

Training On Teaching Methods In Vocational Education

Training for vocational teachers of the PAAET/Kuwait in Munich ✧ 2002-09-02 to 2002-09-13



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Vocational Education in the Dual System

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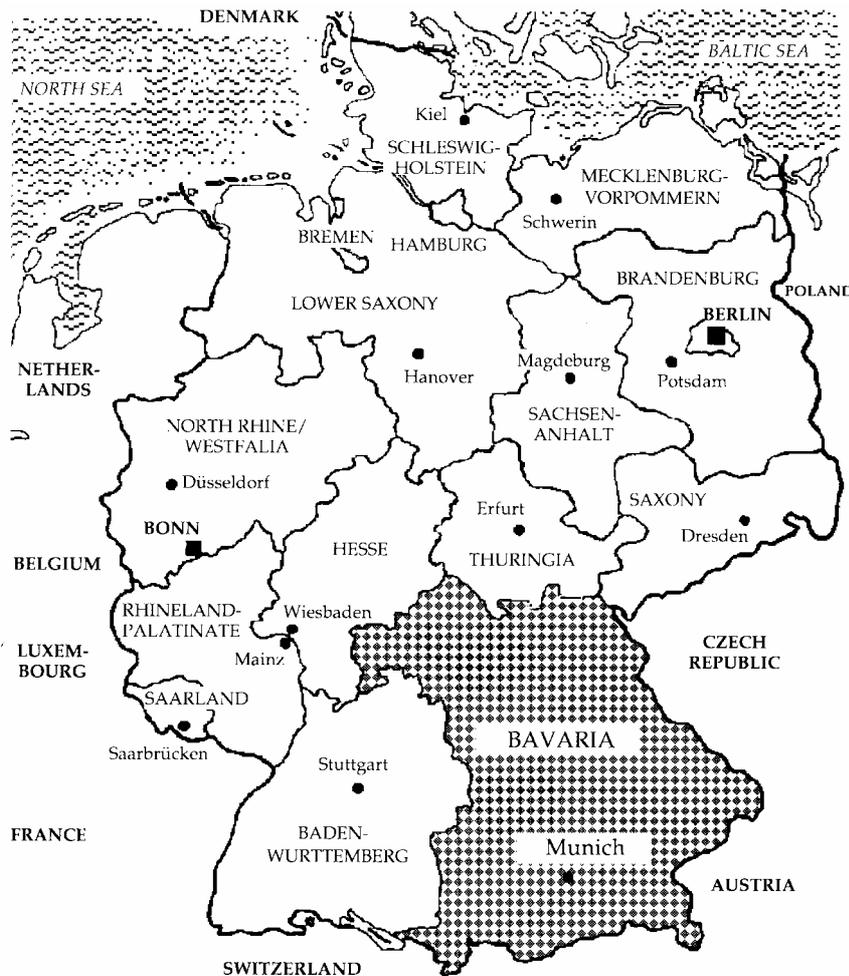
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Background Information

Federal Republic of Germany

The Federal Republic of Germany is situated in the heart of Europe. The area of Germany contains 356.970 sq.km (Kuwait: 17,818 sq.km). It has nine neighbours: Denmark in the north, the Netherlands, Belgium, Luxembourg and France in the west, Switzerland and Austria in the south, and the Czech Republic as well as Poland in the east. The central location has been more pronounced since 3 October 1990, when Germany was re-united.



Germany has a population of about 82.5 million (including 7.3 million foreigners), the largest in the European Union (Kuwait 1.9 million). The western part of Germany is much more densely populated than the eastern part. Of the 20 cities with more than 300,000 inhabitants, three are in the eastern part of Germany. Nearly one third of the population (about 25 million people) live in the 82 large cities with more than 100,000 inhabitants. But the majority of people in the Federal Republic live in small towns and villages: nearly 6.4 million in municipalities with a population of fewer than 2,000 and 50.5 million in towns with between 2,000 and 100,000 inhabitants.

The Federal Republic of Germany consists of 16 states known as "Länder" (capitals in parentheses): Baden-Württemberg (Stuttgart), Bavaria (Munich), Brandenburg (Potsdam), Hesse (Wiesbaden), Lower Saxony (Hanover), Mecklenburg-Western Pomerania (Schwerin), North Rhine-Westphalia (Düsseldorf), Rhineland-Palatinate (Mainz), Saarland (Saarbrücken), Saxony (Dresden), Saxony-Anhalt (Magdeburg), Schleswig-Holstein (Kiel) and Thuringia (Erfurt). Berlin, Bremen and Hamburg are city-states.

Biggest cities: Capital Berlin (3.5 million), followed by Hamburg (2 million), Munich (1.3 million), Cologne (1 million) and Frankfurt/M (660 thousand).

Land use in Germany: 54.1% farming, 29.4% forest, 11.8% built-up areas, roads and railways, 2.2% water, 2.5% other.

The Education System in the Federative Structure of Germany *

Legal structure

The Basic Law (Grundgesetz as Constitution) guarantees constitutional rights with regard to education

- the freedom of choice regarding school, job training and employment
- the rights of parents in the upbringing of their children
- the State supervision of education

In addition it commits the education system to the democratic principles of the constitutional and welfare State.

Within the federal system, each Land is autonomous in educational and cultural affairs

In accordance with the Constitution and the Länder Constitutions, the education system is the responsibility of the Länder Ministries of Education, Cultural Affairs, and Science. They implement State laws concerning compulsory school attendance, educational objectives, types of school, the organisation of teaching, teacher training and in-service teacher training, and the school supervisory authorities. Common and comparable basic structures of the states' school systems are ensured through the "Agreement between the States of the Federal Republic of Germany for the Standardization of the School System" of 14 October 1971. This agreement covers such matters as compulsory schooling, organization, recognition of certificates, etc.

The Standing Conference of the Länder Ministers of Education in the Federal Republic of Germany co-ordinates educational policy between the Federal States

The Standing Conference has its own secretariat as well as the following committees:

- Schools Committee
- Committee for Schools Abroad
- Committee for Higher Education
- Art and Adult Education

The responsibilities of the Federal Government

The Federal Ministry of Education and Science is responsible for the legal framework of Higher Education, vocational education outside the school system, research grants, training grants, the extension of existing and the building of new institutions of Higher Education in cooperation with the Länder.

