education for All Handicapped Children Act, passed in 1975, provides for a “free and appropriate education” for all children with handicapping conditions and provides the federal financial assistance for schools to achieve this goal. Special education classes are provided both at the elementary and secondary level in the public school system but are less available in private schools, where enrollment numbers are generally lower. Statistics provided by the U.S. Department of Education show that approximately 16 percent of all private schools provide programs for children with handicaps versus nearly 87 percent of all public schools (USED 1993a).

In 1990–91, of the total number of students enrolled in public schools (kindergarten through 12th grade), 11.6 percent were served by federally supported programs for people with disabilities (USED 1993b). The largest number of students were in programs targeting specific learning disabilities (5.2 percent), speech or language impairments (2.4 percent), and

mental retardation (1.3 percent) (USED 1993b). Of those students with disabilities between the ages of 6 and 21 who received special education services,

- 31.7 percent received these services within their regular class,
- 37.5 percent received assistance through resource rooms in their schools,
- 24.8 percent were taught in separate classes within their schools, and
- 3.2 percent were sent to separate public school facilities for education.

Much smaller numbers were educated through private separate school facilities, public residential facilities, private residential facilities, and homebound/hospital environments (USED 1993b). As can be seen by these statistics, the great majority of students with special education needs are provided special education services within their local public school system.

### **Programs for the Gifted and Talented**

Programs for gifted children, although not mandated by federal law, have been encouraged from the federal level downward and are increasingly available within public school systems. Most states and localities have developed definitions of gifted and talented students in order to identify such students for special programs (USED 1993d). However, the content and extent of these programs can vary greatly from state to state and even school district to school district, and the number of students identified as gifted and talented varies due to differences in state law and local practices.

In 1989–90, approximately half of the states had state-mandated gifted and talented programs serving students in their public elementary and secondary schools, and half had discretionary state-supported gifted and talented programs. States reporting statistics on the percentage of students participating in gifted and talented programs show that in 1989–90 between 1.9 percent and 11.6 percent of enrolled students in their state were participating in gifted and talented programs in their public school systems (USED 1993b).

Most programs for gifted and talented students are available only a few hours a week at the elementary school level. Elementary schools typically offer enrichment classes through pull-out programs or a resource room approach. At the secondary level, students identified as gifted and talented are sometimes provided special learning opportunities through specialized schools, magnet schools, or intensive summer programs.

## Grade Promotion

Requirements for advancement from grade to grade, or even from the elementary to the secondary level, are not standardized in the United States. Decisions on whether to promote a student from one class to the next have traditionally been made primarily on the basis of the student's academic performance. The one major exception occurs at the kindergarten level, where readiness to enter the first grade is often dependent on the teacher's (and sometimes the parents') assessment of the child's social and emotional readiness as much as his or her knowledge or readiness to learn.

Historically, decisions to promote or hold back a student were made at the local school level, on the basis of evaluations made by individual teachers or building officials.

American school systems seldom established formal system-level tests or examinations to qualify students for entry and continuation in programs or for certification at the completion of a program (McPartland and Crain 1987).

However, in response to reports detailing the declining quality of American education, the late 1970s and 1980s saw the introduction of state and school district minimum competency examinations. These tests are usually given at critical junctures in both the elementary and secondary levels and are frequently tied to promotion to the next level of schooling or to the awarding of a high school diploma (McPartland and Crain 1987).

It should be emphasized that these tests are developed by local or statewide education agencies; no national standardized test exists in the United States. The only tests administered in the United States that approximate a national standardized test are the examinations that college-bound students are usually required to take—the SAT or ACT; but because of their function, they are not taken by all senior high school students.

### Alternative Paths for Completion of Secondary Education

To enroll in postsecondary programs—such as vocational-training programs, two-year community college programs, or four-year colleges—students must have a high school diploma or, alternatively, a certificate of General Educational Development (GED). Students not continuing in postsecondary programs have also found that a high school diploma or GED is a basic requirement for employment as well as a key to career advancement in the workplace. Individuals who dropped out of high school can later complete their high school

education or earn their GED by enrolling in adult education classes through their local school district.

Like K–12 education, adult education is not standardized on a national level. Although the program requirements are mandated in a general way at the state level, they vary by school district primarily because the actual development and implementation of adult education classes occurs at the school district level.

Sponsored by the American Council on Education, the GED program enables individuals to demonstrate that they have acquired a level of learning comparable to that of high school graduates (General Educational Development Testing Service 1993). To obtain a GED, an individual must pass a set of standardized tests in five different subject area tests, for which each state sets its minimum score requirements. Individuals who successfully complete the GED tests earn a certificate issued by their state's department of education, not a high school diploma.

The requirements for receipt of a high school diploma through adult education programs are significantly different from GED requirements. Adult education students may decide to pursue the high school diploma directly or may enroll in adult high school classes following receipt of their GED. To earn a high school diploma, an adult must enroll in adult high school classes and complete a specific number of courses in specific subject areas, such as English, mathematics and science, social studies (including U.S. history and government), and computer skills. The remaining required credits are electives from either an academic or vocational track. Attendance is mandatory for registered students, and their coursework is graded.



Adult education programs throughout the country are funded largely by state and local revenue sources. In 1991, for instance, total state expenditures for adult education programs came to \$622 million. In contrast, federal expenditures for adult education programs in 1991 totaled \$157 million (National Adult Education Professional Development Consortium [NAEPDC] 1992).

Many people attend adult education programs. In 1991 alone, 1,180,846 people participated in adult secondary education programs (USED 1993b) with the goal of obtaining either the GED or a high school diploma.

Most GEDs are awarded to young adults after they fairly quickly realize that a certificate of high school equivalency is important to their future employment possibilities. In 1992, for instance,

- 32 percent of those individuals receiving their GED were 19 years old or younger,
- 28 percent were between 20 and 24 years old,
- 13 percent were between 25 and 29 years old,
- 11 percent were between 30 and 34 years old, and
- 16 percent were more than 35 years old (USED 1993b).

Statistics on unemployment rates appear to confirm the need for a high school diploma or GED. In 1992, the highest unemployment rates were among those without high school diplomas. Unemployment for non-high school graduates who were between 20 and 24

years old was 22.3 percent (NAEPDC 1992), in contrast to the national average for unemployment, which was approximately 7 percent.

## Funding Sources

Traditionally, public education at the elementary and secondary level in America has been primarily the responsibility of state and local governments, which contribute about 92 percent of the nation's total spending for education (USED 1993c). Such decentralized control over schools and their funding has led to variability in educational opportunities within public school systems. To address this variability as well as the lack of responsiveness to the needs of certain student populations, the federal government began to increase its involvement in education in the 1960s. As federal legislation was passed to provide support for these populations through a series of categorical grants designed to promote equal opportunity, regulations concerning the use of funds were put into place, and schools were held accountable for how the money was used.

The first significant piece of legislation that provided federal funding to public schools was the Elementary and Secondary Education Act. A major section of the law, Title I, allocates funds to school districts to expand and improve educational programs for children from low-income families. Subsequent federal legislation has provided funding for other populations that have traditionally not been fully served by the public schools, such as children for whom English is a second language, and children with physical and mental disabilities.

Even with the funding of these special programs, federal funds for education are a small portion of the total amount spent on elementary and secondary education. At its highest level, in 1979–80, federal funding made up only 9.8 percent of the total amount of money spent on elementary and secondary education. Until the 1970s, when states became more active, local revenue sources provided the majority of funding for elementary and secondary schools. Since the late 1970s, state and local sources have each contributed approximately half of all funding for the nation's public elementary and secondary schools. In 1992–93, for instance,

- 45.6 percent of all revenues came from state sources,
- 47.4 percent came from local sources, and
- 6.9 percent came from the federal government (USED 1995).

In 1994–95, total expenditures for education, including higher education, were expected to amount to about 7.5 percent of the United States gross domestic product (USED 1995).

Public elementary and secondary schools have increased per pupil expenditures in recent years. In 1994–95, the estimated current expenditure per student was \$6,084. After adjustment for inflation, this represents an increase of 23 percent since 1984–85 (USED 1995). Yet, despite the steady increases, a wide range in per pupil expenditures still exists across states and even across school districts within the same state because of the public school system's heavy reliance on state and local governments for funding.

Private schools support themselves almost entirely through tuition fees. Although private schools are eligible for some support from federal grants to provide equal education opportunities for students targeted by federal legislation—students with disabilities or students for whom English is a second language—in order to receive federal grants they must agree to provide these programs in a nonreligious fashion (Caldwell 1990).

## Governance

Just as funding for public schools in the United States is decentralized, so too is policy and curriculum decision-making. State legislatures and local school districts share the regulation of and control the operation of elementary and secondary schools. The role of the federal government is minimal, and its influence on schools is largely a result of federal legislation providing funding for school districts to develop supplemental programs to equalize opportunities for all students. At the federal level, the U.S. Department of Education collects data on all aspects of the United States education system and makes recommendations to Congress, the President (the head of the U.S. Department of Education sits in the President's cabinet), and the states. The Department's role as a disseminator of this information cannot be understated, although unlike education departments at the national level in other countries, it does not regulate the way schools operate or set standards; it influences education in the United States by creating a national dialogue on important education issues and by providing the state departments of education with statistics to back state legislative proposals.

Public education, overall, is a state responsibility, with a substantial level of community control achieved through the creation and empowerment under state law of locally elected school boards that have responsibility for schools in a district, subject to state laws and regulations (Caldwell 1990). School boards made up of locally elected citizens advise the school administration, set goals and priorities, and assess the extent to which goals and priorities are being met in the schools.

A few generalizations can be made about the traditional loci of some of the major decisions that affect public school systems in the United States:

- Regulations pertaining to public education and the administration of public schools vary from state to state. Each state's department of education works with the governor and the state legislature to introduce legislation and initiate legislative reform. The regulations derive from the educational legislation and are a resource for local school districts on state legislation affecting schools.
- Each state regulates the number of days a school must remain open to qualify for state aid; however, the school district decides the length of the school day, the beginning and ending of the school day, the first and last day of each academic year, and the schedules for holidays and recess for vacations. These time-related decisions reflect the school district's responsibility to state laws, labor contracts, and the interests of the community (Barr and Dreeben 1983).
- States also regulate the number of days per year that students are expected to attend and the number of courses students must take in order to graduate. A certain number of these courses are required courses in such specific

disciplines as language arts, social studies, mathematics, science, and physical education/health. A select number of electives supplement these required courses.

- Broad curriculum guidelines are usually determined by district- or school-level authorities, often in collaboration with school boards or committees established for this purpose. Teachers and school administrators are traditionally responsible for decisions regarding the selection of textbooks and instructional materials, the class schedule, the tracking of students, and day-to-day classroom instruction. The class schedule, although set at the school level, reflects curricular priorities established at the district level. It determines how much time will be devoted both to required subject matter and to extracurricular activities (Hallinan 1987; Barr and Dreeben 1983; USED 1993b).

Because of this decentralized nature of governance, only a few generalizations can be made about the time that students spend in school in the United States. On average, students spend about 180 days attending school each year, although the range is from 175 to 183 across the states. The average length of the school day is approximately 6.5 hours, ranging from 6.1 to 7.1 across the states; approximately 5.6 of these hours are spent in instruction. Public and private school students spend similar amounts of time attending school (USED 1993a).

## Administration

School districts are usually divided into levels (elementary and secondary) according to the ages of students. In larger districts, each level is also divided into geographic regions. The superintendent of schools is the chief administrator of a public school district. The superintendent is responsible for the administrative activity within the district, including the management of finances and personnel, the maintenance of buildings and other physical resources, and interaction with agencies of federal and state governments (Barr and Dreeben 1983). Although superintendents oversee all activity within school districts, school principals assist them in the management of schools.

Principals administer individual schools. In larger schools, they may be aided by one or more assistant principals. They are responsible for preparing a budget for their school and are accountable to the superintendent of the district for the use of funds. In addition, the principal is responsible for the assignment of children to specific teachers, allocation of learning materials to classrooms, arrangement of a schedule, establishment of disciplinary standards and school policies, and assessment of districtwide instructional goals (Caldwell 1990; Barr and Dreeben 1983).

Teachers are responsible for the instruction in their classrooms and for the suborganization of the class for instructional purposes. They work with the administration and the school board on curricular and extracurricular matters and report to the principal of the school on matters of instruction and discipline. Teachers at the elementary level are sometimes assisted in their classroom by teacher's aides or community volunteers. Although team teaching is becoming more popular at the elementary level along with other experimental teaching practices now in limited use across the United States, most elementary

teachers are responsible for teaching multiple subjects to a single class of students. At the secondary level, teachers specialize in subject areas and are assigned to teach particular subjects (Barr and Dreeben 1983).

Although teachers and instructional staff make up the majority of employees in the public schools (53.3 percent are classroom teachers and 11.7 percent hold other instructional positions), support service staff are also important to school operations. Administrative support personnel, librarians and library support individuals, guidance counselors, cooks, janitorial and maintenance staff, and school bus drivers all contribute to the operation of the school. A significant portion of a school district's budget is allocated to support services, since nearly one-third (30.5 percent) of full-time equivalent employees in public schools are support staff (USED 1993a).

### Recent Influences on Education

In the early 1980s, a wave of reform began to impact elementary and secondary education. *A Nation at Risk*, written in 1983 by the National Commission on Excellence in Education, was instrumental in drawing attention to shortcomings in the United States education system. Many task forces and commissions were appointed among the states in response to this report, and a variety of changes—such as stiffer high school graduation requirements, increased teacher training, and higher salaries for teachers—were instituted in order to improve the education system (Lewis 1989). These reforms have taken place in response to local or state initiatives. Because the efforts and effects have not been uniform around the country, little comprehensive information is available. However, the information



that is available indicates that in a significant number of the states, educational standards have risen as a result of the direct intervention of state legislation.

Since the late 1980s, 18 states have instituted minimum competency testing for graduation. Two additional states plan to begin minimum competency testing in 1997, and three others have indicated to their school districts that minimum competency testing is an option they can consider. In addition, many states have increased the number of courses required for graduation and have given school districts specific instructions on the number of courses that students are required to take in each of the major subject areas (language arts, social studies, mathematics, science, physical education/health, and electives) (USDE 1993b).

More recently, a second movement to reform the education system has focused on restructuring schools by allowing them to use their resources more efficiently. The foundation of this reform movement is the belief that schools will have more incentive to improve if they are given the resources and the autonomy to make decisions themselves (Lewis 1989). As a result, schools have been given more freedom to use their budgets to develop instructional programs appropriate to their needs and have been encouraged to increase the participation of teachers in decisions regarding curriculum and instruction. This latest reform movement has received widespread support from the two main U.S. teachers' unions: the National Education Association and the American Federation of Teachers (Lewis 1989).

Another interesting development in the education reform movement in the last decade has been the increasing influence of the private sector. To increase the education level and job skills of the general labor market, businesses, industries, and foundations have become involved in innovative school reform programs. Furthermore, businesses have participated in

adopt-a-school programs, cooperative programs, and job-training programs, and company representatives have served on task forces and commissions that have made recommendations to the state and local agencies responsible for education reform.

Foundations have also played a role in reform by conducting studies and providing resources in support of school reform (Lewis 1989).

## Summary

Education through the 12<sup>th</sup> grade is considered a basic right of each individual in the United States, and is in fact required of all individuals between the ages of 6 and 16. At both the elementary and secondary level, education remains free. Equality of access is also an integral feature of the system. Federally funded programs such as Head Start and Title I operate nationwide to provide children from low-income families with the preschool education that will prepare them for elementary school and with additional assistance throughout their early education. Further evidence of the belief that all students should receive equal access to opportunities to learn can be seen in the mainstreaming of both gifted children and children with disabilities. Those who cannot be assimilated into the main classroom usually receive special education within the same school.

Perhaps the most evident characteristic of elementary and secondary education in the United States is its decentralized nature. This decentralized nature of governance allows schools to develop in response to their perceived needs. Individualization and autonomy are both highly valued in the United States, and grassroots representation is also an important

part of the United States political system. These values have played an important role in the historical development of the school district as the primary management system for schools.

Although many argue that the quality of education students receive depends on the wealth of the school district they attend, an increase in state regulations and state funding have begun to provide schools in less affluent districts with better guidance and more equitable access to resources. The number of states that provide curricular guidelines, in an effort to increase the uniformity of academic requirements across all school districts within the state, has dramatically increased since the 1980s. In addition, recent reform movements have returned budgetary and instructional decision-making power, once located primarily at the district level, to school administrators and teachers, so that they can make decisions that best serve the populations enrolled in their school.

# **Components of National Education Standards in the United States**

**Carolyn A. McCarty**

## **Standards**

### **The Current Situation**

The United States government does not determine what students should know and be able to do in any subject at any level of schooling. Expectations and standards for students' performance are the responsibility of state and local authorities; therefore, these vary greatly by state, district, and even school.

However, at an education summit held in 1989, President Bush and the 50 state governors agreed upon 6 national education goals for the United States to achieve by the year 2000. In 1994, two more goals were added and Congress codified the National Education Goals.

The goals, created as a framework for improving students' achievement, refocus the objectives of education, while leaving specific tactics for instituting them to state and local governments and to schools. They function, in part, as a general set of standards toward which all Americans should strive.

The National Educational Goals state that by the year 2000:

1. All children in the United States will start school ready to learn.
2. The high school graduation rate will increase to at least 90 percent.
3. U.S. students will leave grades 4, 8, and 12 having demonstrated competency in challenging subject matters including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography; and every school will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our Nation's modern economy.
4. The Nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all students for the next century.
5. U.S. students will be first in the world in mathematics and science achievement.
6. Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and to exercise the rights and responsibilities of citizenship.
7. Every school in the United States will be free of drugs, violence, and the unauthorized presence of firearms and alcohol, and will offer a disciplined environment conducive to learning.
8. Every school will promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children.

According to the U.S. Department of Education, the National Goals have received public support because they "reflect the maturation of a still-growing political consensus that American schools must establish clear standards of performance to which all students will be held" (U.S. Department of Education [USED] 1990). In fact, the 1990 and 1991 Gallop Polls found that over 75 percent of Americans surveyed attached "very high" or "high" priority to the six goals that had been proposed by the time of the survey (Gallup 1991).

The goal toward which the general public feels the least amount of progress has been made is the goal specifically targeting achievement in science and mathematics (USED 1993b). The U.S. Department of Education has laid out three objectives related to this goal: (1) strengthen mathematics and science education throughout the system, especially in the early grades; (2) increase the number of teachers with a substantive background in mathematics and science by 50 percent; and, (3) significantly increase the number of U.S. undergraduate and graduate students, especially women and minorities, who complete degrees in mathematics, science, and engineering (USED 1990).

The Goals 2000: Educate America Act, which codified the Goals, established federal support for voluntary state-based systemic reform that includes the development and implementation of high academic standards. The legislation called for state plans to include the development and implementation of content standards in core subjects, student assessments linked through performance standards, and opportunity-to-learn standards or strategies. The legislation also provided funding to states to support systematic state reform based on state-developed plans (Council of Chief State School Officers [CSSO] 1995).

Also as a part of this legislation, Congress established the Goals Panel as an independent federal agency. The eighteen-member bipartisan Goals Panel consists of 8

Governors, 4 members of Congress, 4 State Legislators, the Secretary of the U.S. Department of Education, and the Assistant to the President for Domestic Policy (The National Education Goals Panel 1994).

The Goals Panel is responsible for:

- monitoring and reporting progress towards the Goals;
- building a national consensus for the reforms necessary to achieve education improvement;
- reporting on promising or effective actions being taken at the national, state, and local levels to achieve the Goals;
- identifying actions that federal, state, and local governments should take to enhance progress towards achieving the Goals and to provide all students with fair opportunity to learn;
- and collaborating with the newly-created National Education Standards and Improvement Council to review the criteria for voluntary content, performance, and opportunity-to-learn standards (The National Education Goals Panel 1994).

The formulation of the National Goals has produced a dialogue among legislators, educators, and members of school boards throughout the United States that is focused on improving education standards for all students in U.S. schools. This dialogue and the directives and funding embodied in the Goals 2000: Educate America Act have led nearly every state to design and implement curriculum frameworks or guidelines, and many have developed or are in the process of developing assessment instruments to monitor the schools' progress towards higher standards.

## **National Standards**

Despite favorable public opinion polls for national goals in education, the public has remained divided on the need for formally defined national standards. Proponents of national standards have raised several arguments supporting the need for developing such an explicit national standard (National Council on Education Standards and Testing [NCEST] 1992). These persons argue that formulating national standards would encourage the states to raise their own standards, and that by defining a common set of goals, the quality of our schools may improve, leading to greater equality between advantaged and disadvantaged school districts. Moreover, standards for the nation would allow our diverse population to share expectations and learning opportunities by coordinating efforts and pooling resources and ideas.

On the other hand, many objections have been advanced to national standards (NCEST 1992). Some argue that establishing national standards will detract from many positive local reforms and inhibit the development of initiatives at the state and local levels. Others worry about the effects of such standards, fearing that they will result in minimum standards that will drag down the entire system and fail to consider our most capable students. Some educators also worry that national standards would lead to a national curriculum, with the federal government defining education policies and practices and imposing them in a top-down fashion. Still others view national standards as unnecessary, since they believe standards without resources and strategies would be of no help to school systems.



Despite the debate, the general consensus has been moving toward establishing some form of national standards for education. For example, data from a national sample of citizens in 1991 revealed that 68 percent of Americans favor developing a voluntary national test that would measure and compare abilities of students by school districts across the country (Gallup 1991).

*Voluntary national standards.* Thus far, efforts to construct national standards for what should be taught in each of the major subject areas have resulted in voluntary national standards for mathematics, science, and history. Those for arts, geography, civics and government, English language arts, and foreign languages are also under development. Funding for the development of voluntary national standards has come from a variety of sources, including the U.S. Department of Education and an assortment of nongovernmental organizations.

In 1989, the National Council of Teachers of Mathematics (NCTM) published curriculum standards outlining the mathematics that should be included in order to create school programs of the best quality, as well as the instructional conditions needed for students to learn mathematics.

Table 2 lists the topical areas within which curriculum standards were developed at three different grade levels: K–4, 5–8, and 9–12.

Table 2—Overview of NCTM-recommended curriculum by various grade levels

Grade range	Topical areas for mathematics standards
K–4	Mathematics as problem solving
	Mathematics as communication
	Mathematics as reasoning
	Mathematical connections
	Estimation
	Number sense and numeration
	Concepts of whole number operations
	Whole number computation
	Geometry and spatial sense
	Measurement
	Statistics and probability
	Fractions and decimals
	Patterns and relationships
5–8	Mathematics as problem solving
	Mathematics as communication
	Mathematics as reasoning
	Mathematical connections
	Number and number relationships

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	Number systems and number theory
	Computation and estimation
	Patterns and functions
	Algebra
	Statistics
	Probability
	Geometry
	Measurement

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9–12	Mathematics as problem solving
	Mathematics as communication
	Mathematics as reasoning
	Mathematical connections
	Algebra
	Functions
	Geometry from a synthetic perspective
	Geometry from an algebraic perspective
	Trigonometry
	Statistics
	Probability
	Discrete mathematics
	Conceptual underpinnings of calculus
	Mathematical structure

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SOURCE: National Council of Teachers of Mathematics, 1989.

These guidelines did not originate with the U.S. Department of Education but rather stemmed from the recommendations of many different experts and experienced teachers of mathematics. Consequently, the guidelines were not promulgated by a governmental agency, and there is no means to ensure uniform acceptance or enforce their implementation across the United States. Instead, adoption and implementation in individual states, districts, and schools is voluntary.

Despite this, the adoption of the NCTM standards has been widespread; over 80 percent of the states have modified their mathematics framework so that they are in line with the NCTM standards. Moreover, numerous professional and administrative agencies are using them as a model for their own standards (Shriner, Kim, and Ysseldyke 1993).

The National Science Education Standards were published in 1995. This document sets standards for science teaching, professional development for teachers of science, assessment in science education, content of science, science education programs, and science education systems (National Research Council 1995). These standards will be used to guide the development of science education in elementary and secondary schools. However, like the mathematics standards, they serve as general guidelines rather than enforced requirements, and their implementation will be dependent on acceptance at the state, district, or school level.

Voluntary standards in history were published in the spring of 1996. These standards, released by UCLA's National Center for History in the Schools, encompass voluntary standards for teaching history from kindergarten through 12<sup>th</sup> grade. A press release announcing the appearance of the national history standards states that they "were created in

cooperation with 33 national education organizations and more than 1,000 educators from all regions of the country" (World Wide Web April 3, 1996). As with projects dealing with standards in math and science, the goal of the history standards is to serve as a benchmark to guide teachers and school districts in the development of curriculum.

### State-Level Initiatives

States have developed various different initiatives to help their schools meet the National Education Goals. Most states have formulated curriculum frameworks or guidelines that assist schools and school districts in providing students with common academic standards. Although the format and content of these guidelines vary, most states have developed separate guidelines by grade level for what are considered the four core academic subjects: English, math, science, and social studies (American Federation of Teachers [AFT] 1996). Most states are also revising their standards documents in order to improve and strengthen the standards within their state. The subject-by-subject analysis of these documents conducted by the AFT revealed that math and science standards in most states are clearer and more thoroughly grounded in content than are those for English and social studies. This weakness of state standards for English and social studies was attributed to the later development of 'national' standards by the National Council of Teachers of English, and the controversy which surrounded the content of the 'national' history standards developed by the National Center for History in the Schools (AFT 1996).

## **Monitoring Achievement**

Although no formal evaluation of current standards exists per se at the national level, ongoing monitoring of scholastic achievement occurs through the National Assessment of Educational Progress (NAEP). Since it began in 1969, NAEP has offered the only nationally representative and continuous assessment of student performance in various subjects (Mullis, Dossey, Foertsch, Jones, and Gentile 1991). The students in the sample, tested at ages 9, 13, and 17, take tests of their knowledge and skills in reading, mathematics, science, writing, and history/geography. In addition, students provide information about themselves, their families, and their schools. Proficiency in each of the subject content areas is broken down so that the scores of geographic regions (Northeast, Southeast, Central, and West), as well as the scores of each state, can be differentiated. The data, reported in the form of aggregate statistics, are used by the states to compare their students' performance to that of the rest of the country.

Many states also conduct their own assessments. As states began to develop their own curriculum frameworks in recent years, many of them aligned these frameworks with assessment instruments in order to better assess the degree to which the curriculum was being learned. A recent survey by the National Education Goals Panel of state assessment systems indicated that 45 states have statewide assessment systems (National Education Goals Panel 1996). This survey, which profiled state assessment systems in place during 1994–95, indicated that 23 states reported that their state standards, curriculum frameworks, or state goals were aligned with their assessments, and another 21 states were in the process of aligning them. These state assessment instruments are generally developed under the direction of state department of education staff with the help of teachers, curriculum

coordinators, other educators, and occasionally representatives of business and industry (Braswell 1992).

The subject areas most commonly tested by state assessments include reading, writing, mathematics, science, and social studies. Grades 4, 8, and 11 are assessed most regularly, with 33 states testing in grade 4, 40 states testing in grade 8, and 32 states testing in grade 11. The assessment results are used for school accountability in 40 states, and for student accountability in 26 states (National Education Goals Panel 1996). The American Federation of Teachers (1996) report on states' efforts to raise academic standards noted that 10 states currently require their students to pass high school exit exams linked to the state's standards and 10 more plan to do so in the future.

## Examinations

### **Traditional In-Class Tests**

Tests signal students as to what teachers consider important to learn, thereby shaping learning. Because it is time-consuming and difficult to construct tests that assess thorough understanding, teachers often devise tests that are geared at a relatively low cognitive level (Linn 1990).

### **Performance-Based Assessment**

To complement traditional testing programs, many school districts and states are turning to performance-based forms of assessment. This type of testing requires students to create answers or products that demonstrate what they know by presenting them with

problems they have not previously met but that call on the skills and information they should have acquired in class. Performance-based assessments may include portfolios of student work, exhibitions, simulations, science experiments, oral interviews, and student performances. They are based on the premise that testing should be closely related to the kinds of tasks students are trying to learn.

State and local districts have recently begun adopting some form of performance-based assessment for a range of grade levels. For example, 36 states now use direct writing samples in testing students (U.S. Congress 1992).

Other assessment reforms are slowly being implemented around the nation. For example, the New Standards Project is creating standards of assessment based on the use of real-life tasks that students are asked to perform. Thus far, the New Standards Project has begun the task of setting student performance standards by examining those in other industrialized countries. The purpose of the project is to create standards for assessment that will promote better student performance (Learning Research and Development Center 1994).

Performance-based assessments raise many issues as well. Issues of reliability, expense, and time must be grappled with in promoting such types of assessment. For example, one estimate revealed that scoring a writing assessment is 5 to 10 times more expensive than the electronic scoring of multiple-choice tests (U.S. Congress 1992).

### **Standardized Tests**

Students in American schools are subjected to a large variety of standardized tests from kindergarten through graduate school, with the process often becoming an annual



practice in many parts of the country (Romberg 1992). Standardized achievement tests are used for:

- guiding classroom instruction,
- monitoring school achievement results, and
- the selection, placement, and certification of students.

Standardized tests are used most widely in elementary schools. Even in states that do not mandate such assessments, they are very common. For example, a survey of Pennsylvania school districts found that 91 percent use some form of standardized test and that nearly 70 percent of eighth-grade students take a mandated test at either the district or state level (U.S. Congress 1992).

Reliance on standardized tests has increased in the past few decades. As a result of their frequent exposure to these types of tests, students may respond to them differently as they grow older (Paris, Lawton, Turner, and Roth 1991). Accordingly, older students tend to report decreasing motivation to excel on the tests, anxiety about the tests, worrying about doing poorly, cheating, and not putting forth their full effort. Such a pattern is especially the case among low achievers (Paris et al. 1991).

Although these tests have positive features—they are easy to develop, inexpensive, and convenient to administer—they are also frequently criticized (Romberg 1992). Since teachers know both the form and style of the tests, they may modify their teaching to conform to the tests. One frequently heard criticism of these tests is that they emphasize procedural

knowledge rather than understanding. Romberg (1992) has shown this to be the case in the six most common tests used in eighth grade (see table 3).

Table 3—Number of items in six commonly used eighth-grade tests that tap conceptual and procedural knowledge

Test	Conceptual	Procedural
California Achievement Test	16	84
Metropolitan Achievement Test	10	90
Stanford Achievement Test	8	92
Science Research Associates Survey of Basic Skills	4	96
Comprehensive Test of Basic Skills	12	88
Iowa Test of Basic Skills	15	85

SOURCE: Romberg 1992.

The most frequent criticisms lodged against the tests are that most are norm referenced, rely exclusively on multiple-choice questions, produce scores that are not direct measurements of the questions, contain questions that do not represent the local curriculums, derive scores that are not direct measurements of the traits, and are often used as a basis for decisions they were not designed to address (U.S. Congress 1992).

One new trend in standardized testing is computer-based testing (CBT), which has its own set of advantages and disadvantages (U.S. Congress 1992). Although tests done via the computer are readily scored, provide fast feedback, and reduce grading errors, they also place students who lack familiarity with computers at a disadvantage. In one form of computerized testing, computerized adaptive testing (CAT), the computer chooses items to administer based on the examinee's responses and previous test questions. Thus, not all examinees receive the same set of test items.

## The Curriculum

### Proposed Changes in Curriculum of Math and Science

Mathematics and science education have been particularly affected by changing perspectives on the nature of mathematics, the need for mathematics, and mechanisms for learning mathematics. An additional influence has been the changing roles of computers and calculators in the practice of mathematics (National Academy of Sciences [NAS] 1990). Table 4 presents data from the 1990 NAEP which reveals a decline in the use of computers and a concurrent increase in the use of calculators as students grow older (USED 1993a).

Table 4—Percent of students who used a computer or calculator in mathematics class, 1990

	4th grade	8th grade	12th grade
Computer	50	31	34
Calculator	38	61	76

SOURCE: U.S. Department of Education, 1993a.

There is a new priority on reducing routine skills in favor of promoting higher-order “thinking skills.” As the Mathematical Sciences Education Board describes, “By reducing emphasis on manual skills, it will be easier to develop a curriculum that will allow all students some level of mathematical accomplishment while retaining the interest and enthusiasm of the more able students” (NAS 1990, p. 20).

In accord with this, the Board expects that by the year 2000, all students will have hand-held, grade-appropriate calculators, all mathematics classes will have permanent computers, and students will have access to other facilities, such as portable computers (NAS 1990).

The National Research Council (1994) proposed three critical issues in curricular reform for science and mathematics:

- All students need to develop higher-order thinking skills,
- students should learn by actively constructing their own knowledge, and
- students should learn a smaller quantity of information in greater depth if they are to increase their understanding of science and mathematics.

These general themes recur throughout the curricular reforms currently underway in the United States, such as Project 2061 of the American Association for the Advancement of Science (AAAS), and the Scope, Sequence, and Coordination Project of the National Science Teachers Association (NSTA).

## **Agents of Development and Implementation**

School programs often evolve in response to pressure from many different directions: the public, professional advisory groups, different levels of government, parents, and teachers. In fact, curriculum planning may vary even within a school.

The curriculum is also subject to the influence of factors that lie within a school, such as the quality of the teachers, the textbooks used, the classroom dynamics, and the amount of time teachers have to plan effective lessons. Consequently, the curriculum as it actually is implemented is often quite different from the goals intended for the curriculum (Robitaille, et al. 1993).

Teachers often do not have the time or resources to plan the curriculum since they are busy teaching 5 days a week, and many have families or other jobs (Walker and Soltis 1992). Who then, does the bulk of curriculum planning? The responsibility for specifying a curriculum has fallen by default to authors of textbooks. In the absence of a national curriculum, textbooks define what students should know and be able to do in a given subject. In fact, students spend as much as 90–95 percent of class time involved in one way or another with textbooks (Young and Reigeluth 1988).

American textbooks generally are thick volumes of many hundreds of pages that are loaned to the students for the year by their school. The textbooks often include colorful illustrations and interesting stories related—but often not central—to the lesson. The "spiral" curriculum is followed in the textbooks, whereby concepts are introduced at one grade level and discussed at successively more advanced levels in subsequent grades. Ultimately, it is teachers who must decide what aspects of the textbooks to cover, and they seldom have time to cover all the topics presented in them (Stevenson 1992).

There is no national consensus on selection of textbooks; rather, each school has autonomy in making decisions about which textbooks to use, although individual districts usually provide some recommendations. Typically, school districts will have a curriculum committee or a person specifically hired to screen and select textbooks that are appropriate to fill various needs. Publishers, then, devise textbooks that appeal to the broadest market (Venezky 1992).

### **The Influence of Testing on Curriculum**

One way that standardized tests have affected the curriculum is through the creation of new programs. For example, Measurement Driven Instruction (MDI) programs have been created so that the content of high-stakes achievement tests "drives" instruction (Airasian 1988). In MDI, a heavy emphasis is placed on the test, which provides direction for instructional emphases. Mostly, it has been the case of tests informing the curriculum, rather than curriculum shaping the tests.

### **Course Choice Patterns**

When students reach high school, they generally have some options as to which courses they will take within their general "track." The courses that students are directed toward and eventually choose give some indication of how the curriculum tapers off in later years. For example, of the yearly cohort of 4 million students, 500,000 are studying mathematics 12 years later (NAS 1990). Moreover, one-third of America's 21,000 secondary

schools do not offer a sufficient number of mathematics courses to qualify graduates for admission to accredited university engineering departments (Holmes and McLean 1989).

The statistics are similar for science courses. Although most science courses are offered by a majority of schools in the United States, they are not offered at all schools (NSF 1993). In addition, students do not tend to take the advanced courses. For example, as shown in table 5, only 21.5 percent of 1990 high school graduates had taken physics. A severe drop in enrollment in both science and mathematics courses occurs as courses are perceived to be more difficult (NSF 1993). Table 5 shows which mathematics and science courses are most frequently taken by high school students and the changes that have occurred between 1982 and 1990 (USED 1993a).

Table 5—Percent of high school graduates who had taken selected mathematics and science courses: 1982 and 1990

Mathematics courses	1982	1990
Any mathematics	97.5	99.6
Remedial/below grade	32.7	23.6
Algebra I	65.1	77.3
Algebra II	35.1	49.2
Geometry	45.7	64.7
Trigonometry	12.0	18.4
Analysis/precalculus	5.8	13.5
Calculus	4.7	6.6

Algebra II and geometry	27.5	44.0
Algebra II, geometry, trigonometry, and calculus	1.0	2.2
Science Courses	1982	1990
Any science	95.2	99.4
Biology	75.3	91.6
Chemistry	30.8	49.6
Physics	13.9	21.5
Geology	13.9	25.3
Biology and chemistry	28.0	48.3
Biology, chemistry, and physics	10.5	18.9

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SOURCE: U.S. Department of Education, 1993a

There has recently been a move to increase course requirements in mathematics and science. In 1990, about 50 percent of the states required 1.5 to 2 years of mathematics; those requiring 2.5 to 3 years increased to approximately 20 percent. Nevertheless, more than 15 percent of the states did not require any mathematics for high school graduation (NSF 1993).

Several factors influenced the available courses and eventually the ultimate enrollment (NSF 1993).

- Income level of parents: children from low-income families tended to take lower-level courses.



- Ethnic background: more Asian Americans took science and mathematics courses than did students from other racial-ethnic groups. For example, in 1987, the percentage of high school graduates who had taken biology, chemistry, and physics included 42 percent of Asian Americans, 18 percent of whites, 9 percent of blacks, and 8 percent of Hispanic Americans. Differences in the percentages enrolled in upper-level mathematics classes were even greater: 15 percent of Asian Americans, 2 percent of whites and Hispanic Americans, and 1 percent of blacks had taken a second semester of algebra, geometry, trigonometry, and calculus.
- The school's surrounding population and wealth: the percentage of students taking mathematics and science was generally lowest for rural schools, followed by inner-city schools. The highest percentage of students enrolled in advanced courses was from advantaged urban schools. For example, in 1990, more than 90 percent of advantaged urban communities offered calculus, compared to 55 percent of schools in the rural areas. The same pattern was evident for physics courses: nearly 60 percent of schools in advantaged urban communities offered physics, compared to less than 10 percent of schools in disadvantaged urban and rural communities.
- The size of the school: students at midsize schools were more likely to take mathematics or science courses than those in larger or smaller schools.

## Preparation for Postsecondary Education

### College Entrance Examinations

*The SAT (I and II).* The Scholastic Achievement Test (SAT) of the Educational Testing Service is taken by nearly 1.5 million people a year and used by more than 1,500 colleges and universities as part of the process of making decisions about admission (Crouse and Trusheim 1988). The test is constructed to measure general ability as it has developed over the full range of experiences in a student's life, but it is only minimally related to the main curricula of schools (Owen 1985). The test, which is composed of seven subsections, requires a total of 3 hours, with each subsection being timed separately. Among these seven subsections, three are devoted to mathematics and three to verbal items; one experimental section tests new questions.

The entire cost for taking the SAT is borne by the students. Some students incur additional costs by requesting special services or materials from test makers or private publishers. For example, there are many books on preparing for the SAT, some created by the Educational Testing Service itself. Courses and private tutors are also available to help students prepare for the tests, although their expense limits their use to students from middle- and upper-income families.

Recently, the SAT has undergone important changes in content and format (College Board 1993). The verbal sections place greater emphasis on reading comprehension by including longer passages and appropriating more testing time for fewer questions. Changes have also been introduced to the SAT mathematics test. Some of the multiple-choice questions have been discarded in favor of student-produced answers—there are now 50

multiple-choice questions and 10 questions requiring responses produced by the students. Additionally, calculator use is permitted and recommended on this test; hence, the test presumes experience in the use of scientific calculators.

The SAT II (subject tests) measures students' knowledge or skills in one of the following general areas: English, history and social studies, mathematics, sciences, or foreign languages. Each such test takes 1 hour and consists entirely of multiple-choice questions, except for the writing test. According to the bulletin *Taking the SAT II Subject Tests*, "Scores on the Subject tests can help in assessing how well prepared you are for different programs of college study" (Educational Testing Service [ETS] 1994, p. 4). Some institutions use the subject tests for placement and guidance; others use them for decisions about admissions.

*The ACT.* A second major college entrance examination is the ACT (American College Test). It is designed to measure the skills necessary for college coursework by assessing English, mathematics, reading, and science reasoning via multiple-choice items (American College Testing Program 1993). Much like the SAT, the test is timed so that students have to pace themselves quickly in order to finish all items. Traditionally, the ACT has been regarded as an achievement test—emphasizing the content and processes of students' knowledge that are amenable to change with further learning. Although the SAT has been considered to be an aptitude test, distinctions between aptitude and achievement tests have been rejected (Owen 1985).

## Mechanisms for Entering College

*Highly selective colleges.* Colleges usually have multiple objectives in admitting students and are willing to make trade-offs among these objectives. Highly to moderately selective colleges consider many factors in making their admissions decisions: high school record, test scores, campus interviews, teacher recommendations, personal statements, essays, patterns of courses taken, special talents, ethnic background, and residence. The weight allocated to each of these variables, however, is not clear-cut; colleges do not usually discuss how they choose to admit or reject students. Thus, prospective applicants are not always sure just what it takes to get into certain schools. Various books are available to guide students in deciding where to apply, informing them of the mean test scores and grade point averages of admitted students. Such guides often indicate that nonacademic factors may not be of great importance for admission to highly selective colleges.

*The majority of colleges.* The college admissions system can be viewed as self-selecting in that students generally choose to apply to colleges at a level appropriate to their abilities rather than risk rejection by applying to more-stringent schools. As a result, most prospective students are admitted to at least one of the schools to which they have applied. Admissions requirements for two-year colleges are less stringent than those of four-year institutions. In fact, most two-year colleges will accept all prospective students who apply or who meet minimal standards (Ravitch 1985). For example, in 1985, 90 percent of two-year public colleges and 15 percent of four-year colleges did not review their applicants' qualifications, admitting all high school graduates (Crouse and Trusheim 1988).

Consequently, "American high school students who plan to go on to college do not need to

work hard and get good grades in order to achieve their goal . . . no matter how poor their grades, they will be able to find a college that will accept them" (ESCPC 1993, p. 52). Once a student has been admitted to a college, the possibility of transferring to a better school remains open, and it is not uncommon for those who maintain a strong academic record to do so.

*Vocational options.* A growing need has become evident for more attention to be focused on the transition from school to work.

According to one report, "The U.S. does the poorest job in the advanced industrial world of facilitating students' transition from school to work . . . and, when students graduate from high-quality vocational education programs, they are rarely hired for good jobs until they are well into their twenties" (ESCPC 1993). High school graduates typically have to wait until they are 21 to 24 years old to be considered for a decent job. "In the meantime, they float in the churning sea of a youth labor market that is mostly made up of poorly paid, high-turnover jobs . . . often in the retail sector" (ESCPC 1993). Students who desire vocational jobs may also go to career academies, technical preparation programs, or special vocational programs. A small percentage enter apprenticeships.

## Summary

Student achievement has been evaluated primarily through state testing programs. The absence of clear expectations for students has shaped the recent call for establishing voluntary national standards for education. These standards would set guidelines for what students should know at different levels of schooling. In addition to funding the development

of standards for academic achievement in specific subjects, the United States government has also devised national goals for education. The fourth goal specifically targets achievement in mathematics and science, proposing that, by the year 2000, U.S. students will be the first in the world in mathematics and science.

At a more informal level, standards for student achievement can be inferred from examinations and the curriculum. Traditional in-class tests, although still widely used, are being supplemented in some schools by performance-based assessment. Portfolios of student work, exhibitions, simulations, oral interviews, and student performances, all performance-based types of testing, attempt to close the gap between what students are learning and how they are tested.

The curriculum in U.S. schools is highly fluid and varied. Each state delegates to local school districts the responsibility for establishing its curriculum, the subjects and topics that will be covered, and the requirements for each course. Textbooks, instead of supporting the chosen curriculum, often determine which route the curriculum will take. Reform efforts are being made to include the use of calculators and computers in the mathematics and science curriculum. By upgrading requirements for graduation, states are attempting to increase the number of students taking upper level courses.

Those students who wish to continue on to four-year postsecondary institutions must take one of two college entrance examinations, namely the ACT or the SAT. In accord with changes in school curricula, the SAT is moving toward student-produced answers, as well as allowing the use of a calculator for its mathematics sections. These tests will open the gateway to college for many students, but only a select number of students will gain entrance to the top colleges and universities. Other students may choose to continue with vocational education.

# **The Perception of Ability Differences in U.S. Education**

**Heidi Schweingruber**

## **Introduction**

All school administrators and teachers must face the challenge of dealing with the differences in individual ability within their student population. A notable characteristic of the American public educational system is the wide variety of mechanisms that exist for accommodating differences in ability both within the school and within each teacher's classroom. There is no national set of guidelines for grouping students, or for determining the kind of coursework or level of instruction in which students should be enrolled. Thus, individual districts are left to develop their own programs and guidelines for assigning students. In general, academic subjects are divided according to the level of schooling (elementary, middle, and secondary) and by grade levels within schools. Students are not segregated into separate schools that are homogeneous by level of ability; rather, many levels of ability are represented among the students in single, general purpose schools. However, during the 1980s there was an increase in magnet and specialty schools, which provide more focused courses of study for a select group of students of similar ability (Oakes, Gamoran, and Page 1992).

## **Methods for Handling Difference in Ability**

The most common organizational arrangements adopted by schools to handle individual differences among students are known variously as ability grouping, tracking, and streaming (Oakes, Gamoran, and Page 1992). Ability grouping involves the division of academic subjects into classes or groups at different levels for students of different abilities, which can include both within-class and between-class grouping (Oakes 1987). Grouping within a single classroom is most common in elementary schools, while a wider range of grouping plans are used in junior high and high schools (Slavin 1990). Many comprehensive high schools place students in classes and programs of instruction according to their educational needs and ability. Despite this division by ability, the students' options tend to remain open through later years of high school and even students in lower ability groups or classes may attend a community college or even a four-year college (Oakes, Gamoran, and Page 1992).

In addition to ability grouping, schools use other instructional and curricular arrangements to accommodate students of differing ability. These include retention of a child in grade; special education for students who have problems in school for a variety of intellectual, emotional, or physical reasons; and other types of special classes for children who are identified as exceptionally able academically.

## **The Philosophies Supporting the Methods**

The practices that educators adopt to accommodate students' varying levels of ability are closely linked to the beliefs the educators hold. A commitment to ability grouping is



embedded in a larger ideological framework (Kilgore 1991). This framework reflects a common belief in the United States that a student's ability is a fixed quantity and that the level of ability can be identified in the early years of schooling (Oakes 1987). In addition, it is often assumed that students' capacities to master schoolwork are so disparate that they require different and separate schooling experiences.

Thus, many school practitioners assume that grouping by ability promotes students' achievement because, it is argued, all students learn best when grouped with students of similar capabilities or levels of achievement. It is also assumed that for the sake of instructional efficiency students should be grouped so that they will all be able to profit from one lesson that is neither too easy nor too difficult for that group (Slavin 1989).

Two additional sets of beliefs serve as the basis for retaining students at their current grade level. One belief is related to student immaturity. This orientation is most often encountered in decisions regarding retention or extra-year placements of children in kindergarten or first grade. This practice follows a philosophy emphasizing maturation: readiness for schoolwork is a quality that unfolds on its own timetable.

The second theme is that low achievement is caused by lack of exposure to the material and can be remedied by recycling students through the material. This approach does not consider student "failure" to be failure of the system but of the student. Rather than assume that the approach or content are inappropriate for the learner, one assumes that the learner is not ready to learn the material being presented. This second orientation considers learning as a linear process in which mastery of content at one level depends on mastery at a previous level (Karweit 1992).

## Grouping Procedures

### Elementary Schools

At the elementary level, individual differences are most often accommodated within the classrooms through ability grouping that is linked to instructional variation, but there is no nationally standardized set of categories or patterns for grouping children (Gamoran 1989). Ability grouping typically occurs within classes when students are divided into several small groups, separated by level of ability for instruction in particular subjects, especially reading. Dividing the classroom into three or four groups is the most common arrangement. Each subgroup receives instruction at its own level and is allowed to progress at its own rate (Slavin 1989). In first grade, more than 90 percent of elementary schools use within-class ability grouping for reading, 25 percent for mathematics (Entwistle and Alexander 1993).

Though within-class grouping is the most common form of separation, students may also be placed in groups that cut across classes. Between-class grouping takes two forms: it may last for the entire day, encompassing all subjects, or it may be used for a specific subject (Oakes et al. 1992). When between-class grouping lasts for the entire day, students are assigned to self-contained classes on the basis of measures of general achievement. Students then remain with the same group of classmates for all academic subjects. A less extreme form of between-class grouping involves regrouping for reading or mathematics. With this system, students remain in classes that are heterogeneous by ability most of the day but are regrouped for selected subjects. For example, three fourth-grade classes in a school might have reading scheduled at the same time. At reading time, students might leave their heterogeneous homerooms and go to a class organized according to reading levels (Slavin 1989).

Another approach to between-class ability grouping is the Joplin Plan, which involves regrouping students for reading by ability only, without regard for grade levels (Slavin 1989). Lastly, some schools adopt nongraded plans. This approach involves grouping arrangements in which formal grade levels are abolished in favor of flexible cross-age groupings for different subjects. Where nongrading is done only in reading or mathematics, it is essentially identical to the Joplin Plan (Slavin 1989).

Placement in groups within the same classroom typically determines the amount and type of instruction children receive (Entwistle and Alexander 1993). For example, low-ability reading groups spend relatively more time on decoding activities, whereas more emphasis is placed on the meaning of stories in ability groups composed of more able readers. High-ability groups do more silent reading and when reading aloud are interrupted less by other students or the teacher. Students with a history of membership in high-ability groups are likely to have covered considerably more material throughout their elementary school years (Oakes et al. 1992).

### **Junior High (Middle) Schools**

At the junior high (middle) school level, between-class tracking by ability replaces the within-class groups of elementary school (Oakes et al. 1992). Results of a survey of junior high school principals indicated that two-thirds or more of the nation's junior high schools use at least some between-class ability grouping; more than 20 percent assign students to all of their classes according to ability. The proportion of students who are in fully tracked programs, in which all classes are grouped by ability, increases from 12 percent at fifth grade

to 25 percent at sixth through ninth grade (Braddock 1990). The percentages of students who experience at least some homogeneous grouping increases from about 70 percent at fifth grade to about 80 percent at sixth grade and 85 percent during the subsequent 3 years.

In contrast to the elementary school years, the use of ability groups is especially prevalent in mathematics during junior high school. The majority of seventh-graders (84 percent) are placed in between-class ability groups in mathematics, and by grade nine, 94 percent of students are grouped in this subject. According to results from the 1990 National Assessment of Educational Progress (NAEP), school administrators reported that 77 percent of eighth-grade students were grouped by ability in mathematics. Only one-third were grouped by ability in science (National Science Foundation [NSF] 1993). In both mathematics and science, placement in a particular ability group is correlated with students' socioeconomic status (SES). In a study conducted in 1988, eighth-grade students of low SES were more than twice as likely to be in a remedial mathematics class than students of higher SES (U.S. Department of Education [USED] 1992).

A particular form of tracking seen in middle and junior high schools is block scheduling, a system in which students are assigned to a group based on ability and spend all or most of the day with the same group of students (Slavin 1990). Some block schedules keep students together for instruction by several teachers. In this system, students may move as a single group from teacher to teacher throughout the day, or each class of students may remain in the same room while the teachers move (Braddock 1990).

In seventh and eighth grade, ability groups involve more than different levels of learning in the same subject. By then, course material is strongly differentiated and students at different levels take different courses. In mathematics, students are typically assigned to

one of three or four groups differing by level of ability, ranging from remedial mathematics to accelerated mathematics. Enrollment in the accelerated track is restricted by an array of school policies, so in 1988, only 29 percent of eighth-graders took algebra or advanced mathematics (USED 1992). In the same year, 47 percent of eighth-graders reported attending only a general mathematics class, and 7 percent reported attending some kind of remedial class (USED 1992). Students in general mathematics classes are exposed to a curriculum that essentially reviews the content of elementary school courses. Because the general mathematics classes cover different topics from those in the accelerated classes, it is very difficult for students to catch up with the accelerated group and become eligible as 12th-graders to take calculus or other fifth-year secondary mathematics courses (Useem 1991).

## **Secondary Schools**

*Structure.* Ability grouping continues into the secondary school years in the form of between-class tracking. According to the 1990 NAEP, school administrators reported that by 12th grade 74 percent of students were placed in science classes by ability, and 80 percent in mathematics (NSF 1993). Tracking systems at the secondary level usually have between three and six tracks (Vanfossen, Jones, and Spade 1987). In all tracking systems, judgments about students' academic performance are the basis for group placements. Classes and tracks are labeled in terms of performance levels of the students—such as advanced, average, or remedial—or according to students' expected postsecondary goals—such as college preparatory or vocational. The resulting groups or tracks are not merely a collection of different but equally valued instructional groups; instead, they form a hierarchy within

schools with the most academic or the most advanced tracks considered the "top" (Oakes 1987).

In recent decades, some American high schools have moved away from formal tracking to a system in which students enroll in courses on a subject-by-subject basis (Oakes et al. 1992). In this system, the number of elective courses open to students approximately matches the number of required courses. As a result, students may earn equivalent credits but gain very different knowledge, leading to many different versions of a "high school education." Furthermore, even in this elective system, when students are assigned to a high-level class for one subject they tend to be assigned to a similar level in other subjects. The end result is a set of strict curricular tracks. For example, from a national survey, 60–70 percent of 10th-graders in honors mathematics were also enrolled in honors English; the degree of overlap is similar in remedial mathematics and English (Oakes et al. 1992).

*Course content.* Curriculum and instruction in the various tracks are tailored to the perceived needs and abilities of the students assigned to them. Thus, based on track assignments, students at various track levels experience school differently.

The extent of such intertrack differences varies across schools. In general, lower track students have fewer mathematics and science courses available to them and are nearly always required to take fewer academic courses. Lower track students have greater access to elective courses in the arts and vocational subjects than most students in the academic tracks, whose schedule of required courses allows little time for electives (Oakes 1987). A national survey showed that students in the middle track usually took first-year algebra in 9<sup>th</sup> grade, geometry in 10<sup>th</sup> grade, and second course in algebra in 11<sup>th</sup> grade; some took precalculus in 12<sup>th</sup> grade.

Students in the top achievement track usually took geometry in 9<sup>th</sup> grade, second course in algebra in 10<sup>th</sup> grade, precalculus in 11<sup>th</sup> grade, and calculus in 12<sup>th</sup> grade (NSF 1993).

*Placement.* American educators consistently report that a combination of criteria determine student placements, including standardized test scores, teacher and counselor recommendations, prior placements and grades, and the student's own choice. In general, however, level of academic performance is a strong determinant of the track to which a student is assigned. In the 1982 High School and Beyond Study, 61 percent of students with test scores in the highest quartile had entered the academic track by sophomore year, compared with 12 percent of those in the lowest quartile (Vanfossen, Jones, & Spade 1987).

Decisions about track assignment are particularly difficult during the student's transition from middle or junior high school to high school. If grades and recommendations from teachers and counselors are used to make ninth-grade track assignments, then one must ask how these indicators of ability compare across the different middle or junior high schools that feed into the ninth grade (Hallinan 1991). Some schools report that in disputes over placement, students' and parents' wishes prevail over teacher recommendations, test scores, and previous grades (Oakes et al. 1992). Even when students choose their own courses, they receive counseling on which courses are appropriate. In one study, approximately 30 percent of high school seniors not taking mathematics or science reported that they had been advised by teachers or counselors that they did not need an additional course in that area (NSF 1993).

*Differences among schools.* Placement in tracks is influenced not only by students' characteristics but by school characteristics as well. Each school's practices of scheduling and

grouping are affected by such local constraints as the availability of human and material resources for instruction, the demographic conditions of the surrounding communities, and the educational philosophies of administrators and teachers (Braddock 1990). For example, while school districts often require a minimum enrollment, class size is usually restricted by physical limitations within the school and by contracts with the teachers' union (Kilgore 1991). Also, a district usually determines the track levels for its schools, thus limiting the local school administration to decisions governing track size and homogeneity of tracks (Hallinan 1991).

The structure of tracking across schools and the impact of tracking on students varies widely depending on what policies a particular school adopts. The classic form of tracking involves student assignment to the same ability level across many classes, the use of very specific criteria for admission to a track to ensure homogeneity within the track, and little room for mobility once a student is assigned to a particular track. In such systems, students enroll in programs that dictate their entire array of courses (Oakes et al. 1992). Schools with less mobility in tracking systems tend to have greater between-track inequality in mathematics and verbal scores and lower overall mathematics scores (Gamoran 1992).

Some research has focused on the striking differences between private Catholic schools and public schools. Catholic schools have less instructional differentiation between tracks than public schools. For example, catholic schools tend to place greater academic demands on students in noncollege tracks, requiring more academic course work and more rigorous class work, compared to noncollege tracks in public schools (Gamoran 1992). In an observational study of three Catholic high schools, students and teachers were found to hold positive views about assignment to low tracks and were optimistic about the possibility of



advancement. Catholic schools not only have higher achievement after measured background variables are taken into account, but for mathematics they have less inequality between tracks (Gamoran 1992).

*Case studies.* Many of the general trends described above are reflected in the results of two studies of particular school systems. One study, conducted by Hallinan (1991), sampled 2,050 students from public and private middle schools across two districts that feed into eight public and private secondary schools. Hallinan studied track assignment as students moved from eighth to ninth grade, considering the characteristics of both students and schools. A five-tiered structure in mathematics remained in place in every school every year unless not enough students qualified for admission to the advanced track. Hallinan concluded that the track structure is not as much a response to variation in the student population as a reflection of the outside constraints on school officials, established by factors such as district policies. Therefore the assignment of students to this designated structure reflects school officials' efforts to adapt to characteristics of their student population as well as to organizational constraints on their resources. As a result, schools vary in policy for placement of students in a track, size of tracks, ability level of students at each track level, and distribution of students across tracks. For example, students assigned to a certain track level in one school may have higher ability than those assigned to the same track level in a different school.

Another study, conducted by Useem (1991), involved interviews with school administrators in 26 cities and towns in the Boston area, mothers of 6<sup>th</sup>- and 7<sup>th</sup>-graders in 2 schools in adjacent suburban Boston districts, and middle-grade mathematics teachers in

these 2 schools. Some districts appeared to encourage or direct students into advanced mathematics classes, while others had policies that acted as filters and essentially discouraged students from attempting to join the fast track. Those districts that encouraged the assignment of students to an accelerated sequence had mathematics coordinators who believed it was advantageous for students to study calculus in high school and who believed criteria for entering the fast tracks should not be too elitist or selective. Furthermore, in these districts, the placement criteria for accelerated mathematics did not rely heavily on standardized test scores and did not have high cutoff points for admission to accelerated work.

Districts that encouraged students most vigorously did not block or discourage parents and students who tried to override the schools' placement recommendation. Instead, they tended to assist students who were doubling up on mathematics courses in order to catch up with accelerated students. In the less encouraging districts, it was common practice for high schools and many middle schools to ask parents who were disregarding a teacher's placement recommendation to sign a formal waiver or to write a letter of waiver. Parents who attempted to change their child's placement were frequently subjected to "cooling out" attempts by teachers and administrators (Useem 1991).

### Consequences of Ability Grouping

The impact of systems of ability grouping on students is the subject of intense debate among educators and researchers. Arguments in favor of ability grouping generally focus on its effectiveness for instruction (Feldhusen 1989). Arguments opposed to ability grouping focus on the issue of equity, particularly as related to ethnicity and class. Many critics of

ability grouping suggest that such grouping helps to maintain and perpetuate class status from one generation to another in the United States by sorting children from different backgrounds into different curricular programs (Gamoran and Mare 1989). Opponents also argue that ability grouping is unfair to low achievers, citing problems of peer models, low teacher expectations, and slow instructional pace (Braddock 1990; Rosenbaum 1976, 1980; Oakes 1985; Gamoran and Mare 1989). Finally, other researchers suggest that these arguments may be irrelevant because ability grouping does not have a significant impact on achievement, values, or other educational outcomes (Slavin 1990; Kulik and Kulik 1982; Kulik and Kulik 1987).

### **Students' Academic Achievement**

Evidence for the effectiveness and consequences of ability grouping for academic achievement is not strong enough to provide conclusive support for any of the preceding positions. In a review of research evidence, Slavin (1990) concluded that the effects of ability grouping on achievement in secondary schools are essentially zero at all grade levels. However, he did note that students in the higher tracks may receive higher scores on achievement tests because they take more courses, or more advanced courses, than students in lower tracks.

### **Quality of Instruction**

Some researchers suggest that the quality and quantity of instruction, the learning climate, and the types of academic role models available to students vary across tracks and

that these factors may affect students' learning (Hallinan 1991). In general, instruction in low-track classes tends to deal with simplified topics and focus on rote skills. The focus of high-track classes is on understanding of underlying concepts, problem solving, and independent thinking (Oakes et al. 1992).

The quality of teachers may also vary among tracks. Teachers often prefer high-ability classes because students are more willing to meet demands for academic work. Occasionally teachers prefer not to teach high tracks because they find it threatening to work with students who challenge their authority or who are of higher social status (Oakes et al. 1992). Finally, there is evidence that teachers themselves may be tracked, with those judged to be the most competent, most experienced, or otherwise most highly regarded at the school assigned to the top tracks (Oakes 1987).

### **Students' Motivation and Attitudes**

Negative consequences of tracking may be found in domains other than academic achievement. It is possible that the social-psychological impact of track assignment can vary by track level, with consequent effects on students' self-image, motivation to learn, and effort (Hallinan 1991). High-track students often find greater meaning in schoolwork, are more motivated, put forth greater effort, and hold higher expectations for themselves compared to low-track students. Also, permanence and rigidity in a tracking system can make grouping especially salient and may heighten the negative psychological consequences of low-group assignment (Oakes et al. 1992).

## **Effects of Students' Ethnicity and Economic Status on Group Placement**

Although evidence of inequity in tracking that is tied to students' ethnic and economic status is not conclusive, there are some suggestive trends. Studies indicate that at the elementary level, ethnicity and economic background do not directly determine students' ability-group placement (Oakes et al. 1992). However, it is important to note that more social- class segregation exists between schools in the United States than within schools at the elementary level than in schools at higher levels (Oakes et al. 1992).

Family background is important in the tracking that occurs during the secondary years of schooling. Using data from the High School and Beyond Survey, (Vanfossen, Jones, and Spade 1987) found that even within the top quartile of ability, students from families of high socioeconomic status (SES) were 16 percent more likely to be in the academic track than were students from families of lower SES status. By senior year, 52 percent of high-performing students from the lowest SES quartile and 80 percent of high performing students from the highest SES quartile were in the academic track. Finally, the percentage of students in the top academic track was 53 percent for students from the top SES quartile and 19 percent for those in the bottom SES quartile. Conversely, the percentage of students in a lower vocational track included 10 percent of students from the top SES quartile and 30 percent from the bottom SES quartile.

Poor and minority students are over-represented in tracks for low-ability or noncollege-bound students. Additional race and class differences occur within the vocational tracks; blacks and Hispanics were more frequently enrolled in programs that train students for the lowest level occupations (Oakes 1987). Evidence suggests that high school students of different SES and ethnic backgrounds are given different information, advice, attention by

counselors, and placements (Oakes et al. 1992). Furthermore, the practice of ability grouping that involves separation by all subjects is more often found in middle-level schools with sizable enrollments of African-American and Hispanic students than in schools with lower percentages of minority students (Braddock 1990). It is suggested that variation across schools in track structures and assignment policies is an important source of unequal learning opportunities provided to students attending different schools (Hallinan 1991).

Patterns of course taking in mathematics provide some evidence that sorting of students by such characteristics as ethnicity and economic status does occur. In the case study carried out by Useem (1991), communities with higher levels of parent education were more likely to have higher enrollments in eighth-grade algebra and calculus. In a national survey, the distribution of students in the United States with comparable past achievement in four levels of eighth-grade mathematics varied with students' social background (Oakes et al. 1992). Females, whites, and students whose fathers held high-level occupations were more likely to be placed in algebra than were other students (Oakes et al. 1992). Useem (1991) suggests that the relationship between parental economic status and students' placement in ability groups might be partly explained by the greater tendency of better educated parents to be involved in decisions related to their child's education.

### **Rigidity of Group Placement**

Students' placements by ability tend to be fixed and long-term. Those placed in low-ability groups in elementary school are likely to continue in these tracks in junior high school.

