Vocational Education and Training – An Overview

Federal Institute for Vocational Training · Bonn
## Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>1</td>
</tr>
<tr>
<td>Makrosystems of vocational education</td>
<td>2</td>
</tr>
<tr>
<td>Master Specialist</td>
<td>3</td>
</tr>
<tr>
<td>Germany’s Dual System of Vocational Education</td>
<td>4</td>
</tr>
<tr>
<td>Germany’s Dual System of Vocational Education (Infrastructure (1))</td>
<td>5</td>
</tr>
<tr>
<td>Germany’s Dual System of Vocational Education (Infrastructure (2))</td>
<td>6</td>
</tr>
<tr>
<td>Continuing Training</td>
<td>7</td>
</tr>
<tr>
<td>Recognized occupational and career advancement further training</td>
<td>8</td>
</tr>
<tr>
<td>One age group</td>
<td>9</td>
</tr>
<tr>
<td>Organizational forms of Vocational training in Germany</td>
<td>10</td>
</tr>
<tr>
<td>The learning sites of vocational education and continuing training</td>
<td>11</td>
</tr>
<tr>
<td>Forms of cooperation between the two training sites</td>
<td>12</td>
</tr>
<tr>
<td>How companies train</td>
<td>13</td>
</tr>
<tr>
<td>Goals of participants in continuing training measures</td>
<td>14</td>
</tr>
<tr>
<td>Transfer of regulations governing further Training by Chambers into statutory rules and other of the Federal Government</td>
<td>15</td>
</tr>
<tr>
<td>What gainfully employed persons say about continuing training</td>
<td>16</td>
</tr>
<tr>
<td>In-company continuing training</td>
<td>17</td>
</tr>
<tr>
<td>Length of continuing vocational training events</td>
<td>18</td>
</tr>
<tr>
<td>Definitions</td>
<td>19</td>
</tr>
<tr>
<td>Skeleton Curriculum (vocational school)</td>
<td>20</td>
</tr>
<tr>
<td>Legal foundations of vocational Education and Training</td>
<td>21</td>
</tr>
<tr>
<td>Federal govt. and Länder working in combination in vocational training</td>
<td>22</td>
</tr>
<tr>
<td>Cooperation between the Federal Government and Federal states on Vocational training</td>
<td>23</td>
</tr>
<tr>
<td>Levels of responsibility</td>
<td>24</td>
</tr>
<tr>
<td>Basic elements of the dual system of vocational/educational training</td>
<td>25</td>
</tr>
<tr>
<td>Structural elements of the Skeleton curricula of the KMK (Board of 16 Ministers of Education)</td>
<td>26</td>
</tr>
<tr>
<td>The Role of the Vocational school</td>
<td>27</td>
</tr>
<tr>
<td>The Role of the Vocational school (Vocational school as Partner)</td>
<td>28</td>
</tr>
<tr>
<td>The Role of the Vocational school (Vocational school as Partner)</td>
<td>29</td>
</tr>
<tr>
<td>The Role of the Vocational school (Vocational school as an Independent)</td>
<td>30</td>
</tr>
<tr>
<td>Personnel in the Dual System</td>
<td>31</td>
</tr>
<tr>
<td>Trainers and vocational school teachers</td>
<td>32</td>
</tr>
<tr>
<td>Technology model – Human resources model</td>
<td>33</td>
</tr>
<tr>
<td>An example: The motor vehicle industry</td>
<td>34</td>
</tr>
<tr>
<td>25,000 gainful occupations</td>
<td>35</td>
</tr>
<tr>
<td>Training regulation</td>
<td>36</td>
</tr>
<tr>
<td>Structure of the training regulations</td>
<td>37</td>
</tr>
<tr>
<td>Phased training in the construction industry</td>
<td>38</td>
</tr>
<tr>
<td>Training occupations according to school leaving qualifications</td>
<td>39</td>
</tr>
</tbody>
</table>
Way of development of Training Regulations
New structure
Structural concept “IT-occupations” Basic skills – specific occupational skills
Structural concept for the media industry – combination of compulsory and Optional modules
Structural concept for laboratory occupations – Linking up of initial and continuing training
Goals of modularisation
Dual-/modular training
Procedure for the elaboration of further training regulations in accordance with BbiG/HwO
The players in vocational training research and occupational research
Main Board of BIBB
BIBB - Organization
Legal form of the Federal Institute of Vocational Training (BIBB)
Task Catalog in accordance with BerBiFG
Work programme
Federal Institute for Vocational Training
Germany’s Dual System of vocational education: West and East
Trainees according to fields of training
The ten most attended training occupations
Reasons for providing training companies
Whereabouts of those who have completed training in the Dual System
In the new federal states
Unemployed young persons under 25 years in EU
Measures to improve the Training places situation (I)
Measures to improve the Training places situation (II)
Costs
 Financing of vocational education/per year
 Discretionary costs (avoided)
 In-company training: what a training place costs
 Development of training allowances from 1992 to 2001
 Training allowances according to fields of training 2001
 Training allowances in twenty selected occupations 2001
 Continuing training costs
 Promoting Vocational Training for disadvantaged young People (I)
 Promoting Vocational Training for disadvantaged young People (II)
 Promoting Vocational Training for disadvantaged young People (III)
 Promoting Vocational Training for disadvantaged young People (IV)
 Promoting Vocational Training for disadvantaged young People (V)
 Promoting Vocational Training for disadvantaged young People (VI)
 Support for gifted apprentices in Vocational training
 Gifted II
 Gifted III
 Vocational education/training is also a “royal way”
 University/University of applied sciences entrance regulations for Specialists with vocational certificate and no Abitur
Preface

The publication of “Vocational Education and Training – An Overview” was preceded by a lengthy period of development which began at the Federal Institute for Vocational Training with Hermann Schmidt’s “Qualifying the Workforce – Education and Training for an Age of Uncertainty” in 1994. For many years there has been a high demand for publications in English about the German system of vocational and further training, and particularly for a short, schematic representation which can serve as a template, which in turn can be used in English language presentations. Now the members of the board of the Federal Institute for Vocational Training have also requested an outline of this type, not least in order to be able to manage their frequent presentations in English for foreign listeners better.

This publication is therefore aimed at anyone involved in vocational and further training who needs to present and explain the German system of vocational training at home and abroad. Often, however, the requisite up-to-date English language skills are unfortunately lacking. The following representation, which can easily be converted into slides, is intended to serve as a thematic, linguistic and descriptive framework in such cases.

This outline may be of use to any type of vocational training specialist, politicians and researchers involved in the vocational training field, teachers in tertiary education, instructors and teachers at vocational training colleges, representatives of chambers of trade, trade unions and trade associations and anyone else involved in the field who is regularly or occasionally required to explain the specifics of our vocational training system either to foreign visitors to Germany or on trips abroad.