The Federal-Länder Commission for Educational Planning and Research Funding (Bund-Länder-Kommission: BLK)

This Commission co-ordinates educational matters concerning both the federal and the Länder authorities.

* following expositions often based on: Education in Bavaria – A Survey. Munich 1993

Teachers

For every type and level of school there are specially trained teachers. All must have completed a course of study at a higher education institution. The possible subject combinations and the depth of subject-based and didactic study vary accordingly. Courses of study for primary and secondary general school teachers usually last seven semesters. Longer courses of study generally lasting nine semesters are required for intermediate school, grammar school, special school or vocational school teachers. Upon completion of their course of study, all prospective teachers must pass an initial state examination (1. Staatsexamen). This is followed by a period of practical training (usually 24 months), which includes preparatory seminars and practice teaching in schools as well as a second state examination (2. Staatsexamen). Teachers at public schools are generally professional civil servants in the service of the states with life tenure. Most of the teachers in the eastern states of Germany are salaried employees.

Private Schools

All private schools in Germany must be approved by the State. They are not allowed to make their intake of pupils dependent on the financial status of the parents. The State recognition of their final certificates depends on their fulfilling the syllabus requirements of the corresponding State schools and employing appropriately trained teachers. They receive substantial subsidies. The State reimburses parents or adult students up to a max. of € 50.- per month. In Bavaria for example Private Schools represent c. 11 % of general education and c. 16 % of vocational education.

General Education in Bavaria *

Bavaria's differentiated system of education with its many possibilities of transferring from one type of school to another offers each pupil a school career that is appropriate to his or her preferences and aptitude. The general-education schools are:

PRIMARY SCHOOL (Grundschule) Years 1-4

The Primary School provides a foundation on which all other school education builds, and furthers the pupil's personal development. It is the gateway to secondary education.

GENERAL SECONDARY SCHOOL (Hauptschule) Years 5-9

School-leaving Certificates:

- General Secondary School Pass Certificate (Erfolgreicher Hauptschulabschluss)
- Qualifying General Secondary School Certificate ("Quali")

The General Secondary School imparts a basic general education and establishes the prerequisites necessary to choose and take part in a period of qualified vocational education. It emphasises concrete thinking and practical skills.

INTERMEDIATE SCHOOL (Realschule) Years 7-10, entrance normally from the General Secondary School after Year 6

School-leaving Certificate:

- Intermediate School Certificate (an Intermediate Certificate)

The Intermediate School provides a form of education that lies between the General Secondary School and the Gymnasium : A general education on the one hand and a preparation for a period of skilled vocational education and subsequent employment involving a wide range of theoretical and practical skills on the other.

GRAMMAR SCHOOL (Gymnasium) Years 5-13

School-leaving Certificates:

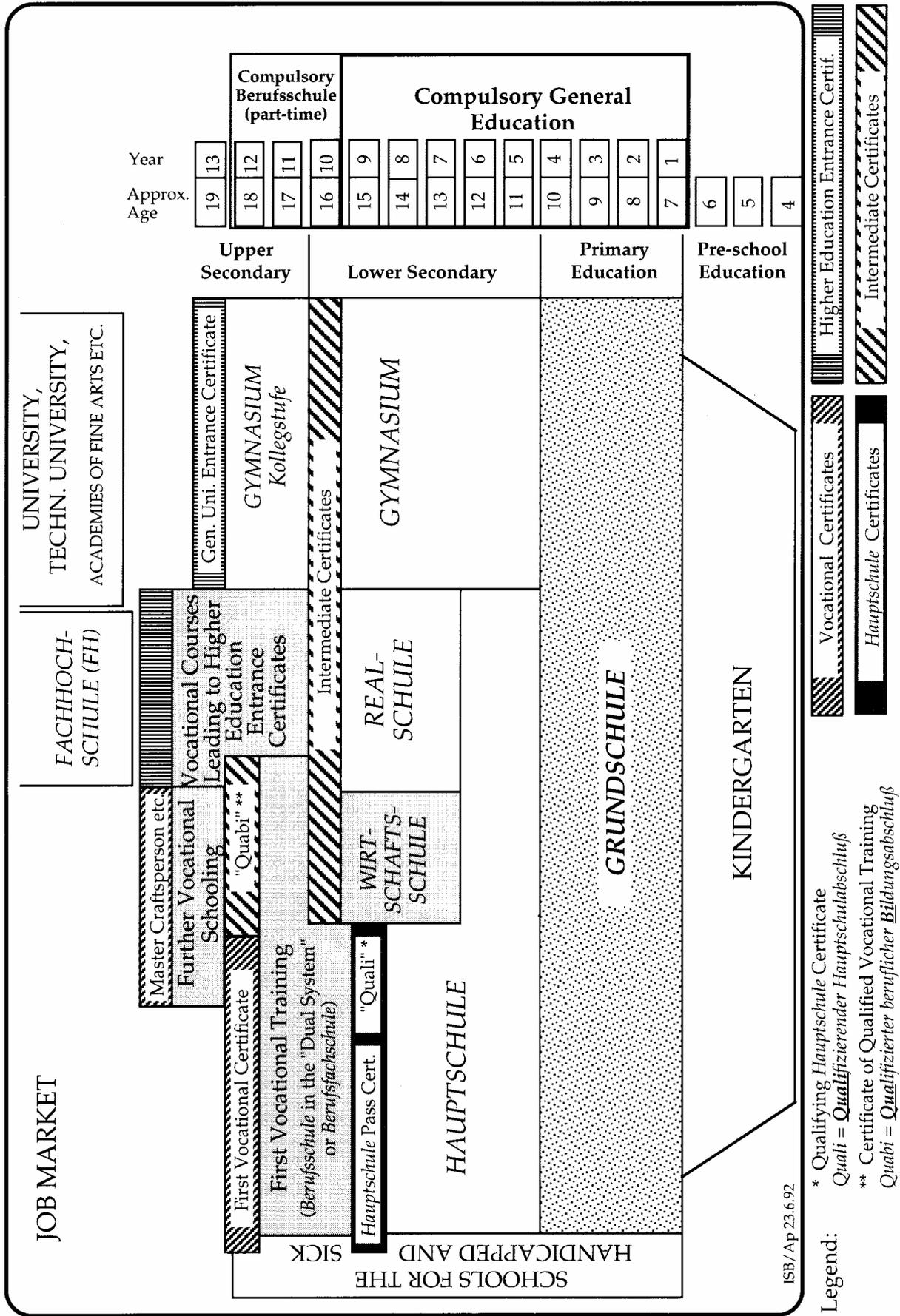
- Upper Secondary Entrance Certificate after Year 10 (an Intermediate Certificate)
- General University Entrance Certificate (Allgemeine Hochschulreife)

The Grammar School provides an academically oriented general education that is the prerequisite for university study. At the same time it establishes a basis for vocational training outside the University.

