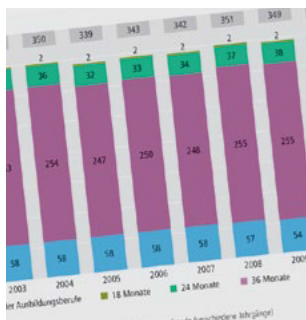
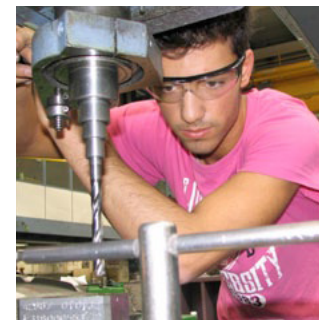
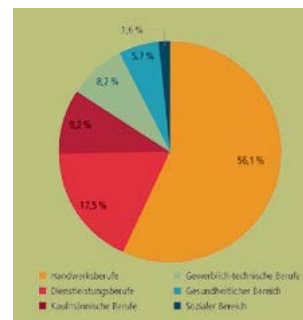
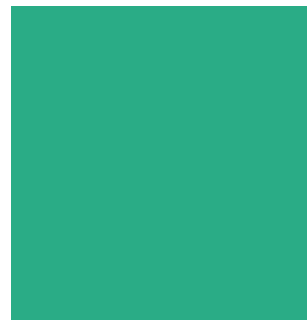
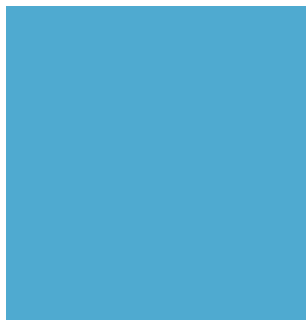


# VET Data Report Germany 2012

Facts and Analyses accompanying the Federal Report on  
Vocational Education and Training – Selected findings



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## Preface

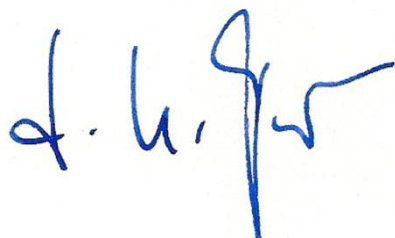


Up-to-date education reporting, presented in a structured manner, is an indispensable precondition for recognizing trends in the development of the VET system and for reacting to them adequately. Based on empirical data and social research analyses, the Data Report of the Federal Institute for Vocational Education and Training (BIBB) reports regularly and systematically on the current situation and the newest developments in vocational education and training. It thereby forms the data basis for the Report on Vocational Education and Training of the Federal Ministry of Education and Research (BMBF). Both the editing of the Report on Vocational Education and Training by the BMBF and the participation of the BIBB in preparing the Report on Vocational Education and Training are tasks regulated by law in the Vocational Training Act (§§ 86, 90).

This English version of the 2012 Data Report provides a selection of the main findings. The first two chapters present the current situation in initial vocational training and in continuing vocational training and highlight changes that have taken place over the course of time. Chapter 3 ('In focus') is on the different forms of transition from school into VET and is looking at the future of the 'transition system'. This theme is also addressed in the fourth chapter comparing the German situation to the situation in other European countries. The chapter finishes with data on mobility as part of VET.

The full text of the report in German as well as additional information is available on the Internet portal [www.bibb.de/datenreport](http://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](mailto:datenreport@bibb.de)).

A handwritten signature in blue ink, which appears to read "F. H. Esser". The signature is stylized and fluid.

Prof Dr Friedbert Hubert Esser

President



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## **1 Initial vocational education and training indicators**

The dual system is at the core of vocational education and training in Germany. It is based on the Vocational Training Act of 1969 (amended in 2005). It is the main pathway for the young generation into employment. Every young person who has completed full-time compulsory education can access dual vocational training. A characteristic of this educational path are two learning venues: the company and the part-time vocational school. The companies sign contracts with applicants under private law and train them in line with the binding provisions of the vocational training directives which guarantee a national standard. This is monitored by the 'competent bodies', mainly the chambers (of industry and commerce, crafts, agriculture, doctors, lawyers) but also by competent bodies in the public service or for the purview of the churches.

The dual system provides broad vocational training for 344 recognized training occupations (in 2012). The programs in the dual system usually take 3 years, some last 2 and some 3 ½ years. After completing their training in the dual system, the majority of participants then take up employment as a skilled worker. Later on, many of them make use of the opportunities for continuing vocational training. Outside the dual system there are also VET pathways in full-time vocational schools (for about 15% of the age cohort). The programs of these pathways take between 1 and 3 years, depending on the particular vocational orientation and objective.

### **Key facts in brief**

The number of training contracts newly concluded by September 20, 2011 was 570,140, which is a slight increase (by 1.8%) compared to the year before. While the number of new contracts increased significantly in West Germany, by 3.7%, in East Germany the downward trend of recent years continued. The number of new contracts fell by 7.8%. This decline, however, was almost exclusively due to the curtailment of non-company training places. Due to the continuing demographic decline, training opportunities further improved for young people both in West and in East Germany in 2011. This trend will continue.

