

VET Data Report Germany 2010

Facts and Analyses accompanying the Federal Report on Vocational Education and Training



GEFÖRDERT VOM



Bundesministerium
für Bildung
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VET Data Report Germany 2010

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Federal Institute for
Vocational Education
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Preface



Continuous educational reporting on the basis of empirical data and socio-scientific analyses is an indispensable prerequisite for the portrayal of the current status within vocational education and training and for the timely recognition of future developments and of areas within the VET system where action is required. In 2009, and with this goal in mind, the Federal Institute for Vocational Education and Training (BIBB) designed and published a Data Report to serve as a central database containing essential information and data relating to vocational education and training and to supplement the annual Report on Vocational Education and Training issued by the Federal Ministry of Education and Research (BMBF).

The Data Report accompanying the 2010 Report on Vocational Education and Training represents the second issue of this work. The first two chapters present the current situation in initial vocational training and in continuing vocational training as well as highlighting the changes which have taken place over the course of time. The main thematic focus of the 2010 Data Report is the transition from training to employment. The report then provides information on international indicators and finally on mobility as part of VET.

This English version gives only a selection of the main findings. The full text of the report in German as well as additional information is available on the Internet portal www.bibb.de/datenreport.

We are looking forward to any feedback you may have on the Data Report. We will be pleased to receiving ideas, remarks and constructive criticism (datenreport@bibb.de).

A handwritten signature in black ink, which appears to read 'Manfred Kremer'. The signature is fluid and cursive.

Manfred Kremer
President

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Initial VET – Supply and demand

The main results to be emphasised with regard to the initial vocational training indicators are as follows.

- The number of newly concluded training contracts as of 30 September 2009 was around 566,000. This represents a decrease of 8.2% compared to the previous year. The main influencing factors here were the economic and financial crisis and a decrease in the number of school leavers. Despite the significant reduction in the number of contracts concluded, it is likely that overall training opportunities for young people were at approximately the same level as last year.
- The decrease in the number of newly concluded training contracts was significantly stronger in East Germany than in West Germany (-13.0% and -7.1% respectively). In West Germany, the number of newly concluded training contracts in 2009 was approximately 467,000. The corresponding figure for East Germany was just under 99,000. Due to the stronger decline in demand in East Germany, young people even saw a slight improvement in the market situation for this part of the country.
- As of 30 September 2009, the Federal Employment Agency still registered around 82,000 training applicants who were not in vocational education and training and for whom placement endeavours were ongoing. This shows that interest in dual training on the part of young people still significantly exceeds existing training opportunities and that young people need to seek out alternative training outside the dual system.
- BIBB prognoses indicate that a further decrease of around 20,000 in the supply of training places is expected for 2010. Notwithstanding this, the falling numbers of school leavers also mean that potential demand will fall by about 69,000. If the economy is going to recover, the expectation is that the next few years will bring about an increase in supply potential on the part of the companies and that this will coincide with a decrease in demand potential. For this reason, it is likely that the problems companies are experiencing in filling vacant training places will increase accordingly.
- Analyses of a survey of training place applicants show that most of those who have not progressed to fully qualifying training blame the unfavourable market situation. By way of contrast, only a minority of young people cites a change in occupational wishes. The chances of ending up in fully qualifying training were significantly worse for unplaced applicants from previous years than for other young people.
- An analysis conducted by the Federal Institute for Vocational Education and Training into the so-called 'transition system' enabled the chances of progression to fully qualifying training for school leavers to be calculated. In overall terms, just under half of young people were able to make a relatively rapid transition to company-based training. A further third succeeded in quickly moving into extra-company or school-based vocational education and training. Nevertheless, around one third of young people were unable to make a successful transition to fully qualifying training within a period of two years following the end of the scheme.

- During the period from 1998 to 2005, the number of recognised training occupations fell from 355 to 340. From 2006 onwards, however, the number of training occupations rose once more from 342 to reach 349 in the year 2009.
- In 2008, vocational training statistics showed that 1,613,343 young people were in dual training. The numbers for West Germany and East Germany were 1,298,139 and 315,204 respectively. Women make up 39% of this total and are thus under-represented. There are significant differences in individual occupations in respect of the proportion of women. With regard to prior school learning, trainees with an intermediate secondary school leaving certificate and trainees with a lower secondary school leaving certificate form the largest groups.
- In 2008, 494,000 companies participated in providing vocational training to young people. This represented an increase of 0.3% in the number of companies providing training compared to the previous year. Because the overall number of companies rose by just under 0.7%, this means that there was a negligible decrease of 0.1 percent in the proportion of companies providing training. The proportion of companies providing training has remained at a level of around 24% for a number of years. In East Germany, however, the proportion of companies providing training fell to 18.3%. This is the lowest level since 1999.
- The Institute for Employment Research (IAB) Establishment Panel Survey shows that the proportion of trainees offered permanent employment after completion of training is now 61% and has continued to move in a positive direction.
- BIBB has presented extensive research results relating to the quality of vocational training from the point of view of the companies and of the trainees. The main areas where companies see development potential for increasing training quality are the general organisational conditions governing the activity of the trainers and cooperation with vocational schools. Trainees do not perceive that their requirements regarding good training are completely fulfilled. They also evaluate such aspects as cooperation between learning venues very critically.
- In the case of school-based training courses, demographic developments have meant that the decrease seen in past years has continued. This has meant that the number of pupils attending full-time vocational schools has fallen by 3.7%. Notwithstanding this, the number of pupils in school-based courses remains at the same high level. In the school year 2007/2008, the number of pupils attending full-time vocational schools was approximately 530,000. The corresponding figures for the prevocational training year and the vocational training foundation year were about 62,000 and around 46,000 respectively.
- The results of the 2007 Microcensus showed that the proportion of unskilled workers within the population is very high (15.2% of the 20-29 age group). A special evaluation of unskilled workers in employment and aged between 20 and 34 revealed significant gender specific differences with regard to type of employment. This showed that women are significantly more likely than men to be over-qualified for the work they do.
- Training allowances based on collective wage agreements rose by an average of 3.3% in 2009 to reach a level of €679 per month. This was the highest increase in training remuneration since 1995.

Training market figures 2009

During the period from 1 October 2008 to 30 September 2009, 566,004 new training contracts were concluded in Germany. This represented a decrease of 50,338 or 8.2% compared to the previous year. In the West, the number fell by 35,598 or -7.1% to 467,006. In the East,¹ there was a decrease of 14,740 or -13.0% to 98,998. These figures are based on the BIBB survey of newly concluded training contracts as of 30 September 2009. The main causes for the strong decline in the number of training contracts in the 2009 reporting year² are the financial and economic crisis and the significant demographic collapse. The effect of the economic crisis was that 52,623 fewer training places were offered in Germany compared to the previous year. At the same time, however, there was also a significant decrease in the number of pupils leaving general schooling or partially qualifying vocational schools and in the number of unplaced applicants from previous years registered with the Federal Employment Agency (BA).

As was the case in previous years, these decreases mainly affected East Germany. The number of general school leavers not in possession of a higher education entrance qualification, the main clientele of the dual system of vocational education and training, fell by 13.1% or 12,034 to 79,802. The corresponding figure for 2001, 8 years previously, was 175,136. Developments in East Germany were also exacerbated by the fact that the demographic collapse which occurred after the reunification of Germany in 1990 had now filtered down to upper secondary school leavers and by the fact that, in contrast to the previous year, no double cohort of upper secondary school leavers completed schooling in any of the 6 federal states. The number of school leavers in possession of a higher education entrance qualification fell by 11,270 or -17.3% to reach a level of only 54,030. Although there was a further increase in the number of general school leavers with a higher education entrance qualification in West Germany (by +9,916 or +4.8% to 217,090), this rise was significantly exceeded by the fall in the number of school leavers not in possession of such a qualification (by -20,591 or -3.8% to 522,182). The strain on the training market situation in the West was also considerably alleviated by the significantly lower number of applicants who had completed schooling the year before or in previous years and who were registered with the employment agencies and the consortia set up between the employment agencies and basic social security providers (“unplaced applicants from previous years”) (Table 1).

The reasons for (such an) unexpectedly low number of unplaced applicants from previous years cannot be precisely discerned at the moment. According to the Federal Employment Agency (BA), changes to the way in which data on identifying applicants from previous school cohorts is calculated means that it is not possible to conduct a clear comparison with the previous year. Alongside these statistical causes, however, the reasons why the number of unplaced applicants from previous years has fallen are likely to include a better prevailing situation on the training market in previous years and the tendency of young people to adopt different application and search behaviours. It is also possible that the strong expansion of network provision to provide career choice and training place search support has led to a decrease in the number of young people registering with the BA as training place applicants over the past few years. This even affected young people who ultimately failed in their search for a training place.

¹ The terms “East” and “East Germany” are used synonymously to refer to the five federal states which made up the former German Democratic Republic and Berlin.

² Any use of the term “reporting year” or “year” below always refers to the period between 1 October of the previous year and 30 September of the year named insofar as nothing to the contrary is explicitly stated.

If a comparison is made between the number of newly concluded training contracts in 2009 on the one hand and the numbers of school leavers with and without qualifications and unplaced applicants from previous years on the other and if due consideration is accorded to the demand potential resulting from these groups, it is likely that overall training opportunities for young people in Germany were at approximately the same level as last year despite the strong decrease in the number of contracts. This means that at a national level demographic developments have largely been able to compensate for the negative impacts exerted on the training market by the financial and economic crisis. Within this process, the level of provision in East Germany has even continued to improve compared to the position in the West despite the significantly larger decrease in supply (-12.8% in the East as opposed to -7.3% in the West), whereas the situation in West Germany has probably turned out to be somewhat less favourable than in 2008.

Table 1: Development of numbers of new training contracts, of school leavers and unplaced applicants in the Federal Republic, in West and East Germany, 2000 - 2009

	Training places on offer	New training contracts	School leavers*				Unplaced training applicants registered with the Federal Employment Agency (BA)**		Total (columns 3-8)
			from general schools		from vocational schools		from previous year	from years before	
			Without university entrance certificate	With university entrance certificate	BVJ *** BGJ BFS	FOS FGYM			
			(3)	(4)	(5)	(6)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Germany									
2008	635.758	616.342	634.609	272.474	291.495	121.522	128.539	191.854	1.640.493
2009	583.135	566.004	601.984	271.120	281.926	119.482	111.734	132.057	1.518.303
Difference	-52.623	-50.338	-32.625	-1.354	-9.569	-2.040	x	x	x
2009/2008	-8,3%	-8,2%	-5,1%	-0,5%	-3,3%	-1,7%	x	x	x
West									
2008	519.251	502.604	542.773	207.174	259.534	99.128	101.670	140.888	1.351.167
2009	481.493	467.006	522.182	217.090	254.098	99.295	90.837	99.846	1.283.348
Difference	-37.758	-35.598	-20.591	9.916	-5.436	167	x	x	x
2009/2008	-7,3%	-7,1%	-3,8%	4,8%	-2,1%	0,2%	x	x	x
East incl. Berlin									
2008	116.507	113.738	91.836	65.300	31.961	22.394	26.822	50.898	289.211
2009	101.642	98.998	79.802	54.030	27.828	20.187	20.865	32.179	234.891
Difference	-14.865	-14.740	-12.034	-11.270	-4.133	-2.207	x	x	x
2009/2008	-12,8%	-13,0%	-13,1%	-17,3%	-12,9%	-9,9%	x	x	x

* School leavers 2009: estimated numbers

** Differences between the sums for West and East Germany and the number for the Federal Republic because of data which cannot be allocated regionally. According to the Federal Employment Agency due to a change in data collection it is impossible to compare the figures for 2008 and 2009.