The following publication is to a certain extent work in progress and is not a finished, printable product. It is a living, developing compendium of professional vocational and further training in Germany. It will need to be updated regularly, and the English used and subject matter presented in it will need to be developed further and improved. On-the-ground experience at home and abroad will give rise to suggestions and improvements, particularly in terms of the English (and American) language used, and we would like to receive such feedback. Please send your suggestions for modifications and enhancements to the following address: strohmaier@bibb.de. The latest templates for copying can be downloaded at: http://www.bibb.de/de/4798.htm

This material evolved from my teaching activities and work with students, from previous publications and from range of materials from the Federal Institute for Vocational Training, the Federal Ministry of Education and Research, the Carl-Duisberg Gesellschaft (CDG), the Gesellschaft für technische Zusammenarbeit (GTZ) and others, to whom I owe a great debt of thanks. It was standing on their shoulders that I was able to develop this outline.

My wish is for this work to be carried on and improved further – for other authors to stand on my shoulders in future, as it were.

Bonn, September 2002

(Prof. Dr. Helmut Pütz)
Federal Institute for Vocational Training, Bonn
education/vocational training ↔ learning at work

training related to young people/adults
 training places ↔ continuing training ("upper classes of the DS")

problem groups, disadvantaged/gifted

tradition ↔ innovation
"occupational concept" ↔ modules

company, school, vocational school, specialized vocational school, (skeleton curriculum)

training regulations ↔ teacher

trainer, teacher, small companies/local training initiatives, (craft, partly commerce)

big companies (industry) ↔ commercial, technical, social

local training initiatives ↔ commercial, technical, social

employer ↔ trade unions

Government "consensus" ↔ trade and industry "differentiation"

federal government ↔ 16 federal state governments, regional aspects

BBiG ↔ national, international, EU, globalisation

BIBB, Bundesinstitut für Berufsbildung, Bonn 2002
Makrosystems of vocational education

Company model

Cooperative model I
training company and vocational school

Cooperative model II
training center and vocational school

School model
Further education and training

school vocational training (full-time)

basic vocational training year

specialized vocational school

pre-vocational training year

lower secondary school

primary school

“Dual System”
training in companies and vocational schools

3 ½ year

3 year

2 year

Training occupations

Basic vocational training year

upper secondary school

intermediate secondary school

Federal Institute for Vocational Training

© BiBB, Bundesinstitut für Berufsbildung, Bonn 2002
Germany’s Dual System of Vocational Education

What does the 3-year training mean for:

**The individual**
- the transition from school to work is facilitated by the 2 to 3-year period of training
- working and learning are combined
- investigation of opportunities and own abilities
- attainment of social standing and income

**the company**
- competent workforce for the future
- low personnel recruitment costs
- low labour costs

**the government**
- uniform national qualifications standards are guaranteed
- maintenance of Germany’s competitiveness
- lower training costs for the government
- social stability - social dialogue
Germany’s Dual System of Vocational Education

Infrastructure (1)

Training in trade and industry
- industry, trade, crafts & trades, agriculture, professional occupations, public administration, health services
- approx. 500,000 companies, hospitals, farms, lawyers’ firms etc.
- approx. 900 intercompany training centres with 100,000 training places
- a stock of approx. 1 million qualified trainers

Partner of the industry vocational schools
- approx. 2,000 vocational schools
- approx. 130,000 teachers

The chambers: administrative infrastructure
Approx. 480 chambers have the task of:
- advising companies
- registering trainees (1.7 Million)
- certifying the technical aptitude of trainers
- holding examinations
- conducting social dialogue at regional level
Partnership between employers and trade unions

- Regional level
  - Vocational training committees of the chambers
  - Examination boards of the chambers
  - approx. 300,000 voluntary members: senior executives from trade and industry, trade union representatives, trainers

- Federal state (Land) level
  - Vocational training committee within the responsible ministry

- Federal level
  - Main committee board within the Federal Institute for Vocational training
CONTINUING TRAINING

vocational continuing training

Further training

- further training within the company
  flexible, unregulated with adaptation and internal advancement

- Chamber further training
  § 46.1 BBiG*, regional regulatory requirement, adaptive further training, advancement further training (e.g. to master craftsman, specialist, technician), access to college/university

- Federal regulations for further training
  § 46.2 BBiG*, Federal regulatory requirement, transparency, supra-regional importance further training occupations: master craftsman, specialist, technician, access to college/university

general continuing training

Retraining

- in recognized training occupation

political continuing training

Induction (on the job)

- informal induction

- formal induction

* Berufsbildungsgesetz (1969): Vocational Training Act
Recognized occupational and career advancement further training

Tertiary level/colleges and universities, universities for applied sciences

Master craftperson (industry/crafts and trades)  Specialist

Additional qualification

Building block  Module  Additional qualification  Occupational profile position

Further training

Vocational training

Transition from compulsory school
VET: approx. 65% (covering one age group)

Universities: approx. 25%

Unskilled: approx. 10%

(100)

"Dual System": approx. 66%

Vocational Schools: approx. 27%

External Training center: approx. 7%

1.7 million

0.6 million

0.15 million

(covering the 1 to 3 year training period)
# Organizational forms of Vocational training in Germany

<table>
<thead>
<tr>
<th>Organizational forms:</th>
<th>Dual System (various locations)</th>
<th>School (sometimes with work placements)</th>
<th>External training centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 years as a rule</td>
<td>2 or 3 years</td>
<td>3 years</td>
<td></td>
</tr>
<tr>
<td>Training sites:</td>
<td>Company part-time workplace</td>
<td>specialized vocational schools</td>
<td>external part-time</td>
</tr>
<tr>
<td></td>
<td>- in-house school</td>
<td>full-time health service</td>
<td>training centre</td>
</tr>
<tr>
<td></td>
<td>training workshop</td>
<td></td>
<td>vocational school</td>
</tr>
<tr>
<td></td>
<td>intercompany training centres</td>
<td></td>
<td>(practical school)</td>
</tr>
<tr>
<td>~ 3 days</td>
<td>~ 2 days</td>
<td>~ 5 days</td>
<td>~ 3 days</td>
</tr>
<tr>
<td>66 %</td>
<td></td>
<td>27 %</td>
<td>7 %</td>
</tr>
</tbody>
</table>
The learning sites of vocational education and continuing training

“Dual”? → “Plural”!

- Company, e.g. crafts & trades, building site, Customer order
- Training workshop, big companies
- Vocational school, part-time vocational school
- (full-time) vocational school, specialized vocational school (BFS)
- external training centre
- intercompany training centre (ÜBS)
- external continuing training seminar/private body
- interactive, multi-media Computer Based learning/training (CBL/CBT), virtual training centre
Forms of cooperation between the two training sites –

company (B) / vocational school (S) + the teachers

IGB Siemens

GDR

primarily F / It

work placement (in addition)

transferrable?