The Federal Employment Agency registered about 76,700 unsuccessful apprenticeship applicants as of September 30, 2011. This shows that a significant number of interested young people can still not gain access to the dual system of vocational education and training. At the same time, about 35% of the companies could fill their training places only in part or not at all.

The analyses carried out by the BIBB show that people with migration backgrounds have less prospects of a successful transition from general education to vocational education and training. This also applies under otherwise identical conditions (e. g. school leaving certificates). Young people of Turkish or Arabic origin, in particular, have less good prospects of transition.

In the year 2010, according to the Vocational Education and Training Statistics, there were 1,508,328 young people in dual vocational education and training. Of this total, 1,252,665 were in West Germany and 287,478 in East Germany. The number has decreased by 4.0% compared to the previous year. Women are underrepresented at 39.8%. A majority of the training occupations are still taken up either primarily by women or primarily by men. Thus on the whole there is significant overall gender segregation to be observed.

At the end of 2009, according to the calculations of the BIBB, there were 145,075 trainees nationwide in some form of publicly funded non-company training. That was all in all 9.6% of all trainees. In the western states, the number of non-company training contracts decreased by 5.9%, and in the eastern states there was a massive decrease by 20.5%.

The training beginner rate, i.e. the mathematical proportion of the resident population starting training in the dual system for the first time, increased in 2010 from 53.5% to 54.9%.

Among the trainees with newly concluded training contracts as at December 31, 2010, 42.9% had intermediate school leaving certificates and 32.9% had completed lower secondary school. The proportion of people with university entrance qualifications was 21%.

In 2010, a total of 142,242 training contracts nationwide were dissolved prematurely. The dissolution rate was 23.0% which is a slight increase compared to the previous year (22.1%). It must be taken into account here that, as experience has shown, the dissolution rate usually tends to increase in times of a relaxing training place market.