*** BVJ = voc. preparatory year, BGJ = foundation year, BFS = full-time voc. school (no qualification acquired), FOS and FGYM = voc. oriented grammar schools

Sources: Federal Statistical Office, Federal Employment Agency, Federal Institute for Vocational Education and Training; own calculation

Table 2: Newly concluded training contracts by state, 1992 - 2009

	Contracts concluded between 1 October previous year til 30 September																		2009/2008	
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	absolute	in %
Baden-Württemberg	75.294	71.035	69.055	69.037	68.730	70.196	73.818	76.331	77.290	77.066	72.582	70.804	73.277	71.854	73.991	81.216	82.185	76.507	-5.678	-6,9
Bayern	95.966	92.325	89.678	89.345	90.131	91.988	97.060	96.800	98.295	101.222	95.315	91.925	93.396	90.220	93.005	102.204	102.987	93.564	-9.423	-9,1
Berlin	18.852	18.193	20.365	19.563	21.475	19.448	22.638	23.722	23.084	21.689	20.192	19.152	20.534	19.639	20.799	21.561	21.021	19.485	-1.536	-7,3
Brandenburg	18.241	15.322	18.901	20.223	21.606	19.628	21.400	21.368	19.897	18.826	18.576	18.492	17.919	16.415	19.573	18.489	17.720	15.065	-2.655	-15,0
Bremen	6.232	6.009	5.712	5.591	5.480	5.686	5.631	6.012	6.146	5.983	5.534	5.303	5.758	5.644	5.900	6.292	6.489	6.133	-356	-5,5
Hamburg	13.622	12.513	11.529	11.278	11.530	11.851	12.080	12.548	12.580	13.028	12.215	11.914	12.470	12.406	13.210	14.233	14.862	13.496	-1.366	-9,2
Hessen	43.723	41.359	38.271	38.659	38.737	39.434	41.214	42.607	42.074	42.147	38.362	37.812	38.727	37.662	39.426	43.378	42.667	39.453	-3.214	-7,5
Mecklenburg-Vorpommern	11.793	13.950	17.744	18.268	18.977	19.039	19.294	19.145	18.338	17.622	16.722	16.665	16.025	15.784	15.306	16.085	14.339	11.825	-2.514	-17,5
Niedersachsen	61.823	57.592	54.342	53.783	54.379	56.268	57.942	59.381	57.927	56.674	53.364	52.058	53.826	51.530	54.277	58.810	59.880	57.395	-2.485	-4,1
Nordrhein-Westfalen	131.464	122.719	114.926	115.394	112.557	117.366	122.590	128.437	128.640	126.069	115.513	111.046	115.987	111.190	115.671	132.032	131.902	121.504	-10.398	-7,9
Rheinland-Pfalz	28.228	26.556	25.600	26.437	27.082	28.346	29.808	30.693	30.811	29.943	27.514	26.938	27.920	26.445	28.037	31.844	30.697	28.851	-1.846	-6,0
Saarland	7.631	6.978	6.881	7.072	7.208	7.606	8.486	9.034	9.252	8.839	8.356	8.178	8.201	8.177	8.359	8.919	8.891	8.789	-102	-1,1
Sachsen	28.565	28.950	35.515	35.697	38.023	36.752	35.919	38.144	34.749	33.362	31.125	30.665	30.615	28.862	31.463	32.007	27.118	23.816	-3.302	-12,2
Sachsen-Anhalt	16.866	18.687	20.722	22.406	20.125	23.787	23.144	23.332	21.459	21.767	19.257	19.133	20.328	17.748	17.904	19.110	17.363	14.937	-2.426	-14,0
Schleswig-Holstein	20.971	19.873	19.394	19.486	18.814	19.582	20.103	20.370	20.067	19.212	18.671	18.769	19.314	19.034	20.339	21.859	22.044	21.314	-730	-3,3
Thüringen	15.944	18.059	19.447	20.535	19.473	20.540	21.402	23.091	21.084	20.789	19.025	18.780	18.683	17.570	18.893	17.846	16.177	13.870	-2.307	-14,3
West	484.954	456.959	435.388	436.082	434.648	448.323	468.732	482.213	483.082	480.183	447.426	434.747	448.876	434.162	452.215	500.787	502.604	467.006	-35.598	-7,1
East incl. Berlin	110.261	113.161	132.694	136.692	139.679	139.194	143.797	148.802	138.611	134.055	124.897	122.887	124.104	116.018	123.938	125.098	113.738	98.998	-14.740	-13,0
Germany	595.215	570.120	568.082	572.774	574.327	587.517	612.529	631.015	621.693	614.238	572.323	557.634	572.980	550.180	576.153	625.885	616.342	566.004	-50.338	-8,2

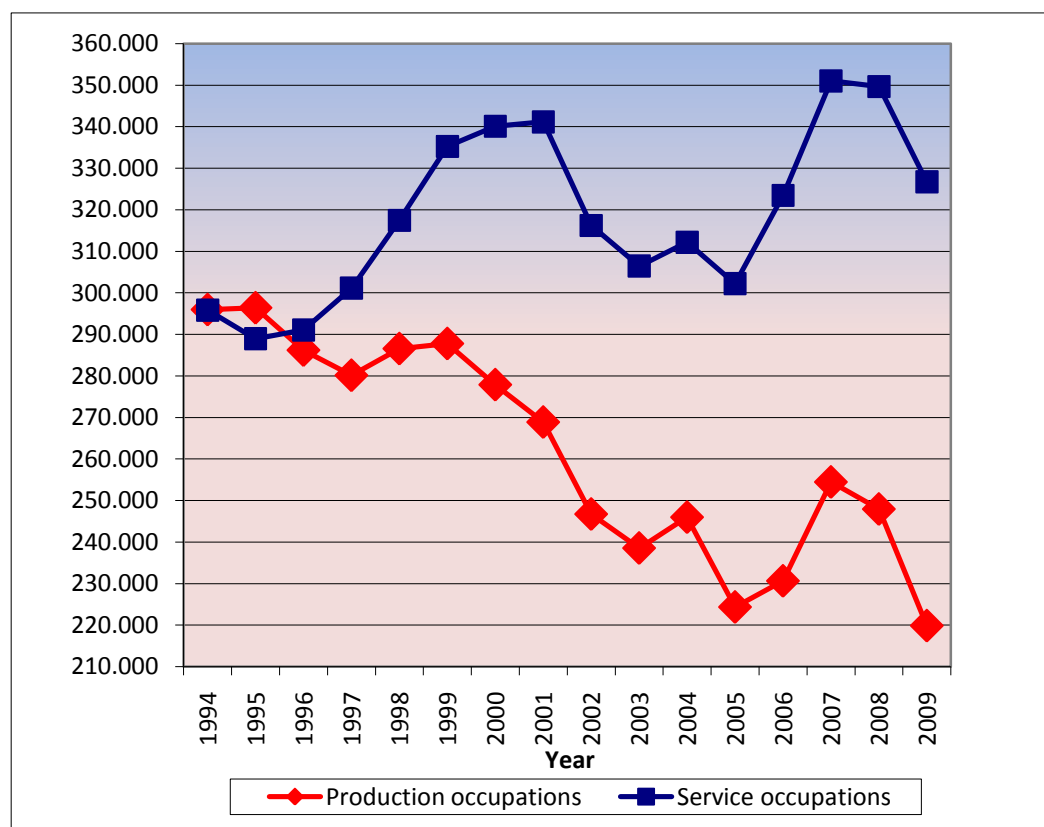
Sources: Federal Statistical Office, Federal Employment Agency, Federal Institute for Vocational Education and Training; own calculation

Newly concluded training contracts, training place supply and demand

The number of newly concluded training contracts across Germany was 566,004, the third lowest level since reunification. Only 2003 and 2005, where the figures were 557,634 and 550,180 respectively, saw fewer training contracts concluded. There was a particularly sharp decline in the number of new training contracts in East Germany. The figure of 98,998 was the lowest level since reunification and represented the first time that the number of newly concluded training contracts had failed to reach the 100,000 mark. A total of 467,006 new training contracts were concluded in West Germany, the eighth best figure since 1992. This also represented a rise of 32,844 compared to the crisis year of 2005, when only 434,162 new training contracts were registered ([Table 2](#)).

Over the course of the last 16 years, training place supply within the vocational education and training system has been dominated to an increasing extent by occupations from the tertiary sector. This trend continued in 2009. Compared to the previous year, training place supply in manufacturing occupations fell by 11.3% or 28,077 places whereas the fall in the supply of training places in service sector occupations (-6.6% or 22,950 places) was much less strongly marked. Whereas there was a balanced ratio of service sector and manufacturing occupations in 1994, training place supply in the service sector outstripped that in manufacturing by 106,686 places in 2009 ([Figure 1](#)). This meant that occupations in the tertiary sector made up 56.0% of all training place supply compared to a proportion of only 37.7% for the manufacturing occupations. The dual system of vocational education and training is clearly reflecting the change taking place within the employment system in both quantitative and structural terms.