SMEs?

teachers?

other training sites = full-time vocational schools, training workshops, external training centres, intercompany training centres, Computer Based Training (CBT)

© BiBB, Bundesinstitut für Berufsbildung, Bonn 2002
## How companies train

<table>
<thead>
<tr>
<th>Training Method</th>
<th>Regularly</th>
<th>Sometimes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Work</td>
<td>37</td>
<td>29</td>
</tr>
<tr>
<td>Order Oriented Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent (Team) Work with Case Studies</td>
<td>26</td>
<td>31</td>
</tr>
<tr>
<td>Self-Organized (Team) Work with Guidance Texts</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>Computer Based Training (CBT), Multi-Media Learning</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td>Management Games, Simulations</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Foreign Work Experience</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Tele-learning, Video Conferencing</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Junior Companies</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: IW survey of 900 companies in Spring 1999

Institut der Deutschen Wirtschaft Köln
Goals of participants in continuing training measures

Multiple designations in percent

<table>
<thead>
<tr>
<th>Goal</th>
<th>Projected</th>
<th>Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career advancement</td>
<td>77%</td>
<td>58%</td>
</tr>
<tr>
<td>Financial improvement</td>
<td>57%</td>
<td>72%</td>
</tr>
<tr>
<td>Securing of job</td>
<td>26%</td>
<td>26%</td>
</tr>
<tr>
<td>Extension of occupational knowledge</td>
<td>26%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Federal Institute for Vocational Training

Researching
Advising
Shaping the future

© BIBB, Bundesinstitut für Berufsbildung, Bonn 2002
Transfer of regulations governing further Training by Chambers into statutory rules and other of the Federal Government

**Prerequisites for the transfer for industry/trade and crafts**

(in accordance with agreement KWB* and DGB/DAG** 1996)
- Chamber regulations have existed for 5 years in at least 5 federal states
- Over 500 examinees (average) in the last 3 years nation-wide

Exceptions: - statutory requirements
  - mutual understandig of a regulatory need

* Stakeholders of Economy
** Trade Unions
What gainfully employed persons say about continuing training

I would like to

- acquire a lower secondary school diploma: 4%
- pass a vocational examination: 6%
- retrain for another occupation: 10%
- not be so restricted occupationally: 17%
- move up the professional ladder: 27%
- refresh knowledge: 33%
- expand knowledge: 45%
- improve myself professionally: 53%
- avoid deterioration: 54%
- adapt to new developments: 55%
In-company continuing training

- Instruction by superior: 42%
- Induction of new staff: 35%
- Familiarization with technical-organizational adjustments: 30%
- Self-managed learning: 17%
- Quality circles: 5%
- Exchange programmes: 4%
- Job rotation: 4%
- Learning workshop: 2%
Length of continuing vocational training events

<table>
<thead>
<tr>
<th>Duration</th>
<th>Number of Events (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 3 days</td>
<td>87,911</td>
</tr>
<tr>
<td>3 days to 1 week</td>
<td>24,145</td>
</tr>
<tr>
<td>1 week to 1 month</td>
<td>24,915</td>
</tr>
<tr>
<td>1 to 3 months</td>
<td>19,028</td>
</tr>
<tr>
<td>3 to 6 months</td>
<td>27,033</td>
</tr>
<tr>
<td>6 months to 1 year</td>
<td>14,714</td>
</tr>
<tr>
<td>1 to 2 years</td>
<td>3,14</td>
</tr>
</tbody>
</table>
Definitions

- **Training Regulations (AO)**

- **Occupational profile/occupational profile Positions/modules**

- **General training plan**

- **In- company training plan**

- **Skeleton curriculum (vocational school)**

- **Regulations governing further training**
Skeleton Curriculum
(vocational school)

- Fields of Learning (thematic)

- Learning goals (result)

- Study contents (technical)

- Suggested time allocation (hours of instruction)
**Legal foundations of vocational Education and Training**

- Vocational Training Act, 1969 - BBiG
- Crafts regulation code, 1965 - HwO
  (Act for the Regulation of Crafts)
- Vocational Training Promotion Act, 1981 - BerBiFG -
  (Training Places Promotion Act, 1976, APIFG)
- Social Security Code III, 1997 - SGB III -
- Employment Promotion Act, 1969 - AFG -
- Employees‘ Representation Act, since 1953 - BetrVG -
- Employment Protection of Young Persons Act, 1976 - JArbSchG
- Basic vocational training year
  Vocational school year
  Accountable ordinance (s), since 1978 - BGJ-AV -
- Ordinance on Trainer Aptitude, since 1972 - AEVO -
  (new since 1998)
- Coordinantion Training Regulations/skeleton curriculum:
  - “Joint results protocol”
    of 30.5.72 (Federal Gazette No. 216 v. 16.11.1972)
Federal govt. and Länder working in combination in vocational training

BerBiFG!  BBiG
Vocational Training  §§ 54-59
Promotion Act  Vocational Training Act

BerBiFG of 1981:
Vocational Training Promotion through Planning and Research Act
BIBB Establishment Act

- Sec. 8 Main Board  Tasks
  16 delegates from the federal state (governments) at the suggestion of the Bundesrat (Cl. 3,4,5,8 and 9)

- Sec. 9: Federal States Committee
  Cl. 1: tasks
  Cl. 2: composition
  Cl. 3: opinions on training regulations
  Cl. 4: other procedures
  Cl. 5: discretionary Federal govt.

- Sec. 11: specialized committees  teachers
- Sec. 14: budget
- Sec. 15: charter
Cooperation between the Federal Government and Federal states on vocational training

BBiG v. 1969, HwO v. 1965

- Sec. 54: Federal state committees
  + formation, composition
  + rules and regulations
  + voting

- Sec. 55: Tasks
  + advising the federal state government
  + uniform voc. training → cooperation
  further development of schools

- Sec. 56: Vocational training committee of the responsible agency/ chambers
  + formation, composition,
    appointing the members
    compensation, recall, deputy, chair

- Sec. 57: Quorum, voting

- Sec. 58: Tasks: information, hearings, legal regulations

- Sec. 59: Rules and regulations
## Levels of responsibility

<table>
<thead>
<tr>
<th>Federal level</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Federal Ministry of Education and Research</td>
</tr>
<tr>
<td>- Government departments</td>
</tr>
<tr>
<td>- Federal Institute for Vocational Training</td>
</tr>
<tr>
<td>- National federations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Federal State (Land) level</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Ministries of the Länder</td>
</tr>
<tr>
<td>- Education and Cultural Affairs</td>
</tr>
<tr>
<td>- Economic Affairs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regional level</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Presidents of the regional administration</td>
</tr>
<tr>
<td>- Competent bodies (chambers)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company level</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Training companies</td>
</tr>
<tr>
<td>- Vocational schools</td>
</tr>
</tbody>
</table>
Basic elements of the dual system of vocational/educational training

In-company training

- Traineeship contract
- Training regulations
- Vocational Training Act
- Trainer
- Chambers or other responsible agencies
- Firms providing training

School training

- legal basis for the training relationship
- legal basis for training occupations for which formal vocational-training exists
- legal basis for training
- Training personnel
- advice and monitoring
- financing

- Compulsory Vocational education
- Curricula
- Educational acts of the federal states
- Vocational school teacher
- Presidents of the regional administrations or boards of education
- Federal states, Administration = Districts and municipalities
Structural elements of the Skeleton curricula of the KMK (Board of 16 Ministers of Education)

- fields of learning
- study contents
- learning goals
- suggested time allocation

Instruction at vocational schools: 1/3 general / 2/3 specialized instruction

- social studies
- German
- foreign language
- technology
- economic fields
- of learning
- sports/religion
THE ROLE OF THE VOCATIONAL SCHOOL