Any movement between tracks that does occur is most often in a downward direction (Oakes et al. 1992).

Only 40 percent of students in American public elementary schools are assigned to the top tracks in their schools (Oakes 1987). In first grade, probably one-third to one-fourth of children are placed in the bottom group in a given subject (Entwistle and Alexander 1993). This group placement early in their education can have important consequences for the types of courses that will be available to students in later years, and may dictate later placement in high-track classes in senior high school (Oakes et al. 1992). Although decisions made about students' placement at a particular grade seem to have a slight effect on students' achievement, cumulative effects of such placement do become evident in the later years of schooling (Oakes 1987).

## Retention

Retention as a method of dealing with differences in students' abilities does not affect as many students as does ability grouping. In a study of the Baltimore, Maryland school system, 20 percent of 6- to 8-year-olds and nearly 30 percent of 9- to 11-year-olds were enrolled below the modal grade for their age (Entwistle and Alexander 1993). The percentages were higher for males than for females and for minority children than for children from nonminority families. Retention is more likely to occur at specific transition points such as kindergarten, first, sixth, or ninth grades (Karweit 1992). Nationwide, retained students are most likely to be male, younger than their classmates, black or Hispanic, and identified as having behavioral problems or being immature.

Retention policy has changed over the history of the American educational system. Since the report *A Nation at Risk* (NCES 1983) was released, states have established specific standards for promotion from one grade to another and for graduation. Four types of educational practice can be grouped under the heading of grade retention:

1. A child may repeat a grade without receiving additional resources or being enrolled in special programs (recycling).
2. A child may repeat a grade and receive additional help or be enrolled in special programs (alternative after failure).
3. A child may be placed for an additional year in a program prior to actual failure (alternative prefailure).
4. A child may be failed or promoted only in certain subjects (partial promotion) (Karweit 1992).

## Special Education

Assignment to full- or part-time special education programs can be seen as a form of between-class ability grouping. In 1975, the United States Congress passed the Education for All Handicapped Children Act (P.L. 94–142), which required public schools to identify and then to provide special education services to all children with educational, emotional, developmental, or physical disabilities (Singer, Palfrey, Butler, and Walker 1989). The act was amended in 1990 and has since been known as the Individuals with Disabilities Education Act (IDEA; P.L. 101–476) (Kauffman, Lloyd, Hallahan, and Astuto 1995). This



act mandates free and appropriate public education for all children with disabilities between the ages of 3 and 21 and sets up a system of federal financial support to states that implement the law. Funds are supplied to each school system for each child who is enrolled in a special education program, until the number of students reaches 12 percent of the school population, after which no additional funds are available. The guiding principles of the act ensure that:

- no child will be denied placement,
- programs will be individualized,
- children will be placed in the least restrictive environment that can adequately accommodate their needs, and
- parents will participate in placement decisions (Mehan, Hertweck, and Meihls 1986).

Criteria for placement in special education vary widely across states and school districts. States and school districts differ in their referral practices, efficacy of child-find programs, psychometric guidelines, composition of evaluation committees, strength of professional and special interest groups, ability of parents to seek services, availability of costs and services, acceptability of particular designations, and history of legal advocacy and litigation (Singer, et al. 1989). From the mid-1970s to the mid-1980s, the number of children receiving special education services went from 3.7 to 4.3 million; that is, from about 8 percent to nearly 11 percent of all 3- to 21-year-olds (Entwistle and Alexander 1993).

To fulfill federal reporting requirements and receive reimbursement, states and school districts are required to classify their students who have special needs. Classifications of

students vary somewhat but generally correspond to seven conditions mentioned in the Education for all Handicapped Children Act: speech impairment, learning disability, emotional disturbance, mental retardation, hearing impairment, vision impairment, and orthopedic/medical impairment. The child's classification is a major determinant of the placement and services that will be provided. For example, children classified as learning disabled are usually placed in regular classes, often leaving class for a period of special instruction, while children classified as emotionally disturbed or mentally retarded are usually placed in separate classes or schools (Singer et al. 1989).

Prior to a decision on special education placement, the child must undergo a full individual evaluation. A variety of tests and other materials are used to evaluate the child. No single procedure is used as the sole criterion for determining an appropriate educational program. The evaluation is conducted by a multidisciplinary team which must include at least one teacher or other specialist with knowledge of the area of suspected disability. After interpreting the evaluation data and identifying the child as handicapped, the team develops an individualized education program (IEP). Included in the IEP are the student's current level of educational performance, short- and long-term educational goals for the student, a plan for the evaluation of student progress, and documentation of the kind and duration of the services the student will receive. The IEP and the child's progress are reviewed at least once a year to determine if revision is necessary (Mehan et al. 1986).

Once assigned to special education programs, most children remain in the programs (Walker, Singer, Palfrey, Orza, Wenger, and Butler 1988). At the elementary level, most special education students receive pull-out services, which means that students leave their regular classroom to receive specialized instruction with a small group of other students, and

afterward return to their classroom (Entwistle and Alexander 1993). Elementary schools may also use push-in programs, in which a special education teacher visits the regular classroom and provides instruction to a small group of students, while the classroom teacher provides regular instruction to the rest of the class.

The Education for All Handicapped Children Act also specifies protective safeguards pertaining to the rights and responsibilities of parents. The development of educational policy for a child requires parent participation, and parents or guardians must receive written notice whenever a change in identification, assessment, or educational placement of their child is proposed. If an agreement cannot be reached about the appropriate placement or the IEP for a child, then parents or educators can initiate an impartial hearing. To prepare for this hearing, parents must be given access to all educational records and information pertaining to the school's evaluation of their child (Mehan et al. 1986).

### Programs for Gifted Students

Twenty years ago, few programs existed for gifted and talented students; by 1990, 38 states were serving more than 2 million gifted students in kindergarten through 12th grade. The percentage of students identified as gifted in each state varies due to differences in state laws and practices. For example, 4 states identify more than 10 percent of their students as gifted and talented, while 21 states identify fewer than 5 percent. According to data from the *National Education Longitudinal Study of 1988 (NELS)*, 65 percent of the public schools had some kind of opportunity for gifted and talented students, and approximately 9 percent of all

eighth-grade public school students participated in gifted and talented programs (USED 1992, 1993).

### **Changes in Legislation**

Twenty years ago, only seven states had legislation and funding for gifted and talented programs. However, the Jacob K. Javits Gifted and Talented Students Act of 1988 (P.L. 100–297) established a federal presence which changed the situation markedly (USED 1993). Spurred by this legislation most states developed legislation and provided some financial support for gifted and talented programs (USED 1993). Although policies varied from state to state, by 1990, 26 state and trust territories required that schools provide specialized services and programs for gifted and talented students, and 27 had passed legislation encouraging districts to provide such programs; only 6 states and territories had no such legislation (USED 1993).

### *Identifying the Gifted and Talented*

The Marland Report identified a variety of abilities, in addition to general intellectual ability, that indicate giftedness. Using the broad criteria outlined in the Marland Report, gifted students are estimated to make up a minimum of 3 to 5 percent of the student population (USED 1993). In a recent survey, however, while 73 percent of school districts indicated they have adopted the Marland definition, few said they use it to identify and serve any area of giftedness other than high general intelligence as measured on IQ and

achievement tests (USED 1993). Thus, the main criteria for admission to gifted and talented programs continue to be tests and teacher recommendations (USED 1993).

States that use IQ score cutoffs to identify gifted and talented students are more likely to have larger disparities among racial and ethnic groups. Economically disadvantaged students were significantly under-served, according to *NELS* data (USED 1993). Nine percent of students in gifted and talented programs were in the bottom quartile of family income, compared with 47 percent of program participants from the top quartile. Several categories of students are under-represented in these programs: culturally different children, females, students with disabilities, underachievers, and students with artistic talent (USED 1993). Some minority groups are more likely to be served by gifted and talented programs than others: nearly twice as many Asian American students were enrolled in these programs than were members of any other racial or ethnic group (USED 1993).

### **Programs for the Gifted and Talented**

Two of many approaches to educating gifted students are enrichment and acceleration. Enrichment typically means that students are offered more varied educational experiences. Examples of enrichment programs might include after-school or Saturday classes, resource rooms, additions to the regular classroom curriculum, or special interest clubs (Colangelo and Davis 1991).

Acceleration usually includes early entrance to kindergarten or college, grade skipping, self-paced studies, or part-time grade acceleration in which a student receives advanced instruction in one or more content areas for part of each day (Colangelo and Davis

1991). In these ways, acceleration offers standard curriculum experiences to students at a younger-than-usual age or at a lower-than-usual grade level.

During elementary school, most specialized programs are available for only a few hours a week. One study indicated that 72 percent of districts with elementary programs for gifted students use the pull-out program or resource room approach, in which students leave their regular classrooms for a few hours each week to work on special projects (USED 1993). Other popular approaches include enrichment offerings, through which students receive extra opportunities to learn, and independent study. A few school districts provide special schools or allow students to move significantly ahead of their peers. Students talented in the arts are offered few challenging opportunities (USED 1993).

The argument often given for providing gifted and talented programs at the elementary level is that the regular school curriculum fails to challenge gifted students. In one recent national study of five content areas, elementary school teachers eliminated an average of 35 to 50 percent of the regular school curriculum for gifted and talented students after tests at the start of the school year showed that these students had already mastered the content (USED 1993).

In junior high and high schools, opportunities for gifted students are scattered and uncoordinated (USED 1993). One of the main problems is that the college preparatory curriculum in the United States generally does not require hard work from able students (USED 1993). In addition, small town and rural schools often have limited resources and are unable to offer advanced classes or special learning opportunities (USED 1993). Specialized schools, magnet schools, and intensive summer programs are increasing in popularity, but they serve only a fraction of the secondary students who might benefit from them (USED

1993). Another approach to providing more challenging programs is to allow gifted and talented students to enroll in college classes while they are still in high school; however, this alternative is seldom available (USED 1993).

### After-School Classes and Tutoring

Students may also seek academic lessons after school hours. Private academic courses are offered, primarily by private companies for students who are having difficulty with their academic work. Other after-school programs help prepare high school students for the standardized examinations that are used as a criterion for admittance to colleges and universities.

Private tutoring is another option for students, but it is infrequently used. For example, in a recent study of first- and fifth-graders, less than 10 percent were enrolled in after-school academic classes or had a private tutor (Stevenson and Lee 1990). Among high school students, 3 percent were enrolled in after-school academic classes and 7 percent had a private tutor (Fuligni and Stevenson 1995). The cost of enrolling in after-school academic classes or hiring a tutor is prohibitive for many families. Thus, resources are often limited to students from families of higher socioeconomic status.

### Summary

American educators use a wide range of methods for responding to individual differences in students' ability. These methods may be used at the classroom level, such as in

instructional groups organized by ability; at the grade level, such as in instructional programs that place students from different classrooms together in special education and gifted programs; and finally, at the school level, as in the comprehensive tracking systems found in most high schools. Students may participate in these instructional arrangements for only part of the day, as in reading and mathematics groups in elementary school or special education and gifted programs. They may also be grouped during the entire school day, as in tracked high schools. The particular program that a school adopts is influenced by a host of factors, including demographic characteristics of the surrounding community, school policies, the extent and type of financial and material resources available, and the philosophies of administrators, teachers, and parents. As a result, ability grouping is carried out in a variety of ways in different schools.

Despite such variations, some common issues must be considered. Any program of instruction that is intended to accommodate students of differing ability is in part guided by the beliefs held by the practitioners involved. Some key beliefs are that every child must have equal opportunity for education but that children of differing levels of ability require different kinds of instruction. As a result, instructional programs may reflect a tension between accommodating the different instructional needs of some students without sacrificing the quality of the education available to others.

A related issue of continued concern to researchers is how students of different economic or ethnic backgrounds can be incorporated into a particular system of ability grouping. Some researchers suggest that educators and administrators may have preconceived ideas about the academic potential of students based on characteristics such as economic status and ethnicity. In addition, educators may consider certain programs of instruction as



being more or less appropriate for a student based on their assumptions about the adult occupation the student is likely to enter. As a result, inequities in placement in accelerated or academic tracks may be based on ethnic or economic characteristics of students and may have profound effects on students' access to instruction of high quality.

## **Secondary Education in the Life of American Adolescents**

**Andrew Fuligni**

Adolescence can be a time of great change in the lives of American youth. As they move from elementary to secondary school, they are exposed to new interests and activities that can compete with academics for their time and attention. To understand the role of school in adolescent lives, one must examine it within the context of these different interests and activities.

Perhaps the most revealing way of understanding the place of secondary school in students' lives is to compare the amount of time adolescents spend in school and other academic endeavors with the time they spend in nonacademic activities. Other ways include examining adolescents' attitudes and values regarding education, the nature of parental involvement in their education, and the extent to which adolescent peer groups support academic achievement. Finally, the place of schooling in adolescents' lives must be understood against the backdrop of risk behavior that is prevalent among teenagers in American society.

## Adolescents' Use of Time

While schooling is obviously an important part of the lives of teenagers, it is only a small part. In one study, high school students were shown to spend 29 percent of their waking time either on class work or studying on their own (see table 6), while leisure activities, such as socializing with friends, playing sports and games, and watching television accounted for 40 percent of their time. Adolescents spent the remainder of their time doing chores, working in jobs, and engaging in other personal maintenance activities (Csikszentmihalyi and Larson 1984). Clearly, schooling and other academic activities represent only a small part of an adolescent's life in American society.

### Academic Activities

American teenagers spend about 180 days of the year in school; the typical secondary school day lasts approximately 6.5 hours, resulting in a total of 1,171 hours per year, although this amount can vary from state to state by as much as 150 hours, or 5 weeks per year (U.S. Department of Education [USED] 1993a). Even these data, however, can be deceptive. One study found that out of the approximately 31 hours students spent in school each week, only two-thirds of those hours were actually spent in classes (Csikszentmihalyi and Larson 1984).

Accurate estimates of the amount of time adolescents spend studying outside of classes are difficult to obtain. Some studies include the amount of time students study in school, while others document only out-of-school studying. In most studies, however, the amount of time rarely exceeds 10 hours per week. Time spent studying also appears to increase as children get older. In a study of students in the fifth through ninth grades, students

spent only 6 hours per week doing homework (Leone and Richards 1989). In a 1984 study by Csikszentmihalyi and Larson, Chicago high school students (freshmen through seniors) indicated that they studied an average of 7 hours per week outside of school (see table 6). In another study, 11<sup>th</sup>-grade students in Minneapolis reported studying approximately 10 hours per week outside of school (Fuligni and Stevenson 1995).

Table 6—Activities on which adolescents spent their time

Activity	Percent of time
<i>Productive</i>	29.0
Studying	12.7
Class work	12.0
Job or other productive activity	4.3
<i>Leisure</i>	40.0
Socializing	16.0
Watching TV	7.2
Other leisure	4.6
Reading (nonschool)	3.5

Sports and games	3.4
Thinking	2.4
Art and hobbies	1.5
Listening to music	1.4
<i>Maintenance</i>	31.0
Chores, errands, and other	14.3
Eating	5.6
Transportation	4.9
Rest and napping	3.2
Personal care	3.0

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SOURCE: Csikszentmihalyi and Larson, 1984.

Attending classes outside school is not very prevalent in the United States. In the study of 11<sup>th</sup>-graders in Minneapolis, only 3 percent of the students attended academic-oriented classes after school, and only 7 percent of the students had tutors. Enrollment in nonacademic classes, such as those in music or language, was not much greater; only 16 percent of 11<sup>th</sup>-grade students reported attending these classes. These low rates of participation resulted in an average of only half an hour per week in all of these after-school classes and lessons for the teenagers (Fuligni and Stevenson 1995).

## **Socializing with Friends**

Socializing with friends is clearly the activity of choice for American teens. The data show that when their daily activities are analyzed in terms of time spent with peers, family, or alone, adolescents spend slightly more than half of their time with their peers. By comparison, they spend 27 percent of their time alone, 19 percent with family members, and 2 percent with other individuals, such as other adults (Csikszentmihalyi and Larson 1984). Eleventh-graders in Minneapolis reported spending almost 18 hours per week with their friends outside school, which was 80 percent more than the time they spent studying. Dating is also prevalent among American teens. More than two-thirds of the Minneapolis high schoolers said that they were currently dating someone, resulting in an average of 4.5 hours per week in dating activities (Fuligni and Stevenson 1995).

## **Employment**

Along with an extensive involvement in peer groups, working in part-time jobs while attending school is a time-consuming experience for American youth. Approximately 60 percent of high school sophomores and 75 percent of high school seniors report having some type of paid employment (Bachman and Schulenberg 1993; Steinberg and Dornbusch 1991). The extent of this employment often goes beyond what many would consider to be part-time. More than half of employed students report working 20 or more hours each week (Steinberg and Dornbusch 1991). In a national sample of teenagers, 15 percent of male seniors and 9 percent of female seniors reported working more than 30 hours each week (Bachman and Schulenberg 1993).

The oft-reported implications of working long hours are lower academic achievement, greater delinquent behavior, and more frequent use of drugs and alcohol (Steinberg and Dornbusch 1991). It is difficult, however, to determine which is cause and which is effect between youth employment and problematic adjustment. Some investigators have suggested that at least part of the association is due to selection effects: that certain types of students, such as those performing poorly in school, are more likely than others to work long hours in part-time jobs (Bachman and Schulenberg 1993).

### **Organized Activities**

Extracurricular activities are a major part of the lives of high schoolers in the United States. Nearly all the 11<sup>th</sup>- grade students in the Minneapolis study (93 percent) said they participated in these activities. Some students made a major investment in these activities: more than a third of them participated in five or more different activities (Fuligni and Stevenson 1995).

Sports are perhaps the most common organized activities in which American adolescents become involved. More than half of American sophomores participate in school-sponsored athletics (USDE, 1993b). The rate of participation becomes even greater when both in-school and out-of-school sports are considered. More than 80 percent of Minneapolis 11th-graders said that they participated in some type of sports activity, either at school or outside school. On average, students spent about 8 hours per week in sports at their high schools and an additional 5 hours per week in out-of-school sports (Fuligni and Stevenson 1995).

A recent report suggests, however, that constructive activities or programs available to early adolescents (aged 10 to 15 years) after school are often quite limited (Carnegie Council on Adolescent Development Task Force on Youth Development and Community Programs 1992). The availability of these activities can vary greatly according to location and neighborhood. Many adolescents from lower income families have little access to these activities and are left with few options in the after-school hours. Young adolescents from poor families are more likely to be unsupervised: according to the *National Educational Longitudinal Study of 1988*, 17.2 percent of the eighth-graders from the lowest socioeconomic group were left home alone for 3 hours after school as compared to 9.3 percent of the students from the highest socioeconomic group (USED 1992; Carnegie Council on Adolescent Development Task Force on Youth Development and Community Programs 1992).

### **Factors Influencing Adolescents' Use of Time**

Amidst these general trends, teenagers' use of their time shows some important demographic variations. Gender is one determinant. Females tend to spend more time engaged in academic activities than do males. For example, 11<sup>th</sup>-grade females in Minneapolis reported studying 11 hours per week, while 11<sup>th</sup>-grade males indicated that they studied only 9 hours per week (Fuligni and Stevenson 1995). Sports participation, however, is more common among males than among females. Among a national sample of sophomores in 1990, 63 percent of the males participated in high school athletics as compared to only 41 percent of the females (USED 1993b). In past years, more teenage males than females tended



to be employed. Recently the rates of employment have become fairly equal, although a difference remains in the number of hours worked per week. For example, in a national sample, approximately 47 percent of (employed) male seniors worked more than 20 hours per week, compared with 38 percent of female seniors (Bachman and Schulenberg 1993).

Youth employment also varies according to students' ethnicity and socioeconomic status. Among a national sample of high school seniors, 60 percent of African-American male students and 67 percent of Hispanic male students had jobs, compared with 75 percent of white male students (Bachman and Schulenberg 1993). Overall, part-time jobs are more common among white, middle-class teenagers than among minority students and those from lower socioeconomic backgrounds, perhaps because the availability of employment is greater in their neighborhoods. However, when they do find work, adolescents from families of lower socioeconomic status tend to work longer hours than their employed, middle-class counterparts (Fine, Mortimer, and Roberts 1990).

## **Conclusion**

Although few comprehensive studies on adolescents' use of time in the United States exist, the data that are available point to the fact that schooling and academic activities consume only a moderate part of adolescents' lives. Socializing with friends and working in part-time jobs appear to occupy larger portions of adolescents' time in American society. It is likely that schooling and academics compete directly with these activities for the time and attention of American youth.

## Adolescents' Attitudes and Values

### **Academic Motivation and Interest in School During Early Adolescence**

The transition into adolescence and secondary school seems to have a generally negative impact on academic interest and motivation among teenagers, triggering an apparent decline in achievement. For example, a longitudinal study of a large group of students documented a sharp decline in adolescents' confidence in their mathematics abilities and their interest in learning mathematics between the sixth and seventh grades, when students were making the transition from elementary to junior high school (Eccles and Midgley 1990).

While differences between the grading practices of teachers in elementary and junior high school, can account for part of the decline in actual achievement (Eccles 1991), two other explanations have been offered to account for the drop in both achievement and motivation. The first argues that simply shifting schools disrupts children's academic achievement and motivation (Simmons and Blyth 1987). Moving to a new school can be a source of stress for many children, as they may feel uprooted from an environment in which they felt comfortable and placed in one that is foreign to them. This stress can be exacerbated by other changes, such as the onset of puberty, that take place during early adolescence.

A second explanation for the decline in adolescents' motivation and interest in school focuses on the secondary school environment (Eccles and Midgley 1990). This explanation argues that there is a mismatch between the developmental needs of early adolescents and the learning environments they encounter in secondary school. Psychologists generally believe that as children move into adolescence, they increasingly need supportive opportunities to develop their autonomy. However, students entering secondary school do not find these

supportive opportunities; instead, they often encounter a large, impersonal learning environment that leads to their alienation from the learning process. For example, in one large study, both objective observers and the students themselves rated seventh-grade mathematics teachers less supportive, friendly, and fair than sixth-grade mathematics teachers. In addition, the seventh-grade teachers rated their students less trustworthy than did sixth-grade teachers (Eccles and Midgley 1990).

### **Adolescents' Beliefs in the Importance of Education**

While students' interest in academics tends to decline as they enter adolescence, teenagers nevertheless retain the general belief that education is important for their future. Practically all adolescents acknowledge the correlation between receiving a good education and success after high school. For example, virtually all adolescents in a large study of high school students indicated that they believed that getting a good education would help them to get the kind of job they would like in the future (Steinberg, Dornbusch, and Brown 1992).

The fact that adolescents recognize the importance of education is supported by evidence that most students hope to continue their education beyond high school. In a national sample of high school sophomores, fully 90 percent of the students aspired to further their education after high school; 59 percent of the students aspired to receive either a bachelor's or postgraduate degree (USED 1993b).

However, this belief in the value of schooling may not satisfactorily explain variations in students' actual level of achievement. This explanation requires an examination of adolescents' perceptions of the implications of doing poorly in school. Although most

students acknowledge that doing well in school will benefit their adult lives, they may not all agree on the consequences of not doing well. A recent study of high school students found that, the more students believed that poor performance in school would compromise their future, the better their performance (Steinberg, Dornbush, and Brown 1992). In other words, adolescents who believed they could do well as an adult even if they did not have a good education were more likely to receive lower grades. This study also found that Asian-American students, who generally attain a higher level of achievement than their peers, were most likely to believe in the negative consequences of academic failure.

### **Individuality and Ability**

Like most societies, the United States has always valued academic success. Therefore, understanding adolescents' attitudes toward education and achievement requires an understanding of the American ethic of individuality. Growing up in the United States, adolescents rapidly acquire the societal values of individual choice and autonomy. These values often spill over into the academic domain, where many psychologists believe the motivation for doing well in school must come from the individual students themselves. In order to do well in school, students must like academics and choose education as a worthwhile endeavor (Spence 1985).

In American society, students' innate ability is seen as a very important determinant of their academic success (Holloway 1988). Some studies have indicated that American parents are more likely to endorse innate intelligence as a source of students' academic achievement than are parents in other countries, such as those in East Asia. For example, when asked to

allocate 10 points to various sources of children's academic success, American mothers gave an average of 3.4 points to natural ability, as opposed to Japanese and Chinese parents, who gave approximately 2.5 points (Stevenson and Lee 1990). American mothers were also more likely to agree that their children were born with their mathematics and reading ability. Other observers have suggested that as children enter adolescence, they are increasingly likely to emphasize natural ability as a reason for doing well in school (Stipek and Iver 1989). There has been little research, however, into this progression into the high school years.

## **Conclusion**

While their interest in and motivation for academic achievement declines as they enter secondary school, most teenagers still retain a general belief in the value of receiving a good education. Two areas that merit further investigation are adolescents' ideas regarding the possibility of succeeding in life without doing well in school, and the role of the American belief in individual choice and the importance of innate ability. Both areas have been highlighted as important for adolescent achievement, but thus far have generated little substantive research.

## **Parental Involvement**

The role of parents in the academic achievement of their children is multifaceted, ranging from direct involvement, such as assisting with homework, to indirect influence,

such as the values held by the parents and the emotional climate of the home. The different types of parental involvement can be grouped into three general categories:

- actual involvement at school, such as assisting with class activities or parent-teacher organizations;
- at-home behaviors, such as assisting with homework or monitoring their children's behavioral patterns; and
- the attitudes and expectations of parents, such as their general value of education or aspirations for their children's education.

As children get older, parental involvement becomes more indirect, through practices such as setting standards of achievement for their children and transmitting to their children their values regarding the importance of education.

### **Involvement at School**

U.S. parents become involved in school activities in a variety of ways. For example, they may become involved in parent-teacher organizations (PTOs) or other parent leadership activities to try to affect school policy. In a survey of 2,000 parents nationwide, more than two-thirds reported attending a PTO meeting or similar gathering at least once a year (Moles 1993). While this would seem to be a high rate of participation, it is not clear how many parents attend these meetings regularly or even more than once a year.

Parents may also volunteer at the school to help with classroom exercises, special projects, and class trips and excursions. Participation in these types of activities, however, appears to be quite limited, because, as a recent study found, most work in part- or full-time jobs (Dauber and Epstein 1993).

Parents who do participate in school activities tend to be of higher socioeconomic status, and more highly educated (Dauber and Epstein 1993; Stevenson and Baker 1987). For example, in one study, the amount of education received by mothers was correlated at .32 with their involvement at school, such as attending PTO meetings and parent-teacher conferences. When broken down by the gender of the child, however, the correlation was .53 for boys and -.06 for girls (Stevenson and Baker 1987).

The assumption of many proponents of school involvement is that children of parents who participate in school activities will perform better at school. One study found a correlation of .34 between involvement and children's achievement, but this link has not been clearly established in other studies (Stevenson and Baker 1987). Despite the limited evidence for the positive effects of parental involvement, there has recently been a widespread movement to promote greater parental involvement in the school as a fundamental aspect of school reform.

### **Involvement at Home**

Most of what is known about the direct involvement at home of parents in achievement-related behaviors deals with elementary school children. This is probably

because parental assistance with homework and studying is much less frequent when the children enter junior high and high school—a result of parents feeling less capable of assisting their children with their schoolwork than when the children were in elementary school (Dauber and Epstein 1993).

Another reason for the low incidence of parental involvement in junior high and high school may be the generally high level of satisfaction parents have with their children's educational performance and the quality of their schools. For example, in a recent cross-national study of the parents of 11<sup>th</sup>-grade students, more than one-third of the American students' mothers indicated that they were "very satisfied" with their child's academic performance, as compared with 10 percent and 2 percent of the Chinese and Japanese mothers, respectively (Stevenson, Chen, and Lee 1993). In addition, 79 percent of the American students' mothers rated their adolescents' schools as "good" or "excellent," as compared with 44 percent and 48 percent of the Chinese and Japanese mothers, respectively (Stevenson et al. 1993).

Parents may be more likely to influence their adolescents' academic performance indirectly, by monitoring their behavior or by generally supporting and encouraging their academic endeavors. A series of studies have attempted to identify the educational impact of what is called "authoritative" parenting, which is a child-rearing pattern that provides a moderate degree of parental direction and control over adolescents' lives along with appropriate amounts of emotional support and encouragement. In numerous studies, researchers have found that adolescents with "authoritative" parents had slightly higher grade-point averages in high school than their peers who had either "authoritarian" parents, who exerted excessive control, or "permissive" parents, who exerted very little control



(Steinberg, Mounts, Lamborn, and Dornbusch 1991; Dornbusch, Ritter, Leiderman, and Roberts 1987)

One reason for the small yet consistent relation between these child-rearing patterns and adolescents' achievement may be that the relation is mostly mediated by the effects of child-rearing patterns on other variables. In one study, adolescents with authoritative parents reported higher levels of parental involvement in their education than did their peers; this involvement included help with homework and selection of courses (Steinberg, Lamborn, Dornbusch, and Darling 1992). Adolescents from authoritative homes were also more likely to report that their parents encouraged and supported their academic endeavors. In addition, a national study of high school seniors found that adolescents whose parents were aware of and monitored their everyday activities tended to study more often than their peers whose parents were less attentive to their children's activities (Keith, Reimers, Fehrman, Pottebaum, and Aubey 1986).

The effectiveness of authoritative parenting, however, seems to be highest for children from white households. In some studies, it is only slightly predictive of academic success among Hispanic adolescents, and sometimes not at all predictive among Asian-American and African-American adolescents, with no differences found between adolescents with authoritative parents and their peers in terms of their academic performance. These findings suggest that more research needs to be conducted to examine the child-rearing patterns that do make a difference in the achievement of adolescents from these ethnic minority families (Steinberg et al. 1991; Dornbusch et al. 1987).

## **Attitudes and Expectations of Parents**

Although adolescents may become increasingly independent and increasingly involved in peer relationships as they become older, their parents' views and behavior continue to influence aspects of their lives. In particular, parents seem to strongly influence the plans of American adolescents, including their educational aspirations and expectations. For example, in a national study of high school seniors in 1991, 86 percent of the students indicated that they agreed with their parents on the value of a good education (USED 1993a).

One way parental values and expectations influence the achievement and academic behaviors of adolescents is through their influence on gender differences in academic achievement (Eccles 1984; Tocci and Engelhard 1991). One study found that despite the similarity in the actual academic performance of a large group of male and female adolescents, parents tended to have different expectations of the performance of their children and different perceptions of their children's abilities according to gender (Eccles-Parsons, Adler, and Kaczala 1982). For example, the parents of female adolescents believed that their daughters had to exert greater effort to do well in mathematics than did the parents of male adolescents. In addition, the parents of females believed that it was less important for their daughters to take advanced mathematics classes than did the parents of males (Eccles et al. 1982). Clearly, the impact of parents' beliefs regarding sex roles and achievement needs to be taken into account when considering the role of parents in adolescents' achievement.

## **Conclusion**

During the adolescent years, parents seem to have little involvement in official school activities. Their influence on their children's academic performance seems to be primarily indirect, such as by monitoring children's behavior, encouraging academic success, and holding strong values and high expectations regarding academic performance.

## **Peer Support for Academics**

### **Peers and Academics**

It has often been a popular notion in American society that adolescent peer groups do not support the goals of academic achievement and success. This idea may exist because academic endeavors and socializing with peers seem to be two separate—and often competing—worlds for American adolescents. When with their friends, the vast majority of teens in Minneapolis reportedly spent time in social activities, such as dating and attending parties and dances, or attending movies and concerts. Only 1 percent of these adolescents reported engaging in academic activities, such as studying and doing homework, with their friends (Fuligni and Stevenson 1995). While social involvement and investment in peer relationships is considered to be an indication of healthy adjustment on the part of adolescents, extreme involvement with peers can perhaps take away from the time adolescents would otherwise spend in academic pursuits. This relation was evident in the Minneapolis study, in which a significant negative correlation of  $-.37$  was found between time spent with peers and test performance in mathematics (Fuligni and Stevenson 1995). In

another study, a similar negative correlation was found between adolescents' time with friends and their school achievement (Larson 1983).

It would be a mistake, however, to consider the influence of peers on American adolescents' achievement as wholly negative. The influence that adolescents' close friends and other peers have on their academic achievement is not unidirectional. Peer influence can depend to a large degree on the types of friends and peer groups with whom the adolescent associates (Kandel and Lesser 1972). For example, teenagers with friends who are achievement oriented and college bound tend to share those attitudes. In fact, these types of friends can even serve to enhance the influence of parents. One study found that when adolescents' mothers wanted them to attend college, but their best friends did not plan to attend college, only 50 percent wanted to attend college. However, when the adolescents' best friends did want to attend college, 83 percent of them had college plans themselves (Kandel and Lesser 1972).

Some investigators have focused on the role of adolescents' larger peer group or crowd in their academic achievement. Secondary schools in the United States are filled with a variety of peer groups that can influence students' achievement in many different directions (Brown 1990). In an ethnographic study of a single high school, one investigator identified two general categories of peer groups, the "jocks" and the "burnouts." While individual peer groups may come and go in secondary schools, these two general categories tend to exist in most high schools. Broadly defined, the jocks share the goals of the school and the burnouts tend to be alienated from the school. Membership in these groups had important associations with adolescents' achievement, with those in jock groups performing at a higher level in

school and participating in school activities at a higher frequency than those in burnout groups (Eckert 1989).

What is unclear in most studies of the association between adolescents' friendships, peer group membership, and their academic achievement is the direction of causality. For example, adolescents whose friends are academically high achievers may very well be encouraged to perform at a high level themselves. It is equally likely, however, that adolescents who are already performing at a high level academically will choose friends who achieve at similar levels. Some investigators have suggested that peer groups serve to reinforce the pre-existing characteristics of adolescents, but there has been little research systematically examining the direction of effect between adolescents' peer group membership and their academic performance.

### **Ethnic and Social-Class Differences in Peer Support for Academics**

In recent years, public attention has increasingly focused on claims that the extent and type of peer support for academics varies according to adolescents' social class and ethnic group identity. There has been little systematic research, however, into this issue.

Some observers have suggested that among lower class African-American students in some schools, academic success has been stigmatized as "selling out" and "acting white" (Fordham and Ogbu 1986). Within these peer groups, it has been suggested, the pressure against achieving in school is so great that some African-American students will either hide or limit their level of achievement. These students are responding, in part, to the perception that they will not be rewarded for educational success because of discrimination in the labor

market. This point of view is a subject of great debate, and as of yet has not been strongly substantiated by research.

It has also been suggested that a different kind of peer support for academics operates within Asian-American peer groups. Adolescents of Asian backgrounds are more likely to be a part of an achievement-oriented peer group. They are more likely to study together and help each other with difficult assignments, and they report the highest level of peer support for academics (Steinberg, Dornbusch, and Brown 1992).

## **Conclusion**

For most adolescents, interactions with friends and other peers do not seem to be focused on academic endeavors. In fact, the academic and social lives of adolescents seem to constitute two different worlds. However, peers do seem to be associated with academic achievement. Having friends and being in a peer group that is oriented toward achievement is associated with adolescents' being focused on academics themselves. What is unclear, however, is whether adolescents choose these types of friends based on their own level of achievement, or whether adolescents' friends actually influence their academic performance.

## **Risk Behavior During Adolescence**

### **Dropping Out of School**

As public schooling has increased in this century, so has the percentage of American youth receiving high school diplomas. Today, approximately 75 percent of American youth

will receive their diploma by 18 or 19 years of age; 85 percent will receive it by 20 to 24 years of age (Bachman 1991). Consequently, the dropout rate has declined somewhat in recent years. In 1967, the overall dropout rate for students 16 to 24 years old was 17 percent. By 1991, the proportion of these students who were dropouts had declined to 12.5 percent.

These rates are somewhat higher in certain segments of the youth population. In 1991, the dropout rate for African-American youth aged 16 to 24 years was 13.6 percent, and the rate for Hispanic youth was 35.3 percent (USED 1993b). Those students who drop out of school tend to have a history of poor grades, repeating a grade, absenteeism, truancy, discipline problems, and a dislike of school; most also come from homes of lower socioeconomic backgrounds (Bachman 1991). In addition, dropouts from low-income families are less likely to return to school than are dropouts from families with higher incomes.

### **Use of Drugs, Cigarettes, and Alcohol**

In 1993, 43 percent of U.S. high school seniors reported using some type of illicit drug ("marijuana, hallucinogens, cocaine, and heroin, or any other opiates, stimulants, barbiturates, or tranquilizers not under doctor's orders") at least once in their lives (University of Michigan News and Information Services 1994). Although drug use among American teenagers during the 1980s declined from the rates observed in the late 1970s, recently there has been a slight upswing in usage. According to a national sample of American adolescents, the proportion of students reporting any use of marijuana, LSD, inhalants, and stimulants increased from 1992 to 1993 (University of Michigan News and Information Services 1994).

For example, the percentages of high school seniors who have used marijuana, LSD, and stimulants has tended to increase.

The changes in adolescents' drug use appear attributable, in part, to changes in student norms regarding drug use. Students' perceptions of the risks involved and the acceptability of drug use have decreased slightly along with the increase in reported actual use. In 1993, 73 percent of high school seniors believed that smoking marijuana regularly was a great risk, as opposed to 77 percent in 1992. In addition, in 1993, 63 percent of seniors said that they would disapprove of people who try marijuana, compared to 70 percent in 1992 (University of Michigan News and Information Services 1994).

In general, adolescents who become involved in drug use tend to come from homes with discord and poor parental supervision. They tend to be in peer groups that encourage illicit drug use and are more likely to have low school performance and more negative attitudes toward education (Cohen, Brook, and Kandel 1991). Contrary to popular stereotypes, African-American students report the lowest rates of drug use among all ethnic groups (University of Michigan News and Information Services 1994).

The use of cigarettes among American teenagers has also slightly increased. In 1993, 29.9 percent of high school seniors reported smoking in the past year, as compared with 27.8 percent in 1992. In terms of smoking daily, 19 percent reported doing so in 1993, as compared with 17.2 percent in 1992 (University of Michigan New and Information Services 1994).

There has been no change, however, in the high rates of adolescent drinking. In 1993, 76 percent of American high school seniors reported using alcohol in the past year, and



approximately half indicated that they had been drunk at some time during the past 12 months (University of Michigan News and Information Services 1994).

Table 7 provides additional statistics.

Table 7—Percentage of high school seniors reporting any drug use in their lifetime: 1993

Drug	Grade		
	8	10	12
Alcohol			
Any use	67.1	80.8	87.0
Been drunk	26.4	47.9	62.5
Cigarettes (any use)	45.3	56.3	61.9
Smokeless tobacco	18.7	28.1	31.0
Marijuana/hashish	12.6	24.4	35.3
Cocaine	2.9	3.6	6.1
Stimulants	11.8	14.9	15.1

SOURCE: University of Michigan News and Information Services, 1994.

### School Crime and Violence

The rising incidence of violence occurring on school grounds is also a concern in U.S. junior high and high schools. In a national survey of eighth-grade students in 1988, the most commonly cited problem was physical conflicts and fights among the students themselves,

cited by more than 16 percent of the students as a "serious" problem (USED 1991).

Vandalism, verbal abuse of teachers, and possession of weapons were perceived as serious problems by 15 percent, 12 percent, and 8 percent of eighth-graders, respectively, while 8 percent of students thought physical abuse of teachers was a serious problem in their school (USED 1991).

In a national survey of high school seniors, students reported that violence at the high school level was not a rare occurrence (USED 1993a). In 1991, more than 40 percent of seniors reported that something was stolen from them, more than 20 percent indicated that their property was deliberately damaged, more than 15 percent indicated that someone had threatened them with a weapon, and more than 15 percent indicated that someone had injured them without a weapon.

In almost all cases, African-American students reported experiencing greater violence than white students. For example, 20 percent of black seniors, as opposed to 16 percent of white seniors, reported being threatened with a weapon (USED 1993a). In addition, 10 percent of black seniors, compared to 5 percent of white seniors, reported being injured by a weapon.

## **Sexuality**

Dating and sexuality are major aspects of adolescents' lives in the United States. In one study, more than three-quarters of 11<sup>th</sup>-graders reported that they were currently dating someone (Fuligni and Stevenson 1995). Adolescents are also involved in sexual behavior. In a 1987 report, 67 percent of 18-year-old males and 44 percent of 18-year-old females

reported that they had had sexual intercourse (Katchadourian 1990). This prevalence of sexual behavior, however, has not resulted in an increase in teenage pregnancy and childbirth in this century. In fact, the rate of childbirth among teenage females has declined. For example, births to adolescents aged 15 to 19 years dropped from 8.9 per 100 in 1960 to 5.1 per 100 in 1986 (Wetzel 1989). Part of this decline in birthrates may be due to the increased availability of abortion and other methods of birth control.

The change that causes great concerns is the rise in the number of out-of-wedlock births since 1960, due to the decline in marriage among youth. In 1960, 17 percent of the births to teenagers were to unwed mothers; by 1986 that number had risen to 61 percent. Most unwed teenage mothers live in poverty. In 1987, 70 percent of all mothers between the ages of 15 and 24 years had annual incomes that were below the poverty line (Wetzel 1989). In addition, teenage mothers are more likely to drop out of school than are their peers of the same socioeconomic background and academic ability (Furstenberg, Brooks-Gunn, and Chase-Landsdale 1989).

## Summary

Secondary school occupies only a modest place in the lives of adolescents in the United States. This is perhaps most evident in the relatively small amount of time American teenagers spend in academic endeavors compared to the time they spend in other activities. In particular, academics seem to compete with socializing with friends and part-time employment for the time and attention of American youth.

Despite the ways they allocate their time, American teenagers value education and believe that receiving a good education is important. Nevertheless, students' motivation declines as they enter secondary school. In addition, despite the nearly universal acknowledgment of the importance of education, academic success does not appear to be a goal of all adolescents. Many American teenagers seem to view applying themselves in school as a matter of personal choice, and they believe that the attainment of academic success is constrained by an individual's innate abilities.

By the time children enter secondary school in the United States, the incidence of direct parental involvement in their education is limited. This may be due to parents' believing that they are unable to provide direct assistance to their teenagers with their schoolwork, or the fact that most U.S. parents report being satisfied with their children's school performance. Similarly, there appears to be little direct assistance with schoolwork among adolescents and their friends, although there have been recent suggestions that the level of peer support for academics varies according to students' ethnic and socioeconomic group membership.

While the dropout rate among American adolescents has declined in the last 25 years, the rates of other problem behaviors—alcohol use and sexual activity in particular—have risen; these behaviors could potentially interfere with adolescents' educational progress.

# **Teacher Preparation and Teachers' Lives in the United States**

**Barbara K. Hofer**

The preparation of teachers in the United States varies from state to state and from institution to institution, with no national consensus on a central body of knowledge or skills that a teacher needs to enter the classroom. Historically, education in the United States has been the province of the states, and, accordingly, standards for teacher education and licensing are set at the state level. These standards may be reviewed and influenced by professional associations and a national accrediting agency but are not controlled by them. Accreditation of teacher education programs is largely voluntary (unless the state mandates otherwise). In the absence of an articulated knowledge base from the profession itself, and with no unified, mandated policies for the preparation of teachers, the United States has a diversity of practices, with little coherence in purpose and curriculum, embedded in a system that is difficult to change in response to national needs and priorities.

## **Teacher Education Programs**

### **History of Teacher Education Programs in the United States**

Schools of education originated in the mid-1800s with the founding of "normal schools," which were developed to prepare teachers for what were then called "common" schools, those that were free, tax-supported, and open to all. In the early years, normal school

students were predominately females who had completed little more than an elementary education. As more of the students arrived with a high school background, normal schools evolved into teachers' colleges, which often had an expanded postsecondary curriculum in addition to teacher training programs. In the early 1900s, these teachers' colleges developed into state colleges, and since the 1950s, many have attained university status (Urban 1990).

Simultaneous with the growth of the normal schools in the late 19th century was the development within universities of departments of education. The mission of these units differed from that of the normal schools, with a focus on the philosophy and psychology of education, the preparation of high school teachers rather than elementary-level teachers, and the training of school administrators.

### **Paths for Teacher Training**

Today, approximately 1,340 teacher education programs exist in the United States in both public and private institutions (Corrigan and Haberman 1990). These programs differ widely in size, institutional mission, and range of students served.

The primary path for teacher training in the United States is through a 4-year college degree, which usually consists of 2 years of general liberal arts courses followed by admission to an education program for coursework and field experiences in the schools. At some institutions—generally smaller, private colleges—students may be admitted to the education program even earlier in their undergraduate careers, thereby truncating their discipline-based coursework.

Teacher training also exists at the graduate level, where there are two major categories of program: 5-year integrated or extended programs and postbaccalaureate programs. In the integrated or extended programs, students usually pursue a major in a field other than education and are gradually introduced to the education profession through coursework and field experiences. The fifth (and sometimes sixth) year involves concentrated professional preparation. Models vary widely, with some 5-year programs offering both a bachelor's and a master's degree (M.Ed. or M.A.T.), and others offering a bachelor's degree and graduate credit hours. In postbaccalaureate programs, students who already have bachelor's degrees in subject areas receive a year or more of professional preparation for teaching. Graduates may receive an M.Ed. or M.A.T, or graduate credits but no degree, or may simply be eligible for teacher certification as a result of the training.

Another route to the classroom is through an alternative certification program, which provides on-the-job training to college graduates who are placed in teaching jobs and given the concurrent coursework and supervision necessary for certification. Classes are held in the evenings, on weekends, and during the summer. These programs often draw a more diverse population than the 4-year degree programs, attracting more members of minority groups and older individuals seeking a career change. Approximately 3.4 percent of all teachers have completed or are participating in such programs, which were provided in 43 states as of 1993 (American Association of Colleges of Teacher Education [AACTE] 1993). Intended as a means of expanding the pool of teachers, especially in areas of critical shortage, alternative certification programs are a cost-effective alternative for training but are also criticized as providing less professional preparation than standard programs (Feiman-Nemser 1990).

## **Proposals for Graduate Preparation of Teachers**

Reform efforts of the 1980s included recommendations for further professionalization of teaching and the elimination of the undergraduate education major. Reports of both the Holmes Group (Holmes Group 1986), consisting of deans of education and liberal arts and provosts of nearly 100 research universities, and the Carnegie Task Force on Teaching as a Profession (Carnegie Forum on Education and the Economy 1986) recommended that teachers be trained solely at the graduate level, following an undergraduate degree with an academic major. Proponents of graduate education for teacher preparation assert that the status of teachers will be elevated by this approach, claiming that such programs will attract more qualified applicants, offer more rigorous instruction, and produce teachers with firmer grounding in their subject areas (Feiman-Nemser 1990).

Approximately 1,000 public and private universities confer graduate degrees in education in the United States (USED 1995). Although their focus is more often on educational research and the preparation of education faculty, teacher training programs at this level are increasing in number. However, a recent study to assess the impact of proposals for extending teacher preparation into graduate education concluded that "the 4-year program remains the primary route to teacher certification, while the extended program is intended for students who decide late in their educational experience to pursue a teaching career" (Wong and Oglethorpe 1993).

The most compelling reason for the persistence of an undergraduate education curriculum, in spite of strong recommendations for change, may be the increased cost of extending teacher education programs into the graduate level, for both the institutions and the students. Graduate programs, with their lower student-faculty ratios, are more costly than



undergraduate programs for the institutions. For the students, the increased cost of additional study may produce a more restricted applicant pool. In particular, there is a concern that teaching will attract fewer minorities, who have been historically less likely to have the resources for graduate study (Wilkinson 1989).

### **Admission Standards**

The criteria for admission to a teacher education program are determined at each college or university and are sometimes mandated by the state, a practice that is increasing. Approximately 70 percent of teacher education programs now have a minimum grade-point requirement for admission, and 13 states have enacted minimum grade-point standards (Darling-Hammond 1990). The college grade-point average has been the most frequently used factor in admissions, but the minimum has been low enough to provide little restriction to entrance. Standards were raised in the 1980s, especially in doctorate-granting institutions, and by 1985, a grade-point average of between 2.5 and 2.9 (on a 4-point scale) was required for admission to nearly 60 percent of the secondary programs and 45 percent of the elementary programs in the nation (Clark and McNergney 1990). In 1980, only half that percentage of programs had such standards.

### **Student Profiles**

Those who choose to enter teacher education are predominately white, female, and from families where they are the first generation to attend college. According to a 1987 survey by the American Association of Colleges of Teacher Education (AACTE), the median

age of students enrolled in undergraduate training programs is 24, and one-quarter of the students are married.

Scholastic Aptitude Test (SAT) scores of entering education students are generally lower than those of their counterparts. Education majors in the early 1980s ranked second to last in a list of 13 college majors ranked by SAT scores (Schlechty and Vance 1983). From 1973 to 1982, the gap had increased between mean SAT scores for education majors and the national SAT average. In subsequent years, however, the gap in scores between education majors and others has narrowed. While average verbal scores for all students dropped 4 points between 1982 and 1991, those of students choosing education rose 12 points, and mathematics scores for education students increased 22 points, compared to a 7-point increase for all students (National Science Foundation [NSF] 1993).

## Standards for Teacher Education Programs and Teacher Certification

Standards for teacher education programs and the certification of teachers have largely been set by state education agencies, an anomaly among the professions. Education has no counterpart to a medical board or bar association, as in the fields of medicine and law, that defines the knowledge base, sets standards for practice, and enforces standards of professional conduct. In the absence of such an organization, standards for education programs are determined in a variety of ways. For example, admission and graduation requirements may be determined by either the state or the institutions themselves, depending on the particular state. In 57 percent of the states, these requirements are state mandated; in

the remaining 43 percent, institutions of higher education are permitted to establish the requirements independently (AACTE 1993).

### **Accreditation of Teacher Education Programs**

An additional application of standards for teacher education is through the accreditation of teacher education programs. More rigorous standards were developed in 1987 by the National Council for the Accreditation of Teacher Education (NCATE), the only recognized teacher education accreditation body in the United States. NCATE engages experts at various levels in the process of developing standards and aims to draw both on research and best professional practices. Disciplinary associations such as the National Council of Teachers of Mathematics (NCTM), the National Council of Teachers of English (NCTE), and the National Science Teachers Association (NSTA) are involved in the development of standards for their particular areas.

Accreditation of teacher education programs is a voluntary matter, however, with less prestigious regional universities more likely than major research universities to seek the external validation it provides. The accreditation process is a costly expenditure of institutional time and money, and its value has been questioned by those such as John Goodlad (1990), who concluded that the "NCATE review process is better at detecting serious deficiencies . . . than at stimulating processes of renewal" (p. 147).

## Teacher Certification

Certification of individual teachers is the primary way in which states control teaching. Furthermore, the practices of licensing and certification generally drive the teacher education curriculum. Historically, local officials administered oral examinations to determine who could teach; this practice was gradually replaced by written tests. As teacher education programs proliferated, it became more common for states to certify these programs, whose graduates were then licensed. By the 1950s, this was the clearly established method of certification. It was not until the reform movement of the 1980s that competency testing emerged, based either on state-developed or national commercial tests, such as the National Teacher Examination (NTE).

Results of these tests are often used not only for individual certification but as a measure of the quality of teacher education programs and a basis for the continued certification of teacher education programs by the state (Roth and Phipps 1990). In 21 states, entry to teacher-training programs is determined by testing. Testing for certification occurs in 36 states, with 23 states requiring tests in specialty areas, generally the NTE specialty-area tests. Only 11 states have no testing requirements for admission to teacher education programs or for certification (NSF 1993).

One of the recommendations of the Carnegie Task Force (Carnegie Forum on Education and the Economy 1986) was the creation of the National Board for Professional Teaching Standards (NBPTS), which was recently established to develop standards and performance assessments to supplement state certification. NBPTS is now establishing a national, voluntary system for professional certification to identify and recognize accomplished teachers. In determining performance standards by developmental age level

and by subject matter in 30 fields, NBPTS aims to engage teachers in the process of assessment. National Board Certification is being designed not as a means of onetime certification but as part of an ongoing professional renewal process for teachers. As currently planned, the board will issue entry-level certificates and will also officially recognize higher levels of teacher competence.

The practice of granting lifelong certification at college graduation is clearly fading. Some states have begun to require first-year evaluation of classroom performance as a condition for full or continuing certification. In addition, 32 states now also require that certificates be renewed, usually on the basis of continued coursework, and in some cases on the basis of subject-matter testing or performance assessment (Darling-Hammond 1990). One of the central recommendations of the Holmes Group was a three-tier system of licensing: instructors (beginning teachers permitted to teach under supervision), professional teachers (those with master's degrees and eligibility for certification), and career professionals, who would engage in study beyond the master's degree and who would supervise instructors (Holmes Group 1986).

Although almost all states require that public school teachers pass certification tests in their specialty areas, wide variability exists in course requirements. The range for secondary school certification in mathematics is between 16 and 45 credits, and 15 states have no science or mathematics course requirements for elementary certification (NSF, 1993). Furthermore, in subject areas with a critical shortage of teachers, notably mathematics and science, emergency certification is possible. States typically have a process that permits the awarding of a substandard certificate issued for a limited period to individuals needed to fill particular roles. Often, these certificates are renewed as long as the individual takes specified

college courses. The emergency certification process has been criticized as creating a double standard for entry to the profession. Anderson and Smith (1987) note that in 1981–82 more than half of the teachers newly hired to teach mathematics or science were teaching with emergency certificates. It has been noted, however, that state certification may be a poor national indicator of teacher quality, given the wide range of requirements at the state level (NSF 1993).

It is surprisingly common to find individuals teaching outside their main area of training. More than a third of teachers surveyed in 1987–88 reported that they neither majored nor minored in their major teaching field in their highest degree earned (U.S. Department of Education [USED] 1993a). For example, in Michigan in the early 1980s, half of those teaching chemistry had not majored in chemistry, and nearly two-thirds of those teaching physics did not have physics majors. The National Research Council claims that of the nation's 200,000 secondary school teachers of mathematics, more than half fail to meet professional standards, and fewer than 10 percent of elementary teachers meet contemporary standards (National Research Council 1989). A recent analysis of the qualifications of secondary school teachers who teach at least one class in a specific subject indicates that the percentage of teachers reporting both a college major or minor and certification is, at only 54 percent, lower in mathematics than in any other field, (McMillen, Bobbit, Lynch, and Kasprzyk 1994).

## The Knowledge Base for Teaching

One of the strongest criticisms of teacher education seems to be the absence of a clearly articulated knowledge base by and for the profession. This lack of an agreed-upon foundation of knowledge contributes to the view that education, by comparison to other fields, is less than a profession. No single vision of what teachers need to know and must be able to do exists in the United States, although one goal of the NBPTS is to define this for the profession.

Feiman-Nemser (1990) outlines five conceptual orientations in teacher preparation, some of which may coexist in particular programs: academic, practical, technological, personal, and critical/social. These orientations shape the curricula in different ways at different institutions. One increasingly popular paradigm of teacher preparation is that of the "reflective professional" who can continually inquire and think reflectively about his or her own practice. From this perspective, teaching skills and knowledge are useful to the degree that one can make considered judgments about their contextual application.

### **The Curriculum in Teacher Education Programs**

According to the U.S. Department of Education (1993a), very few teachers today major in a field other than education at the undergraduate level. More than two-thirds of the nation's teachers majored in either general education (39 percent), subject areas in education (28 percent), or other education fields (1 percent). Only 2 percent majored in mathematics or science education. Secondary school teachers, however, were far less likely to major in general education than were elementary school teachers (12 percent versus 65 percent).

In most 4-year teacher education programs, students spend 2 years fulfilling general education requirements and 2 years within the teacher training program, with those preparing to teach in secondary schools usually continuing further disciplinary coursework in a major area of study throughout the 4 years. Elementary education students complete an average of 50 of their 125 hours of credit in the education unit, compared with secondary education students, who average only 26 hours of credit in education (AACTE 1987).

For elementary and secondary education students, coursework includes both methods courses, in which they study the techniques of practice, and foundations courses, such as the history of education, the sociology of education, the philosophy of education, and educational psychology (or possibly a course in adolescent development for secondary education students). Elementary education students are likely to take six or seven methods courses on the teaching of subjects such as reading, arithmetic, social studies, science, art, and music. Those preparing to become secondary school teachers may take a general methods course, as well as one specific to their subject area (Feiman-Nemser 1990). Thus, in this traditional 4-year curriculum, preparation in subject matter is gained in liberal arts units, in which no attention is paid to the special needs of those who are learning a subject in order to teach it; methods courses are intended to provide the linkage.

### **Coursework in Mathematics and Science**

In a survey of recently graduated full-time teachers, nearly 8 of 10 general education teachers (usually elementary education teachers) reported that they had taken at least one college course in mathematics; 7 out of 10 had taken at least one course in physical science



(USED 1993b). The average college credits earned, of those who took any courses in these fields at all, was 5.8 in mathematics and 4.1 in physical science. Of science and mathematics teachers (largely at the secondary level), nearly all took mathematics courses in college, but fewer than 6 of 10 took calculus (USED 1993b). The National Research Council (1989) advocates the development of elementary school specialists in mathematics and science, noting that "the United States is one of the few countries in the world that continues to pretend—despite substantial evidence to the contrary—that elementary school teachers are able to teach all subjects well" (p. 64).

### Field Experiences and Student Teaching

In addition to coursework, students earning degrees in education are expected to gain experience in actual classrooms. Teacher education culminates in a semester-long practice teaching experience, often preceded by field experiences of shorter duration. A 1985 study of institutional members of the AACTE indicated that 99 percent of teacher education programs offered some variety of early field experience, ranging from 5 to 85 hours for different programs (AACTE 1987). Within the early field experiences, students are likely to engage in such tasks as observing, tutoring, planning instruction, designing materials, operating media, and performing noninstructional tasks. These experiences are generally linked to teacher education courses and provide increased instructional responsibilities as the student progresses through the program.

Student teaching is often viewed as the most fundamental element of teacher preparation in the United States. Student teaching experiences usually span one term and average about 12 weeks in length. A 1982 study of 902 teacher education programs indicated that of the time spent in student teaching, 14 percent was spent observing, 26 percent participating, and 60 percent teaching (Johnson and Yates 1982).

The lack of a theoretical base for field experiences has been criticized, and research on student teaching does not depict a favorable view of its effects. A number of studies indicate that the primary outcome of practice teaching "is to make prospective teachers more authoritarian, rigid, impersonal, bureaucratic, and custodial" (Hoy and Woolfolk 1989, p. 111).

### **The Role of Cooperating Teachers**

A central problem in student teaching has been the engagement of cooperating teachers, the classroom teachers to whom student teachers are assigned, who are haphazardly selected and unlikely to receive supervisory training. This situation is complicated by the fact that these teachers' roles are not well differentiated from those of university supervisors responsible for overseeing the student's placement, who may be either regular faculty, teaching assistants, or faculty with adjunct appointments. Supervising student teachers is a low-status role for university personnel, and little training relevant to the task is generally provided. Hoy and Woolfolk (1989) conclude that

the two roles are often ambiguous, confused, and in conflict. Consequently, more often than not, there is no discussion with student teachers of their classroom

performance in light of contemporary theory and research; there is no conceptual perspective during the field experience; there is no supervision guiding attempts to improve instruction; there are no optional teaching strategies considered by the student and cooperating teachers; and there are few enforced standards of performance. (p. 112)

Recommendations from various sources for improvement in this area have included supervisory training, better site selection, and the separation of supervision and evaluation.

### **Professional Development Schools**

An emerging model for addressing a multiplicity of concerns in teacher education, including student teaching needs, is that of the professional development school. Similar in idea, but broader in purpose, to the laboratory schools proposed by John Dewey in 1896 and which were prominent until the 1970s, professional development schools are the educational parallel of teaching hospitals in the medical profession. Both the Holmes Group (1986) and the Carnegie Forum (1986) recommended versions of this approach, which offers a means for teachers and university faculty to collaborate on both teaching and research. These partnerships between school districts and colleges and universities have grown rapidly since the late 1980s.

Although laboratory schools were originally designed as environments where educators could test and verify pedagogical theory and introduce practitioners to the best educational practices, their research mission floundered over time. By 1964, when their

number nationwide reached a peak of 212, they were primarily campus-based schools that served as convenient sites for student teaching experiences (Stallings and Kowalski 1990).

As research endeavors declined and enrollment in teacher education programs increased, thus increasing the need to place student teachers in public schools, laboratory schools appeared to fill little real need. By 1988, only 95 were still in existence. Although laboratory schools had been envisioned as an environment where theory and practice would be joined, in fact, in 1988, 61 percent of the laboratory schools reported little or no collaboration between college and laboratory school faculties (Stallings and Kowalski 1990). This finding and a review of research produced from laboratory school research led Stallings and Kowalski to conclude that laboratory schools and their instructors had contributed very little to the development of theory in teacher education.

The new move toward professional development schools is designed to again place the emphasis on collaboration between universities and public schools and on research endeavors to improve the profession. Following the recommendations of the Holmes Group (1986), in particular, a considerable number of such partnerships have been created in recent years. Schools for professional development assume the sharing of responsibilities by school educators and university faculty and are based on the premise that "all teachers are learners who are engaged in ongoing inquiry into their practice" (Grossman 1992, p. 182).

## Professional Development of Teachers

Novice teachers in the United States, unlike their peers in most other professions, are expected to assume responsibilities similar to veteran teachers with considerable experience. Moreover, given the highly isolated nature of their work, teachers are less likely than those in most other professions to benefit from the informal types of training and mentoring opportunities that come from working in proximity to colleagues, observing and being observed in one's professional practice. Consequently, teachers often learn by trial and error, without systematic feedback or instructive conversations with more knowledgeable colleagues, and early coping strategies, sometimes developed in response to classroom management difficulties, may become entrenched teaching styles. The first year of teaching may be overwhelming for the novice. Many find the early years frustrating and discouraging and simply leave the profession. It has been estimated that 30 percent leave during the first 2 years, and that nearly half of those who begin teaching will resign by their sixth or seventh year. Overall teacher attrition thereafter is about 6 percent each year (Huling-Austin 1990).

### **Induction Programs**

Concerns about the role of first-year teachers and their continuing need for training have led to a rapid growth of formal "induction" programs, cited as "one of the fastest growing educational movements in recent history" (Huling-Austin 1990, p. 538). Induction programs provide a planned program of systematic and sustained assistance throughout the first year of teaching. In a 1990–91 national teacher survey, 48 percent of teachers with 3 or fewer years of experience had participated in an induction program, compared with only 28

percent of those with 4 to 8 years of experience (USED 1993c). Teachers were progressively less likely to have had the opportunity to participate in such a program the longer they had been teaching.

Induction programs generally aim to improve both performance and attitudes, with a goal of greater retention of promising teachers. Because they are also designed to transmit the culture of the particular school and system in which the teacher will work, some induction programs may include all teachers who are new to a school, even if they have experience elsewhere.

The conceptual basis for induction programs is as diffuse as that of student teaching, with varying emphases on support, socialization, adjustment, evaluation, and training. Although program components vary widely, teachers often attend orientation meetings prior to the start of the school year, are given handbooks and other printed material, receive observation and consultation about their teaching, and attend group meetings or seminars.

One of the greatest criticisms of existing induction programs is that they overemphasize evaluation rather than support, a problem that is exacerbated by certification requirements in certain states. A recent review of induction programs summarized a series of other problems, such as fostering of competition, attempts to do too much within the programs, neglect of teachers' needs, and an increasingly custodial orientation (Lawson 1992).

## Informal Professional Development

Professional development for teachers proceeds both informally and formally. Both the isolation of the work and the number of hours that U.S. teachers are scheduled to teach work against the informal collegiality and mentoring that may exist among teachers in other countries. As noted in *America's Teachers* (USED 1993a):

The isolation of classroom work has been commented upon by a number of researchers who study teachers and their work. Teachers have less contact with their peers than do many other professionals. In fact, some classroom teachers rarely communicate with other adults during the workday, and even fewer teachers frequently consult with peers or supervisors concerning professional challenges. (p. 128)

The average teacher who teaches in a department is responsible for five periods per day, an arrangement that allows little time or opportunity for professional interaction. As Louis (1992) concluded from results of a study of teachers' work, "What mattered most to teachers was a resource—*time*—that was, either by policy or by practice, within the discretion of the school. Time was important because it was the backbone for staff development and collaborative work efforts" (p. 150). In a study of teachers' work, Johnson (1990) noted that collegial interactions were pushed to the margins of the workday, such as before and after school and during supervision of recess, which led to superficial exchanges, adding that "virtually never did schools reserve adequate time to encourage teachers'

continuing collaboration or convey the organizational message that time spent with colleagues was legitimate and would likely improve teaching and schooling" (p. 149).