Figure 1: Development of training place offer in service and in production occupations 1994 - 2009

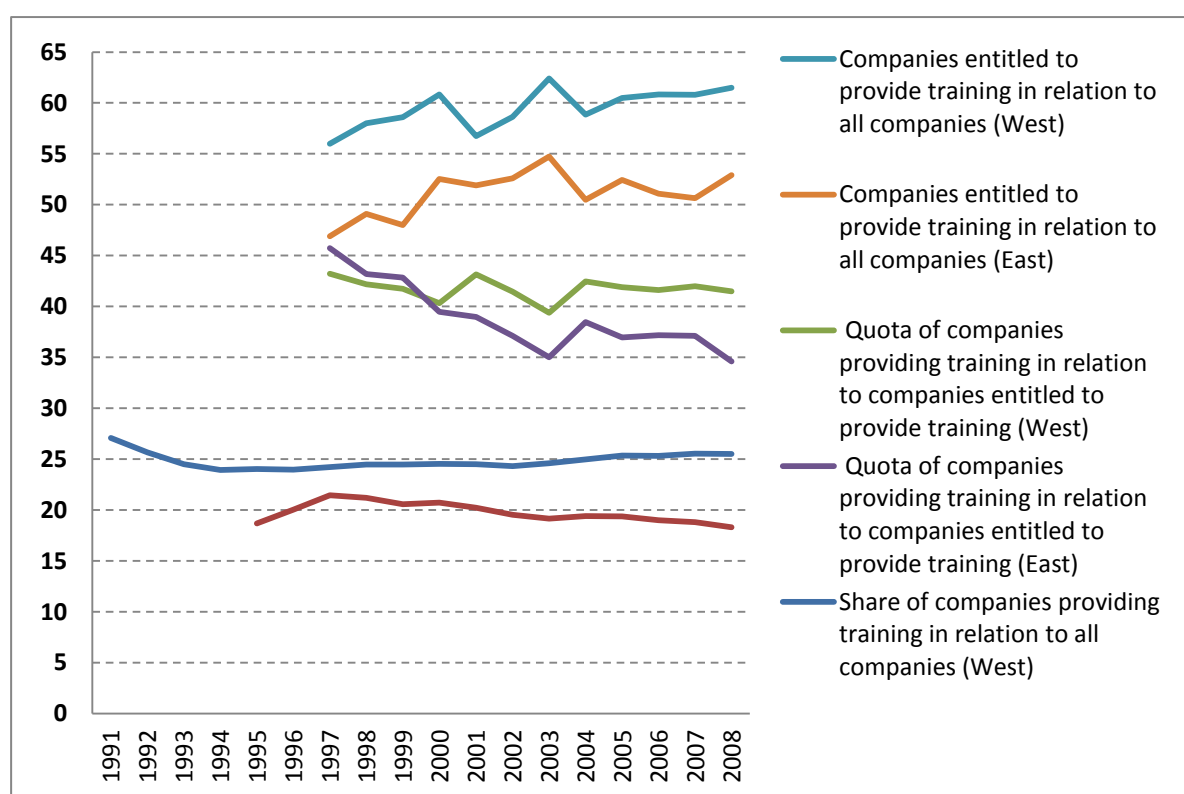


Sources: Federal Employment Agency, Federal Statistical Office, Federal Institute for Vocational Education and Training

Company participation in training

In the reporting year 2008, 494,000 companies participated in the vocational education and training of young people. This was an increase of 0.3% or 1,500 companies compared to the previous year. Since at the same time the overall number of companies rose by just under 0.7% or 15,000 companies, the relative proportion of companies providing training exhibited only a negligible decrease of 0.1 percent. The proportion of companies providing training has remained at a level of around 24% since 1999 (Figure 2). Despite above-average growth of 3,000 in the number of companies providing training, the proportion of companies providing training in percentage terms has also not risen further in West Germany and remains at a level of 25.5%. In East Germany and Berlin, however, the negative development continued. During the reporting year, participation in training by East German companies fell by 18.3%. There were 1,600 companies which ceased providing training and a total of 5,000 companies which began to provide training. This is the lowest level since 1999.

Figure 2: Share of companies providing training in relation to all companies and in relation to all companies entitled to provide training, West and East (in %)



Sources: Enterprise file of the employment statistics of the Federal Employment Agency; Enterprise panel of the Institute for Labour Market Research

These proportions of companies providing training are frequently used to indicate the low level of participation in training by trade and industry compared to the demand of young people willing to undergo training. One aspect which a calculation of the proportion of companies providing training expressed as a percentage of all registered companies and based on evaluations of the official statistics fails to take into account, however, is that not all companies are entitled to provide training for young people. If such a characteristic relating to the total number of registered companies is taken into account— something which is not included in the official statistics although it is taken into consideration by the Establishment Panel Survey conducted by the Institute for Employment Research

(IAB), then higher participation by trade and industry in the training of young people and young adults is revealed over the course of time.

Whereas in West Germany the proportion of companies providing training expressed as a proportion of companies entitled to provide training has developed in line with the proportion of companies entitled to provide training and has established itself at a level between 43% and 40% since 1999, East Germany has experienced a continuous decline from just under 46% down to the present level of under 35% even though the number of companies entitled to provide training has remained relatively constant at over 50% since 2003.

Supply of training places by trade and industry

In 2008, the number of training places filled rose once again compared to the previous year by 1.8% or 32,000 places and reached a level of 1.814 million trainees. This was the highest level since 1999. The total increase of 1.5% or 408,000 persons in employees subject to mandatory social insurance contributions meant that the training quota of 6.6% remained approximately at the level of the previous year. Notwithstanding this and despite a positive trend in employment, the number of trainees in East Germany and Berlin underwent a further decline of 3.3% or 12,000 compared to 2007 and of 70,000 young people compared to 1999 and fell to a total of 342,000. By way of contrast, the growth in trainees in West Germany, where numbers increased by 44,000 or 3.1% to reach a total level of 1.47 million, outstripped the rise in employment. This meant that the training quota in the West rose from 6.1% to 6.6%.

Development of company participation in training in detail - Changes by company size

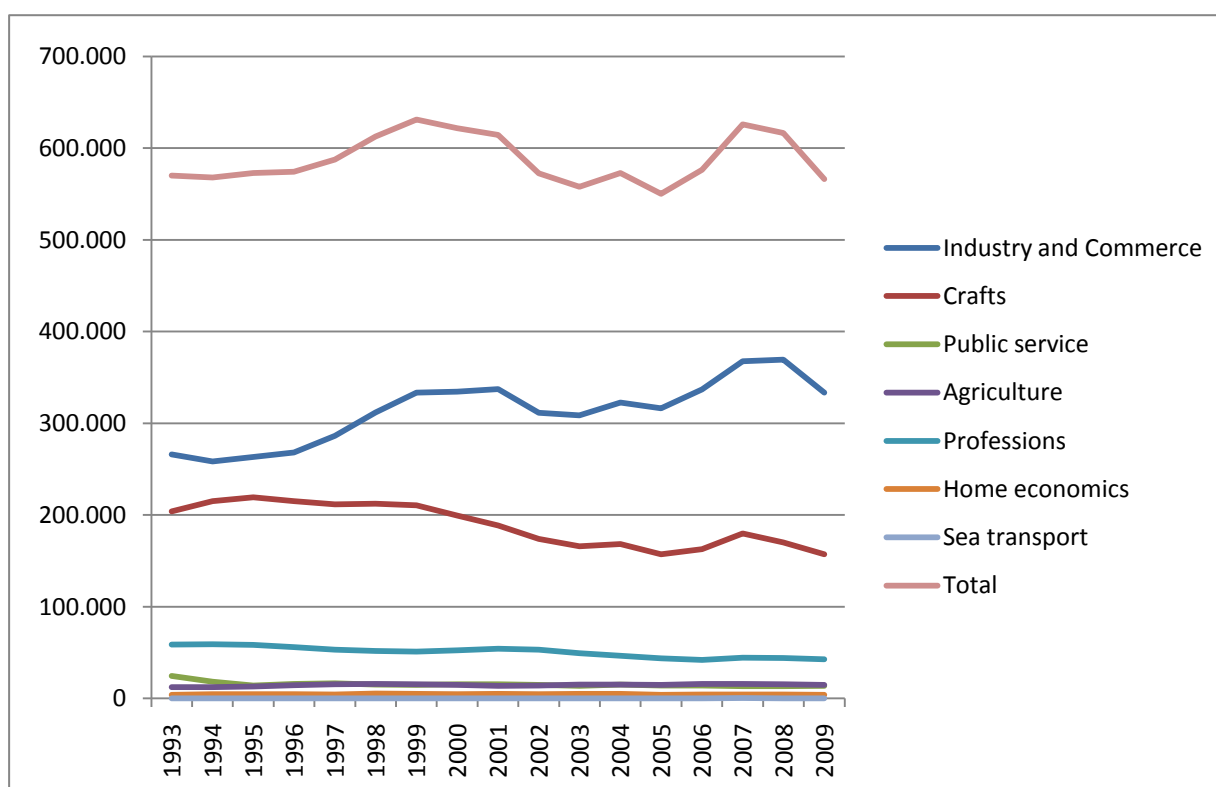
Particularly in the case of smaller and larger SME's, the number of companies providing training increased by an average of 1.8% and 2.8% respectively between 2007 and 2008. SME's with between 50 and 249 employees in particular have been able to increase their numbers by 8.9% since 2009. This positive development was even more apparent in West Germany where, also in comparison with 1999, growth rates in company participation in training of up to 10.5% were achieved. In contrast to this, East German firms – with the exception of large companies – generally recorded decreases. Compared to 2007, especially the smallest companies providing training – companies with fewer than 10 employees – exerted a negative impact on the overall figures by recording declines of -4.4% in their numbers, although, as in the other company size classes, positive developments were recorded in terms of the actual number of companies. This meant that the average number of East German companies participating in the training of young people was declining on a year-by-year basis even before the demographic changes took effect. This mainly applied to the smallest category of companies and smaller SME's.

A look at developments in employee and trainee numbers by company size classes shows that only companies recording significant gains in employment were able to achieve growth rates in the number of trainees. This particularly included small and large SME's, which record a total of 60% of all increases in employment and were thus able to offer 33,000 more training places compared to the previous year. Compared to 1999, West German companies in virtually all company size classes were able to compensate completely for the temporary losses incurred in training and work provision. The smallest companies formed the only exception in this regard. Companies in East Germany have a long way to go in order to achieve such compensation. Apart from a small number of exceptions, the training places and labour market deteriorated once more as did some aspects of job supply.

Change by branches of trade and industry

Despite maintaining constancy for several years in terms of number of companies, manufacturing industry recorded a further decline of -0.6% in participation in vocational training for young people during the reporting year (Figure 3). Since 1999, just under 18% or nearly one in five companies providing training in this sector has withdrawn from company-based training for young people. Whereas in the reporting year 1999 nearly 190,000 companies from the production or manufacturing sector included trainees amongst their employees, the number of companies providing training had fallen to only 162,000 by 2008. The main reason for this negative trend was the development in the main construction sector and in the finishing trades. 24,000 fewer companies providing training were available in these areas alone during the period forming the object of investigation. On the other hand, positive mention should be made – including from a medium term perspective – of developments in vehicle manufacture and engineering, in the energy, water, disposal and recycling sector and in the metal production and processing industry.

Figure 3: New contracts by sectors



Source: Federal Statistical Office

The main reason for the relative overall balance achieved in the reporting year was growth in the service sector. 0.8% or 2,500 more service sector companies provided training compared to 2007 and 23,000 more compared to 1999. Although the proportion of companies providing training in 2008 was only 21.3%, a figure which remains significantly below the participation rate of 34.4% in manufacturing industry, a continuous growth of 7.3% in the number of companies providing training has been recorded since 1999. The main contributors towards this positive development were real estate management, the software and hardware consultancy and development sector, architectural and engineering companies and the branches of advertising, research and development. Notwithstanding

this, compared to traditional areas of training such as commerce and the motor vehicles trade, these are areas of trade and industry which continue to have a considerable amount of catching up to do with regard to the proportion of companies providing training.