VOCATIONAL SCHOOL IS A PARTNER IN THE DUAL SYSTEM AND AN INDEPENDENT TRAINING CENTRE

- **Part-time vocational schools**
  
  Daily instruction and block instruction
  ~ Top priority: maintaining educational principles

- **Full-time vocational schools**
  
  ~ prepare for an occupation: goal is to make participant fit to pursue an occupation, not to simply “mark time”
  
  ~ lead to qualification in an occupation: principle of subsidiarity and alternative to Dual System (Dual System not at hand or not suitable)
THE ROLE OF THE VOCATIONAL SCHOOL

VOCAIONAL SCHOOL AS PARTNER
REQUIREMENTS HAVE INCREASED

• Pupils’ previous education/training
• Heterogeneity of in-company training - technical, economic, social competences
• Varying lengths of training
• Differentiation of contents, learning objectives and methods

Vocational schools have to reconcile all differences, companies only those they select themselves
THE ROLE OF THE VOCATIONAL SCHOOL

VOCATIONAL SCHOOL AS PARTNER
CONTENTS OF INSTRUCTION - DEFINED STANDARDS OF THE FEDERAL GOVT. AND AUTONOMY OF THE FEDERAL STATES

- Defined subject standards of the training regulations
- Educational task of the vocational school: Personality development, subject competence
- End of the industrial/commercial division? Example: IT occupations
- End of training/continuing training division?
- Future of teacher training
THE ROLE OF THE VOCATIONAL SCHOOL

VOCATIONAL SCHOOL AS AN INDEPENDENT TRAINING CENTRE LEADING TO A RECOGNISED QUALIFICATION

FULL-TIME SCHOOLS WILL INCREASE

Reasons

- Manual work is on the decrease; theoretically-based practice is on the increase; the importance of language and mathematics is growing; systematic knowledge logical abstract thingking are demanded in all occupations

- Lack of training places in Dual System or alternative model?

LEARNING SITE COOPERATION

~ AN UNSOLVED PROBLEM

- Results of BIBB studies
- Dialogue blockade: who can speak to whom?
- Learning site dialogue as a precursor to learning site cooperation
- Joint platform and organization
- How will central training workshops/external and inter-companie training centres/specialized vocational schools be included?
Personnel in the Dual System

Three groups

- in company vocational training personnel
  - Training counsellor and apprentice counsellor
  - trainer
  - Master crafts-person

- school vocational training personnel
  - Vocational school teacher
  - Practical skills teacher

- commitee members
  - Examination boards
  - Vocational training committees

Occupation/ career counsellor

Educational counsellor
# Trainers and vocational school teachers

<table>
<thead>
<tr>
<th>Practical instruction</th>
<th>Theoretical instruction</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of training</td>
<td>High school principal</td>
<td>28</td>
</tr>
<tr>
<td>Advancement opportunities</td>
<td>Advancement opportunities</td>
<td></td>
</tr>
<tr>
<td>- as main occupation</td>
<td>- as secondary occupation</td>
<td></td>
</tr>
<tr>
<td>trainer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEVO certificate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>master, craftsperson,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>specialist master</td>
<td></td>
<td></td>
</tr>
<tr>
<td>craftsperson's</td>
<td></td>
<td></td>
</tr>
<tr>
<td>qualifying examination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theoretical courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.g. journeyman skilled worker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Dual System)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower secondary school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary school</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Technology model</td>
<td>Human resources model</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>➢ Capital assets</td>
<td>➢ Human resources include all staff members of a company</td>
<td></td>
</tr>
<tr>
<td>➢ Technological progress</td>
<td>➢ Organizational developments</td>
<td></td>
</tr>
<tr>
<td>➢ Hierarchy</td>
<td>➢ Teams</td>
<td></td>
</tr>
<tr>
<td>➢ Clockwork mechanism</td>
<td>➢ Consideration of the individual in the overall constella-</td>
<td></td>
</tr>
<tr>
<td>➢ Lack of training</td>
<td>tion, identification with the company, corporate culture</td>
<td></td>
</tr>
<tr>
<td>➢ The employee is a small wheel in a process determi-</td>
<td>➢ Training for all employees</td>
<td></td>
</tr>
<tr>
<td>ned by others</td>
<td>➢ The individual employee has a clearly defined positive role</td>
<td></td>
</tr>
</tbody>
</table>

© BiBB, Bundesinstitut für Berufsbildung, Bonn 2002
An example: the motor vehicle industry

before Japan  after Japan

**Work organization**
- assembly/production line
  - mass production
- flexible, computer-controlled
- just-in-time- and lean production; small and large
- Series also;
- Assembly/production line

**Personnel**
- Hierarchical organization
- organization in teams
- management, engineers, technicians and skilled workers work together in teams/groups
- every team member must be able to plan, carry out and monitor his/her work in this process independently

- engineer: supervision
- planning
- skilled worker: logistics
- unskilled workers: assembly/production line
The approx. 350 state-recognized occupations are the basis for a structured and uniform vocational education to skilled worker/employee level. They open the door to a variety of occupational activities and to further training. There are approx. 25,000 gainful occupations.
Training regulations
Basis of in-company training

Recognized occupational title

Duration of training

Recognized occupational profile

General training plan

Examination requirements

Regulations pursuant to Sec. 25 BBiG/HwO
Training occupation

recognized occupational title

duration of training

additional procedures

Educa- tional policy
bench- marks

occupational description

occupational field designation

environmental protection

cronological organisation

structure and organization
of the training course
Phased training in the construction industry

12 months

Common knowledge and skills

12 months

Skilled structural engineering worker

12 months

Skilled finishing worker

Skilled civil Engineering worker

12 months

Brick layer
Concretor
Heating and chimney technician

Joiner/carpenter
Stuccoist
Tile and mosaic layer
Floor layer
Insulation technology specialist
Dry construction builder

Road builder
Pipeline fitter
Canal construction worker
Well builder
Special underground construction worker
Rail track builder
## Training occupations according to school leaving qualifications

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Occupation</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>University entrance level of education</td>
<td>Bank clerk</td>
<td>12,278</td>
</tr>
<tr>
<td></td>
<td>Industrial clerk</td>
<td>10,541</td>
</tr>
<tr>
<td></td>
<td>Wholesale and retail clerk</td>
<td>6,574</td>
</tr>
<tr>
<td></td>
<td>Office clerk</td>
<td>4,547</td>
</tr>
<tr>
<td>Intermediate secondary school leaving</td>
<td>Retail clerk</td>
<td>12,311</td>
</tr>
<tr>
<td>school leaving certificate</td>
<td>Medical assistant</td>
<td>9,896</td>
</tr>
<tr>
<td></td>
<td>Car mechanic</td>
<td>8,506</td>
</tr>
<tr>
<td></td>
<td>Office clerk</td>
<td>8,378</td>
</tr>
<tr>
<td>Lower secondary school leaving certificate</td>
<td>Car mechanic</td>
<td>10,731</td>
</tr>
<tr>
<td></td>
<td>Painter and varnisher</td>
<td>10,569</td>
</tr>
<tr>
<td></td>
<td>Retail clerk</td>
<td>9,946</td>
</tr>
<tr>
<td></td>
<td>Hairdresser</td>
<td>9,721</td>
</tr>
<tr>
<td>No lower secondary school leaving</td>
<td>Painter and varnisher</td>
<td>1,756</td>
</tr>
<tr>
<td>school leaving certificate</td>
<td>Disabled occupations</td>
<td>1,576</td>
</tr>
<tr>
<td></td>
<td>in crafts and trades</td>
<td>992</td>
</tr>
<tr>
<td></td>
<td>Disabled occupations in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>domestic sciences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bricklayer</td>
<td>758</td>
</tr>
</tbody>
</table>
Training Regulations and skeleton curricula