The compulsory education in Germany lasts 12 years. It can be complied by attending a general-education school for 9 years (full time) and a vocational school (normally 3 years part time) or for example after 4 years primary school and 9 years grammar school. After completing school, most young people in Germany (about 70 % born in a given year) enter a course of training offered within the framework of the "dual system". These are, above all, young people with a secondary general school or intermediate school certificate, but many higher education qualifiers (grammar school) opt for vocational training as well before they go to University.

* Used German terms are explained in the chapter "Glossary of specific terms" p. 19 - 21

DIAGRAM OF THE BAVARIAN EDUCATION SYSTEM



Vocational Education in Germany

The Basic Principles of Vocational Education

Integrated in the educational system – attuned to the needs of industry and commerce

The State's responsibility for providing young people with a comprehensive range of educational opportunities up to age 18 means that general and vocational education are considered equally important. The participation of industry and commerce in vocational education ensures that the current needs of the world of work are continually taken into consideration.

Career preparation within the framework of schools providing a general education

Basic knowledge and life skills aimed at a pre-career job orientation are taught while pupils are still at general education schools, particularly in Work Studies, in Job Experience Programmes etc.

Vocational qualifications up to the University Entrance Certificate

Vocational education not only fulfils the very varied needs of industry and of commerce for qualified staff, but also plays an important role in the trainee's personal development. It provides a first stage of job-oriented education, facilitates job promotion through further training, and enables suitable pupils to acquire further education and Higher Education entrance certificates.

As far as the qualifications awarded by schools of general and of vocational education are considered comparable, they entitle successful students to the same opportunities.

Connection between the development of personality on the one hand and general and vocational education on the other hand

Vocational education is inevitably connected with the development of the trainee's personality. It is therefore not only seen with commercial interests in mind, and vocational schools teach general-education subjects in addition to job-related subjects.

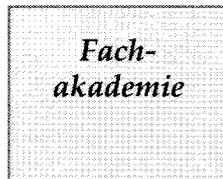
The proportion of the curriculum devoted to general-education subjects rather than job-related subjects is particularly high at vocational schools leading to a Higher Education Entrance Certificate (e.g. Fachoberschule and Berufsoberschule).

The Underlying Structure of Vocational Education

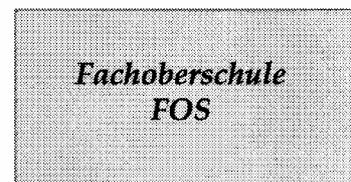
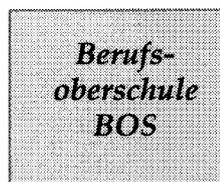
The structure of vocational education can be differentiated in three fields:

- First stage of vocational education
- Further vocational schooling
- Courses leading to higher education

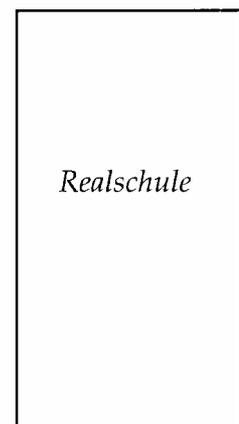
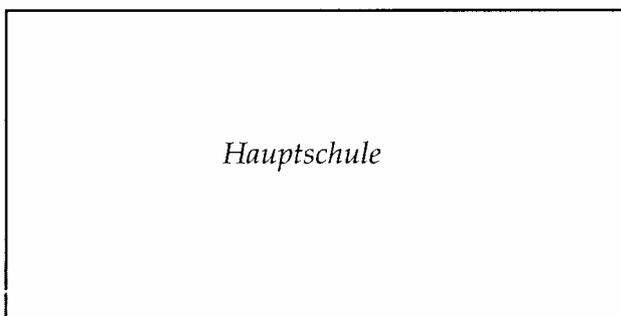
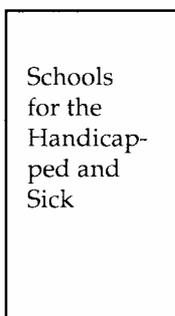
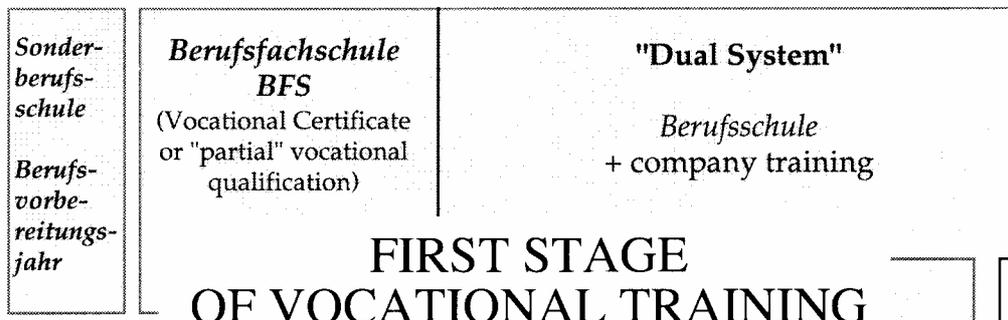
FURTHER VOCATIONAL SCHOOLING



COURSES LEADING TO HIGHER EDUCATION



A PERIOD OF EMPLOYMENT



In addition to the first stage of vocational training within the dual system, vocational education is provided in full-time vocational schools (Berufsfachschulen, Wirtschaftsschulen). These schools prepare young people for a field of employment or provide complete vocational training programs lasting at least one academic year, and specialize in areas such as commerce, social welfare services, home economics and health care.