These national trends were also reflected in the regional developments in West Germany whereby negative trends were less strongly marked and some positive developments took place at a higher level. By way of contrast, the picture revealed for East Germany and Berlin is that 3.1% fewer manufacturing companies are participating in the training of young people. Since 1999, over 40% of the companies from the sector have withdrawn from training. Significant decreases in some areas have also been recorded for service industries and the public sector both compared with the previous year and in comparison to 1999.

Compared to 2007, the number of young people in training in the secondary economic sector reflected the development in employment by recording a significant rise of 3.1% or 17,000 trainees. This was not sufficient fully to compensate for the losses of a total of 42,000 training places since 1999, especially in the construction sector as well as in the textile, clothing and woodworking sectors. The growth in supply in engineering and the vehicles sector also failed to provide any compensation within this period. After years of stagnation in employment development, a further increase in employees subject to mandatory social insurance contributions was recorded in the service sector compared to the previous year. This equated to 325,000 more employees in the sector, and this requirement for skilled workers brought an increase of 16,000 training places for young people in its wake. The continuing trend towards tertiarisation in employment thus also exerted an effect on company-based training provision. Whereas 57.2% of all young people underwent training in the service sector in 1999, by 2008 this proportion had increased to 66.6%. At the same time, the proportion of employees in training in manufacturing decreased from 35% to 31.4%.

No particular differences to the national trend were displayed in West Germany, where growth in employment led to corresponding increases in supply in company-based training. The increase in the number of employees tended to exert a contrary effect on the supply of company-based training places in East Germany. Whereas 1.2% more employees were recorded in the secondary sector and the tertiary sector saw an increase of 1.4%, a total of 67,000 employees more, the number of trainees in the service sector declined by -4.5%.

Change by occupational fields

A change in occupational structure is closely associated with sectoral change. Even in such a short period of time as the nine years since 1999, the number of service oriented activities increased by just under 4.4% whereas the amount of production oriented employment fields saw a fall of over 16% in their number. No production oriented occupational field was able to regain the employment level seen in 1999 even given the fact that the negative trend which prevailed since 2005 seems to be over. The 12.7% decrease in training, or 92,000 training places, was of a similar order to the fall in employment where a loss of just under 1.27 million or 16% of all workplaces and their associated activity requirements took place. These decreases particularly affected training occupations aligned to the fields of construction, construction related trades and woodworking which accounted for approximately two thirds of all decreases within the production oriented sector. A similar negative effect was experienced in installation, metal construction engineering and electrical occupations. Apart from in food, textile, leather and clothing occupations, a gradual stabilisation of numbers was discernable compared to the previous year.

Service oriented occupational fields have displayed a slight upwards trend over the course of recent years. The training quota of 4.6% achieved in 2008 was above the 1999 starting level. Notwithstanding this, no compensation for the massive losses amongst the production oriented occupations was achieved. Compared to the previous year, satisfactory growth rates in training were recorded in particular in the case of goods and service sales staff, administrative and office occupations and transport and warehousing occupations.

Offering permanent employment to those successfully completing training

In order to complete the picture from a company point of view, consideration is accorded to the third indicator of companies offering permanent employment to those successfully completing training. The Institute for Employment Research (IAB) Establishment Panel Survey quota of trainees offered permanent employment states how many trainees obtain a job at the company providing training once training has been completed. This does not, however, permit a full representation of events at the second threshold due to the fact that those completing training may also acquire a job at another firm or company.

According to the Institute for Employment Research (IAB) Establishment Panel Survey, the quota of trainees offered permanent employment in 2008 was 61% (Table 3). The quota is thus emerging from the temporary trough which occurred in the years 2004 and 2005. If a comparison is made between the results calculated for East Germany and West Germany, it becomes apparent that the quota of trainees offered permanent employment is significantly lower for the former than for the later. Not the least of the reasons for this is the high proportion of extra-company training in East Germany. In no year is the difference between West and East smaller than 13 percentage points. In 2003 and 2005, a difference as high as 18 percentage points was recorded. There is a positive correlation between quota of trainees offered permanent employment and size of company for all years considered.

Table 3: Retention rate by company size, Germany (West and East) - in %

	2000	2001	2002	2003	2004	2005	2006	2007	2008
West									
1 to 9 Employees	46	44	47	49	39	47	44	49	50
10 to 49 Employees	60	51	51	54	52	50	56	56	60
50 to 499 Employees	65	66	62	57	59	57	57	68	69
500+ Employees	72	77	72	69	66	68	73	74	76
Total	60	59	57	57	54	55	57	62	64
East									
1 to 9 Employees	49	41	40	30	37	32	44	44	35
10 to 49 Employees	49	46	50	44	49	49	47	53	51
50 to 499 Employees	41	44	42	39	41	34	42	44	51
500+ Employees	48	36	44	37	33	30	46	46	41
Total	46	43	44	39	41	37	44	47	46
Germany									
1 to 9 Employees	46	44	45	47	39	45	44	48	47
10 to 49 Employees	57	50	51	52	51	50	54	56	58
50 to 499 Employees	60	61	58	54	55	52	54	62	65
500+ Employees	69	70	68	64	61	62	68	69	70
Total	58	56	55	53	52	52	55	59	61

Retention rate: Share of apprentices who were employed by the training company in relation to all apprentices
Source: IAB - Establishment Panel 2000-2008

Participation in CVET

The main results with regard to developments in continuing vocational training can be emphasised as follows.

- According to the results of the Continuing Training Reporting System (BSW), more than one quarter (26%) of those aged between 19 and 64 took part in continuing vocational training in 2007. The participation rate has been stagnating since 2003. There were significant differences in participation between men and women. Whereas 29% of men took part in continuing training, the participation rate for women was only 24%. Traditionally larger differences in continuing training participations were also observed between various age groups. The participation of those aged over 50 was only 19%. In addition to this, there was a direct correlation between higher continuing training participation and higher general school leaving qualifications and higher levels of vocational qualification.
- On the basis of the data of the Institute for Employment Research (IAB) Establishment Panel Survey, just under half of companies participated in the financing of continuing vocational training measures in 2008. Participation in continuing training depends significantly on company size and is traditionally higher in large companies than in small and medium-sized companies.
- Continuing training institutions estimate the business climate for 2009 as somewhat less favourable than the previous year. Notwithstanding this, continuing training providers were more optimistic than other service providers.
- In 2008, the provision of continuing training courses at adult education centres comprised about 74,000 courses nationally, approximately corresponding to the level of the previous year. The programme area of work and occupations accounted for 13% of all courses at adult education centres.
- Employer and trade union institutions were important providers of continuing vocational training. They made up about 10% of all continuing training organisations.
- Entries to measures for the promotion of continuing vocational training pursuant to German Social Security Code III (SGB) and German Social Security Code (SGB) increased from 341,262 in 2007 to 438,682 in 2008 (+ 28.5%). In East Germany, entries rose by 31.8% compared to the previous year whereas the corresponding figure for West Germany was 34.1 %.
- 139,520 persons were supported within the scope of the Upgrading Training Assistance Act in the year 2008. This represented an increase of 4.4% compared with the previous year.
- In 2008, 5,991 scholarships were taken up as part of the Federal Ministry of Education and Research programme for the support of gifted students.
- There are currently 203 Federal Government regulations relating to advanced vocational training and retraining. 52 Federal Government regulations relating to advanced vocational training have been enacted in the years since 2005.

Participation structures

The aim of increasing participation in continuing training to 50% by 2010, an objective formulated at the Educational Summit in 2008, indicates the high degree of importance attached to individual continuing training, something which has strongly increased – at least in the public perception. For 30 years, educational participation of adults has been recorded via the Continuing Training Reporting System (BSW). In 2007, a parallel survey – the *Adult Education Survey* (AES) – was conducted in Germany for the first time. The AES places a number of new emphases in content and methodological terms.

Continuing Training Reporting System (BSW) und Adult Education Survey (AES)

Since 1979, Infratest has been conducting a continuing training participation survey on behalf of the Federal Ministry of Education and Research (BMBF). The survey takes place every three years and is conducted on the basis of a representative sampling of the population in Germany. The 1991 survey year marks the point at which reporting took into account the extended territory of the Federal Republic of Germany by surveying the federal states of the former German Democratic Republic for the first time. German speaking foreign nationals were included in the sample for the first time in the sixth wave of the survey in 1997.

In 2007, the AES concept was instigated in the form of a pilot survey and tested out the implementation of the European reporting concept within the German educational system. AES is incorporating BSW to a large extent and will replace it.

The BSW collects data from persons aged from 19 to 64. The future aim is for the AES to record all occupationally related learning processes undertaken by persons aged between 25 and 64. If any comparison of the two datasets is carried out below, results always refer to the population aged between 19 and 64.

The BSW and AES survey participation rates in various forms of learning. Differentiation takes place in accordance with organisational aspects of continuing training. A distinction is made between organised forms of learning such as seminars or courses and forms of learning in which learners largely pursue continuing training in a self-organised manner (informally) rather than in a course based manner.

Organised continuing vocational training

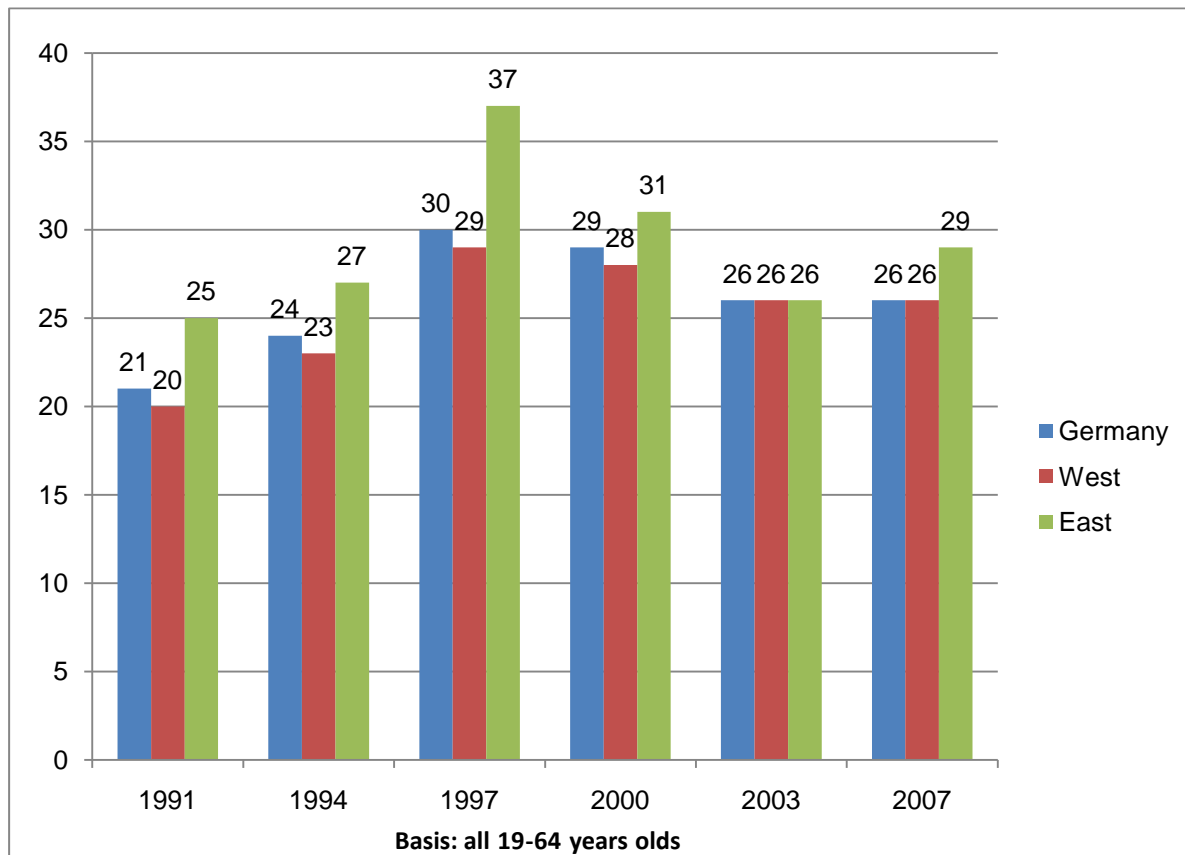
Organised continuing training is recorded on the basis of participation in seminars or courses. The population forming the object of investigation is divided into those who are active in continuing training and those who are inactive. The central indicator stated is the participation rate.