Decree and promulgation
Resolution in Federal States
Coordinating committee
Resolution in BIBB standing committee
Resolution in BIBB federal states committee

Coordination of the drafts training regulations and skeleton curriculum
Joint session
BMBF, BIBB, KMK, central organizations, experts

Development of a draft skeleton curriculum
Federal states experts

Development of a draft training regulation
Federal government/BIBB experts

Project resolution in Federal/States
coordinating committee
Application discussion
Laying down of educational policy benchmarks
Adaptive further training/further training for career advancement

3rd year of training
- modules
- specific specialist qualification
- additional qualification
- compensatory training
- compulsory elective subjects
- elective subjects
- training company
- training institution
- certification

2nd year of training
- partial examination/extended examination
- specialized training (inc. occupational experience)

1st year of training
- occupational profile
- basic skills
- occupational profile
**Structural concept “IT occupations”**

**Basic skills - specific occupational skills**

<table>
<thead>
<tr>
<th>Basic skills</th>
<th>Specific occupational skills</th>
<th>Flexibility</th>
</tr>
</thead>
</table>
| for all four occupations in the group | • Information and Communications Systems electronics technician  
• Skilled computer technician  
• Information and Communications Systems clerk  
• Computer clerk | through elective deployment areas/specialist areas within the framework of the specialist qualification |
### Structural concept for the media industry – combination of compulsory and optional modules

<table>
<thead>
<tr>
<th>common training units</th>
<th>subject-specific training units</th>
<th>training units to be chosen by trainer/instructor or trainee</th>
</tr>
</thead>
</table>
| media designer for digital and print media | • media consulting  
• media design  
• media operating  
• media technology | • 2 training units (common selection list)  
• 2 training units from subject-related selection list I  
• 1 training unit from subject-related selection list II |
Structural concept for laboratory occupations –
Linking up of initial and continuing training

basic training

elective training unit

specialist training
compulsory training unit

continuing training

chemical laboratory technician

biological laboratory technician

coating laboratory technician
Goals of modularisation

- Training ↔ continuing training
  - “occupational careers”
  - initial and continuing training

- Educational quotas distributed among Working life
- Improving links between vocational and general education
- links between different learning sites
- Integration of target groups not located close to education and postqualification
- Individual learning needs → qualification requirements of the companies
- facilitating learning process → flexible work organization/O-Development
- facilitating “open learning” → self-management of learning processes
- step-by-step acquisition of certificates and qualifications: “credits”
- improved comparability between national qualification systems = EU, vocational training portfolio
- testing of new economic financing models
- promotion of disadvantaged and gifted at all educational levels
- “additional qualification(s)”, also compensatory

Definition

Module = Bundle of self-contained initial and continuing Training contents
Which leads to useful, more complex partial qualifications (can be accumulated to achieve full occupational competence) and are certifiable/(state) recognized
Dual-/modular training

Petrol Station attendant
(3 years)

- general knowledge of the occupational branch
- commercial activities
- customer and travel service
- damage elimination
- fuel and accessories sale
- knowledge of motor vehicles and accessories
- accident and fire safety regulations
- petrol station and garage operation
- basic knowledge of products

Car and motorcycle care

<table>
<thead>
<tr>
<th>Motor vehicle attendant (ap. 3 months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>brakes</td>
</tr>
<tr>
<td>tires</td>
</tr>
<tr>
<td>body</td>
</tr>
<tr>
<td>cooling system</td>
</tr>
<tr>
<td>oil change</td>
</tr>
<tr>
<td>ignition system</td>
</tr>
<tr>
<td>battery</td>
</tr>
</tbody>
</table>

Training module/partial qualification (approx. x days)

- battery
Procedure for the elaboration of further training regulations in accordance with BBiG/HwO

Preliminary procedure

Determinaton of need e.g. through BIBB projects – experiences of the applicants

Agreement by the social parties

Application to BMBF

BMBF: Hearing on the application (departments and social parties, applicants, stakeholders)

Decision on political benchmarks and further procedure

or

Elaboration of a draft by BIBB

Involvement of the social parties

Direct completion of the further training regulation by BMBF

Consultation with expert committee or Advisory council

Ministerial draft bill/ interministerial coordination

BIBB Board hearing

Enactment and promulgation

Elaboration and coordination of the further training regulations

© BiBB, Bundesinstitut für Berufsbildung, Bonn 2002
The players in vocational training
Research and occupational research

Colleges/universities
occupational and eco-
monic education

State institutions:
- BIBB
- IAB

Private sector
Institutions (e.g.):
- IW

Foreign/EU institutions (e.g.):
- CEDEFOP, ETF
- CEREQ, ISFOL
- VUOS, ZIBB

Federal state institu-
tions (e.g.):
- ISB
- LSW

Vocational training practice
Main Board of BIBB

Federal government
5 Representatives
16 Votes

Consultative body of the Federal Government
- Vocational training report
- Fundamental questions of vocational training

Decision-making body of the institute
Charter - budget - research programme

Federal states
16 Representatives
16 Votes

Consultative:
1 representative of the federal labour office
1 representative of the federal association of municipalities
Legal form of the Federal Institute of Vocational Training (BIBB)

Sec. 6 Cl. 1 of Vocational Training Promotion Act (BerBiFG):

“A Federal Institute for Vocational Training with legal capacity directly responsible to the Federal Government shall be established.”

“...within the framework of the educational policy of the Federal government.”