Common planning time for elementary teachers of the same grade is viewed as a costly luxury in many districts, though it has been said to be critical. Sharing at least one preparation period a week is necessary to allow teachers to engage in ongoing conversations about curriculum, the needs of individual students, and the best way to coordinate resources. This is also a time for teachers to share ideas about instructional practices and discuss any difficulties they may be experiencing in their classrooms (Honig 1992, p. 58).

Numerous efforts to make teaching more public often include planned peer observations and discussions, and the designation of teacher leadership roles such as master teacher or lead teacher. Classroom observation among teachers has been called a "bellwether practice," with Little (1988) noting that "a school culture is conducive to leadership by teachers when teachers are in one another's classrooms for purposes of seeing, learning from, commenting on, and planning for one another's work with students" (p. 87).

Additional organized efforts at professional development exist, as teachers are usually required to continue their education through "inservice" training or graduate study. In a 1988 study, one-third of teachers reported spending 30 or more hours in some form of professional education in the previous 2 years (USED 1993a). These efforts may be a condition for continued certification and are often tied to financial incentives on the salary scales. Public school contracts typically include raises for completed graduate study.



## **Formal Professional Development**

While virtually all teachers in the United States have bachelor's degrees, nearly half (46 percent) of all teachers currently in the work force also have master's degrees, most of which were earned after the teachers began their careers (USED 1993a). In many states, teachers are expected to attend evening classes or summer school in order to obtain credits toward a master's degree, required for full certification. In New York, for example, beginning teachers are awarded provisional certification and then can obtain permanent certification within 5 years, if they receive a master's degree, complete 2 years of full-time experience in the classroom, and pass required tests. Current proposals under review in New York ("Improving Teacher Competence" 1994) would eliminate this system and require that licenses be renewed every 3 years, based on satisfactory evaluations of performance and continued education and training.

Compared to other professions, however, in teaching, formal opportunities for professional growth are negligible, and little guidance is provided about particular paths of study or career development. In a study of 115 experienced teachers from 27 school districts, Johnson (1990) concluded that "teachers who sought to fashion a career out of their teaching experience had to set their own goals and celebrate their own progress, for there were virtually no milestones set out by the school along the way" (p. 249).

## **Inservice Training**

The primary means by which most teachers continue their professional development is through staff development activities at the school or district level. In California, for

example, 8 days for staff development are available annually to most schools, although most use only 2 to 4 days per year (Honig 1992). Controversy exists over the perceived differences between "in-service training" and "staff development," with concerns that the in-service approach has too often been reactive, problem oriented, and remedial in nature, and that it has been handed down from the district without regard for teachers' perceptions of their own professional needs. The format for in-service training is generally a workshop format with experts lecturing on single topics. These topics vary widely and often include social concerns regarding students, such as drug abuse education or suicide prevention; administrative concerns, such as testing; and curricular developments in various fields.

Johnson (1990) reported that teachers described in-service training as "a haphazard sequence of speeches and workshops addressing unrelated topics" (p. 254), and noted that "remarkably few sessions addressed teachers' concerns about their teaching" (p. 255). Programs that get high marks from teachers are more likely to be those that engage teachers in the planning and conducting of sessions, can be easily adapted for direct application in the classroom, and which have some means of follow-up.

In addition to in-service or staff development activities at the school or district level, some teachers attend workshops and conferences away from school. However, districts vary widely in providing release time for these out-of-school experiences. The California Elementary Grades Task Force recommended that a more judicious use of staff development time than the current workshop approach would be "to provide a complete day a month for teachers . . . to work together with colleagues on practical questions of application" (Honig 1992, p. 58).

## **Supervision and Evaluation**

Supervision and evaluation provide another means for teacher development—practices that have received considerable attention since the reform proposals of the 1980s. Previously, it was common for teachers to receive little or no supervision during their careers. For example, a 1985 study by Blankenship and Irvine of experienced teachers in Georgia found that 50 percent had never been observed for purposes of improving instruction and 80 percent had not received peer supervision (as cited in Glickman and Bey 1990). In the past decade, public school districts have invested widely in improving the practice of supervising and evaluating teachers, and a number of states now mandate systematic evaluation of teachers' work. The new movement toward better supervision of teachers has in many cases assumed that part of the principal's role is to effectively supervise and improve teaching practice, although supervision is also performed by a variety of other professionals in the schools, such as assistant principals, department heads, lead teachers, mentor teachers, and peers.

The current practice of teacher supervision is not always favorably received by teachers. In many schools, teachers perceive that the process provides little opportunity for learning and improvement and is largely evaluative. Supervision that includes clear criteria and enables individuals to set their own goals for improvement are favored by teachers (Johnson 1990).

## Teachers and Their Work

### Demographic Characteristics of Current Teachers

As of the 1990–91 report on schools and staffing (USED 1993c), there were 2.9 million teachers and 103,000 principals in the United States. Of the teachers, 73 percent were female, 87 percent were white, and 8 percent were black. Among principals, 65 percent were male and 88 percent white. As has been widely noted, the predominance of white teachers and principals contrasts strongly with a student body of increasing minority membership. Of the 44.8 million students in K–12 schools, 70 percent are white, 15 percent are black, 11 percent are Hispanic, 3 percent are Asian, and 1 percent are Native American (USED 1993c). Half of the schools in the country reported having no minority teachers among their staff.

Also of serious concern is the declining number of minority students preparing to become teachers. Between 1975 and 1985, the number of bachelor's degrees in education awarded to black students decreased by two-thirds, compared with a decrease by one-half in degrees awarded to white students (Darling-Hammond 1990). Moreover, many graduates with education degrees do not teach immediately or at all, and this is disproportionately true of degree recipients from minority groups. In 1985, 74 percent of those who received bachelor's degrees in education applied for jobs, and only about half of those who got degrees actually began teaching; just 38 percent of the minority candidates awarded degrees that year took full-time teaching positions (Darling-Hammond 1990).

The average age of teachers has been slowly rising, reaching 41 in 1991, as has the average years of teaching experience, reported at 15 years in 1991 (USED 1993c). Only 1 percent of those teaching in the United States have less than a bachelor's degree, while 46

percent have at least a master's degree. Among principals, 9 percent have less than a master's degree as their highest degree, 58 percent have a master's degree, and 33 percent have completed additional study beyond the master's level. Nearly all school principals (98.7 percent) had been teachers before becoming principals, with an average of 10.6 years of experience.

### **Compensation**

In 1990–91, the average salary for full-time teachers was \$29,987 (USED 1993c). This figure varied by locale. Average salaries were highest in urban fringe areas or large towns (\$34,935), followed by central city areas (\$32,202), and were lowest in rural areas or small towns (\$27,748).

Teachers' pay across the country can be determined by either a salary schedule or by merit pay, but the salary schedule is clearly predominant, with reported use in 94 percent of all public school districts (USED 1993c). Salary schedules are often negotiated among representatives of the board of education, administrators, and teacher representatives. These schedules then apply to all teachers in the district, K–12, with pay rising gradually for experience and education. Across the United States in 1991, the starting salary for those with a bachelor's degree was \$19,913, compared with \$21,698 for those with a master's degree. The average salary for the highest step across all public school districts was \$36,065. These figures vary widely by region, however, averaging \$43,846 for the highest step on the schedule in the Northeast and \$31,382 in the South. The averages in the West and Midwest were \$37,798 and \$33,794, respectively. Averaged across the nation, a teacher with 20 years

of experience and a master's degree earned an average of \$33,199 in 1991; public school principals earned a mean salary of \$49,603 (USED 1993c).

Salary schedules are uniform, predictable, and easy to administer. Raises are virtually automatic. Merit pay, which requires an evaluation of teaching performance and an overall assessment of a teacher, necessitates a formulation of criteria for this process and the training of evaluators. Merit pay is often viewed as a means of motivating improvements in instructional quality and rewarding teachers for their differential contributions in the classroom. A few states have begun to attempt some version of rewarding meritorious service, particularly through new "career ladder" programs that define career stages and distinguish performance levels.

Public school teachers in the United States are also compensated with a benefits package, in addition to their salaries. Such a package nearly always includes a pension or retirement plan (in 96 percent of the schools), guaranteeing some continued pay upon retirement, and medical insurance (86 percent); it may also include a dental plan (67 percent) and life insurance (71 percent) (USED 1993c).

With the current salary schedules, earning power may near its peak by the time a teacher is in his or her late thirties, just as peers in other professions find their earnings escalating. Not surprisingly, teachers often seek other sources of income, especially by capitalizing either on the relatively early end to the scheduled workday or on the long summer break. One-third of all teachers surveyed reported receiving additional pay for school-related duties such as coaching or sponsoring student activities (USED 1993c). A sizable portion earned money elsewhere, with a quarter employed outside school settings either in summer or during the school year; 17 percent earned additional pay either in their

own or other schools, such as by teaching evening or summer classes. An additional 14 percent received funds from other sources, such as a bonus or state supplement (USED 1993c).

## **Teachers' Unions**

Teaching has been cited as the most unionized occupation in the country, with roughly 9 of 10 teachers belonging to either the National Education Association (NEA) or the American Federation of Teachers (AFT) (Johnson 1987). NEA membership is roughly three times that of the AFT.

The NEA was founded in 1857 as the National Teachers' Association, a coalition of 10 state associations whose members were interested in improving the standard for teachers via licensure controlled by teachers. By 1870, the focus was shifted to encompass a more comprehensive approach to education, which was reflected in the name change to the National Education Association. The organization was further strengthened in both size and purpose in 1966 when it merged with the American Teachers Association, an association of black teachers, founded in 1904 as the National Association of Teachers in Colored Schools. For more than a century, the NEA has had broad national influence in a variety of educational movements. Local issues were less of a concern until the 1960s, when the much smaller AFT began to mobilize teachers who wanted higher salaries and better working conditions. The NEA was restructured in 1973 in order to expand its role as advocate for the classroom teacher.

The AFT is a labor union, affiliated with the American Federation of Labor—Congress of Industrial Organizations (AFL-CIO). The AFT was formed in 1916 by a collection of local teachers' unions. There has long been some public resistance to teacher unionization, but as unionization of public employees in general has increased, so has membership and support for the AFT. A turning point in acceptance of the AFT was its election as the bargaining agent in 1962 for New York City school teachers.

Membership in both the NEA and the AFT soared throughout the 1960s and 1970s, a period in which states enacted collective bargaining laws that required local school boards to recognize and negotiate with local teachers' unions (Johnson 1987). Teacher contracts typically cover wages, hours, working conditions, and some issues of educational policy. Union contracts have provided teachers with formal grievance procedures, and they regulate teacher evaluation and protect job security. These contracts have had considerable impact, as well, on such educational issues as class size, daily schedules, and teacher workloads. For example, in-school preparation time, uncommon in elementary schools until the 1970s, is now provided for in many union contracts, usually entailing 45 minutes daily (Johnson 1987). An issue in some areas is who controls how that time is used, with unions arguing that it should be up to teachers.

Limits on class size are often a central concern for local unions as well. Non-teaching duties are typically addressed in contracts, and bargaining has reduced the amount of time teachers spend in supervisory roles such as lunch duty. Prior to collective bargaining, teachers were often expected to serve schools in whatever ways administrators determined; bargaining has played a significant role in delineating teacher responsibilities and defining working conditions.



## **Teacher Working Conditions**

The average length of the school year in the United States is 180 days, with teachers typically expected to work an additional 4 or 5 days. The work week for teachers averaged 46 hours in 1991, with 35 of those hours spent performing required duties at school (USED 1993c). Three hours were typically spent outside school hours with students (tutoring, coaching, supervising extracurricular activities), and 8 hours were spent on school-related work without students present, such as preparing for class, grading, or holding conferences with parents.

Elementary school teachers spent about 20 hours a week in 1991 teaching the core subjects of language arts, mathematics, social studies, and science. This was 1 hour less per week than in 1988. Nearly half of this time (48 percent) was spent on English and language arts and a quarter (25 percent) on mathematics, with 15 percent of the time spent teaching social studies and 13 percent teaching science (USED 1993c). The average class size in public schools was 23 students in departmental, subject-based classes (usually at the secondary level), and 25 students in self-contained classes (most often at the elementary level).

The actual working environment of teachers is usually simply a classroom; most teachers lack an office and even a telephone—unimaginable conditions in other professions. Recent reform literature has made a wide variety of suggestions for improving the conditions of teachers' work. As noted earlier, working conditions have long been characterized as

contributing to teachers' isolation and lack of autonomy and influence. Suggestions for improvement have included providing

- greater opportunities for collaboration and interaction;
- more teacher control over curriculum, policy, and resources;
- more teacher involvement in the running of schools;
- improved professional development;
- career ladder programs; and
- merit pay.

It has been assumed that such changes will promote professionalization, create more effective schools, improve the attractiveness of teaching as a field, and lead to greater retention of teachers. In a review of the indicators of the quality of work life, Louis (1992) notes seven criteria relevant for teachers, consistent with educational reform literature: respect from relevant adults, participation in decision-making, frequent and stimulating professional interaction, frequent and accurate feedback, use of skills and knowledge, resources to carry out the job, and goal congruence.

In addition, it has been recommended that teacher professionalism would be enhanced by such obvious support mechanisms as a quiet office space; a comfortable faculty commons area in which to exchange ideas with peers; access to a telephone, word processor or computer, copying machines, and other technology; and "on-call" secretarial help. It has also been recommended that teachers have at their disposal a discretionary budget for purchasing classroom supplies and supplementary instructional materials (Honig 1992, p. 61).

### **Teacher Contact With Parents**

The primary relationship that teachers have is with students, and only peripherally with their parents. The most common method of communication from schools to parents is through written materials, such as newsletters or flyers, which allow little opportunity for response (Tangri and Moles 1987). Face-to-face interaction with parents usually occurs during an annual schoolwide open house and during periodic teacher conferences, fairly formal occasions for discussing student progress. Teachers or parents may schedule other conferences as needed; however, these generally occur in response to student difficulty. Typically, teachers receive little or no training for their interactions with parents. Research on parent-teacher conferences suggests the need for staff training "on ways of relating to parents in a nonthreatening manner and building a sense of partnership with them" (Tangri and Moles, 1987 p. 527).

A prominent current issue in U.S. education is the degree to which teachers are expected to assume some degree of responsibility for socialization of the nation's youth. The shifting balance of home and school responsibilities has led many to question the appropriate role of schooling versus that of the family. These changes may also place further strain on the parent-teacher relationship.

### **Teacher Job Satisfaction and Attrition**

The National Center for Education Statistics has regularly assessed teacher job satisfaction. In its 1991 national survey, 39 percent of all teachers reported that they definitely

would become teachers if they were to make their choices again (an increase from 33 percent in 1988), and 27 percent said they "probably" would choose teaching again (USED 1993c). Most teachers plan to continue in the field, either as long as they are able (38 percent) or until they are eligible for retirement (36 percent); only 3 percent were planning to leave teaching at the time of the survey.

Teacher attrition is often affected by life cycle factors, as many teachers leave temporarily or permanently when their children are born, or after a household move. Among former public school teachers surveyed in 1991–92, 19 percent cited homemaking or child rearing as their primary occupational status (USED 1994). In that same study, it was reported that among those public school teachers who left teaching between 1990–91 and 1991–92, 15 percent expected to return in 1992–93. Teacher attrition also varies with the age of the teacher, with the highest rate of those leaving among those teachers who are 50 years old or older.

Conflicting information exists regarding reasons for leaving among those who are dissatisfied. In a 1988 study by Metropolitan Life Insurance Company, of those who left to enter other fields, 60 percent cited low salaries as the reason (cited in Darling-Hammond 1990). Additional factors cited were unsatisfactory working conditions, such as lack of input and independence, lack of administrative support, and the extent of nonteaching duties. Similarly, a 1991–92 survey of teachers who had remained teaching in the same school for the previous 2 academic years found that more than half (53 percent) of the public school teachers felt that providing higher salaries or better fringe benefits would be the most effective step in encouraging teachers to remain in the field (USDE, 1994). However, among those who had left the field and who cited their dissatisfaction with teaching as a career as

one of the main reasons for leaving, fewer than 1 percent attributed this dissatisfaction to poor salary. The primary reason given (25 percent) was "inadequate support from the administration." The second most common reason given (20 percent) was "poor student motivation to learn" (USED 1994).

### The Future of Teacher Preparation

Enrollment in teacher education programs has declined dramatically in recent years (by half between 1975 and 1985), particularly as more career opportunities opened for women in the 1970s and 1980s. Serious shortages of teachers exist, both in particular regions of the country and in certain fields, notably mathematics and science. Although enormous efforts are being made in response to the reform proposals of the 1980s to improve the quality of teacher education and the professionalization of the field, it may take time for these changes to significantly alter the professional reputation of teaching in a manner that will attract the students needed.

**Germany**

## **The Educational Structure of the German School System**

**William C. Foraker**

The German system of education adheres to the structures developed in the West (Western Germany) since 1948. The 1990 unification contract between the Federal Republic of Germany (West Germany) and the German Democratic Republic (East Germany) requires that the unified Germany maintain a coherent system of education (Vertrag zwischen der Bundesrepublik Deutschland und der Deutschen Demokratischen Republik [Unification Treaty] 1990). To realize such coherence, the former East German regional states (*Länder*) agreed to emulate the West's system by mid-1991 and have consequently displaced their traditionally centralized education system. This chapter focuses on the federal model of education developed in the West and currently in use throughout the unified Federal Republic of Germany.

Most Germans are educated within the public system of education (Führ 1989). The public system is divided into three general levels: elementary, secondary, and higher education. There is also a public system of special schools for students with disabilities. Although private educational institutions exist in Germany, they play only a supporting role. Private education makes its most important contribution in the areas of preschool and continuing education. While the public systems of higher and special education and the private systems of preschool and continuing education are important and will be briefly addressed, this essay emphasizes the public systems of elementary and secondary education. Before entering into a detailed depiction of these two domains, it will be helpful both to summarize key points from each of the different educational domains and to consider the larger political structure of public education as a whole.

The following discussion includes a summary overview of the different educational domains, an overview of the organization and administration of German public education, and a more detailed look at the structure of elementary and secondary public education.

### Summary Overview of Educational Domains

Seen from the perspective of the individual student, German education entails a well-defined sequence of educational domains: preschool education, elementary education, lower- and upper-level secondary education, higher education, and continuing education (Sekretariat der Ständigen Konferenz der Kultusminister der *Länder* in der Bundesrepublik Deutschland [KMK] 1993a). The following includes a summary of the educational mandate and highlights for each domain, which provide a general overview of the system as a whole. Quantitative figures and trends follow.

#### **Educational Mandate**

German mandatory schooling begins at the age of 6 and usually lasts 12 years. Of these 12 years of schooling, at least 9 must be full-time. Students who discontinue their full-time schooling after their ninth year in school are required to attend a 3-year program of part-time vocational study. Some *Länder* require 10 years of full-time, mandatory schooling, thus bringing the total years of mandatory schooling up to 13 for those students participating in the 3-year program of part-time vocational training. The specific guidelines governing the educational mandate vary among the regional states within Germany (KMK 1993a).



## Preschool Education

Schooling in Germany becomes mandatory for children after their sixth birthday. Prior to this age, schooling is voluntary and is not generally a part of the public system of education. Nevertheless, roughly 75 percent of 3-year-olds and 80 percent of 5-year-olds receive some form of preschool education, which has a long history and is widely available in Germany (Führ 1989).

German preschooling seeks to complement the training and upbringing provided by the family and emphasizes both the acquisition of knowledge and social and emotional development. The aim is to stimulate children's social learning, responsibility, and creativity through various activities, including arts, sports, and play.

There are four types of preschools in Germany:

- Kindertages (Kindergärten) are the traditional form and by far the most common. In 1992, roughly 1.5 million kindergarten places were available; at the same time, there were approximately three million 3- to 6-year-olds in the population (Bundesministerium für Bildung und Wissenschaft [BMBW] 1993).
- School kindergarten (*Schulkindergärten*) places are less numerous (39,363 in 1991) (Ständige Konferenz der Kultusminister der *Länder* in der Bundesrepublik Deutschland [KMK] 1993b) and are geared to children who have reached their sixth birthday but who lack the maturity to begin mandatory schooling. School kindertages are usually organizationally integrated into the elementary school and seek to develop in children the preconditions for later success in school.

- Preclasses (*Vorklassen*), like school kindergartens, are organizationally tied to the elementary school. They are, however, geared to 5-year-olds and seek to ease the children's transition to elementary schooling. Only a few *Länder* support preclasses, which in 1991 had an enrollment of 37,391 students (KMK 1993b).
- Special kindergartens (*Sonderkindergärten*) are provided for children with physical, mental, and emotional handicaps and are specialized according to type of disability.

Preschool education is largely supported by the private sector. Roughly 70 percent of kindergartens are operated by either individuals or independent organizations such as charities or companies active in child and youth assistance. Thirty percent are operated by government bodies, mostly at the local level. Both publicly and privately operated kindergartens are subject to legal guidelines and government oversight. Although private kindergartens often receive small government subsidies, both public and private kindergartens charge tuition, which varies considerably from state to state and can sometimes be quite substantial. The government provides tuition subsidies to families with low incomes (KMK 1993a).

## **Elementary Education**

Elementary education encompasses the first through fourth years of mandatory education (ages 6 through 9) (Führ 1989). During these 4 years, children attend a common school (*Grundschule*) in the school district in which they live. School district boundaries are set by the local government agency responsible for elementary education (*Schulamt*).

In order to foster equality of educational opportunity, there is no tracking at the elementary level. Instruction aims to foster students' individual talents, build the basis for independent learning and community living, and impart basic knowledge and skills. Emphasis is placed on linking school material and extracurricular experiences.

Elementary education has been the focus of reform efforts in Germany. Educational reform in the 1970s led to the introduction of a more academically based curriculum, including basic science courses and an emphasis on experientially based learning. Current reform discussions focus on problems posed by a greater integration of children with special needs and a rising percentage of foreign students in elementary schools (Führ 1989).

## **Secondary Education**

The German system becomes somewhat complicated at the level of secondary education. Secondary schooling is divided into two levels:

- Lower level secondary schooling (*Unterstufe*) encompasses the first 5 or 6 years of secondary education.
- Upper level secondary schooling (*Oberstufe*) encompasses the last 3 years of mandatory education.

## **Lower Level Secondary Education**

Lower level secondary schooling begins for most students at age 10, and ends when they reach age 15 or 16—at the completion of 9 or 10 years of general mandatory full-time schooling.

(The number of years of schooling required varies by school type and *Länder*.) In general, academically oriented lower level secondary schools include the 10th year of schooling.

*Types of school.* While all schools at this level seek to impart to students a general, basic education, they vary according to the degree of emphasis placed on scholastic achievement.

There are basically four types of lower level secondary schools:

- *Hauptschule* (school for practical education);
- *Realschule* (school for a mix of practical and liberal education, with the latter being given greater emphasis than the former);
- *Gymnasium* (school for liberal education); and
- *Gesamtschule* (comprehensive school offering practical, liberal, and practical liberal education).

The first three types reflect the traditional system of tracking in German education (Führ 1989, KMK 1993a). The *Hauptschule* emphasizes a practical, skill-based, nonacademic education for those children who show less promise in the academic sphere. *Gymnasium* is dedicated to a liberal, theory-oriented education for children with more academic promise. Traditionally, there have been three types of *Gymnasium*: classical, modern languages, and mathematics/natural sciences. The *Realschule* is a compromise between the *Hauptschule* and the *Gymnasium*, and offers a mix of practical (skill-based) and liberal (theoretical) instruction. Taken together, the *Hauptschule*, *Realschule*, and *Gymnasium* form a traditional system of educational

tracking in which assessments of the child's performance in the first 4 years of mandatory schooling provide a basis for initial placement within a hierarchy of the school types.

The fourth type of school, the *Gesamtschule*, offers an alternative to the traditional system of tracking. In the comprehensive school, students of all academic interests—from the practical to the theoretical—are included under one roof. The *Gesamtschule* may be either cooperative or integrated. The cooperative *Gesamtschule* retains the traditional hierarchical structure by incorporating different tracks within a single school. This structure allows for differing abilities while providing for greater mobility across tracks. The integrated *Gesamtschule* does away with tracks altogether, combining students of differing abilities within integrated classes. Students in these schools attend common classes in the fifth and sixth years, and thereafter differentiate into honors courses depending upon their performance.

Table 1 depicts the numbers and rough percentages of students attending *Hauptschule*, *Realschule*, *Gymnasium*, and *Gesamtschule* at the lower level in 1991 (KMK 1993b).

Table 1—Numbers and percentages of students attending different lower level types of secondary schools, 1991

School Type	Total in whole of Germany	Percentage in school type
<i>Hauptschule</i>	1,076,392	28.6
<i>Realschule</i>	1,038,982	27.6
<i>Gymnasium</i>	1,314,864	35.0
<i>Gesamtschule</i> <sup>a</sup>	329,014	8.8
Total	3,759,252	100.0

SOURCE: KMK, 1993b.

<sup>a</sup>Includes only integrated *Gesamtschulen*.

More recently, three additional types of school have been introduced—the *Mittelschule*, the *Regelschule*, and the *Sekundarschule*—in which the activities of the *Hauptschule* and the *Realschule* are combined. These schools exist more typically in the former East German states and represent a transition from the previous East German school system to the educational structures of the West.

The Bavarian peoples' school (*Volksschule*) is another infrequent variant in which the *Grundschule* and the *Hauptschule* are organizationally integrated.

*The orientation period.* The first 2 years of lower level secondary education, the fifth and sixth school years (ages 10 and 11), are sometimes considered an orientation or trial period

(*Orientierungsstufe*) in which the match between the student and the assigned school type is assessed. The organization of this trial period varies both between and within the *Länder*, and may be either independent of or dependent on the type of school involved. The orientation period is dependent when the fifth and sixth grades are organizationally integrated into the different types of school, and independent when they are organizationally separate. The orientation period allows the postponement of the final decision about the student's placement in a particular type of school until the end of the sixth school year, when the student is 12 or 13 years old. Both the timing of and the procedure for making this decision vary across *Länder*. Increasingly, the parents' preferences are taken into account in making this decision.

*Completing lower level secondary education.* Both the *Hauptschule* and the *Realschule* confer school-leaving certificates at the end of lower level secondary education—the *Hauptschule* after the 9th year and the *Realschule* after the 10th year of full-time education. Neither type of school includes an upper level; therefore, students who want to qualify for university entrance must transfer to a *Gymnasium* or *Gesamtschule*, both of which have grades 11 through 13. Students attending a *Gymnasium* or a *Gesamtschule* may opt to end their full-time liberal studies at the end of lower level secondary schooling (in which case they receive either a *Hauptschule* or *Realschule* diploma), but have the option to continue on within the same school. All students, whether they continue their full-time studies or not, receive a *Hauptschule* certification at the end of their 9th (and in some *Länder*, their 10th) year of full-time study.

*Upper level secondary schooling.* Upper level secondary schooling (*Oberstufe*) refers to the last 3 years of secondary schooling (years 10-12, or alternatively 11-13) and takes various

forms. At this level of secondary education, the distinction between practical, skill-based education and liberal, theory-based education becomes even more distinct.

*Structure.* Liberal education is provided in the upper level of both the *Gymnasium* and the *Gesamtschule* and concludes with a university qualifying examination (*Abitur*). The *Gymnasium* is by far the most common institution for upper level secondary liberal education, accounting in 1991 for 89 percent of students pursuing liberal education at the upper secondary level (KMK 1993a).

Practical education is provided through two systems of vocational training. The first system requires full-time schooling and encompasses a heterogeneous collection of full-time vocational schools. Included in this system are the regular full-time vocational school (*Berufsfachschule*), the vocational extension school (*Berufsaufbauschule*), the technical upper level secondary school (*Fachoberschule*), the vocational *Gymnasium* (*berufliches Gymnasium*, or *Fachgymnasium*), and the technical school (*Fachschule*).

The second system of vocational training requires part-time classroom instruction at a part-time vocational school (*Berufsschule*) in combination with practical work experience. This arrangement is known as the dual system of vocational training, and entails a close collaboration between state and industry in the development of workers with specialized skills. The organizational form of the *Berufsschule* depends on the economic structure and the density of the population in the area served. In large cities, these schools specialize by trade; in the *Länder*, the schools provide five main vocational courses: industry, commerce, home economics, agriculture, and mixed courses. Lessons at the *Berufsschule* are coordinated with inhouse training provided by the firms where students work. *Berufsschule* lessons are often offered in blocks extending



several weeks that alternate with periods in which students receive only inhouse training.

Alternating patterns based on a shorter, weekly schedule are also common (KMK 1993a, Führ 1989).

*Enrollment.* Admission to particular forms of upper level secondary education depends on the kind of school-leaving certificate a student acquires at the end of lower level secondary education. Students who opt to stay in the *Gymnasium* and *Gesamtschule* continue their studies in liberal education within the same school and receive a school-leaving certificate only after completing the upper level secondary education at the end of their 12<sup>th</sup> or 13<sup>th</sup> year of schooling. Students leaving the *Realschule*, or receiving a *Realschule* certificate after having attended either *Gymnasium* or *Gesamtschule*, generally pursue some type of full-time vocational training. Students leaving the *Hauptschule* generally pursue a practical education through the dual system of vocational training.

Practical education, with its two systems of vocational training, accounts for much of the educational activity at the upper secondary level, as indicated in Table 2 (KMK, 1993a; Führ, 1989).

Table 2—Number and percentage of students attending liberal versus vocational upper level secondary institutions

	1990		1991	
	Total number	Percent of Total	Total number	Percent of Total
General (liberal) education	557,217	20	619,528	21
(portion in <i>Gymnasium</i> )	(496,700)	(18)	(549,016)	(19)
Vocational schools				
Full-time	540,594	20	478,204	16
Part-time	1,621,165	60	1,824,269	62
Total	2,718,976	100	2,922,001	99 <sup>a</sup>

SOURCE: KMK, 1993a.

<sup>a</sup> Because of rounding, detail may not add up to totals.

Students pursuing full- and part-time vocational education accounted in 1991 for 78 percent of total upper level secondary students. Part-time vocational education accounted for 79 percent of all vocational education.

*At the end of upper level secondary education.* Upon the successful completion of upper level secondary schooling, the student receives a school-leaving certificate. In Germany, school-leaving certifications are distinguished by the type of institution or profession to which the certification grants entry. At the end of upper level secondary education, the school-leaving certification qualifies the student either for higher education or for entry into a profession, or in some cases for both. (The vocational *Gymnasium* is a recent development in which students may

acquire a dual professional and academic qualification after 4 years of upper level secondary schooling.)

Recent organizational modifications have led increasingly to a partial decoupling of the type of school attended and the student's subsequent educational career, particularly for the *Realschule* certification (KMK 1993a). For the vast majority of students, however, the type of certification received at the end of secondary schooling depends on the type of school they attend. Students leaving the upper levels of the *Gymnasium* and the *Gesamtschule* obtain certification for admission to any form of higher education, including the university. Those leaving upper level full-time trade and vocational schools receive a *Fachhochschulreife*), a certificate that declares them eligible for further education at polytechnical institutes but not at the university. Those participating in the dual system of vocational training obtain a final certification that qualifies them for entry into a profession and for admission into full-time vocational schools at the upper secondary level (the equivalent of a *Realschule* leaving certificate), but usually end their formal studies within the public system of education (Führ 1989, KMK 1993a).

### **Alternative Paths to Higher Education**

In the 1950s and 1960s, an alternative path for gaining admission to higher education was developed to counter the social selection entailed in the *Gymnasium*. These include evening classes at the level of *Realschule* and *Gymnasium*, full-time enrollment in *Kollegs*, daytime schools, and a variety of forms of admission to polytechnics and universities by way of vocational training (Führ 1989).

## Higher Education

Germany has a long tradition of higher education, and several German universities are among the oldest in Europe. Since 1948, the domain of higher education in Germany has undergone a dramatic expansion and transformation. As of 1991, there were 315 state-run or state-recognized institutions of higher, postsecondary education. They included various types of universities (regular universities; technical high schools and technical universities; combined universities and high schools; high schools with singular university courses of study, including theology, philosophy, medicine, and athletics; and teaching high schools), as well as academies of art and music, and technical and administrative high schools (Führ 1989).

Admission to these schools is open to any student possessing the requisite certificate. In some academic disciplines, admission is regulated centrally by the Central Office for the Distribution of Places of Study (*Zentralstelle für die Vergabe von Studienplätzen*). In addition, higher education in Germany includes some special institutions with closed admissions, including institutions of higher education (*Hochschulen*) run by the military and by the German postal service.

## Continuing Education

The domain of continuing education is a complex combination of public and private profit and nonprofit organizations which has developed largely independent of governmental involvement. Organized in response to market forces, it encompasses general, professional, and social-political education.

## Alternative Forms of Schooling

Although the general system of public education accounts for the bulk of educational activity in Germany, both private education and the public system of special education play important roles.

### Private Education

There is no public monopoly on schooling in Germany; consequently, private schools are a notable presence not only in preschool and continuing education but at the elementary and secondary levels. Although private, these schools are subject to governmental oversight and must maintain standards equivalent to those of the state schools. State-recognized private schools award the same qualifications as their public counterparts and are generally not considered elite schools, either in terms of their educational support or of the students who attend them. Most private schools are church maintained, with Catholic schools accounting for more than half of all private schooling, although Waldorf schools (*Freie Waldorfschulen*) and private boarding schools (*Landeserziehungsheime*) have developed sizable constituencies (Führ 1989).

### Special Education

Germany maintains an extensive system of special education for students with physical, mental, and emotional handicaps. This system seeks to provide children with disabilities with the education necessary for integration into broader society. Schools specializing by type of handicap (for example, learning disabilities, blindness, deafness, partial blindness, emotional disturbance, and mental retardation) provide expert care. Increasingly, integration has been viewed not only as

a goal but as a means of bringing special education within the domain of the general public schools by teaching children with disabilities alongside other children. Special schools still play an important role, but they have been augmented by alternatives, including preventative education measures that seek to avoid the development of problems in the first place, special classes within the regular schools, and cooperative activities between special and regular schools (Führ 1989).

### Quantitative Developments

Several trends stand out in regard to the numbers of students attending different types of schools.

First, after a decade of decline, the number of students in elementary and secondary schools increased slightly in 1990. Between 1981 and 1989, the number of students in elementary and secondary schools fell from 11.5 million to just under 9 million. In 1990, the number of students rose above 9 million (KMK 1993b).

Second, the inclusion of students attending schools in the former East Germany dramatically increased the number of students for Germany as a whole. The total number of elementary and secondary students in Germany rose to 11,633,612 in 1991. This amounted to an increase of 28.6 percent over the number of students in the West prior to unification. Table 3 shows the total number of students in elementary and lower level secondary school by school type, the number of these students in the East, and the percentage of students from the East (KMK 1993b).

Table 3—Numbers of students by school type (elementary and lower level secondary), with percentage from the former East Germany

School type	Total in whole of Germany	Number in East <sup>a</sup>	Percentage of whole in East
<i>Grundschule</i>	3,385,732	851,160	25
<i>Hauptschule</i>	1,076,392	22,330	2
<i>Realschule</i>	1,038,982	174,720	17
<i>Gymnasium</i>	1,314,864	261,760	20
<i>Gesamtschule</i>	329,014	111,000	34

SOURCE: KMK, 1993b.

<sup>a</sup>Numbers are estimates, which include any increase in student numbers from 1990 to 1991 in the old *Länder*.

Table 4 shows the number of students in upper level secondary school for all of Germany and for the eastern *Länder* in 1991 (KMK 1993b).

Table 4—Number of students attending upper level schools in whole of Germany and in former East Germany, and East's percentage of whole

School type	Total in whole of Germany	Number in East <sup>a</sup>	Percentage of whole in East
General education schools <sup>b</sup>	619,528	62,310	10
Vocational schools	478,204	62,390	10
Part-time vocational schools	1,696,552	227,140	37

SOURCE: KMK, 1993b.

<sup>a</sup>Numbers are estimates that include any increase in student numbers from 1990 to 1991 in the old *Länder*.

<sup>b</sup>Includes the upper levels of *Gymnasien* and *Gesamtschulen*.

The decrease in the number of students in the 1980s led to a reduction in class size for all types of school except the *Gymnasium* and the upper-secondary trade school, as Table 5 (KMK 1993b) shows.



Table 5—Average class size by school type in Old Länder and Germany as a whole

School type	Students per class	
	Old <i>Länder</i>	Unified Germany
	(1990)	(1991)
<i>Grundschule</i>	22.1	21.8
<i>Hauptschule</i>	21.5	21.5
<i>Realschule</i>	24.4	23.7
<i>Gymnasium</i>	25.3	25.3
<i>Gesamtschule</i>	25.4	24.9
<i>Sonderschule</i>	9.8	9.6
Vocational extension school	21.2	17.8
Trade upper school	21.0	22.2
Vocational trade school	20.2	--
Trade school	21.9	--

SOURCE: KMK, 1993b.

Despite decreasing class sizes, the average number of students per full teacher equivalent (FTE) increased slightly from 1989 to 1990 for all but vocational schools. Table 6 shows the number of students per FTE in 1990 for each school type (KMK 1993b).

Table 6—Students per full teacher equivalent by school type

School type	1990
<i>Grundschulen</i>	20.5
<i>Hauptschulen</i>	14.3
<i>Realschulen</i>	16.2
<i>Gymnasien</i>	13.4
Vocational schools	24.4
(both full- and part-time)	24.4

SOURCE: KMK, 1993b.

A third major quantitative trend that has characterized the German education system over the past several years has been the general shift toward higher forms of education. Students are avoiding the *Hauptschule* and are increasingly entering the other school types. Table 7 (Arbeitsgruppe Bildungsbericht 1994) depicts the change in the distribution of 13-year-olds among the different school types since 1952.

Table 7—Percentage of 13-year-old age cohort attending different school types

School type	Percentages of age cohort				
	1952	1960	1970	1980 <sup>a</sup>	1991 <sup>a</sup>
<i>Hauptschule</i>	79 percent	70 percent	54 percent	40 percent	33 percent
<i>Realschule</i>	6	11	18	26	28
<i>Gymnasium</i>	12	15	20	25	31
<i>Gesamtschule</i>	--	--	--	4	8 <sup>b</sup>

SOURCE: Arbeitsgruppe Bildungsbericht am Max-Planck-Institut für Bildungsforschung [MPI], 1994, p. 201.

<sup>a</sup>Statistics from 1980 and 1991 are for 14-year-olds.

<sup>b</sup>Includes students enrolled in the private *Freie Waldorfschulen*.

The trend toward ever-higher levels of education is also clearly visible in the number of students entering the university. Table 8, below, shows the overall increase in the number of students entering the university system as well as the total number of students enrolled.

Table 8—Development of university enrollment, 1981–91

Year	First-year students	Total students enrolled
1981	214,500	1,121,400
1984	220,200	1,311,700
1987	229,000	1,409,000
1990	277,900	1,579,000
1991	271,200 (former West)	1,647,000 (former West)
	36,700 (former East)	135,700 (former East)

SOURCE: KMK, 1993a.

The number of students entering the university each year in West Germany increased approximately 26 percent between 1981 and 1991. In 1990, before reunification, the number of students enrolled in the university had risen to 1,579,000—a dramatic 42.41 percent increase since 1981 (KMK 1993a).

### The Structure and Administration of the German Public School System

German schools and the German education system as a whole are tightly integrated into larger political-administrative structures. The character of the broader system both shapes and makes possible the characteristic organization of German schools. If one is to understand the local organization of German schooling, one first needs to gain a general understanding of the

way in which this larger system works. This larger system encompasses institutions involved in policymaking and institutions involved in the ongoing administration and financing of schooling.

## Policymaking

The formulation of educational policy in Germany involves the interplay of institutions at both the state and the federal level. The political dynamics of policy formulation is substantially shaped by the federal structure of the system.

## Federalism

The German education system operates on the principle of federalism, a form of governance that is deeply rooted in Germany's political and historical structure. In accordance with this principle, German educational policy and administration involve an interplay between state and federal authorities. The Basic Law (*Grundgesetz*)—the equivalent of the United States Constitution—gives the *Länder* comprehensive responsibility for the organization of education. In principle, the *Länder* are autonomous with respect to their educational policies. They have the right and obligation to determine the objectives of education; regulate the establishment, maintenance, and control of schools; regulate levels of teacher training; supervise school administration; and foster cooperation among parents, teachers, and pupils (Führ 1989). Educational laws governing these issues are anchored in the *Länder* constitutions. The Basic Law does not accord federal authorities any powers of educational jurisdiction. Therefore, in Germany one can only speak loosely about a “national system” and must instead focus on the systems in each of the sixteen German *Länder*.

In practice, however, federal authorities do have a say in the administration of schools.

There are three bases for legitimate federal participation (Führ 1989):

- The Basic Law provides the federal government with the mandate to ensure and regulate the freedom of teaching, scholarship, research, and art; the state inspection of schools; the availability of religious education as a regular subject in state schools; and the freedom of private schools. Where educational policy in the *Länder* impinges on these prerogatives, the federal authorities have the final word.
- The Basic Law ensures each German citizen the right of freedom of movement, and the right of free choice of training and employment. The *Länder* are obliged to cooperate with one another and with the federal authorities to ensure these rights.
- A 1969 revision of the Basic Law gives federal authorities explicit though limited powers to legislate general principles of the university system and to have a hand in educational planning. Nevertheless, no legislation concerning schools applies to German schools as a whole. Rather than ensure uniformity through central control, Germany's federalist system enforces conciliation between opposing elements in educational policy.

### **Key Länder Institutions**

Within the *Länder*, the ministries of culture and education (*Ministerien für Kultur und Bildung*) are responsible for education. Although there are differences among these *Länder* ministries, they generally oversee schools, universities, libraries, adult education, general art and

cultural institutions, and historical preservation. The ministries of culture and education have a number of functions. They produce guidelines for cultural policy in the areas of education, science, and art, and they publish legal and administrative directives. They are also responsible for coordinating their activities with the highest federal and *Länder* agencies and overseeing subsidiary agencies. Each of the *Länder* ministries is centrally governed by a minister of culture and education, who is accountable to the parliaments of the respective *Länder*.

### **Key National Institutions**

Four political institutions play central roles in the federal governance of German education:

- The Standing Conference of the Ministers of Education (*Ständige Konferenz der Kultusminister der Länder der Bundesrepublik Deutschland* [KMK]);
- The Federal Ministry of Education and Science (*Bundesministerium für Bildung und Wissenschaft* [BMBW]);
- The Federal-*Länder* Commission for Educational Planning and Advancement of Research (*Bund-Länder Kommission für Bildungsplanung und Forschungsförderung* [BLK]); and
- The Planning Committee for University Construction (*Planungsausschuß für den Hochschulbau*).

*The Standing Conference of the Ministers of Education.* The Standing Conference of the Ministers of Education (*Kultusministerkonferenz* or KMK) has been in existence since 1948 as an instrument for autonomous coordination of educational policy among the *Länder*. Prior to the

inclusion of ministers from eastern Germany, 11 ministers of education participated in the conference. Currently, 16 ministers participate, one for each of the 16 *Länder*. Resolutions and recommendations of this group require unanimous consent of the 16 ministers, an arrangement that creates great pressure for compromise. The jointly decided resolutions and recommendations are not binding on the *Länder* directly, but must first be adopted and enacted by each of the 16 *Länder* parliaments. Any resolution that falls within the province of the authority of the ministers of education is immediately binding.

Until the late 1960s, the Conference of Ministers of Education (KMK) was highly effective at coordinating a unified educational policy for West Germany as a whole (Führ 1989). It was able to regulate a vast array of issues, including the beginning and duration of mandatory education, the beginning and ending of the school year, and the length of holidays. Also falling under its jurisdiction were the nomenclature used by schools, the degree of transferability between types of schools, the beginning of foreign language instruction, the cross-*Länder* recognition of examinations, and terminology relating to grades.

Since the late 1960s, however, differences among the *Länder* concerning the direction of educational policy have hampered the efforts of the Conference. As co-operation and autonomous coordination among the *Länder* became more difficult, leading politicians demanded a stronger federal hand in educational policy. The Basic Law was altered in 1969 to give federal authorities a legal basis for developing their own autonomous educational agenda. The Federal Ministry of Education was founded in 1970 on the basis of this constitutional amendment.



*The Federal Ministry of Education and Science.* The Federal Ministry of Education and Science (BMBW) is primarily responsible for issues concerning financial support for research, training, and scholarship, and for issues concerning the expansion and legislation of universities (Führ 1989). Several pre-existing federal involvements in education were consolidated in the ministry. Among these were the regulation and oversight of nonschool vocational and further training, and the regulation of pay and benefits for public service employees, including teachers and university lecturers. The ministry was also given responsibility for providing assistance for scholarly research, and for the regulation of training assistance for pupils, students, and trainees. Other fundamental aspects of German education were also placed in the hands of the ministry, including governance of the university system, planning for expansion of university facilities, and promotion of the development of scholarly institutions. The ministry also acts as the liaison between the German education system and the education authorities of the European Union and other international organizations.

*The Federal-Länder Commission for Educational Planning and Advancement of Research.* The Federal *Länder* Commission for Educational Planning and Advancement of Research (BLK) was set up in 1970 to serve as the standing forum for all issues in education and the promotion of research that jointly affect the *Länder* and the federal government. Unlike the KMK, the BLK is composed of representatives from both the *Länder* and the federal government. In the BLK, *Länder* and federal representatives share votes equally. There is no requirement for unanimity; a majority of three-fourths of the votes is needed to pass a resolution. During the 1970s, the BLK worked primarily to develop a comprehensive plan for education. The BLK remains very active in the promotion of research (Führ 1989).

*The Planning Committee for University Construction.* The Planning Committee for University Construction is composed of two federal ministers and one minister from each of the *Länder* and is responsible for drawing up and annually revising a 4-year plan for university construction. Federal and *Länder* authorities are jointly concerned with enabling the universities to provide a sufficient, adequately qualified, and regionally balanced supply of places for study and research. There is parity of voting between federal and *Länder* representatives in committee deliberations and decisions.

### **Other Players in the Federal System**

A number of other formal institutions play an active role in the formulation and realization of educational policy, including the courts and the Science Council (*Wissenschaftsrat*).

*The courts.* The education system is made more complicated by the involvement of the German courts. The importance of judicial decisions in educational policy has grown steadily in the past 2 decades. In controlling educational law, the courts have focused mainly on balancing the concerns of *Länder* autonomy over education, parental rights, and teachers' freedoms. Court intervention in education has taken place within the context of an ongoing debate over whether education is best organized through inflexible laws or through more flexible administrative directives.

*The Science Council.* Advisory bodies have played an important role in the formulation of educational policy at the *Länder* level but have been less important at the national level (Führ 1989). There is, however, one notable exception—the *Wissenschaftsrat*. Since its establishment in 1957, the *Wissenschaftsrat* has played a central and ongoing role in the formulation of university policy. The *Wissenschaftsrat* is composed of prominent individuals from academic and public life, and has the task of drawing up an overall plan for the promotion of the sciences in Germany. It coordinates a number of individual plans developed by various *Länder* and federal authorities for their respective spheres of competence, and specifies areas of emphasis or particular urgency. The council produces an annual report of spending priorities for the allocation of *Länder* and federal monies in higher education.

## School Administration and Finance

The administration and funding of schools differs by the area of schooling. Mandatory schooling, vocational education, universities, and continuing education are each administered and funded in a different way.

### **General Mandatory Education**

General mandatory education is administered and funded by the government bodies of the municipalities that benefit most directly. The Basic Law stipulates that schools and the education system as a whole are subject to governmental supervision (KMK 1993a). The inspection and administration of schools are largely a *Länder* responsibility, and are usually organized in a three-tier system. The three tiers consist of the culture ministry of the Land, school officials at the

district level, and municipal- or communal-level inspectorates (*Schulämtern*). The numerous lower level schools (*Grundschulen, Hauptschulen, Sonderschulen*) are monitored by the municipal or communal offices. Funds for these schools are generally part of municipal or communal budgets. The less numerous *Gymnasien, Gesamtschulen, Realschulen*, and *Berufliche Schulen* are controlled by the inspectorates on the district level covering larger governmental administrative areas. Funding for middle-level schools comes from the budgets of regional-level governments. Craft or trade schools and institutions of the alternative educational path (the second path) are supervised by *Länder*-level agencies within the Ministries of culture and education. Each Land directly finances a few schools (e.g., music *gymnasium*, athletic *gymnasium*) that serve its population as a whole.

Alternatively, some *Länder* organize administration in a two-tier system, leaving out either a middle level or the lower level. Administration in the city-states is either single tiered or double tiered.

## **Vocational Education**

Vocational training in Germany takes two forms: full-time schools and the dual system of vocational training. Full-time vocational schools are, like general mandatory education, the province of the individual *Länder*. They are administered and financed within the three-tier system.

The principles of certification within the dual system of vocational training, in contrast, are the responsibility of the federal government. The dual system entails close co-operation between the locally funded vocational schools and the industrial organizations at the federal, state, regional, and local levels of government (Führ 1989). The federal minister for education

and science is responsible for questions of coordination. Representatives of employers, unions, *Länder*, and the federal government work together as equal partners in the Federal Institute for Vocational Education (*Bundesinstitut für Berufsbildung*). This institute generates the education guidelines for the workplace portion of the dual training.

At the level of the *Länder*, dual vocational education is regulated by committees for vocational education, which are composed of representatives of employers, unions, and state ministries. At the regional level, responsibility is assumed by local economic self-governance organizations such as chambers of commerce. These local organizations maintain vocational education committees in which employers, employees, and vocational school teachers have a say. Finally, the dual vocational system is administered at the lowest level by employee committees within the individual participating firms.

Unlike general mandatory education, the system of dual vocational education is funded by both public and private organizations, including private industry, which contributes significant resources to the maintenance of this system.

## **Higher Education**

The administration and 92 percent of the funding for higher education is the responsibility of the individual *Länder*, and involves a collaboration between officials of higher education institutions and ministerial functionaries. In Germany, the institutions of higher education have the right to autonomous self-administration within the framework of the general university laws (Führ 1989). In practice, they act as administrative units, retaining autonomy over their economic, budgetary, and financial administration. Nevertheless, the ultimate responsibility

resides in the state ministry for control of the disciplines, founding and organization of universities, and financial and personnel issues.

### **Continuing Education**

Continuing education in Germany exhibits a rich variety of organizational forms and funding sources, and is based on the underlying principles of institutional independence and freedom of choice in both course content and selection of personnel. More than any other sector of German education, the system of continuing education has developed as an independent system (Führ 1989). Existing parallel to the state-sponsored education system, it includes a combination of public and private and nonprofit and profit organizations. The primary responsibility for the organization and administration of continuing education resides in the citizens themselves. Local industrial and craft associations regulate the recognition of certification for courses of continuing education. Funding for continuing education is derived largely from student fees.

Governmental agencies are involved only to the extent that they establish the necessary legal preconditions for the development of this sector, and promote co-operation among social groups in the planning and implementation of continuing- education programs. Certain types of continuing education, however, are subject to governmental oversight and receive government funding. For example, education geared toward retraining unemployed people, or people threatened with unemployment, is the responsibility of the Federal Agency for Work (*Bundesanstalt für Arbeit*).

## Statistics on School Financing

Public funding of the education system is based on several underlying principles. First, German education is generally free to the student. Educational institutions are not financed by student fees but directly from public budgets. Second, the government underwrites the living costs of members of certain groups while they attend school. Third, the public funding of education is integrated into the decision-making processes of the political-administrative system, with various forms of funding at different levels of government being coordinated into an integrated and meaningful whole (Führ 1989). Tables 9 and 10 show the financing of the education system in the former West German *Länder*. Statistics for the new *Länder* are not yet available.

Table 9—Spending for education by domain in billions of Deutsche Marks, 1991

Domain	Total spending	Percent of total spending
Preschool <sup>a</sup>	7.9DM	8.0
Grades 1-13	55.8DM	56.8
Higher education	30.7DM	31.3
Continuing education	3.8DM	3.9
Total	98.2DM	100.0

SOURCE: KMK, 1993a.

<sup>a</sup>Includes youth education outside the school.

Proportional spending by domain has remained relatively stable. Public expenditures for education accounted in 1990 for 13.8 percent of government spending in the Federal Republic of Germany (the old *Länder*), and represented 4.2 percent of Germany's gross national product. This

amounted to 1,613 deutsche marks (DM) per inhabitant (\$1,008 at an exchange rate of 1.6 DM per dollar) (KMK 1993a).

In 1991, the cost of education was distributed over the different political-administrative levels as shown in Table 10.

Table 10—Percentage of spending on education by domain and political-administrative level

Domain	Spending entity		
	Federal government	Länder	Localities and nonprofit organizations
Preschool education	17.7 percent	39.4 percent	42.9 percent
Grades 1-13	0	79.2	20.8
Higher education	7.1	92.9	--
Continuing education	24.6	38.2	37.2
Academic support	45.3	37.3	17.4
Research support	71.4	28.6	--
Spending by administrative level	10.7 percent	73.4 percent	15.9 percent

SOURCE: KMK, 1993a.

Table 10 shows that preschool education is primarily funded by localities, the bulk of funding for both primary, secondary, and higher education comes from the *Länder*, continuing education is paid for at all levels, and academic and research support is provided mainly through the federal budget. This pattern of funding reflects the underlying principle that communities that benefit most directly pay the bill.



## The Local Organization of Elementary and Secondary Public Schooling

Although German schools differ greatly in their academic orientation, they share a set of common organizational structures and practices prescribed in the *Länder* school laws. School laws provide for a uniform calendar, school day, and class period, and for a uniform configuration of councils in local school governance. The temporal and organizational standardization of schooling applies to both the elementary and secondary levels (Führ 1989).

### Temporal Standards

The German school year runs from August 1 through July 31. The actual beginning and ending of the school year varies according to the timing of the summer vacation. Summer vacations last 6 weeks and are staggered among the various *Länder* in order to alleviate traffic problems that would result from an annual exodus to the south by millions of vacationing Germans. When other shorter holidays are included, the total number of vacation days amounts to 75 workdays per year. To this are added 10 legal or religious holidays. On average, there are 188 class days per year (with a 5-day week). In some states, classes also meet on two or three Saturdays per month, raising the average number of class days. The total number of hours of instruction remains constant, however, because the number of hours is distributed over the number of days available.

The number of lessons per week varies with grade level. The typical elementary school requires from 17 to 27 periods per week; class periods last 45 minutes. The German school day typically begins at 8 a.m. and ends between 11:30 a.m. and 1:30 p.m. Most students have class in the afternoon one or two times a week, especially if their school has no class on Saturday.

Classes are scheduled on a weekly basis, so the schedule varies over the course of the week. In most *Länder*, the number of school periods per week begins at 20 in the first grade and rises to 27 by the fourth grade.

With the demographic shift to larger numbers of working women in Germany, there has developed a demand for care of children outside the hours of mandatory instruction. Three models for such care exist and vary according to pedagogical philosophy, length of time during the day, and financial support from different institutional bodies—*Länder*, localities, or private citizens. These models include the *Hort*, day care made available by the municipal government as well as other institutions (e.g., local churches); extension of firm school hours beyond those required for mandatory instruction (i.e., 7:30 a.m. to 2 p.m. instead of varying from day to day); and all-day schooling in which instruction is extended and combined with social education. The second model of extending school hours but not instructional hours has had the most popular response. Both the *Hort* and the program for extending school hours require parents to pay monthly fees—up to \$200 for the *Hort*, less for extended school hours (KMK 1993a).

At the secondary level, schooling consists of between 30 and 36 lessons per week, according to the type of school as shown in table 11. The more academically oriented schools generally require more time in class. As in elementary education, lessons in secondary education last 45 minutes. Many secondary schools, however, combine lessons to form units of between 80 and 90 minutes. There are short breaks between lessons, and these add up to about 40 minutes in a morning of five lessons. Students pursuing part-time vocational education at the upper secondary level attend up to 12 lessons weekly over 1 or 2 days, and spend the remaining workdays either training in their firms or working in their jobs.

Table 11—Range of Class Hours per Week by School Type

School type	Weekly lessons
<i>Hauptschule</i>	26 to 33
<i>Realschule</i>	27 to 33
<i>Gymnasium</i>	28 to 35
<i>Mittelschule</i>	32 to 33
<i>Sekundarschule</i>	30 to 32
<i>Regelschule</i>	30 to 32

### School Organization

German schools at the elementary and secondary levels are organized uniformly according to definitions and dictates detailed in *Länder* law and in administrative directives of the respective ministries of culture and education. Although there are differences across *Länder*, the core structure of schooling is shared by all German schools in these two domains. The structure explicitly outlines the role of school leadership in the position of school director and provides for the collaboration of teachers, parents, and students through various administrative forums or councils, such as the school council, the teachers' council, and the parents' council (Führ 1989).

*The school director.* School directors are usually teachers who have been appointed to a position of formal leadership within their school by the local governmental office of schools. Unlike American principals, German school directors continue to teach during their tenure. The school directorship entails a well-specified set of duties and powers outlined in a framework

contained within the *Länder* school law. This framework requires them to work closely with their school council (see below) to consider both legal and administrative directives in their work and ensure that legal and administrative directives are carried out at the school level. Consequently, school directors have formal directive authority over other teachers. Within the school, school directors distribute classes among teachers, schedule class hours, and review and assess classroom instruction. They also are responsible for the administration of substitute teaching, the maintenance of a balanced workload among teachers, and the coordination of grading. In addition to these internal administrative duties, school directors formally represent their school to outside constituencies.

*The school council.* The school council is a consultative forum in which teachers, parents, and students jointly discuss and decide upon a variety of issues. The composition of the school council varies across the *Länder*. In some *Länder*, teachers are given half the votes, and parents and students are each given a quarter of the votes; in other *Länder*, the three constituencies share votes equally. The school director convenes sessions of the school council.

*Länder* law includes a list of issues the school councils should address, although other issues not included in the list may be addressed as well. Although the contents of this list vary across *Länder*, it generally includes the organization of instruction and school life, including the school rules, schedules, and spatial organization. Other issues commonly include the physical protection of students at school and going to and from school, as well as the planning of school events, such as school partnerships and field trips. School councils are often explicitly required to address issues of academic content, including those concerning pedagogy, schoolbooks, homework, and grading. In addition, the school council can decide on important strategic issues,

the internal organization of divisions within the school, the division of the school into separate schools, mergers with other schools, and building projects. It also may address conflict situations and play a role in the counseling of parents and students involved in such conflicts. The school council may recommend or sometimes veto the appointment of a school director.

*The teachers' council.* The teachers' council is the self-governing administrative body of teachers within the school. Every school has a general teachers' council that includes all teachers; some schools also may have councils for subgroups of teachers in particular disciplines. The school director acts as the chairperson of the general teachers' council. The council deals with various issues of instruction without infringing on the autonomy of individual teachers. In many *Länder*, parents have a right to nonvoting participation on issues that do not directly affect students' grading and advancement.

*The parent council.* At the beginning of each school year, the parents in each class choose a representative to sit on the school's parent council. This council has a voice in the formulation of school policy and the planning of the curricula. The school parents' councils, in turn, provide delegates from among themselves for similar councils at the local, district, and regional levels. *Länder* and national councils have varying rights of participation in discussions of educational policy, and their advice is called on by school parents' councils when addressing local issues.

*Student participation.* Student participation varies according to students' age. Students in elementary school have the opportunity to participate only in class offices, such as class speaker, a position that in some *Länder* is mandated beginning in the first grade. Otherwise, students'

interests are represented through the parent council or, in special cases where the elementary school is integrated with a secondary-level school (the Bavarian *Volksschule*), by secondary-level students. Students in lower level secondary school participate in the school conference.

*Other participants.* At the school level, German school laws provide only for the participation of the parties immediately involved: parents, teachers, and students. Other participants become involved only at the regional and *Länder* levels, where participation rights are granted to representatives of industry, labor, churches, higher education, youth groups, high-level leagues of community groups, and community leaders. Although any of these representatives may participate at the school level for informational and consultative purposes, they may do so only upon explicit invitation.

## Summary

As a federally structured system, German education exhibits a great deal of variety. One can speak only loosely of a unified system of German education. Because each of the *Länder* formulates its own education policy, the specific aspects of school organization vary considerably. When placed in comparative perspective, however, the uniform aspects of German education emerge. The federal structure of German education has fostered cooperation and compromise among the *Länder* ministries of culture and education in the development of a common general principle for the provision and financing of public education and a standard set of school types.

Each of the *Länder* supports a three-tiered system of public education, including elementary education, lower level and upper level secondary education, and higher education. In addition, each of the *Länder* supports a system of special schools for students with disabilities. Elementary education, which usually encompasses the first 4 years of mandatory education (ages 6 through 9), is structured uniformly in order to ensure an equality of educational opportunity for all children. Lower level secondary education, which includes the 5th through 9th (often the 10th) years of mandatory education, is structured primarily according to a traditional German system of educational tracking and includes a hierarchy of three school types: the *Hauptschule*, the *Realschule*, and the *Gymnasium*.

The *Hauptschule* caters to the less academically and more practically inclined students. The *Gymnasium* emphasizes theory-based education for students who excel in school. The *Realschule* offers a compromise between the *Hauptschule* and the *Gymnasium* for children who have both theoretical and practical interests and aptitudes. In the 1970s, the *Gesamtschule*, or comprehensive school, emerged as an alternative to this traditional hierarchical system. The cooperative *Gesamtschule* retains the three tracks but includes all within one school organization. The integrated *Gesamtschule* does away with tracking altogether and introduces a system of advanced and honors courses for scholastically talented students.

Upper level secondary schooling, which generally encompasses grades 11 through 13, extends the differentiation introduced in lower level secondary education by strongly distinguishing between liberal and vocational education. Liberal education is offered in the upper levels of both the *Gymnasium* and the *Gesamtschule*. Vocational education is offered in two separate systems: a full-time system including a large variety of specialized vocational and trade

schools, and a part-time system combining actual work experience with part-time classroom instruction.

Higher education further extends academic differentiation in a heterogeneous collection of universities, technical universities, vocational *Hochschulen*, and institutes. When viewed as a whole, German education presents the picture of a highly differentiated but coherently integrated system emphasizing the development of specialized knowledge and skill.

Private educational institutions exist in Germany, but they are relatively limited in scope. They make their most significant contributions at the levels of preschool and continuing education, and have a notable presence at the secondary level in the form of parochial (Catholic) Waldorf schools.



# Components of National Education Standards in Germany

**Mark Ashwill**

## Introduction

Three components of national standards in Germany are emphasized in this chapter:

1. The locus of educational policymaking;
2. The process by which national standards are created and agreed upon; and
3. The role of primary and secondary schools.

Particular attention is paid to the *Gymnasium* (general-academic secondary school) and the upper secondary completion examination (*Abitur*) as examples of how standards are established and applied on a national level.

## Local Control of Education

The Federal Republic of Germany has 16 states, each with its own ministry of education and distinctive set of political, religious, and cultural traditions. While Germany is a relatively homogeneous nation, its constitution guarantees the cultural sovereignty of each state. The responsibility for primary and secondary schooling in Germany rests with the state and local

authorities. The federal role in education is limited mainly to the regulation of educational and training assistance, including vocational education, and the promotion of scientific research.

While all German states have basically the same educational structure and core curriculum, abide by the uniform examination requirements for the *Abitur*, and recognize school completion credentials from around the country, there are notable differences in actual practice. Many aspects of schooling in the states of central and northern Germany differ markedly from those in the southern German *Länder*. For example, *Abitur* examinations in Bavaria are created by the Ministry of Education in Munich and distributed to the schools in sealed envelopes on the day of the examination, while Hessian teachers from each *Gymnasium* submit proposed examination questions to the authorities for approval. Some additional examples reflect the variability among states:

- In order to graduate from the *Realschule* in Saxony, pupils must pass written examinations in German, mathematics, and either physics, chemistry, or biology; choose between a written and oral examination in one foreign language; and take an oral examination in two additional subjects. In Hesse, the only requirement for graduation is that pupils maintain a grade point average of "satisfactory."
- Baden-Württemberg requires all *Hauptschule* pupils to take a centrally developed and administered completion examination with written, oral, and practical components. In Hesse, pupils have only to pass the ninth grade to graduate. (The *Abitur* examination is the only compulsory school completion examination given in Hesse—in other than the vocational schools.)

- In Bavaria, all civil servants, including teachers, are evaluated every 4 years. Teachers in Hesse are evaluated only at specific times throughout their career, such as for tenure and promotion.
- In Hamburg and Nordrhein-Westfalen, physics is taught in the *Gymnasium* beginning with the sixth grade. In most other states, it is introduced in the seventh grade.
- By the 10th grade, *Gymnasien* in the Saarland will have offered 21–28 total weekly hours of science instruction. The range for most other states is between 19 and 24.