The two survey concepts (AES and BSW) differ with regard to the operationalisation of the relation to occupation. In contrast to the BSW, where differentiation according to vocational or general continuing training initially takes place via the alignment of the respective courses or seminars attended (“two-column model”), the label of vocationally related continuing training is only accorded to activities in respect of which persons surveyed subsequently state that they have participated “primarily for occupational reasons” (“two-level model”). In international comparative analyses, the exclusive criterion for differentiation is the subjective purpose of the continuing training measure. Various participation rates for the two survey models are produced on the basis of these approaches. Whereas according to the BSW concept 27% of the population aged between 19 and 64 took part in organised continuing vocational training in 2007, the corresponding figure according to the AES data is 38%.

In 2007, more than one quarter (26%) of all 19 to 64 year olds in Germany took part in continuing vocational training. Until 1997, the participation rate rose in East Germany in particular. Having

reached a record level in the year 1997, the participation rate has been in decline. Since 2003, the national participation rate has stagnated at 26%. This decrease in participation is initially occurring in both the West and the East, although developments have been more drastic in the case of the latter. In East Germany, participation in continuing vocational training fell by 8 percentage points between 1997 and 2007. In West Germany, the decline was brought to a halt in 2003. In 2007, participation in the form of seminars and courses was 26%, the same level as in 2003 ([Figure 4](#)).

Figure 4: Participation in CVET by region 1991 - 2007 in %

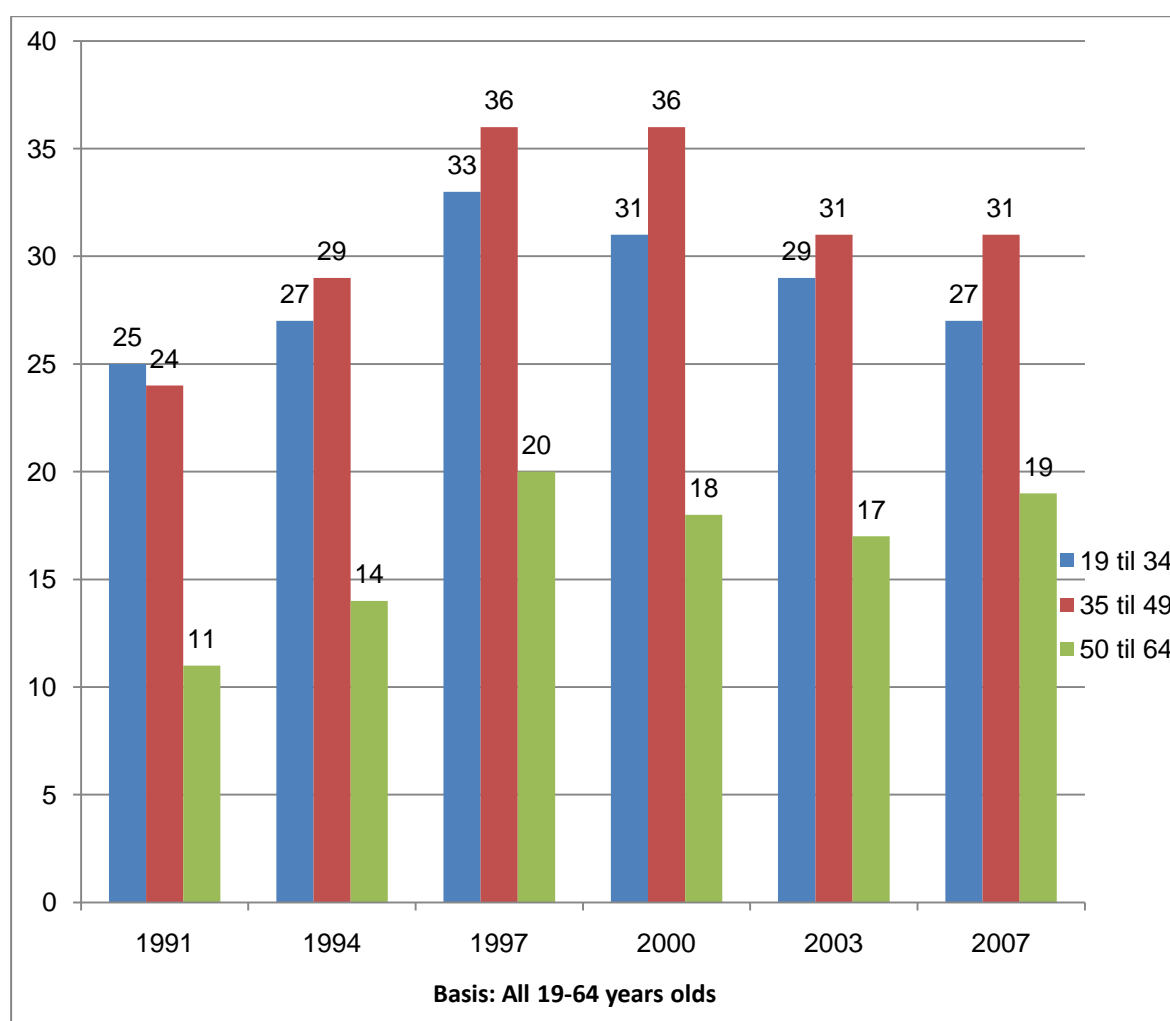


Source: German Institute for Adult Education, own calculations

Women take part in continuing vocational training less frequently than men. Whereas in 1991 the participation rate of women in continuing vocational training was 17%, 8 percentage points below the participation rate for men, this difference had narrowed to 5 percentage points in the year 2007. Participation in continuing training by women aged between 19 and 64 is at 24%, the same level as in 2003. Participation in continuing training by men was slightly higher in 2007 compared to 2003. The main reason for this difference between women and men is the different ways in which they participate in the employment market. If only persons in employment are taken into account, continuing vocational training participation rates of men and women have converged over the years. In 2007, the levels of participation were 34% for women and 35% for men.

As in previous years, those aged over 50 took part in organised continuing training on a significantly less frequent basis. Although the difference has narrowed at the expense of the younger age groups, the participation rate continues to hover below the 20% mark. The 35 to 49 age group is most likely to participate in continuing vocational training. Notwithstanding this, it is clearly discernable that the general decrease in participation from 2000 onwards is largely borne by this age group ([Figure 5](#)).

Figure 5: Participation in CVET by age, 1991 - 2007 in %



Source: German Institute for Adult Education, own presentation

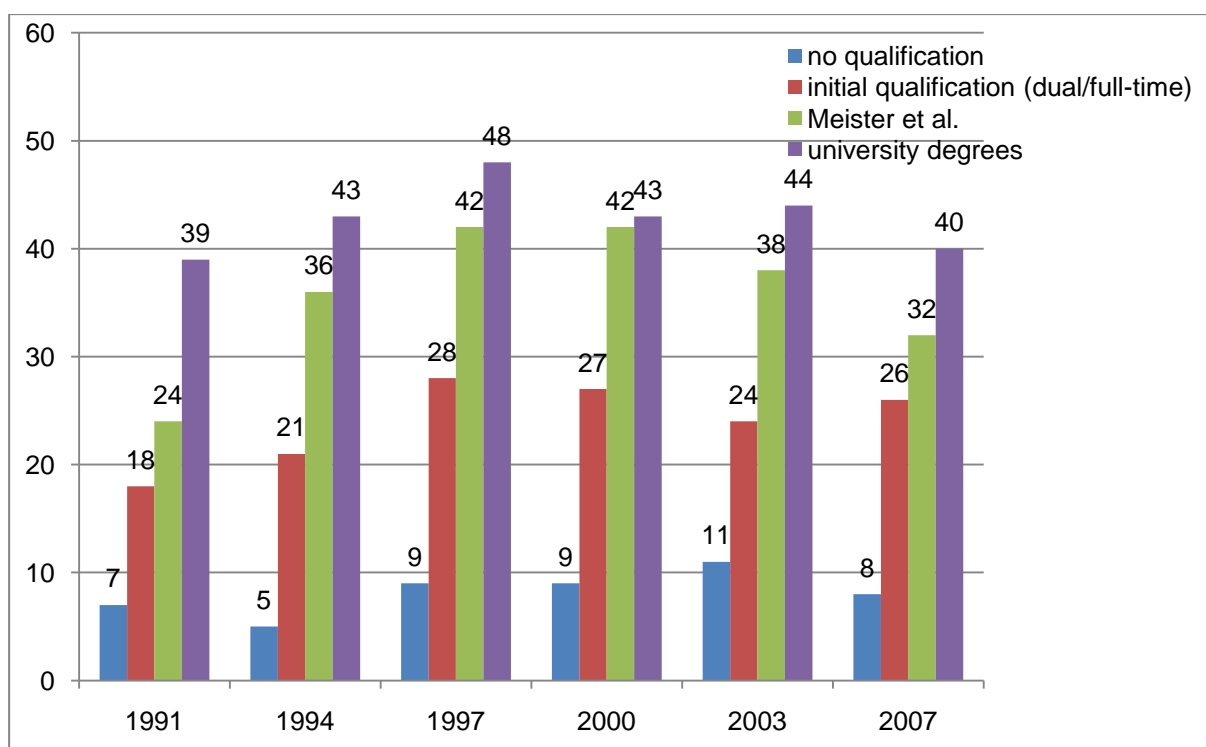
German speaking foreign nationals were included for the first time in the 1997 survey year. In 2003, the group of German nationals was further differentiated according to migration background. The findings make it clear that the participation rate in continuing vocational training is significantly lower in the case of foreign nationals than in the case of German citizens. Although taking migrant background into account helped to reduce this difference from 2003 onwards, the tendency remains. This leads to the observation of an interesting development between 2003 and 2007. Whereas the participation rate of German nationals without a migrant background stagnated at a level of 28%, participation by German citizens from a migrant background increased by one percentage point and the participation rate of foreign nationals went up by five percentage points. Although no empirically based explanations are currently available for these findings, the assumption is that “raised awareness of the importance of continuing training as a result of a public debate on the disadvantage suffered by migrants” could have supported the increase in participation.