BIBB bodies and their tasks

3 Bodies

Main Committee/Standing Committee
- right of decision-making powers
- research programme
- budget
- charter
- statutory provisions and orders
advising and supporting the Federal government on basic questions of vocational training

Secretary General/President
implementation of tasks BIBB
- administration
- external representation of BIBB
- advice and support for the federal government
Task Catalog in accordance with BerBiFG

1. Instruction-bound tasks (sec. 6 Cl. 2 Nr. 1 BerBiFG)
   - Training regulations, other statutory rules in accordance with BBiG/HwO
   - Vocational training report
   - Vocational training statistics
   - Promotion of pilot projects

2. Administrative tasks
   - Intercompany training centers
     (sec. 6 Cl. 2 Nr. 2 BerBiFG)
   - Directory of recognized training occupations
     (sec. 6 Cl. 2 Nr. 4 BerBiFG)

3. Research tasks
   - Vocational education/training research
   - Media research
     (sec. 6 Cl. 2 Nr. 3 BerBiFG)
   - Distance learning research
     (sec. 6 Cl. 2 Nr. 5d BerBiFG)

4. Consultative tasks
   - Advice to distance learning institutions and participants
     (sec. 6 Cl. 2 Nr. 5e BerBiFG)

5. International cooperation in vocational education/training
   (sec. 6 Cl. 2 Nr. 1e BerBiFG)
   (directive task)
Work programme

Research programme

- research projects
- permanent scientific tasks
- scientific contacts and contacts to practice
- monitoring research
- publications lectures
- directive tasks
- administrative tasks
- expert opinions consultation (primarily on behalf of the Federal Govt.)
- other specialist activities
- ad hoc tasks
Federal Institute for Vocational Training

Vocational Training

consultation
structural information
initial and continuing training programs
learning and teaching methods
reports and pilot projects
ideas on continuing training of trainers/instructors
training media (books, films, CBT, etc.)
costs and benefits of vocational training
specialist conferences, congresses
international cooperation

Addressees

employers organizations
chamber organizations
trade unions
government, ministries
companies
trainers/instructors/teachers
learners
the public

Fundamental principles of the work of BIBB
• principle of consensus in regulatory work
• practical orientation (participation of experts from companies)
• integrated task perception (prerequisite: corresponding links between basic research and application-oriented qualification of the staff, work experience)
• connection between pure research and realization-oriented research (principle of effect on the outside world)
• freedom of research in the implementation of projects and the publishing of results
### Germany’s Dual System of vocational education

#### Training in Germany: two systems grow together

<table>
<thead>
<tr>
<th></th>
<th>Old federal states</th>
<th>1989</th>
<th>New federal states</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training companies</td>
<td>500 000</td>
<td></td>
<td>4 500</td>
</tr>
<tr>
<td>Trainees</td>
<td>1.6 million</td>
<td></td>
<td>360 000</td>
</tr>
<tr>
<td>Trainees/company</td>
<td>3</td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>Share of small companies</td>
<td>70%</td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>Occupations</td>
<td>380</td>
<td></td>
<td>308</td>
</tr>
<tr>
<td>Relationship company: school</td>
<td>private/state</td>
<td></td>
<td>state only</td>
</tr>
<tr>
<td>Duration of training</td>
<td>3 years free</td>
<td></td>
<td>2 years access</td>
</tr>
<tr>
<td>Access</td>
<td></td>
<td></td>
<td>access (3 stages) via grades</td>
</tr>
<tr>
<td>Interfirm workshops (intercompany training centres)</td>
<td>700</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Boarding schools</td>
<td>0.5%</td>
<td></td>
<td>35%</td>
</tr>
<tr>
<td>In-house vocational schools</td>
<td>0.3%</td>
<td></td>
<td>75%</td>
</tr>
</tbody>
</table>
Trainees according to fields of training

- Trade and industry: 47%
- Crafts and trades: 38%
- Professional occupation: 9%
- Public sector: 3%
- Agriculture: 2%
- Domestic science: 1%
The ten most attended training occupations

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car mechanic (craft)</td>
<td>4.7%</td>
</tr>
<tr>
<td>Retail clerk (trade and industry)</td>
<td>4.4%</td>
</tr>
<tr>
<td>Office clerk (trade and industry)</td>
<td>4.3%</td>
</tr>
<tr>
<td>Industrial clerk (trade and industry)</td>
<td>3.4%</td>
</tr>
<tr>
<td>Electrical fitter (craft)</td>
<td>3.4%</td>
</tr>
<tr>
<td>Wholesale and foreign trade clerk (trade/industry)</td>
<td>2.9%</td>
</tr>
<tr>
<td>Bank merchant (trade and industry)</td>
<td>2.9%</td>
</tr>
<tr>
<td>Medical assistant (professional occupations)</td>
<td>2.8%</td>
</tr>
<tr>
<td>Painter and varnisher (craft)</td>
<td>2.8%</td>
</tr>
<tr>
<td>Hairdresser</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Total ≈ 33.8%
Reasons for providing training companies

Reasons for training

- Young persons corresponding to company requirements: 93%
- Skilled workers not recruitable on the labour market: 91%
- Avoidance of personnel fluctuations through company bonding: 82%
- Choice of best trainees when recruiting: 77%
- Avoidance of personnel mistakes in the hiring of outsiders: 74%
- Enhanced reputation for the company: 59%
- Saving on induction costs: 53%
- Reduction of unskilled and semi-skilled labour: 48%
- Cost savings in personnel recruitment: 37%

29% of all companies train
Whereabouts of those who have completed training in the Dual System in the new federal states

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>learned occupation</td>
<td>45.3%</td>
</tr>
<tr>
<td>other occupation</td>
<td>15.9%</td>
</tr>
<tr>
<td>unemployed</td>
<td>9.6%</td>
</tr>
<tr>
<td>college/university</td>
<td>7.7%</td>
</tr>
<tr>
<td>continuing vocational training</td>
<td>5.3%</td>
</tr>
<tr>
<td>other</td>
<td>4.7%</td>
</tr>
<tr>
<td>military/non military</td>
<td>3.9%</td>
</tr>
<tr>
<td>national service</td>
<td></td>
</tr>
</tbody>
</table>
### Unemployed young persons under 25 years in EU

<table>
<thead>
<tr>
<th>Country</th>
<th>Unemployment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>31.5</td>
</tr>
<tr>
<td>Greece</td>
<td>29.5</td>
</tr>
<tr>
<td>Finland</td>
<td>28.4</td>
</tr>
<tr>
<td>Spain</td>
<td>25.5</td>
</tr>
<tr>
<td>France</td>
<td>20.6</td>
</tr>
<tr>
<td>EU</td>
<td>16.1</td>
</tr>
<tr>
<td>Belgium</td>
<td>15.2</td>
</tr>
<tr>
<td>Great Britain</td>
<td>12.1</td>
</tr>
<tr>
<td>Sweden</td>
<td>9.5</td>
</tr>
<tr>
<td>Germany</td>
<td>8.5</td>
</tr>
<tr>
<td>Portugal</td>
<td>8.4</td>
</tr>
<tr>
<td>Denmark</td>
<td>6.7</td>
</tr>
<tr>
<td>Ireland</td>
<td>6.5</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>6.4</td>
</tr>
<tr>
<td>Austria</td>
<td>6.3</td>
</tr>
<tr>
<td>the Netherlands</td>
<td>5.3</td>
</tr>
</tbody>
</table>

Annual average 2000
Original data: Eurostat
Measures to improve the Training places situation (I)

1. Will for reform: not a Problem of knowledge but of realization!

2. Faster and more “new occupations” in particular in the services sector, “specialist occupational groups”

3. Restriction of the “principle of consent” through setting of deadlines by the Federal government?

4. Flexibilisation of the Training Regulations (new IT occupations): modularisation in 3rd year of training, dovetailing of initial and continuing training/compulsory and optional modules

5. More training in local training initiatives, support measures

6. Reform and expansion of part-time vocational schools

7. Training site cooperation

8. More differentiation and individualization:
   ➢ Promotion of disadvantaged youth = compensatory, “simple” occupations
   ➢ Promotion of gifted young people = additional qualifications

9. Develop and expand the “upper classes of the Dual-System”.
Measures to improve the Training places situation (II)

10. Specific training and continuing training in independence/business start-ups

11. Inclusion of specialized schools (BFS) as another Dual System

12. New financing aids:
   ➢ Additional tax relief for (socially responsible) training provision
   ➢ “Freezing” of training allowances/“apprentice wages”?  
   ➢ Fund-levy financing?