The number of enterprises providing training declined in 2010. At the end of the reporting year, 468,800 enterprises participated in providing training. The training company rate declined by one percentage point to 22.5%. That is the lowest rate since 1999. This decline in the training company rate was, to a very large extent, due to developments in smaller enterprises.

According to the results of the IAB Establishment Panel survey the rate of trainee hiring, i.e. the rate at which successful graduates of vocational education and training are hired by the companies, was 61%. In the eastern states the hiring rates are considerably lower than in the western states.

The German Qualifications Framework Working Group has adopted a position regarding the implementation of the European Qualifications Framework (EQF) in a German Qualifications Framework (GQF). According to this position, all two-year initial VET occupations will be linked to Level 3 and all three-and-a-half-year training occupations to Level 4 in blanket terms. The certificates of master, specialised administrative assistant and technician are supposed to be linked to Level 6.

### **Newly concluded training contracts by area of responsibility**

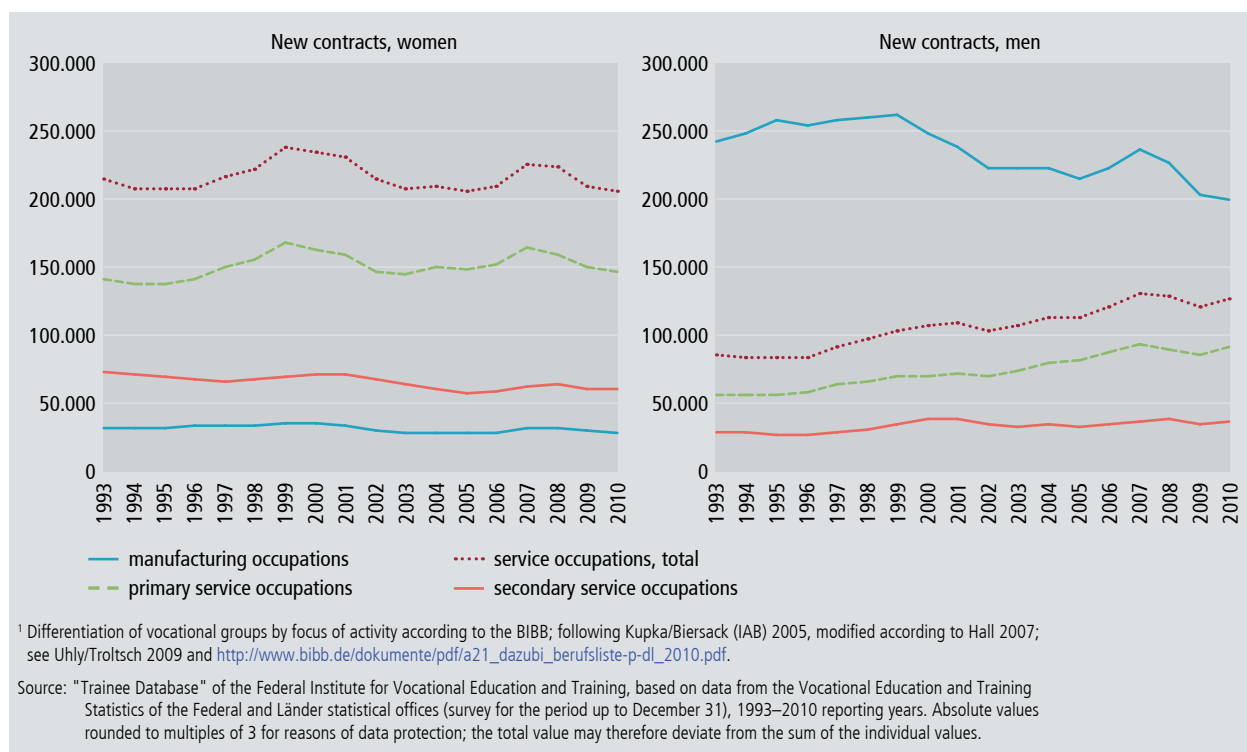
In comparison to the previous year, when we consider areas of responsibility nationwide, we see clear differences in the development of newly concluded training contracts (Table 1, Table2). Where as the manufacturing and commerce training sector registered a clear increase (+ 11,739 or + 3.5%), the number of new contracts in the crafts (+ 67 or + 0.0%) and the liberal professions (+ 171 or + 0.4%) remained about the same. In the public service training sector there was a considerable decrease (- 1,152 or 8.5%), and the number of new contracts was lower in 2011 than in the previous year in the agricultural (- 417 or 3.0%) and home economics (- 237 or 6.6%) sectors as well. Differentiating by regions, in East Germany less new training contracts were signed in 2011 than in 2010 in all sectors except maritime transport. In West Germany, however, there was an increase in the manufacturing and commerce, crafts, agriculture, liberal professions and maritime transport sectors, and it was especially noticeable in the manufacturing and commerce sector at plus 5.7% (+ 15,524).