The correlation between participation in continuing vocational training and prior school learning is undertaken on the basis of a tripartite categorisation of school leaving qualifications. Over the course of the years, participation in continuing training in the form of seminars and courses has been rising constantly in line with rising levels of prior school learning. The decline in participation is particularly

apparent in the group of persons with an intermediate school leaving certificate (West Germany) or in the case of persons with a Polytechnic Upper Secondary School leaving certificate following the 10th class of generally schooling (GDR law). A slight growth in continuing training activity in the case of persons with a lower school leaving certificate or without any school leaving qualifications at all was recorded in 2007 (17% as compared to 16% in the year 2003). This figure, however, remains significantly below the level of those with better school leaving qualifications.

A similar pattern emerges in the case of vocational training. This area is affected by the fact that there is usually a close correlation between general educational and vocational education and training qualifications in Germany. Over the course of the years, the level of vocational qualification has dictated the degree of participation in organised continuing vocational training. Figure 6 illustrates how the participation rate rises in line with increasing level of qualification. Although differences have narrowed in recent years, this has mainly taken place at the expense of the higher qualified. Whereas the proportion of persons without a vocational education and training qualification taking part in continuing vocational training remained permanently low during the period between 1991 and 2007, the general decrease in continuing training from 2000 onwards was predominantly borne by persons with a master craftsman qualification or other trade and technical school qualifications.

Figure 6: Participation of 19-64 year-olds by vocational qualification in %, 1991-2009



Source: German Institut for Adult Education, own presentation

Transition from training to employment

The most important results concerning transitions from training to employment are:

- Comparing the years 2005 and 2008, there is a slight decline in the unemployment rates of those completing extra-company and company based training directly after end of apprenticeship. This decrease is particularly marked in the case of men in West Germany. A contrary tendency may be observed in the case of women in the East.
- Gender, age and region all also exert a longer term effect on the transitional phase from training to employment. This means that men are to be found in typical standard working arrangements as they increase in age and the completion of their training qualification recedes into the past. Although women are not worse affected than men during the period of their career entry, they are more likely to find themselves in employment circumstances which tend to be insecure. A comparison between West and East Germany shows that those from the West who are in work are more likely to be in typical standard working arrangements.
- The highest level of general school leaving qualification can be identified as particularly significant for later fully fledged employment. A school leaving qualification brings advantages in every phase of the transition from training to employment. Training fields with an increased proportion of persons with a University of Applied Sciences/higher education entrance qualification mostly also exhibit an increased proportion of fully fledged employment.
- Those completing training in the following training fields are affected by insecure career entry on a relatively frequent basis: “agriculture, husbandry, forestry”, “bakers, pastry cooks, production of confectionary goods”, “cooks”, “sales occupations (retail)”, “body care occupations”, “construction, woodworking, plastics manufacture and processing occupations” and “hotel and restaurant occupations, housekeeping”. The last two named also more frequently display occupational biographies interrupted by unemployment. Such interruptions also occur to a greater level in the training field of “metal construction, plant construction, sheet metal construction, installation, fitters”. By way of contrast, “bank and insurance clerks” and those who have completed training in the field of “commercial office occupations” tend to be employed in standard working arrangements.
- Demographic developments mean that a reduction in the number of those who have undergone dual training is expected by the year 2025. This means that at least in some training fields it could become more important for employers to seek to recruit skilled workers and secure the loyalty of such workers to the company. Those who have undergone dual training may benefit from this by being less frequently employed under working arrangements which do not secure their basic livelihood in the long term.

Destination and occupational success of those completing dual training courses up to 10 years after qualification

Vocational training makes a major contribution to integration into working life and to securing the future opportunities of young people. Successful entry into the world of work is a fundamental prerequisite for the realisation of individual occupational and work chances. This "second threshold" marks the interface between vocational education and training and the labour market. This is fundamental in establishing the direction of travel for later occupational development. The transitional phase from training to the employment system does not, however, run smoothly for all those completing vocational education and training and may well be accompanied by interruptions and imponderabilities.

In order to evaluate occupational integration, it is by no means sufficient merely to examine the time at which training was concluded. Development in the first few (occupational) years is crucial. Studies indicate that a stable course of employment during the initial years have a sustained impact on later career progression. Previous research into the "second threshold" assumes that, at least in West Germany, those who complete dual VET will achieve successful career entry in the medium term. Alongside the investigation of unemployment, an aspect of particular interest is whether the accumulations of precarious employment observable within the whole of the working population also causes young people who have completed dual training to be affected by precarity to a greater extent.

The occupational status of those completing training can only be compared separately for various periods of time after training: persons who completed their training qualification no longer than 3 years ago, persons who finished training between 4 and 6 years ago and persons who completed training 7 to 10 years previously.

The years 1999 and 2007 – an overall view

The high proportion of young people selecting dual training as an entry into working life is not the least of the reasons why the dual system of vocational education and training needs to be viewed as the major foundation of the German VET system. According to the Microcensuses from 1999 to 2007 (calculations carried out by the Federal Institute for Vocational Education and Training), the proportion of persons undergoing dual training has remained constant at a level between 55% and 60%.³ Over recent survey years, a slight increase in the numbers completing dual training has even become discernable. This section shows the fluctuations to which the occupational prospects of dual trained career entrants were subject between 1999 and 2007 (Table 4). The main result reached by the evaluations conducted is that strong cyclical fluctuations in the occupational success of those who have completed training are discernable over the course of time. There is evidently a strong correlation between these fluctuations and general economic prosperity. This means that the results of the Microcensus very largely reflect the labour market development presentations of the Federal Employment Agency.

Table 4 shows that unemployment rates rose strongly from 1999 to 2005. From 2005 to 2007, however, they fell again slightly. Those who have completed dual vocational education and training are particularly affected by unemployment up to three years after completion of training. The proportion of unemployed persons amongst those who have completed dual training decreases more strongly as the year of training recedes further into the past. Females who had completed training were less strongly affected by unemployment than their male counterparts in all years. One reason for this, however, may be the fact that females who have completed training are more likely to be economically inactive. These proportions especially increase as the time training was completed recedes further into the past. One interesting aspect is that in 2005, when the proportion of unemployed persons amongst females who had completed training reached its highest point, the proportion of females who were economically inactive also reached its own respective record level. This imparts the impression: when labour market conditions are tight women tend to move into economic inactivity rather than unemployment.

From 1999 to 2005, the chances of obtaining fully fledged employment without precarity decreased in overall terms irrespective of the time when training was completed. By way of contrast, a small rise was once again recorded for the years 2006 and 2007. Once again, those who have completed training

³ This relates to the highest vocational qualification in each case.

Table 4: Development of status of people with a dual system qualification (highest vocational qualification) 1999 - 2007

Gender	Status	0 - 3 years after acquisition of qualification					4 - 6 years after acquisition of qualification					7 - 10 years after acquisition of qualification				
		1999	2001	2003	2005	2007	1999	2001	2003	2005	2007	1999	2001	2003	2005	2007
Male	Unemployed	9,5%	9,2%	14,9%	15,9%	9,2%	7,3%	7,2%	10,4%	11,2%	7,1%	6,9%	6,0%	8,3%	10,3%	7,6%
	Full-time employed	47,5%	50,3%	42,7%	40,2%	47,6%	60,2%	61,3%	56,3%	54,6%	56,7%	70,6%	70,0%	67,3%	62,4%	66,0%
	Employed with middle 'precarity'	16,2%	15,9%	15,9%	17,6%	18,3%	10,5%	10,7%	11,7%	11,3%	13,4%	7,4%	8,8%	8,5%	8,9%	9,3%
	Employees with high 'precarity'	13,8%	10,4%	9,1%	6,4%	7,0%	4,3%	3,3%	3,7%	3,2%	3,3%	1,5%	2,0%	2,0%	2,6%	2,9%
	Self-employed	1,5%	1,7%	1,8%	2,5%	2,2%	3,1%	3,9%	3,0%	3,9%	3,5%	4,9%	4,7%	4,6%	6,4%	5,7%
	Not seeking employment	2,1%	2,3%	2,1%	2,5%	2,2%	2,2%	1,9%	1,8%	2,2%	1,5%	1,9%	2,1%	1,7%	1,7%	1,7%
	In continuing training	9,5%	10,1%	13,5%	14,9%	13,5%	12,5%	11,8%	13,1%	13,6%	14,4%	6,8%	6,4%	7,7%	7,7%	6,8%
	Total	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Female	Unemployed	6,5%	5,6%	9,0%	12,3%	8,8%	5,4%	5,1%	6,5%	7,5%	6,4%	5,3%	4,4%	6,3%	7,6%	6,0%
	Full-time employed	54,4%	57,1%	52,8%	42,8%	45,7%	56,8%	56,8%	50,0%	48,9%	51,0%	51,9%	50,9%	48,5%	46,5%	50,4%
	Employed with middle 'precarity'	17,8%	14,9%	14,0%	14,5%	15,9%	12,2%	14,5%	15,3%	10,8%	11,0%	14,1%	15,9%	16,1%	10,1%	10,0%
	Employed with high 'precarity'	4,7%	4,6%	3,8%	8,0%	7,7%	5,7%	5,2%	5,8%	7,4%	7,4%	7,1%	7,3%	8,7%	9,4%	9,8%
	Self-employed	0,8%	0,8%	0,9%	1,3%	1,5%	1,4%	1,2%	1,4%	1,8%	2,3%	1,9%	2,5%	1,6%	2,5%	2,8%
	Not seeking employment	5,6%	6,6%	6,0%	7,4%	6,7%	10,5%	10,6%	11,2%	13,5%	12,0%	15,6%	15,5%	13,9%	19,6%	16,9%
	In continuing training	10,2%	10,5%	13,5%	13,7%	13,7%	7,9%	6,7%	9,7%	10,1%	10,0%	4,1%	3,4%	4,9%	4,2%	4,1%
	Total	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Total	Unemployed	8,2%	7,6%	12,3%	14,2%	9,0%	6,4%	6,2%	8,6%	9,5%	6,7%	6,1%	5,2%	7,3%	9,0%	6,8%
	Full-time employed	50,5%	53,3%	47,2%	41,4%	46,7%	58,6%	59,3%	53,4%	51,9%	53,9%	61,1%	60,5%	58,2%	54,7%	58,5%
	Employed with middle 'precarity'	16,9%	15,5%	15,1%	16,2%	17,2%	11,3%	12,4%	13,4%	11,1%	12,3%	10,8%	12,4%	12,2%	9,5%	9,6%
	Employed with high 'precarity'	9,8%	7,8%	6,7%	7,1%	7,3%	5,0%	4,1%	4,7%	5,2%	5,3%	4,3%	4,6%	5,2%	5,9%	6,2%
	Self-employed	1,2%	1,3%	1,4%	2,0%	1,9%	2,3%	2,7%	2,3%	2,9%	2,9%	3,4%	3,6%	3,2%	4,5%	4,3%
	Not seeking employment	3,6%	4,2%	3,9%	4,7%	4,3%	6,0%	5,8%	6,1%	7,5%	6,6%	8,8%	8,8%	7,6%	10,4%	9,0%
	In continuing training	9,8%	10,3%	13,5%	14,4%	13,6%	10,3%	9,5%	11,6%	11,9%	12,3%	5,4%	4,9%	6,3%	6,0%	5,5%
	Total	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Source: Microcensus 1999 - 2007; calculations by BIBB

experience the most difficulty in finding fully fledged employment during the first 3 years after completion of training. Those who had completed their training between 7 and 10 years ago were, however, also affected by a decrease in fully fledged employment arrangements since the turn of the millennium (from 61.1% in 1999 to 54.7% in 2006).