Important providers of vocational further training are the trade and technical schools (Fachschulen, Fachakademien). They are open to persons who have already completed a course of vocational training and impart additional specialized knowledge and skills. Here students are prepared for a career at the middle and upper-middle management level.

After the first stage of vocational training it is possible, to join a school who leads to higher education (Fachoberschule, Berufsoberschule). These schools provide a University Entrance Certificate for people with the appropriate career experience and education, and therefore also helps to achieve the educational policy of making a practical education via the Hauptschule and vocational training more attractive.

The Dual System of Vocational Education

Overview

The occupations for which training is provided within the dual system are determined in accordance with the requirements of the job market and in close cooperation between the Federation, the states and both sides of industry.

Responsibilities for vocational training are split:

- On-the-job training is subject to federal law
- Training at the vocational school is the responsibility of the individual states

Depending on the occupation, training takes from two to three and a half years. The content is geared to the demands trainees will face later in professional life.

Trainees are paid a training allowance. For example: In the fields of mechanical and electronic engineering it is about 600,- € / month in the first year of training. Considerable funds are spent by the state and the companies involved financing the dual system.

Vocational training is provided by about 500,000 firms in all branches of business and industry as well as by the independent professions and the public service. About 1.65 million young people are currently receiving training in one of the roughly 360 recognized occupations today for which accredited vocational training is required.

Within the employment system, these jobs vary in popularity. Almost 37 percent of boys opt for one of ten preferred occupations, 53 percent in the case of girls. Boys prefer to become automobile mechanics, painters and car body painters, joiners or electrical fitters while girls' favourite occupations are commercial clerks, business specialists in retail trade, hairdressers and doctor's assistants (see table of statistics below).

Most of the about 350 different traineeships available are grouped together in occupational fields. The fact that the syllabi for these traineeships are continually being redesigned shows how the State, commerce and industry endeavour to keep pace with the fast changing world of technology and commerce. On the one hand it is necessary to meet the need for specialized personnel; on the other hand the confusion on the job market that would arise from an excessive number of highly specialized occupations must be avoided.

The grouping of traineeships into occupational fields has great significance for initial and further training. Common basic elements of occupations in each occupational field enable a common basic training and a subsequent specialisation. It increases the possibilities of co-operation within the framework of modern production methods. It also increase flexibility and mobility of the job market and facilitates life-long learning.

Combination of two places of learning, each offering its own specific opportunities

The majority of young people entering the job market are trained in the Dual System, in which the sponsoring company and the Vocational School (Berufsschule) work closely together. Training is split between two providers: companies and part-time vocational schools. Thus, the two places of learning complement each other, and each can concentrate its staff and resources on its own particular objectives.

Vocational School

The Vocational School primarily provides the theoretical knowledge necessary for the occupation concerned, but at the same time it aims to further the trainee's general education and his or her personal development. The task of instruction at part-time vocational schools is to support and supplement on-the-job training with specialized theoretical training and to broaden young people's general knowledge. About two thirds of classroom instruction is focused on specialized training and one third on general education. The obligation of the trainees to attend part-time vocational school arises out of the education acts of the states.

Teaching in the Vocational Scholl can be done on a day or block release basis. Day-release means, for trainee's time off from the sponsoring company for school instruction takes place on one or two days a week; training on the other days is carried out by the company. Block-release teaching takes up from 9-12 weeks a year in blocks of 1-3 weeks that alternate with in-house company training. About 1/3 of all trainees are taught in this way.

Sponsoring Company

The company provides, above all, the practical side of vocational training as well as the necessary job experience. Most learning does take place in the production facilities or service operations of private business and industry, in a workshop, in a practice of one of the independent professions or in the public service. Vocational training in firms takes place under conditions and at machines and facilities corresponding to the standard of technology currently in use. Larger firms provide training in their own training workshops and at the workplace. Trainees in smaller enterprises are trained right on the job. Where firms are too highly specialized to be able to impart all the necessary knowledge, they are supported by inter-company training centres. Certain aspects of training may also be taken over by other firms.

Job-training Contract

The trainee and the sponsoring company sign a Job-training Contract which contains information on the structure and length of the traineeship in accordance with the Federal training regulations as well as the hours of work, holiday entitlement (vacation time) and pay. The contract is registered at the appropriate Chamber of Commerce or Industry, which, among other responsibilities, ensures the suitability of the instructors.

Compulsory attendance at the Vocational School

Compulsory schooling lasts for twelve years and comprises nine years of full-time general education followed by three years of part-time vocational schooling. Trainees are released for specific periods of time to attend a part-time vocational school (Berufsschule), so they are simultaneously vocational school students. Young people receive training three to four days per week at their company, and one to two days per week at the vocational school.