Regional differences can also be observed in the reconstituted states of the former East Germany, where the educational structures and priorities tend to reflect the political constellation of each state government. Accordingly, Brandenburg, which is governed by the Social Democrats (SPD), has promoted the *Gesamtschule*, while Saxony, Saxony-Anhalt, and Thuringia, where Christian Democrats comprise the majority party, have introduced middle schools that combine *Realschulen* and *Hauptschulen* (Mitter and Weiss 1993). Like other new states in eastern Germany, Saxony has adopted a model of education from one of the "old" states (Baden-Württemberg), which boasts a centralized *Abitur* and school-specific curricula. The fact that Germany has no standardized examinations as a means of comparing academic achievement within schools, school forms, states, or between states reveals the extent to which cultural sovereignty is valued and protected.

## Development of National Standards

### The Conference of Ministers of Education

In the absence of a centralized national ministry of education in Germany, national standards are established by the Conference of Ministers of Education (Kultursministerkonferenz, or KMK), which performs a national coordinating function. The KMK is an advisory body that attempts to ensure national comparability through joint agreements on examination guidelines, procedures, and requirements.

Founded in 1948, the KMK was created in direct response to the Nazi policy of *Gleichschaltung* (standardization), which was an attempt to rid the country of regional differences in education and other cultural areas (Eckstein and Noah 1993). The KMK was charged with overseeing the cultural policy of all states within a framework of cultural sovereignty guaranteed by the German constitution. It is a forum in which the individual states coordinate the structures, institutions, curricula, and leaving certificates of their school and higher education systems. Conference resolutions, which must be unanimously approved by all state ministers of education, constitute recommendations to the *Länder* and only become legally binding when they are promulgated in the form of state laws, decrees, and regulations.

Since the late 1940s, the KMK has issued resolutions on topics ranging from parent-school cooperation and approval of textbooks to improving mathematics and science instruction in the schools. Through the KMK, Germany has developed a set of national standards and guidelines for school forms, mutual recognition of school completion qualifications, and a common curriculum and hours of instruction. This consensus forms the basis for a degree of comparability between states.

In a federalist system that engenders competition between states and tends to limit cooperation, the Germans have succeeded in striking a delicate balance between the two extremes embodied in the American and Japanese school systems. This balance reflects a desire for consensus regarding educational structure, the basic goals of education, course requirements, hours of instruction, and school completion requirements. (A 1993 resolution entitled "Agreement Concerning School Types and Educational Paths in Secondary I Schools" presents a unanimously agreed-upon codification of structure, common goals and characteristics, canon of subjects, number of instructional hours and types of diplomas, and recognition of completion credentials in schools encompassing grades 5–10.)

Over the years, the KMK has addressed a number of important curricular issues, many of which focus on instruction in mathematics and science. In 1968, a resolution presented a detailed justification for "modernizing" mathematics instruction and a set of curricular guidelines encompassing grades 1–13 (*Empfehlungen und Richtlinien zur Modernisierung des Mathematikunterrichts an den allgemeinbildenden Schulen*, 3.10.1968). Among the reasons cited were the connection between increasing the pool of well-trained technical professionals and Germany's economic prosperity, as well as the need for more mathematics and science teachers. The resolution represented an attempt to standardize instruction by recommending specific learning objectives and suggesting a teaching methodology based on the work being carried out in other countries of the Organisation for Economic Co-operation and Development (OECD). In spite of its age, the thematic outline for the fourth grade, for example, is remarkably similar to the framework curriculum currently being used in a number of states.

Other resolutions the KMK has approved since 1970 pertaining to mathematics and science include "Improving Mathematics and Science Instruction in the *Gymnasien* of the Federal

Republic of Germany" (1970), "School Experiments as a Means of Improving Science Instruction" (1971), and "Recommendations and Guidelines for Math Instruction in the Elementary School" (1976). Each of these resolutions is the product of educational research and is driven by a common desire to create a set of national standards in key subjects.

Following German unification on October 3, 1990, the ministers of education and cultural affairs in Berlin, Brandenburg, Mecklenburg-Western Pomerania, Saxony, Saxony-Anhalt, and Thuringia joined the KMK. Since unification, the KMK's highest priority has been to work with the new states of eastern Germany to create a common and comparable basic structure for primary, secondary, and postsecondary education.

### **Other Forms of Federal-State Cooperation**

One of the most recent examples of cooperation between the Federal Ministry for Education and Science and the states is a European Union initiative focusing on equality of educational opportunity for boys and girls. The 10-point program has spawned research, pilot projects, and staff development in all 16 states. The topics include inservice training related to girls and career choice (Nordrhein-Westfalen), the development of school-specific strategies for the advancement of equality of opportunity among girls and boys (Hamburg), violence against girls (Berlin), fostering scientific and technical education for girls in the *Realschule* (Hessen), and gender stereotyping in elementary and lower secondary textbooks (Saarland). These projects are designed and carried out by state ministries of education and affiliated institutes, as well as university research institutes. A project in Baden-Württemberg entitled "More Girls in Science Courses" was designed to make teachers aware of the special needs of girls in science instruction,

increase the representation of girls and women in curricula and textbooks, and develop a gender-specific teaching methodology for technical and scientific subjects.

## Overview of Primary and Secondary Schools

In spite of the far-reaching changes of the past 30 years, including the shift from elite to mass education as a means of increasing accessibility and tapping the nation's educational reserves, Germany's traditional tripartite system of education remains intact. While there has been some fraying at the edges, support for a tripartite system of schooling remains strong. This multilayered structure offers a large menu of educational options for children of differing abilities, talents, and interests. Each school form applies a different set of standards, which are an outgrowth of its mission and goals.

Unlike students in the American educational system, German pupils remain together as a group only through the fourth grade (*Grundschule*), after which they enter one of several school forms which comprise a pyramid of academic achievement:

- The *Hauptschule*, which leads to part-time enrollment in vocational schools combined with apprenticeship training until the age of 18;
- The *Realschule*, which leads to higher vocational schools; or
- The *Gymnasium*, the most selective secondary school.

## Dual System of Vocational Education

The German education system is world renowned for its dual training system consisting of part-time general education and on-the-job vocational training for young people, most of whom are graduates of the *Hauptschulen* and *Realschulen*. The dual system covers a broad array of fields, including agriculture, commerce, manufacturing, civil service, trades, and the service sector.

Currently, more than 400 officially recognized training programs have been developed by the appropriate federal ministries in cooperation with employers and the Federal Ministry of Education and Science. These training programs are periodically revised to accommodate the changing needs of an increasingly sophisticated economy. Programs for outdated professions are discontinued, while new ones such as those in telecommunications are created.

Examination committees are composed of employers representing chambers of commerce, industry, crafts and agriculture; employee representatives; and vocational education teachers. These committees administer all examinations and award the completion certificates that qualify the pupils as skilled workers (*Facharbeiter*) or journeymen (*Gesellen*) (Arbeitsgruppe Bildungsbericht 1994).

## Formulation of Educational Policy and Practice

Consistent with the tradition of state control of education, state ministries of education formulate educational policy and practice for the schools within their jurisdiction. They prescribe the number of periods per week and subjects by grade and school type, establish curricular guidelines, and authorize the selection of textbooks. However, while course syllabi are



obligatory, teachers have considerable freedom of action through the use of supplemental materials and the methods by which they achieve the prescribed curricular objectives. In spite of the regulations and guidelines developed by the KMK, there are considerable variations from state to state. (For example, Bavarian pupils in grades 1–10 receive 20 percent more instruction as measured by teaching periods than their peers in the city-state of Hamburg.)

## **Grundschule**

In western and eastern Germany, the average *Grundschule* class consists of 22 and 21 pupils, respectively, and all pupils receive grades twice a year on a point system ranging from 1–6 (1 equaling “very good,” and 6 equaling “unsatisfactory”). The weekly hours of instruction range from 19 in the first grade to 26 in the fourth grade.

The *Grundschule* curriculum encompasses the basic skills of reading, writing, and arithmetic; an introduction to the natural and social sciences and the language arts; sometimes the study of a first foreign language; and the development of qualities such as self-reliance, self-discipline, and problem-solving skills. Less significant in terms of hours of instruction are music, art, religion, and physical education. The main purpose of the *Grundschule* is to lay the foundation for further education at the secondary level. Thus, the curriculum tends to emphasize character training over the dissemination of knowledge.

While pupils in grades 1 and 2 have a class teacher, third-graders begin to encounter some subject teachers. This shift reflects the increasing emphasis on specialization as pupils approach the lower secondary level. Another indicator of the transition to a higher plane of education is the manner in which some schools weight the curriculum in favor of those subjects that are of greater relevance to secondary education (e.g., mathematics and German), and place

less emphasis on music and other subjects perceived to be of lesser importance (Arbeitsgruppe Bildungsbericht 1994).

### **Orientation Level and Promotion to Secondary School**

Compulsory schooling lasts 9 or 10 years in Germany, beginning at age 6. Children in all *Länder* attend *Grundschule* (primary school) for 4 years (6 years in Berlin and Brandenburg), after which they continue their education at one of three lower secondary schools. Regardless of which institution is selected, grades 5 and 6 are considered to be an orientation level (*Orientierungsstufe*) in most *Länder*. (Bavaria abolished the orientation level in the early 1990s.)

The purpose of the orientation level is to allow for additional assessment, thereby delaying the final decision about placement until the end of the sixth grade. The objectives in grades 5 and 6 are to

- Ease the transition from primary to secondary school;
- Promote each pupil's readiness and ability to learn;
- Provide an orientation to the pupil's own interests, attitudes and ability; and
- Compensate for differences in social background (Mitter 1987).

The type of secondary school pupils attend is determined by their performance in *Grundschule*. The pupil's primary teacher provides a written recommendation based on academic achievement and the decision is made by the parents. In practice, this differs somewhat from state to state. In Berlin and Brandenburg, the promotion decision is based on the teacher's recommendation and attainment of a specified grade-point average, while in Baden-Württemberg

fourth-grade pupils take centrally created examinations in German and mathematics (*Orientierungsarbeiten*). The examination results and school grades form the basis for the promotion decision. In 1992–93, 90 percent of all parents in Baden-Württemberg accepted the official placement recommendation. (Parents who disagree must consult with the school and their children must take a battery of comprehensive examinations. If there is still disagreement, the pupils are required to take an entrance examination to gain admission into their school of choice.) In contrast, nearly 30 percent of all pupils in Berlin attended *Realschule* and *Gymnasium* against their school's advice. One-third of these individuals switched schools after one semester (Arbeitsgruppe Bildungsbericht 1994).

In 1990–91, approximately 33 percent of German pupils in grades 7 to 9 attended a *Hauptschule*, 28 percent a *Realschule*, and 31 percent a *Gymnasium*. Eight percent were enrolled in comprehensive schools, the majority of which are located in *Länder* governed by the Social Democrats (SPD).

In spite of the explicit grouping or tracking of pupils based on ability, an inherent part of German education, the system does offer transfer possibilities for academically prepared pupils to change education tracks. The most common upward move is from the *Realschule* into the *Gymnasium* to prepare for university study. The transfer figures range from 2 to 16 percent of pupils.

### **Lower Secondary Curriculum**

The curricula of the lower secondary schools (grades 5–10) reflect the importance of a common core of knowledge (*Allgemeinbildung*, general education) that all students must acquire, regardless of the academic orientation or selectivity of the school. At this level, the core consists

of German language and literature, mathematics, social studies (history, geography, civics), the sciences (physics, chemistry, biology), physical education, art and music, and religion. In addition, pupils in all schools study one foreign language, usually English, while those attending the *Gymnasium* must take a second foreign language.

## **Hauptschule**

The *Hauptschule*, positioned on the lowest rung of the educational ladder, enrolls about one-third of the age cohort (down from 64 percent in 1960). In many areas, it is sometimes referred to as a *Restschule* (school for the leftovers), which mainly attracts socially disadvantaged German children, pupils with learning disabilities, and foreign children. Immigrant pupils comprise more than 26 percent of the student population in *Hauptschulen* (Mitter and Weiss 1993).

The *Hauptschule* lasts through the 9th or 10th year of schooling (depending upon the Land) and prepares pupils to enter the labor force and receive additional training in the form of an apprenticeship. Its graduates are entitled to participate in practical training (apprenticeship in a trade, commerce, industry, or administration) accompanied by part-time attendance at a vocational school, become employed in the lower and middle echelons of civil service with part-time attendance at a vocational school, or attend a full-time vocational school. About one-tenth of all *Hauptschule* pupils fail to graduate.

In addition to the usual courses, the *Hauptschule* offers a special subject called *Arbeitslehre* (introduction to the world of work), which is intended to teach pupils the knowledge and skills needed in the modern economy and to provide guidance in career selection. There are no final examinations at the *Hauptschule* in most *Länder*. Among the schools represented in the

tripartite system, the *Hauptschule* has the lowest prestige, a byproduct of declining enrollments, a changing economy, and the educational aspirations of the majority of parents who prefer that their children study at a school that will enable them to earn the university entrance qualification, the *Abitur*.

## **Realschule**

The *Realschule* extends through the 10th year of schooling. This school prepares pupils for midlevel, nonprofessional careers while allowing access to upper secondary education and potential university entrance. Since the 1970s, completion of the *Realschule* has become an entry requirement for some of the more attractive apprenticeship programs. It has also become an increasingly popular alternative route to higher education. Most of its graduates find employment in the service sector.

The *Realschule* differs from the *Hauptschule* in several respects. It offers an additional year of schooling and a wider range of subjects, including mandatory foreign language study (i.e., English) with French as an additional option, more advanced courses in mathematics and science, and a balance of prevocational and general education courses. These typically include subjects such as accounting, business, English, and typing. In 7 of the 16 *Länder*, including Baden-Württemberg, Bavaria, the Saarland, Saxony, Saxony-Anhalt, Schleswig-Holstein, and Thüringen, a special examination is administered at the end of the 10th grade.

Graduates are eligible to attend vocational schools on a full-time basis—including the Fachoberschule (technical secondary school), the Berufsfachschule, or a technical *Gymnasium* (*Fachgymnasium*)—as well as participate in the dual-training system. Academically qualified pupils have the opportunity to transfer to the upper stage of the *Gymnasium* at age 16 through

transitional classes. More than one-third of all apprentices in industry and trade and more than 50 percent in public service have the *Realschule* qualification. The remainder receive training as skilled workers.

### The *Gymnasium*

The *Gymnasium* has historically been the domain of the select few, yet it has opened its doors to unprecedented numbers of young people in the past few decades. Pupils who demonstrate superior academic ability and who display potential are recommended for promotion to the *Gymnasium*. The lower level of the *Gymnasium* extends from grade 5 or 6 to grade 10. At the end of the 10<sup>th</sup> grade, pupils may qualify for the upper level *Gymnasium*, covering grades 11–13 (grades 11–12 in 4 *Länder*). The upper level (*Gymnasiale Oberstufe*) constitutes the period when pupils prepare for the *Abitur* examinations. The successful completion of these examinations entitles them to study at a university or a *Fachhochschule* (polytechnic). After grade 10 of the *Gymnasium*, some pupils continue their education until age 18 by attending a Fachgymnasium, an upper level institution that combines academic work with full- or part-time on-the-job apprenticeships. In some states, a sizeable proportion of graduates with the *Abitur* come from these schools.

### Curriculum

In grades 5–10, the curriculum varies according to the type of school attended. This may range from an emphasis on classical languages and mathematics/science to modern languages and special arts programs, among other areas of study. Generally, at least two and, in some cases,

three foreign languages are required, including English. There is compulsory instruction in core subject areas, including German, two foreign languages, history, geography, mathematics, science, art/music, physical education, and civics, with elective courses available. Subjects are taught at both a basic and an advanced level, the latter involving more rigorous content and additional hours of instruction. (Basic and advanced courses are scheduled for 2 to 3 and 5 to 6 hours per week, respectively.)

Pupils begin preparing for the *Abitur* at the beginning of the 12th year. Over the next 2 years, they must take a total of 28 courses, 22 at the basic level and 6 at the advanced level. They must also choose four subjects in which they will eventually take the *Abitur*. At least one of these must be chosen from each of the following three areas of knowledge:

1. Language, literature, and the arts;
2. Social sciences; and
3. Mathematics, science, and technology.

In addition, courses in at least two fields must be taken at the advanced course level.

## Historical Overview

The 1960s signaled a turning point for the *Gymnasium*. A 1967 article that appeared in the *Comparative Education Review* posited that "the adjustment of the educational system to the socioeconomic and cultural development of the mid-twentieth century has not really taken place in Germany," in contrast to other European countries. The authors, Robinsohn and Kuhlmann, describe the conservatism of the postwar period as a "product of the overwhelming desire to

recapture material well-being and social stability and a distrust of 'new beginnings' and experiments" (p. 311). As the institution which had prepared pupils for university study and indirectly produced the country's intellectual and professional elite since the former's founding, the *Gymnasium* was the "jewel of the German educational crown" (Fishman and Martin 1987, p. 115).

The *Gymnasium* came under attack as an elitist institution incapable of responding to the demands for greater equality of educational opportunity and the growing need for qualified personnel. In his 1964 book *Die Deutsche Bildungskatastrophe* (The German Educational Catastrophe), Georg Picht portrayed the existing educational inequality as a grave threat to the economy, and called for doubling the number of *Abitur* holders. Since then, the percentage of the age cohort enrolled at institutions of higher education has quadrupled, rising from 8.7 percent in the early 1960s to 37 percent in 1991. Aside from the massive increase in the number of pupils gaining admission to the *Gymnasium*, the radical qualitative changes that the *Gymnasium* has undergone since the 1960s can best be understood through an analysis of the major reforms of the past 30 years.

*Saarbrücken Outline Agreement of 1960.* The precursor to the landmark reform of 1972 was the Saarbrücken Outline Agreement (*Rahmenvereinbarung*) of 1960, which was a reaction to the rising tide of dissatisfaction on the part of many pupils with the expanding curriculum of the *Gymnasium*.

The agreement was, of course, geared decidedly toward the *Abitur*, which necessitated a great deal of pressure to reach high academic standards in a wide range of subjects. The resulting encyclopaedism had long been one of the less acceptable features of the *Gymnasium*, but with



syllabi tending to expand rather than contract, the pressure, especially on pupils in the upper forms, had increased (Hearnden 1974, p. 227).

The Saarbrücken Agreement reduced the number of compulsory subjects and increased the range of optional courses pupils could take, while promoting the training of pupils in intellectual independence and responsibility. The agreement also prescribed a set of core courses for the various types of *Gymnasien* (classical language, modern language, and mathematics-science). In grades 12 and 13, known as the *Oberstufe* (upper level), all pupils were henceforth required to take community studies (history, geography, social studies), physical education, and music. The purpose of the 11th grade, which also became part of the upper level, was to round out and reinforce pupils' knowledge and skills.

Although the Saarbrücken Agreement had originally been formulated in response to the perception that the curriculum of the *Gymnasium* was too broad, it was later criticized for being too comprehensive. One of the perceived dangers of the 9-year *Gymnasium* was its overemphasis on general education that precluded the opportunity for specialization. This, in turn, provided insufficient preparation for university study.

*Bonn Agreement of 1972.* In 1972, the KMK agreed upon the most comprehensive reform of the upper level in the history of the *Gymnasium*. The purpose of the Agreement on the Reorganization of the Upper Secondary Level (hereafter Bonn Agreement) was to "orient the upper secondary sector more closely to the demands of a changing society as well as the needs of the younger generation" (Conference of Ministers of Education [KMK] 1989, p. 165). More specifically, the Bonn Agreement was motivated by the expansion of the education system fueled by demands for increased social mobility, and a changing economic situation that required a

more highly educated, better skilled workforce. The *Reformierte Oberstufe* (reformed upper level of the gymnasium), which was introduced in most *Länder* in the 1976–77 academic year and revised in the 1980s, instituted several major changes in the structure and curriculum of the upper secondary level.

First, with the exception of Bavaria, the upper level was no longer structured according to specialization of the school. The Bonn Agreement also replaced the existing system of fixed classroom teaching with a system of course instruction. The compulsory areas of study included:

- Languages, literature, and fine arts;
- Social sciences;
- Mathematics, natural sciences, and technical fields;
- Religion (left to the discretion of the individual *Länder*); and
- Physical education.

Within these prescribed areas, the curriculum was divided into basic (*Grundkurse*) and specialized, or advanced, courses (*Leistungskurse*). The rationale behind this newly constituted curriculum was that it would permit a high degree of specialization without sacrificing the benefits of general education.

Basic and advanced courses differ in a number of respects:

- The number of course hours per week (for *Grundkurse* usually three, for *Leistungskurse* five to six);
- The complexity of the subject matter;

- The degree of subtlety and abstraction;
- The degree to which the pupils are expected to master the subject matter; and
- The pupils' ability to work independently (Mitter 1987).

Instead of having to take more than 10 subjects, students in the 11th through 13th grades can individualize their course of study and concentrate on a select number of subjects covering the three fields of study.

However, some specific curricular requirements were retained. During the four semesters of grades 12 and 13, pupils are required to take a total of 22 semester hours (hours per week per semester) in area 1 (languages, literature, fine arts), 22 semester hours in area 3 (mathematics-science), and 16 semester hours in area 2 (social sciences). In addition, they must enroll at either level in at least two semesters of German and a foreign language, two semesters in literature and the arts, four in the sciences, and two in mathematics. Pupils must also choose two advanced courses, one of which must be either mathematics or a science. The second can be selected from a group of courses ranging from philosophy to physics to computer science.

The Bonn Agreement represented a radical departure from the traditional definition of general education, along with a recognition of the need for greater educational freedom of choice. In the aftermath of the reforms, however, a number of prominent leaders and scholars in education began to voice serious doubts about the ability of upper secondary graduates to undertake university study. In 1984, the president of the West German Rectors' Conference called into question the level of preparedness (*Studierfähigkeit*) of the majority of entering university students.

In the late 1970s, the Land of Baden-Württemberg, for example, unilaterally responded to complaints from its higher education and private sectors over what was perceived to be a lack of basic knowledge in mathematics, German, and foreign languages by imposing its own standards. The Ministry of Education mandated that all pupils enroll in German, mathematics, one foreign language, one science, and history up to the *Abitur*. Furthermore, the number of advanced course options was reduced, and the weighting of basic and advanced courses as part of the final grade was changed from a ratio of 1:3 to 1:2. The value of the written *Abitur* was also upgraded. These measures anticipated the changes that were later made on a national level.

*New requirements for the Abitur.* In 1987, the KMK amended the Bonn Agreement with the introduction of new minimum requirements for the *Abitur*. This "Reform of the Reform" was intended to correct the aforementioned problem resulting from specialization and excessive freedom of choice by preventing pupils from dropping "difficult" subjects and obtaining their *Abitur* in "easy" subjects ("Higher Standards" 1987). The goal of strengthening pupils' basic knowledge was to be accomplished by revising the entire grading scale. For each course, the grade that pupils receive, ranging from 1 (very good) to 6 (failing), is converted to a 15-, 30-, or 45-point scale and added into the final grade for the *Abitur*. In 1972, basic courses, advanced courses, and the *Abitur* examination each had a total maximum weight of 300 points. In 1987, the weight for basic courses was increased to 330 points, while the advanced courses received only 210 points. As a result, pupils who received good grades only in advanced courses would earn approximately 30 percent fewer points in the post-1987 *Abitur*. In addition, the number of required basic courses was increased from 20 to 22, while the number of advanced courses was reduced from 8 to 6.

The “Reform of the Reform” also required all pupils to be continuously enrolled in at least two of the following subjects (three in the Rhineland-Palatinate and the Saarland): German, a foreign language, or mathematics. At least two semesters of history or another social science subject with a historical focus were also required. Finally, if German was taken as a first advanced course, one of the four *Abitur* examination subjects must be mathematics or a foreign language (Conference of Ministers of Education 1987).

Whereas the basic and advanced courses and the *Abitur* examinations were of equal value in determining the final grade under the original agreement, the most recent revision of the 1972 agreement (1988) shifts the performance weighting from the advanced to the basic courses. The difference between the 1972 and 1988 versions of the agreement is that the former weighted the basic and advanced courses at a ratio of 1:3, which made it more "profitable" for pupils to focus on specialization at the expense of general education (Führ 1989).

In one-semester basic and advanced courses, the maximum number of attainable points was 15 and 45, respectively. These courses are now allotted 15 and 30 points, respectively. When translated into percentages, this means that the results from the basic and advanced courses make up 65 percent of the total *Abitur* grade, as opposed to 30 percent each under the 1972 agreement.

### **The Gymnasium in Modern Germany**

In the past three decades, the *Gymnasium* has been transformed from a bastion of elitism into a mass institution that more closely reflects social and economic realities. It has assumed a key role in preparing future generations to confront the challenges of tomorrow. In contrast to the United States, which awards high school diplomas on the basis of successful completion of a prescribed number of courses whose content and standards differ from state to state, there is a

clearly articulated relationship in Germany between the curricula and the examinations required to gain the qualification necessary for university admission—the link between what is taught and what is tested.

Just as examinations reveal the knowledge and skills that are valued in the curriculum, they also indicate broader educational priorities. In spite of regional differences and ongoing debates about the value of the *Abitur* from one Land to the next, the *Abitur* examinations are based on a set of national guidelines that reflect a broad-based and rigorous curriculum and the highest standards of educational excellence (Ashwill 1991).

### ***Abitur*** Examination

The reforms described above form the basis of the *Abitur* examination, which is administered in four subjects consisting of two advanced courses, one basic course in the written examination, and an oral examination in a fourth subject. All three fields of study must be represented. Either German, a foreign language taken for at least 3 years, or mathematics must comprise one of the *Abitur* subjects. As indicated above, examinees must take mathematics or a foreign language if they elect to take German as their first advanced examination.

The standards for all examinations are set by the KMK in the form of "uniform examination requirements" issued for virtually every subject taught in German *Gymnasium*. This by-product of the Bonn Agreement ensures a high degree of comparability among the various *Länder* without encroaching on their cultural sovereignty. Each examination subject must be covered by these guidelines. The three requirement areas that cover the cognitive skills examinations are supposed to test the reproduction and application of knowledge or skills and

problem solving. Basic and advanced course examinations last 4 and 5 hours, respectively, depending upon the subject in question.

The *Abitur* examination is administered at the end of the final *Gymnasium* year (grade 13). Examinations may be taken only after continuous work in at least two of the following subjects: German, a foreign language (one chosen before entering the upper secondary level), and mathematics. The *Abitur* certificate is awarded on the basis of a combination of the student's grades over the final 2 years of coursework and scores on the examinations. (If there is a discrepancy between course grades and examination scores, candidates can be asked to take additional oral examinations.) Of 840 total possible points, 540 are derived from coursework (330 from the 22 basic courses, or *Grundkurse*, and 210 from the 6 advanced courses, or *Leistungskurse*), and 300 from the examinations. A total score of 280 is considered passing. In 1991, more than 95 percent of *Gymnasium* students passed their *Abitur* examinations.

The various education ministries are responsible for defining the course content for each subject in accordance with a set of guidelines developed at the national level by the Standing Conference of Ministers of Education (KMK). The KMK also determines issues such as eligibility to receive the *Abitur* and the number and distribution of subjects in which pupils must be examined. In spite of curricular differences across state boundaries, these guidelines result in a set of comparable examinations that enable Germany's education system to maintain a fairly high degree of uniformity.

In most *Länder*, teachers are responsible for developing the *Abitur* examinations and grading them. Topics and problems are selected on the basis of level of difficulty to ensure comparability between schools. In other states, *Abitur* examinations are created and graded at the state ministry level. Seven of Germany's 16 *Länder* (Baden-Württemberg, Bavaria,

Mecklenburg-Western Pomerania, Thuringia, Saarland, Saxony, and Saxony-Anhalt) have a state *Abitur* system based on a standardized national curriculum where the requirements in the various subjects are set by the central ministry. Students in these states take a standardized statewide examination in each subject.

In recent years, there have been calls, especially from the more conservative *Länder*, to centrally define the *Abitur* requirements in all *Länder*. An example of this is an attempt by the Bavarian minister of education to deny access to Bavarian universities for applicants from other German *Länder* whose *Abitur* certificate did not guarantee broad general education. In Bavaria, German, mathematics, and one modern language (although not compulsory examination subjects in the *Abitur*) cannot be dropped by pupils. Therefore, even if candidates have chosen other subjects for the examination, they must attend classes in these basic subjects through the end of upper secondary schooling, and take at least six written tests in each subject throughout the school year.

A vivid illustration of the educational market value of the *Abitur* and the controversy surrounding comparability of standards within the context of a unified Germany was the unwillingness of some West German states to accord unlimited recognition to the East German *Abitur* after unification. The Central Admissions Agency in Dortmund noted that the inflationary nature of the grades awarded at East German schools was a major problem in the admissions process. (The average *Abitur* grade of 50 percent of all applicants from the former East Germany was between a 1.0 and a 1.4, equivalent to an A or A- average; less than 1 percent received less than a “satisfactory” [3] on a grading scale of 1 to 5.)



## Mechanisms for Entering Postsecondary Institutions

The *Abitur* is the most popular and direct means of entering a university. With the transition of the *Gymnasium* from an elite to a mass institution, the number of students receiving the *Abitur* has transcended the capacity of the university system. (There are currently about 900,000 study places for 1.8 million students.) Consequently, admission restrictions (*numerus clausus*) have been applied to a number of high-demand university disciplines, including medicine, dental medicine, and veterinary medicine. In addition to the *Abitur* and course grades, pupils wishing to undertake study in these areas are subjected to additional testing and interviews. Other restricted areas of study include architecture, business management, pharmacy, law, computer science, and surveying. The awarding of a study place is determined by a complex point system, *Abitur* marks, special test results, and length of time on a waiting list. The overcrowding at universities has led to a debate over the merits of a university entrance examination, or test, to replace the *Abitur*.

The *Fachhochschulreife* (qualification for *Fachhochschule* admission) is gained through the final examination at a technical secondary school (*Fachoberschule*). This includes a written examination in four subjects (German, mathematics, and a foreign language, plus one other subject). Students must also take oral examinations in each of these subjects and in a vocationally oriented subject (Führ 1989). *Fachhochschulen* (colleges or polytechnics) train students in the practical applications of scientific knowledge (e.g., design, construction, and development in engineering or public administration in the fields of law, economics, and social sciences). Their purpose is to prepare students to assume high-level administrative positions in technical fields.

## The Future of National Educational Standards in Germany

Germany is a pluralistic society with a multitude of conflicting interests and goals, yet it has succeeded in establishing national standards with respect to the school curriculum and the *Abitur* examination. In November 1993, Chancellor Helmut Kohl convened an educational policy summit to discuss various education reforms needed to meet social demand and maintain Germany's international competitiveness. Among the most pressing educational challenges facing the united Germany are the comparability of the *Abitur* and the upper secondary curriculum among the *Länder*; the future of the *Hauptschule*; the continued viability of the dual training system in the former East Germany in view of the critical shortage of training positions; the reduction in the length of primary and secondary education from 13 to 12 years in the former East Germany (which has been provisionally recognized by the Conference of Ministers of Education); the existence of competing schools at the lower secondary level in an era of shrinking financial resources and demographic change (i.e., in the former East Germany); and the desirability of adding an upper secondary qualification (*Berufsausbildung mit Abitur*), which allows pupils to receive the dual qualification of an upper secondary completion certificate and vocational training.

## The Perception of Ability Differences in German Education

William C. Foraker

Differences in ability play a central role in the organization of the German education system, which is structured to differentiate students according to their ability and interests. As children move through the system, they are channeled into schools that are progressively more delimited both by range of ability and curricular focus. During the first 4 years of schooling (6 in Berlin and Brandenburg), all students attend a common elementary school, in which they work together in the same classroom regardless of ability level. Heterogeneity of ability shapes pedagogical practice. At the end of elementary school, children are tracked into one of four types of lower level secondary schools. Tracking by assessed ability dilutes the heterogeneity of the classroom, particularly for the three traditional lower level secondary schools: the *Hauptschule*, the *Realschule*, and the *Gymnasium*. These three types of school accomplish a hierarchical differentiation of ability, where ability is roughly understood as the capacity to deal with complex, abstract knowledge. High-ability students attend *Gymnasium*. High-ability students with practical interests or moderate-ability students attend the *Realschule*. Low-ability students attend the *Hauptschule*.

A fourth type of lower secondary school—the *Gesamtschule*—seeks to avoid segregation by ability level in either of two ways. The cooperative *Gesamtschule* segregates children by track but includes all tracks within one school organization. The integrated *Gesamtschule* avoids tracking for whole classes and keeps students of mixed ability levels together for as long as

possible. Differences in ability in the integrated *Gesamtschule* are dealt with through a differentiated system of advanced courses.

Institutional tracking of students by level of ability is carried even further in the upper level secondary school. At this level, a clear distinction is made between students wishing to seek a vocation and those who have the ability and aspiration to continue their studies at the university level. The institutional differentiation of the German education system enables students of widely different abilities and interests to find institutional settings suited to their particular profile of abilities. Consequently, the dropout rate among German schools is relatively low (Department of Education and Science [DES] 1986), with more than 90 percent of students receiving some form of graduation certification.

The German education system deals with ability differences at two levels: the tracking decisions made at the system level, and the curricular and pedagogical practices conducted at the school level. The hierarchical structure of the German school system necessitates the explicit and repeated assessment of student ability. The tracking decision, particularly from elementary to lower level secondary school, is a key aspect of the German system's approach to coping with ability differences.

Yet generalized claims about the ways in which the system as a whole copes with differences in ability reveal only part of the picture. A more detailed understanding of the ways differences in ability are dealt with in the German system requires consideration of ability-related practices according to the type of school in which the children are enrolled. Tracking segregates students into three ranges of ability: high, moderate, and low. It is up to the different types of schools to deal with differences in ability within these ranges. Because schools differ so

fundamentally in their students' range of ability, practices within schools for dealing with ability differences vary.

The following discussion provides an overview of the profiles of ability that exist in the different types of schools within the German system and the ways differences in ability are handled within these types of schools. Particular emphasis is placed on elementary and lower level secondary education.

### Ability in the German Context

German cultural conceptions of ability are mixed. They incorporate both the idea that ability is something inherent in the student's makeup and the idea that ability is malleable, a reflection of the student's social, familial, and educational environment. The notion that ability is to a degree innate is reflected in the differentiated structure of German education. Different schools cater to students of differing levels of ability, and the goal of the system is to match the student's level of ability to the type of school attended. Presumably, students of high ability attend more demanding schools and achieve a higher standard of education. Special schools cater to students who on the basis of physical, emotional, and intellectual handicaps are least able. At the lower secondary level, the *Hauptschule* is organized for students who are less able, the *Realschule* deals with students of middle ability, and the *Gymnasium* caters to the most able students. The early tracking of students (starting at the age of 10 in most *Länder*) reflects the idea that ability demonstrated early in life is highly indicative of ability levels later in life. Ability is thought to be something inherent or at least inflexible beyond a certain age.

However, policy and public discussion of schooling clearly acknowledge the idea that ability is malleable within a range. Ingenkamp (1963) summarizes this latter German perspective on talent. Talent requires a dynamic interplay between the subject and an object, and talent is always a talent for something. Ability is seen in the context of the whole person and his or her social environment. It is malleable and multiply determined, and it is possible, within limits, to influence the talent exhibited by an individual student. For this reason, the system must help each student to achieve his or her best. The school system has the responsibility to fund, foster, and channel talent in its students (Sekretariat der Ständigen Konferenz der Kultusminister der *Länder* in der Bundesrepublik Deutschland [KMK] 1993). Parents must retain the right to foster the greatest possible amount of talent in their children, and the state must help children whose parents cannot or will not make this investment (Ingenkamp 1963). The development in the last two decades of a more flexible system of alternative routes to higher education takes seriously the idea that abilities may change over time to reflect the student's changed environment. Further, the idea of the *Gesamtschule* as an alternative to the traditionally differentiated system of schools reflects the political conviction that ability is to a large measure a reflection of social class and not of inborn and immutable degrees of talent.

Interestingly, the cultural approaches to ability in the German context reflect more fundamental political orientations in the country. The conservative Christian Democrats emphasize the recognition of inherent ability differences and the maintenance of a system of education that suits the needs of people at all levels of ability. In contrast, the liberal Social Democrats emphasize the social origins of apparent ability differences, pointing to the overrepresentation of children of upper class origin in the *Gymnasium* and the overrepresentation of children of lower class origin in the *Hauptschule*. From the perspective of the Social

Democrats, a differentiated system of education functions to effectively reproduce social inequities. The *Gesamtschule* as an alternative to the traditionally tiered system and the proliferation of alternative paths to higher education reflect the social democratic idea that ability is largely dependent on the contexts in which the individual lives. German cultural conceptions of ability thus reflect broader tensions in the political realm between conservative and liberal thought. It is no coincidence that the conservative *Länder* of the south (Bavaria and Baden-Württemberg) have adhered more closely to a traditional, differentiated system than have the liberal *Länder* of the north (e.g., Nordrhein-Westfalen and Berlin) (Führ 1985).

## The System for Grading, Assessment, and Promotion

### Importance of Assessment

As has been shown, the German education system is organized around ability differences; different school types cater to students of different levels of ability. In this differentiated school system, the assessment of ability is crucial. It forms the basis for tracking decisions that have profound implications for the social and career opportunities open to students later in life (Ingenkamp 1963). For this reason, ability assessment in the German system is both explicit and standardized. An understanding of these assessment practices is thus central to a broader review of the ways in which the German system deals with differences in ability among students.

The central purpose of ability assessment in the German system is prognostic. Assessment in Germany is explicitly aimed at predicting whether students will be able to complete the following year of schoolwork. If, on the one hand, teachers determine that a student

is sufficiently capable, that student is promoted to the next level. If, on the other hand, teachers reach the conclusion that the student is not in a position to complete the following year's work, then that student is held back for a year. Official statistics suggest that 4 percent of students repeat a school year at least once in the course of elementary and secondary school. Unofficially, the percentage of students who are held back has been estimated to range as high as 10 percent and in some cases 20 percent (DES 1986).

In the German system, assessment confers qualifications and entitlements. Satisfactory completion of a year's work ensures automatic access to the next year's course. Satisfactory completion of a course of studies in one type of school gives automatic right of transfer to another. Thus, grades are the primary basis for tracking. Grades in elementary school determine the type of secondary school a student will attend and grades in lower secondary determine the types of upper secondary schools open to the student. Grades in upper secondary school contribute to the *Abitur* and the student's opportunities for pursuing postsecondary education.

## Grading System

Assessment in German education is carried out on a scale of 1–6, where 1 represents *very good*, 4 represents *adequate*, and 6 represents *very poor*. The KMK's official description of the six grades and the level of performance expected is as follows:

1 = very good (*sehr gut*): Is well above the required standard;

2 = good (*gut*): Fully meets the required standard;

3 = satisfactory (*befriedigend*): On the whole, meets the required standard;



4 = adequate (*ausreichend*): Deficiencies are evident, but on the whole still meets the required standard.

5 = poor (*mangelhaft*): Does not meet the required standard but indicates that the necessary basic knowledge exists and that the deficiencies could be removed in a foreseeable period; and

6 = very poor (*ungenügend*): Does not meet the required standard and indicates that even the basic knowledge is so fragmentary that the deficiencies could not be removed within a foreseeable period (DES 1986).

An average grade of 4 usually constitutes sufficient basis for promotion to the next year of schooling.

This scale of grades is standard for all types of schools, subjects, and age groups, with very few exceptions. The grading system is generally understood by teachers, pupils, parents, employers, and institutions of higher education within Germany. Users understand that the achievement represented by the grades varies by type of school. For instance, a grade of 1 from the *Gymnasium* reflects a higher level of achievement than a grade of 1 from the *Hauptschule*.

There are two prominent exceptions to this grading scale. Students in their first and second years of elementary school are not given grades. Instead, they are assessed through verbal reports. In order to avoid stress among beginning students, grades are not given until at least the end of the second year of schooling and sometimes even later. At that point, they are given only selectively and on an individualized basis to ensure that all students have some positive experience with grades. A current trend in grading elementary school performance postpones the introduction of grades to the third and even fourth year of schooling.

A second exception to the grading scale occurs at the end of secondary education, in the upper level of the *Gymnasium*. Grades given in the last 2 years of coursework at the *Gymnasium* include plus and minus designations. The use of these marks extends the grading system, making it possible to give a more differentiated accounting of performance in subjects that count toward the *Abitur* (DES 1986).

Umbrella agreements among the *Länder* seek to ensure that the grading scale is used consistently. Nevertheless, the local autonomy of *Länder* in educational matters requires that ambiguities in the use of the grading system be resolved on a local level. This is particularly true for the ambiguous grade of 5, which requires a subjective determination of whether the student will be able to overcome learning deficiencies "in a foreseeable period." In practice, it is commonly understood that systematic differences exist in actual grading practices between federal states. For example, a 1 from a school in Bavaria is often perceived as more impressive than a 1 from a school in Hessen. The comparability of grades across federal states has become a political issue because the *Abitur* grade has a direct influence on admission to restricted courses of study at the university.

## **Assessments**

Teachers' formal assessments of work in elementary, lower secondary, and vocational schools lead to two formal reports per year, one at the end of the first semester and one at the end of the academic year. These reports are given to parents or to students themselves if they are over 18 years old. The form of these reports is rigorously standardized within each state. Grades included on these reports are broadly consistent with grades earned for work in the period reported on, but grades for borderline cases may also take into account factors such as the

improvement or deterioration in the students' work throughout the course and the relative importance of the test. The relative weight given to verbal and written exercises, examinations, and other activities in the calculation of grades varies by subject (DES 1986).

A significant feature of testing in the secondary school is that the frequency of testing decreases as students progress in school. Less frequent testing requires students to demonstrate longer recall and a deeper knowledge of broader topics in their later years of schooling (DES 1986). Teachers are required to tell students 2 to 5 days in advance if a piece of written work is to be used for official assessment. Another feature of the German testing procedure is that parents are required to sign returned tests.

## **Promotions**

The decision to promote or hold back students is made at a formal meeting of all the teachers of a given class. This meeting is chaired by the headmaster of the school and is focused on a discussion of the ability of each individual student to perform work at the next year's level. A recommendation for promotion may be made even in cases in which prior performance has been less than satisfactory, especially where there has been a marked trend of improvement in the student's work. In practice, the bulk of discussion revolves around doubtful cases and centers on the question of the extent to which poor performance (grades of 5) can be offset by grades of 1–4 earned in other subjects to achieve an average of at least 4. Because of the importance of decisions made at this meeting, assessment follows clear and centrally defined rules. Teachers may be required to provide evidence from their grade books in support of their judgments (DES 1986).

Teachers may be required to send notice (a so-called *blauer Brief*, blue letter) to parents if the student's achievement in one or more courses is lower than a 4 (adequate). Students who receive a 5 in two subjects must repeat the school year. However, students have an opportunity to make up for poor performance by passing an examination in their problem subjects at the beginning of the following school year. This examination (*Nachprüfung*) allows students to catch up over the summer vacation. If they are successful, they are promoted.

### Issues of Ability

Although terminology and procedures for the assessment of student ability are uniform across the various types of school, both the actual issues around ability and the pedagogical practices for coping with these issues vary greatly by school type. There is a link between the range of ability characteristic for each school type and the pedagogical emphasis placed either on performance or on remedial education. All types of school seek both to impose a standard of learning and to foster students' growth, but the degree to which one or the other goal is emphasized varies. Some types place a heavy emphasis on performance and lack substantial remedial measures (*Gymnasium*, *Realschule*). Other types place a greater emphasis on remedial education (*Hauptschule*, *Sonderschule*). Still other types seek a balance between performance and remedial education (*Grundschule*, *Gesamtschule*). The following discussion provides a brief overview of each type of school at the elementary and lower secondary levels, and its approach to within-school differences in ability.

## Elementary School (*Grundschule*)

All children between the ages of 6 and 10 attend the four grades of the *Grundschule*. (In the states of Berlin and Brandenburg, *Grundschule* also includes fifth and sixth grades.) Before entering the *Grundschule*, children are examined by the school doctor. If a child appears not to be physically and mentally mature enough for school, entry into *Grundschule* can be delayed for a year. The child is then required to attend a *kindergärten* associated with the *Grundschule* (Führ 1989). A teacher may request that a student already in *Grundschule* be reexamined if the student appears immature in class. Early admission to *Grundschule* may also be allowed on the recommendation of school psychologists and the school doctor (KMK 1993).

The *Grundschule's* task is to provide all students with the foundation for further education at the secondary level. "The *Grundschule* aims to promote the multifaceted development of the child's personality, impart basic knowledge and skills for later learning, consider the individuality and situation of each child, awake interest in many different fields, and encourage the enjoyment of learning" (Bavarian State Ministry of Education [BSME] 1993).

Teachers are challenged by the task of providing all children with the foundation for secondary education. The years at *Grundschule* are very important; depending on the student's performance, he or she will be tracked to a *Hauptschule*, *Realschule*, or *Gymnasium*. Alternatively, the student may be assigned particular levels of courses within the *Gesamtschule*. Teachers, parents, and school officials meet together to decide the type of secondary school a student will attend. Success or failure during the 4 years at *Grundschule* may determine a student's academic career and thus future profession. Students usually stay on the track that was chosen for them after fourth grade, even though they always have the option of receiving further education.

The question arises: How do *Grundschulen* and teachers ensure that all students receive equal opportunities for further personal and intellectual development? Equality of educational opportunities was of great concern in the school reform debates of the 1970s. Subsequent reforms emphasized principles such as individuation and differentiation of instruction, scientific orientation, and compensatory education to enhance equality of educational opportunities (Hopf 1994). In 1985, new and more explicit guidelines were passed for *Grundschulen* to focus particularly on the promotion of individuation and inner differentiation in the classrooms. Every child should be optimally challenged. Whereas slower children should receive additional time and help for the completion of their tasks, quicker learners should obtain additional study material. Forms of open teaching (*offener Unterricht*), such as weekly plan work (*Wochenplanunterricht*) and discretionary work (*freie Arbeit*), are recommended in the classroom (Bosch 1992). Both types of work are intended to enhance students' ability to act and work independently and responsibly, and at the same time to promote individual development and the enhancement of interests through discovery and hands-on learning.

In the weekly plan work, each child receives a list of tasks tailored to his or her abilities. The tasks might be based on one or several subjects, and the student is required to complete the list of tasks within an allotted amount of time. Once a student has completed all the items on the list, any extra time is used for additional exercises and activities. Students are allowed to work at their own pace within the given time frame, to choose the order of exercises, and to decide whether to work alone or in a group.

In discretionary work, the teacher offers a set of exercises and activities from which students can choose. However, students are also allowed to plan their own projects. With the assistance of the teacher, they decide how to proceed with their chosen task. Students also

determine, in consultation with the classroom teacher, the materials they will need and whether they should work alone or with classmates (Schittko 1993).

Elementary schools also attempt to deal with within-class differences through remedial teaching (*Förderunterricht*). Two additional hours of instruction are available per week for every class and are used as teachers see fit in order to meet the needs of the students. (Senatsverwaltung für Schule, Berufsbildung, und Sport [SSBS] 1993).

In the first years of elementary school, teachers prepare assessment reports, in which the strengths and weaknesses of each student are described in detail, rather than write grade reports. Progression from first to second grade is automatic for all students. It is only possible to hold back students at the end of the second year. Generally, students receive grades at the end of their second year of schooling, although there is a current trend toward the elimination of grades in the third and fourth years as well (KMK 1993).

At the end of fourth grade, teachers, school administrators, and parents have to make a decision about which track each student will follow. In many states, however, the parents make the final decision. In Hessen, parents are given the responsibility for deciding which school their child will attend. In Berlin, elementary schools recommend a student for a particular secondary school track, but parents may contest the school's recommendation and insist on a different type of school. Parents of a student with a *Hauptschule* or *Realschule* recommendation may demand that their child go to *Gymnasium*. In this case, the student will attend the *Gymnasium* for a probationary period of 6 months. If the teachers at *Gymnasium* decide that this students' performance is satisfactory, the parents' decision is accepted. If not, the student is placed in the next lower level, the *Realschule* (SSBS 1993). In Bavaria, the grades in German, mathematics,

and local studies must be 2.5 or better for admission into *Gymnasium* or *Realschule*, but the parents decide which school form their child will attend (KMK 1993).

### Lower Level Secondary Education

Lower level secondary education generally encompasses grades 5 through 9 or 10. At this level, students are segregated by ability into different school organizations. It is important to note, however, that graduation qualifications are not strictly linked to the type of school attended. The *Hauptschule* qualification is conferred to all students at the successful completion of their ninth year of schooling irrespective of school type they attend. The *Realschule* qualification is granted to students who conclude their schooling after the 10th year. *Hauptschule* students who excel may opt to take a 10th year. *Gymnasium* students who wish to end their studies after 10 years receive the *Realschule* qualification. There is no school-leaving qualification for the *Gymnasium* at the end of lower level secondary school in 10th grade. A *Gymnasium* qualification may only be obtained after 13 years of schooling at the end of upper level secondary. The decoupling of type of school and school-leaving qualification builds flexibility into the otherwise hierarchically structured school system, thereby allowing students to obtain a school-leaving qualification that more accurately reflects their ability.

Over the past several decades, efforts to make the tiered school system more permeable have created complex alternative paths for achieving a school-leaving qualification appropriate to student ability. Most students, however, continue to receive the qualification characteristic for the school type attended. *Hauptschule* students generally receive a *Hauptschule* leaving qualification at the end of their ninth year. *Realschule* students generally receive a *Realschule* leaving



qualification at the end of their 10th year. *Gymnasium* students generally continue on to the upper secondary level and take the *Abitur*.

### *Gymnasium*

Catering to students in the top third in terms of academic ability, the *Gymnasium* is geared primarily toward preparing these students for university entrance. Unlike both the *Realschule* and the *Hauptschule*, the *Gymnasium* includes an upper level (*Oberstufe*) consisting of school years 11–13. Emphasis is placed on achievement and performance, and assessment is rigorous. Poorly performing students face the possibility of transfer to a lower school type.

The number of students who leave the *Gymnasium* at the end of the lower level (10th grade) varies significantly among the *Länder*, and the variability is associated with the availability of *Realschule* as an alternative path. In *Länder* where the *Realschule* option is less available—as in the southern *Länder*—the *Gymnasium* functions as the *Realschule*, and many students leave without the *Abitur*.

*Gymnasium* students who continue into the upper level take the *Abitur* examination at the end of their 13th (in some places, 12th) year of schooling. Upon successfully completing the *Abitur* examination, students receive a qualification entitling them to admission to any institution of higher education, including the university. Higher education in Germany, particularly at the university, awaits students attracted to career opportunities in business, government, and academics.

## The Curriculum

Traditionally, the *Gymnasium* has specialized by area of emphasis: classical studies, modern languages, and natural science. In addition, some *Länder* developed *Gymnasium* with special emphases on economics, social science, and music. Such specialization of *Gymnasien* has been maintained primarily by the southern *Länder*; other *Länder* abandoned such specialization in the course of reforms in the mid-1970s (Baumert and Roeder 1994a). These reforms introduced an individuated curriculum in which students can tailor their coursework to their personal interests. The goal of this reform has been to maintain a common basic education while allowing curricular individuation and specialization (Baumert and Roeder 1994a).

Individuation of curriculum is most pronounced in the upper level of *Gymnasium*, where required and elective courses are taught at two levels: basic and advanced. Basic courses (*Grundkurse*) take up 2 to 3 hours per week and are intended to provide a foundation in a chosen subject. Because these courses bring together students whose interests and knowledge are in other areas, the students sometimes experience motivational problems (Baumert and Roeder 1994a). Critics have argued that the level of achievement in the basic courses may not be as high as that found in the traditional *Gymnasium* class prior to the introduction of the distinction between basic and advanced courses (Baumert and Roeder 1994a). Advanced courses (*Leistungskurse*) take up 5 to 6 hours per week and are intended to provide students with in-depth knowledge of a disciplinary subject area. These courses generally function well, as students in them are both interested and motivated. Students are required to choose two, and in some *Länder* three, advanced courses at the end of their 11th year.

The *Abitur*, which is given once a year, includes two advanced courses and two basic courses. Performance on the *Abitur* is measured through a complicated system of grading using

grades earned in both basic and advanced coursework for subjects tested. Because grades contribute to *Abitur* results, students are under continuing pressure for high levels of performance, particularly in advanced courses.

### **Importance of Choice of Courses**

Through their choice of advanced courses in their 11th year at the *Gymnasium*, students effectively commit to an area of specialization. Paradoxically, the reformed *Gymnasium*, which aims to avoid the disciplinary specialization in various types of *Gymnasien*, appears to foster an even greater degree of disciplinary specialization for individual students. Critics have noted that a student's choice of advanced courses is more important for his or her success at school than was the earlier choice of type of *Gymnasium* to attend (Baumert and Roeder 1994a). The reformed upper level of *Gymnasium* works to the advantage of high-performing students with strong interests and works to the disadvantage of poorly performing students with weak interests. Although the greatest motivation for the choice of courses appears to be students' interests and self-assessment of ability, weaker students are often forced to be strategic in their choices (Baumert and Roeder 1994a) because the choice of courses in the upper level of *Gymnasium* has significant implications for future study and career opportunities. In order to ease the burden of choice, schools provide extensive counseling and advice in these matters. As a result of this process, students develop a strong sense of their strengths and weaknesses.

The reform of the upper level *Gymnasium* has been the subject of much discussion and criticism. Some have argued that the emphasis on individuation of curriculum has gone too far and that students lack a shared foundation in basic knowledge and skills. The result has been a recent curtailment of the latitude of choice introduced by previous reforms and a new emphasis

on core subjects. A 1988 revision of KMK guidelines increased the importance of basic required courses and emphasized continuity in instruction. A recent demographic decline in the number of students and the resulting smaller class sizes have fostered this development by placing limits on the degree of feasible curricular differentiation.

### **Changes in Instruction Methods**

Emphasis on performance in the *Gymnasium* has also been influenced by demographic trends. A rapid expansion of the student population in the 1970s, coupled with the increased popularity of the *Gymnasium* as a school type, led to an abrupt change in the makeup of the corps of teachers. As the number of *Gymnasien* expanded, the average age of the teaching staff fell to the mid-thirties (Baumert and Roeder 1994a). The result has been an increased emphasis on supportive, if not explicitly remedial, education. The younger teachers have struck more of a balance between performance-oriented competition and an individualized fostering of ability.

The dominant emphasis on performance in the *Gymnasium* is evident in teaching practices. The *Gymnasium* exhibits less frequent use of alternative forms of learning—group lessons, partner work, and individual activities—than do other types of school. The primary mode of instruction is a lecture guiding students through the lessons. Quiet work and unsupervised student activities are of little importance in the *Gymnasium* (Baumert and Roeder 1994a). *Gymnasium* lessons are also characterized by frequent discussion and a problem orientation. Both teachers and students have much greater opportunities to express themselves about subjects than is possible in either the *Realschule* or the *Hauptschule*. Some commentators have noted that the *Gymnasium* has developed a specific culture based on talk and reflection.

## *Hauptschule*

The *Hauptschule*, attended by students in the lower third of ability, generally includes grades 5 through 9. It was established by the KMK as a school type in the 1964 Hamburg Agreement for the standardization of German schooling (*Hamburger Abkommen*). The *Hauptschule* was designed to replace the *Volksschule*, a school form which included years 1 through 9 or 10, and catered to the working-class population. With the introduction of the *Hauptschule*, the KMK hoped to lift the standards of the lower tier school and stem the then-incipient rush of students to the *Realschule* and the *Gymnasium*. The *Hauptschule*, conceived to be on an equal footing with the *Realschule* and the *Gymnasium*, was explicitly designed to avoid the traditional disadvantages associated with the *Volksschule*, which included grades 1 through 8 or 9 (Leschinsky 1994a). It introduced both the division of students into classes and a differentiated curriculum based to an extent on disciplinary teaching.

Despite efforts to the contrary, the *Hauptschule* has never established itself as a stable type of school. It failed in most cases to stem the rush to the *Realschule* and *Gymnasium*. Instead of being seen as an equal among types of school, the *Hauptschule* has been stigmatized as the school of the working-class and lower class populations and, consequently, has followed the fate of its predecessor, the *Volksschule*. In the general trend toward higher educational standards in Germany, the *Hauptschule* has been the loser (Leschinsky 1994a). Although previously considered the norm of basic German schooling, the *Hauptschule* has been, in some cases, reduced to a *Restschule* [school of leftovers], a dumping ground for those students who do not succeed in the *Realschule* or *Gymnasium*.

## Students

The work profile of the *Hauptschule* students demonstrates the limited social and career possibilities of this group. Students work primarily in traditional craft professions and in hard labor or unqualified service—work that is both poorly paid and sensitive to economic swings. Most *Hauptschule* graduates can hope for little more in career opportunities than to go directly into a low-status job or practical training. Dropouts from the *Hauptschule* often become chronically unemployed (Leschinsky 1994a).

Because the *Hauptschule* is not respected and is in a downward spiral, students there often represent a mix of groups who have been left behind in the general elevation of the standards of education in Germany. The *Hauptschule* has become a repository for children who need particular fostering. Due to their marginal status, children at the *Hauptschule* often lack the cultural preconditions and the individual support for success at school. Because these groups are often marginal in one way or another, students in the *Hauptschule* are fairly heterogeneous. They include relatively high proportions of students from rural backgrounds, students with handicaps or special needs, foreign students, and students from socially and economically disadvantaged groups (Leschinsky 1994a).

The diversity and low social standing of students in the *Hauptschule* have often created what may appropriately be called a negative learning atmosphere. There are high dropout rates, frequent discipline problems, and occasional cases of vandalism. Students in the *Hauptschule* are more likely to have problems and to be less motivated than students in the *Realschule* or *Gymnasium*. Lack of motivation is particularly a problem with children who have been transferred to the *Hauptschule* during the seventh or eighth year of schooling because of poor performance. The propensity in the *Hauptschule* to aggression and rule breaking is higher than

elsewhere in the school system, and problems of school violence are concentrated in these schools (Leschinsky 1994a).

## Teaching Methods

The *Hauptschule* has a favorable teacher-student ratio relative to both the *Realschule* and the *Gymnasium*, but the concentration of students requiring special attention often leaves the teaching staff stretched thin. Quiet work and individual work are more common in the *Hauptschule* than in other types of school, and reflect a higher degree of heterogeneity in teaching strategies. Teachers adopt more flexible and individualized teaching methods in order to cope with the broad range of difficulties facing students. There is a strong emphasis on remedial education in the *Hauptschule*.

Typically, students are taught in mixed-ability classes in the fifth and sixth grades. In grades 7 through 10, students are still taught in mixed-ability classes but are also offered a number of subjects in ability-specific classes. In Nordrhein-Westfalen, for example, from the seventh grade onward, English and mathematics are offered in advanced courses (*Fachleistungskurse*) for students of differing ability levels. Students are placed in either basic courses (*Grundkurse*) or advanced courses (*Erweiterungskurse*). If a student's level of achievement improves, he or she may transfer from a basic to an advanced course (Kultusministerium Nordrhein-Westfalen [KNW] 1990). The *Hauptschule* seeks to deal with ability differences among students through a differentiated system of achievement courses. As with both the *Realschule* and the *Gymnasium*, the intention of policymakers has been to provide instruction by teachers who are grounded in the disciplines they teach. In practice, however, such disciplinary specialization has generally proven neither feasible nor helpful. The emphasis on

disciplinary competence among teachers in the *Hauptschule* has been somewhat modified by the recognition that problem students may need a more consistent figure to relate to, thus necessitating instruction in several subjects by a single teacher (Leschinsky 1994a).

### **Future of the *Hauptschule***

There is a debate about whether the *Hauptschule* is meeting the needs of its constituents and what can be done to help those doing poorly in the school system to lead independent and fulfilling lives. One indicator of success is that the number of students who drop out of the *Hauptschule* has fallen over the past 2 decades, from about 16 percent in the 1970s to roughly 12 percent in 1990. In 1990, a full 14 percent of *Hauptschule* students obtained a *Realschule* qualification by completing an extra (10th) year of schooling and by reaching a level of achievement deemed equivalent to the qualification for *Realschule* (Leschinsky 1994a).

Although the dropout rate has fallen, so too has enrollment, primarily because of the low social prestige of the *Hauptschule*. This is particularly true of its relation to the *Realschule*. Although the *Realschule* and the *Hauptschule* are near relatives in terms of tradition, conception, and clientele, they have followed different paths. Where the *Realschule* has flourished, the *Hauptschule* has stagnated. As a result, the *Hauptschule*—once by far the dominant form of schooling—has been reduced in some *Länder* to the smallest of lower secondary school forms. For the western German *Länder* taken together, the percentage of seventh- graders attending the *Hauptschule* fell from 79.3 percent in 1952–53 to 31.7 percent in 1989–90 (Engel 1994).

The decline of the *Hauptschule* does, however, exhibit substantial variation across the *Länder*. It has truly been reduced to a *Restschule* in Berlin, where it is attended by only 9 percent of nonforeign lower secondary students (Leschinsky 1994a). In Bavaria, by contrast, it is still the



dominant school form, with 38 percent of lower secondary students (BSME 1993). The decline of the *Hauptschule* is perhaps most demonstrably visible in the former East German *Länder*. Several eastern *Länder* have anticipated the general evolution of the tripartite system by doing away altogether with the *Hauptschule* as an independent type of schooling; *Mittelschule* in Saxony, *Sekundarschule* in Saxony-Anhalt, and the *Regelschule* in Thüringen combine the *Hauptschule* in various ways with the *Realschule* (KMK 1993).

### *Realschule*

The *Realschule*, attended by students in the middle third of ability, spans the 5th through 10th grades in most *Länder*. In the tripartite German school system, it is situated above the *Hauptschule* and below the *Gymnasium*. This position manifests itself in a curriculum which simultaneously deals with the practical and the theoretical. Like the *Hauptschule*, the *Realschule* emphasizes the acquisition of concrete vocational skills, and like the *Gymnasium*, it emphasizes the acquisition of complex, abstract knowledge. Yet unlike the traditional *Gymnasium*, the *Realschule* emphasizes theoretical knowledge about the natural and social world (mathematics, science, history, and geography) and not—as was typically the case with the *Gymnasium*—about cultural traditions (Latin, religion, and German literature). Increasingly, the *Realschule* and the *Gymnasium* have come closer together, while the gap between the *Hauptschule* and these two types of schools has widened.

## Curriculum

The *Realschule* has developed a distinctive curricular profile that, mainly in grades 9 and 10, emphasizes the link between general and vocational education. In the first several years of *Realschule*, students take a core of required courses together as a class. There is no ability grouping or streaming (SSBS 1993). In recent years, a differentiated system of elective courses comprising 12 to 20 percent of class hours has allowed students to develop in different areas of interest and vocational specialization (Leschinsky 1994b). Most *Realschulen* offer courses in at least three of five areas of concentration: languages, mathematics and science, social studies and business, social science, and music. Through this system of elective courses, *Realschule* organizationally combines vocationally and academically oriented courses of study.

The choice of electives effectively opens up later career and study options. A concentration in a second foreign language or in some *Länder* in mathematics and science makes it possible to transfer to the upper level of *Gymnasium*. Roughly one-quarter of students choose to keep this option open. A concentration in either social studies or business creates fewer options for further study, and most students elect to take courses in these areas. It is commonly understood that the choice of elective acts as a mechanism for differentiating students by ability (Leschinsky 1994b).

The *Realschule*, like the *Gymnasium*, is oriented toward performance. There is no explicit emphasis on remedial education, except in the first year. In Berlin, for example, split classes enable *Realschulen* to offer additional teaching or to form smaller groups in subjects where necessary. The aim of such remedial classes is primarily to help first-year (seventh-grade) students become accustomed to the new school organization, new classmates, new teachers, and an increased number of subjects (Leschinsky 1994b).

## Students

The *Realschule*'s dual emphasis on both practical and theoretical knowledge gives it a unique position vis-à-vis career and educational opportunities. As a central feeder school both to middle- and high-level white-collar careers and to various forms of advanced vocational and academic education, the *Realschule* is biased neither toward employment nor toward studies (Führ 1989). Students with a *Realschule* qualification and who do not wish to attend a university may opt to enter either a company-based course of vocational training or a multiyear course of full-time vocational schooling. In the past several years, between two-thirds and three-quarters of *Realschule* graduates have entered company-based vocational training. Many students with the *Realschule* qualification eventually continue their studies in a full-time course of vocational education. In 1990, roughly 30 percent of students in full-time vocational schools had received this qualification. More academically oriented students may opt to enter the upper level of *Gymnasium*. In 1991, between 6 and 10 percent of *Realschule* students made this decision (Leschinsky 1994b).