An overall consideration of the proportions of persons in precarious employment arrangements initially seems to suggest that the decrease in fully fledged employment arrangements is not reflected in a rise in the number of precarious employment contracts. There is even a decrease in the proportion of those who have completed training no more than 3 years ago entering highly precarious employment arrangements (from 9.8% in 1999 down to 6.7% in 2003). In the case of those who completed training longer ago, however, an increase in high precarity may be observed. Notwithstanding this, the relevant proportions of those who completed training between 4 and 10 years ago remain below the proportions of those who completed training up to 3 years ago. A contrary picture emerges if the precarious employment arrangements are considered separately according to gender. Whereas in the case of men there is a decrease in the proportions of employment arrangements with a high degree of precarity, at least up to 6 years after completion of training, accompanied by a simultaneous increase in employment arrangements with a medium degree of precarity, the employment arrangements of women develop in precisely the opposite direction. Since 1999, employment arrangements with a medium degree of precarity have been decreasing whilst those with a high level of precarity have been increasing.

The proportion of self-employed persons has been increasing slightly since 1999, although – as is to be expected – this tends to apply to persons who completed training some time ago. An increase in continuing training by both men and women has also been recorded since the turn of the millennium. This particularly applies to those who have completed dual training no longer than 6 years ago and may have been triggered by the increase in the proportions of persons unemployed and the decrease in fully fledged employment arrangements since 1999. Thus when labour market conditions are unfavourable, a compensatory function appears to be accorded to going down the route of further training or retraining.

Promotion of vocational training innovations via programmes and pilot initiatives

State funding programmes provide an incentive for the realisation of projects which are desirable in macroeconomic terms but would not be carried out to the required extent or at the required point in time if financial support were not in place. For this reason, public funding concentrates on specific areas and stakeholders within the vocational education and training system. The main focuses include the following in particular:

- the creation and securing of additional company-based training places;
- the strengthening of cooperative training;
- support for disadvantaged and disabled young people;
- placement in subsequent training for trainees whose company has become insolvent;
- placement of unplaced applicants from previous years and of training drop-outs;
- co-financing of inter-company vocational training centres and courses;
- co-financing of extra-company training provision;
- strengthening of training advisory services and acquisition;
- promotion of vocational orientation and preparation;
- provision of additional qualifications for trainees;
- the fostering of transnational training and
- the funding of pilot projects and innovative projects for the further development of the vocational education and training system.

Main thematic focuses of current pilot projects

The Federal Institute for Vocational Education and Training (BIBB) has been carrying out pilot projects and initiatives in accordance with the instructions of the Federal Ministry of Education and Research for over 30 years (pursuant to § 90 (3) Clause 1d of the Vocational Training Act, BBiG). In this time, BIBB has supported and boosted the development of vocational training. Innovative VET structural concepts are addressed and developed further and the successful transfer of these concepts takes place within a cooperative process involving a range of stakeholders. This pilot project approach is essentially characterised by a bottom-up principle and by participation.

Promotion of transparency, permeability and credit transfer

The promotion of transparency, permeability and recognition at and between the individual levels and subsystems within the (vocational) education system is an important innovative area in vocational education and training. Within the scope of regionally delimited pilot programmes and projects, attempts are ongoing to identify which instruments and procedures, which stakeholders and which prevailing general conditions will be of assistance in addressing these tasks in terms of intended educational policy. The objective underlying the way in which the educational system is structured has been an object of debate for many years and is exerting an effect on relationships between the relevant institutions and stakeholders and ultimately also on teaching and learning processes. In addition to this, transparency, permeability and credit transfer are important leading motifs within European (vocational) education policy and manifest themselves in such instruments as the European Qualifications Framework, national qualifications frameworks and credit point systems. The pilot initiatives ANKOM and DECVET presented below are innovation or even reform instruments at a European and national level which may have considerable implications for the vocational education and training system and for established structures. Whereas ANCOM focuses on the topics of transparency, permeability and credit transfer in the transitional area from vocational to higher education, DECVET concentrates on transition within the subareas of the VET system. Both initiatives exhibit a correlation in terms of conceptual approach and content.

Sustainability as an overarching category within vocational training

The aim of the “Decade of Education for Sustainable Development” (2005 – 2014) declared by the United Nations is for the model of sustainable development to be fully integrated into national educational systems. This project is being supported at a national level by the German Lower House of Parliament (Deutscher Bundestag 2009), which is calling for education for sustainable development to be integrated into vocational training and firmly established within national educational plans. The advisable approach for vocational training to adopt appears to be branch specific, regionally related implementation and differentiation of the various aspects of the sustainable development model. The aim is to develop opportunities to anchor the principles of sustainable development in work and employment structures, in the way in which processes and work are designed, in the acquisition and securing of skilled workers and in the competence development of management and training staff.

Vocational orientation in inter-company and comparable vocational training centres

This programme provides pupils in general schooling with an initial insight into various occupations, was launched on 1 April 2008. Over a period of 80 hours, participants are given an opportunity to test out their abilities and strengths in at least 3 occupational areas. Approximately 180 projects were funded in 2010.

International indicators – HE completion rates vs. attainment rates

The current developments and challenges of German vocational education and training need to be localised within a European and international context, and the indicators based reporting system adopted by the Data Report to accompany the Report on Vocational Education and Training needs to be extended to encompass reference to international indicators.

The annual “Education at a glance” report produced by the OECD provides a series of indicators which can be deployed for international comparisons of the performance of educational systems. Taking training for academics as an example, however, shows that lack of care in selecting indicators and a failure to take national institutional structures into account may lead to an inadequate picture of actual performance. In this way, the proportions of those completing a tertiary education qualification are normally picked out of the OECD report to serve as evidence for a supposed requirement for Germany to catch up in training for academics. In 2006, for example, only 21.2% of the typical age group in Germany had completed a training course in the tertiary sector. The average figure for OECD countries in this regard is 37.3%. Notwithstanding this, the proportions of higher education graduates in young birth cohorts are, in themselves, an unsuitable measure for determining whether the educational system can fulfil the requirements of the labour market. The use of so-called *attainment* rates is more appropriate to the purpose. In addition to this, differences in higher education graduate rates can also at least partially be explained by the particular characteristics of the German VET and labour market structure.

Higher education graduate rates vs. attainment rate

Higher education graduate rates measure the flow of persons with rather than the number of persons in possession of the relevant qualification. OECD average graduate rates may be distorted upwards because countries which are in the process of opening up the technological threshold may temporarily display higher graduate rates than nations which already have a high degree of average education at their disposal. As and when required, the latter are capable of maintaining and expanding their performance level and productivity with the assistance of lower graduate rates. For this reason, an international comparison of higher education graduate rates does not deliver any meaningful information as to whether the stock of human capital is at the required level or not. If, for example, consideration is undertaken of the proportion of persons with a tertiary educational qualification in certain age groups, it becomes apparent that Germany is above the OECD average with regard to the 45-54 and the 55-64 age groups. It is therefore clear that 20 years ago Germany enjoyed a lead over other countries with respect to the flow of highly qualified workers.

This means that the below average higher education graduate rates of the past 20 years could at least in part be interpretable as an adaptation phenomenon rather than merely as a step backwards. Precise information on the actual level of the stock of human capital is provided by the proportion of persons with a tertiary education qualification expressed as a percentage of the working age population, i.e. persons aged between 25 and 64. This so-called attainment rate is 24% in Germany as compared to an average of 27% for OECD countries. The worry that tertiary equivalent courses or advanced training courses may not be taken into account in calculating the German rate is unfounded. Within the scope of the Microcensus, the highest educational qualification gained is surveyed. The ISCED classification enables a good international comparison of the level. This means that although Germany is in actual fact below the OECD average, the difference is significantly narrower than the difference in the tertiary education graduate rates.

Particular characteristics of labour market structure and of the initial and advanced training system