## Tertiarisation of the dual system of vocational education and training (shift towards the service sector)

There has been a pronounced tertiarisation of the supply of training places in the dual system of vocational education and training in the past two decades. In 1994 the relationship between the places offered in the service and the manufacturing occupations was still balanced, but in 2011 110,700 more training places were offered in the service occupations than in the manufacturing occupations. In 2011, 56.3% of all training places offered were for occupations in the tertiary sector (Figure 1).

Among the total of 10 most populated training occupations in the dual system there are 6 primary service occupations, 2 secondary service occupations and 2 manufacturing occupations.

**Figure 1: Newly concluded training contracts in manufacturing and service occupations by gender, federal territory, 1993 to 2010**

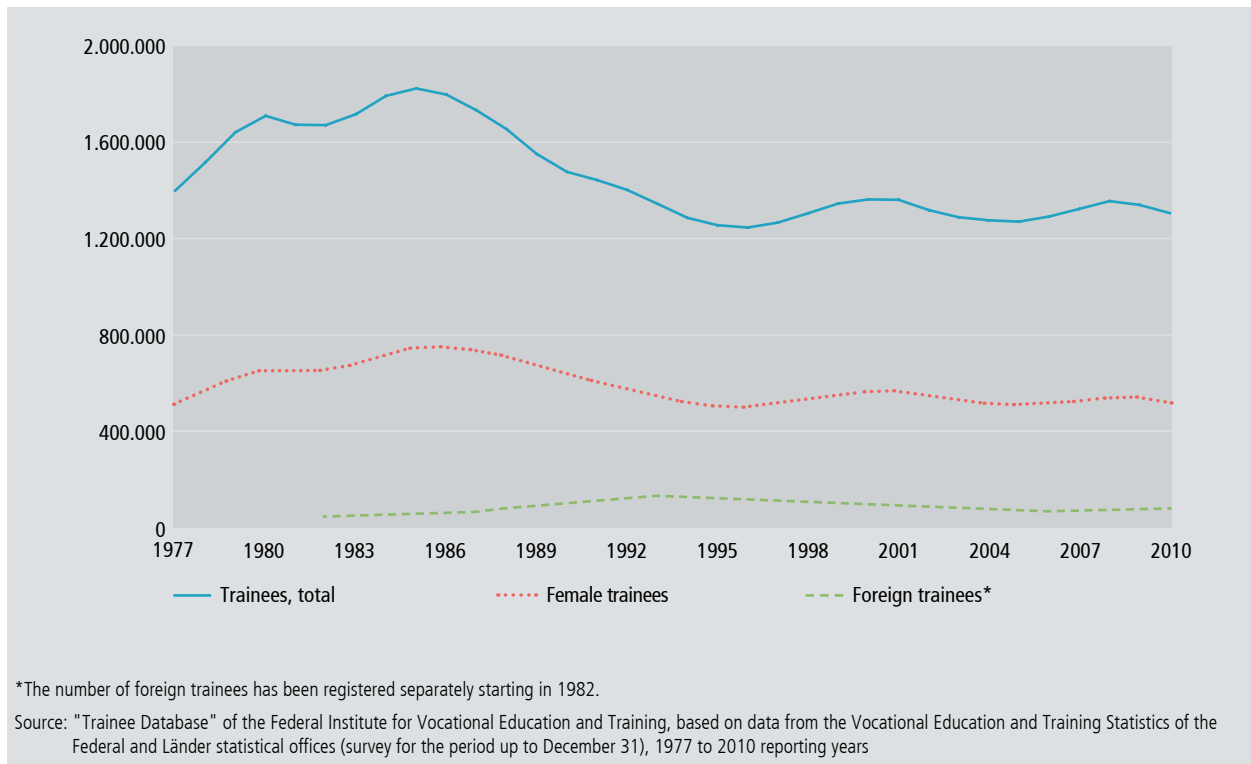




## Development of the number of trainees, 1977-2010 ("old federal states")

After reaching a high point in the middle of the eighties, the number of trainees in the old federal states declined; since 1992 it has varied between approx. 1.35 and 1.25 million. In the new federal states the number has varied between 320,000 and 250,000 in the same period – with an interim high in 1997 (Figure 2).

**Figure 2: Trainees in the old federal states, including Berlin, 1977 to 2010  
(West Berlin only before 1991)**



**Table 1: Development of the number of newly concluded training contracts by area of responsibility between 1992 and 2011**

	Results in the counting period from October 1 of the previous year to September 30																			2011 from 2010		
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	abso- lute	%
Germany																						
Industry and commerce	295.927	265.986	258.540	263.170	268.039	286.239	311.663	333.551	334.418	337.221	311.363	308.565	322.759	316.165	336.935	367.484	369.194	333.404	331.043	342.782	11.739	3,5
Crafts	192.491	203.939	215.107	219.245	215.148	211.571	212.382	210.550	199.482	188.464	173.888	165.783	168.290	157.025	162.604	179.698	170.069	155.582	155.178	155.245	67	0,0
Public service <sup>1,2</sup>	25.402	24.672	18.443	14.180	15.901	16.520	15.198	14.940	15.577	15.380	14.815	13.822	15.130	14.171	14.082	13.412	13.228	13.724	13.555	12.403	-1.152	-8,5
Agriculture	12.740	12.404	12.268	12.954	14.302	15.504	15.762	15.654	14.735	13.695	13.991	15.010	15.191	14.785	15.813	15.902	15.328	14.646	13.922	13.505	-417	-3,0
Liberal professions <sup>1</sup>	63.102	58.938	59.057	58.256	56.143	53.075	51.862	51.043	52.493	54.318	53.254	49.408	46.538	43.617	42.110	44.556	43.947	42.675	42.441	42.612	171	0,4
Home econo- mics <sup>1</sup>	5.377	4.035	4.535	4.828	4.645	4.460	5.506	5.118	4.848	5.026	4.830	4.899	4.876	4.119	4.320	4.474	4.271	3.997	3.582	3.345	-237	-6,6
Maritime transport	176	146	132	141	149	148	156	159	140	134	182	147	196	298	289	359	305	279	239	248	9	3,8