13. Reform of the examination system (for chambers), Vocational schools + companies, “credits”, “elongated examinations” Examinations: project/team work, customers orders

14. Practical equivalence/parity of general education/university & college entrance, universities for applied sciences
Costs

1. The firms bear the costs for their training measures themselves and pay a levy for the services of the chambers (administration, intercompany training centres, examinations etc.)

2. The training costs differ every year for each trainee, depending on
   - ratio of systematic training to training in the workplace
   - Training personnel (part-time or full-time trainers)
   - Training allowance

3. The government provides financial backing for special training measures, e.g. through
   - Integration programs, e.g. underachievers, minorities
   - Innovative experiments, e.g. new methods, new contents
   - Programs for small and medium sized enterprises (SMEs), e.g. intercompany training centres for systematic training and implementation of state-of-the-art technology/skills/technology centers

4. The federal state governments bear the costs of the vocational school instruction, the municipalities for the school buildings
Financing of vocational education/ per year
(Euro)

Dual System
€ 23.0 billion

vocational schools
€ 5.62 billion

companies
€ 20.3 billion
78%

vocational school
(part-time)
€ 2.8 billion
11%

school vocational
training
€ 2.9 billion
11%

Total
€ 25.9 billion
Discretionary costs (avoided)

- Recruitment costs (advertisements, interviews, administration, induction, continuing training)

- Lower risk = miscasting

- Bonding to company, corporate culture, group strengthening

- More broadly deployable (illness, vacation), advantages over temporary employees

- “human capital awareness”, image factor
In-company training: what a training place costs

Gross costs
17.919
1997 in Euro per trainee

<table>
<thead>
<tr>
<th>Other Costs</th>
<th>Personnel Costs</th>
<th>Fixed Asset and Material Costs</th>
<th>Other Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.366</td>
<td>10.086</td>
<td>7.386</td>
<td>1.523</td>
</tr>
<tr>
<td>520</td>
<td>+ costs of the training personnel</td>
<td>7.386</td>
<td>661</td>
</tr>
<tr>
<td>7.034</td>
<td>+ fixed asset and material costs</td>
<td>661</td>
<td>351</td>
</tr>
<tr>
<td>8.999</td>
<td>+ other costs</td>
<td></td>
<td>1.174</td>
</tr>
<tr>
<td></td>
<td>= gross costs</td>
<td></td>
<td>19.656</td>
</tr>
<tr>
<td></td>
<td>- productions output of the trainee</td>
<td>6.954</td>
<td>7.606</td>
</tr>
</tbody>
</table>

= net costs
12.702
8.206

All sectors of the economy
Development of training allowances from 1992 to 2001
- average monthly amounts as well as changes over the previous year

<table>
<thead>
<tr>
<th>Year</th>
<th>West Germany</th>
<th>East Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>472 €</td>
<td>321 €</td>
</tr>
<tr>
<td>1993</td>
<td>497 €</td>
<td>405 €</td>
</tr>
<tr>
<td>1994</td>
<td>512 €</td>
<td>436 €</td>
</tr>
<tr>
<td>1995</td>
<td>530 €</td>
<td>472 €</td>
</tr>
<tr>
<td>1996</td>
<td>539 €</td>
<td>487 €</td>
</tr>
<tr>
<td>1997</td>
<td>539 €</td>
<td>479 €</td>
</tr>
<tr>
<td>1998</td>
<td>546 €</td>
<td>486 €</td>
</tr>
<tr>
<td>1999</td>
<td>556 €</td>
<td>483 €</td>
</tr>
<tr>
<td>2000</td>
<td>571 €</td>
<td>490 €</td>
</tr>
<tr>
<td>2001</td>
<td>582 €</td>
<td>497 €</td>
</tr>
</tbody>
</table>

Basis of calculation: training allowances according to collective agreement - average of the training occupations and the years of training.
Training allowances according to fields of training 2001
- average monthly amounts -

- West Germany -

- Public sector - 640 €
- Trade an industry - 640 €
- Agriculture - 520 €
- Prof. occupations - 512 €
- Crafts and trades - 509 €
- Total - 582 €

- East Germany -

- Public sector - 572 €
- Trade an industry - 550 €
- Agriculture - 443 €
- Prof. occupations - 449 €
- Crafts and trades - 417 €
- Total - 497 €

Basis of calculation: collectively agreed training allowances - average for training occupations and years of training.
Trainee allowances in twenty selected occupations 2001 - average monthly remuneration

West Germany

- Bricklayer (C+I/C+T)
- Insurance salesman (I+H)
- Scaffolder (T+I/C+T)
- Industrial mechanic (T+I)
- Electronic power technician (T+I)
- Administrative clerk (I+H)
- Retail clerk (T+I)
- Office clerk (C+T)
- Cook (T+I)
- Medical Assistant
- Car mechanic (C+T)
- Gardener (A)
- Gas/fitter and plumber (C+T)
- Painter and varnisher (C+T)
- Joiner/carpenter (C+T)
- Electrician (C+T)
- Baker (C+T)
- Florist (T+I)
- Hairdresser (C+T)

East Germany

- Bricklayer (C+I/C+T)
- Insurance salesman (I+H)
- Scaffolder (T+I/C+T)
- Industrial mechanic (T+I)
- Electronic power technician (T+I)
- Administrative clerk (I+H)
- Retail clerk (T+I)
- Office clerk (C+T)
- Cook (T+I)
- Medical Assistant
- Car mechanic (C+T)
- Gardener (A)
- Gas/fitter and plumber (C+T)
- Painter and varnisher (C+T)
- Joiner/carpenter (C+T)
- Electrician (C+T)
- Baker (C+T)
- Florist (T+I)
- Hairdresser (C+T)

Berechnungsbasis: Tarifliche Ausbildungsentgelte – Durchschnitt über die Ausbildungsjahre

© BiBB, Bundesinstitut für Berufsbildung, Bonn 2002

- 34.3% Trade and industry/crafts (employers 24.7 billion)
- 14.2% Professional occupations and public sector
- 12.5% Federal Labour Office (state 8.89)
- 4.8% Federal Government, federal states and municipalities
- 11.7% participants (around 6.64 billion)
- 4% Federal Government, federal states and municipalities

Federal Institute for Vocational Training
Researching, Advising, Shaping the future

© BIBB, Bundesinstitut für Berufsbildung, Bonn 2002
PROMOTING VOCATIONAL TRAINING FOR DISADVANTAGED YOUNG PEOPLE (I)

Young People who require special Support

The problem/the magnitude

In Germany
total without vocational qualification
(per year and age group around 13% around 100 000)

1. The problem:

- vocational certification, preferably in state-recognized training occupations

- reduction of the number of young people without vocational qualifications

  * through new and differentiated paths, in order to achieve this goal

- restrictions by state SGB III financing (Social security code III)

2. The main question:

- special vocational courses (also for disadvantaged youth) within the framework of the BBiG/HwO? (Vocational training act)

- modularisation of training courses (curricular - didactic internal differentiation), perhaps also partial qualifications?
PROMOTING VOCATIONAL TRAINING FOR DISADVANTAGED YOUNG PEOPLE (II)

Principles

- full skilled worker/journeyman/skilled employee qualifications
- state-recognized qualification in accordance with Training Regulations (AO)
- support measures/priority
- educational needs of disadvantaged youth and requirements of the labour market
- agreement of social parties, Federal Government, federal state governments
- stabilization, modernization, further development of the vocational training system
Findings:

- At present, varying demand in industry for specific training occupations is recognisable.
- But: from individual, sectors, companies, vocational training experts.
- New generation of specialists in the future.