Recognition of vocational training, freedom of job-choice for skilled workers

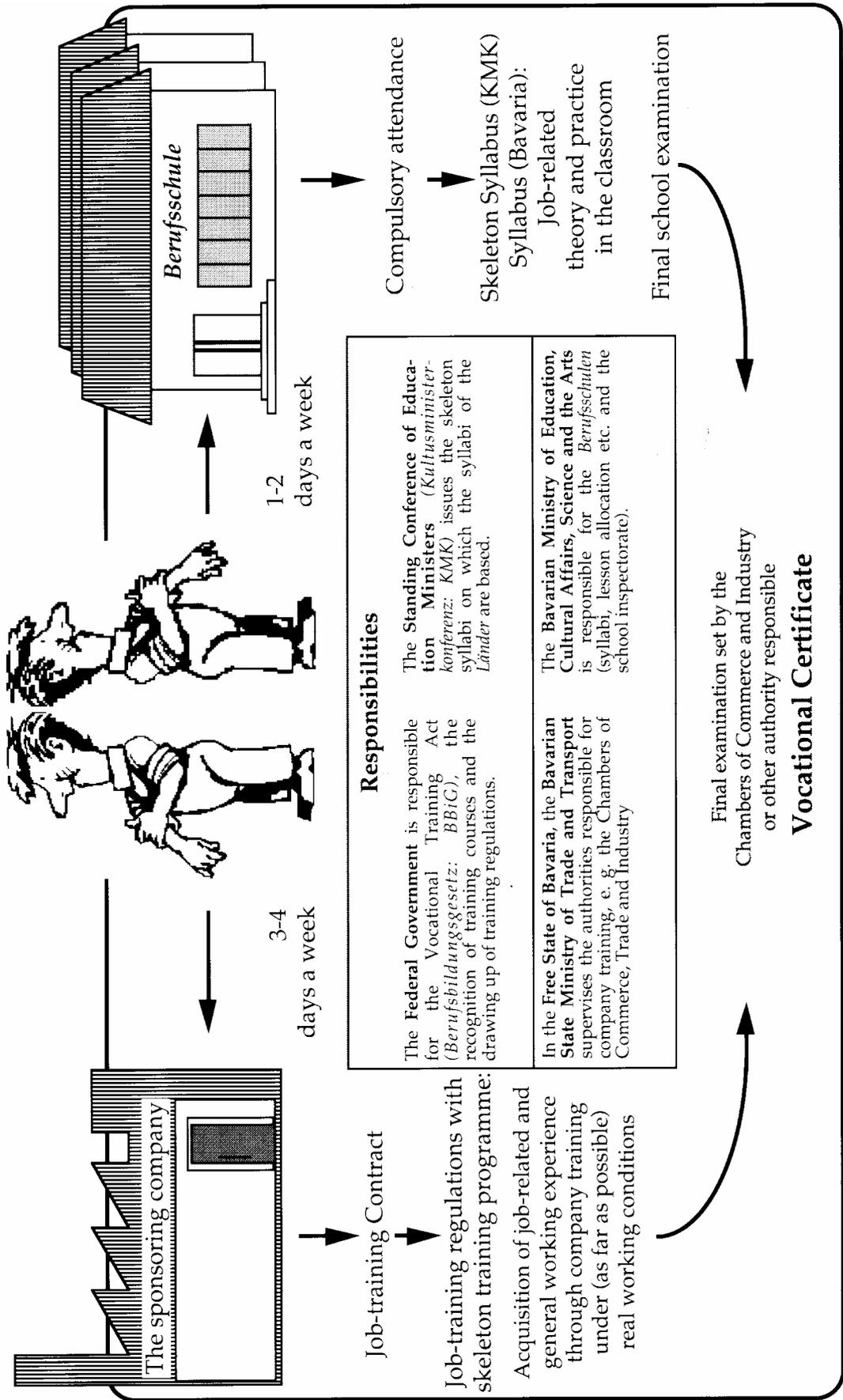
On the basis of job-training regulations agreed at Federal level, the Vocational Certificate is recognised by all German employers. The skilled workers are therefore no longer bound to the company that trained them, but having completed their training can work for a company of their choice.

Vocational Training for everyone

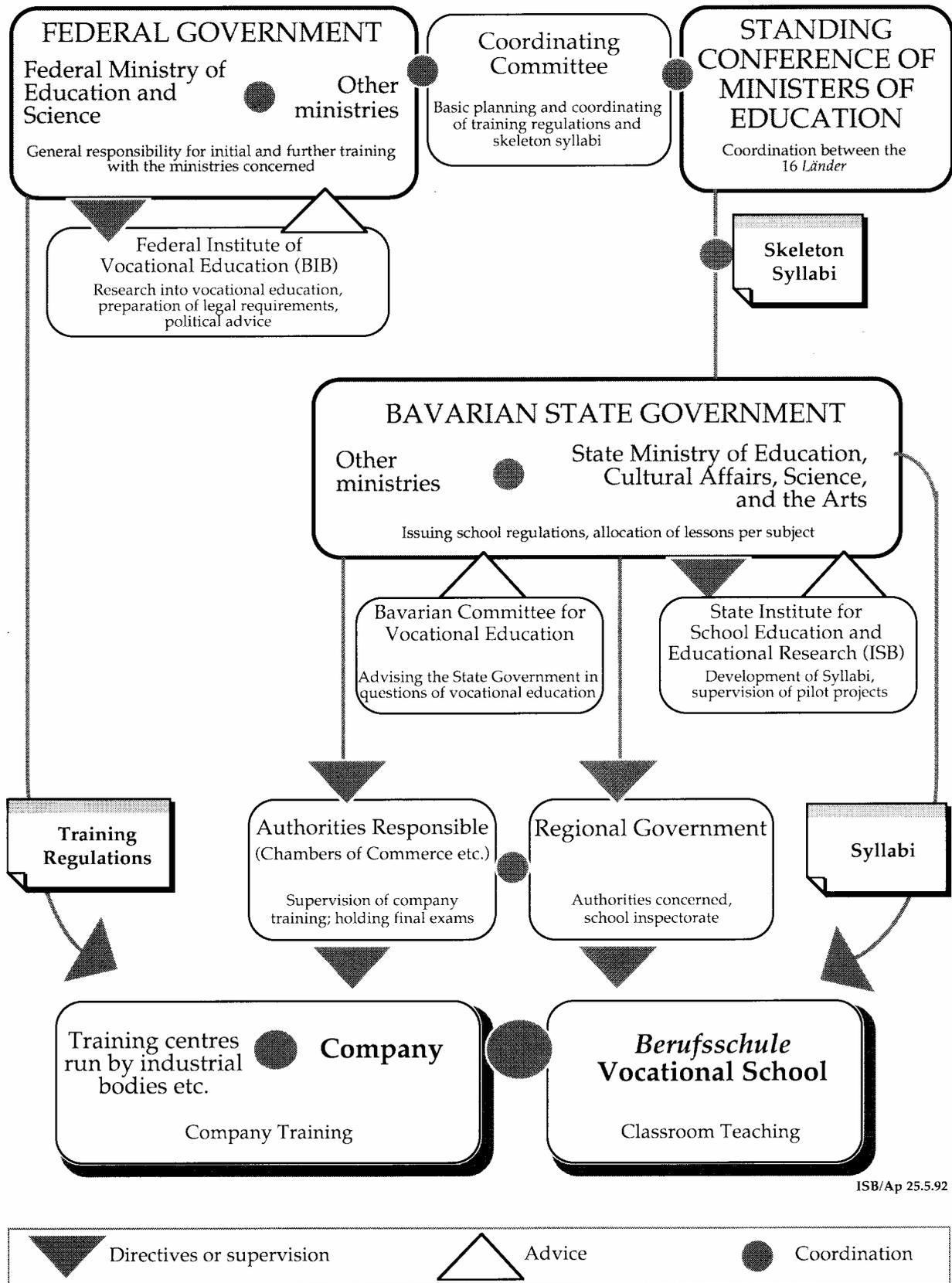
All school leavers in Germany should receive training which gives them the best possible vocational qualifications. It is therefore essential that a sufficient number and wide range of training places be made available. Vocational training is open to everyone; within the dual system it is not contingent on particular school-leaving certificates. In both 1999 and 2000, € 1 billion was spent in initiating the crash program to combat youth unemployment – it endeavours to ensure every young person receives training. The program will be continued in 2001. The dual system has proved its worth in imparting skills to rising generations of specialists and is being further improved. New training occupations are being developed in new fields of employment, and training regulations for existing occupations are being modernized. The number of people trained for new IT and media jobs will increase substantially within the framework of the “Bündnis für Arbeit/Alliance for Jobs” initiative by the business community in response to the shortage of professional IT workers. Moreover, differentiated training options affording new opportunities are to be created for young people whose performance is particularly high or low.