<b>total</b>	<b>595.215</b>	<b>570.120</b>	<b>568.082</b>	<b>572.774</b>	<b>574.327</b>	<b>587.517</b>	<b>612.529</b>	<b>631.015</b>	<b>621.693</b>	<b>614.238</b>	<b>572.323</b>	<b>557.634</b>	<b>572.980</b>	<b>550.180</b>	<b>576.153</b>	<b>625.885</b>	<b>616.342</b>	<b>564.307</b>	<b>559.960</b>	<b>570.140</b>	<b>10.180</b>	<b>1,8</b>
West Germany																						
Industry and commerce	239.334	213.998	195.985	200.120	200.908	216.719	234.868	250.545	255.997	258.693	237.339	234.092	246.836	244.095	259.002	289.372	296.933	271.025	273.904	289.428	15.524	5,7
Crafts	158.070	160.152	162.689	162.953	160.062	159.756	163.246	162.037	156.484	150.025	139.477	133.536	135.936	127.679	131.660	147.561	142.481	131.842	132.724	134.963	2.239	1,7
Public service <sup>1,2</sup>	19.830	19.009	13.254	10.817	11.919	12.352	11.483	11.486	11.710	11.521	11.214	10.606	11.432	10.951	10.765	10.145	10.149	10.562	10.697	9.892	-805	-7,5
Agriculture	10.171	9.544	9.512	9.330	10.374	11.037	11.050	10.719	10.177	9.221	9.492	10.061	10.395	10.095	10.974	11.357	11.173	11.133	10.668	10.772	104	1,0
Liberal professions <sup>1</sup>	54.375	51.410	50.729	49.588	47.880	44.986	44.228	43.880	45.182	47.173	46.467	43.127	40.669	38.377	36.770	39.018	38.678	37.537	37.418	37.864	446	1,2
Home econo- mics <sup>1</sup>	3.018	2.700	3.095	3.143	3.357	3.333	3.715	3.404	3.405	3.419	3.287	3.188	3.423	2.685	2.775	3.006	2.896	2.942	2.662	2.494	-168	-6,3
Maritime transport	156	146	124	131	148	140	142	142	127	131	150	137	185	280	269	328	294	268	224	232	8	3,6
<b>total</b>	<b>484.954</b>	<b>456.959</b>	<b>435.388</b>	<b>436.082</b>	<b>434.648</b>	<b>448.323</b>	<b>468.732</b>	<b>482.213</b>	<b>483.082</b>	<b>480.183</b>	<b>447.426</b>	<b>434.747</b>	<b>448.876</b>	<b>434.162</b>	<b>452.215</b>	<b>500.787</b>	<b>502.604</b>	<b>465.309</b>	<b>468.297</b>	<b>485.645</b>	<b>17.348</b>	<b>3,7</b>
East Germany																						
Industry and commerce	56.593	51.988	62.555	63.050	67.131	69.520	76.795	83.006	78.421	78.528	74.024	74.473	75.923	72.070	77.933	78.112	72.261	62.379	57.139	53.354	-3.785	-6,6
Crafts	34.421	43.787	52.418	56.292	55.086	51.815	49.136	48.513	42.998	38.439	34.411	32.247	32.354	29.346	30.944	32.137	27.588	23.740	22.454	20.282	-2.172	-9,7
Public service <sup>1,2</sup>	5.572	5.663	5.189	3.363	3.982	4.168	3.715	3.454	3.867	3.859	3.601	3.216	3.698	3.220	3.317	3.267	3.079	3.162	2.858	2.511	-347	-12,1
Agriculture	2.569	2.860	2.756	3.624	3.928	4.467	4.712	4.935	4.558	4.474	4.499	4.949	4.796	4.690	4.839	4.545	4.155	3.513	3.254	2.733	-521	-16,0
Liberal professions <sup>1</sup>	8.727	7.528	8.328	8.668	8.263	8.089	7.634	7.163	7.311	7.145	6.787	6.281	5.869	5.240	5.340	5.538	5.269	5.138	5.023	4.748	-275	-5,5
Home econo- mics <sup>1</sup>	2.359	1.335	1.440	1.685	1.288	1.127	1.791	1.714	1.443	1.607	1.543	1.711	1.453	1.434	1.545	1.468	1.375	1.055	920	851	-69	-7,5
Maritime transport	20	—	8	10	1	8	14	17	13	3	32	10	11	18	20	31	11	11	15	16	1	6,7
<b>total</b>	<b>110.261</b>	<b>113.161</b>	<b>132.694</b>	<b>136.692</b>	<b>139.679</b>	<b>139.194</b>	<b>143.797</b>	<b>148.802</b>	<b>138.611</b>	<b>134.055</b>	<b>124.897</b>	<b>122.887</b>	<b>124.104</b>	<b>116.018</b>	<b>123.938</b>	<b>125.098</b>	<b>113.738</b>	<b>98.998</b>	<b>91.663</b>	<b>84.495</b>	<b>-7.168</b>	<b>-7,8</b>