## Future of the *Realschule*

The wide range of opportunities available to holders of the *Realschule* qualification have made it popular among parents and have contributed to its rapid growth over the past several decades. The *Realschule* has expanded more than any other kind of school in the lower level secondary domain (Führ 1989). Roughly a quarter of students in the former West Germany and between one-eighth and one-quarter of the students in the former East Germany attend the

*Realschule* (Leschinsky 1994b). In addition, there are multiple other institutional options for achieving the *Realschule* qualification, including a 10th year at the *Hauptschule*, completion of schooling at the end of the lower level *Gymnasium*, completion of the dual system of vocational education, and evening education for employed people. The *Realschule* qualification has replaced the *Hauptschule* qualification as the minimum standard of education in Germany (Leschinsky 1994b).

### *Gesamtschule*

Debates in the 1960s and 1970s over the reform of schools helped to introduce a fourth type of secondary school: the *Gesamtschule* (comprehensive school). Integrated *Gesamtschulen* combine grades 5 to 10 of the traditionally separate *Hauptschulen*, *Realschulen*, and *Gymnasien*. Accordingly, school-leaving certificates from the *Hauptschule*, *Realschule*, and *Gymnasium* can be earned by students attending the *Gesamtschule*. Some students qualify after 10<sup>th</sup> grade for the upper level of *Gymnasium*, the *gymnasiale Oberstufe* (grades 11–13), and will take basic and advanced courses (*Grundkurse* and *Leistungskurse*). Students completing the *Oberstufe* graduate from the comprehensive school with the *Abitur*, the traditional *Gymnasium*-leaving certificate (KNW 1990).

*Gesamtschulen* were implemented as an alternative to the traditional tripartite system, and attempt to overcome the disadvantages of this system. Consequently, students with large differences in individual ability may enter the *Gesamtschule* without any special transitional procedures, thereby avoiding early decisions regarding their school career. Students are not

segregated into separate schools but are streamed within the *Gesamtschule* according to ability.

*Gesamtschulen* aim to

- Guarantee fair opportunities for all students;
- Allow each individual to develop according to his or her abilities;
- Substantially reduce the number of students who have to repeat a school year;
- Abolish the trial grades (usually fifth and sixth grade at a secondary school); and
- Foster social integration and break down social barriers (SSBS 1993).

When students enter the integrated *Gesamtschule* in fifth grade (in Berlin and Brandenburg, students enter in seventh grade), they are not tracked according to ability but rather are placed in mixed-ability classes. In 7<sup>th</sup> to 10<sup>th</sup> grades, students still remain in mixed-ability classes in some subjects, such as history, geography, music, and art. In other subjects, such as mathematics, German, and science, students are tracked into separate classes according to ability, since it is assumed that the aptitude and interests of individual students differ (Baumert and Roeder 1994b). In Berlin, for example, students are placed in different ability-level courses in English and mathematics from grade 7 onward, and in German and sciences from grade 9 onward. Although most states have either two- or three-level tracking schemes, four ability levels are sometimes included in the *Fachleistungsunterricht* (courses for which students are assigned based on their achievements): *F* = *Fortgeschrittenenkurs* (advanced level), *E* = *Erweiterungskurs* (intermediate level), *G* = *Grundkurse* (basic level), and *A* = *Anschlu kurs* (remedial level for slow learners). In some subjects, such as science, mixed ability-level courses are sometimes offered, including, for example, an advanced/intermediate-level course or a basic/remedial-level course

(SSBS 1993). Students who advance in one course and show a higher level of achievement will be placed accordingly. In order to promote advancement and make the transition easier from one level of ability to another, *Förderunterricht* (remedial teaching) is provided (KNW 1990).

Efforts have been made to replace this four-class-level grouping by forming different groups within one mixed-ability class (Baumert and Roeder 1994b). The teacher of a mixed-ability class prepares varied tasks for different ability groups within the class and assists each group accordingly. In addition, a student who needs supplemental help also will receive special instruction outside the classroom (*Förderunterricht*). Only in exceptional cases does a *Gesamtschule* recommend that a student repeat a school year. However, a student may repeat a year only with the consent of the parents (KNW 1990). Whereas 4 percent of students in the traditional secondary school system (5<sup>th</sup> to 10<sup>th</sup> grades) repeat a year in school, only 2 percent of students at the *Gesamtschule* do so (Baumert and Roeder 1994b).

### Special Schooling and Integration for Students with Disabilities

The tripartite system of schools and the *Gesamtschule* together cater to most students over a wide range of ability. However, students with disabilities or special needs cannot be adequately provided for within the regular school system. For these children, Germany maintains a highly differentiated system of special schools which serve 3 to 4 percent of the school population, although some estimate that as many as 7 percent of students require their services (Krappmann and Benkmann 1994).

## The System of Special Schools

Germany's system of special schools for children with physical, behavioral, intellectual, and psychological problems is organized around the idea that the optimal form of special education varies by type of problem. Special schools are differentiated according to a highly articulated set of categories for handicaps drawn from special education pedagogy. Although these special schools fall into one of three broad types—schools for students with learning difficulties and those with behavioral challenges, students with mental retardation, and students with physical handicaps—officially, the system encompasses seven different divisions, which are combined in different ways in the various *Länder*. These divisions include schools for students who are learning handicapped, behaviorally disturbed, mentally handicapped, physically handicapped, verbally handicapped, or deaf, blind, or nearly blind.

Where special schooling is deemed necessary, students must be categorized by handicap so that they can be properly channeled to the most appropriate schools. Increasingly, there is an effort among persons responsible for making decisions about students' schooling to include in their considerations nonphysical aspects such as the intellectual, emotional, and social development of the student (Krappmann and Benkmann 1994). Yet, the fact that categorization of students into special schooling remains deficient is reflected in the overrepresentation of foreign students among those considered learning disabled. The most frequently attended type of special school is the school that caters to students with learning difficulties, or to those who have suffered from a lack of stimulation in their environment, emotional neglect, and the social impoverishment of their broader environment.

Students with disabilities are generally tracked into the special schools early in their school career. Those with obvious handicaps are given special care even before they begin

*kindergärten*. In the former West Germany, special *kindergärtens* exist for children with severe handicaps. Some regular *kindergärtens* specialize in mixed classes where children with and without disabilities learn together (Krappmann and Benkmann 1994). These mixed classes are carried forward in the *Grundschule*, although such integration is limited in the cases of severe handicap. A model has been developed in which the children with more severe handicaps are at times mixed with their regular counterparts and at other times separated (Krappmann and Benkmann 1994).

### **The Integration Movement**

Children with less serious problems also may be considered for tracking into special schooling upon their entry into elementary school. However, the goal of special education for children with disabilities is eventual integration into society. This goal has been pursued in different ways, one of which was the development of a differentiated system of special schools in the 1960s and 1970s. The development of this school system has been fairly uniform across the *Länder* and was agreed to through the KMK, but not with the intention of limiting the consideration of such students only to special schools. More recently there has been a proliferation of efforts that seek integration not only as the goal but as the means as well. Children with disabilities are increasingly dealt with in the context of the regular school system, thereby exposing children with and without disabilities to one another in many ways (Krappmann and Benkmann 1994).

There are different models for integrating children with different types of handicaps into the regular schools, including preparation, different teaching styles, and split classes (Krappmann and Benkmann 1994). Since the end of the 1970s, more and more *Länder* have introduced



so-called integration classes in which existing groups of children with and without disabilities are continued after the preschool level. Still, only certain elementary schools have converted entirely to integrated classes. The common instruction of mixed groups of students requires considerable differentiation within classroom activities. Such differentiation has been more practicable in the former West Germany than in the former East Germany, where lessons have traditionally been taught according to strict curricula guidelines. Although the eastern school system formally imitates that of western Germany, in practice it often still operates as before reunification.

The move toward integration varies according to the *Länder* and is most pronounced in former East Berlin and Brandenburg. Integrative treatment of children with disabilities is emphasized in new school laws, but it is not clear whether these new laws will lead to the parallel existence of special and regular schools, with ambulatory assistance of special education teachers in regular schools, or whether there will actually be shared classes between children with and without disabilities.

### **The Integration System**

The *kindergarten* teachers' report carries a lot of weight in the decision to allow a child to begin elementary school. In West Germany, the parents had a large say in the process of placing the child in a special school. In East Germany, the parents had little say (Krappmann and Benkmann 1994). Since unification in 1990 and the consequent modification of special education in the former East Germany to emulate the special school system of the West, parents in the former East Germany now have a greater say in their children's tracking into special education.

If there is any doubt, the child can be admitted to elementary school on a trial basis, or the child's entry can be delayed a year. Children may be held back if they exhibit deficits in physical,

intellectual, and behavioral development. Children who are not accepted into the first grade will usually spend the year either at a preclass group in the elementary school or at the school kindergarten. In most cases, such children enter elementary school the following year without difficulty (Krappmann and Benkmann 1994). If a child is still not deemed mature enough to enter elementary school after being held back a year, that child can be held back again or admitted to a special school.

Elementary schools attempt to remedy problems before considering special schooling, especially for children with behavioral and learning problems. Extra hours of instruction are offered for such children. These extra hours involve small group work in which the content is explained again. In many *Länder*, elementary schools offer 2 to 3 facilitation hours a week in which the teachers pay special attention to children with difficulties. Some schools organize special play groups for children with behavioral problems in order to foster their social development. Only in special cases will a student be held back a year due to lack of accomplishment. It is generally believed that holding back a student in elementary school tends to further hinder the child's development (Krappmann and Benkmann 1994).

If the student still has problems, some schools offer so-called small classes with about 10 students per teacher to ensure that more intensive attention is paid to each child. Sometimes these classes are restricted to children with the same type of difficulty. Since many of the children with problems come from socially disadvantaged groups, some communities offer child care outside the school that is geared to the special needs of these children.

It is very difficult for students with disabilities to make the transition from elementary into secondary schooling because schooling at the secondary level emphasizes performance in academic subjects. As a result, the integration of children with disabilities into elementary school

is especially difficult because parents are hesitant to embark their children on an educational path that terminates at the end of elementary school. Although attempts to integrate children with disabilities into secondary education have met with some success, on the whole, such experiments have been undertaken only slowly and with hesitation. It is only since the mid-1980s that the push toward integration has taken on notable momentum (Krappmann and Benkmann 1994).

### **Debate Concerning Integration**

The integration of children with disabilities into normal schools has been the subject of ongoing debate in Germany. Parents, the science council, and the Bund-*Länder* Kommission (BLK) have advocated integration. The KMK has emphasized the advantages of special schools and has warned against integration when it fails to provide the specialized care typical of the special schools. This debate on special schooling also reflects the broader political debate between conservatives and liberals. Conservatives point to the usefulness of special schools in providing for the special needs of students with disabilities. Segregated institutions help teachers to focus more closely on the specific weaknesses associated with particular handicaps. The emphasis of conservatives on the necessity of special schooling builds on their assumptions concerning the relative immutability of ability. Liberals, by contrast, point to the potential of segregated institutions to limit the opportunities for special students. From the liberal perspective, students with disabilities suffer when they are deprived of opportunities for interaction with other students. Because ability is understood as largely a reflection of context, the segregation of students with disabilities in special schools is assumed to perpetuate their difficulties and rob them of the potential benefit of interacting with other students.

The success of special schooling in integrating students into broader society is mixed. On average (though with great variation among the *Länder*), every eighth student in special schools is able to return to the regular school. The most successful are students with physical handicaps, one-third of whom complete their secondary education. Among these are students who complete *Realschule* or *Gymnasium*. Students who are hard of hearing or nearly blind have been especially successful among students with disabilities in completing higher tracks of schooling.

### Integration of Immigrant and Foreign Students in the Classroom

Since the late 1950s, Germany has seen a great influx of workers from other countries, primarily Turkey, the former Yugoslavia, Greece, Spain, and Italy. The children of these workers are required to attend German schools from the age of 6 to the age of 16. In 1991, there were 798,800 foreign students in Germany; however, this number excludes refugee children and immigrants who are considered of German origin (*Aussiedler*) but lack knowledge of the German language and culture. In 1990, the number of new immigrants from Poland, Romania, and the former Soviet Union rose to 400,000 (Bosch 1992).

Consequently, immigrant and foreign students represent a notable percentage of the total number of students in Germany. In 1991–92, foreign students accounted (in the western states) for 11.4 percent of elementary school students, 20 percent of *Hauptschule* students, 8.1 percent of *Realschule* students, 5.1 percent of *Gymnasium* students, and 17.5 percent of special education students (Arbeitsgruppe Bildungsbericht [MPI] 1994). Generally, the number of foreign students should not exceed 30 percent of the total class; however, if more than half of the foreign students in a class are able to follow instruction in German, that rule may be overlooked (SSBS 1993). In

some regions, the concentration of foreign students exceeds one-third, creating an imbalance in which teachers feel they cannot provide adequate instruction (MPI 1994).

In an effort to integrate children from different linguistic and cultural backgrounds into the classroom, foreign students attend regular schools with German students. In elementary school, language problems are tackled through lesson differentiation and remedial teaching (*Förderunterricht*). The teacher prepares individual tasks tailored to each student's strengths and weaknesses. While students work alone or with partners, the teacher has an opportunity to assist students individually (Bosch 1992). If students are unable to participate fully in a class because of language barriers, special preparatory classes are offered at both the elementary and secondary level. In Berlin, for example, foreign students are taught for up to 2 years in groups of no more than 15 before entry into regular classes (SSBS 1993).

Schools sometimes employ foreign teachers who teach their native language, national history, and religion. In the *Hauptschule*, foreign students may be exempt from lessons in the first foreign language, and receive instead additional German lessons. However, this means that a transition to a *Realschule* or *Gymnasium* is not feasible since students do not have the necessary first-language requirement. Since 1981–82, Turkish students in Berlin have had the option of choosing Turkish as a first foreign language at some schools. If these students choose to transfer to a *Realschule* or *Gymnasium*, they are required to study English as their second language (SSBS 1993).

Teachers of foreign students have several support mechanisms available. For example, foreign and native teachers work closely together and help each other cope with the problems arising from cultural differences. Teachers also have opportunities to attend classes that prepare them for dealing with foreign students in the classroom, and universities offer many courses for

dealing with the multicultural classroom. By taking several classes and learning one of the most common foreign languages in the classroom, such as Turkish, prospective teachers can obtain certification in teaching foreign students (*Ausländerpädagogik*). This qualification enhances job prospects, especially for elementary school and *Hauptschule* teachers.

## Conclusion

Due to the structure of German education, ability is distributed differently across educational institutions. Schools with different ability profiles face different problems relating to ability, and engage in practices designed specifically to meet these problems.

The *Grundschule* must deal with great heterogeneity in ability. Practices in the *Grundschule* aim both to enable the individual student to achieve his or her best and to assess each student's level of ability. Once an initial sorting has taken place among students in the lower secondary level, the issues of ability facing each of the types of school differ. The *Gymnasium* seeks to maintain a high standard of education, and deals with ability differences through a differentiated curriculum and performance-oriented assessment. Similarly, the *Realschule* seeks to challenge its students through the maintenance of rigorous criteria for success. Because it deals with a broader range of interests and ability than the *Gymnasium*, the *Realschule* offers a broader array of courses to meet the needs of individual students. Neither the *Gymnasium* nor the *Realschule* is geared specifically to the less able students, and neither offers any substantial remedial education. Both these schools seek to tap the abilities of their students by stressing conformity to a standard of performance. By contrast, the *Hauptschule* does deal with less able students and seeks to meet students' needs rather than impose a uniform standard of performance.

Remedial education plays an important role in the *Hauptschule*. In addition, the two types of *Gesamtschule*—cooperative and integrated—seek to avoid the segregation of students by ability. The cooperative *Gesamtschule* follows practices similar to those of the *Gymnasium*, *Realschule*, and *Hauptschule*, but provides students from different tracks with the opportunity to interact in the context of a single school organization. The integrated *Gesamtschule* deals with differences in ability through a differentiated system of coursework.

In addition to the normal school system, Germany maintains a highly differentiated system of special schools for students with disabilities and other special needs. Recent efforts have been made to integrate these students into regular schools. Finally, the issue of foreign students has been the focus of much debate in recent years. Efforts to integrate these students into German school life have met with mixed success.

## **Secondary Education in the Life of German Adolescents**

**Mark Milotich and Wolfgang Mack**

Secondary school plays a major role in German adolescents' lives. In addition to family, peers, community, and work environment, school is one of the most important contexts for adolescent development and is the institution of socialization in technological societies (Petersen, Leffert, and Hurrelmann 1993). In order to study adolescent development, it is important to understand the effects that particular contexts have on adolescents (Silbereisen and Todt 1994). As G.H. Elder and colleagues put it, "Adolescents do not come of age in society as a whole, but rather in a particular community, school, and family" (Elder, Hagell, Rudkin, and Conger 1994, p. 261). Therefore, a study of the role of secondary school in adolescents' lives should address not only the school context but the interaction of other contexts such as family, peers, and community.

Attending school is a fixed part of the daily life of adolescents. School not only affects how adolescents spend their time; it also influences values and beliefs, affects relations with family and peers, directs future vocational choices, and may influence delinquency and problem behavior. Naturally, there is marked variation in how the education system affects adolescents' lives, both between and within groups. However, school is a context of paramount importance within which adolescent development and socialization occur.

The relationship between adolescents and school cannot simply be reduced to young people spending time in a place where they gain knowledge and learn skills. The complexity of the school context affords several perspectives from which to examine the role of secondary



school in adolescents' lives. This report begins with a comparison of the amount of time German adolescents spend in school and other academic activities with the time they spend in nonacademic, leisure activities. This is followed by an examination of the values, interests, and expectations held by adolescents regarding their education and future vocational choices. Also explored is the relationship between family background and parental involvement with students' school performance. Finally, the influence of peers on academic achievement and the extent of problem behavior among adolescents is examined.

## Use of Time

According to the Youth 1992 study—a survey of more than 4,000 German adolescents and young adults aged 13 to 29—adolescents between the ages of 13 and 20 spend about 35 percent of their waking hours on school lessons, either in class or studying on their own (Fischer 1992). They spend another 33 percent of their time in leisure activities such as socializing with friends, playing sports and games, watching television, and listening to music. The remaining 32 percent of adolescents' time is spent working, playing an instrument, or in personal maintenance. Thus, school and schoolwork fill a considerable portion of the adolescent's day; however, leisure, work, and interpersonal activities also are important components of adolescent time use.

### **School and Schoolwork**

Adolescents surveyed in the Youth 1992 study said they spent approximately 28 hours per week in school. This amount of time reflects the normal secondary school day, which lasts about

5.5 hours. However, this is an average figure; there is considerable variation between school types and between states (Fischer 1992), with differences of as much as 2.5 hours a day.

The Youth 1992 study also estimates the amount of time adolescents spent studying outside school. Students aged 13 to 20 indicated that they studied outside school on average about 7 hours per week. However, there was a large amount of variation (up to 5.81 hours, or 83 percent of the mean) in the amount of time that individual students spent studying outside school (Fischer 1992). Attending academic classes outside school is not a prevalent aspect of adolescents' lives in Germany. About 4 percent of adolescents ages 10–19 are enrolled in nonacademic classes, such as those offered by music schools (Statistisches Bundesamt 1993).

### **Leisure Activities**

Leisure time and activities represent a special context for any adolescent's development. The so-called fourth environment is comprised of leisure centers, such as youth clubs, sports centers, discotheques, and cafés. According to Silbereisen and Todt (1994), the "fourth environment" is an important context for adolescent development because its relatively unstructured, autonomous atmosphere of leisure activities gives adolescents the freedom to try out new roles and behaviors. The fourth environment may serve as an alternative developmental pathway for those who do not experience success in school, and may become more important in the absence of normative social roles (Silbereisen and Todt 1994).

Several researchers have examined adolescent use of time and the role of leisure activities in the lives of German adolescents. Behnken et al. (1991) conducted a large-scale study which surveyed a representative sample of 2,600 7<sup>th</sup>-, 9<sup>th</sup>-, and 11<sup>th</sup>-graders from Nordrhein-Westfalen (western Germany) and Saxony-Anhalt (eastern Germany). The sample was divided into three

age cohorts with mean ages of 13, 15, and 17 years, respectively. Of those surveyed, a full 80 percent declared leisure to be a "central life value" for them.

The study by Behnken et al. (1991) reported differences in leisure time and resources available to German adolescents in western and eastern Germany. Table 12 illustrates the contrast in the amounts of leisure time available. These results, however, indicate that leisure time comprises a major portion of an adolescent's day, in both western and eastern Germany.

Table 12—Reported leisure time among adolescents in Eastern and Western Germany

Amount of daily leisure time	Nordrhein-Westfalen (in former West Germany)	Saxony-Anhalt (in former East Germany)
More than 6 hours	27 percent	11 percent
More than 5 hours	63 percent	44 percent
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1 to 2 hours	6 percent	11 percent

SOURCE: Behnken et al. 1991.

When asked what type of leisure activities they participated in and which locales they visited most often in the 4 weeks prior to being surveyed, German adolescents (aged 13 to 20) reported that they most often visited restaurants or bars, followed by cinemas and discotheques (Fischer 1992). Regarding media use, German adolescents reported listening to music as their most frequent activity in the past 4 weeks, followed by watching TV and reading a newspaper. Concerning creative leisure activities, adolescents reported that they had spent the most time drawing or painting, followed by "tinkering" with a bicycle or something in their room. Beyond this, 12 percent of adolescents surveyed reported belonging to an orchestra, choir, or cultural association; 11 percent said they were members of a charity organization; 11 percent said they

participated in “hobby clubs”; and 8 percent claimed to be members of political associations and parties (Fischer 1992).

### **Peers and Families**

Spending time with peers is one of the most common leisure activities of young Germans. According to a survey of more than 1,000 German youth conducted in 1993 by the Institute for Practice-Oriented Social Research, 37 percent of adolescents polled in western Germany said they belonged to a youth organization (Bundesministerium für Frauen und Jugend [BMFJ] 1993). In eastern Germany only 19 percent of those polled said they belonged to such an organization. Cliques also represent a strong part of adolescent social life, especially in western Germany, where 68 percent of youths polled claimed to be a member of a clique. In eastern Germany, only 31 percent of youths claimed clique membership.

Adolescents ages 13–20 who participated in the Youth 1992 study (Fischer 1992) were asked to estimate how frequently they engaged in 35 separate leisure activities. Answers ranged from 1 (never) to 4 (very often). Of all leisure activities, only “listening to music” was more popular than “being together with friends” (table 13).

Table 13—Youths' self-reported frequency of participation in selected leisure activities

Leisure activity	Mean value <sup>a</sup> (1 to 4)
Listening to music	3.4
Being together with friends	3.3
Being together with girlfriend or boyfriend	2.9
Being together with the family	2.9
Participating in sports	2.6
Reading books	2.6

SOURCE: Fischer, 1992

<sup>a</sup>1 = “never engage in activity”, 4 = “engage in activity very often”

Families also play an important role in the lives of German youth. These families usually include at least one sibling (78 percent of the families) (Fischer 1992). Female adolescents reported a higher frequency of “being together with the family” than did male adolescents. This may be a reflection of the fact that about 5 percent more females between the ages of 13 and 29 live with their parents (63 percent) than do male youths (58 percent); thus, female youths may be afforded more time with their family (Fischer 1992).

## Sports

Organized recreational activities are the most common organized activities in which German adolescents and young adults take part. Between 70 and 80 percent of German young

people said they participate in sports regularly. Females are slightly less likely to participate in sports than males (from 3 percent to 20 percent less, depending on the type of sport). In terms of particular sports, German youths reported that during the prior 4 weeks they most often played soccer, followed by tennis and swimming (Fischer 1992).

In Germany, most sports activities take place outside school. The only organized athletic activities at school take place during “sports” class. German secondary schools do not, as a rule, sponsor intramural or interscholastic sports teams. Instead, students may participate in community-sponsored clubs and sports leagues after school ends at lunchtime (Petersen et al. 1993).

The Deutsche Sportbund (German national sports league) is the national parent organization of many smaller, local sports organizations specific to particular sports such as soccer and tennis. In 1992, 75 percent of male adolescents under age 15 were members of the Deutsche Sportbund, compared with 62 percent of females in that age group; 49 percent of males and 32 percent of females between ages 15 and 19 were members (Fischer 1992).

## **Employment**

Holding a part-time job while attending school is not as common an experience for German youth as it is for Americans, and those students who do work are more likely to do so during school holidays and vacations. Although many adolescents do apprenticeships as part of their vocational training, these are not considered part-time jobs. In the Youth 1992 study, only 19 percent of those surveyed said they had a part-time job at which they spent an average of 9.5 hours per week (Fischer 1992). This figure should be considered cautiously, however, because of large differences between the employment situation of adolescents in western and eastern

Germany and because of the students' track in school. In western Germany, 22 percent of students aged 13 to 16 held part-time jobs, for an average of 5.5 hours per week, and 30 percent of students aged 17 to 20 held part-times jobs, for an average of 8.5 hours per week. In comparison, only 10 percent of students in eastern Germany in both age groups held part-time jobs. However, those students in eastern Germany who did work tended to work 25 percent more hours per week than their western counterparts. Another difference worth noting can be seen between male and female students in both western and eastern Germany. In western Germany, males tended to work about 20 percent more hours than females. The situation was reversed in eastern Germany, where females tended to work about 30 percent more hours than males (Fischer 1992).

## Attitudes and Values

### Adolescent Values

Adolescent values have been the focus of much research, and useful cross-national comparisons have been conducted (Smolenska and Fraczek 1987; Silbereisen, Noack, and Schönpflug 1994). The most popular approach to research on adolescent values has been the hierarchical list of life goals used by Rokeach (1968).

In a study by Smolenska and Fraczek (1987), a cross-national sample of 14- and 17-year-old male and female adolescents in East Berlin and Warsaw was presented with a list of 16 life goals and asked to assess the importance and relevance of each of the goals, using a 4-point scale. Results indicated that all adolescents consistently rated values such as “friendship,” “family,” and “education” most important, and “politics” least important. However, some

cross-national differences did emerge. For German adolescents, “friendship” was the most important value, while for Polish youth, “family” took top priority. Another interesting difference concerns the role of education: German youth rated “education” more important than “family,” whereas Polish adolescents rated it below “family.”

The Youth 1992 study also questioned adolescents about their most important values; among the most frequently given responses were “world peace,” “family security,” “personal harmony,” and “true friendship.” The values most frequently rated as least important were “social power,” “authority,” “respect for tradition,” and “wealth.” Of those surveyed, 38 percent said they wanted to be different from others, 62 percent expressed the will to be independent, 54 percent said they knew what they wanted out of life, and 23 percent said they thought their life would improve in the future (Fischer 1992).

In terms of political orientation and involvement, the earlier Youth 1984 survey reported that of all those questioned, 45 percent of adolescents said they had “no interest in politics” (Watts and Zinnecker 1987). Broken down by age cohort, 62 percent of the 15 to 17 year olds, 46 percent of the 18 to 20 year olds, and 32 percent of the 21 to 24 year olds reported having “no interest in politics.” In the Youth 1992 survey, 67 percent of adolescents were of the opinion that “government is not doing enough for youth.” When asked in which domains government should expend more effort, 28 percent said that government should ensure “more places for apprenticeship and employment,” 22 percent wanted “more leisure facilities,” and 21 percent indicated a need for a “better school system, more educational opportunities, and more money for school and culture.” An additional 15 percent said that government should provide “more youth centers,” and 10 percent stressed the need to “fight drug and alcohol abuse and reduce delinquency” (Fischer 1992).



In a 1993 survey of 1,000 young people aged 14 to 27, 95 percent of youth in western Germany and 83 percent in eastern Germany agreed with the statement “I am content with my life” (BMFJ 1993). In terms of family relationships, the majority of adolescents (83 percent in western Germany and 89 percent in eastern Germany) reported that their parents “provided assistance with personal problems.” Furthermore, 72 percent said they looked confidently toward the future of society. In the Youth 1992 study, 47 percent of adolescents polled had indicated a belief in life after death (Fischer 1992).

### **School Motivation and Attitude toward School**

A student's motivation to succeed in school is influenced not only by actual school performance but by a multitude of factors outside school. Peer and family support, parental orientation and involvement, as well as the adolescent's life goals, values, and perception of the connection between success in school and future employment all may have an impact on school performance. In the Youth 1992 study, about 50 percent of adolescents said they were motivated to succeed in spite of difficulties and obstacles; 53 percent of adolescents in western Germany and 55 percent in eastern Germany claimed they were doing all they could in order to earn the best grades possible (Fischer 1992).

In the study by Behnken et al. (1991), 87 percent of adolescents questioned said they felt good in their school class, with 72 percent of students from western Germany and 68 percent of those in eastern Germany agreeing with the statement “It is pleasant to learn in school.” In response to the open-ended question, “What is pleasant and what is unpleasant about school life?” 75 percent of German adolescents named at least one positive aspect. The most frequently cited positive aspect of school life was “leisure time and holidays” followed by “relations with

peers.” Around two-thirds of German youth also cited at least one negative aspect of school life, the most frequent being “relations with teachers” and “homework and lessons.”

When asked about their preferred subjects, a large number of youth said that sports and mathematics were their most preferred subjects (Behnken et al. 1991). Although the majority of both males and females named sports as their favorite subject, their second and third choices differed according to gender. In general, males said that mathematics and geography were their second and third favorite subjects, while females named German and biology (Fischer 1992).

In a 1985 study of the development of children's interests in Germany, Todt found that interests serve as highly significant mediators that allow adolescents to realize cognitive objectives, feel good in school, compensate for everyday stress, focus their occupational choice, and foster identity development. Furthermore, adolescent interests in school subjects and lessons, in leisure activities, and in occupational choices show a dynamic interaction. The interplay of these various interests is mediated by personal variables such as ability, temperament, family, and socioeconomic background, and by school variables such as teachers, class composition, school equipment, and peers, and by gender and age.

### **Vocational Decisionmaking**

The educational/employment nexus in any country can be characterized by two properties: transparency and permeability (Hamilton 1994). Transparency refers to the ease with which a student can plot a course from school to work for any type of job; that is, the more formalized the entry requirements are for most jobs, the more transparent the system.

Permeability refers to how easy it is for a student to get through the hurdles in the system once he or she has plotted a course to an occupational goal. The two properties of transparency and

permeability are usually inversely related: the more formal the credentials required for a profession, the easier it is to plot a course (high transparency), but the more difficult it is to acquire all the required credentials (low permeability).

The German education/employment system is characterized by high transparency and low permeability. For example, it is easy for a student to find out how to become an electronics technician—there is a specific training program leading to a credential in *Elektrotechnik*. However, once one becomes a certified electronics technician, it is difficult to change professions, since this would involve starting over and completing another training program. As a result, the German apprenticeship and vocational-training system, while world renowned, does not come without its concomitant stresses on adolescents who are struggling to find their identity and to make difficult vocational decisions.

Many German adolescents expressed that they had concrete plans and vocational intentions (74 percent in eastern Germany and 66 percent in western Germany) (Fischer 1992). This response is not surprising given Hamilton's formulation: since the German education and employment systems are highly structured and credentialed, young people have a strong incentive to make vocational decisions early and then to stick to them. This tendency is reinforced not only by the educational structure and institutions (such as early tracking of students into one of three distinct secondary educational tracks) but by family, community, and peer pressure.

### **Sponsored Mobility**

The German school system is based on early ability tracking into “differently privileged forms of secondary school” (Engel and Hurrelmann 1994, p. 329). However, once a student is tracked into *Hauptschule*, *Realschule*, *Gymnasium*, or *Gesamtschule*, that student is “sponsored”

by the education system to succeed in that setting. The German system is based on “sponsored mobility,” in which students are tracked early and then actively encouraged within a track. The only exception to this is the recently introduced *Gesamtschule*, which attempts to simulate a degree of “contest” mobility in which all students compete in one academic arena to achieve the best grades (Engel and Hurrelmann 1994).

In a sponsored mobility system, social status quo is actively maintained. Because of the early age of “branching” into one of the secondary school types, school tracks in Germany tend to correspond with parents' social status. Students who deviate above or below their parents' social rank are not supported de facto by the education system (Engel and Hurrelmann 1994). “The higher the family status, the greater the probability that the family's children will attend the type of secondary school offering the best postscholastic career prospects” (Petersen et al. 1993, p. 618). Statistics show that of the students attending *Gymnasium*, 58 percent are children of civil servants, 47 percent are children of white-collar workers, and 38 percent are children of self-employed people, while only 10 percent are children of blue-collar workers (Arbeitsgruppe Bildungsbericht [MPI] 1994, p. 511).

According to Engel and Hurrelmann (1994), students draw on the “social and cultural capital” of their parents to succeed in the school setting. When the child of an unskilled worker enters *Gymnasium*, that child cannot draw on the same base of social and cultural capital that many of his or her classmates draw on to complete school assignments. That child therefore experiences more stress in the school environment, and has a greater likelihood of failure (Engel and Hurrelmann 1994). These effects are clearly seen in Germany, where early tracking effectively separates social classes. It should be pointed out, however, that upward mobility in educational attainment does exist in Germany, as is evidenced by the intergenerational increases

in enrollment in *Realschule* and *Gymnasium* and in the appearance of alternative modes of access to higher education.

## Parent-School Relations

### Parental Involvement in Education

Although German parents are involved formally and informally in their children's education in many ways, they seldom participate directly in events at their children's school. Normally, one parent-teacher evening is held at the beginning of each school year; in some cases, one or more additional parent-teacher evenings are scheduled during the school year. However, parent attendance at these formal meetings varies according to school type. Parents of *Gymnasium* students are most likely to attend, whereas parents of students at the *Hauptschule* are least likely to attend.

During the first parent-teacher evening of the year, the class teacher outlines the activities and curriculum planned for the coming school year, and parents elect a committee to represent their interests at official school meetings. These local parent committees may also elect a representative to statewide parents' committees that monitor developments in educational policy in each German state.

### Parent-Teacher Communication

Parents are able to communicate directly with teachers during the teachers' weekly office hours, or indirectly via the parent committee. Usually, parents consult teachers because of

unsatisfactory academic performance by their child. Teachers are most likely to contact parents because of discipline problems with a student. According to Ulich (1989), one of the most serious problems is that parents and teachers talk together about problems concerning a student, but they do not talk together with the student. Therefore, students are deprived of the opportunity to confront the problem firsthand and attempt to correct the situation.

Because academic success is currently perceived as more important to a young person's future success than it was previously, parents are taking a more critical stance concerning teachers. Where once the teacher's authority and respect in the community were rock solid, parents are increasingly challenging teachers' authority and calling their pedagogical abilities into question. Another serious problem is that parents and teachers often express mutual fear of each other. Problems with parent-teacher communication are especially prevalent among parents of lower socioeconomic status, and may lead these parents to avoid contact with their child's teachers altogether.

### **Parental Involvement in the Student's Performance**

In the Youth 1992 study, adolescents were questioned about the degree to which their parents participated in and guided their educational careers. Survey respondents were asked to assess the degree to which particular statements applied to them. Responses ranged from 1 ("does not apply") to 4 ("applies to a great extent"). Table 14 shows the responses to some of the statements.

Table 14—Adolescents' responses to statements about parental involvement in their educational careers

Statement	Mean value (1 to 4 <sup>a</sup> )
My parents	
ask frequently about what I am doing in school	3.1
pay close attention to my school grades	3.1
think school certifications are very important	3.0
have great hopes for me	2.8
think I am a gifted student	2.7
help me frequently when I do my homework	2.4
were very ambitious for me when I was a child	2.3

SOURCE: Fischer, 1992.

<sup>a</sup>1 = statement does not apply, 4 = statement applies very much.

As shown in table 14, parents often assist their children with homework, a task mainly performed by mothers. However, the amount of time mothers spend helping with homework rapidly declines as students get older (Fischer 1992). More generally, the adolescents described a positive picture of parent interest and involvement in their education—from discussing their child's progress in school to instilling their own positive beliefs and ambitions in their child.

Yet Hurrelmann (1991) reports on the burden that school places on German children that parents' involvement in their child's homework can also be a source of stress in the parent-child

relationship. Parents who assist with homework may become committed to their child's success with the school assignment and may feel responsible if the student does not receive a good grade. Students also may feel that their parents are evaluating them solely on the basis of their school performance, potentially reducing the parent-child relationship to a “school” relationship. When parent-child relationships become centered on school performance, the entire family atmosphere can be “poisoned” by the resulting stress. The adolescent may feel “instrumentalized” by his or her parents (Hurrelmann 1991).

### **Role of Parents in Vocational Decisionmaking**

According to Behnken et al. (1991), 33 percent of adolescents surveyed in Saxony-Anhalt (eastern Germany) and 18 percent in Nordrhein-Westfalen (western Germany) said that the opinions of their parents concerning a future vocation dictated their decision. Seventy-nine percent of adolescents in Nordrhein-Westfalen and 63 percent in Saxony-Anhalt said they arrived at vocational decisions individually and independently. Table 15 shows the results of the survey on the role of parents in influencing school performance and vocational decisionmaking.



Table 15—German adolescents' responses to statements about parental guidance in educational and vocational decisionmaking

Statement	Percentage of adolescents agreeing	
	Nordrhein-Westfalen (western Germany)	Saxony-Anhalt (eastern Germany)
My parents are interested in my school achievements.	63 percent	66 percent
My parents are content with my school achievements.	44	34
My parents' opinion is decisive in dealing with school topics.	39	40
The opinion of my parents is decisive in making vocational decisions.	18	33
My school performance causes frequent quarrels with my parents.	16	11
My parents are competent to give advice on how to improve school performance.	Father: 27	Father: 30
	Mother: 29	Mother: 38
My parents are competent to give advice on how to realize my vocational intentions.	Father: 29	Father: 38
	Mother: 22	Mother: 39

SOURCE: Behnken et al. 1991.

Silbereisen and Berg (1994) conducted a comparative study of the timing of vocational decisionmaking among adolescents in eastern and western Germany. Adolescents in eastern Germany reported developing vocational plans about a year earlier than did adolescents in western Germany. More generally, the degree to which parents encouraged scholastic

competence during childhood was strongly associated with early vocational planning on the part of adolescents. “Adolescents who developed vocational plans earlier than their age-mates also . . . described themselves as more advanced in identity exploration and commitment” (p. 2).

## Peer Support

The relative importance of peer relations for German adolescents has increased in the last 2 decades (Petersen et al. 1993). In addition to family and community, peer groups represent an important social organization and context for adolescent development. One of the primary developmental tasks facing the adolescent is to establish increasingly important emotional, social, and economic contacts with peers and society outside the family. German youth culture allows adolescents to demonstrate their difference and independence from adults in terms of fashion, music, leisure activities, language, and political ideas. Peer groups provide social references for adolescents and thereby establish standards of behavior. Peer groups not only influence forms of self-expression and behavior but affect patterns of consumption, leisure activities, and school performance (Petersen et al. 1993).

While studies of adolescent school performance have traditionally focused on the family as the most important locus of socialization (Steinberg and Darling 1994), Behnken et al. (1991) found that peer support is also an important factor motivating students to succeed in school. Thirty-eight percent of adolescents in eastern Germany and 20 percent in western Germany said that support from their peers was necessary for them to be motivated to work hard in school. In addition, more than 40 percent of adolescents in both the East and the West said that relations with peers were a positive aspect of school life. According to a report from the

Bundesministerium für Frauen und Jugend (BMFJ 1993) 68 percent of youth in western Germany and 31 percent in eastern Germany claim they belong to a clique.

Although peer groups may clearly influence school achievement, the extent to which peer relationships facilitate or interfere with school performance is less understood. However, several aspects of peer influence can be noted. Within each peer group, there may be one or more opinion leaders who serve as models for the other group members (Fend 1991). While it is often assumed that the values of the peer group will be antagonistic to parental values, in the majority of cases peer group values actually support parental values (Oswald and Süß 1994). In describing the impact of school organization variables on German students' friendships, Wagner (1990) claims that peer interaction is an important explanatory variable in school performance which has not yet been subjected to direct empirical assessment. Furthermore, Wagner points to the need for studies that examine the interactions of peer influence, school organization, and family background, and their combined effects on school performance.

## Problem Behavior

### **Substance Abuse**

The reported use of illegal drugs among German secondary school students has declined dramatically since the 1970s. Whereas in the 1970s up to 20 percent of adolescents aged 15 to 18 reported illegal drug use (mainly hashish), in 1990 only 5 percent of youths aged 12 to 25 reported using illegal drugs (Silbereisen et al. 1993). However, the use of hard drugs such as heroin, cocaine, and amphetamines in Germany may be increasing, though not necessarily among

adolescents: in 1992, more than 2,000 people died from illegal drug use in Germany, compared to 106 in 1973 and 324 in 1985 (Bundeskriminalamt, cited in Silbereisen et al. 1995).

Alcohol consumption among German adolescents decreased steadily from the mid-1970s until 1986, when it reached a plateau. In 1990, according to a survey of youth aged 12 to 25 conducted by the Institute for Youth Research, 40 percent of young people had consumed beer in the previous week; 15 percent, wine; and 6 percent, hard liquor. However, alcohol consumption varied according to sex. While 60 percent of males aged 18 to 20 reportedly consumed beer during the previous week, only 20 percent of females in this age group claimed to have done so (Silbereisen et al. 1995).

According to Silbereisen et al. (1991), although family background and school environment affect patterns of substance abuse, peer influence may be more important. Adolescents who have low self-esteem or who are rejected by “normative” peers may turn to substance abuse to “let off steam” and to demonstrate their independence (Silbereisen et al. 1994). Moreover, one would also expect to find interactions between substance type, consumption patterns, school environment, family background, and peer group. For example, adolescents may begin to drink and smoke “in order to enjoy and demonstrate what they see as a core element of adult privileges” (Silbereisen et al. 1995). Therefore, the authors conclude, patterns of smoking and drinking among adolescents should vary according to whether these behaviors are perceived as being an important part of adulthood.

## **Violence**

Germany was once considered immune to the urban violence that plagues many cities in the world. However, recent reports have shown a dramatic increase in the number of assaults and

other violent incidents occurring in German schools. Schools in Frankfurt have been the focus of a series of investigations into school violence; however, the superintendent of Frankfurt's schools has stated that increasing violence is evident “everywhere in Germany's schools”: (“Horror aus der Dose” 1991, p. 106). For example, in a 1992 survey of students in Hamburg schools, 56 percent reported witnessing violence, extortion, bodily injury, and sexual harassment in school (“Die rasten einfach aus” 1992).

School violence often begins in childhood and continues through adolescence regardless of the type of secondary school attended. Studies in Frankfurt have indicated that violence is not limited to the secondary schools with students from lower socioeconomic groups. Rather, both aggressive and criminal behavior are equally present in the daily experience of students at *Hauptschule*, *Realschule*, *Gesamtschule*, and *Gymnasium*. “Brutality,” the Frankfurt school superintendent declared, “is not class specific” (“Horror aus der Dose” 1991, p. 109).

A decade ago, most of the violence in Germany's schools was limited to fistfights in the school yard. However, the violence of today is more likely to include the use of a knife or other weapon. For example, an investigation of Frankfurt's schools revealed that 38 percent of *Gymnasium* students claimed to possess a weapon (“Die rasten einfach aus” 1992). Further, it was estimated that one of every five students in all types of secondary schools in Frankfurt brings a weapon to school regularly, a statistic comparable to the U.S. figure (“Horror aus der Dose” 1991).

The factors influencing adolescent violence include the community setting, popular media, and family relations. In marginal neighborhoods, where there is “too much frustration and too little hope,” many violent incidents occur in schools (“Die rasten einfach aus” 1992, p. 49). In the media, children are exposed to increasing levels of violence: more than 70 murders can be

seen on German television daily (“Die rasten einfach aus” 1992). Furthermore, in large cities such as Hamburg, every second child has parents who are divorced or separated. The “desolate situation in many family homes” (“Die rasten einfach aus” 1992, p. 44) is often blamed for the increasing need that many children have for attention. Because children may consider negative attention better than no attention, they may turn toward violence as a means of filling a void.

### **School Misconduct and Vandalism**

Klockhaus and Habermann-Morbey (1986) have reported that both family and school contexts may exert causal effects on the expression of school vandalism. Oswald and Süss (1994) arrived at a similar conclusion regarding school misconduct in a sample of students and their parents in West Berlin. When their family situation was disturbed, students in West Berlin more frequently engaged in “teacher-annoying behavior” and “bullying of other students” in response to peer pressure. For example, certain parental styles and family structures might predispose their children to associate with deviant peer groups instead of normative groups (Oswald & Süss 1994). “Deviant friends, low peer status, and rejection by classmates [all] constitute sources of bullying behavior” in Berlin adolescents (Oswald & Süss 1994, p. 350).

In contrast, participation in sports and other organized activities has been shown to be negatively correlated with delinquency, although the direction of causality has not been investigated (Larson 1994). Larson argues that participation in organized activities actively promotes the social integration of adolescents. The author concludes that youth activities foster a resistance to delinquent behavior by increasing the value of prosocial orientation in adolescents.

## **Sexuality and Promiscuity**

Secondary schools in Germany offer lessons in sex education, which deal primarily with sex problems, especially acquired immunodeficiency syndrome (AIDS). Although sex education is firmly established within the German education system, parents and religious groups still argue over the content and extent of subjects taught during sex education.

In general, promiscuity is not a widespread problem, and the incidence of teenage pregnancy in Germany is low. Those adolescents who do become parents, however, face serious negative consequences, since further education and employment are usually postponed (Petersen et al. 1993).

## **Summary**

Adolescent development does not occur in German society at large, but rather within specific contexts such as school, family, peers, and community (Elder et al. 1994). In order to understand the role that secondary education plays in adolescents' lives, it is necessary to explore these relevant contexts of adolescent development. For example, the fact that German youth spend on average 5.5 hours a day in school (Fischer 1992) is placed in perspective when one discovers that more than half of German adolescents also spend more than 6 hours a day in leisure activities (Behnken et al. 1991).

Also important in a cross-cultural comparison of adolescents' lives is the interaction of school, community, and family contexts. For example, because German secondary schools are first and foremost academic institutions, extensive programs provided by extracurricular activities and sports teams are uncommon (Petersen et al. 1993). Thus, the social functions

provided by intramural and interscholastic athletics are not fulfilled by German schools; rather, the community context serves this purpose—more than two-thirds of German adolescents belong to a community-sponsored sports league (Fischer 1992).

Studies of adolescent values in Germany have revealed an “abstract” and “impersonal” orientation in German youth. However, this result is in part contradicted by the fact that “friendship” was consistently given as the most important value by German adolescents (Smolenska and Fraczek 1987). In general, German youth value education, perhaps because the link between school performance and future professional success is so clear in Germany (Hamilton 1994).

Although there is a subgroup of politically engaged youth in Germany, most adolescents rated “politics” as the least important of a list of 16 major life goals (Smolenska and Fraczek 1987). Yet, interest in politics increases with age: only 38 percent of 15- to 17-year-olds claimed to have an interest in politics, compared with 68 percent of 21- to 24-year-olds (Watts and Zinnecker 1987).

Parents in Germany are naturally involved in their children's educational careers in many ways. The German education system has been characterized as one of sponsored mobility, in which students are tracked at an early age into forms of secondary school with different privileges (Engel and Hurrelmann 1994). The type and degree of parents' involvement in their child's education depends on the type of secondary school their child attends (Oswald, Baker, and Stevenson 1988). However, parental involvement can backfire, for example, when parents place undue emphasis on school performance and the parent-child relationship is reduced to a “school” relationship (Hurrelmann 1991).



Peers, in addition to family and community, influence the expression of problem behaviors such as substance abuse, school misconduct, violence, and promiscuity. Adolescents who are rejected by normative peer groups may turn to drugs (Silbereisen et al. 1994). A disturbed family environment coupled with peer pressure can result in misconduct at school such as bullying of other students or disrupting the class. Parental styles and family structure may predispose certain adolescents to eschew normative peers and associate with deviant groups (Oswald and Süss 1994). Promiscuity and teen pregnancy are not widespread in Germany (Petersen et al. 1993). However, teen pregnancy can have lifelong consequences, since education and career are often postponed by teen parents.

Violence in German schools is a growing problem. More than half of the students in Hamburg schools reported witnessing violence, extortion, and sexual harassment in school (“Die rasten einfach aus” 1992). Further, it is estimated that 20 percent of secondary school students in Germany regularly carry a weapon to school (“Horror aus der Dose” 1991). Family and community problems contribute to the expression of violence. Economically shattered and ethnically segregated communities and schools form the backdrop of growing violence in Germany.

## Teacher Preparation and Teachers' Lives in Germany

**Ute Specke**

Each workday, hundreds of thousands of teachers walk, bike, or drive to schools across Germany (Schulz 1990). With teaching a popular profession in Germany, a large number of incoming university students begin a course of study in education each year. In 1980, for example, more than 20 percent of all incoming students at German universities began a *Lehramtstudium* (teacher-training program). A decade later, in the face of declining enrollment in the schools and high unemployment for teachers, almost 16 percent of incoming university students were studying to become teachers (Sekretariat der Ständigen Konferenz der Kultusminister der *Länder* in der Bundesrepublik Deutschland [KMK] 1993a). In 1991, almost 41,500 students entered teacher training programs at German universities out of a total of 254,193 new university students (KMK 1993a).

### Teacher-Training Programs

Students who choose to become teachers need to have the *Abitur*, the qualification for university admission (the comprehensive exit examination at the end of the 12th or 13th grade). There are no entrance examinations or particular requirements to pass in order to enroll in a teacher-training program at a German university. Students apply at the university of their choice. However, due to high enrollment, some states have attempted to limit the number of students entering teacher- training programs at universities. For example, in Nordrhein-Westfalen,

prospective students must apply to a central agency (Zentralstelle für die Vergabe von Studienplätzen, ZVS) which handles university admission and sends students to a particular university. In Baden-Württemberg, due to *numerus clausus* restrictions, only students with above-average grades can count on admission to teacher-training programs.

Teacher training in Germany is the responsibility of the individual states (*Länder*), operating under guidelines set by the Standing Conference of the Ministers of Education and Cultural Affairs (KMK). The KMK coordinates the work of the ministries of education in each of the 16 states. In each state, however, teacher training consists of two phases: university study and student teaching.

### **Phase 1: University Study (Lehramtstudium)**

At the university, students pursue academic studies in their major subjects—the subjects they will teach—and in educational and social sciences. Students also receive training in didactics specific to their major subject areas and have the opportunity to apply their theoretical knowledge during several practica. The duration of university training depends on the level of school at which the student wants to teach, such as elementary or secondary. University studies for elementary and middle schools require at least 3.5 years, while studies for *Gymnasium* or vocational schools require at least 4.5 years. University training is completed with a comprehensive exit examination called the First State Examination (*Erstes Staatsexamen*). Passing the First State Examination is synonymous with attaining a university degree and is the prerequisite for entrance into the second phase of teacher training, directed student teaching.

## Phase 2: Student Teaching

The second phase of teacher training, directed student teaching (known as either *Vorbereitungsdienst* or *Referendarzeit*), lasts for 2 years, during which the student teaches in a school under the supervision of a mentor and participates in accompanying seminars on issues related to teaching. Upon completion of student teaching, the student takes the Second State Examination (*Zweites Staatsexamen*) (Führ 1989).

## Recent Changes in Teacher-Training Programs

Prior to the 1970s, elementary (*Grundschule*) and middle school (*Hauptschule* and *Realschule*) teachers were not trained at universities but rather at teacher-training colleges (*pädagogische Hochschule*). *Gymnasium* teachers, however, received in-depth training in their subject areas at universities. But during the 1970s and 1980s, most states integrated teacher training at all levels into university programs. It was believed that the universities would provide elementary and middle school teachers with a more academic foundation in their major subjects. Critics have questioned whether students receive an appropriate preparation for a teaching career at the large, crowded universities (Führ 1989).

German universities have historically focused on research and university teaching (*Forschung und Lehre*) rather than on training for the professions. Thus, professional teacher education programs are often fragmented throughout various university departments, requiring students to take courses in many departments. For example, a student who wishes to become a German and English teacher must take classes not only in German and English but in psychology, sociology, and pedagogy. In 1990, the KMK agreed on the minimum requirements

for the number of courses in major subjects as well as in education and social studies for completion of teacher training (KMK 1992).

State education ministries formally stipulate course requirements and examination regulations for each school type or level of teaching, such as elementary, lower level secondary, and upper level secondary (*Primarstufe*, *Sekundarstufe I*, and *Sekundarstufe II*, respectively). Still, students enjoy considerable freedom in choosing particular courses in each of the disciplines required by the education ministry. However, in the current crowded university system, students often lack assistance and guidance in choosing relevant courses that will prepare them for a teaching career.

All states require a component of practical experience and classroom observation as part of university teacher-training programs. (The only exception is the state of Baden-Württemberg, which does not require a practical component in the training program for *Gymnasium* teachers.) However, the exact requirements for practical experience vary from state to state. These interstate differences in teacher education programs and certification requirements may pose difficulties for teachers or university students in education who wish to move to a different state.

### **Training for School Level Versus School Type**

The type of teacher-training programs and requirements for teacher certification in a state are influenced by the state's political history and climate. States long controlled by the conservative Christian Democrats (CDU/CSU)—Baden-Württemberg, Bayern, Niedersachsen, Rheinland-Pfalz, Saarland, and Schleswig-Holstein—have maintained the tradition of training teachers for a specific type of school, such as *Grundschule*, *Hauptschule*, *Realschule*, or *Gymnasium*; whereas, states controlled by the liberal Social Democrats (SPD)—Bremen,

Hamburg, Nordrhein-Westfalen, and, to some extent Berlin—have a system of training teachers for a specific level of school, such as *Primarstufe*, *Sekundarstufe I*, or *Sekundarstufe II*. In the SPD-controlled states, the teacher-training system was meant to serve as a forerunner to a reform of the entire school system. Training teachers for level rather than type of school facilitated introduction of a comprehensive secondary school, the *Gesamtschule*. Although the *Gesamtschule* proved unpopular, the new system of teacher training remains in effect in many states.

In states where teacher education programs are based on school type, new teachers are trained specifically to teach either in an elementary school (*Grundschule*), lower secondary school (*Hauptschule* or *Realschule*), or *Gymnasium*. In contrast, in those states where teacher education is based on school level rather than type, teachers are trained for either the elementary school level (*Primarstufe*) encompassing grades 1–4, lower secondary school level (*Sekundarstufe I*) encompassing grades 5–10, or upper secondary level (*Sekundarstufe II*) encompassing grades 11–13. (In Berlin, the elementary level includes grades 5 and 6.)

Teacher training based on school level increases the flexibility of new teachers. For example, a teacher trained at the *Sekundarstufe I* level is prepared to teach subjects in grades 5–10 at a *Hauptschule*, *Realschule*, *Gesamtschule*, or *Gymnasium*. Most important, training teachers for school level instead of school type fosters closer cooperation and professionalism among teachers for all types of schools and levels. This is achieved by strengthening the subject knowledge of elementary teachers and the practical knowledge of *Gymnasium* teachers. At least for the younger generation of teachers, the introduction of training for school level contributed to the dismantling of differences between teachers at different types of schools (Stallmann 1990). While the teaching profession as a whole has become more flexible as a result of the new training

and certification system based on school level, the flexibility is particularly apparent for teachers at *Hauptschule* and *Realschule*, who now enjoy increased job options for teaching grades 5–10 at all types of schools.

In the end, teachers are classified according to several categories (KMK 1992). (Exceptions to the classification system exist in Hamburg, Berlin, and Bremen. In these cities, it is possible to become certified to teach grades 1–10. The training for this type of certification also differs from that described later.) The categories are as follows:

- Type 1: Teachers trained for elementary schools (*Grundschule*) or the primary level (grades 1–4);
- Type 2: Teachers trained for all schools (*Hauptschule*, *Realschule*, and *Gymnasium*) at the lower secondary level (grades 5–10);
- Type 3: Teachers trained for specific academic subjects at the upper secondary level in *Gymnasien* and *Gesamtschulen* (grades 11–13);
- Type 4: Teachers trained for specific vocational subjects at the upper level in vocational schools (*Berufsschulen*, grades 11–13); and
- Type 5: Teachers trained for special education at all levels in special education schools (*Sonderschulen*).

As table 16 shows, the largest percentage of students entering teacher-training programs in the former West Germany in 1991 studied at the *Sekundarstufe II* level in order to become certified as *Gymnasium* teachers (Type 3). The smallest percentage earned certification as

*Berufsschule* (Type 4) teachers or became teachers at private schools such as Waldorf schools (KMK 1993a).

Table 16—Students entering teacher-training programs in the former West German States, by certification level and school type: 1991

Certification level	School type	Percentage
<i>Sekundarstufe II</i>	<i>Gymnasium</i>	43.5
<i>Primarstufe/Sekundarstufe I</i>	<i>Grundschule/Hauptschule</i>	30.7
<i>Sekundarstufe I</i>	<i>Realschule</i>	11.7
	<i>Sonderschule</i>	5.7
<i>Sekundarstufe II</i>	<i>Berufsschule</i>	7.9
Private	Private schools	0.5

SOURCE: Adapted from KMK 1993a.

### Motivation for Choosing the Teaching Profession

What motivates individuals to become teachers? Surveys have indicated that the teaching profession is chosen for a variety of reasons, such as a desire to work with children, an academic interest in their major subjects, or the attraction of job security as a civil servant (Schwänke 1988). Overall, students were more attracted to teaching by intrinsic factors such as the nature of the work than by extrinsic factors such as salary or social status.



Although students still enroll in teacher-training programs despite high unemployment, teaching is often their second choice. A comparison of students' preferred field of study immediately after passing the *Abitur* with their actual enrollment in university programs indicated that, for many students, the teacher-training program was a second choice (Schwänke 1988). Students may have opted for their second choice if their first choice was one of the highly desirable and lucrative study programs—such as medicine, law, business, and many natural sciences—that have severe entrance restrictions (*numerus clausus*). If they were not accepted into restricted fields, they may have chosen teaching as a feasible alternative.

In other cases, indecisiveness about a career path may have led some students to teaching. For example, one survey revealed that more than half of the students who could not decide on a career path when they were about to finish the *Abitur* decided to enroll in a teacher-training program. One writer estimates that as many as one-third of all students who are enrolled in teacher training programs chose this path because they were not accepted into a restricted field or could not decide on a career path (Schwänke 1988).

## Overview of Phase I: University Study

### **Elementary Teachers**

Elementary teachers (*Grundschullehrer*) attend a university for at least 3 years (six semesters) and complete their studies for the First State Examination during an additional year. Students pursue a course of study in general education and choose at least one subject in which to concentrate. As part of the general education requirement, students preparing to be elementary school teachers take courses in the philosophy and history of education, teaching methodology,

didactics, educational psychology, and a basic course in either philosophy, sociology, or political science. However, in some states, students at the elementary school level, along with students who will teach at other levels, take the same number of classes in education and related social sciences.

In addition to the general education requirements, some states stipulate other subjects in which elementary teachers must concentrate. For example, in Nordrhein-Westfalen, elementary school teachers must concentrate in mathematics and German in addition to their primary subject. To avoid the mathematics requirement for elementary school teacher certification, some students switch to the secondary school teaching level.

The majority of students who study to become elementary teachers are female. During the summer semester of 1994 at the University of Frankfurt, for example, of 325 beginning elementary education students enrolled, 12 were male (Traxler 1994). The small percentage of male students compared to female students may be due to the relatively low prestige elementary school teachers have when compared to other teachers. Elementary school teachers receive lower compensation and carry a heavier teaching load than teachers at other levels.

### **Lower Secondary School Teachers**

Lower secondary school teachers (*Realschullehrer* and *Hauptschullehrer*) pursue a course of study similar to that of elementary school teachers for 3 or 4 years (6 to 8 semesters). The length of study depends on the requirements of the individual state. In contrast to elementary teachers, however, middle school teachers choose two specific subjects in which to concentrate from the outset.

### ***Gymnasium* Teachers**

*Gymnasium* teachers study for a minimum of eight semesters at a university and must concentrate in two major subjects in addition to general education. In contrast to other teaching levels, the emphasis for *Gymnasium* teachers is on the academic content of their subject areas and not on pedagogical theory.

### ***Comprehensive School (Gesamtschule)* Teachers**

Students wishing to become teachers at a *Gesamtschule* do not enroll in a particular training program for this type of school. Rather, they are trained according to the grade level they plan to teach. A typical *Gesamtschule* employs roughly 40 percent *Hauptschule* teachers, 30 percent *Realschule* teachers, 27 percent *Gymnasium* teachers, and 3 percent miscellaneous educators, such as vocational teachers, special education teachers, or school psychologists (Schulz 1990).

### **Vocational School Teachers**

Teachers at vocational schools (*Berufsschullehrer*) study for 8 to 10 semesters. The length and form of teacher training, the major subject combinations offered, and the required practical component at vocational schools all vary from state to state. For example, in Hamburg a student cannot combine a major subject, such as nutrition and home economics, with a second subject, such as geography. The KMK has approved a general outline of studies and examinations for each of the following subject areas: agricultural science, biotechnology,

chemical technology, construction, economics, electronics, graphic arts, metalworking, nutrition and home economics, public administration, social science, and textile science.

All states require that vocational school teachers complete an internship with a firm for 12 months or have previously completed a type of vocational training (*Berufsausbildung*). In addition to their main subject area, students must take classes in pedagogy and are required to study one interdisciplinary subject, such as biology, chemistry, German, English, religion or mathematics. Normally, students complete their studies with the First State Examination. However, in some cases it is possible to earn a diploma (*Diplom*), roughly equal to a master's degree in a single subject, instead of taking the state examination; this degree opens up additional possibilities for employment in industry (*Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung und Bundesanstalt für Arbeit [BLK] 1993*).

Because many qualified students are attracted to more lucrative careers in industry, a low number of students are currently enrolled in vocational-teaching programs. Consequently, there is a deficit of vocational teachers in some subject areas. To satisfy this demand, qualified people from industry have been recruited and immediately accepted into the second phase of teacher training (Graf and Ronecker 1991).

### **Special Education Teachers**

Teachers for special education (*Sonderschullehrer/Förderschullehrer*) study for 4 to 5 years (8 to 9 semesters). Students take courses in pedagogy, including courses in psychology, special education, and rehabilitation therapy. In addition, students choose two special education areas from among the following: learning difficulties, mental disabilities, behavioral disturbances, and speech difficulties. Depending on the requirements of the individual state,

students study one or two general subjects—such as German, mathematics, or biology—in addition to their special education subjects. Teachers who are already trained for elementary and middle schools also have the opportunity to study special education for 2 more years (4 semesters) and gain certification as a special education teacher. Teachers who choose this route are not required to complete student teaching again (BLK 1993).

### **First State Examination (Erstes Staatsexamen)**

All teachers, regardless of school type or level, finish their academic preparation for the teaching profession by passing the First State Examination. Passing the First State Examination confers the right to continue to the second stage of teacher training, practically oriented directed student teaching, which leads to the Second State Examination. The number of students passing the First State Examination has fallen since the beginning of the 1980s. For example, in 1980 alone, 32,342 students completed the First State Examination, compared with 10,269 in 1991 (KMK 1993a). This drop in the number of students who passed the first part of teacher training reflects, in part, the overall reduction in the number of jobs for new teachers throughout the 1980s.

The ministry of education in each state (*Kultusministerium*) is responsible for setting the basic requirements for teacher training and certification for students in that state. While the ministry of education develops the content of the First State Examination, the state examination board (*Staatliches Prüfungsamt*) is responsible for administering the examination. As a rule, the content of the First State Examination is as follows (KMK 1992):

- a written thesis (*Staatsarbeit*) in one of the student's two major subjects of study or in general education (*Erziehungswissenschaft*) (4 to 6 months in duration);
- written and oral examinations in all of the student's major subjects of study, including pedagogy or general education;
- oral examinations in some subjects; and
- a practical examination, which consists of a performance for students concentrating in art, music, physical education, or other technical fields.

### Directed Student Teaching (*Referendarzeit*)

#### The Process

A student who passes the First State Examination at a university may apply at the office of the local educational district (*Regierungspräsidium*) to begin directed student teaching. If there is a vacancy for a student teacher in the desired city, the applicant will be notified shortly before directed student teaching begins. If there are no vacancies, the applicant will be sent to his or her second or third choice. In some cases, students have to wait a year because there are not enough student-teaching positions available. This is especially true for students wishing to teach *Sekundarstufe II* (*Gymnasium*).