The "Dual System" of Vocational Education

Teaching programmes at the *Berufsschule* are co-ordinated with company job-training schemes. The trainee attends the *Berufsschule* and undergoes company training.



Coordination of the "Dual System" of Vocational Training between the State, Commerce and Industry, Vocational School and the Sponsoring Company



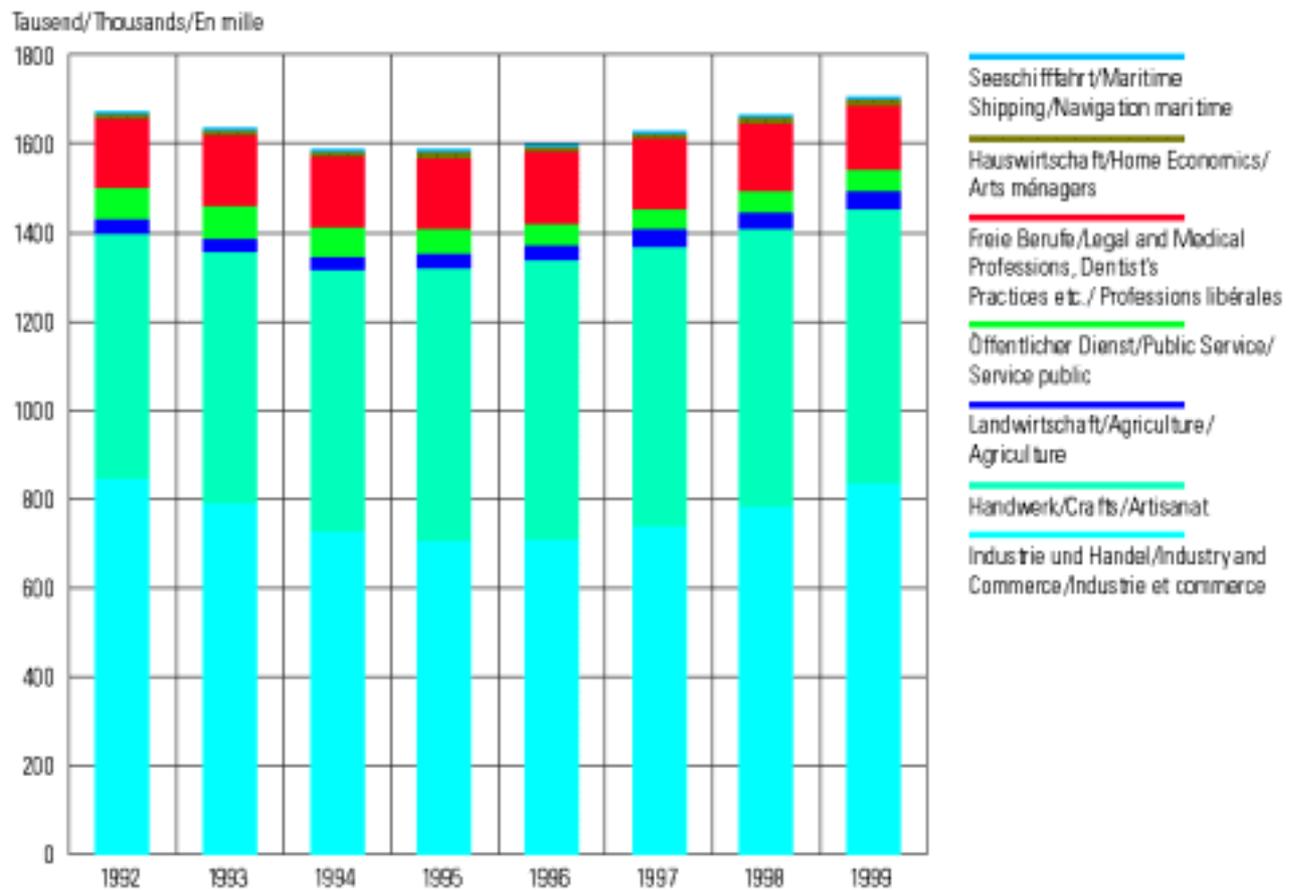
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Further Vocational Training

It is now less true than ever, that learning can stop once vocational training has been concluded. For this reason, the significance of vocational further training is growing. In Germany, there is a differentiated system of further training accommodating a broad range of content, functions and aims. This training is provided by a wide variety of institutions and through different types of financing. The state has a responsibility in terms of social and employment policy to promote further training of those groups of people who are unable to remain afloat in a market economy system on their own. Here, the state has subsidiary obligations. Further vocational training in firms is of particular importance. More than half of all vocational further training measures are already organized and financed by firms. In addition to learning by integrating people into the work process, it is now possible for individuals to handle their own learning with the help of information and communication technologies. In-company further training is supported and supplemented by a variety of inter-company and non-company organizations and institutions.