<sup>1</sup> Excluding newly concluded training contracts in the responsibility of other competent bodies (Chambers).

<sup>2</sup> Excluding training for a career in the civil service

Source: Federal Institute for Vocational Education and Training, data collected for the period up to September 30

**Table 2: Development of the number of training places offered from 1994 to 2011 by occupational group**

BKZ	Occupation group	Supply of training places (newly concluded training contracts plus unfilled training places as reported by September 30)																		Changes 2011 from 2010	
		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	absolute	in %
01-06	plant cultivation, stockbreeding, fishing	16.348	17.568	18.966	19.570	19.443	19.457	18.238	17.737	17.433	17.781	18.572	15.785	16.843	16.911	16.098	15.278	14.520	13.964	-556	-3,8
07-08	mining, stone cutting	198	338	285	222	209	172	146	126	154	160	181	213	210	171	198	205	170	165	-5	-2,9
10-11	stone processing, construction materials production	1.613	1.635	1.648	1.649	1.583	1.376	1.354	1.159	1.030	1.039	1.144	977	978	932	927	769	828	953	125	15,1
12-13	pottery, glassmaking	624	658	654	701	684	644	689	696	610	563	621	619	632	715	725	562	586	641	55	9,4
14-15	chemistry work, plastics processing	3.072	3.468	3.701	3.980	4.437	4.354	4.509	4.631	4.346	4.591	4.690	4.509	4.804	5.396	5.384	4.333	4.693	5.366	673	14,3
16	paper manufacturing and processing	580	657	728	767	790	792	902	914	754	796	784	545	753	834	749	653	698	741	43	6,2
17	printing	3.860	3.817	4.072	4.685	5.710	6.485	7.629	7.828	6.418	5.799	5.969	5.621	6.195	6.699	6.860	5.545	5.484	5.668	184	3,4
18	wood processing and related occupations	568	601	565	605	556	498	545	414	373	393	410	377	420	440	358	257	291	282	-9	-3,1
19-30, 32	metal working	106.604	107.191	105.515	104.039	107.012	105.596	103.136	103.227	96.157	94.489	94.800	86.685	90.766	101.507	100.524	86.083	84.349	91.290	6.941	8,2
31	electrical work	38.617	37.882	35.972	35.422	37.689	39.447	39.692	40.411	37.108	34.109	33.363	32.282	32.769	35.939	37.365	33.249	33.321	36.240	2.919	8,8
33-37	textile, clothing, leather occupations	5.868	5.221	5.124	4.993	4.774	4.798	4.369	4.254	3.653	3.346	3.119	2.083	2.371	2.597	2.296	1.964	2.001	2.063	62	3,1
39-43	food processing	30.724	29.685	31.349	32.380	33.404	34.621	34.446	33.988	32.531	32.651	33.970	31.040	32.536	33.323	30.886	28.795	28.153	25.946	-2.207	-7,8
44-51	construction and related occupations, including joiner	102.377	103.785	95.012	88.855	87.656	86.515	77.910	68.578	60.818	57.317	57.042	47.305	50.635	55.787	51.221	47.163	47.545	47.439	-106	-0,2
52-55	goods inspection and shipping, machine operation	1.450	1.786	1.852	2.055	2.256	2.648	2.689	2.764	2.914	3.438	10.054	12.296	7.771	10.277	10.629	9.642	10.186	10.418	232	2,3
62-64	technical occupations	13.880	13.739	12.757	12.321	12.270	11.795	11.022	10.867	9.807	9.540	9.483	8.516	8.857	9.586	9.943	8.817	8.472	9.538	1.066	12,6
66-70	goods and service specialists	115.951	111.511	111.944	116.544	123.094	131.282	130.304	127.518	117.297	112.660	118.632	119.153	128.149	139.423	140.253	133.093	134.130	143.102	8.972	6,7
71-74	transport occupations	4.960	4.709	5.965	7.248	7.360	7.330	7.745	8.299	8.149	8.961	4.640	3.964	11.566	14.680	15.322	13.690	16.079	18.487	2.408	15,0
75-78	organisation, administration, office occupations	89.104	89.282	90.835	96.510	101.151	107.946	110.387	111.299	101.207	97.936	99.794	93.752	95.498	100.997	100.430	92.028	92.464	95.025	2.561	2,8
79-87	security occupations, artistic occupations, health service, social and teaching occupations	40.265	39.814	38.228	35.862	36.368	35.951	37.971	39.610	38.770	36.675	35.405	34.439	34.197	37.097	37.412	36.047	36.526	36.753	227	0,6
90-93	body care, hospitality, home economics, cleaning occupations	45.568	43.639	44.106	44.972	49.487	52.749	53.702	54.450	50.796	50.229	53.700	50.900	54.061	58.826	56.248	51.411	47.118	44.357	-2.761	-5,9
98-99	remaining occupations	0	0	0	0	0	0	0	0	0	0	0	11.755	11.543	12.107	12.021	11.978	11.951	11.391	-560	-4,7
of which	<b>Total</b>	<b>622.234</b>	<b>616.988</b>	<b>609.274</b>	<b>613.381</b>	<b>635.933</b>	<b>654.454</b>	<b>647.383</b>	<b>638.773</b>	<b>590.328</b>	<b>572.474</b>	<b>586.358</b>	<b>562.816</b>	<b>591.554</b>	<b>644.244</b>	<b>635.849</b>	<b>581.562</b>	<b>579.565</b>	<b>599.829</b>	<b>20.264</b>	<b>3,5</b>
	manufacturing occupation (10–55)	295.958	296.387	286.189	280.131	286.550	287.773	277.869	268.864	246.714	238.532	245.966	224.339	230.630	254.446	247.924	219.015	218.135	227.047	8.912	4,1
	service occupations (66–93)	295.849	288.956	291.077	301.137	317.461	335.257	340.108	341.177	316.220	306.461	312.172	302.208	323.471	351.023	349.665	326.269	326.317	337.724	11.407	3,5
	other occupations (01–09, 60–63, 98–99)	30.427	31.645	32.008	32.113	31.922	31.424	29.406	28.730	27.395	27.481	28.236	36.269	37.453	38.775	38.260	36.278	35.113	35.058	-55	-0,2