Usually, students complete their directed student teaching in the same state in which they passed their First State Examination. A student who wishes to move to a different state for directed student teaching may encounter difficulties and may have to provide reasons for the move.

The number of students who passed the Second State Examination fell during the 1980s. From 39,329 in 1980, the number of newly trained teachers dropped to 9,874 in 1991. The declining number of student teachers completing the Second State Examination probably reflects the poor employment outlook for teachers during most of the 1980s. However, this trend may be turning around due to predictions of improved prospects for teachers, especially in elementary schools, during the mid-1990s. In 1992, for example, 11,370 newly trained teachers were employed, a 15 percent increase over the previous year (KMK 1993a).

While university teacher education programs vary greatly from state to state, directed student teaching is similar in every state. Students are required to student-teach for 24 months, during which they earn between 1,700–2,500 deutsche marks (DM) a month, depending on the school level, their age, and their marital status. The duration of directed student teaching may be reduced only in particular cases in which a student can prove prior teaching experience.

- Training takes place both in seminars (*Studienseminare/schulpraktisches Seminar*) and in schools. Appropriately trained instructors (*Fachleiter*) with teaching experience lead the seminars. They teach and discuss pedagogical, methodological, and subject-related aspects pertinent to the particular school level, such as assessment procedures and standards. Various issues, such as school regulations and legal procedures, are also part of the seminar curriculum. In addition, seminar instructors observe student teachers in the classroom, and later discuss and evaluate the students' teaching performance. During student teaching, mentors help student teachers with teaching-related questions and allow student teachers to observe and teach their classes. The 2-year, hands-on student teaching experience consists of four parts (Kultusministerium Hessen 1990):

- Introductory phase of 3 months' duration (total 10 hours per week): observation or assisted teaching;
- Differentiation phase of 6 months' duration (total 12 hours per week): includes observation and 4–8 hours a week of teaching with or without assistance;
- Intensive phase of 12 months' duration (12–14 hours per week), including 4 hours a week of observation and/or assisted teaching, and 8–10 hours a week of teaching without assistance; and
  - Preparation for the Second State Examination, lasting 3 months (10 hours per week): includes observation, assisted teaching, and teaching without assistance.

### **Second State Examination (*Zweites Staatsexamen*)**

Student teachers complete the second and final stage of their training with the Second State Examination. The examination committee consists of six members and is chaired by a representative or “school inspector” from the state education ministry (known as the *Oberschulrat* or *Schulrat*). Other members of the examination committee include the head of the seminar, the two subject mentors, the head teacher of the school involved, and one teacher whom the student chooses. The examination committee's final evaluation is based on the following four items (Kultusministerium Hessen 1990):

- *Pre-examination grade*. The head of the seminar, the subject experts of the seminar, the head teacher, and the mentors of the participating school write reports on the student teacher's general performance.



- *Thesis grade.* The student teacher writes a thesis on lessons and units he or she has taught. Subject experts advise students on the choice of a topic and related issues; the topic is chosen 3 months before the thesis is due. The thesis is evaluated by two subject experts—chosen by the head of the seminar—each of whom writes an evaluation of the student teacher's written work and assigns the student a grade. If the evaluators disagree over the grade, the representative from the education ministry meets with the subject experts and decides which grade is appropriate.
- *Oral examination grade.* Students must answer questions on pedagogical, methodological, and subject-related issues, as well as questions about school laws and school organization. The oral examination takes 60 minutes.
- *Grades for lesson plans and observed lessons in two subjects.* Prior to the day of observation and evaluation of the student's teaching performance, the student teacher distributes copies of lesson plans or units that he or she will teach to examination committee members. After observing the student teaching, the committee meets with the student to discuss his or her performance.

### **Evaluations of Teacher Training**

Several surveys regarding the quality of university teacher education programs have found that students criticize the lack of balance between theory and practice in their studies. Many students preparing to teach in the *Grundschule* and *Hauptschule* stressed that they would prefer fewer courses in their major subjects and more practice-oriented courses in educational and instructional psychology. In addition, student teachers pointed out that they need more effective hands-on practice than their current practica offer and that University supervisors and

mentors need to work together to provide the student teachers with more guidance during the practical experience. In contrast, students preparing to teach in the *Gymnasium* are satisfied in general with the quality and quantity of their subject matter. However, these teachers felt the required studies in education were of no value (Klinzing 1990). Students also complained about crowded seminars and lectures, the lack of relevant courses, and the poor organization of courses in general education (Steltmann 1980).

Concerning the second stage of teacher training, a number of student teachers complained that they received little assistance with lesson preparation, presentation, and assessment of students at school. Since student teachers received little feedback from supervisors and mentors concerning their lessons, they often felt anxious, stressed, and overworked during their directed student teaching; they also felt ill-prepared to deal with learning and behavioral problems (Klinzing 1990). Some student teachers remarked in a 1985 report that mentors did not provide them with opportunities for assessment of student achievements; other student teachers said they had excellent experience in one of their two subjects but none at all in the other subject (Department of Education and Science [DES] 1986). Consequently, lack of experience and inadequate preparation resulted in a “practice shock” for many student teachers.

Studies also indicate student teachers' attitudes toward teaching changes during the second stage of teacher training. Whereas students appear to be idealistic and open to new ideas about teaching during the first stage of their training, they seem to develop more conforming and less innovative attitudes toward teaching during their student- teaching experience. Pressure to conform from mentors and other teachers at school has a great impact on the shift from progressive to traditional teaching attitudes and approaches.

A survey conducted among graduates of the teacher-training college in Berlin (before it was integrated into the University of Berlin) in 1980 revealed that new teachers felt that their training was too theoretical (Oesterreich 1987). The results from survey responses from 115 new teachers (out of 167 asked) are summarized in table 17.

Table 17—Suggestions for improving the work experience of beginning teachers from a survey of graduates of the Berlin Teachers' College: 1980

Suggestions for improving the work experience of beginning teachers	Frequency of suggestion	Percentage of respondents giving suggestion
More practical emphasis during studies	61	53.0
Reduction of pressure for success during second phase of training	39	33.9
More self-responsibility for teaching during second phase of training	35	30.4
More cooperation and support	35	30.4
More support from mentors and experienced colleagues	30	26.1
Better organization of seminars	21	18.3
Improvement of teaching conditions at schools	16	13.9
Improvement of job contracts	9	7.8
Nonclassifiable suggestions	20	17.4
Total number of suggestions	266	--
Total number of respondents	115	--

SOURCE: Adapted from Oesterreich 1987.

## **Reform Efforts Past and Present**

In the 1970s, participants in an educational reform movement attempted to introduce a one-phase teacher-training program integrating university studies and directed student teaching. In 1974, such a training program was established as a model at the University of Oldenburg. However, within 5 years, political and economic forces, such as the lack of personnel and material resources, brought about the demise of the one-phase teacher- training model. According to Schwänke (1988), the one-phase training program failed largely because of conflicting political interests in the program.

In another effort to bridge the gap between theory and practice, some have favored the reintroduction of teacher- training colleges, since the emphasis at the universities is on academic studies rather than practical training (Stallmann 1990). Others, such as Terhart (1992), still support teacher training at universities but recommend that the university system be improved to provide stronger background knowledge in the major subjects and training in didactic techniques. At present, the didactic courses offered by various university departments play a rather minor role in teacher training: reform efforts would strengthen and emphasize these didactic courses (Terhart 1993).

Reformers also advocate increased exposure to classroom practice for student teachers. Once students finish their training and take their first teaching position, they are on their own. Education theorists propose giving student teachers exposure to real-life school situations via case studies or video excerpts at all stages of teacher training. In this way, it is believed that they could gain a vision of reality and be able to build a repertoire of strategies for dealing with problematic situations (Terhart 1992). Education theorists believe that working with case studies

not only helps make future teachers aware of ethical issues surrounding teachers' behavior and decisions but heightens their awareness of the professional teaching ethic (Terhart 1994).

## The Teaching Profession and Teachers' Work Life

### Female Teachers in Germany

The teaching profession in Germany was traditionally dominated by men. Beginning in the 19th century, when the introduction of compulsory education increased the demand for teachers, women were recruited to fill the additional positions. However, the number of women teachers remained low until the 1960s. Since then, the percentage of teachers who are women has risen steadily so that now more than half of all teachers are women (table 18).

Table 18—Number of teachers employed in Federal Republic of Germany, number and percent of women teachers, 1960–87

Year	Total number of teachers (thousands)	Number of women teachers (thousands)	Percentage of women teachers
1960	210.1	80.4	38.3
1965	243.1	108.1	44.5
1970	313.4	162.4	51.8
1975	425.9	237.9	55.9
1980	498.0	275.4	55.3
1985	497.6	272.0	54.7
1987	492.6	271.3	55.1

SOURCE: Adapted from Schulz 1990.

## The Teacher as Civil Servant

Depending on the length of the teacher-training program and the time individual students take to finish, some teachers may be 26 to 30 years old when they apply for their first teaching position. New teachers are appointed to a probationary position (usually lasting 3 years) during which they are observed in class on several occasions. At the end of the probationary period, teachers are eligible to become civil servants (*Beamte*). The majority of teachers are civil servants with tenure. In the state of Nordrhein-Westfalen, for example, out of a total of 141,027 teachers, 129,750 (92 percent) are civil servants with tenure and 11,277 (8 percent) are nontenured employees (Schulz 1990).

As civil servants, teachers have to comply with the regulations for professional and ethical conduct developed for all civil servants. For example, civil servants must maintain impartiality, unselfishness, confidentiality, commitment to community support, and allegiance to the constitution. There is no special code of behavior written specifically for teachers.

## Workload and Extracurricular Activities

The number of lessons taught per week varies from state to state and depends on school level. In general, teachers instruct from 23 to 28 lessons per week, each lesson lasting 45 minutes. In Berlin, for example, teachers have the following teaching obligation:

- 26.5 periods—*Grundschulen*;
- 25.5 periods—*Hauptschulen* and *Realschulen*;
- 24.5-periods—*Sonderschulen*; and

- 23 periods—*Gymnasien*, *Gesamtschulen*, and *Berufsschulen*.

Heads of schools (*Rektoren*) teach 4 to 11 periods a week depending on school type and size (Bergman & Ziemer 1993).

Throughout Germany, teachers may reduce their workload as they become older. At the age of 53, for example, the workload may be reduced by one period per week, at age 55 by two periods per week, and at age 58 by three periods a week (Bergman and Ziemer 1993).

The teachers' workload also includes time spent outside the classroom. Teachers typically spend several hours each afternoon preparing lessons and correcting and grading students' work. Field trips and school excursions also require teacher's time, as do school committees (*Konferenzen*) and parent-teacher meetings (*Klassenelternversammlung*). A study conducted in Hessen in 1972–73 indicated that teachers spent 50 percent of their work time teaching, 37.5 percent in class preparation and grading assignments, and 12.5 percent in miscellaneous activities such as attending committee meetings, writing report cards, and talking with parents and students (Schwänke 1988).

Teachers who supervise students' extracurricular activities, such as a theater group or the school newspaper, are relieved of some of their normal teaching periods in exchange for their time. However, this extra time off for school-related activities has been harshly criticized in *Der Spiegel* because the teacher's absence may result in canceled classes (“Projekte am Teich” 1990). German schools do not employ substitute teachers. When a teacher is absent, his or her classes are taught by other teachers in the school if they are available during those hours.



## The Teacher's Workday

A teacher's workday typically begins between 7:30 and 8 a.m. and concludes for most teachers around 1 p.m. *Gymnasium* teachers at the upper level (11<sup>th</sup> through 13<sup>th</sup> grades) may return to school after a lunch break at home or remain at school during the afternoon in order to teach art or physical education. In some states, teachers at all levels also teach on Saturdays until 11:25 a.m., except on the first Saturday of each month, when there are no classes.

German teachers do not follow the same schedule each day, and they usually change grade levels from year to year. For example, a teacher who teaches French on Monday first and third hour has a different schedule on Tuesday; a *Gymnasium* teacher, who teaches upper level students (11<sup>th</sup> through 13<sup>th</sup> grades) this year might instruct fifth- and sixth-graders the next year, or might have a mix of upper and lower level classes.

At the beginning of every school year, each teacher is assigned a homeroom. A homeroom teacher not only teaches a particular subject but also handles the paperwork and various issues raised by students and parents in that class. Homeroom duties also include:

- Writing grade reports twice a year for students in his or her homeroom class;
- Arranging time at the beginning of the school year and after to meet parents and to elect parent representatives for the homeroom class;
- Meeting with parents as necessary to discuss issues such as classroom dynamics, or special topics such as sex education or class excursions;
- Supervising the students' election of a student representative; and
- Keeping a "homeroom classbook" in which are recorded lesson objectives and comments concerning students who behave disruptively.

Each school day has two breaks lasting 20 and 15 minutes, respectively, during which all teachers meet in the teachers' room to socialize and share experiences. Teachers also use the common teachers' room to prepare lessons or correct tests. Although teachers do not have their own desks in the teachers' room, every teacher does have a small cabinet in which to store books and other teaching materials. The teachers' room also has special books and magazines dealing with lesson plans and teaching techniques. Many magazines specialize in particular subject areas and practical techniques for teaching a subject in the classroom. In addition, teachers of particular subjects often use the teachers' room to discuss their subject matter.

The general public tends to believe that teachers have an easy life. Because teachers may be finished teaching at lunchtime, many people believe that teachers work part-time. Also, many are envious of teachers' vacations, which total 12 weeks: 6 weeks of summer vacation, 3 weeks at Easter, 2 weeks at Christmas, and 1 week in the fall (Stallmann 1990). Additional holidays vary from state to state. Teachers are not permitted to hold a second job either during school or vacation time unless the job is related to teaching, such as teaching an evening class. If teachers do hold such a job, they first must receive special permission from the regional school office, or *Schulamt* (McAdams 1993).

### **Inservice Training for Teachers**

Long periods of vacation are also used as time for teacher inservice training, which some states require. Accordingly, numerous state institutions and academies offer teacher inservice courses. On the local and regional level, unions, universities, and miscellaneous private

organizations offer additional courses. More than 450 institutions offer inservice courses (Schulz 1990).

Although many inservice courses currently deal with computer technology, environmental education, and issues concerning foreign students in the classroom, schools may organize their own inservice training programs to address other issues of great concern. To this end, schools invite experts to discuss how to tackle particular problems at school (Schulz 1990).

### **Teacher Assessment, Promotion, and Compensation**

Teachers are evaluated every 4 to 6 years until they reach age 55. The assessment arrangements vary according to the type of school and the individual state. In *Grundschule* and *Hauptschule* (and *Realschule* in Nordrhein-Westfalen), an inspector evaluates teachers. On an agreed-upon date, the inspector evaluates lesson plans, observes lessons, and examines the teacher's assessment of students' work. After discussing the observed lessons with the teacher, the inspector writes a detailed report and gives the teacher a grade. The report includes an evaluation of the teacher's subject knowledge, teaching performance, professional behavior, and overall contribution to school and community. The observed teacher has the opportunity to comment on the inspector's evaluation and must sign the report to show that he or she has seen it.

Teachers in *Gymnasium* (and *Realschule* in Bavaria) are usually evaluated by the principal (Rektor), although often with the involvement of the subject specialist inspector for the area or region. Each of the regions of Bavaria has a head *Ministerialbeauftragter* who checks the reports written by the *Gymnasium* school heads about his or her staff. The periodic assessment of teachers' performance provides the state with a dossier that will be used in considering teachers

for promotion and higher salaries (DES 1986). Opportunities for promotion are especially extensive for *Gymnasium* teachers.

Promotion is highly desired because it brings a salary increase, which is substantial when moving to a higher position such as that of director of a department or principal. Teachers who are civil servants enjoy good fringe benefits, such as supplemental salary for spouse and children, a pension, health care, the possibility for sabbatical, and personal leave of several years' duration. Pay is determined by a national pay scale for civil servants (*Bundesbesoldungsgesetz*), which takes the amount of schooling into account. Teachers are paid at the salary levels A–12 to A–16. At the lower end of the scale, elementary and *Hauptschule* teachers are paid at the A–12 level (in Hamburg and Bremen A–13). *Realschule*, *Gymnasium*, and vocational school teachers start at the A–13 level and may advance to a higher level by receiving promotions (Stallmann 1990).

Table 19 shows the pay range for teachers in 1994–95 according to federal policy (Statistisches Bundesamt 1995).

Table 19—Pay range for teachers according to Federal pay scales, 1994–95 in U.S. dollars

Pay level	Minimum pay		Highest	
	Single	Married	Single	Married
A–12	\$36,290	\$39,172	\$53,103	\$55,986
A–13	\$40,834	\$43,717	\$58,986	\$61,876
A–14	\$40,683	\$44,379	\$64,228	\$67,117
A–15	\$44,745	\$47,628	\$72,621	\$75,503
A–16	\$48,745	\$51,628	\$80,986	\$83,869

SOURCE: Statistisches Bundesamt 1995.

NOTE: The pay rates above do not include supplements for dependents. Employees at the same pay levels in states of the former East Germany received 84 percent of these salaries in 1995.

Exchange rate used: \$1 = 1.45 DM.

The pay level that applies to each teacher is determined by the level of the school and the position the teacher holds. Level A-12 is for *Grundschule* and *Hauptschule* teachers; level A-13 is for *Realschule*, *Gymnasium*, special school, and vocational school teachers, as well as *Grundschule* and *Hauptschule* teachers with graded positions. Levels A-14 through A-16 are for graded positions at all schools; *Gymnasium* and vocational school teachers are at an advantage, as they can receive standard promotion to level A-14, and can be graded up to level A-16 for higher administrative positions, one level higher than the highest positions at *Realschulen* and special schools. *Grundschule* and *Hauptschule* teachers can only be graded up to level A-14.

When teachers reach age 65, they are eligible for retirement. The size of the pension depends on the number of years worked. For example, a teacher with 35 years of teaching experience receives about 75 percent of his or her most recent compensation (Schulz 1990). Recently, however, many teachers have chosen to take early retirement because they feel frustrated and burnt out ("Horror Job Lehrer" 1993).

### **Teachers' Unions**

Although teachers have the right to join a union, they are not allowed to strike because of their status as civil servants (*öffentlich-rechtliches Treueverhältnis des Beamten*). In 1987, about 65 percent of a total of 541,156 teachers in Germany belonged to a union.

The unions represent the professional, economic, legal, and social interests of their members. Their agendas include: development of school reform models, publishing magazines, organizing conferences, and conducting inservice training seminars. Union representatives also attend meetings at state education ministries regarding the training of future teachers; however, all decisions are solely made by the ministers of education (Schwänke 1988).

Germany has three main unions—the *Gewerkschaft Erziehung und Wissenschaft*, or GEW (Union of Education and Science), the *Verband Bildung und Erziehung*, or VBE (Union of Training and Education), and the *Deutscher Lehrerverband*, or LV (German Teachers Union)—which differ in size, composition, and political opinions.

- The GEW is the largest union, having 200,000 members, 130,000 of whom are teachers. In contrast to the other two unions, the GEW represents people of various educational professions, such as professors, in addition to teachers.
- The VBE represents 100,000 teachers, mainly from *Grundschule*, *Hauptschule*, and *Sonderschule*.
- The LV represents 120,000 members, mainly from *Gymnasien*, *Realschule*, and *Berufsschule*.

Political differences exist among the three unions. The GEW, for example, promulgates the *Gesamtschule* as an alternative to the “three-class school system” (*Dreiklassenschule*), which reinforces, in the opinion of the GEW, existing social stratification (Schulz 1990).

In the past, the GEW helped reform teacher training by strongly recommending at least six semesters of mandatory university study for all future teachers. In addition, the GEW fought

for and achieved better compensation for *Grundschule* and *Hauptschule* teachers (Körfigen 1986). Currently, the GEW demands, among other things, a reduction in the average teaching load, and equal compensation for teachers in states of the former East Germany.

### **Teacher Employment and Unemployment**

Primarily, the grade earned on the Second State Examination and the demand for a particular subject combination determine an individual's chance of finding a position as a teacher. Teachers are hired by states and work as civil servants; therefore, the demand for new teachers is strongly influenced by trends in school enrollment. When school enrollments drop sharply, as they did throughout the 1980s, there is an oversupply of teachers, and significant unemployment results. For example, in 1980, the German labor office reported that there were 7,390 fully trained teachers who were unemployed. This figure rose sharply, to a high of 25,012 in 1985, and then began to decline (as enrollments rose, especially at elementary schools), finally reaching a level of 13,200 in 1992 (KMK 1993a, 1993b).

Teacher unemployment is a problem mainly for beginning teachers. Although school enrollments strongly affect teacher employment, social and political factors operating together also influence the employment factor. For example, working conditions, such as class size and number of hours in the school day, along with salaries and retirement policies, may affect teacher unemployment. However, in practice these conditions are set in large part by the political and economic climate (Stallmann 1990).

Other less tangible factors also play a role in teacher unemployment. Specifically, the reduction in teacher unemployment between 1985 and 1992 was accomplished, according to the KMK, partly through the high degree of willingness of unemployed teachers to retrain for other

professions. This fact, combined with the increase in the number of positions for new teachers, especially at elementary schools, is responsible for the reduction in teacher unemployment between 1985 and 1992 from 4.1 percent to 2.7 percent (KMK 1993a).

## Summary

Even in the face of high unemployment, many students choose to become teachers in Germany. Primarily, students choose this career path because they wish to work with children and teach subjects of interest. However, some students enroll in a teacher- training program because they were not accepted into a different field of study or because they could not make a career decision.

Students wishing to pursue a teaching career must commit themselves to a long period of training. Training programs for elementary and middle school teachers last at least 6 years, while programs for *Gymnasium* or vocational school teachers last at least 7 years.

Teacher-training programs consist of two phases: academic training at a university and directed student teaching in a school, accompanied by seminars. Despite the years of training, many student teachers complain that they do not feel adequately prepared for their future career. Students often criticize the discrepancy between theory and practice in their training. Reform efforts to integrate university studies with directed student teaching in a one-phase teacher-training program have failed.

Once students finish their long training and enter their first teaching position, they are largely on their own. There is no master teacher assigned to assist the beginning teacher during the first roller-coaster year. After a probationary period normally lasting 3 years, teachers are



eligible to become civil servants with tenure. Thus, the majority of teachers in Germany are civil servants. As such, teachers are obliged to comply with regulations for professional and ethical conduct that have been developed for all civil servants.

Normally, teachers teach 23 to 28 lessons per week, depending on state regulations and school level. The teaching load of elementary school teachers is by far the heaviest, typically consisting of 28 periods per week. The principal also is responsible for teaching a few periods each week. If a teacher is absent, classes are covered by other regular teachers; substitute teachers are not used.

Teachers at all levels and in all school types have opportunities for promotion, but *Gymnasium* teachers enjoy the greatest possibilities for advancement. Roughly two-thirds of all teachers in Germany belong to a union. The three major unions are the GEW (Union of Education and Science), with 130,000 member teachers; the VBE (Union of Training and Education), with 100,000 members; and the LV (German Teachers Union), with 120,000 members. The number of unemployed teachers reached a peak of around 25,000 in 1985, and has since fallen sharply as school enrollments have increased and some unemployed teachers have entered other professions.

**Japan**

## The Educational Structure of the Japanese School System

Chris Frasz and Kazuo Kato

### Overview

The current school system in Japan is based on a structure referred to as the 6–3–3 system: 6 years at elementary school (*shogakko*), 3 years at junior high school (*chugakko*), and 3 years at high school (*kotogakko*). The two principal higher education institutions that follow completion of a high school-level education are the university (*daigaku*), typically a 4-year program, and the junior college (*tanki daigaku*), typically a 2-year program. Education in Japan is compulsory for children between the ages of 6 and 15, encompassing the 6 years of elementary school and the 3 years of junior high school. High school education is not compulsory. This single-track system, introduced in 1947 by the school education law, avoids making distinctions between students on the basis of ability or achievement by incorporating separate tracks, ability groupings, remedial programs, or student electives during the compulsory school years (U.S. Department of Education [USED] 1987). In accordance with not separating students based on ability, promotion from grade to grade is based primarily on attendance with retention being virtually unknown.

In addition to the system mentioned above, there are special education schools, vocational schools, and a variety of alternative schools that are introduced after the completion of junior high school. These schools vary in curriculum, length, and qualifications required for entrance. Schools beyond the junior high school level may offer full-time (*zennichi sei*), part-time (*teiji sei*), and correspondence courses (*tsushin sei*). National institutions (*kokuritsu*), schools funded

solely by the Ministry of Education, Science, and Culture (Monbusho); public institutions (*koritsu*), schools funded by national, prefectural, and municipal authorities; and private institutions (*shiritsu*), schools relying on tuition and government and private grants; have been established for nearly all these types of schools.

Although pre-elementary education in Japan is not compulsory, most children attend some sort of preschool or day care center before they enter elementary school (when compulsory education begins at age 6). The two main educational institutions for pre-elementary children are kindergartens (*yochien*) and day care centers (*hoikuen*, sometimes referred to as *hoikusho*). (*Yochien* and *hoikusho* are under the jurisdiction of Monbusho and Koseisho [Ministry of Welfare], respectively.)

### Pre-Elementary Education

The Japanese preschool, which as recently as 20 years ago played no significant role in the care and socialization of children, has become a core institution in contemporary Japan, enrolling over 95 percent of Japanese children in *yochien* or *hoikuen* before they enter the first grade (Tobin, Wu, and Davidson 1989). Both *yochien* and *hoikusho* are structured to develop the social skills of the children while teaching the importance of group identity and group skills. The two institutions are similar with respect to physical facilities, curricula, teaching styles, and classroom activities (USED 1987). There are a number of variations, however, that characterize these two pre-elementary institutions.

## Kindergartens

In 1992 nearly 2 million children (49 percent female)—324,000 3-year-olds, 754,000 4-year-olds, and 891,000 5-year-olds—attended more than 15,000 private and government supported *yochien* (Monbusho 1993b). These preschool centers enroll children from the ages of 3 to 5 and provide them with nursery education until elementary school. In 1992, 64 percent of all first-graders had completed some portion of *yochien* (Monbusho 1993b).

Kindergartens are operated under the supervision of Monbusho and are in session approximately 4 hours per day with a minimum of 39 school weeks per academic year.

The kindergarten curriculum is primarily nonacademic. Although constructed by each individual institution, the curriculum must meet the national standards provided by the Course of Study for Kindergartens (an Education Ministry Notification). This notification, which took effect on April 1, 1990, emphasizes the following for the fundamentals of kindergarten education: to encourage independent activities within a group structure, to attain the aim of education mainly by instruction through play, and to provide guidance in accordance with the characteristics of development of each individual child.

## Day Care Centers

Day care centers (*hoikuen*) enroll approximately one-third of Japanese 4- to 5-year-olds (USED 1987). In contrast to *yochien*, which serve mostly the children of mothers at home, *hoikuen* are created for employed mothers and, accordingly, accept children from infancy to age 5.

Day care centers are the responsibility of the Ministry of Welfare (Koseisho) and are in session 6 days a week for 8 hours per day, though sometimes running from as early as 7 a.m. to as late as 7 p.m., to accommodate the various schedules of the employed mothers (Tobin et al. 1989). *Hoikuen* have gradually constructed their curriculum to be very similar to that of the *yochien*.

## Elementary School

All children in Japan are required to attend elementary school, either a public school in their residential district or a private or national school that may be outside their district. In 1992 Japanese elementary schools, of which 99 percent were public, had an enrollment of 8,947,000 students (49 percent female). The percentages of students graduating from elementary school was 99.99 percent (Monbusho 1993b), which included children attending all types of Japanese elementary schools, such as private schools, schools for children with disabilities, and so forth.

### Curriculum

The elementary school curriculum is divided into three major categories:

- Regular, which contains nine subjects: Japanese language, social studies, arithmetic, science, life environment studies, music, arts and handicrafts, homemaking, and physical education;
- Moral education, which focuses on specific topics at different levels of a student's elementary education. Subjects include health and safety, disciplined life, courtesy, understanding and confidence, public manners, and environmental awareness. In private schools religion may be substituted for part or whole; and
- Special activities in four areas: class activities, students' association activities, club activities (organized mainly by fourth-, fifth-, and sixth-grade students), and school events (ceremonies, cultural performances, athletic meetings, and field trips).

## Schedule

The school year for elementary students lasts 35 weeks or more (34 weeks or more for first-grade students). The school calendar for elementary schools, as well as that for secondary schools and universities, begins officially on April 1 (although in actuality usually not until the end of the first week of April) and ends on March 31 of the following year. The school year for elementary schools and secondary schools typically consists of three terms: April 1 to August 31, September 1 to December 31, and January 1 to March 31.

Schools are not in session on Sundays, national holidays, or the second and fourth Saturday of each month. Other vacations include the summer vacation, typically from mid-July to the end of August; winter break, typically from December 25 to January 7; and spring break, typically from March 21 to March 31. For each individual school, these vacations may vary slightly in length or commencing and ending dates. The principal of the school can also determine specific holidays (up to a period of 15 days). For instance, in some regions a holiday may be created during the busiest farming period. National and private elementary schools follow similar schedules (Jichi Sogo Center 1991).

The minimum required number of school hours, one school hour being 45 minutes, varies for the different grades, increasing as the student advances grade levels. The breakdown of the hours spent on each curriculum category also varies among grades. For example, first- through third-grade students have 850, 910, and 980 school hours, respectively, of which approximately 70 hours are equally divided between special activities and moral education. For fourth-, fifth-, and sixth-graders, the required number of school hours is 1,015, of which 35 are set aside for moral education and 70 for special activities. These listed school hours were instituted in April 1992 by Monbusho.

Though the minimum required number of school hours varies for different grade levels, Monbusho requires a minimum of 210 days of instruction, including a half-day on Saturdays which is counted as a full day for all elementary and secondary school students. However, local school boards, which can add more days to the school calendar at their discretion, typically

specify 240 school days per year, including Saturdays, to permit time for nonacademic studies and activities. The "extra" 30 days that are reported allow school time to be used for various activities such as field trips, sports day, cultural festivals, and graduation ceremonies (Ichikawa 1988).

The starting and ending time for elementary school is determined by the school principal. A typical school day lasts from 8:30 a.m. until approximately 3:50 p.m., with academic classes in the morning and music, art, physical education, and a study period in the afternoon. A daily schedule from a 1983 school handbook (*Sendai Shiritsu Tashiro Shogakko* 1983) reveals the following schedule for elementary students:

- Before the first morning class, 10 minutes are allocated for student preparation, except on Monday, when there is a 25-minute school assembly;
- After each of the first three morning classes, students have a 10- or 15-minute break;
- After the fourth morning class, students have 45 minutes for lunch;
- After lunch, students have 30 minutes for cleaning followed by one regular class period; and
- The balance of the afternoon varies depending on the day of the week, with either student meetings, another regular class period, or club activities.

The half-day of school on Saturday follows the same morning schedule as noted above, except the typical 30-minute cleaning period follows the third regular class, with a final 20-minute recess before school is dismissed at 12:30 p.m. This schedule coincides with the standard number of school hours in the Course of Study for Elementary Schools, which was implemented in April, 1992 (Jichi Sogo Center 1991).



## Junior High School

Like elementary school, junior high school is compulsory; students may attend either a local public school or a private school anywhere. According to Monbusho (1993b), in 1992 more than 5 million students (49 percent female) attended a total of 11,300 junior high schools, 93.8 percent of which were public institutions. Of these students, nearly 1,774,000, representing 99.99 percent of the students, graduated from junior high in 1992. Of these graduates, 95.9 percent continued to a higher school, 1.6 percent entered a special school, and 1.7 percent obtained employment (Monbusho 1993b).

## Curriculum

The junior high school curriculum is divided into the same three major categories as the elementary school curriculum:

- Regular, which consists of eight courses with optional courses also available to the student. The eight required courses are Japanese language, social studies, mathematics, science, music, fine arts, health and physical education, and technical arts and homemaking. The elective courses include music, fine arts, health and physical education, technical arts, homemaking, and foreign languages;
- Moral education, which has the same objectives as in elementary school, with some of the offered courses divided into three groups: classes concerning students themselves, classes concerning relations with others, and classes concerning relations with groups or society; and
- Special activities, which consist of the same four categories as in elementary school, except that student council activities replaces student association activities.

## Schedule

In junior high school, one school hour is 50 minutes and at least 1,050 hours are required. For all junior high school students, moral education is allocated 35 school hours; however, the hours for special activities vary from 35 to 70 school hours for the first-year students (seventh grade) and 35 school hours for the second- and third-year students.

The length of the school year is 35 weeks or more, depending on decisions of the local school board. As previously noted, however, the minimum required amount of school time is often exceeded. A close look at a typical junior high school reveals a more accurate figure of the actual schooling time. In 1990, a typical junior high student followed this schedule:

- First semester—April 5 to July 19;
- Second semester—September 1 to December 25; and
- Third semester—January 7 to March 20.

The school year consisted of 240 days, with 5 to 6 hours on weekdays and 3 hours on Saturday. This yielded a total of 1,205 school hours, far exceeding the 1,050 hours required by Monbusho (Nishimura, Amakasa, and Horii 1992).

## High School

High school is not compulsory in Japan; therefore, entrance to high school is not automatic. To be admitted, students must successfully complete junior high school and pass a high school entrance examination.

High schools offer three types of enrollment: full time, part time, and correspondence courses. The length of schooling for a full-time student is 3 years, while a part-time student or

correspondence student attends high school for 4 or more years. The part-time students can take either day or night courses, the latter being more prevalent. A high school diploma is awarded for completion of any one of these three different courses.

## Curriculum

The high school curriculum may be classified into two main categories with regard to content—academic courses (*futsuka*) and vocational courses (*shokugyoka*)—and two minor categories—a technical course (*senkoka*) and a special course (*bekka*). Academic courses provide general education for students who either wish to continue to university after graduation or who may pursue specific vocational programs after graduation. The academic classes can be separated into two main categories: regular classes and special activities; specific time is not set aside for moral education in high school because it is believed to be incorporated throughout the other courses. The academic student faces a demanding schedule of required core courses of Japanese language, mathematics, science, English, and social studies. Elective courses are limited to two courses per year and are usually chosen to assist in preparing for a particular university's entrance examination (USED 1987).

Vocational courses prepare students for specific trades or occupations by offering training and other professional education. The major fields of study are commerce, industry, agriculture, home economics, nursing, marine studies, and art. The vocational curriculum is oriented to preparing students for careers, but it is not specific to particular jobs. When compared with academic students, vocational students spend less class time studying academic subjects. The incentive to study is not so strong among these students, because there are no university entrance examinations to prepare for, and future employers of vocational school graduates do not base employment decisions solely on academic records.

There are also two other courses offered to high school students, a technical course (*senkoka*) and a special course (*bekka*). These courses enroll less than 0.2 percent of the high school students and do not award degrees after completion of one or more years of schooling.

Of the 5,501 high schools, 51 percent offered only regular courses; 18 percent offered only vocational courses; and 31 percent of the schools were comprehensive, offering both general and vocational courses (Monbusho 1993b). Classifying the schools by their funding, 70.6 percent were public, 29.2 percent were private, and 0.2 percent were national high schools (Monbusho 1993b).

In 1992 there were more than 5,218,000 high school students in Japan (49.7 percent female); of these, 74.0 percent were enrolled in the regular academic program courses and 25.9 percent were enrolled in vocational programs. More than 1,807,000 high school students were graduated in 1992. Of these, 32.7 percent continued to a university or a junior college, 30.2 percent went to a special school, 32.3 percent obtained employment, and 4.7 percent were unemployed (Monbusho 1993b). 2.1 percent of students drop out during their high school years. In 1992 part-time students represented the largest percentage of dropouts: 14.6 percent. In comparison, much lower percentages of full-time high school students in both the academic and vocational course curricula dropped out: 1.4 percent and 2.7 percent, respectively (Monbusho 1993b). Their reasons for not continuing greatly varied, but the primary reasons were “inability to adjust to the high school environment and studies” (27 percent), “seeking employment” (26 percent), and “deficient ability” (10.3 percent) (Monbusho 1993b).

## **Schedule**

As in junior high school, 1 school hour equals 50 minutes, but the standard number of school hours is 1,190 hours per year. The length of the school year is 35 weeks, with 5 to 6 school hours on weekdays and 4 school hours on Saturdays. A typical school day during the

week may start at 8:35 a.m. and end at approximately 3:30 p.m.; school on Saturday typically runs from 8:35 a.m. to 1:00 p.m.

## Universities

Students are eligible to enter a university after completing 12 years of academic courses and passing an entrance examination to the university of their choice. A wide range of universities exists, giving students many options, but it is difficult to secure employment with prestigious companies unless one has attended one of the top-ranking universities. Because one's university determines one's prospects for the best careers and jobs, and because the results of the university entrance examination are a key factor determining whether a student is admitted to his or her chosen university, preparation and competition are so intense that some students start preparing as early as junior high school.

The usual length of study at a university is 4 years. Typically, a university is divided into faculty groups (*gakubu*), equivalent to schools and colleges, though it may also have different organizational units such as project research groups. For example, Tsukuba University, referred to as a “newly planned university,” is organized by project research groups.

Faculties are determined by academic domain, such as social science faculty group and natural science faculty group, each of which may be subdivided into departments. The education faculty group, for example, may have such departments as educational psychology or educational administration.

In 1992 more than 2,293,000 students (29.3 percent female) attended the 523 Japanese universities. Of these universities, 73.4 percent were private, 7.9 percent were public, and 18.7 percent were national schools (Monbusho 1993a).

Of the 437,878 university graduates in 1992, 80.9 percent obtained employment; 7.6 percent continued to higher education; 5.7 percent went to special training schools,

miscellaneous schools, job-training schools, or were unemployed; 1.6 percent obtained internships, such as in medicine; and the paths of 4.2 percent were unknown (Monbusho 1993a).

Graduate schools, where students can pursue advanced studies in various fields for masters' and doctor's degrees, requiring 2 and 5 years of study respectively, exist in 335, or 64 percent of the universities. In 1992, there were 109,108 graduate students (18.0 percent female) in Japan (Monbusho 1993a).

## Junior College

Junior colleges teach and conduct research in specialized academic subjects pertaining to vocations such as teacher education, engineering, and agriculture; or general education, including humanities, social science, and general culture. Some of the more popular fields of study are home economics, teacher education, and humanities. Students who have completed upper secondary education are eligible to enter a junior college. Degrees are awarded after the required 2 or 3 years of schooling, depending on the field. Junior college graduates may choose to apply for admission to a university.

In 1992 most students attending junior colleges were female (91.7 percent). In that year 524,538 students attended 591 junior colleges, 84.3 percent of which were private institutions (Monbusho 1993a).

Of the 226,432 junior college graduates in 1992, 85.7 percent obtained employment, 4.2 percent continued to higher education, and 7.4 percent went to special training schools, miscellaneous schools, job training schools, or were unemployed. Over one-third of those obtaining employment entered the service industry, 20 percent entered manufacturing, 17 percent entered retail or wholesale business, and 16 percent obtained employment with banking or insurance companies (Monbusho 1993a).

## Technical Schools

Technical schools (*koto senmon gakko*) teach specialized academic subjects to develop the skills needed for certain vocations. These schools were established in 1962 to respond to the demand for middle-level technicians during the rebuilding of Japan's industries (Sagara 1976). Entrance to a technical school, in contrast to entrance to a university or junior college, requires only completion of junior high school. Students are enrolled in a 5-year uniform course, during which they receive the equivalent of a high school education plus 2 years of specialized classes. The courses offered at a technical school may be classified into various departments, such as mechanical engineering for industry, electrical engineering, industrial chemistry, or merchant navigation. The degrees obtained are similar to those of junior college graduates, and some students choose to enter a university after graduation.

The majority of technical school students are men, as can be seen by the enrollment of 1992: 54,739 students (12.9 percent female) attended 62 technical schools; 87.1 percent of these are privately owned (Monbusho 1993a). Of the 9,280 technical school graduates (6.9 percent female) in 1992, 82.9 percent obtained employment, 14.7 percent continued to a higher school, and 2.2 percent were unemployed (Monbusho 1993a).

## Special Training Schools and Miscellaneous Schools

In addition to the formal education schools mentioned above, Japan has many special training schools (*senshu gakko*) and miscellaneous schools (*kakushu gakko*), most of them private. Such schools do not usually require an entrance examination for admission, and any test administered is relatively easy. The basic requirement for admission is usually completion of junior high school, but some schools require a high school education depending on the courses offered. The length of schooling varies from 3 months for miscellaneous schools to a year or more for special training schools.

In 1992, there were nearly 862,000 students (50.6 percent female) attending 3,409 special training schools, of which 89.7 percent were private. In addition, about 390,000 students (48.9 percent female) attended 3,202 miscellaneous schools, of which 97.4 percent were private institutions (Monbusho 1993b).

Special training schools aim to provide education in certain vocations or to help improve a student's general education. By law, special training schools must enroll more than 40 students at all times and classes must be conducted for at least a year, exceeding 800 hours of instruction. Special training schools offer three types of courses: upper secondary courses (*koto katei*), equivalent to high school; postsecondary courses (*senmon katei*), or specialized courses; and general courses (*ippan katei*).

Upper secondary courses correspond to high school education and require completion of junior high school for admission. Specialized courses are equivalent to universities courses and require students to have completed their high school education. General courses for continuing education are open to all students regardless of their educational background.

Miscellaneous schools offer programs concerning practical life skills or specific vocations, such as dressmaking, cooking, bookkeeping, car driving and maintenance, and computer skills. With a three-level structure similar to that of special training schools, miscellaneous schools offer courses at the high school level, postsecondary courses, and general courses.

## Special Education Schools

Japan has three types of special education schools (*shogaiji gakko*): schools for the blind (*mogakko*), schools for the deaf (*rogakko*), and schools for students with physical handicaps, psychologically disturbances, and mental retardation (*yogogakko*). This last type is divided into three specific schools of concentration. Special education schools must have elementary and junior high school departments, and may have a kindergarten department and a high school



department. Along with the appropriate level of education, instruction provides students with knowledge and skills to cope with their disabilities. In 1992 there were 963 special education schools. Of these, 93.6 percent were public institutions which were attended by over 90 percent of the nearly 90,000 students (Monbusho 1993b).

### *Juku and Yobiko*

Cram schools, *juku* and *yobiko*, are two supplementary educational institutions in Japan that prepare students for university entrance examinations. *Juku* are aimed at elementary, junior high, and high school students, while *yobiko* are directed toward those students preparing specifically for the university entrance examination. In addition to these two supplementary institutions, the Tokyo area has approximately 200 to 300 “tutoring companies” that provide private tutors for students from elementary age to university level (Kubota 1994).

#### *Juku*

The term *juku* refers to a large and diverse group of private cram schools or preparatory schools located throughout the country. These schools function independently of the regular school system and usually operate after regular school hours and on weekends.

There are two types of *juku*, academic (*gakushu juku*) and nonacademic. The nonacademic are aimed more at younger students and offer a variety of classes for general enrichment in such areas as the arts, abacus, calligraphy, and piano. The academic *juku*, however, is the more prominent of the two and holds greater importance for students as they continue their education.

There are a variety of reasons why academic *juku* flourish in Japan. They supplement regular school instruction and enable many elementary and secondary students to keep pace with the demanding school curriculum, provide remedial instruction to help those who have fallen

behind, and assist in preparing students for entrance examinations for junior high schools, high schools, and universities.

Depending on the student's needs, there are four different types of academic *juku* (Kubota 1994). The first type, the *chugakko juken juku* (junior high school entrance examination *juku*), prepares students to enter a private, high-caliber junior high school that requires an entrance examination for admission, by reviewing what was taught in elementary school and guiding students through practice entrance examinations.

The second type of *juku* prepares junior high school students for the high school entrance examination (*koko juken juku*). There are two types of these *juku*. The first type, *nankan jyokyushi/kokuritsu koko juken juku*, prepares students to enter prestigious private and national high schools. These *juku* cover the 3 years of junior high school material in 2 years, and then use the third year to prepare solely for the entrance examination. The second type of *juku* prepares students to enter public high schools (*koritsu koko juken juku*). These *juku* cover the same material that is covered in the junior high school but in a more expedient and comprehensive manner. They not only prepare students for the entrance examination, but also help them improve their school grades since greater emphasis is placed on grades in the high school admission process. There are also *juku* that offer both types of the preparation programs described above; these are called *sogo shingaku juku*.

The third type of *juku* (*hoshu juku*) provides remedial help to students who are falling behind in elementary and junior high school. These *juku* run approximately a month ahead of the regular school curriculum to prepare students for upcoming lessons. They also review current school material if deemed necessary.

The final type of *juku* (*kobetsu shido juku*) are designed for very small class sizes and concentrate on one particular subject. These *juku* teach one to five students and, depending on the students' needs and desires, focus on either helping students keep up with the regular school curriculum or preparing them for future lessons.

The percentage of students attending *juku* increases as students move through their compulsory education career. Enrollment is relatively equally divided between males and females, but students from larger populated cities show a much higher percentage of participation than those from rural areas. According to a survey conducted by Koseisho Jido Katei Kyoku [Child-Family Bureau, Ministry of Welfare] (1992, cited in Shimizu et al. 1993), 51.6 percent of the children from fifth grade to ninth grade attended *juku* (42.3 percent of fifth-graders; 47.9 percent of sixth-graders; 55.0 percent of seventh-graders; and 58.2 percent of ninth-graders). Percentages of high school students attending *juku* are not available, but it can be predicted on the basis of the Ministry of Welfare's report that the percentages decrease because approximately one-fourth of the high school students enter vocational courses and do not need to prepare for the university examination.

The cost of *juku* varies with the number of hours per week and the number of days a student attends during the various regular school breaks. The national average cost for supplementary education per year for elementary students, junior high school students, and high school students who were attending public schools in 1990 is summarized in table 1 (Monbusho 1993a).

Table 1—National average cost for supplementary education for students attending public schools in 1990, in U.S. dollars

	Cost (\$1 at 104 yen)
Elementary school	\$401
Junior high school	\$954
High school	\$496

SOURCE: Monbusho 1993a.

The annual tuition for supplementary education for students attending private high schools was slightly higher than that for public high school students (\$629) (Monbusho 1993a). But because these national averages include many students who do not participate in supplementary education, the actual cost for a student who is attending is much higher. For an elementary student preparing for a junior high school entrance examination, *juku* tuition can be from 384,000 yen (\$3,692) to 821,000 yen (\$7,894) annually. Annual tuition for a junior high school student preparing for a high school entrance examination can be from 423,000 yen (\$4,067) to 589,000 yen (\$5,663) (Kubota 1994).

### ***Yobiko***

Because even successful completion of a high school curriculum may be insufficient preparation to pass the very challenging university entrance examination, *yobiko*, another type of supplementary educational institution in Japan, offer specialized training tailored particularly for university entrance examinations (Eriguchi 1994). The *yobiko* enroll high school students and *ronin*, students who have failed the university entrance examination to the school of their first

choice and have elected to spend a full year preparing to take the examinations again. The *yobiko* are full time, year-long examination preparation programs and are geared more toward the *ronin*.

## Extracurricular Activities

Four types of extracurricular activities are available in Japanese schools. The two main types are *kurabu* (*bukatsudo*) and *bu*. *Kurabu*, which meet during regular school hours, are a required class for all fourth- through sixth-graders, and high school students. *Bu*, which meet after school at all levels, are generally optional.

### ***Kurabu***

The *kurabu* typically meet for one 45-minute session a week during the last period (2:40 to 3:40 p.m.) of a weekday, through the entire 35 weeks of the school year. Some of the most common types of *kurabu* are calligraphy, photography, music, art, tea ceremony, Japanese *go*, handicrafts/knitting, and flower arranging. These activities, typically nonacademic, serve to foster students' creativity, cooperative behavior, and self-direction. The only academically oriented *kurabu* is the English Club, which is offered by at least half of the Japanese secondary schools.

### ***Bu***

The *bu*, which may meet daily or only once or twice a week, typically last approximately 2 hours in junior high and high school and are also offered for 2 or 3 weeks during the summer session. With the exception of drama and journalism, the most commonly offered activities in *bu* are the same as those offered in *kurabu*.

Because attendance at *bu* is not required, they are not offered at all schools. The percentage of schools offering *bu*, however, greatly increases at the junior high and high school

level. The percentage of elementary schools offering *bu* is 42 percent, while the percent of junior high and high schools offering it increases to 99 percent and 100 percent, respectively.

The percent of students participating in *bu* also varies with school level. One-fourth of elementary students and three-fourths of junior high and high school students participate in *bu*. During the summer session, participation increases slightly, with 45 percent of elementary students, 90 percent of junior high students, and 81 percent of high school students taking part.

### **Other Extracurricular Activities**

Two other extracurricular activities are also offered: special activities and *hoshu jugyo*. Special activities, consisting of a wide variety of activities or events, take place once or twice a year. Among the most common activities are Sports Day, art and cultural festivals, cleaning of the school, and overnight field trips. Visits to factories or offices occur during elementary school and during high school for vocational students, the latter benefiting from the opportunity to investigate employment opportunities as they near their graduation dates.

*Hoshu jugyo* are mainly offered at academic high schools and supplement the regular curriculum. These classes, held before regular morning classes or during vacations, help students who are either falling behind in certain subjects or who are preparing for college entrance examinations. Because of the low fee, *hoshu jugyo* appeal to students who are financially unable to attend *juku* or *yobiko*. Students who are seeking admission to university by the *suisen* (recommendation) procedure are also attracted to these supplementary classes, since they offer close interaction with teachers, thus increasing the likelihood of receiving a good recommendation.

## Governance and Administrative Organizations for Education

Japan governs and administers education through its three-tiered structure composed of national, prefectural, and municipal components. The entire educational system is supervised by the national authority of the Ministry of Education, Science, and Culture, more commonly referred to as the Ministry of Education (Monbusho). Monbusho sets the guidelines to which all Japanese schools must adhere, thereby establishing a centralized, nationally controlled school system. As the major administrative organ of the state with respect to education in Japan, Monbusho is responsible for the promotion and development of school education, social education to include general education programs and information for all citizens, and science and culture, for which it administers government services for all national museums and national art galleries and some national research institutes. Education policymaking occurs at all three levels of educational administration—national, prefectural, and municipal—and is systematized and consensual.

### *Monbusho*

At the national level, Monbusho solicits advice and receives recommendations from 13 advisory councils, composed of specialists who are appointed by the minister. The Central Council for Education, whose members are appointed by the minister with the consent of the Cabinet, is the most powerful of these groups and is concerned with fundamental policy issues.

Monbusho is 1 of 13 organizations under the control of the Cabinet, the executive branch of Japan's parliamentary cabinet system. The Cabinet works with the Diet as the legislative branch and the Courts as the judiciary branch to maintain democracy at the national level by separation and balance of power. Monbusho is involved with the Cabinet and Diet in developing budget estimates and to draft national legislation for education in Japan. Therefore, Monbusho

has the national authority over the entire official system of education and is particularly influential at the elementary and secondary school levels.

The ministry's responsibilities include prescribing curricula, standards, and requirements. It approves textbooks and assumes responsibility for the content and implementation of public examinations. It directly oversees all national educational institutions, and it allocates resources and provides general supervision to prefectures, municipalities, and private institutions of higher education. It authorizes the establishment of colleges and universities, and regulates the establishment of private schools. It also investigates and issues directives to local boards of education for corrective action, as deemed necessary.

### **Prefecture Level**

The governor of each of the 47 prefectures, with the consent of the prefectural assembly, appoints a five-member board of education. The board, with the approval of Monbusho, then appoints the prefectural superintendent of education. This regional rung of the educational ladder has more direct responsibilities, including operating schools established by prefectures, primarily upper secondary schools. They license teachers and, with municipal recommendation, make appointments to the various municipal elementary and lower secondary schools. They provide advice and financial assistance to municipalities on education matters.

Within the prefecture, the governor has the responsibilities of operating prefectural postsecondary institutions and supervising the administration of private elementary and secondary schools, while the minister of Monbusho supervises private universities, junior colleges, and technical colleges.



## **Municipal Level**

The local administrative organizations for education are comprised of the chief executive of the local public entity, the local board of education, and assemblies and administrative commissions. Local public entities are established in municipalities, which are the lowest level of local public entity with a mayor as chief executive, and in prefectures, which are regional local entities with a governor as chief executive.

The mayor of each municipality, with the consent of the municipal assembly, appoints a three- or five-member municipal board of education. The board's responsibilities are similar—although smaller in degree—to those of the regional prefectural board of education. The boards operate municipal public elementary and lower secondary schools in their jurisdictions, adopt textbooks for compulsory school use from Monbusho's approved list, make recommendations to the prefectural boards of education on the appointment and dismissal of teachers, and conduct inservice training for teachers and school personnel. The mayor's office has the responsibility of operating municipal postsecondary institutions.

The last major unit for the municipal administrative operation of education is composed of assemblies and administrative commissions. In accordance with maintaining a local administration independent of central government, assembly members, like the mayors and governors, are elected by direct popular vote. One of the major tasks regarding educational administration that the assembly is responsible for is enacting, amending, or abolishing bylaws. It also manages the budget, authorizes the settlement of accounts, and authorizes contracts for construction and remodeling as well as the procurement or disposition of specific types of public properties.

## Finance

Public education is financed by national, prefectural, and municipal governments and is augmented by tuition and admission fees at high school and higher education institutions. National and local governments do not levy special taxes for education, but finance it through general taxes and rental fees or commissions from national or municipal enterprises or estates. Private institutions, established as nonprofit corporations, receive income from tuition and subsidies from national and local governments. Business and industry sometimes make contributions to private institutions of higher education.

In 1992 the Monbusho, representing the national authority for education finance, had an entire budget of 5.319 trillion yen, or approximately 49.4 billion U.S. dollars (calculated at 104 yen per \$1), an amount representing 7.37 percent of the total national budget, or, more accurately stated, 13.75 percent of total national expenditures (43.5 percent of the total national budget is fixed in bonds and grant programs) (Shimizu et al. 1993). Monbusho's entire budget was 1.3 percent of Japan's gross national product (GNP) (International Monetary Fund 1993).

The 1992 Monbusho budget was distributed as follows: Approximately 60 percent was allocated for teachers' salaries and facility costs of public compulsory and special education; 26 percent funded more than the 600 "national" (*kokuritsu*) institutions, those institutions established and monitored by the Monbusho at all educational levels; and 6.5 percent was allocated to assist private high schools and universities (Shimizu et al. 1993).

Another way of explaining the distribution of Monbusho's budget is by the particular type of expenditure: direct or indirect. Direct expenditures, which encompass one-fourth of Monbusho's allocations, are expenditures Monbusho uses for its own programs and administration, that is, the national social education program, funding of national schools at all levels, and textbook approval and distribution. Indirect expenditures, making up three-fourths of Monbusho's total budget, are expenditures used for assistance to various budgets and are supplemental payments, that is, aid distributed to local governments for compulsory education,

assistance to private high schools and universities, and funds for scholarships (Kida 1982). The distinction between these two methods of expenditure is significant because Monbusho's influence is greater over programs of direct expenditure than of indirect expenditure. Therefore, although Monbusho has significant authority in textbook censoring and distribution, compulsory education, and oversight of national schools, most of its influence is relinquished to other governing bodies with the allocation of the indirect expenditures.

The education budget for local governments consists of resources from the prefectures (44.1 percent), the municipalities (32.3 percent), and the national government (18.9 percent) (Shimizu et al. 1993). The expenditures for education at the local government level are divided into three areas: expenses for school education, expenses for social education, and expenses for educational administration. In 1989 expenses for school education were 83.9 percent of the total local government budget and included expenditures for elementary schools (37.7 percent), junior high schools (22.3 percent), high schools (18.7 percent), special education (3.4 percent), and “other” schools (1.7 percent). Expenses for social education, funds distributed for sports events, cultural festivals, etc., were 11.3 percent of the total budget. Educational administration received 4.8 percent of the budget (Shimizu et al. 1993).

Compulsory education institutions in Japan are funded by the national and local governments and do not require tuition. Neither preschool nor high school education is mandatory, and though institutions at those levels receive government subsidies, tuition is required. In 1990 the annual tuition for a local public preschool was 64,325 yen (\$618), and tuition for a private preschool was 150,697 yen (\$1,450). The annual tuition for a local public and private high school in the same year was 85,774 yen (\$824) and 217,180 yen (\$1,551) respectively (Monbusho 1993a).

At all grade levels, various miscellaneous costs are the students' or guardians' responsibility. These include fees for other books—such as supplementary study guides, stationery, and instruction materials—extracurricular activities, and costs for commuting, school

trips and excursions, classroom activities, and PTA membership. School lunch is served in kindergarten, elementary school, and junior high school; this cost, too, is students' responsibility.

Public and private institutions of higher education also require tuition from the students, and this varies greatly with the particular institution and program. For universities, it is of particular interest to note that the average tuition for a private institution is almost double that for national and public universities. In 1990, for example, the average annual tuition for national universities was 293,600 yen (\$2,823), for public universities 306,400 yen (\$2,946), and for private universities 605,000 yen (\$5,817)(Monbusho 1993a). (Calculated at 104 yen per U.S. dollar.)

## Korean Schools

The Korean Association (Chosen Soren) supports and runs 62 Korean schools in Japan, with between 30,000 and 40,000 students. Nationalities of the students in Korean schools are North Korean, South Korean, and Japanese (if one parent is Japanese and one is Korean). Each school has a kindergarten, elementary, junior high, and sometimes high school.

The curriculum of Korean schools is the same as that of Japanese schools, with four differences:

- The Korean language is designated as the “national language”;
- Japanese history and geography are designated as “social studies”;
- Korean history and geography are designated as “history” and “geography”; and
- Special activities are not included in the curriculum.

Following the Japanese education system, Korean schools in Japan are based on the 6–3–3–4 model, describing years of elementary, junior high school, high school, and college education.

## **Preschool Education**

The preschool consists of the nursery school group (*hoikuhan*), young child group (*nenshohan*), and older child group (*nenchohan*). The goal of preschool education is to provide general knowledge appropriate to young children while emphasizing basic knowledge about the Korean nation.

## **Elementary Education**

The goal of elementary education is to instill in students the general knowledge that should be provided to elementary school children while building a foundation of Korean consciousness. Particularly, the most important educational task at this stage is laying the foundation for a mastery of the Korean language.

## **Secondary Education**

Secondary education consists of the junior high and high school. At the junior high school level, students learn Korean-related subjects such as the Korean language, mathematics, the sciences, and a foreign language. At the high school level, students receive general knowledge to help create the framework for an accurate worldview. In grade 11, students are divided into the liberal arts and science tracks, based on their ability and preference, so as to facilitate educational instruction. Korean high schools in Tokyo, Osaka, and Aichi also have a commercial track. High school graduates advance to Korean universities (*chosen daigakko*) in Japan, or to regular universities in Japan, Europe, or North America. Otherwise, they seek employment in the general labor market.

## Higher Education

The Korean University is designed to produce popular leaders and experts who can contribute to the Korean movement in Japan. It is the only Korean university that exists outside of Korea. The Korean University consists of eight departments and graduate programs, as well as four research institutes and one library.

Besides the Koreans, another hidden group in Japan's nearly total homogenous population is the *burakumin*. The *burakumin* are not ethnically different from the Japanese, but became segregated from mainstream society hundreds of years ago when they were assigned occupations of low status. Such “dirty” jobs included working in tanneries, taking care of animals, and disposing of the dead. Little information is available about their presence in the school structure.

## Summary

The Japanese educational system encompasses 9 years of compulsory education: 6 years of elementary and 3 years of junior high school. Attendance at kindergartens and high schools is optional, but more than 95 percent of Japanese children attend some form of pre-elementary education and over 90 percent of Japanese high school students successfully receive their diploma, from either a general or a vocational course.

Many popular publications in Western countries describe the school year in Japan as consisting of 240 days. However, this number treats the half-day of school on Saturday as a full day and includes days devoted to various nonacademic courses and events. Extracurricular activities occurring after school, and academic supplemental classes occurring before school at various high schools, add to the students' busy schedule.

In addition to the 4-year universities and the 2-year junior colleges, other educational institutions include technical schools, special training schools, miscellaneous schools, and special education schools. The student body of the university is approximately 70 percent male, but the

junior college population consists of more than 90 percent females. Almost 90 percent of the 5-year technical school students are male, and special training schools and miscellaneous schools have similar high percentage of males.

Compulsory education and special education institutions include over 90 percent of publicly funded schools. The majority of pre-elementary schools and approximately 30 percent of high schools are privately funded, revealing the increase in private institutions operations at the noncompulsory education levels. Universities have the only significant number of nationally funded institutions, nearly 20 percent. Over 70 percent of universities are private; the remainder are public. More than 80 percent of junior colleges, special training schools, and miscellaneous schools are privately funded. Tuition is not assessed at the compulsory education level, but is required for all the other education institutions.

Japan has an elaborate system of cram schools and university entrance examination preparatory schools. The result of the university entrance examination is the dominating factor in decisions on admittance into one of the prestigious universities. These universities maintain close ties with prominent companies that offer secure and prominent occupations; thus, these universities play a major role throughout the schooling of many students.

The Ministry of Education, Science, and Culture (Monbusho) establishes the guidelines on how national, prefectural, and municipal governments govern and administer education. Its major influence lies in censoring and distributing textbooks, enforcing compulsory education, and overseeing the national schools.

## **Components of National Education Standards in Japan**

**Naoko Moriyoshi and Douglas Trelfa**

### **Standards**

This chapter examines national education standards in Japan. The focus is on the curricular guidelines of Monbusho (The Ministry of Education, Science, and Culture) and the high school and university entrance examinations. The curricular guidelines of Monbusho apply to all public elementary, junior, and senior high schools in Japan and comprise the national educational standard in Japan. Although these guidelines delineate the topics that schools in Japan are expected to cover, there is no official requirement that students master the curriculum or perform at a certain level (Monbusho 1989a, 1989b, 1989c). However, students have an incentive to master the curriculum because of competitive high school and university entrance examinations that are based on the Monbusho curriculum.

### **Standards for School Administration**

Because the standards for school administration in Japan are set by two laws—the School Education Law and the Enforcement Regulations of the School Education Law—the quality and conditions of education throughout the country remain relatively equal. For example, the standard number of classrooms for an elementary school is set for not less than 12 and not more than 18; hence, 2 or 3 classrooms in 1 grade are the standard. Each classroom is composed of students of the same grade unless the school is underpopulated, such as in rural areas where a class may be composed of students in different grades. The maximum class size is 40 students,



according to the Law Concerning Class Size. For secondary schools, the standards for class size and number of classes is the same as those for elementary schools.

In 1988 the nationwide average number of students in a classroom in elementary schools was 30.8; in 1991 the average decreased to 29.1 (Shimizu, Akao, Arai, Ito, Sato, and Yaosaka 1993). The average number of students in a class in junior high school is decreasing as well. In the 4 years from 1987 to 1991, the average number of students in a class in junior high schools decreased from 38 to 33.9. For high schools, the average class size has remained around 42 students.

### **Standardized Education Objectives and Materials**

National standards and the use of authorized textbooks ensure that students throughout the country reach their educational objectives, regardless of regional differences in educational opportunities. Monbusho's Course of Study determines the academic standards for each school level and provides the foundation for the curriculum. The Course of Study is a booklet that consists of educational objectives and goals for students' learning at every grade and for every subject, along with guidance and directions to teachers for the design of effective curricula.

Another way of maintaining consistent educational standards is through the uniform use of authorized textbooks. The School Education Law states that only textbooks authorized by Monbusho may be used in the nation's schools. Prefectural and municipal boards of education for public schools and the principals of national and private schools select their school textbooks from the approved list. Textbooks used at the compulsory levels (elementary, junior high, and special education schools) are purchased by the national government and distributed to students free of charge. The textbooks belong to the students and do not need to be returned at the end of the school year.

## Curricula

Teachers plan the curricula of elementary and secondary schools according to the guidance provided by the School Education Law, the Enforcement Regulations of the School Education Law, and the Course of Study. Teachers must abide by the Course of Study in setting course content and the time allotted to each subject. Curricula for vocational high schools and special education schools are also based on the Course of Study provided by Monbusho for regular schools, but some adjustments are made to fit the special needs of these schools. The following sections describe the requirements for elementary and secondary education.

### **Elementary School**

In elementary schools, the standardized curricula are divided into three areas: regular subjects, moral education, and special activities. In private schools, religion may be included in addition to or in place of moral education. Table 2 (Jichi Sogo Center 1991) shows the requirements (as of 1992) within each of these areas and the required hours at each grade level. There are nine subjects, including moral education and special activities.