Statistics

Different training sectors with respective trainees



On September 30th 2001 there were 613.852 new Job-Training-Contracts signed. Total number of trainees c. 1.7 million (2002).

Pupils and Students at General and Vocational Schools According to Level of Education in Germany

(Thousands)

Bildungsbereich/Level of Education/ Niveau d'éducation								Prognose / Forecast / Prorostic			
	1992	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015
Schüler insgesamt/Pupils total/Élèves total	11 815.7	12 181.5	12 367.3	12 550.5	12 696.8	12 708.9	12 705.2	12 650.8	12 231.9	11 298.8	10 564.2
Vorschulbereich, Primarbereich/Pre-school Level, Primary Level/Enseignement préscolaire, enseignement primaire	3 550.2	3 689.2	3 768.1	3 823.0	3 821.9	3 717.5	3 600.2	3 466.0	3 239.0	2 947.3	2 764.0
Sekundarbereich I/Secondary Level, Stage I/Premier cycle du secondaire	4 800.3	4 990.0	5 066.6	5 128.1	5 177.1	5 219.0	5 267.5	5 338.4	4 976.0	4 608.5	4 235.0
Sekundarbereich II Allgemeinbildende Schulen/Secondary Level Stage II, General Education Schools/Deuxième cycle du secondaire, écoles d'enseignement général	634.1	692.2	705.7	721.2	741.7	761.2	765.8	762.9	830.4	752.5	724.2
Berufliche Schulen Vollzeitform/ Vocational Schools (Full-time)/Écoles de formation professionnelle (plein temps)	607.2	658.1	670.0	691.0	735.2	747.5	757.4	760.5	796.8	739.7	711.9
Berufliche Schulen Teilzeitform/ Vocational Schools (Part-time)/Écoles de formation professionnelle (temps partiel)	1 863.7	1 769.4	1 765.8	1 788.6	1 814.8	1 853.3	1 809.0	1 916.3	1 999.3	1 891.9	1 793.6
Sonderschulen/Special Schools/ Enseignement spécialisé	360.2	382.6	391.1	398.6	406.1	410.4	415.4	416.9	380.4	358.0	335.5

Students at Vocational Schools within the Dual System in Germany and Bavaria

In 2000/2001 there were 1 796 900 Students in Germany in Vocational Schools within the Dual System. 125 500 of them were foreigners.

In 2000/2001 there were 284 183 Students in Bavaria in Vocational Schools within the Dual System.

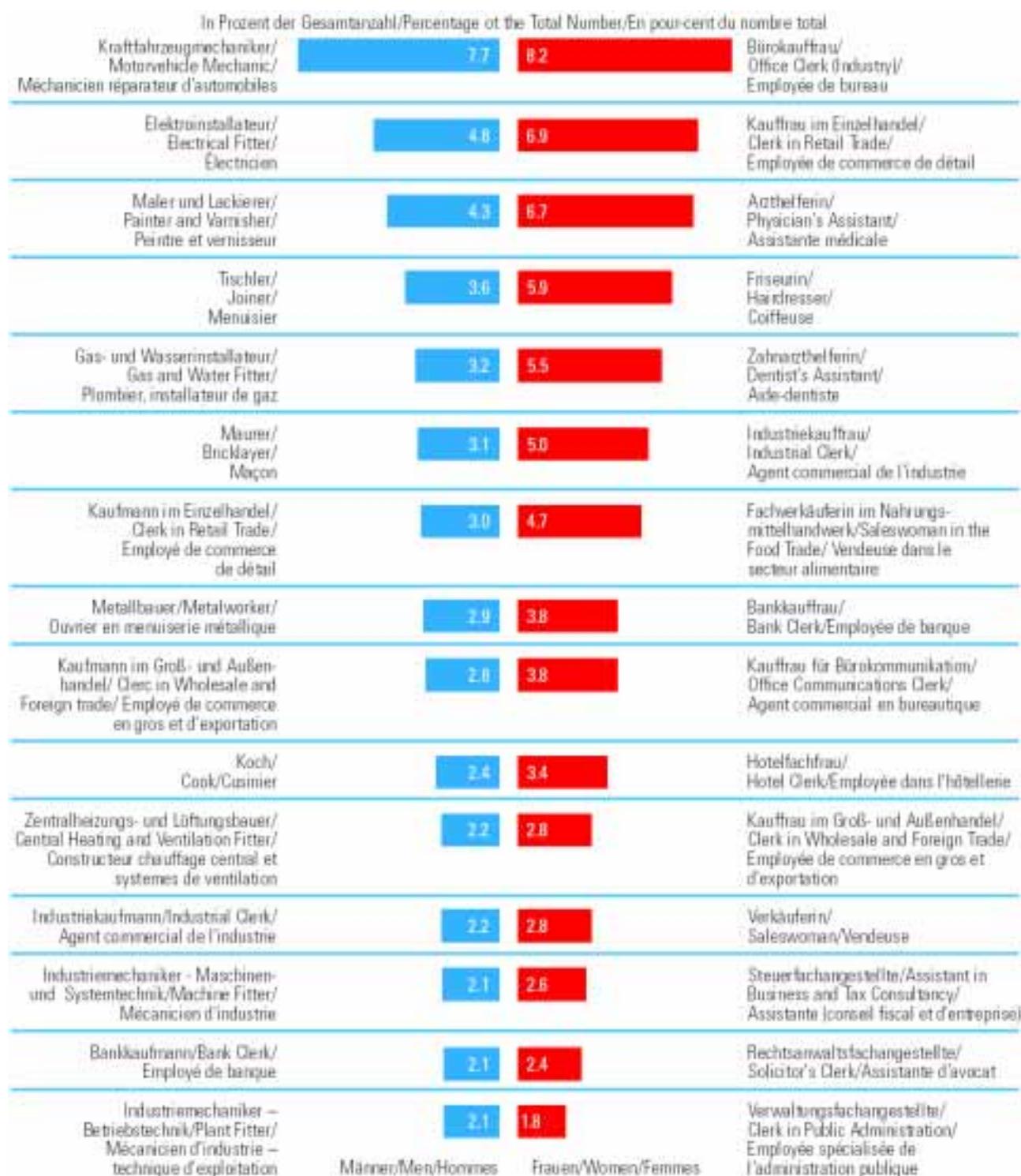
Distribution of Vocational Schools in Germany and Bavaria