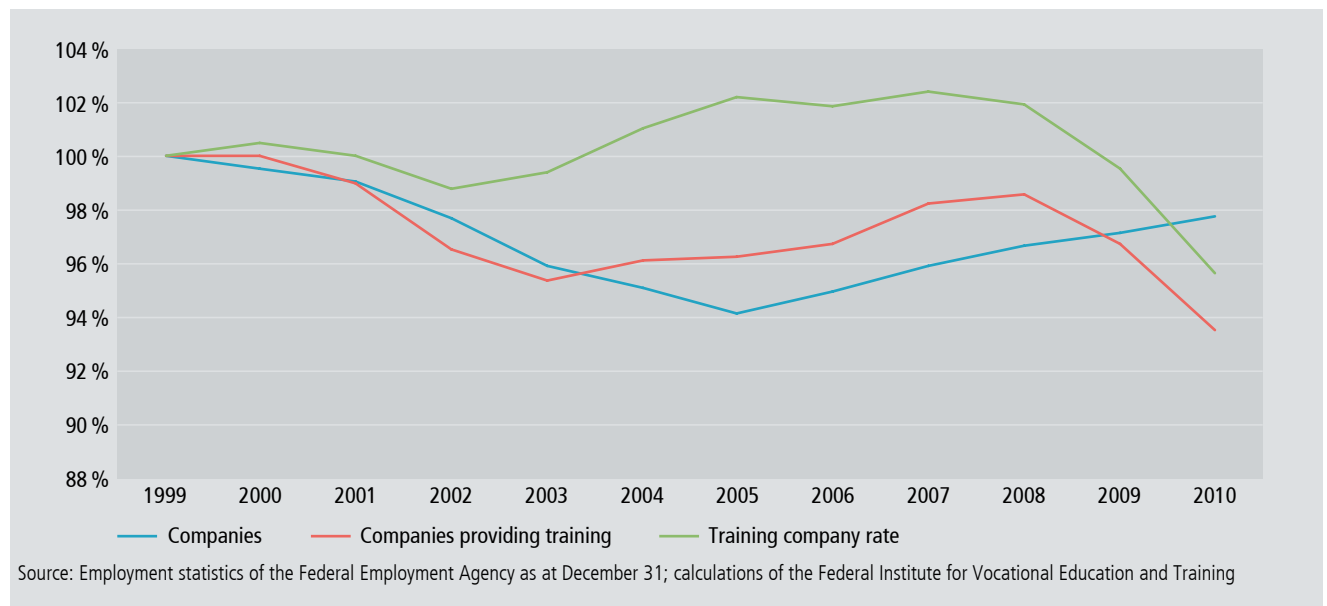
The supply structure from 1994 to 2005 was estimated using the training market data of the Federal Statistical Office as at December 31. – The vocational groups 66–93 according to the 1992 occupation classification of the Federal Statistical Office are grouped here as service occupations. The manufacturing occupations comprise the vocational groups 10–55. The other occupations include the technical occupations (62–64), the plant cultivation, stockbreeding and fishing occupations (01–06), the mining and stone cutting occupations (07–08) and not clearly assignable occupations (98–99).

Sources: Federal Employment Agency; Federal Statistical Office; Federal Institute for Vocational Education and Training; calculations of the BIBB

### Participation of companies in vocational education and training (training company rate)

Participation of companies in providing training decreased in 2010 (Figure 3). Of the approximately 2.1 million companies nationwide with at least one employment relationship subject to social insurance, 468,800 were engaged in vocational training at the end of the reporting year. The number of enterprises providing training was about 16,100 less than the 2009 figure, a decrease of about 3.3%. At the same time the total number of enterprises in German economy increased by about 12,600 or 0.6%, so that the training company rate decreased by one percentage point to 22.5% in 2010. The decrease was smallest (0.4%) among the enterprises with 250 and more persons employed, and greatest (2.5%) among enterprises employing 50-249 persons.

**Figure 3: Development of the participation of companies in providing training in Germany between 1999 and 2010 (base year 1999 = 100%)**