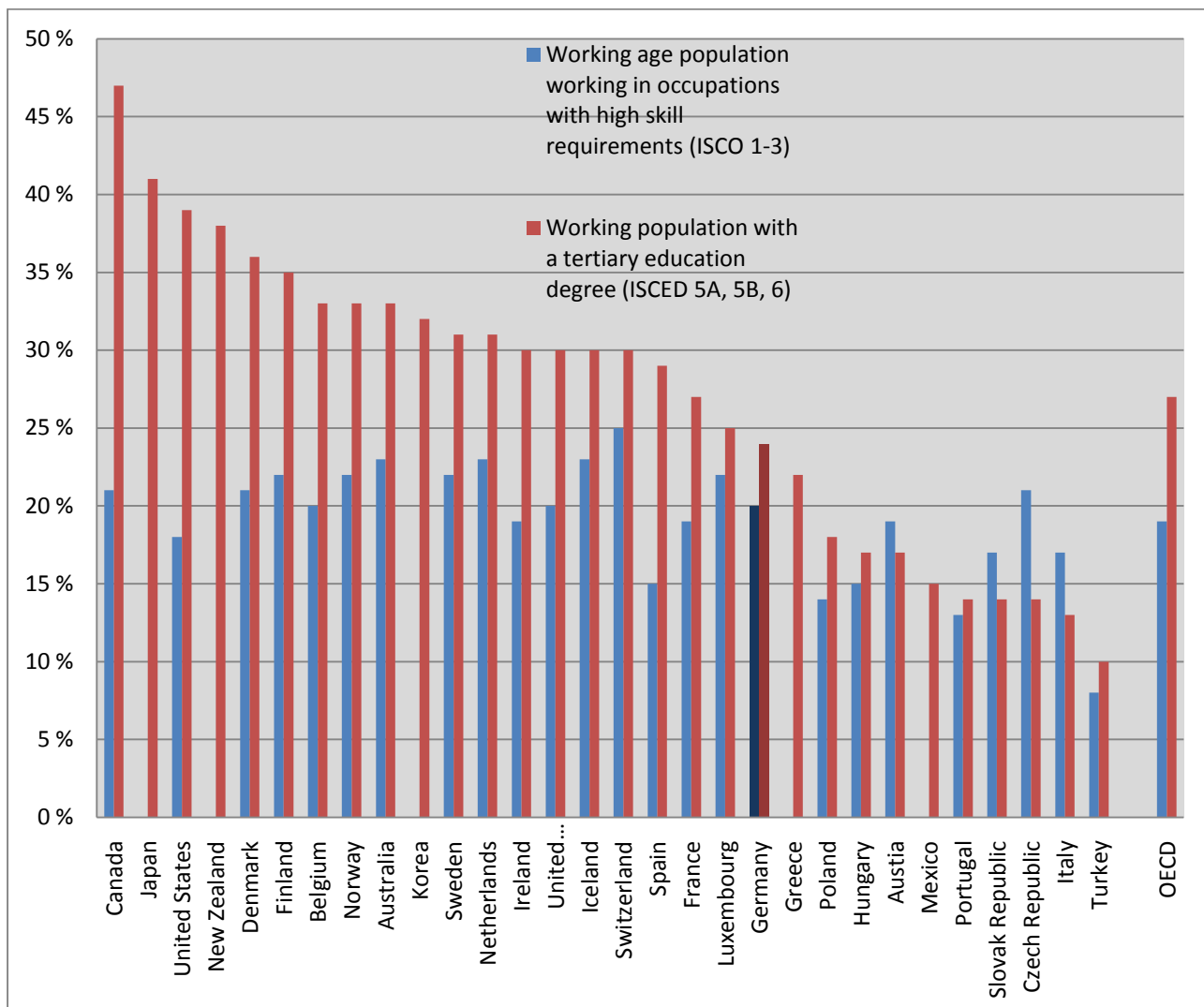
The deficit in the tertiary *attainment* rates can be partially explained by the German labour market structure. If we consider, for example, the proportion of jobs with a high requirements profile, Germany occupies a mid-table position amongst OECD countries. A comparatively low proportion of highly qualified jobs should not, however, be categorised as negative per se. It may be the expression of a macro-economic specialisation using its comparative advantages in international competition. An actual deficit would be indicated by a gap in coverage between positions with high skills requirements and the corresponding qualifications. (Figure 7) compares the number of highly qualified jobs (as defined by levels 1 to 3 of the International Standard Classification of Occupations, ISCO-88) per head of the population aged between 25 and 64 with the tertiary *attainment* rates in the same group of persons. Countries with a higher proportion of qualified jobs always display higher tertiary *attainment* rates. The bar chart suggests that the number of persons with a tertiary educational qualification exceeds the number of positions at ISCO levels 1 to 3 in most countries. It may be that a certain degree of over-supply is necessary due to frictions in the job matching process. The most noticeable factor is, however, that the variance in *attainment* rates is significantly higher than the variance in highly qualified jobs. This is an indication that countries have sufficient scope in the choice of their educational strategies to fulfil the requirements of the employment system.

The lower surplus in Germany as opposed to other countries can probably be explained by the fact that the German educational system also has practical occupational training courses in place to provide relevantly qualified staff. If the number of academics were too low to guarantee the filling of highly qualified positions, the expectation would be that it would be more probable compared to other countries that such positions would also actually be occupied by employees with a tertiary educational qualification. Although the proportion of workers in highly qualified positions with a theoretically oriented tertiary educational qualification (ISCED level 5A) is above average (89% as compared to the OECD mean of 85%), this level is not so high as necessarily to imply an emergency situation with regard to academic staff.

In addition to this, persons with a tertiary vocational qualification (ISCED level 5B) find it extraordinarily difficult to obtain an appropriate position in Germany. Only 59% of the working population in possession of such a qualification work in a job with high requirements compared to 69% of the OECD mean. Comparatively low levels are otherwise especially displayed by countries with high surpluses of academics and correspondingly high degrees of competition, such as Denmark (61%), Canada (48%), Ireland (50%) or Spain (37%). This indicates strong competition from those who have completed educational courses aligned at a lower level. Such a competitive pressure may be caused in Germany by such aspects as the strong post-secondary sector, for which the *attainment* rate of 7% is above the international average. This sector encompasses such persons as those with both an upper secondary school leaving certificate and a vocational education and training qualification, great numbers of whom may also be considered for jobs with a high requirements profile. The level of training quality in the secondary and post-secondary sector in Germany, which is higher in international comparative terms, could also contribute to the explanation of this phenomenon.

Naturally, an eye ought to be kept on graduate rates with a view to future development. Notwithstanding this, consideration needs to be accorded to the fact that, unlike in the case of the *attainment* rates, the OECD only includes in its calculations such graduates who were registered for the relevant educational course at an appropriate institution. Since this is not generally the case in respect of those completing tertiary equivalent advanced training courses such as master craftsman qualifications, certified senior clerk qualifications or other advanced courses pursuant to § 53 of the Vocational Training Act (BBiG), the deficit described is relativised provided that comparable underestimations abroad are less significant.

Figure 7: Employment on high levels (ISCO 1-3) and higher education graduates as a share of total population (25-64 year olds)



Source: OECD Education at a Glance, Paris 2008

In 2006, around 260,000 students completed a first degree at a German institute of higher education. At the same time, approximately 17,700 persons passed an examination as certified senior clerk at the competent bodies pursuant to § 71 of the Vocational Training Act (BBiG). About 8,900 persons successfully completed a master craftsman examination leading to a qualification as certified industrial or specialist foreman whereas 21,100 candidates achieved a master craftsman qualification in the craft trades. A further 30,200 persons passed other advanced commercial examinations (specialist commercial clerks, business economists, qualified skilled workers etc.) and 14,000 more were successful in other advanced commercial and technical examinations. To these must be added 4,500 advanced examinations not yet recorded by this system. If a simplified approach is adopted and if, as was the case with the higher education graduates, the same relevant age group is used as a basis of calculation, the rate within the tertiary sector increase by around 4 to 8 percentage points. Whereas the lower level merely encompasses successful master craftsman and certified senior clerk examinations, the upper limit extends to include all advanced examinations at a competent body within the meaning of § 71 BBiG (e.g. specialised data processing clerk, specialised office clerk, specialised multilingual office clerk and other advanced commercial or technical examinations). The assumption is that a

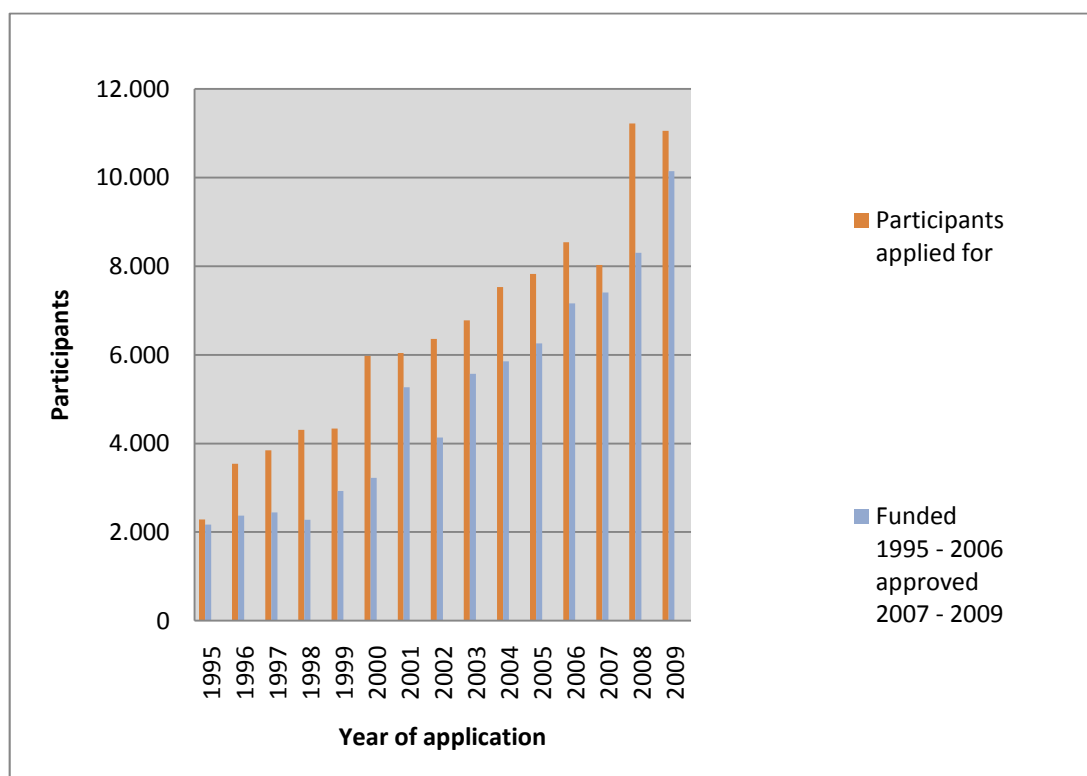
proper approximation of this effect lies somewhere between these two values, possibly tending to be closer to the lower limit. Correcting the graduation rate in this way would mean that it would be between 36 and 40 per cent.

Mobility

The Programme for Lifelong Learning (PLL) supports the educational policy objectives of the European Union. Within the scope of the PLL, the National Agency "Education for Europe" at BIBB is responsible for the implementation of the individual programmes LEONARDO DA VINCI and GRUNDTVIG. The central instrument of the PLL is project funding. A distinction needs to be drawn between the promotion of mobility abroad for young people in training, employees and training staff and between innovation transfer projects and partnerships.

Stays abroad, particularly longer-term visits, offer an outstanding opportunity to acquire international occupational competence. Knowledge of foreign languages, specialist international knowledge and intercultural knowledge are important foundations for internationally sustainable training. Compared to previous years, there has been a considerable increase in the number of stays abroad applied for within the LEONARDO DA VINCI Programme. In initial training alone, there has been a 40% rise compared to 2007 in the number of trainees and vocational school pupils completing part of their training abroad. 2009 saw the funding of the 100,000th German participant in the LEONARDO DA VINCI mobility campaign since the programme was launched in 1995 (Figure 8).

Figure 8: LEONARDO DA VINCI Mobility 1995- 2009, Target group Initial VET



Source: National Agency Education for Europe at the BIBB

In 2007, the "Innovation in Vocational Education and Training" Working Group (IKBB) recommended endeavouring to achieve the long-term competitiveness of employees and companies by doubling stays abroad in vocational education and training. In addition, a further intention is to increase the duration of foreign exchange measures funded from 6 weeks to 3 months with the aim of reaching an annual number of 5,000 such measures in VET by 2010. The current average duration of stays abroad undertaken within the scope of initial vocational education and training is 6 weeks. This means that significant increases have been recorded in respect of both key indicators compared to the previous year, representing important steps towards the achieving of the goal. The proportion of participants from the dual system has also risen considerably in recent years to reach 62%, approximately equal to the proportion of initial VET in Germany made up by the dual system.

For foreign training courses in VET in particular, the various project types and funding focuses tailored to respective training situations provided a suitable set of instruments to cover the different requirements of the companies providing training and of the institutions.