Table 2—Standard number of school hours in elementary schools (implemented April 1992)

Curriculum	Grade					
	1st	2nd	3rd	4th	5th	6th
Japanese Language	306	315	280	280	210	210
Social Studies, Life & Environmental Studies	102	105	105	105	105	105
Arithmetic	136	175	175	175	175	175
Science	—	—	105	105	105	105
Music, Arts & Handicrafts, Homemaking	136	140	140	140	210	210
Physical Education	102	105	105	105	105	105
Moral Education	34	35	35	35	35	35
Special Activities	34	35	35	70	70	70
Total	850	910	980	1,015	1,015	1,015

SOURCE: Jichi Sogo Center 1991.

The regulations for subject content can be very specific. For example, the specific Chinese characters that must be mastered at each grade level in Japanese language classes are listed. In the first grade, this group consists of 80 characters, increasing to 160, 200, 200, 185, and 181 characters at subsequent grade levels. Although the Course of Study specifies the content taught at every grade level, it allows for some flexibility in changing the curriculum as

long as the content is covered by the end of elementary school education. This flexibility is especially beneficial in rural schools where students of different grades may comprise one class.

The Course of Study is less specific in describing the content of moral education classes, including statements such as learning to take care of oneself, to take care of one's health, and not to be selfish. Moral education classes emphasize the significance of respect for human dignity and reverence for life by encouraging students to think about the needs of their families, schools, and finally the larger community. The objective is to foster the growth of citizens who will willingly contribute to the nation's development in democratic, cultural, and peaceful directions.

The third designated curriculum area, Special Activities, embraces class activities, student council, club activities, and school events. The Course of Study emphasizes that these activities should foster the development of interpersonal and group skills, but does not specify the content of the activities. For example, although the formation of school clubs for students with mutual interests is specified, actual types of school clubs are not.

Standard hours set for the three areas of elementary school education range from 850 to 1,015 hours a year depending on the grade level, as shown in table 2. The Course of Study for Elementary School assumes a school year of at least 35 weeks (34 weeks for the first grade). The class hours per week are then designed to cover the given subjects' contents in an adequate but appropriate amount of time. The time allocated for one class is 45 minutes.

## **Junior High School**

The New Course of Study for Junior High Schools (Monbusho 1993) was implemented in April 1993. Like the one for elementary schools, it consists of the general objectives of schooling and subjects as well as the objectives and content of regular subjects to be taught in each grade. The curriculum is set for the same three areas: regular subjects, moral education, and special activities. As seen in table 3 (Jichi Sogo Center 1991), regular subjects include both required and elective courses. Required courses are Japanese language, social studies, mathematics, science,

music, fine arts, health and physical education, and industrial arts or homemaking. A certain number of credits in these courses are required in each grade. In addition to the required courses, elective courses are provided in the following subjects: music, fine arts, health and physical education, foreign languages, and industrial arts or homemaking. Elective courses may vary across the grades, and courses not listed may also be added if students, schools, or communities perceive a special need.

Table 3—Prescribed subjects and number of school hours in lower secondary schools

Grade		7	8	9
Required subjects	Japanese Language	175	140	140
	Social Studies	140	140	70 105
	Mathematics	105	140	140
	Science	105	105	105 140
	Music	70	70	35
	Fine Arts	70	70	35
	Health and Physical Education	105	105	105 140
	Industrial Arts or Homemaking	70	70	70 105
Moral Education		35	35	35
Special Activities		35 70	35	35
Electives		105 140	105 210	140 280
Total Minimum Required		1,050	1,050	1,050

SOURCE: Adapted from Jichi Sogo Center 1991.

During the junior high school years, each class lasts for 50 minutes. School hours may be allocated to club activities and elective subjects within the 1,050 total hours required at each grade level.

## **High School**

Although high school education in Japan is not compulsory, its curriculum is primarily determined by the Course of Study for High Schools, which describes the objectives and the content of subjects to be taught at this level (see table 4, Jichi Sogo Center 1991).

Table 4—Required subjects for all students during high school (effective 1991)

Subject area	Number of credits
Japanese Language	4
Geography and History	2 or 4
Civics Education	4
Mathematics	4
Science	4 8
Health	2
Physical Education	9
Arts	3 or 4
Homemaking	4

SOURCE: Jichi Sogo Center 1991.

Because the content of the college entrance examinations follows the subject areas required in the Course of Study, teachers—especially those in public schools where direct control and supervision by local boards of education apply—are under pressure to cover all the materials and methods described in the Course of Study, even the use of specific tools in a scientific experiment. Although teachers in private schools enjoy more freedom in organizing and planning the curriculum, they must also cover all the subjects, prescribed content, and objectives outline in the Course of Study. In particular, teachers in private schools with 6-year programs integrating junior and senior high school may plan the curriculum to introduce materials in a more flexible way.

The required number of credits for high school graduation is 80; one credit is earned with one 50-minute class for 35 weeks. Required of all students as of 1994 (a New Course of Study

for High Schools (Monbusho 1994) has been in effect since April 1994) are the following eight subject areas: Japanese language, geography and history, civics education (contemporary society, philosophy, and political science and economics), mathematics, science, health and physical education, arts (music, fine arts, handicraft, and calligraphy), and home economics.

## Examinations

### Tests in School

Frequent short tests are given at the elementary school level to provide periodic checks of student mastery and retention of material. For example, tests on Chinese characters are customarily given monthly to Japanese students. During the summer, winter, and spring vacations, homework assignments are given to students to ensure that they will not forget the material covered before their vacation, to preserve the flow of material into the period after the vacation, and to help maintain positive study habits. Evaluation of homework may count as part of the term grade, which is given on a 3-point scale. Elementary schools may also give term tests, but decisions about testing are handled by each school.

A marked change in the practice of testing within schools occurs at the junior high school level. The curriculum and testing practices in junior high school are geared toward preparing students for the high school entrance examinations. Consequently, longer and more comprehensive tests are evident at this level. Midterm and final examinations are typically given each term, and comprehensive tests are given after long vacations to all students within a grade. These tests normally include multiple-choice and short essay questions, as well as ones that require long answers.

The use of the tests becomes increasingly constrained by the demands of the high school entrance examination as students approach the ninth grade. In the first year of junior high school,



grades are used primarily to rank students within a grade. By the third year, test scores are used to ascertain the level of high school to which students should apply.

At the high school level, it is necessary to examine separately the situations of elite academic high schools, ordinary academic high schools, and vocational high schools. At elite academic high schools, students are accepted by elite universities on the basis of competitive scores on the university entrance examinations. Consequently, mock university entrance examinations (*mogi shiken*) are frequently used by these schools to assess student performance, and the results are used to guide students in improving their scores. Since the prestige of elite academic high schools is dependent on the proportion of their students who gain acceptance into prestigious universities, tests at these schools are frequently constructed solely to help students improve their scores.

At many ordinary academic high schools, a sizable proportion of students are not college bound, and among those who are, many are not seeking entrance into prestigious universities (Tsukada 1988). Therefore, in contrast to elite academic high schools, ordinary academic high schools are not under pressure to prepare students exclusively for university entrance examinations by giving frequent mock examinations.

In contrast to academic high school students, most vocational high school students do not advance to universities. Among those who do advance, many of them do so through special arrangements that their schools have with universities, which permit these students to enter on the basis of letters of recommendation in lieu of entrance examinations. As for nonacademic standards, minimum vocational training requirements are outlined by the Japanese Ministry of Education (Dore and Sako 1989). However, some efforts are made to accommodate the vocational high school students. For example, a test in accounting may replace that in mathematics, and tests in other alternative subjects may also be available. Because vocational high schools' goal has not focused on preparing students to enter a university, their curriculum places the students at a disadvantage for entering universities. The content of courses in

vocational high schools is easier than that of regular high schools, especially in core subjects such as mathematics, language arts, English, and science.

## **Entrance Examinations**

The major tests given to Japanese students outside of school are the high school entrance examination (*koko nyugaku shiken*) and the university entrance examinations (*senta shiken* and *daigaku nyugaku shiken*). Since elementary and junior high school are compulsory, students automatically advance from elementary to local public junior high school without taking entrance examinations. However, students who are seeking entrance into national elementary and junior high schools and into prestigious private elementary and junior high schools need to take entrance examinations (White 1987). The percentages of students entering these schools, however, is small.

## **High School Entrance Examinations**

At the end of mandatory education, in the ninth grade, Japanese students who wish to continue their education in public schools need to take high school entrance examinations administered by the appropriate governing authority such as the prefecture or municipality. Or, if seeking to attend national or private high schools, students must take examinations that are administered by the schools themselves.

Students typically are tested in five subject areas: Japanese language (*kokugo*), mathematics (*sugaku*), social studies (*shakai*), science (*rika*), and foreign language, usually English. The entrance examination in each of the subjects is 50 minutes long, for a total of 6 hours including a 1-hour lunch period. Because the school year begins in April, high school entrance examinations are given in either February or March. Results are announced a week later.

In addition to preparing for the test by taking the mock entrance examination, students may also receive help from home tutors (*kateikyoshi*) or *juku* instructors. A number of private companies publish high school entrance examination manuals, available at bookstores throughout Japan. One such manual published by Koe no Kyoikusha provides the previous 5 years' Tokyo Metropolitan High School Entrance Examinations, complete with answers and explanations. The average test scores, presented in the form of standard (z) scores of students accepted (*hensachi*) to Tokyo Metropolitan high schools are listed, along with the number of available openings and of applicants during the previous year. In addition, pointers are given to students to help them improve scores, such as getting enough sleep and eating well before the examination.

### Educational Standards for University Admission

When describing educational standards in Japan, one must consider both the uniform curriculum that Monbusho requires of public, national, and private schools and the mastery of the curriculum necessary for individual students to gain entrance to selective Japanese universities. Monbusho has maintained control over the content of the university entrance examinations by reviewing questions to ensure that there is no deviation from the prescribed curricular content. However, in order to ensure selection of what are believed to be the best applicants, the university entrance examinations are highly competitive, and some questions require students to synthesize divergent material. Consequently, to do well on the examinations, students must often finish material early and spend considerable time on review and practice problems.

The format of the examinations, constructed and administered by each university, varies to some extent across universities, but typically includes multiple-choice, short answer, and long essay questions. For mathematics and science questions, the answers as well as the work leading to them are assessed.

In order for the applicants to perform successfully on university entrance examinations, especially for entrance into the more prestigious schools, schoolteachers often feel it is necessary to prepare students for the examinations at a level far above the level that may be expected by Monbusho. Model questions used for this purpose in classes usually demand a deep understanding of the material and sophisticated problem-solving techniques. As a result, many problems on the university entrance examination are of such a level of difficulty that students must draw on a vast reserve of knowledge in order to produce the correct answers. *Juku* and other supplementary educational institutions play an important role in bringing about ever-escalating competitive levels and hence in raising standards. Indeed, their influence has grown to such a degree that one cannot discuss the chances of getting into top universities without referring to the influence of outside tutoring.

The current ethos among middle-class Japanese is that to enter prestigious universities, individuals must attend highly ranked high schools. And to gain entrance to highly ranked high schools, students must prepare themselves from junior high school years or even earlier. Thus, the academic standards held by ambitious individuals or parents of younger students are no longer set by the Monbusho curricula, according to some critics, but by the difficulty of college entrance examinations and the level of secondary school education needed to prepare for those examinations. In large part because of the competitiveness of entrance examinations, students who aim for highly ranked universities feel that they must supplement their education in other ways, such as by attending *juku* or *yobiko*, or through correspondence courses, summer programs, or practice sessions with examples of college entrance examinations. Because of the critical role of the examinations, any change in the orientation of questions on the examination requires a corresponding modification of classroom teaching. Many critics complain that instruction in high school is overly influenced by the university entrance examinations.

Although the content of entrance examinations should not deviate from the standard Monbusho curricula, constructing examination questions for the same subject area over many years makes it difficult to design new questions. This difficulty is relieved somewhat by

Monbusho's revision of the Course of Study every 10 years, ensuring that the curriculum responds to societal changes and contemporary educational needs.

### **University Entrance Examination System**

To enter college, students must be at least 18 years old and have completed high school or an equivalent level of education, determined by taking the annually administered University Entrance Qualification Test (*Daiken*, or *Daigaku Nyugaku Shikaku Kentei*), which covers the high school curriculum. All students seeking admission to national or public universities are required to take the Center Examination (*Senta Shiken*), administered by the National Center for University Entrance Examination (Daigaku Nyushi Senta) in January, and the entrance examinations for the universities they want to attend.

*Center examination.* The Center Examination normally tests applicants to national and public universities in six areas—mathematics, science, history, language arts, humanities, and foreign language—although some private universities may require only three or four of these subjects. All questions on the annual Center Examinations are multiple choice; answers are published in newspapers the following day so that students may ascertain their performance level, which, in turn, determines the level of universities to which they should apply. Some highly competitive universities will not consider students who score below certain cutoff points.

*University examinations.* After the Center Examination, students must apply to and take entrance examinations administered by the universities themselves. These examinations are called second-stage examinations (*dainiji shiken*). These university-specific examinations normally involve multiple-choice, short answer, and long essay questions. For selected subjects, oral examinations or interviews may be given in lieu of testing in other formats. Students are allowed more than one chance to try for admittance to universities.

The system for admission to national universities is extremely complicated. Indeed, even faculty members at these universities may find the procedures difficult to understand. In one system, universities are allotted one, and only one, of three examination days. Therefore, all students seeking entrance to a particular university must take the examination on the same day. Students are thereby prevented from taking examinations for other universities scheduled on that same day.

In the second system, universities or departments have two separate examination days, one early (A schedule) and one late (B schedule). Students may therefore take the examination for two of the national universities. However, the system is even more complex in that students may even find it possible to take more than one examination during each of the designated examination periods. A set number of students—typically 80 percent for the first examinations and 20 percent for the second examination period—are accepted into universities during each of the examination periods. Students who are accepted to a university during the first examination period are not allowed to take the second examination of any other university unless they forfeit their acceptance. During the second examination period, those who have not yet been accepted by a university have another chance of acceptance through the Center Examination, a thesis, interviews, or by taking tests in fewer subjects.

*Relative importance of examinations scores in admittance decisions.* Student scores on the objective examinations are weighted heavily in admissions decisions by Japanese universities. A weighted average of the Center Examination and Second-Stage Examinations scores is the primary criterion in student eligibility for admission. For admissions to Japanese public universities, little weight, if any, is given to high school class ranking, high school absenteeism and tardiness, and extracurricular activities such as athletics. Some private universities, however, may place some weight on these factors in their decisions about admitting a student.

*Parental involvement in preparing for entrance examinations.* Parental awareness of the procedures to enter college is a critical component of college entrance. White (1987) cites numerous anecdotes illustrating the extent of parental awareness and involvement in the process to enter college. One extreme case is that of a father who dressed as an 18-year-old girl in order to take the entrance examination for his daughter.

According to White, the involvement of mothers is critical, and their involvement in children's early cognitive development is a conscious strategy to improve their children's chances in competitive examinations later in life (White 1987). A recent study reiterates the importance of mothers in motivating students for university entrance; however, the same study found that mothers are less involved than teachers with the necessary procedures (Fuchigami 1986). It may well be that the procedures of entering universities are so salient to students through the mass media, teachers, and, especially, peers, that parental involvement in the actual procedures to enter college may not be critical.

## **Recommendation Systems**

Japanese students may also enter college through one of two recommendation systems. The first system (*shiteiko suisen*) involves special quotas for applicants from schools that are highly ranked academically. In the *shiteiko suisen* system, academically elite high schools are able to recommend a small number of students on the basis of academic standing, personality, conduct, attendance, extracurricular activities, and leadership. This system may be helpful for those students who have studied diligently throughout high school, but may not perform well in competitive testing situations because of test anxiety.

The second type of system (*kobo suisen*) allows students from any high school to seek recommendations from high school teachers. Applicants seeking admission through this system need considerable individual initiative to seek out the universities that have a *kobo suisen* system. Students must then approach high school teachers for letters of recommendation.

It is not clear to what extent the recommendation system is utilized in Japan. The recommendation system is a way of assuring that responsible, diligent students have an opportunity to enter universities that fit their level of ability, regardless of their score on entrance examinations. Private universities are more likely to accept students through the recommendation system. By some estimates, about 20 percent of students are admitted to college on the basis of the recommendation system.

### **Teachers' and Administrators' Perceptions of the Current System**

Overall, Japanese teachers have mixed feelings about the current university entrance examination system. In a recent study, teachers agreed that students who study hard and do well on the examinations have equal chances of getting into universities. They also liked the confidentiality and the objective way that the Center Examinations are marked.

In spite of the perceived fairness of the university entrance examinations, many teachers expressed concern that the costs of supplementary educational institutions were undermining that fairness by giving students from families with economic means an unfair advantage. They also expressed reservations that luck might affect placement outcomes because of the multiple-choice format of the Center Examinations, and worried that the multiple-choice format did not test other kinds of important academic skills, such as application of knowledge to novel problems. Instead, they feared that the examinations relied too much on rote memorization and retrieval skills. Their criticisms are aimed primarily at the initial Center Examination, because this is the only examination that relies solely on the multiple-choice format. In contrast to the Center Examination, the regular university tests require students to present their work in solving mathematics problems, summarize the main points of a Japanese essay, respond orally to questions about what they have studied, or write a composition on a designated subject.

Japanese teachers also seem to have mixed feelings about the recommendation system. While teachers appreciate that the recommendation system provides a means of university



entrance that is not based solely on examination scores, they also are concerned that the students this system was designed to help are not being helped, namely, those who are unable to perform at their capabilities in the pressured atmosphere of testing. Instead, many capable students are seeking recommendations as a means to have their university entrance decisions made earlier, without taking the university entrance examinations. Another major problem is that high schools differ in what they demand of students and it is difficult to evaluate the recommendations from different high schools. Furthermore, university faculty members who review the recommendations may make their decisions on a purely subjective basis in considering the students' involvement in sports, fine arts, or other domains. Subjectivity may also affect their evaluations of students' academic performance in their interviews with students or assessments of their written work. As a result, students suggested for college admission on the basis of recommendations may encounter difficulties in college because they may be at borderline levels of ability as evidenced by low scores on the Center Examination.

Teachers express a desire to see a system in which entrance to college is made somewhat easier, thus accommodating all motivated and qualified individuals. At the same time, teachers would like to see a system in which college graduation is more difficult than at present. Thus, as these teachers argue, Japanese students will be motivated to study diligently during their college years, as well.

### **The “Masterless Samurai” Students**

Many Japanese students who are not admitted to their university of choice try again the following year. These students are called *ronin* (masterless samurai) during the interim period between examinations. In order to prepare for the following year's examinations, special preparatory schools (*yobiko*) provide instruction in the topics covered on the university entrance examinations. *Ronin* students are the main clients of *yobiko*. *Yobiko* are formal institutions and

are listed by the Japanese Ministry of Education as “incorporated schools.” In 1977 there were 22,000 *yobiko* (Tsukada 1988).

A large proportion of students entering elite universities have experienced at least 1 year as *ronin*. Among successful applicants to Tokyo University in 1993, 39 percent were *ronin* students, with the majority (33 percent of the total applicants) having experienced 1 year of *ronin* study (Sundai Yobigakko 1994a). During the same year, 82 percent of successful applicants to the Social Sciences Department at Waseda University, an elite private university in Tokyo, were former *ronin* students (Sundai Yobigako 1994b). These numbers suggest that admission to university after a period as *ronin* is a common way of entering elite universities in Japan.

### **Students Returning from Overseas**

An increasing number of Japanese students have returned from living overseas for extensive periods. These students are called *kikoku shijo*. In 1986 there were 10,498 *kikoku shijo* in Japanese schools, with over 60 percent of *kikoku shijo* in elementary schools (Goodman 1990). The number of *kikoku shijo* will probably continue to grow, although the recent recession has reduced the number of Japanese given assignments in foreign countries.

The integration or reintegration of these students into Japanese schools has been problematic, and, consequently, has attracted a considerable amount of attention in the Japanese mass media. One of the main problems facing *kikoku shijo* is the disadvantage these students have in the university entrance examination. Although a sizable proportion of *kikoku shijo* attend special Japanese schools (*hoshuko*) on weekends in the various host countries, the *kikoku shijo* often lack knowledge about Japanese geography, history, and language that a citizen may acquire simply by residing in Japan. Because *kikoku shijo* are at a disadvantage in the highly rigorous high school and university entrance examinations, Monbusho created reception schools (*ukeireko*) to accommodate the special needs of the *kikoku shijo* upon their return to Japan (Goodman 1990).

In addition, many elite public and private universities in Japan—such as Tokyo, Kyoto, Keio, and Waseda universities—and non-elite ones as well have created special quotas in certain departments (*tokubetsu waku*) for *kikoku shijo*. Students who seek entrance to these departments are given special entrance examinations, essays, or interviews. Statistics from 1985 show that 90 percent of *kikoku shijo* who entered universities did so through the *tokubetsu waku* system (Goodman 1990).

### **Graduates of Vocational High Schools**

Opportunities for graduates of vocational high schools to attend college are quite limited. One recent study found that 20 percent of commercial and 27 percent of industrial high school students sampled wanted further schooling upon graduation. Among those desiring further schooling, only 21 percent of the commercial and 28 percent of the industrial high school students desired to enter universities. Special trade schools were the objective of just over half of vocational high school students who wanted further education (Yoshimoto and Kosugi 1989).

In spite of the limited opportunities for vocational high school graduates to advance to universities, such opportunities do exist for a small number of students. According to published statistics (Monbusho 1985, cited in Dore and Sako 1989), about 9 percent of vocational high school graduates go on to universities or junior colleges. A similar percentage go on to special training schools for 2 years. About four-fifths of vocational high school graduates enter the labor market directly after graduation.

### **Graduates of Technical Colleges**

Less than 1 percent of junior high school graduates advance to 5-year technical colleges that provide an integrated curriculum of 3 years of high school and 2 years of college-level training. Technical colleges provide more advanced practical training than that available in

vocational high schools. According to the latest statistics, only 8 percent of technical college graduates enter 4-year colleges (Monbusho 1992).

## Summary

National standards in education are maintained in Japan by the interaction between the administrative control of Monbusho and the fierce competition for entrance into high schools and colleges. Through strict enforcement of the Courses of Study for elementary, junior high, and high schools, Monbusho ensures that students throughout Japan are exposed to approximately the same curriculum. The fierce competition to enter high schools and colleges has ensured that aspiring students must master the curriculum thoroughly and at high levels of difficulty. This competition has presented Japanese society with the problem of reducing the extraordinary competitive pressures that the effective implementation of national standards has helped create.

## **The Perception of Ability Differences in Japan**

**Yoshihisa Abe, Douglas Trelfa, David Crystal, and Kazuo Kato**

### **Historical Background**

The roots of the perception of ability differences in modern Japan may be traced to the attitudes and beliefs of the political leaders of the Meiji Era (1868–1912). Before the Meiji government came to power in 1868, Japan was a federation of feudal domains and provincial warlords. The Meiji Restoration abolished the feudal domains and established a centralized government as well as a centralized education system.

The Meiji leaders regarded education as a crucial part of their plan to make Japan militarily strong and economically prosperous (*fukoku kyohei seisaku*). As such, education was not considered a natural right of all citizens but was seen as the tool that would forge the integration of diverse feudal loyalties to a technical elite. Therefore, the Meiji leaders gave priority to educating people so they could be useful to the nation, primarily as soldiers or workers.

The Imperial Rescript on Education (Kyoiku Chokugo), issued in 1890, set forth the main principles of modern Japanese education. The principles guided education in Japan until 1945. The essence of the message conveyed by the Rescript was that the goal of education is to promote harmony among the Japanese people. The document contains very little about individual achievement or the importance of cultivating the talents of the individual. Even after World War II, the view that education should be designed for developing Japan's human resources to contribute to the welfare of society—business and industry—has been strongly emphasized.

Some educators suggest that individual differences in ability were de-emphasized, not because of Japan's "egalitarian" philosophy (Cummings 1980), but because of its societal needs.

### Perceived Determinants of Ability

An indirect manifestation of the egalitarian philosophy may be seen in the strength of the Japanese belief in the importance of effort for academic achievement. Among elementary school students, for example, differences in school performance are thought to be due to differences in effort rather than in innate ability. Fukaya (1983) asked elementary school students to imagine that one of their classmates was not good at mathematics and to explain why they thought this might be the case. Seventy-seven percent of students said that the child was not listening to the teacher in class; 69 percent said that the child did not study at home; 16 percent said that the child did not have the innate ability to do mathematics. Similarly, Fukaya (1983) asked for explanations as to why a student was good at mathematics. Eighty-one percent said that the student studied hard at home; 79 percent said the student listened to the teacher in class; only 18 percent of students said that it was due to innate ability.

Abe (personal communication, 1994) suggests that beyond elementary school, when students enter junior high, and later high school, teachers and parents attribute differences in ability not only to effort but to a combination of factors including innate ability, effort, and the quality of instruction. However, in elementary school, the majority of parents place a great deal of emphasis on the quality of teaching. In fact, in elementary school, the quality of teaching may make a great difference in students' grades.

Given the increasing prevalence of single-parent households in Japan, teachers also include family environment, in addition to effort, ability, and quality of instruction, among the factors responsible for individual differences in academic performance. This is not to say that Japanese teachers disregard or ignore differences in ability. Based on an informal survey (Kato

and Ando 1985), 95 percent of teachers acknowledged differences in individual ability, and 98 percent of teachers felt the need for more individualized modes of instruction.

In an effort to find an answer to that need, a conference was held in January of 1993 to discuss the question of the ideal student/teacher ratio so as to develop a variety of methods to deal with individual differences in ability. Participants in the conference submitted a report on this topic to the Ministry of Education. In this report, the authors argued that in order to facilitate a variety of educational methods for coping with individual differences in ability, and to create a better method for whole-class teaching, it was necessary to hire new teachers. New teachers, who would not be set in their ways, would be better able to respond flexibly to changing classroom situations and could actively carry out new methods of instruction, such as individual instruction, group instruction, and team teaching. The members of the conference hoped that such new teaching methods would more effectively address the issue of individual differences in ability (Kaneko 1993).

## Teachers and Teaching Practices

The emphasis on student effort rather than on innate differences in ability has consequences for Japanese teachers. For example, elementary school teachers tend to teach to the whole class, relying on students to generate ideas and to evaluate the correctness of other students' responses (Stevenson and Stigler 1992). One of the most important results of de-emphasizing the role of ability is the manner in which elementary school teachers make effective use of errors. In a culture where effort is stressed, mistakes are interpreted as markers indicating where one needs to work harder. In a culture where ability is stressed, errors may be viewed as signs of "stupidity" or lack of ability. Japanese elementary school teachers use errors as effective learning tools by eliciting a wide variety of responses from students. They then analyze the faulty reasoning that led to the incorrect responses in an open and nonjudgmental manner, using the errors as material to help discover the misconceptions students might have

about the problem at hand (Stevenson and Stigler 1992). Eliciting a variety of different answers also tends to encourage divergent and creative thinking in children.

Such nonjudgmental use of errors, however, disappears rapidly once students enter junior high and high school. In preparing students for high school and college entrance examinations, Japanese teachers stress the fact that there is only one right answer to the examination questions. Teaching practices, therefore, change dramatically when students leave the elementary school level. Rather than act as a guide who relies on students as sources of answers and reactions to the answers of others, the teacher becomes a lecturer, imparting information and evaluating the relevance of the students' responses.

## Tracking in Japanese Schools

### Tracking During Compulsory Education

One of the equalizing factors that distinguishes the Japanese system from other systems of education is the apparent lack of tracking that occurs throughout the years of compulsory education. Scholars who have studied Japan seem to agree that Japanese elementary and junior high schools do not track students or practice ability grouping (Cummings 1980; Stevenson and Stigler 1992; White 1987). Regardless of whether its basis lies in humanistic philosophy or political strategies, the Japanese system of compulsory public education during the 6 years of elementary and 3 years of middle school attempts to provide equal opportunities for all children. In terms of both access to schools and quality of instruction, the Japanese system provides a consistently high standard of elementary and middle school education to a very large percentage of its students.

Rohlen (1983) cites three reasons for the lack of tracking:

- The incomes of Japanese metropolitan areas tend to be uniform;



- Japanese compulsory education is guided by national standards and a curriculum set by the Japanese Ministry of Education; and
- Wide and inclusive administrative school districts allow an even distribution of resources among large numbers of schools.

### **Tracking at the High School Level**

These scholars all point out, however, that the equal opportunities and experiences in Japanese elementary and junior high schools give way to an elaborate system of tracking and academic ranks that begins at the high school level. The gateway into this elaborate system of tracking is the high school entrance examination (*kotogakko nyugaku shiken*). The examination is administered by either the prefectural (*ken*), metropolitan (*to*), or city (*shi*) governments that finance and administer public schools under their jurisdiction. Scores on the high school entrance examination are used by high school teachers and administrators to allocate junior high school graduates to positions within local high schools. Throughout Japan local high schools are academically ranked, and students within high schools are tracked and placed into ability-grouped classrooms (Mimizuka 1986).

The main distinction in academic rank among Japanese high schools is the distinction between academic (*futsukoko*) and vocational (*shokugyokoko*) high schools. These two types of high schools have divergent educational missions. Academic high schools prepare students for the university entrance examination, while vocational high schools prepare students for immediate employment upon graduation. Generally, academic high schools are ranked above vocational high schools.

Table 5 presents the distribution of the lowest standardized scores of students admitted to positions in Tokyo area high schools by type of high school. This table shows that almost all vocational high schools accepted students who scored below the mean score on the Tokyo Metropolitan High School Entrance Examination in 1983, the latest date for which data are

available. Most academic high schools, by contrast, did not take any students who scored below the mean.

Table 5—Distribution of the lowest-scoring student accepted by type of school for the Tokyo metropolitan area in 1983 (number of schools)

Standardized score <sup>a</sup>	Academic	Vocational <sup>b</sup>
66 and above	1.4 percent (2)	—
61–65	13.9 percent (20)	—
56–60	18.1 percent (26)	—
51–55	23.6 percent (34)	5.7 percent (6)
46–50	20.8 percent (30)	13.3 percent (14)
41–45	20.8 percent (30)	46.7 percent (49)
36–40	1.4 percent (2)	28.6 percent (30)
Below 35	— (0)	5.7 percent (6)
Total	100.0 percent (144)	100.0 percent (105)

SOURCE: Dore and Sako 1989.

NOTES: (a) Referred to as *hensachi* in Japanese, the standardized score is the average score of 12th-grade mock entrance examination texts, standardized so that the mean of all students is 50 and the standard deviation is 10.

(b) Includes industrial and commercial courses in vocational high schools only.

Adapted from Dore and Sako 1989.

Normally, once quotas for the academic high schools have been filled, students who scored below the cutoff points are assigned positions in vocational high schools. However, table

5 shows that some overlap exists in the standardized scores of lowest-scoring students admitted between academic and vocational high schools. Dore and Sako (1989) estimate that this overlap in scores results in typically around 20 percent of the highest-scoring vocational high school students being within the range of academic high school students. Many of these higher-scoring students elect to attend vocational rather than academic high schools because of economic hardships in their families and the necessity of entering the labor force during or after high school graduation.

### **Ranking the Academic High Schools**

In addition to the distinction between academic and vocational high schools, distinctions in academic ranking are also salient in Japanese society. Tsukada (1988) found that *yobiko* students were able to distinguish five ranks of academic high schools. From the highest to lowest these ranks are:

- The private super-elite;
- The national-liberal elite;
- The public-urban;
- The public-local; and
- The marginal-average high school.

The private super-elite academic high schools that send a high proportion of graduates to elite colleges are called *shingakko*. These schools are highly prestigious. One such high school, Nada, selected by Rohlen in his 1983 study, is nationally recognized and, during the 1970s, was often ranked by magazines as the “best” high school in Japan because a high proportion of its graduates were accepted into Tokyo University.

## Ranking the Vocational High Schools

Distinctions also exist among vocational high schools. Japan has two main types of vocational high schools, the industrial high school (*kogyokoko*) and the commercial high school (*shogyokoko*). Industrial high schools are primarily male-only institutions, and typically are ranked somewhat higher than commercial high schools, which are predominantly female.

Other common types of vocational high schools are agricultural (*nogyokoko*) and marine (*suisankoko*). These schools tend to have the lowest-ranking of all types of vocational high schools. It is important, however, to consider the academic ranking of each vocational high school, since some vocational high schools may be ranked higher than academic high schools.

## Ranking Private and Public High Schools

Private high schools exist alongside those in the public system, although few elite private high schools, such as Nada, are highly visible and prestigious. Most private high schools in Japan tend to be ranked lower than public high schools, and students and parents prefer public high schools (Rohlen 1983).

## Ability Grouping Within Schools

As mentioned previously, students in Japanese elementary and junior high schools are not tracked or placed into ability groupings. However, an elaborate system of academically ranked high schools exists. In addition to this ranking system, many Japanese high schools practice ability grouping and tracking among their students. In a nationally representative sample of 1,911 academic high schools in 1983 (response rate = 51.4 percent), Mimizuka (1986) found that 59 percent of the private and 42 percent of the public high schools practiced some form of ability grouping, and 48 percent of all high schools practiced some form of tracking.

## Methods of Ability Grouping

According to Mimizuka (1986), two distinct types of ability grouping systems are practiced in Japanese high schools: banding and setting.

- **Banding:** This system tracks students from the moment they enter high school. In the banding system, high school entrance examination scores are used to place students into homerooms with students of similar ability. Thus, the homeroom itself is the ability grouping, and students are consequently tracked in all subjects.
- **Setting:** Schools using this system begin tracking students sometime after they enter high school. Scores on midterm examinations given in the first year of high school are normally used to assign students to different tracks in classes such as mathematics and English. Since the homeroom is not tracked by student ability, students within the same homeroom may be in one level in mathematics and another level in English.

Of the two types of ability grouping, setting is the more common, with 23 percent of high schools practicing setting and 9 percent practicing banding in the 10th grade.

Mimizuka (1986) reports that in a survey of ability grouping practices in the 10th grade, 64 percent of the schools that responded to the survey indicated that they did not practice ability grouping at all in this grade. Of these, 40 percent indicated that they felt such groupings are necessary, and 44 percent proposed these ability groupings at employee meetings (*shokuiinkai*) during the 3 years prior to the survey.

The remaining 36 percent that practice some form of ability grouping give different reasons for practicing banding versus setting. Banding was cited as a way to increase the percentage of their students entering college. Banding, therefore, seems to be a method for schools seeking to improve the aggregate performance of their students on the university entrance

examination. Setting, on the other hand, is a way for high schools to respond to the variance in ability among their students.

### **Tracking Within Japanese High Schools: *Ruikai***

Mimizuka (1986) found several types of tracking systems (*ruikai*) in Japanese high schools. Generally, *ruikai* are divided into school advancement (*shingaku*) and employment (*shushoku*) *ruikai*. In spite of the functional differentiation between academic and vocational high schools in Japan, a large proportion of academic high school students are not college bound and, consequently, can be found in the employment track. Fourteen percent of high schools begin using school advancement or employment tracking in the 10th and 11th grade, and 8 percent begin in the 12th grade. Some Japanese high schools track students into humanities (*bunkei*) and sciences/mathematics (*risukei*) tracks.

A small fraction of Japanese high schools use national university or public university tracks. Students seeking entrance to national universities are placed in the national university tracks; public university aspirants are placed in the public university tracks. Seven percent of the high schools in Mimizuka's sample (1986) had national and public university tracks.

### **Tracking and Ability Grouping**

According to Mimizuka (1986), the types of tracking and ability grouping practiced by Japanese high schools are determined by several factors. First, Mimizuka found that major cities with populations over 100,000 were somewhat more likely than smaller cities to practice ability grouping (47 percent versus 40 percent). In some prefectures, all the schools practiced ability grouping; in other prefectures, as few as 20 percent of schools engaged in such a practice. Schools ranked in the lower four-fifths of high schools were almost twice as likely to have ability grouping as schools in the top fifth. In addition, schools with a high variation of ability among

students were more likely to practice ability grouping than schools with less variability among students.

## **Remedial Programs**

Because tracking is generally not practiced in Japan during the years of compulsory education, the question of how to deal with children who have physical, emotional, or mental disabilities presents a particularly difficult problem for the Japanese education system.

*For slow learners.* By law, classes are provided for students who are “disturbed” or seriously handicapped, but not for those regarded as slow learners. In some schools with a more flexible administration, teachers give individual instruction to slow-learning students whenever the teachers are not in front of a classroom, such as after lunch, during recesses, or after school.

*For students who are learning disabled.* Similarly, no official special classes exist for children who are learning disabled (*gakushu shogaiji*). In Japan, research on the definition and diagnostic method regarding learning disabilities has started only recently. The Ministry of Education is currently working on developing a more elaborate program for assessment of learning disabilities. At the present time, the most that is done for children suspected of having a learning disability is to place them in special classes for children with language problems (*tsukyu shido kyoshitsu*); these classes were legalized in 1993. Here, students with a minor problem can get special instruction while attending regular classes.

*For children who are psychologically disturbed.* Children who are psychologically disturbed (*seishin shogaiji*) are those with emotional problems, such as school refusal, autism, and neurotic behaviors caused by psychological or environmental factors. In Japan these children are also termed *jocho shogaiji* (emotionally disturbed).

If their symptoms are severe, they are put into a special school for children who are physically or mentally fragile (*byojaku yobo gakkō*). As of May 1993, there were 97 schools of this kind, attached to medical institutions. These schools generally accommodate students with heart disease, kidney disease, and asthma, but in recent years they have admitted more children with emotional disturbances.

If the degree of emotional disturbance is not severe, these children are placed in special classes. As of May 1993, there were 3,731 classes of this kind in the elementary and junior high schools of Japan. Furthermore, in recent years, some prefectures have established special classes known as Special Instruction Classrooms (*Tokubetsu Shido Kyoshitsu*) for children with emotional disturbances, particularly for those who refuse to attend school. These classes are often located physically outside the school.

### **Special Education for Children with Disabilities**

*The system.* Implementing special classes for children with disabilities is a more complicated matter. In 1993 Japan established a system in which education for such children is provided primarily in special education classes within elementary and junior high schools and within special schools. Since then, a number of laws have been passed that set the guidelines for the creation of therapeutically oriented classes. According to these laws, elementary, junior high, and high schools are allowed to establish classes for students who fall into one of the following categories: mentally retarded, physically handicapped, physically fragile, visually impaired, hearing impaired, or having other physical or psychological problems judged to be appropriate for special education.

In addition, special education curricula may be developed for children with disabilities who attend regular classes in elementary and junior high schools. These students are allowed to receive supplementary instruction for each subject and special guidance necessary for their psychological and physical problems through attendance in the resource room.



There are also special schools for children who are mentally retarded, physically fragile, visually impaired, and hearing impaired. Generally, the children placed in these schools are severely handicapped. Students with milder forms of these disabilities are, as much as possible, mainstreamed into regular classrooms.

In the 1992 school year, the proportion of students in special education classes was 0.37 percent, and the percentage of students in special education schools throughout Japan was 0.46 percent (for a total of 0.83 percent).

As of May 1993, there were 191 schools for students with physical handicaps throughout Japan (*shitai fujiyu yobo gakko*). There were 552 classes (including elementary and junior high school) for such children (*shitai fujiyu tokushu gakkyu*). The students in these classes spend most of their time in regular classes and a fixed number of hours in special classes. Among children who received special education in 1993, most were mentally retarded; other common disabilities, in order of occurrence, were physical handicap, emotional disturbance, hearing impairment, physical fragility, speech impairment, and visual impairment.

*Admissions.* Children usually enter special education classes through the following procedure:

- Teachers in regular classes refer students thought to have handicaps to the Committee for Guidance of School Enrollment (Konai Shugaku Shido Iinkai);
- This committee administers tests individually to the target children (in case the testing cannot be administered in school, the committee will refer them to a counseling center for children or to a special education center for assessment); after reviewing the results of the assessment, the committee makes a decision about whether the child should be placed in special education classes. After the decision is made, the committee sends its recommendation and the assessment results to the Municipal Committee for Enrollment Guidance;

- The Municipal Committee also makes a decision as to the appropriateness of the recommendation given by the School Committee; and
- The principal of the school informs the parents of the child of the results of the committee's decision.

In recent years, there has been a vigorous debate over the issue of special education classes for children with disabilities. One of the most contentious questions, over which a number of legal battles have been fought, is whether parents have the right to decide for themselves whether to send their child to regular or special education classes. Legal decisions in this regard have varied depending on the case. Some decisions have affirmed the legal right of the Board of Education to force a child to enter special education classes. Other decisions have supported parents' rights to make that choice. In many cases, the Board of Education will try to respect the wishes of the parents in this matter, and often parents will opt to mainstream their child. For example, in one city, one-third of the parents did not accept the advice given them regarding the placement of their child, and sent him or her to regular classes.

*Special education teachers.* Although there are relatively few special education classes in the Japanese public school system, there are special education teachers for children with disabilities. As special education instructors, these elementary and junior high school teachers receive a salary 8 percent above the wages of high school teachers. Because the salaries for the special education teachers are higher than those for the regular teachers, it follows that the education expenditure for one special education student is much higher than that for a regular student. In fact, extra funding is required for special education classes to pay for teachers' salaries. There is a fixed student-teacher ratio for special education classes and schools. In regular classes, the ratio is usually 1:40, but for special education classes in a regular school, the ratio is 1:10. For special education classes in special schools, the ratio is 1:7. For children with

serious or multiple handicaps, the ratio is 1:3. These ratios vary slightly depending on the prefecture.

### **Programs for Gifted Students**

Because of the focus on group learning and the effort to avoid elitism, special classes for gifted students do not exist in Japan at the elementary and middle school levels. Divergent student interests and abilities are given more consideration at the high school level, where tracking and ability grouping are often practiced in the manner described above. However, despite the fairly widespread use of tracking in high schools, parents and educators are suspicious of and hostile toward any system that appears to foster “elite education” (Stevenson, Lee, and Chen 1994). For this reason, there are no official programs or special classes for students who exhibit exceptionally high intelligence or academic ability.

### **Summary**

The perception of ability differences in Japan is rooted in the political philosophy of the Meiji Era, which viewed equal access to education as a means of forging a united nation rather than of developing the potential of the individual. An indirect manifestation of this philosophy may be seen in the strength of the Japanese belief in the importance of effort in academic achievement. This belief is especially strong as it applies to academic performance in elementary school.

Despite the emphasis on effort and group learning, there has recently been a growing awareness that individual differences in ability need to be given more attention in the classroom. As a result of a conference on this issue held at the beginning of 1993, it was decided that almost 17,000 teachers would be dispatched into the school system to aid in team teaching.

One of the factors that distinguishes the Japanese system from other systems of education, such as that of the United States, is the apparent lack of tracking that occurs throughout the years of compulsory education. Scholars who have studied Japan concur that Japanese elementary and junior high schools do not track students or practice ability grouping. These scholars also agree, however, that the relatively egalitarian compulsory education system gives way to an elaborate system of tracking that begins at the high school level. The gateway into this elaborate system of tracking is the high school entrance examination, and later, the college entrance examination.

Because tracking is generally not practiced in Japan during the years of compulsory education, the question of how to deal with children who have special needs presents a difficult problem. Schools are not legally required to provide for students who are regarded as slow learners. Similarly, there are no “official” special classes for children who are learning disabled. Students with severe emotional problems are put into a special school for physically or mentally fragile children.

There are special education schools and classes for students who are mentally and physically handicapped, although there is heated debate over who should decide whether to place a student in special education classes. In 1993 laws were passed that set guidelines for the creation of therapeutically oriented classes. These included children who are mentally retarded, physically handicapped, physically fragile, have visual or hearing impairments, or are otherwise deemed to have conditions appropriate for special education. In 1992, 0.83 percent of Japanese students were enrolled in special education schools or classes.

## **Secondary Education in the Life of Japanese Adolescents**

**Kazuo Kato, David Crystal, Gerald LeTendre, and Douglas Trelfa**

### **Use of Time**

One way of understanding Japanese students' daily life is to examine how students spend their time. The Japan Broadcasting Association's (Nippon Hoso Kyokai [NHK]) Survey of Japanese People's Time Use (Kokumin Seikatsu Jikan Chosa) provides perhaps the best overall picture of the use of time among a nationally representative sample of Japanese students. These NHK surveys are conducted every 10 years; the last survey was conducted in 1990. Below are discussed the major findings of the 1990 NHK survey that are of interest to researchers in Japanese education (NHK Seron Chosabu 1992b).

The subjects of the NHK survey included Japanese students in junior high school who were at least 10 years of age. Of the 90,240 students selected, 75.2 percent responded to the NHK survey. Respondents were mailed diaries, and were instructed to indicate the amount of time spent on various activities for 2 consecutive days. One of the strengths of this survey is that respondents are asked to indicate activities that are done simultaneous with other activities, such as homework that is done while watching television.

This section summarizes the relevant data gleaned from the 1990 NHK survey. Sunday and weekly average time spent on these activities is not provided, nor is an attempt made to compare or contrast use of time by Japanese students with time use by students in other countries. Primarily, these data reflect only how time is used by Japanese students from junior high to high school.

Overall, the survey found that school and school-related activities occupy the vast majority of Japanese students' time. In comparison, relatively little time is given to leisure activities such as reading, sports, and socializing with friends.

### **Schoolwork: Class Time, Extracurricular Activities, and Activities Outside School**

In 1980 Japanese junior high school students spent an average of an hour more per weekday (9.2 hours) in school and on school related activities than did their high school counterparts (8.23 hours); however, this larger amount of time may be almost wholly attributed to a slightly longer school day in junior high than in high school. In addition, the percentage of students participating in nonacademic activities, such as school clubs, decreased, from 38 percent in junior high to 19 percent in high school. A decrease was also observed in the percentage of students who undertook extracurricular schoolwork on weekdays, such as attending *juku* or receiving private tutoring.

The finding that high school students spent less time in school and school-related activities overall, and slightly more time in learning outside of school, might be interpreted as a response to the university entrance examination system. As students make the transition from junior high to high school, those who still feel capable of entering prestigious universities may begin to study more, while those who are less hopeful may begin to study less. According to the NHK studies, the proportion of students engaged in homework outside of school for all types of students in the last 10 years has decreased.

Commuting to school also begins to take up more of students' time as they move through the levels of schooling. The average junior high school student commuted 46 minutes, and the average high school student 78 minutes on any given weekday.

### **Work**

Overall, work does not seem to be a major drain on Japanese students' time. In fact, part-time jobs (*arubaito*) and full-time jobs are both prohibited by school rules. In reality, however, some students work without interference from school authorities. Only 3 percent of junior high and 8 percent of high school students had part-time or full-time jobs. The average amount of time that employed students spent working on any given workday was 2.25 hours for

junior high and 3.75 hours for high school students. Since such a small proportion of students work, Japanese high school students work on average 18 minutes on any given weekday.

### **Leisure, TV, and Sports**

In contrast with the trend found in the percentage of students who were employed, neither the percentage of students who indulged in leisure activities nor the amount of time devoted to leisure activities changed appreciably from junior high to high school. Nor did the 92 percent of students who watched television on weekdays change from one educational level to another. In both junior high and high school, students watched television on average approximately 2.5 hours per day. The percentage of students who engaged in sports decreased from 8 percent in junior high to 4.9 percent in high school, mirroring the drop in participation in extracurricular activities noted above. For most Japanese students, leisurely sports activities do not play a large role in their lives.

### **Books, Comics, Magazines, and Newspapers**

Approximately 21 percent of students in junior high and high school read books for about an hour per day on average. After books, the highest percentage of students read comic books (14.2 percent in junior high, 10.7 percent in high school). Newspapers were read by only 6.6 percent of junior high and 14.9 percent of high school students. Magazine reading also more than doubled, from 2.8 percent of junior high to 7.4 percent of high school students. Although the percentage of students who read these different publications changed from junior high to high school, the average time spent reading each type of publication each weekday did not change.

## **Socializing**

Relationships with peers also compete for students' time, although in Japan that competition seems minimal. On average, Japanese junior high school students spent 23 minutes on any given weekday interacting with friends, and Japanese high school students spent 39 minutes in such interactions. Time spent in conversations on the telephone was quite limited. The average student spent less than 10 minutes on the phone on any given day. However, these overall averages are low since many students do not use the telephone at all. High school students who use the telephone to converse with friends spent an average of 45 minutes on the telephone on any given day.

## The Social-Psychological Environment Surrounding Japanese Junior High and High School Students

### ***Credentialist Society***

In a 1987 report on Japanese education put out by the Keizai Kyoryoku Kaihatsu Kiko (Sengoku et al. 1987), the authors made a statement to the effect that social classes in Japan are not determined by birth but rather by the college entrance examination taken at age 18. Such a statement reflects the importance given to academic credentials in Japan, specifically, the fact that one's social and financial status are closely related to the status of the university from which one graduates. For Japanese, entrance to a prestigious university virtually guarantees future employment in a large company, providing lifetime financial security and social prestige. Due to the great emphasis placed on gaining a credential from a top-ranking university, rather than on the quality or content of the education actually acquired in that university, Japanese social scientists and educators have coined the term *credentialist society* (*gakureki shakai*) to describe modern Japan.



Competition for admission to a good university begins before students enter high school. Since compulsory education in Japan ends in the ninth grade, all students must pass an entrance examination to obtain admission to high school. Therefore, the junior high school a student attends and the training provided there determine the high school that the student will enter. The high school a student attends, in turn, strongly affects the kind of preparation received for the college entrance examination, which subsequently determines the college the student will attend. Thus, the college entrance examination exerts a powerful influence on students' daily lives at an early age.

The competition is compounded by the fact that Japan is a society where it is difficult to reverse one's choices. As described above, choices made before one enters high school affect employment potential. Even after entering the job market, workers must make wise choices from the outset. Due to the pervasiveness of the seniority system, persons who start a job at one company and then move to another company must begin again at the bottom of the ladder. Such a system strongly discourages people from moving from one employer to another and rewards those who stay for a long time at their particular companies. Because of the relative inflexibility and narrowness of the paths to social and financial success, Japanese parents socialize children to make informed choices as early as possible, encouraging them to develop concrete career goals early rather than explore several career options.

### **Guidance for School Selection (*Shinro Shido*) and T-Scores**

Junior high school students are under great pressure to make critical choices. Usually in the ninth grade (or late in eighth grade), students will have discussions with teachers, parents, and peers about which high schools will be most compatible with their abilities. Students are allowed to apply to only one public high school, although they may apply to more than one of the considerably more expensive private high schools. Therefore, the teachers' role is to bring reality

into students' choices, carefully guiding them to apply only to a public high school where they are assured of admittance.

Until recently, students had been urged to take achievement tests put out by private educational companies. These tests were thought to provide a fairly accurate measure of how the students would perform on the actual high school entrance examination and were used to assess their chances for entering a certain high school and help guidance counselors determine which high schools to recommend. The student's score on this achievement test is known as a T-score (*hyojun hensachi*) (Nihon Seishonen Kenkyusho 1984).

Unfortunately, the T-scores are based solely on achievement and thus fail to take into account personal characteristics, such as motivation or personality attributes. The majority of teachers and parents believe that, although not particularly desirable, the system of T-scores is something of a necessary evil. Most teachers and guidance counselors disapprove of the fact that the T-scores play such a strong role in determining the nature of the recommendations they make to students about their future high schools, but they claim that the situation cannot be helped (Nihon Seishonen Kenkyusho 1984). Parents' attitudes are also mixed, as can be seen in the results of a study by the NHK Seron Chosabu (1987). For example, more than half of the parents believed that the use of T-scores was not desirable but could not be helped. Less than 20 percent believed that T-scores were completely undesirable.

In modern Japan, students have become extremely preoccupied with their test scores because of the implications they have for the future. Such intense concentration on test scores is seen as establishing a social position for students early in their lives. As a result, there is a separation between the few elite students who are admitted to top schools and the rest of the students. The elite students believe that their success is due to their ability; they feel that they are superior. Students who receive lower scores may have feelings of failure that result in a negative self-image and loss of motivation to meet challenges (see Iwase 1982; Kajita 1992; Sengoku et al. 1987).

This focus on test scores tends to create homogeneous ability groups, especially in high school, that deprive students of the chance to interact with others of different achievement levels. The tests are also criticized because they are composed typically of scantron/multiple-choice type questions that do not measure students' unique abilities or tap their creativity. It has been hypothesized that the limited view of the student as a person, as reflected in the narrow focus on T-scores and academic achievement, may be causing severe stress among junior high school students, leading to maladjustment and problem behaviors (Chuo Kyoiku Shingikai 1991; Iwase 1982; Sengoku et al. 1987). Consequently, education reformers have urged that greater emphasis be placed on providing opportunities for the expression of individual differences among students so they might become better rounded (Chuo Kyoiku Shingikai 1991).

### Students' and Parents' Perceptions of the Entrance Examination System

Once students enter junior high school, they become very conscious of the entrance examination system—first, the examination to get into high school, and then the examination to get into college or university. A study by the Japanese Center for Research on Children and Youth [Nihon Seishonen Kenkyusho] (1984) indicates that Japanese students have a realistic view of what they can achieve and what kind of future they are likely to have depending upon the high school they enter. The high school they enter is likely to determine the university they will go to, which, in turn, will set the course for the rest of their lives. Thus, by the age of 16, when Japanese students enter high school, they are already forced to face the reality of their future.

Because the college entrance examination exerts a powerful influence on students' lives as early as junior high school, and is thought to result in considerable academic and psychological pressure, there is much debate among Japanese students, parents, and educators as to the advantages and disadvantages of the present entrance examination system. To identify some of the elements in this debate, researchers of the NHK Seron Chosabu (1992a) asked students whether or not they agreed with the statements presented in table 6.

“Studying for the entrance examination is a good opportunity to integrate what you have learned in school.”

	Males	Females
Junior high school	65.2	61.6
High school	55.3	56.9

“Studying for the entrance examination is a good opportunity to improve yourself as a human being.”

Junior high school	43.2	42.1
High school	41.0	44.7

“The only purpose of studying for the entrance examination is to get into a good university, not for really educating yourself.”

Junior high school	30.8	28.3
High school	43.9	38.9

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SOURCE: Adapted from NHK Seron Chosabu 1992a.

Between one-half and two-thirds of the students believed that the entrance examination was useful in integrating an individual's academic knowledge, and only about one-third of students perceived the examinations to be nothing more than a way to get into a university. Such results indicate a positive, or at least neutral, attitude toward college entrance examinations among Japanese adolescents.

Similar findings appeared in an earlier study by NHK Seron Chosabu (1987) as well. Researchers asked the opinion of junior high school students and their parents regarding the value of studying for the entrance examination. They found that 60 percent of students believed that studying for the entrance examination is helpful in reviewing material that one learns in junior high school. Forty-five percent of both students and fathers, and 50 percent of mothers, thought that studying for the entrance examination was helpful for building personal attributes such as persistence. Twenty-nine percent of students and 52 percent of parents thought that studying for the entrance examination was not “real” studying but just a perfunctory means of gaining admission to a better school.

The data suggest that students generally have a positive attitude toward studying for the entrance examination. Such an attitude among students may be seen as evidence of a sense of acceptance of a system that students can do little to change. Parents, in contrast, seem to have somewhat more ambivalent feelings toward the entrance examination system.

## Academic Life

### General Perception of School Life

Given the formidable specter of the high school and college entrance examinations looming ahead of them, Japanese junior high school students might be expected to find school an unpleasant experience. However, according to a number of investigations, more than 80 percent of junior high school students report that they enjoy going to school (NHK Seron Chosabu 1992a; Sengoku et al. 1987). Nevertheless, students' positive views of school do not obscure their dissatisfaction with various aspects of their education. NHK Seron Chosabu (1987) compiled the following list of students' dissatisfactions with school:

- There is too much to learn in classes (41.2 percent of students surveyed);
- Many teachers do not care whether students understand the material or not (39 percent of students surveyed); and
- The pace of the lesson is too fast (37.7 percent of students surveyed).

Sengoku et al. (1987) found some dissatisfaction with the content of classes and the amount of time spent in classes at school. About half of Japanese junior high school students said that they would like the content of lessons to be easier and about 40 percent said they would like the total number of lesson hours to be reduced. Forty percent of Japanese junior high school teachers also complained that there was too much content in the lessons.

## Teaching Practices and Teachers

The content and pace of lessons is not the only focal point of students' discontent. Method of instruction and relations with teachers are also sources of dissatisfaction. Teaching practices in junior high school are, to a large extent, dictated by the high school entrance examinations. Teachers tend to teach to the examination, at the same time trying to cover the standard material required by the national curriculum. As a result, the knowledge taught in the schools is sometimes criticized as being fragmented, lacking cohesion, and divorced from students' daily lives. This, in turn, sometimes leads to students' loss of interest, motivation, and intellectual curiosity.

Studies show that Japanese students have little trust in their teachers and that teachers' authority has weakened. A 1979 international survey on children showed that relatively few Japanese students liked or respected their teachers, or felt they could discuss things with their teachers, and that these negative feelings toward teachers increased with age (Sorifu Sieshonen Taisaku Honbu 1979). Another study with junior high school students revealed a large difference in their ideal and actual perceptions of their teachers, specifically on dimensions such as sense of humor, friendliness, accessibility for discussion, fairness, and compassion. Most students felt that their teachers were too strict (Nihon Seishonen Kenkyusho to Seimei Hoken Bunka Senta 1984).

Parents seem to have a different set of complaints about teachers. In a separate investigation, Nihon Seishonen Kenkyusho (1984) reported that mothers of junior high school students wanted teachers to provide

- More homework (36.3 percent of mothers surveyed);
- Stricter discipline, including physical punishment if necessary (54.8 percent of mothers surveyed);
- Special guidance for students whose grades have fallen (67.1 percent of mothers surveyed);
- Guidance for daily living in school (60.4 percent of mothers surveyed); and
- Guidance for daily living outside school (39.8 percent of mothers surveyed).

Given students' and parents' views, it is not surprising that the number of Japanese teachers reporting burnout is increasing. Data from a report by Matsumoto (1987) indicates that 70 percent of junior high teachers get tired easily, about 40 percent are depressed or irritated, 30 percent are reluctant to perform their teaching duties, and 25 percent said that contact with students was troublesome. The recent increase in teacher burnout is thought to be linked to their fear of the potential for student violence. As a result, teachers lose confidence in themselves as teachers and find that the financial rewards do not compensate for the fear and frustration they experience in the classroom (Sengoku et al. 1987).

### ***Juku***

To supplement the efforts of regular teachers and to improve their child's chances of obtaining a high score on the entrance examination, many Japanese parents send their children to *juku* or hire private tutors. A survey conducted by Monbusho in 1993 (cited in Asahi Shinbun, July 30, 1994) indicated that 59.5 percent of junior high school students attended *juku*. The percentage attending *juku* increased as students advanced: 32 percent of fifth-graders, 42 percent of sixth-graders, 53 percent of seventh-graders, 59.1 percent of eighth-graders, 67 percent of ninth-graders. Among high school students, 9.7 percent of males and 11.1 percent of females reported attending *juku* (NHK Seron Chosabu 1992a).

Contrary to the belief that Japanese parents force their children to attend these cram schools, Yuuki, Sato, and Hashizako (1987) found that two-thirds of the Japanese students surveyed said they attended *juku* by their own choice. Sengoku et al. (1987) believe that the popularity of *juku* may be due to the fact that it is well advertised, and that there are strong forces of peer pressure and social conformity pushing students to attend. Because a high percentage of students do attend *juku*, those who do not go tend to worry that they are missing an opportunity to improve their examination scores.



There are other reasons besides peer pressure for attending *juku*. For example, according to Yuuki et al. (1987), the instruction in *juku* is more carefully prepared, thorough, and individualized than it is in the regular schools. The lectures are easy to understand. Relations between students and teachers in *juku* also seem to be better than in regular school. *Juku* teachers get higher evaluations from students than regular teachers. According to students, *juku* teachers teach diligently, are easy to talk to, talk about the future, are nice and kind (*kokoro no yasashii*), and understand the individual student.

Some students do complain that they have much more studying and homework from *juku* than they have from regular school. However, complaints about the speed at which the material is taught and the number of tests students have to take is approximately the same for regular schools and *juku* (Yuuki et al. 1987).

### Parent-Child Relationships

No student can be expected to do well in school without the help and support of his or her family. Japanese families, in particular, are known to make strenuous efforts to provide a home environment that is conducive to studying. Japanese homes are often regarded as havens from the outside world where adolescents can relax and, so to speak, let their hair down.

NHK Seron Chosabu (1992a) reported that 67.8 percent of junior high students and 60.5 percent of high school students said they had a lot of fun at home.

Closeness of parents and students is also evident in the fact that both parents and children in Japan seem to have difficulty detaching themselves emotionally from one another. Another study by NHK Seron Chosabu (1992a) showed that 43 percent of mothers and 29.8 percent of fathers of junior high and high school students admitted that they were still emotionally dependent on their children. Conversely, 57.4 percent of junior high and high school students said that they were still emotionally dependent on their parents.

## **Family Life and Discipline**

Some psychologists, such as Kawai (1986), suggest that during the last 50 years the power structure in the Japanese family has shifted. According to Kawai, paternal power has gradually weakened with the changes brought on by World War II—the decrease in family size, the destruction of the primogeniture system, the technological revolution that gave women more free time—and, simultaneously, maternal power in the family has grown. Results of an international study on mothers and children indirectly confirm Kawai's assertion. By a slight margin, Japanese children were found to consider their mother stricter than their father (Youth Development Headquarters 1980). Nevertheless, it is paternal influence, Kawai implies, that provides the backbone of discipline in the family. The waning of the fathers' presence and involvement in the home is thought to hinder the child's ability to learn the self-discipline of persistence, with the result being deep frustration at times of setback that is thought to trigger various problem behaviors (Shimizu 1990).

## **Students and Their Mothers**

Junior high school students' relationships with their mothers are not as close as is generally believed. Japanese mothers seem to lack confidence in their parenting abilities (Nihon Seishonen Kenkyusho 1985). There is a discrepancy between the perceptions of junior high school students and those of their mothers. For example, 76 percent of Japanese junior high school students do not believe that their parents are proud of them. At the same time, 77 percent of Japanese mothers reported being proud of their children. Similarly, 55 percent of Japanese mothers, but 76 percent of Japanese junior high and high school students, reporting believing that mothers understand their children very well. Both mothers and children generally agree that they talk with one another about a wide variety of topics. The most common topics of conversation are usually related to academic subjects (Nihon Seishonen Kenkyusho 1985).

Another index of parent-child relationships may be the amount of personal information children are willing to reveal about themselves to their parents. In 1992 the percentage of junior high school students who said they hid nothing about themselves from their mothers, fathers, and siblings was 48.6 percent, 42.1 percent, and 34.8 percent, respectively. For high school students, the respective percentages were 36 percent, 47.4 percent, and 39.7 percent.

The Somucho Seishonen Taisaku Honbu [Youth Division of Management and Coordinating Agency] (1990) reports that Japanese mothers have the following worries about their junior high school child: (1) academic studying and school advancement, 46.4 percent; (2) their futures (including employment potential), 13.3 percent; (3) peer relationships, 11.9 percent; and (4) school life, 11.6 percent.

The findings that academic achievement is the chief worry of Japanese mothers in regard to their junior high school children as well as the main topic of conversation between mothers and children further reflect the values of a credentialist society (*gakureki shakai*).

### **Junior High School Students and Their Fathers**

According to the Nihon Seishonen Kenkyusho (1985), about 50 percent of students report infrequent communication with their fathers; nonetheless, 80 percent of Japanese junior high school students report having a good relationship with their father. To children, fathers seem to be understanding, easygoing, and undemanding in regard to academic achievement. However, fathers actually have little contact with children and participate infrequently in child rearing. Students see their father as being most interested in his own work. This "absent father" is thought to be responsible for adolescent problems in identity formation, particularly among boys (Shimizu 1990).

According to one report, Japanese fathers knew some things about their junior high school children either very well or fairly well, such as their favorite academic subject (70.4 percent) and their standing in their class (80.9 percent). However, only 54.9 percent indicated

that they knew their child's homeroom teacher's name and only 40.7 percent said they knew their child's dreams about the future (Fukutake Shoten Kyoiku Kenkyusho 1993).

However, students and fathers may have different impressions about how much fathers understand their children. A much lower percentage of fathers (39.6 percent) believed that they understood their children well than junior high and high school students (67.3 percent) felt that they were understood by their fathers (NHK Seron Chosa 1992a). Many interpretations of this discrepancy are possible. One explanation may be that, due to the lack of direct contact with the father, children imagine that their father receives information about them through the mother. Fathers, however, who work long hours away from home, may feel isolated and left out of the family.