Dual-system vocational schools in **Germany** in 2000/2001: **1 761**

Dual-system vocational schools in **Bavaria** in 2000/2001: **186**

Apprentices in the 15 Most Popular Trained Occupations in Germany

Year 2000



Glossary of specific terms ^{*}

Abitur

examination at the end of year 13 of the Gymnasium leading to the General University Entrance Certificate

allgemeine Hochschulreife

General University Entrance Certificate, obtained at the Gymnasium or at the Berufsoberschule

Auszubildender (Azubi)

trainee in the Duales System

Ausbildungsbetrieb

sponsoring company providing practical job-training

Ausbildungsvertrag

job-training contract between trainee and sponsoring company, regulating content, duration and pay

Berufliche Bildung

vocational education as integral part of formal education, providing initial training, further vocational training and access to higher education

Berufsaufbauschule (BAS)

one-year full-time course in preparation for the Intermediate Certificate that provides access to further vocational schooling

Berufsfachschule (BFS)

full-time schools providing initial vocational training, duration 1-3 years depending on type of school

Berufsgrundbildungsjahr

first year of training in the Duales System, whereby teaching focuses on an occupational field, not a specific trade

Berufsoberschule (BOS)

two-year full-time vocational school providing access to the university

Berufsschule

vocational school, mostly part-time, compulsory for trainees in the Duales System, offering initial vocational education (2-3.5 years)

Diplom

first final certificate in many fields of study at a university, Fachhochschule and Kunsthochschule, after a minimum of 8 semesters

Duales System

system of initial vocational training, combining compulsory part-time instruction at the Berufsschule with job-training in a sponsoring company (duration 2-3.5 years)

Fachakademie

specialist academies preparing students for non-professional careers at the upper-middle management level. Entrance requirements: Intermediate Certificate and completion of initial vocational training

^{*} Bavarian State Ministry of Education, Cultural Affairs, Science and the Arts: Education in Bavaria – A Survey. Munich 1993

Facharbeiter

skilled worker who completed initial vocational training in the Duales System or Berufsfachschule

Fachgebundene Hochschulreife

subject-restricted university entrance certificate allowing students to take courses related to their vocational subject areas

Fachhochschule (FH)

institution of higher education combining academic studies with work experience, oriented towards the needs of commerce and industry

Fachhochschulreife

entrance qualification for the Fachhochschule, obtained mainly at the Fachoberschule

Fachoberschule (FOS)

vocationally oriented school starting from an Intermediate Certificate, and leading to the Fachhochschulreife, duration 1-2 years

Fachschule (FS)

specialist college for skilled workers (Facharbeiter) providing advanced training for middle management level or promotion purposes

Förderschulen (Sonderschulen)

special education for children with learning disabilities, and for handicapped and sick children

Gegliedertes Schulwesen

the secondary sector of general education with three alternative tiers geared to the pupils' different levels of ability (Hauptschule, Realschule, Gymnasium)

Grundschule

school providing primary education in years 1-4, basic compulsory education for all children, gateway to secondary education

Gymnasiale Oberstufe (Kollegstufe)

Gymnasium years 12 / 13 during which students choose two advanced-level courses and several foundation courses

Gymnasium

general-education secondary school comprising secondary levels I and II; it prepares pupils mainly for university education and leads to Allgemeine Hochschulreife

Hauptschule

general-education secondary school (level I, years 5-9) oriented to the world of work, compulsory for all pupils who do not transfer to other secondary schools

Hochschule

general term for all institutions of higher education

Hochschulreife

entrance qualification for higher education at 3 levels: Fachhochschulreife, Fachgebundene Hochschulreife and Allgemeine Hochschulreife

Jahrgangsstufe

educational year, counted as years starting from the beginning of compulsory education at the Grundschule

Kunsthochschule

academy of the visual arts

Land

since German reunification in 1990 there are 16 Federal States (Länder) in the Federal Republic of Germany; each land has cultural and educational autonomy

Lehrerfortbildung

in-service teacher training

Magister

first final certificate in some fields of study at a university, after a minimum of 8 semesters

Mittlerer Schulabschluß

Intermediate Certificate, obtained after completion of Realschule, Wirtschaftsschule, year 10 of Gymnasium or in vocational education the Berufsaufbauschule or by passing Quabi

Musikhochschule

academy of music

Qualifizierter Bildungsabschluß (Quabi)

qualifying vocational certificate, an Intermediate Certificate equivalent to the Realschule Certificate, awarded to trainees fulfilling specific requirements in the final examination of the Duales System

Qualifizierender Hauptschulabschluß (Quali)

qualifying Hauptschule certificate awarded to pupils who fulfill specific requirements in an optional examination for certain subjects

Realschule

intermediate tier of secondary education (level I, years 7-10) with a practical and theoretical orientation, leading to employment or to further general or vocational education

Staatsexamen

academic examination set by the Government for those who want to enter Civil Service e.g. teachers or judges; after the 1st Staatsexamen and a preparatory period of graduate professional training, a 2nd Staatsexamen has to be taken

Volksschule

a term for Grundschule plus Hauptschule, both schools often form an organisational unit

Wirtschaftsschule

3- or 4-year full-time school at secondary level I, offering basic vocational education in commerce and administration

References

Bavarian State Ministry of Education, Cultural Affairs, Science and the Arts: Education in Bavaria – A Survey. Munich 1993.

Online-Edition: <http://www.stmukwk.bayern.de/educate/>

Internet resources:

<http://www.destatis.de/> (Federal Statistical Office Germany)

<http://www.stmuk.bayern.de> (Bavarian State Ministry of Education and Cultural Affairs)