Paths:

- Flexible, differentiated, individualized, phased.
- Rather a lengthening than a shortening of the period of training.
- Support measures
  - socio-educational
  - school
  - training-attendant aid.
PROMOTING VOCATIONAL TRAINING FOR DISADVANTAGED YOUNG PEOPLE (IV)

Emergency solution for the stigmatization of the „unskilled“

- without vocational qualifications subject to discrimination on the labour market
- integration/reintegration into working life through
  - modularized training courses
  - reduced learning-content training
  - less theory in examination

- new training occupations with labour market prospects

Varied demands today

- around 350 state-recognized training occupations in Germany
- varied profile and requirement hierarchies
- two and three-year training occupations
- full social welfare protection in two-year training occupations through parties to a collective wage agreement (BSozGer - Federal Social Court)
- example: new: two-year now three-year occupations: scaffolder
- example: retailer/ upgraded retailer (Verkäufer, KiE)
PROMOTING VOCATIONAL TRAINING FOR DISADVANTAGED YOUNG PEOPLE (V)

Legal framework

BBiG/HwO (Vocational Training Act (Crafts and Trades Regulation Code))

- make possible special occupations/state recognized training regulations/“simple” occupational profiles (more easily learned by disadvantaged young people)

- make possible organization of training courses in modules when training leads to state-recognized qualification (differentiation and flexible shaping of the entire training course)

Examinations

- own “disadvantaged section” in BBiG und HwO with special examination regulations

- supplementary oral examinations for grade compensation

- extended processing time for theoretical examination

- forms which make the written examination easier

- recognition of examination sections taken as partial qualification with certificate (resolutions of the “Alliance for Work, Training and Competitiveness”, 1999)
PROMOTING VOCATIONAL TRAINING FOR DISADVANTAGED YOUNG PEOPLE (VI)

Programme-controlled computer work materials/computers (BIBB projekt)

- successful pedagogical-didactic means for promotion
- intensification!
- the operation of programme-controlled (computer) tools can be learned
- promotion of motivation for initial and continuing training
- strengthening of feeling of one’s own worth, social prestige and recognition among each other
- improvement in skills in language, arithmetic, writing, drawing, information technology
- “Qualifizierungsbausteine“/modules for qualification
Support for gifted apprentices in Vocational training

Support for gifted young people in in-company training

- Occupational advancement paths/also inhouse support/in addition to vocational school/training and work place

- Identify and promote during training

- Federal Ministry for Education and Research support programme (since 1991, 4,500 annually/consolidation/not just graduates/during in-company training

- In addition to proven measures (e.g. competitions, BBiG reduction)→ Using GDR experience: “inventors’ schools”, “gifted programmes”
Gifted (II)

- public “marketing”
  - attractiveness of Dual System
  - in-company selection of central theme
  - such as benefits for gifted pupils in schools and colleges, research

- targeted: girls and young women

- additional tasks/demanding and responsible/projects/clients/building sites

- in-house preparation for competitions/release

- special. foreign languages/IT/service (clients)/“Youth researches”

- heavier technical and non-business DL-occupations

- image factor/benefits/SMEs

- freer work design, task processing
Gifted (III)

- “2\textsuperscript{nd} threshold”/permanent job/
  adaptive further training
- innovative trainers/more
  individual advice
- shortening of length/additional qualifications (certified)
- technical- business qualification

open in-company “support circles” for
skilled workers/employees, “creative task pools”/simulations and management
games → for apprentices/trainees
Vocational education/ training is also a “royal way”

GOAL
Equal status of vocational and general educational qualifications for realization of equal value of vocational and general education

Top of the pyramid of income and social prestige (objective of parents and young person)

Qualified job, core skills

Completion of dual vocational/educational training

Secondary modern school, intermediate modern secondary school (junior high school), “standard school”, comprehensive school, Gymnasium (high school/junior school)

Further training framework law, nationally-recognized certificates 46 I and II BBiG

School supplements evening colleges, etc. colleges of further vocational education

Intermediate final examination, Lower secondary school leaving certificate

Master craftsperson (crafts and trades, industry, master craftsperson continuing training, examination) technician qualified specialist training (e.g. "specialist") adaptive, job advancement continuing training (chamber, company)

Qualified job, core skills

Abitur (final secondary-school examination)

“Royal way”

“New” kind of central Land Abitur

Intermediate final examination “first, public examination in secondary school”

Subject-related university entrance level of education

University, university for applied science, college entrance examination?
University/University of applied sciences FH entrance regulations for specialists with vocational certificate and no Abitur (final school-leaving examination)

<table>
<thead>
<tr>
<th>Region</th>
<th>Entrance Examination</th>
<th>Probationary Admission</th>
<th>Direct Admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baden-Württemberg</td>
<td>U/FH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bayern</td>
<td>preparation + examination*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berlin</td>
<td></td>
<td>FH/U</td>
<td></td>
</tr>
<tr>
<td>Brandenburg</td>
<td>FH/U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bremen</td>
<td>FH/U</td>
<td>FH/U</td>
<td></td>
</tr>
<tr>
<td>Hamburg</td>
<td>FH/U</td>
<td></td>
<td>FH/U with consultation</td>
</tr>
<tr>
<td>Hessen</td>
<td>FH/U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mecklenburg-Vorpommern</td>
<td>FH/U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Niedersachsen</td>
<td>FH/U</td>
<td>FH/U</td>
<td>FH/U</td>
</tr>
<tr>
<td>Nordrhein-Westfahlen</td>
<td>FH/U</td>
<td>FH/U</td>
<td></td>
</tr>
<tr>
<td>Rheinland-Pfalz</td>
<td>U (or probationary admission)</td>
<td>FH</td>
<td></td>
</tr>
<tr>
<td>Saarland</td>
<td>FH/U</td>
<td></td>
<td>consultation interview</td>
</tr>
<tr>
<td>Sachsen</td>
<td>FH/U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sachsen-Anhalt</td>
<td>FH/U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schleswig-Holstein</td>
<td>FH/U</td>
<td>FH/U</td>
<td></td>
</tr>
<tr>
<td>Thüringen</td>
<td>FH/U</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FH = University for applied sciences  
U = University  
*(1/2 year)