### The Effects of Japan's Changing Values on Students

The incidence of certain forms of deviant behavior and juvenile delinquency in Japan appears to be rising in recent years. At the same time, junior high school students, who have been among the most frequent perpetrators of deviant acts, are seen as becoming less rebellious than in the past (Sengoku et al. 1987). The lack of rebelliousness may derive, at least in part, from the fact that junior high school students seem to have less to rebel against than did their counterparts of the past. In contemporary Japan, parents and adults appear to be reluctant to enforce rules and to discipline children. Some social scientists believe that with no strong social force to contend with, children are not internalizing the traditional values of society but, rather, are simply doing what they are told, and what they are being told to do is study.

### The Emphasis on Education

Japanese students have been taught that what is most important is doing well in school, and that the pinnacle of academic achievement is to gain admission to a good university. NHK

Seron Chosabu (1992a) reported the educational aspirations of more than 1,500 junior high and high school students. When asked how far they wanted to go in their education, 24.8 percent said high school, 11.8 percent said special schools and miscellaneous schools, 11.9 percent said junior college or technical college, 42.0 percent said university, and 1.7 percent said graduate school.

Students aspiring to go to a university comprise the largest group. Attending a university requires graduation from high school. Add the fact that almost 94 percent of junior high school students continue on to high school, and it becomes evident that the high school population is growing rapidly. Kajita (1992) argues that the rapid increase in the percentage of students entering high school has contributed to the growth of various problem behaviors. For example, jobs that did not require high school graduation 40 years ago now do. Students who want these jobs now have to go to high school and study even though they do not enjoy it. A study by NHK Seron Chosabu (1992a) found that 24.3 percent of high school students did not want to be there. This high percentage of discontented students may contribute to the increase in behavioral problems among Japanese youth.

### **The Values Taught in Schools**

According to Sengoku et al. (1987; Sengoku 1991), there is another problem: the friction between schools and society. Schools are viewed as trying to instill rules and traditional values that are no longer present in the real world. But why have Japanese values changed? One reason suggested by these authors is that Western ideas of individualism along with criticism of traditional values have flooded Japan since the end of World War II. In addition, adults find that adopting the old values of hard work, harmony, and self-sacrifice does not produce the financial or psychological rewards it did in the past. Those who work hardest do not always do best. The traditional values, therefore, may be beginning to lose their credibility in Japan. Consequently, schools, which teach these traditional values, are not keeping up with the changes in society.

The common expression “7–5–3 education” indicates that 70 percent of elementary students, 50 percent of junior high students, and 30 percent of high school students understand the content of the school curriculum. In addition, the examination-focused nature of the curriculum causes many students to lose interest and motivation, and to fall behind. In response, teachers seek to control students by creating even more elaborate sets of rules for them to follow. The tendency of Japanese teachers and school administrators to try to guide students' lives by strictly enforcing an excessive number of school rules is known in Japan as *regulationism* (*kanrishugi*). Regulationism, as seen by some, results in a stifling of students' sense of individuality and uniqueness, thus intensifying the pressures students may feel in relation to school. Such pressures, in turn, are thought by many to be responsible for behavior problems among children and adolescents in Japan (see Matsumoto 1985; Shinbori 1982).

### Adolescents' Problem Behaviors

Since 1977 the number of problem behaviors among Japanese children and adolescents has risen steadily. According to Sengoku et al. (1987), the trend now is for juvenile delinquents to be younger, problem behaviors to be carried out in groups and to be of a more violent nature, and for more girls to engage in problem behaviors than in the past.

Nihon Seishonen Kenkyusho (1984) studied the prevalence of various forms of deviant behavior among a sample of junior high school students (table 7).

Table 7—Percentages of junior high school students engaging in deviant behaviors

Bullying	48.7
Coming to school late	35.3
Rebelliousness toward teachers	25.0
Destroying buildings or public property	20.0
Coming home late	10.4
Smoking	10.1
Avoiding school (truancy)	7.5
Shoplifting	6.6
Staying out without permission	5.6
Exhibiting violence toward teachers	2.5
Inhaling intoxicants	2.1

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SOURCE: Nihon Seishonen Kenkyusho 1984.

Another survey by Nihon Seishonen Kenkyusho (1985) asked teachers whether there were students in their class who engaged in the behaviors listed in table 7. These percentages appear in table 8. Comparing the percentages in both tables, there are differences in the responses of students and teachers.

Table 8—Percentages of teachers who reported having students who engaged in certain problem behaviors

Smoking	41.0
Fighting among students	40.1
Shoplifting	40.0
Destroying buildings or public property	34.4
Threatening or mugging	31.2
Wandering at night without going home	27.5
Staying out without permission	25.1
Gang participation	24.4
Perming one's hair	22.1
Drinking	19.4
Engaging in sexual activities	14.2
Inhaling intoxicants	11.1
Exhibiting violence toward teachers	8.8

SOURCE: Nihon Seishonen Kenkyusho 1985.

### **Bullying or Teasing**

Although it occurs in almost every industrialized society, bullying and teasing, known in Japanese as *ijime*, appears to be of special concern in Japan. A Japanese government White Paper on Youth reported that, in 1990, approximately 32,500 incidents of *ijime* were reported in schools throughout Japan—more than half of these in junior high schools (Somucho Seishonen



Taisaku Honbu 1991). If these cases involved the victimization of only one child, 0.2 percent of Japanese schoolchildren were bullied in 1990. Though comparable data are difficult to obtain, it may be assumed that rates of bullying in Western industrialized nations are considerably higher than those in Japan (Smith and Thompson 1991).

More specifically, Hisatomi and Sato (1986) found that 31 percent of third-graders, 25 percent of fourth-graders, 13 percent of fifth-graders, 10 percent of sixth-graders, 17 percent of seventh-graders, and 8 percent of eighth-graders are victims of *ijime*.

For many Japanese psychologists, one of the most troubling aspects of the *ijime* phenomenon is that students who participate in *ijime* tend not to feel guilty about the cruel acts in which they engage. Additionally, there are often many student onlookers who appear to do nothing to stop the *ijime* and prefer not to get involved. Confirmation of such a statement may be found in a study by the Nihon Seishonen Kenkyusho (1984) directed toward students (table 9). Moreover, Hisatomi and Sato (1986) report that 30 percent of Japanese junior high school students consider teasing as “fun and not wrong.” Almost one-third of both males and females said that *ijime* should be ignored, which suggests an indifference on the part of Japanese students to this form of deviant behavior.

Table 9—Responses to Teasing: “When You See Someone Teasing, What Should You Do?”

	Males	Females
Break in or stop it	24.9	14.8
Observe	28.0	42.9
Tell teacher	5.9	9.5
Ignore it	30.5	28.9
Participate	10.7	3.8

SOURCE: Nihon Seishonen Kenkyusho 1984.

### Avoiding School

Along with *ijime*, avoiding school represents the most talked-about and frequently studied form of deviant behavior among Japanese children and adolescents. Despite the widespread public attention that such behavior receives, the incidence of students refusing to go to school is relatively small. For example, in 1992, 0.94 percent of junior high school students refused to go to school (Monbusho 1993).

Children identified as having the school-refusal syndrome want to go to school and know they must go, but just cannot make themselves go. The syndrome usually begins with various psychosomatic symptoms, such as headaches and stomachaches. It then progresses to open refusal to go to school, moodiness, and sometime verbal and physical abuse of parents. In the final stage, the children often sink into a state of apathy and remain secluded in their rooms. One interpretation of why it is difficult for these children to go to school is that they are thought to internalize the expectations of teachers, parents, or authoritative others, while suppressing their own desires and needs. Such children are normally obedient, diligent "good children" who have for many years followed the wishes of their parents and ignored their own feelings (Takeuchi

1991). Faced with some setback, usually related to academic achievement, these children suddenly rebel, choosing to avoid the pain and disappointment of failure by refusing to go to school.

### **Using Illegal Substances**

Substance abuse among children in Japan primarily takes the form of sniffing paint thinner, known in Japanese as *shinna*. In 1992, 1,677 junior high school students were caught sniffing paint thinner, 46.3 percent of whom were female. Of the 2,166 high school students who were caught sniffing paint thinner, 39.5 percent were female (Keisatsucho 1993).

In the same year, only 14 junior high school students were found using other forms of drugs such as marijuana, cocaine, or heroin; 12 were female. Among high school students, 39 used some kind of illicit drug; 31 were female (Keisatsucho 1993).

### **Behaving Violently**

Violent behavior in school includes disturbing classes, destroying equipment and facilities, and committing violence against teachers. The Sorifu Seishonen Taisaku Honbu (1982) conducted a study in which they asked secondary school students if they had ever had the desire to punch a teacher; 26.5 percent of the males and 20 percent of the females said they had. Also, 32.9 percent of males and 27.6 percent of females said they wanted to commit some kind of violence in school.

Approximately 12 percent of the public junior high schools and 14.2 percent of the public high schools reported incidents of school violence in 1992. Violence against teachers was reported in 3.9 percent of junior high schools and 3.4 percent of high schools. Additionally, 9.7 percent of junior high schools and 12.5 percent of high schools reported incidents of student

fighting; destruction of school property was reported by 2.7 percent of junior high schools and 1.5 percent of high schools (Somucho Seishonen Taisaku Honbu 1993).

Police were called in to control school violence in 523 junior highs and 44 high schools. Of the incidents in junior high schools, 301 involved violence against teachers; in high schools, only 8 acts of violence were aimed at the teacher (Keisatsucho 1993).

### **Dropping Out of School**

In 1991, 2.1 percent of all students dropped out of high school; 1.5 percent had been attending public day schools, 2.3 percent private day schools, 14.8 percent public night schools, and 10 percent private night schools (Shimizu 1993).

Because guidance counselors usually try to encourage junior high students to enter some type of high school, whether or not the match is appropriate, some high school students find themselves with little motivation to succeed. Encountering adjustment problems, they soon drop out. The reason the dropout rate is higher among night school students than among day school students is that night school students include not only those who are working at full-time jobs during the day but those who have already dropped out from day school programs (Shimizu 1993).

### **Additional Problems**

Three other behavioral problems receive a great deal of attention in Japan: juvenile delinquency, domestic violence, and suicide.

*Juvenile delinquency.* In 1992, 684,060 children, usually under age 20, were caught by police for delinquent behavior. The most common offense was smoking (46.7 percent). Others (26.6 percent) were caught wandering at night, riding in motorcycle gangs (7.2 percent), drinking

(4.4 percent), and associating with other delinquents (3.4 percent) (Keisatsucho 1993). Twelve elementary, 1,033 junior high, and 1,144 high school students were caught by police engaging in illegal sexual behavior in 1992 (Keisatsucho 1993).

*Domestic violence.* The number of incidents of aggression against parents reported to police in 1992 was 757. Of these, 450 were directed against the mother (Keisatsucho 1993).

*Suicide.* According to the Keisatsucho [Police Department] (1993), 16 elementary school, 91 junior high school, and 135 high school students committed suicide in 1992.

## Possible Reasons Underlying Problem Behaviors

### **Pressure from Different Sources in Daily Life**

Junior high school students exhibit more problem behaviors than any other segment of the school population. One reason may be that their developmental level, seen as a kind of limbo between childhood and adulthood, makes them more vulnerable to the stresses and pressures of the education system and the credentialistic society they are attempting to enter.

Japanese students live a school-oriented life and have fewer nonacademic roles or expectations than do American students. For example, a survey by Sengoku et al. (1987) found that more than half of Japanese junior high school students studied more than 1 hour a day. Of these same students, 73 percent reported never playing with friends, and 41 percent said they never did any chores. It is evident that Japanese students focus a great deal of attention on school. For Japanese students, the contents of conversations with parents usually revolve around school and grades (Sengoku et al. 1987), and their parents, teachers, and even the media put pressure on them to succeed. Various psychologists believe that the high value attached to school needs to be

reduced and put into a broader perspective. Academic achievement, psychologists assert, should not be considered the only goal of an adolescent's life (Matsumoto 1985).

### Social Organizations for Coping with Problem Behaviors

To deal with these growing behavioral problems among youth, Japan has developed a number of agencies and institutions both national and local. According to the Somucho Seishonen Taisaku Honbu (1993), the following organizations for coping with problem behaviors exist in Japan:

- Center for the Prevention of Delinquency (Seinen Hodo Senta). Administrators and volunteers work together to prevent delinquency. Guidance counselors talk to children on the streets, counsel troubled teens, and rid the neighborhood of negative influences (e.g., pornography shops). In 1992, there were 689 such centers throughout Japan, with 72,000 volunteer guidance counselors. Also, some communities have Mothers Centers (Haha no Kai) that perform the same role as the Center for the Prevention of Delinquency.
- Society for Prevention of Delinquency (Bohan Kyokai). This group is organized at the level of the police department in each community to prevent crime and violence and promote children's healthy development. There are 705,621 contact sites for this type of organization throughout Japan.
- Council for Contact Between School and Police (Gakko Keisatsu Renraku Kyogikai). Organized to prevent delinquency and school violence. 2,900 councils exist in Japan. About 90 percent of elementary, junior high, and high schools participate in this program.
- Police Operation for Guiding Youth. Police departments have a youth unit that dispatches male and female officers to popular youth hangouts, amusement centers, and parks where juvenile delinquency is likely to occur. When

delinquents are found, they are given counseling based on the seriousness of their offense, family background, personality, peer relationships, and extent of parental discipline.

- Police Department's Section for Child Counseling. Police provide counseling to both children and parents. Troubled youths can call Youth Telephone Hot Lines at any time.
- Child and Adolescent Facility (Kyogoin). A detention facility for children under age 15.
- Adolescent Facility (Shonenin). A 1-year facility for delinquent adolescents between the ages of 15 and 20 for the purpose of detention and treatment. Does not house individuals who have committed serious crimes.
- Adolescent Prison (Shonen Keimusho). A detention facility for individuals up to age 26. Inmates include those who have committed serious crimes.

## Summary

The inordinate emphasis in Japan on gaining a credential from a top-ranking university has led Japanese social scientists and educators to describe modern Japan as a credentialist society (*gakureki shakai*). In such a society, where academic achievement becomes a primary social and human value, it is no surprise that school occupies a central role in the lives of Japanese adolescents. The importance of school for Japanese adolescents can be seen in a number of ways. For example, the vast majority of Japanese students' time is devoted to schoolwork and school-related activities. In comparison, relatively little time is allocated to leisure activities such as reading, sports, and socializing with friends. Also, academic achievement is not only the main topic of conversation between mothers and children but is also the chief worry of Japanese mothers of junior high children.

Although admission to a prestigious university is Japanese students' ultimate goal, actual competition for college entrance begins in the last year of junior high school, and revolves around passing entrance examinations, first to high school and then to some form of postsecondary education. Because of the importance of the entrance examinations, teachers tend to teach to the examination, at the same time trying to cover the standard material required by the national curriculum. As a result, the knowledge taught in the schools seems to be fragmented, lacking cohesion, and sometimes overwhelming. About 50 percent of Japanese junior high students say that they would like the content of lessons to be easier. About 40 percent say that they would like the total number of lesson hours to be reduced. Forty percent of Japanese junior high school teachers also complain that there is too much content in the lessons. Data suggest, however, that students generally have a positive attitude toward studying for the entrance examination. Such an attitude among students may be seen as evidence of an acceptance of a system that students can do little to change.

A number of Japanese psychologists and educators have hypothesized that the limited view of the entire person, as reflected in a narrow focus on entrance examinations and academic achievement, may be causing stress among junior high and high school students, leading to maladjustment and problem behaviors. This situation is exacerbated by the waning of the father's presence and involvement in the home. There has been a trend for juvenile delinquents to be younger, problem behaviors to be carried out in groups and to be of a more violent nature, and for more girls to engage in problem behaviors than in the past.

Two of the most widespread and troubling behavioral problems among children in Japan are bullying other students and refusing to attend school. These are of particular concern because of their negative effect on students' ability to perform well academically.

To deal with the growing behavioral problems among youth, Japan has developed a number of agencies and institutions on both a national and a local level. These include centers for the prevention of juvenile delinquency, various organizations to improve communications



between the community and the police, and institutions for housing more serious adolescent offenders.

## **Teacher Preparation and Teachers' Lives in Japan**

**Naoko Moriyoshi**

### **Overview of the Certification Process**

Requirements for obtaining teachers' certificates in Japan are set by the Regulations of the Educational Personnel Certification Law (Menkyoho Shiko Kisoku). This document outlines the minimum requirements for certification by which every accredited institution must abide. In order to become qualified teachers, individuals must first enter higher educational institutions accredited by Monbusho and take the courses necessary for obtaining teachers' certificates. After completion of schooling, the students or the institutions request prefectural boards of education to issue the certificates. This request may be made before taking the qualifying examinations prepared and administered by each prefecture or designated city or may be made at the time of graduation.

Once students pass the examination, they are granted a temporary qualification contingent upon graduation. Though the certificates are issued by the prefectural boards of education where the individuals have completed their education, individuals are allowed to take the examinations elsewhere. Those who pass the examination are qualified to teach in that particular prefecture. If a teacher moves to another prefecture, he or she must pass the examination in that prefecture to become a qualified teacher there.

Certification and qualification are required of all teachers (including nurse teachers) in kindergartens, elementary schools, junior high schools, high schools, and special schools for students with disabilities, but not in colleges, technical colleges (*kosen*), and other special

training schools. Besides the regular appointments of teachers, emergency, temporary, and extraordinary hiring takes place in response to educational necessity. To make it possible to hire non-certificate holders, special types of certificates are granted by boards of education.

## Paths Toward Teacher Certification

### **Direct Route**

Individuals who enter teacher education programs receive necessary credits toward certification from higher educational institutions that are accredited by Monbusho, while the certificates are granted by prefectural boards of education. This is the most common way to receive the certificates (Shinbori 1986).

As of 1990, about 76 percent of all junior colleges, 4-year colleges, graduate schools, and designated teacher education institutions were accredited by Monbusho to offer courses in teacher education. Credits toward teacher certification can be obtained only at these accredited institutions.

### **Upgrading**

Qualified teachers may upgrade their level of certification while they are teaching by attending lectures in accredited institutions or by enrolling in correspondence courses. Those who pass the Educational Personnel Examinations (Kyoiku Shokuin Kentei) are granted upgraded certificates or certificates for teaching other subjects.

## Types of Teaching Certificates

The Educational Personnel Certification Law, #4 (Kyoin Shokuin Menkyoho Dai 4 Jo) lists three types of teacher's certificates: regular, extraordinary (newly added in 1989), and temporary.

*Regular certificates.* Regular certificates are ranked by level of education. First Class Regular Certificates are granted to individuals with bachelor's degrees; Second Class Regular Certificates are granted to junior college graduates. Recently, a Special Training Certificate was added, to be granted to those who hold master's degrees or the equivalent. The goal of establishing the new rank of regular certificates was to facilitate the influx of highly specialized and knowledgeable individuals into the teaching profession. For example, although elementary school teachers are responsible for teaching all subjects, individuals who are certified for teaching certain subjects at junior high school—such as music, art, physical education, or home economics—are also eligible to teach their specialized subjects in elementary schools. Junior high and high school teachers specialize in teaching particular subjects and thus hold certificates in specialized areas.

*Extraordinary certificates.* Extraordinary certificates are granted to highly knowledgeable and skilled individuals who already hold a bachelor's degree or the equivalent and have passed the Educational Personnel Examination. This certificate was established in 1989 so that individuals without certificates and with no teacher training from higher educational institutions could be invited to teach in their specialized areas, such as nursing and the martial arts.

*Temporary certificates.* Temporary certificates are granted only when schools cannot find or hire qualified holders of regular teacher certificates. Temporary certificates are granted to assistant teachers for specific types of schools, such as for junior high school teaching, and for assistant nurse teachers. Temporary assistant teacher certificates for kindergartens, elementary

schools, and junior high schools are granted to those who have graduated from high school, or the equivalent, and have passed the Educational Personnel Examination. The temporary certificate for high school teaching is granted to those who have received 2 years or more of college education (62 credits) or the equivalent, and have also passed the examination.

## Requirements for Certificates

### **In-Class Education**

In order to receive teacher certificates, students must earn required credits from accredited higher educational institutions in teaching, in subjects related to teaching (e.g., educational psychology), and, for those seeking certification in special education, in subjects related to that arena.

### **Field Training**

Student teaching, also known as practical training or field experience (*kyoiku jisshu*), is an important part of the teacher education curriculum. Students are required to visit schools in order to practice and learn in real settings. Host schools accommodate certain numbers of student teachers under the supervision of mentor teachers. The mentor teachers are responsible for guiding, instructing, and providing feedback to student teachers. Evaluations are made for each student teacher and are reflected in the course grade.

To receive certification to teach elementary school, four credits of practical training are required. Students visit elementary schools that are connected to the university they are attending or their home schools for 4 weeks. There, they take turns teaching in the classrooms, while other students and host schoolteachers observe the class and later give feedback.

To receive certification for junior high or high school, two credits of practical training are required. For some special subjects, such as music and art for junior high, and mathematics, science, music, art, and technology for high school teaching, one credit of practical training is considered sufficient. An extra course in the student's specialized subject would constitute the other credit.

### **Concerns about Teacher Education Programs**

Concerns have been growing about the effectiveness of short-term practice training and the difficulties in finding host schools that can accommodate and train increasing numbers of student teachers. In the past, students sometimes had to ask schools in their hometown to permit them to do their practice training there because their universities did not have sufficient space in their affiliated host schools. Also, the increased number of students has meant fewer opportunities for them actually to teach in the classroom.

The number of students who receive teachers' certificates greatly exceeds the demand for teachers, and the percentage of certified individuals (fresh graduates) hired as teachers is small. Of 1991 college graduates (including those from junior colleges, graduate schools, and other designated teacher education institutions), 22.5 percent graduated with teacher certificates; yet, at graduation, 21.3 percent of these individuals had been hired as regular teachers (Shimizu, Akao, Arai, Ito, Sato, and Yaosaka 1993). This phenomenon can be partly explained by students' inclination to earn credits towards a teachers' certificate in order to broaden their job opportunities and partly by the overlap in the required curriculum for different types of certificates that allows students to receive multiple certificates by taking a few extra credits. For example, for those who have fulfilled requirements for high school teacher certificates, only two extra credits in moral education and 2 weeks of practical training are needed in order to receive a second certificate for junior high school teaching (Shinbori 1986). Consequently, the large number of students seeking multiple certificates has caused shortages in host school openings for

student teachers. It has also been observed that persons who fail to find a job in industry often later decide to take the Teacher Qualification Examination, further increasing the number of certificate holders.

### **Efforts to Improve the Quality of Teachers**

The increase in the number of credits required for certification is just one part of an effort to improve in-class teacher education and to reduce the number of nonserious certificate earners. Another tactic for improvement is the establishment of the extraordinary certificate, which enables noncertificate holders to enter the teaching profession and share their social experience and specialized knowledge with students. In addition, the content of the Teacher Qualification Examination has been modified to enable the examiners to evaluate aspects of the applicants' personality through interviews and personality tests, special-skills tests (swimming tests for elementary school teachers, listening comprehension and speaking tests for English teachers), and participation in special activities (volunteer experiences, club memberships).

At present, every prefecture requires interviews of some type (individual, group). The number of prefectures or cities that administer interviews as well as practical-skills tests has been increasing. As of 1992, 36 prefectures or cities held interviews with both of the examinations. A total of 47 prefectures and 11 designated cities in Japan have boards of education that are authorized to administer the examinations.

A change in the recruiting schedule has also taken place in order to attract and keep highly desirable individuals in the teaching profession. In 1982, for example, more than 60 percent of prefectures or cities made the final notification of appointment after January. By 1992, in contrast, more than half notified students of unofficial appointment by November (Monbusho 1992). With the old schedule system, by the time the appointment of teachers took place, most companies had offered jobs to the most qualified and desirable individuals. As a result, those who failed in their efforts to enter the corporate world often tried to enter the teaching profession.

## Process of Selection of Prospective Public School Teachers (as of 1986)

### **Teacher Qualification Examination**

The Teacher Qualification Examination usually consists of two parts, which are administered on two separate dates. The first part of the examination is administered in July, the second part in August or September. The first examination is regionally scheduled on the same day so that applicants cannot take examinations in multiple prefectures and thus must choose the most desirable location. In most cases, applicants are selected after each examination, and those who pass the first can take the second.

Following the guidelines issued by Monbusho, the format and content of the examinations are independently designed by each prefecture and some designated municipal boards of education.

The examinations typically include assessment of academic knowledge, a test for suitability to the teaching profession, essay tests, interviews, tests of practical skills (such as swimming), and a health examination. Examination scores in themselves do not determine who will pass and who will fail. Rather, the selection process is meant to consider the potential of prospective teachers from every aspect. Because test scores provide a quick and easy way to rank the applicants' abilities and because there are more qualified applicants than there are teaching positions available, the evaluators have sometimes given much more weight to test scores than to other qualitative assessments, such as interviews. What needs to be remembered is that the applicants have already fulfilled the certification requirements and they have supposedly received adequate training and mastered the knowledge necessary to enable them to serve as teachers.



## Qualified Teachers

Certified individuals who have passed the examination are now qualified to teach at schools in the prefectures where they took the examination. A list of these qualified teachers, valid for 1 year, is kept at the regional board of education, and teachers are appointed from the list according to the needs of schools in the prefecture. However, the list does not always meet the needs for qualified teachers in the prefecture. For example, if there is a serious shortage of elementary school teachers and a surplus at the junior high school level, the board of education may decide to offer a position at the elementary school level to someone qualified to teach at the junior high level. This can be done by granting the necessary temporary certificate for a 3-year period.

If qualified individuals do not receive appointments within the year, they will have to repeat the qualifying examination the next year. Therefore, a teacher may accept whatever job is available even though the status may be irregular or at a grade level for which that individual was not originally certified. If assistant teachers wish to continue their career at the elementary school level beyond the third year, they must fulfill the missing curriculum before the temporary certificate expires. Some teachers on the prefecture's list may not obtain a temporary position. Individuals who do not find either a regular or temporary appointment—*shushoku ronin* (job masterless samurai)—may end up spending the year preparing for the next year's examination since their qualification is good for only 1 year.

## Opportunities for New Graduates

In 1991 new graduates accounted for 54.5 percent of elementary, 51.4 percent of junior high, and 42.6 percent of high school teaching appointments. Approximately half of the total appointments in 1991 consisted of individuals who were earlier graduates, such as previous *shushoku ronin* or temporary teachers.

Not only has the number of new graduates who get teaching positions right away been decreasing, but the competitive rate (the number of applicants taking the examinations compared with the number of teachers appointed) for the Teacher Qualification Examinations has also been decreasing. As of 1990, the figure was 3.7—the lowest rate in the last decade.

The decreased competitive rate can be partly explained by the decrease in the number of applicants. This phenomenon may be a response to the growing difficulty in entering the teaching profession. Competitive rates vary across the prefectures and cities. The rates are relatively higher in popular areas. Statistics show that, in 1991, the largest number of certified individuals who applied for the Teacher Qualification Examinations were in Tokyo (6,878), followed by Osaka (5,280), Aichi (4,537), Saitama (4,460), and Hokkaido (4,013) prefectures. The largest numbers of appointments for qualified individuals were in Hokkaido (1,820) and Saitama (1,130) (Shimizu et al. 1993).

## Appointment of Teachers

### National Schools

Teachers in national schools (those established and funded by the national government) are appointed by Monbusho or by the president of the affiliated national university. Teachers and personnel of national schools are called federal employees (*kokka komuin*). Their status and conditions are regulated by the National Public Service Personnel Law. Their salaries are included in the national budget.

### Public Schools

Likewise, teachers in local public schools are appointed by the governor, mayor, or authorities of local (prefectural or municipal) boards of education. Their status (local public

servants [*chiho komuin*]) and conditions are regulated by the Local Public Service Personnel Law. To distinguish the nature of the job and the responsibilities of the teaching profession from those of national or local governmental officials, the Law for Special Regulation Concerning Educational Personnel regulates teachers' status, conditions, training, and appointments.

The prefectural board of education is authorized by Monbusho to appoint teachers at both prefectural and municipal schools. In the case of municipal schools, the superintendent of the prefectural board of education considers recommendations or suggestions provided by the municipal board of education. This supplemental responsibility in appointing teachers of municipal schools enhances the partnership between prefectural and municipal boards of education. The salaries of both prefectural and municipal schoolteachers are primarily included in the prefectural budget.

### **Private Schools**

Private school teachers are appointed by the head of the school and are not regulated by the laws applying to teachers in national and public schools. Instead, their status and work conditions are protected by the Labor Standard Law, the Labor Union Law, and other laws that regulate general work conditions.

### **Rotation of Teachers**

Teachers of public elementary and junior high schools are usually transferred to other schools every 3 to 5 years. For students, this process is believed to provide an equal quality of teaching. For teachers, it provides new and stimulating experiences along with the opportunity to interact with a wide range of teachers, which contributes to their development of teaching competence. Another goal of teacher rotation is to prevent the formation of power hierarchies among teachers with high seniority at a particular school.

Some shortcomings of the practice have been pointed out. For example, planning or engaging in long-term projects that might be beneficial to the school is difficult when the staff changes frequently. In 1991, 15.7 percent of public elementary and junior high school teachers were transferred, and 52.2 percent of the transfers moved between the cities, towns, and villages (Shimizu et al. 1993). It is interesting to note that 11 designated cities do not follow this practice.

### Teacher Training for New Teachers

As mentioned earlier, in order to complete teacher education programs at accredited higher educational institutions, prospective teachers must engage in practice teaching in host schools. Due to the recent increase in the number of students who are earning credits for teachers' certificates (even from outside the department of education), the critical shortage of host schools as well as experienced mentor teachers called into question the quality and effectiveness of such short periods of practice teaching.

As a result, an agreement was reached by educational authorities to introduce new opportunities to acclimate novice teachers at national and public schools to the profession and to the school. The new program began in 1989 with new teachers in elementary schools, and in each successive year it was extended to junior high, high school, and special education schools. For the academic year 1992, all the novice teachers at national and public elementary schools (10,272 teachers), junior highs (7,232), high schools (4,178), and special education schools (1,980) received the 1-year training for new teachers (Monbusho 1992).

### Overview of the Training Induction Program

The program consists of in-school training as well as training outside school. In-school training takes about 2 days per week, which totals more than 60 days per academic year (6 hours a week as a mode). Training outside of school comprises three parts:

- Regularly scheduled training of about 1 day a week (30 days per academic year);
- Overnight stays lasting 5 days or longer (the average was 8 to 9 days in 1994); and
- An 11-day summer training cruise provided by Monbusho each year for a selected group of 2,400 teachers.

The training cruise includes on-board lectures by specialists from broad areas, such as education, natural science, culture, and sports; presentations on different themes; and visits to the industrial, educational, and cultural institutions of port cities. The goal of this training cruise is for participating teachers to develop channels of communication and community with other teachers across regional and school boundaries.

### **In-School Training**

About 2 days a week of in-school training is mentored by experienced teachers, who assist new teachers in their adaptation and adjustment to their new positions. In addition, temporary teachers are assigned to instruct new teachers on how to teach their specialized subject (Monbusho 1992). The mentor teachers guide and support new teachers in areas such as teaching skills, selection of educational materials, curriculum construction, interaction with students, classroom management, problem-solving strategies, student guidance, and school chores. Guidance may be given formally through observance of a model class or through informal discussions. The mentoring usually takes the form of lectures, demonstrations, assistance with new teachers' work, or a combination of these.

## **Out-of-School Training**

Regularly scheduled training is conducted at educational centers and other locations outside school about 1 day a week. The program includes educational training, such as lectures, practice teaching, and guidance; visits to different types of schools, educational centers for children, welfare homes, and private businesses; outside activities, such as volunteer work in the community; and study groups dealing with different topics. In this program, the goal is to enhance in-school training through interactions with teachers who have had experiences in other school communities in order to increase understanding of various views on education and teaching.

The “lodging” program is usually scheduled during the summer vacation, when teachers can leave their classrooms and homes for additional training. The program includes nature exploration, field activities, volunteer activities, community activities, and intensive study courses. The goal is to broaden the understanding and knowledge of new teachers of the subjects they teach.

## **Training for Kindergarten Teachers**

For kindergarten teachers, instructors are selected and sent by the board of education to train the novice on site individually for a total of 10 or more days in the first year. Outside training is also provided for a total of 10 or more days a year at educational centers. This outside training is also open to teachers at private kindergartens. Such joint training for new teachers of national/public and private kindergartens has been initiated in order to improve the overall level of kindergarten education.

## Effectiveness of the Training Induction Programs

### Reported Effectiveness

The new teacher induction program seems to have brought beneficial outcomes to new and experienced teachers and to school administrations. The effectiveness of the new training program has been described by Monbusho (1992). New teachers who have voluntarily been involved in the training programs have shown notable improvement in their teaching abilities. The program has also been found to be useful to the mentor teachers, who have had an opportunity to evaluate their own teaching activities and to improve their guidance skills.

### Concerns

Some education authorities have identified the following shortcomings of the program:

- The highly structured nature of mentorship results in little flexibility for nonmentors to guide new teachers. In-school training has to respond to the daily progress of new teachers and thus to their changing needs. Experienced teachers, however, may overlook small things that often concern or worry new teachers. If the mentor teachers cannot meet the needs of the new teachers, the adjustment period is made difficult. Because the effectiveness of the training largely relies on the quality of guidance by designated teachers, such a formal guidance style does not readily invite other experienced teachers or groups to assist in this guidance. Balance needs to be found between the formal and informal guidance by designated mentor teachers and other experienced teachers in order to create the most effective teacher training programs.
- The effectiveness of outside-school training programs is questioned, especially when the extra hours of training neither enhance the in-school training nor bring

new learning. The effectiveness of outside-school training may be weakened if the 30 days of training outside the school places more burdens on teachers and merely repeats in-school training. Although the benefit of outside-school experience needs to be acknowledged, the core of teacher training should be based on in-school training.

- The training programs from the early to late years of the teaching career tend to be unintegrated. Another criticism is that in the present system there is an unsystematic organization of the training received in the teacher preparation programs at college, the first-year induction program, and the training for experienced teachers. In order to develop effective teacher-training programs, the induction program must be designed as part of a series of successive training programs.
- The programs are rigid and do not respond to the varying needs of individual teachers. The teacher- training programs disregard individual differences among the participants and de-emphasize the importance of voluntary participation. The programs are meant to provide timely and ongoing responses to teachers' needs rather than simply provide a preplanned course.
- There are budgetary problems (Egawa, Takahashi, Hayo, and Mochizuki 1992; Maki and Sato 1990). Budgets for training programs are another concern of some education authorities. It has been suggested that funds be carefully allocated so that all teachers will receive fairly balanced training opportunities. As for the training cruise, for example, only selected teachers can benefit from the program, and it has been questioned whether new teachers even need this sort of training. As an alternative, it has been suggested that the funds should be used to establish a sabbatical leave system for midcareer teachers as an incentive for them to remain in the field and also as a means of attracting new graduates to the profession (Maki and Sato 1990).



## Long-Term Training Programs

The new training program is still in the trial-and-error stage. Efforts to improve the present training programs and to provide long-term training are being made by Monbusho and boards of education. Programs are designed to suit changing needs that occur with the passage of time. New teachers, teachers with 5 years of experience, and teachers with about 10 years of experience attend these training programs. In addition, teachers in administrative positions with 21 years or more of experience also participate in these programs. For example, teachers with about 5 years of teaching experience as well as teachers who are newly assigned to be in charge of managerial affairs are provided with training programs in such areas as student guidance, subject guidance, special education by prefectures.

### **For Teachers in Advanced Positions**

In order to educate teachers holding positions of increased responsibility (principals, vice principals, teachers in charge of educational affairs, teachers in charge of each grade, teachers in charge of each subject), Monbusho holds an annual workshop at the Tsukuba Annex of the National Education Center. The subjects discussed include advanced school administration, curriculum theory, and educational guidance (Jichi Sogo Center 1991).

Teachers who have completed these training programs are qualified to participate in study-abroad programs organized by Monbusho. About 5,000 teachers participate in these overseas programs every year.

### **For Teachers Upgrading Their Certificate**

Since the establishment of the Special Training Certificate in 1989 (which requires a master's degree), it is anticipated that more inservice teachers will go back to graduate schools to upgrade their certificates. Teachers who wish to study at graduate schools may attend 2-year programs at one of the three designated Teacher Education Institutions, where two-thirds of the admission slots are reserved for current teachers with 3 or more years of teaching experience. The recent growth of graduate departments in many teacher-training institutions has led many of the education boards to send teachers to local teacher-training institutions for this type of study.

During this training period, a teacher's status is one of job trainee sent by the principal of the attending school. Consequently, teachers in training are still considered to be working for educational institutions, and they receive full salaries, moving expenses, and coverage of daily transportation fees from home to working sites. Enrollment fees and tuition, however, are not covered by the prefectures or cities.

For these lengthy periods of off-site training, certain qualifications and conditions apply. To study at one of the three designated graduate schools, teachers must

- Have at least 3 years of teaching experience;
- Return to teach in the prefecture that sent them to the university;
- Be physically and mentally healthy and have demonstrated high competence in their profession; and
- Meet the host university's application requirements.

Also, teachers must seek approval from their prefectural or municipal boards of education before applying to universities. Upon their admission to the programs, their job-trainee status becomes

official. While other types of lengthy off-site training programs exist, 5 to 10 years of teaching experience is usually required, and an age limit of 40 to 45 applies (Shimizu et al. 1993).

## Compensation Packages

### **Standards of Compensation**

The compensation package for teachers includes salaries, bonuses, allowances, and benefits. For national schoolteachers, the compensation is determined by the National Public Service Law. For public school teachers, the Law for Special Regulation Concerning Educational Personnel directs that salaries be based on those for national schoolteachers. (Actually, salaries for public school teachers typically are higher than those of national schoolteachers.) The aim is to standardize the compensation level of teachers across different school districts and throughout the country, so that the quality of teachers is equal regardless of the financial standing of prefectures or cities. The compensation for private school teachers is not regulated by these laws.

Standards for compensation and the regulation of working conditions, such as hours of work, may be subject to change at any time in response to changes in societal conditions.

### **Salaries**

Teachers' salaries are determined by the level of school, type of position, level of responsibility, and years of teaching experience. Also, in consideration of differences in the cost of living for different locations, some adjustments are made in the standards of compensation.

Four classes of salary are applied to national school teachers. Public school teachers are compensated in a similar manner, with one salary schedule for kindergarten, elementary, and junior high school teachers, and a separate salary schedule for high school teachers.

The first-class, and lowest, salary is applied to lecturers, assistant teachers, and assistant nurse teachers at all types of schools. The second-class salary (and next-lowest salary) is

applicable to regular teachers and nurse teachers. Third-class salaries cover vice principal positions at elementary, junior high, and high schools, and directors of kindergartens. The fourth-class (and highest) salary is for principals of elementary, junior high, and high schools (though a different salary schedule applies to high school employees). In each class, the salary increases by years of experience. In 1989 the average monthly salaries, excluding other benefits, for elementary school teachers was 276,500 yen (approximately \$2,765 at 100 yen per dollar), junior high school was 274,400 yen (\$2,744), and high school was about 294,100 yen (\$2,941). In November 1992, beginning regular teachers received 146,900 yen (about \$1,400) (Shimizu et al. 1993).

The source of teachers' salaries varies according to the type of school. Teachers at national schools receive their salaries from the government, teachers at public schools are paid by the prefectures or cities, and private school teachers are paid out of their schools' capital fund and governmental supplementary funds. Because teachers are on duty throughout the year (during vacations, teachers attend on certain days), they receive their salaries each month of the year.

Salary increases are recommended to and decided by the Cabinet based on yearly reports of living expenses. Most teachers of elementary through high school are local civil servants, and salary increases are recommended by the personnel department of the prefecture, with the final decisions then made by the government of the prefecture.

## **Bonuses**

Besides the monthly salaries, a bonus is provided twice a year, usually in summer and winter. The amount of the bonus varies according to region and is subject to change every year. In 1996 the summer bonus was about 2.2 times the amount of the monthly salary; the winter bonus was about 2.7 times the amount of the monthly salary.

## **Allowances**

In addition to salary, teachers may receive the following allowances, depending on the conditions under which they work:

- Family allowance, for those who have dependents;
- Remote area allowance, for those who serve in isolated areas;
- Special service allowance, for those who engage in activities or special services;
- Vocational education allowance for high schoolteachers who are involved in vocational training, such as agriculture, fishery, or engineering;
- The end-of-the-academic-year allowance (provided in March, about half the amount of the monthly salary); and
- The cold place allowance, among a total of 17 various additional types of allowances.

## **Benefits**

The Mutual Aid Association Law for national, public, and private schools has established mutual aid associations for teacher benefits. The respective Mutual Aid Association Laws governing these school types deal with national public service officials, local public service officials, and private school personnel.

Benefits comprise short-term benefits, long-term benefits, and welfare services.

Short-term benefits provide medical insurance and cover employees' and their dependents' medical expenses for illness, injury, childbirth, etc.

Long-term benefits include retirement plans and other annuities that are paid upon retirement and thereafter (usually monthly), or when employees become disabled or die. The latter type of annuity is paid to employees' dependents.

Welfare services include health-related services, such as regular physical examinations conducted at school sites or in hospitals, for both employees and their dependents; access to facilities that provide the members with recuperative or recreational benefits (such facilities include rest homes, seaside clubhouses, or athletic fields); building, managing, lending, or selling houses to members; investment of members' savings; and low-interest loans for extraordinary expenses, such as building a house.

## Characteristics of Teachers and Teachers' Lives

### Demographic Characteristics

In 1992 the percentage of females in the teaching force was 59.8 percent for all types of elementary schools, 37.9 percent for junior high schools, and 21.3 percent for high schools. These percentages reflected a 0.4 to 0.6 percent increase in the number of female teachers from the previous year in each of the levels (Shimizu et al. 1993).

Age distributions of teachers have been observed to differ by positions. For regular teachers in 1992, the mode was between 30 to 35 years old (21 percent), and 20.2 percent were 35 to 40 years old. Vice principals and principals were older, with the modes being 37.7 percent who were 50 to 55 years old and 81.5 percent who were between 55 and 60. In 1991 the overall average age for appointment to a position of vice principal was 48.8 years; for appointment to principal, the average age was 54.3 years. Statistics indicate that more young teachers are being appointed to these positions than in the past, and the proportion of females in these positions has increased in recent years (from 3.4 percent to 9.9 percent for vice principals and from 1.5 percent

to 4.0 percent for principals). The 1990 statistics reveal that the age distribution also differs by gender and type of school (elementary or junior high schools) (Shimizu et al. 1993).

## **Work Life**

In many schools, when teachers are not actually teaching, they work in a teachers' room with other teachers of the same grade and exchange relevant information and hold meetings. In high schools, teachers' rooms may be assigned by specific subjects, such as the mathematics room, where all the mathematics teachers work together. Teachers may use their free time each day to review, study, or hold meetings. One study (Kudomi 1994) found that the two most common topics of informal conversations between elementary and junior high school teachers during this preparation time were students with problems, followed by teaching. Experienced teachers often use their time in the teacher or subject room to offer guidance and advice to new teachers.

In addition to their teaching responsibilities, all teachers in elementary schools and some teachers in junior high and high schools are responsible for leading and taking care of a class of about 40 students. These are called homeroom teachers. They obtain information about the students' families (elementary school homeroom teachers may visit their students' homes) and academic background. In junior high and high schools, homeroom teachers, along with guidance teachers, are also expected to advise students and their course selection. These teachers are responsible for the students' daily conduct. Students who display unacceptable behavior may receive consultation from these teachers in the teachers' room or guidance room.

Teachers' lives in Japan are very busy. Aside from the fact that teachers in Japan must join a number of committees or study groups, five reasons for their busy schedules were given by Sato (1994):

- Teachers in Japan are responsible for many students—a typical class has about 40 students;
- Teachers in Japan must attend school for 240 days each year and work at least 40 hours a week at school;
- Teachers are also responsible for planning and administering in-school, out-of-school, and after-school activities as well as ceremonial events; such responsibilities consume much after-class time;
- Teachers are in charge of students' conduct outside school; and
- Teachers are expected to guide students on moral, health, and social issues, activities that add further to their already busy schedules.

### **Other Activities**

Teachers' time is also spent in publishing and in professional improvement. According to statistics, the number of educational journals or booklets written by teachers for teachers doubles the number that is published by scholars at universities. About one-third of books and articles in journals are written by scholars, whereas two-thirds are written by schoolteachers (Sato 1994).

Many teachers also voluntarily participate in out-of-school study groups and regularly hold meetings to exchange teaching tips, discuss educational issues, and criticize or advise other teachers' practices. A 1981 study revealed that about 53 percent of the 4,000 teachers who were asked said they had voluntarily participated in some informal study group (as cited in Inagaki & Kudomi 1994). However, such informal meetings are not easily held when teachers are pressured to work with students to prepare them for the entrance examinations. Recently, it has become difficult for junior high and high school teachers to maintain such informal self-training opportunities because of the fierce competition among students to get into good high schools and universities.



## **Job-Related Stress**

Because teachers in Japan are responsible for such a wide range of activities besides their teaching duties, the profession is seen as both rewarding and demanding. In a 1986 study (as cited in Kudomi 1994), 525 teachers in public elementary and junior high schools in one city were asked how they perceived the teaching profession. The profession was widely viewed as stressful (96.6 percent of the teachers agreed; 76 percent agreed strongly). The second- and third-ranked answers were related to positive aspects of the profession, such as “it is a job that brings pleasure by interacting with students,” and “teaching is demanding in a motivating way” (Kudomi 1994).

Another indication of the stress level associated with being a teacher in Japan can be seen in the number of requests for vacations due to psychological disorders. In 1990, 1 in every 1,000 teachers requested a vacation due to psychological disorders. Although this proportion has not increased since 1986, educational authorities believe that more teachers are afflicted and the issue has become more serious.

According to one study (as cited in Egawa et al. 1992), the stress seems to be largely related to human relationships, such as trouble with, misunderstanding, or inappropriate evaluation by colleagues, administrators, or colleagues. Other causes of stress are working conditions—such as a long commuting time and poor school facilities—parental complaints, and having to resolve conflicts between parents and the board of education.

In order to maintain good mental health and healthy relationships with students, teachers must work on coping with stress at two levels—personal and organizational (Egawa et al. 1992). At the personal level, teachers must make an effort to sleep well, relax, hold positive attitudes, and, if necessary, receive counseling or mental health consultations. At the organizational level, schools must help create positive relationships at work, improve the teacher guidance system, establish a counseling system, improve working facilities, and introduce flexible working hours to alleviate teachers' stress.

Among selected elementary and junior high school teachers who were studied in 1984 and 1989 (Yamazaki, Komori, Kurabayashi, and Kawamura 1991), more female than male teachers (47.7 percent versus 21.1 percent) completed the sentence “I felt like quitting the job” with the answer “because of the excessive amounts of work.” The second most frequent reason for wanting to quit the job for female teachers and the first reason for male teachers was “because I doubted that my personality was suitable to the teaching profession.” “Family situation” was given as the third reason for female teachers (32.3 percent), whereas 3.2 percent of male teachers chose that answer.

### **Life Outside of School: Use of Time**

In general, female teachers engage in and are constrained by familial chores and situations to a greater degree than male teachers. Results of time-use studies (a 1985 study sampled teachers in their thirties and early forties; see Yamazaki et al. 1991) revealed that female teachers were more burdened with family activities than their male counterparts. Females also scored higher on a scale of chronic fatigue; 53.9 percent of females, compared with 31.7 percent of males, responded “I always feel tired”; 40.9 percent of females and 54.1 percent of males responded “I sometimes feel tired.” Female teachers reported having little energy and time left over to study and improve their teaching-related abilities after attending to both school and family responsibilities.

This double commitment is reflected in studies on the use of time. An analysis of time use on weekdays revealed that a 4-hour difference in time spent on household chores and childcare exists between male and female teachers. Among male teachers, 56.3 percent spent less than half an hour on these activities; all female teachers spent time on chores and childcare. Likewise, male teachers on average reported having about 1 hour more each day of free time for leisure activities. On weekdays, 64.5 percent of male and 59.1 percent of female teachers reported “watching TV, reading newspapers or magazines, etc.” On weekends the most frequent

response of female teachers was to engage in house chores and child care (62.6 percent compared to 7.1 percent of male teachers). Both male and female teachers spent time on hobbies (23.1 percent). When teachers could get a period of free time, such as vacation, travel was a popular choice for both male (16.4 percent) and female (25.2 percent) teachers. Studying topics of interest was as popular as traveling for male teachers (16.4 percent), whereas interactions with family members or children was the next most frequent (22.6 percent) activity for female teachers.

## Teachers' Unions

Public school teachers currently can join one of five main teachers' unions, each differing in political beliefs, educational principles, and activities. They are the Japan Teachers' Union, All Japan Teachers' Union, Japan Senior High School Teachers' Unions, Japan Teachers' Federation, and the Japan Educational Administrators Association. The unions have a right to negotiate with central and local public authorities regarding teachers' working conditions.

### *Japan Teachers' Union (Nikkyoso)*

The largest and most influential teachers' union has been the Japanese Teachers' Union (JTU), established after World War II in 1947. The JTU is a national organization that is comprised of prefectural teachers' unions. As of 1992, the JTU had local organizations in each prefecture. Their activities, however, have been considered radical and leftwing, and their policy has been against governmental regulation, such as the implementation of the new teacher induction program, the new guidance manual by Monbusho, and requirements to display the national flag and sing the national anthem (*Hinomaru-Kimigayo*). A number of strikes (prohibited by law) and rebellious movements took place during the 1960s and 1970s. As a

result, teachers who participated in those actions were reprimanded, and others became concerned about the resulting effects on teaching. This led to a decrease in the membership, which was accelerated by a split of the JIU into two groups (mainstream versus nonmainstream) in 1989. Aware of its declining power, the JIU has modified its policies and directions since 1990. In contrast to their past inclination to rebel against governmental policies, JIU members have decided to present their opinions in such a manner that they may be included in governmental decisionmaking processes.

The JIU's largest contribution to teachers' lives has been an increase in the standard of working conditions. By joining the union and thereby increasing their collective power, teachers were able to negotiate with prefectural boards of education for better working conditions. For example, female teachers in modern Japan, compared with females in other professions, experience less gender inequity in status and compensation. The salaries do not vary by gender, and pregnant teachers can request a 6-week leave of absence before their due date without losing their position. By law, they cannot go back to work for at least 8 weeks after the baby is born. Female teachers can also request a leave of absence up to the baby's first birthday while maintaining their teaching positions at schools. During the leave, they do not teach and do not receive a salary. To help cover the living expenses of such teachers, an allowance for postdelivery leave is provided during the vacation period, after which they return to teach as a regular teacher. In other professions, it is rare to find such coverage for pregnant women and new mothers. Often, pregnant women have to consider quitting their job upon delivery of their child, or rely on day care centers if they wish to continue to work.

### **Decreased Interest in Teachers' Unions**

Regardless of—or because of—such contributions of the JIU in the past, there has been a declining interest in joining teachers' unions, including the JIU, among today's teachers. This is reflected in the decreased number of new teachers joining some form of teachers' organization

(19.6 percent in 1990—the lowest percentage in history). As of 1991, 59.3 percent of all public school teachers held memberships in some teachers' organization. As for the JTU, the largest organization, 86.3 percent of all teachers were members in 1958, 35.7 percent in 1990, and 35.2 percent in 1991 (Shimizu et al. 1993). During these three periods, the percentages of teachers who joined no group increased, from 5.7 percent (1958), to 39.8 percent (1990), and to 40.7 percent (1991).

The observed decrease in membership may be explained by several factors. First, along with an improvement in women's working conditions, improvements have been made in teachers' compensation; therefore, today's teachers do not see a great need to join a teachers' union to increase their collective bargaining power. Second, there has been a political shift toward the conservative, which does not encourage active labor movements. Finally, teachers have become alienated from unions because of confusion in the JTU and affiliated unions in the political arena.

The JTU and other teachers' organizations are making efforts to modify their roles so as to provide better services in education and teachers' lives.

## Summary

In order to become a qualified teacher in Japan, an individual must first enroll in a institution of higher education accredited by Monbusho and take the courses necessary to obtain teacher certification. Requirements for obtaining teaching certificates are set forth in the Regulations of the Educational Personnel Certification Law. Individuals who have fulfilled these requirements are eligible to take the qualifying examinations prepared and administered by each prefecture or selected city. The qualifying examinations can be taken before completion of schooling if the individuals expect to graduate within the same academic year. Those who pass the examinations are qualified to teach in that particular prefecture upon completion of their program. If a teacher moves to another prefecture, he or she must pass the examination in that prefecture to qualify for a teaching position in the prefecture.

New teachers receive a yearlong training induction to the teaching profession that occurs both inside and outside school. Thereafter, teacher training continues in response to varying responsibilities and needs of the teachers. Monbusho and the prefectural and municipal boards of education provide necessary training programs throughout the country. For selected teachers and teachers with increased responsibilities, Monbusho also offers workshops and other opportunities for further education in relevant fields.

The teaching profession is considered a secure occupation in Japan. The compensation package for teachers includes benefits, such as retirement plans and leaves of absence 6 weeks before and up to a year after the birth of a child. Some of these benefits are not provided to workers in other professions.

The role of teachers' unions, especially JTU, the most influential union in the past, must be acknowledged in the development of such high standards of teachers' working conditions and compensation. Through the collective power of union members, teachers had been able to negotiate with boards of education regarding these conditions. Union membership, however, has decreased in conjunction with the growing indifference of new teachers to participating in teachers' unions.



## German Glossary

*Abitur*: School-leaving examination and certification from the upper level Gymnasium and the upper level Gesamtschule. Entitles the holder to general admission to all forms of higher education, including the university. Designates the specific test through which the status of *allgemeine Hochschulreife* is attained.

*Allgemeine Hochschulreife*: Upper level secondary school-leaving certification which entitles the student to admission to any institution of higher education, including the university.

*Ausschüsse für berufliche Bildung*: State-level committees regulating the dual system of vocational education.

*Aussiedler*: Descendants of German “settlers” who moved to eastern states as part of a special program about 100 years ago; considered German as long as they can prove a direct line of descent.

*Berufsbildungsausschüsse*: Committees for vocational education maintained by local chambers of commerce. Representatives of employers, employees, and vocational school teachers work together in these committees to formulate policy and administer the dual system of vocational education.



*Bildungsgesamtplan*: Comprehensive plan for education developed in the 1970s by the Federal-Länder Commission for Educational Planning and Advancement of Research.

*Bund-Länder-Kommission für Bildungsplanung* or *BLK*: The Federal-Länder Commission for Educational Planning and Advancement of Research. Standing forum for all issues in education and the promotion of research that jointly affect the Länder and the federal government.

*Bundesanstalt für Arbeit*: Federal agency responsible for work and work life in Germany.

*Bundesinstitut für Berufsbildung*: Federal Institute for Vocational Education. The federal body responsible for regulating and formulating policy for the dual system of vocational education.

*Bundesministerium für Bildung und Wissenschaft* or *BMBW*: Federal Ministry of Education and Science. The federal agency that oversees federal involvement in education.

*Dienstordnung*: Formal description of authority and duties tied to organizational roles.

*duale Berufsausbildung*: Dual system of vocational training in which part-time vocational schooling is combined with practical work experience.

*Elternkonferenz*: Parents council. Local organization of parents within each school class and within each school at the elementary and secondary levels.

*Fachhochschule*: Polytechnic school. An institution of higher education which emphasises applied problems and issues.

*Fachhochschulreife*: Upper level secondary school-leaving certification which entitles the student to admission to any polytechnic school, but not to the university.

*Förderunterricht*: Advancement instruction, most often meaning remedial courses.

*Freie Waldorfschule*: A common form of nondenominational private education, similar to the American Steiner school.

*Gesamtschule* (*pl. Gesamtschulen*): Comprehensive school at the secondary level that caters to students of all ability levels. The comprehensive school aims to enhance equality of educational opportunity and is considered an alternative to the traditional German system of tracking. There are both cooperative and integrated comprehensive schools. Cooperative Gesamtschulen place all three traditional tracks under one roof, while integrated Gesamtschulen attempt to combine different ability levels in one school.

*GEW* or *Gewerkschaft Erziehung und Wissenschaft*: Union of Education and Science (a teachers' union).

*Grundgesetz*: The Basic Law, or federal constitution of Germany.

*Grundschule* (pl. *Grundschulen*): Elementary school encompassing the first 4 years of mandatory general education. In order to ensure the equality of educational opportunity, there is no differentiation of schooling at this level.

*Gymnasiale Oberstufe*: The upper level of the Gymnasium (grades 11–13), and the primary path to university studies.

*Gymnasium* (pl. *Gymnasien*): Liberal secondary school emphasizing theoretical knowledge and geared to scholastically talented students; college-track school enrolling grades 5 through 13.

*Hauptschulabschluss*: The school-leaving certificate gained upon graduation from the Hauptschule.

*Hauptschule* (pl. *Hauptschulen*): Practical secondary school emphasizing skill-based knowledge and geared to the scholastically less talented students; vocational-track school enrolling grades 5 through 9 or 10.

*Hochschule*: Literally, “high school.” A general term referring to universities, polytechnics, and other forms of higher education.

*Horte*: An organization of the governmental office of Youth Assistance that provides services and activities for children.

*Industrie- und Handelskammer:* Chamber of commerce. The local organization representing the interests of private industry.

*Integrierte Gesamtschule:* Integrated Gesamtschule. Comprehensive school in which children of mixed ability levels are instructed within the same class, as opposed to a co-operative Gesamtschule.

*Kindergarten:* The traditional form of German preschool catering to children between the ages of 3 and 6.

*Klassensprecher:* The class speaker. The student selected from among his or her classmates to represent the class as a whole in interactions with official bodies within the school.

*Kolleg:* Sixth-level college (Br.). A residential, full-time school which represents an alternative path to an Abitur certificate and university studies.

*Kooperative Gesamtschule:* Cooperative Gesamtschule. Comprehensive school in which traditional tracking is retained but tracks are incorporated into a single school organization.

*Kultusminister:* State-level minister of culture. The governmental official at the head of the respective state ministry of culture and education.

*Kultusministerkonferenz*, or *KMK*: Short form for *das ständige Konferenz der Kultusminister der Länder*, or the Standing Conference of Culture Ministers from the regional German states.

*Land* (*pl. Länder*): Regional state within the federal structure of German government. There are currently 16 regional states in Germany.

*Lehrerkonferenz*: Teachers council. The autonomous organization of teachers within the school in which teachers address issues which jointly affect their work.

*Ministerien für Kultur und Bildung*: Ministries of culture and education. State-level governmental agencies responsible for most questions of educational policy and administration within the respective states.

*Mittelschule*: Form of combined *Hauptschule* and *Realschule* found in Saxony, formerly a part of East Germany.

*Mittlere Hochschulreife*: see *Realschulabschluss*.

*Mitwirkungsgrremium*: General term referring to a forum for collaboration.

*Numerus Clausus (NC)*: Latin term used to indicate a subject at the university that has limited enrollment. Admission to NC subjects depends on Abitur grades as well as other tests for some disciplines. see *ZVS*.

*Oberstufe*: Upper level secondary education. The last 3 years of secondary education, grades 11 through 13. Traditionally taken at the Gymnasium but can also be taken in the Gesamtschule.

*Orientierungsstufe*: The initial 2 years of secondary education, in which the student is observed and the appropriateness of the assigned school track is assessed; usually grades five and six.

*Planungsausschluss für den Hochschulbau*: Planning Committee for University Construction. Federal-level agency concerned with the long-range planning of university construction.

*Realschulabschluss*: The school-leaving certificate gained upon graduating from the Realschule.

*Realschule (pl. Realschulen)*: Lower level secondary school emphasizing a mix of theoretical and practical instruction. Represents a compromise between the Gymnasium and the Hauptschule and caters to students of moderate scholastic ability.; vocational-track school enrolling grades 5 through 10.

*Regelschule*: Form of combined Hauptschule and Realschule found in the regional state of Thüringen, formerly a part of East Germany.

*Rektorenkonferenz*: Council of top university administrators.

*Restschule*: An ironic term usually applied to the Hauptschule, literally “school for leftovers,” or a school for students who do not fit into other school forms.

*Sachkunde*: An introductory course in science generally held in elementary school, which includes basic material from chemistry, physics, biology, and ecology.

*Schulamt* (*pl. Schulämter*): Local governmental office of schools. Oversees elementary and Hauptschule education on the local level.

*Schulgemeinde*: see *Schulkonferenz*.

*Schulkindergarten*: Instruction for children who have reached the age of mandatory schooling but who lack the maturity to begin elementary school. The school *kindergarten* is usually organizationally and physically attached to the elementary school.

*Schulkonferenz*: School council. The school-level policymaking and governance body consisting of teacher, student, and parents.

*Schullaufbahnentscheidung*: The school tracking decision. The decision about which school form a student should attend.

*Schulleiter*: School director or headmaster. An appointed position of formal leadership within the school. Is not equivalent to the American principal due to limited authority and responsibility. A supervisory position.

*Sekundarschule*: Form of combined Hauptschule and Realschule found in Saarland in the West and in Saxony-Anhalt, formerly a part of East Germany.

*Sonderkindergarten*: Preschool for children with special needs.

*Sonderschule*: School for children with special needs differentiated by type of disability: blindness, visual impairment, deafness, hearing impairment, speech impairment, and the physical, mental, and behavioral handicap.

*Ständige Konferenz der Kultusminister der Länder (KMK)*: Standing Council of the Regional Ministers of Culture. Federal-level entity that coordinates the independent educational policies of the 16 German states.

*Universität*: The public university. The highest institution of education in Germany.

*Unterstufe*: Lower level secondary education. Includes the first 4 to 5 years of secondary education (grades 5–10).

*VBE*, or *Verband Bildung und Erziehung*: Union of Training and Education (a teachers' union).



*Volksschule*: A Bavarian school form that organizationally and physically combines the Grundschule and the Hauptschule.

*Vorklassen*: A form of preschool offered in some *Länder* to 5-year-olds prior to their entry into elementary school at the age of 6.

*Wissenschaftsrat*: The Science Council. Federal-level institution providing advice on educational policy, particularly as pertains to universities.

*ZVS*, or *Zentralstelle für die Vergabe von Studienplätzen*: Central office for the allocation of places of study.

*Zweiter Bildungsweg*: Literally, the “second path” to higher education and university studies. Designates various alternatives to the Gymnasium for qualification for admission to institutions of higher education.

## Japanese Glossary

*bu*: Optional extracurricular activities.

*burakumin*: Traditional lowest caste of Japan.

*gakureki shakai*: School credentialism.

*hensachi*: Standardized scores.

*hoikuen*: Day care center.

*hoikusho*: Day care center.

*hoshu jyugyo*: Supplementary lessons.

*ijime*: Bullying, teasing.

*Juku*: Cram school.

*Keisatsucho*: Police Department.

*kikoku shijo*: Students who have returned from an extensive period overseas.

*koko suisen*: Recommendation for high school admission.

*kokuritsu*: National institution.

*kurabu (bukatsudo)*: Club.

*Menkyoho Shiko Kisoku*: Regulations for Implementing Teachers' Licenses.

*Monbusho*: Ministry of Education, Science, and Culture.

*NHK*: Japan Broadcasting Society.

*NHK Seron Chosabu*: NHK public opinion poll department.

*NHK Seron Chosa*: NHK opinion poll survey.

*Nihon Seishonen Kenkyusho*: Japanese Research Center for Children and Youth.

*Nikkyoso*: Japanese Teachers' Union.

*ronin (daigaku ronin)*: “Masterless samurai”; high school graduates who failed in the university entrance examination for the school of their choice and who have elected to spend a full year preparing to take the examination again.

*ruikei*: Tracking systems.

*Seimei Hoken Bunka Senta*: Culture center of life insurance company.

*senta shiken*: Center Examination administered by the National Center for University Entrance Examination (*Daigaku Nyushi Senta*).

*shingakko*: Private elite academic high schools, which high proportion of graduates to elite colleges.

*shiteiko suisen*: One of two recommendation systems; involves special quotas for applicants from schools that are highly ranked academically.

*shushoku ronin*: “Masterless samurai”; graduates who have failed to find a job and have elected to spend a full year studying.

*Somucho Seishonen Taisaku Honbu*: Children and Youth Division, Management and Coordinating Agency.

*tokubetsu waku*: Special quotas in certain departments (for *kikokushijo*).

*yobiko*: Preparatory school for the University entrance exam.

*yochien*: Kindergarten.

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