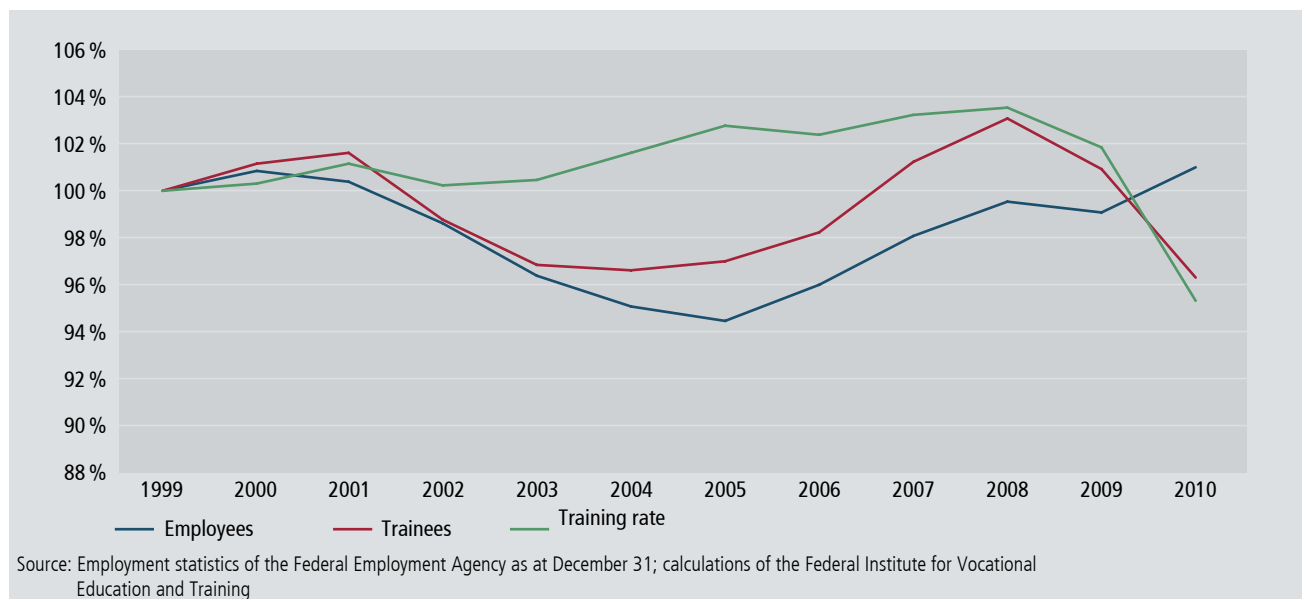


Not all enterprises are authorised to train young people. An enterprise obtains training authorization under the Vocational Training Act (BBiG) only if "the type and outfitting of the training institution makes it suitable for vocational education and training and if the relationship between the number of trainees and the number of training places or the number of skilled workers employed is appropriate" (§ 27 BBiG). The aptitude of the trainer is also important, and there is the possibility of cooperative training with other enterprises (training alliance). Most of the large-scale enterprises are authorised to provide training; the rate among micro-enterprises is approx. 50%.

## Training and occupation (training rate)

There was a noticeably sharp decrease in the proportion of trainees to all employees subject to social insurance in 2010 (Figure 4). The number of trainees fell by about 81,400 (- 4.6%) to approximately 1.7 million from 2009 to 2010. The decrease in the number of trainees contrasts with a substantial increase in the number of persons employed. The total number of employees subject to social security increased over 2009 by about 545,900 to 28.0 million, an increase of 2.0%. The training rate thus fell by about 0.4 percentage points from 2009 to approximately 6.0%. Reasons are e.g. the demographic development and an increase of employed persons with part time contracts.

**Figure 4: Development of training and employment in Germany between 1999 and 2010  
(base year 1999 = 100%)**



Not all trainees are employed by the training enterprises after they complete their training, which means that enterprises train more than they need. In large enterprises there is a better chance (75%) of continued employment than in small enterprises (barely 50%), and in the west of Germany there is a better chance (at least 60%) than in the east (at least 50%).

## Structure and number of recognized training occupations pursuant to BBiG / HwO

The number of recognized training occupations pursuant to BBiG (Berufsbildungsgesetz, Vocational Training Act) and HwO (Handwerksordnung, Trades and Crafts Ordinance) has hardly changed in the last 10 years. In the period from 2002 to 2011 the number sank from 349 to 344, while at the same time 171 were modernized and 43 were restructured. With regard to the structural models of the training occupations there were hardly any quantitative changes. The number of mono-occupations (training without specialization) remained almost unchanged; it amounted to 267 in the year 2002 and 262 in the year 2011. The number of training occupations with internal differentiation (fields of study or focal points) remained the same – with the exception of a few years with slight deviations – from 2002 to 2011 (82 training occupations). Their share in the total number of training occupations remains constant at approximately 24%. The number of training occupations with optional qualifications rose to 25. For a number of training occupations there is the possibility of accreditation of learning performance from one qualification to another. The number of training occupations that can be accredited to other courses of vocational training doubled from 2002 (12 training occupations)

to 2011 (24 training occupations). In the same period the number of training occupations to which credit from other training occupations can be assigned rose from 25 (2002) to 65 (2011).

### **Financing and costs of training**

Total **public expenditure** for vocational education and training in 2010 amounted to approx. €13 billion, although this figure also included some support for continuing education and training. Part-time vocational schools received €3.1 billion, full-time vocational schools providing full initial vocational training approx. €2.25 billion.

The in-company part of the dual system of vocational education and training is funded by **contributions from the training enterprises** in the private sector and in the public service. According to calculations based on a representative survey for the year 2007, the gross costs, that is the costs of training without consideration of the training yields, amounted to approx. €23.8 billion, or approx. €15,300 per trainee and year. The net costs amounted to €5.6 billion, at approx. €3,600 per trainee and year, although the net costs too are counterbalanced by returns that are difficult to quantify, such as savings on recruitment costs or an image improvement. The more productive deployment of the trainees in the enterprises sharply reduced the net costs in recent years.

### **Training personnel in in-company training**

Under the statutory provisions, only persons who are suitable both personally and professionally are allowed to provide training in the dual system of education and training. Professional suitability includes both the skills, knowledge and capabilities required for the occupation concerned and the relevant professional and pedagogical qualifications. As a rule, only those who are responsible for the planning and carrying out of training must demonstrate their professional and pedagogical aptitude. The companies register these employees with the competent authorities. Of the training staff registered as responsible, however, only a minority (about 10%) are concerned exclusively with this task. The vast majority provide training as a sideline. In the year 2010 a total of 675,198 persons were registered as trainers in the training sectors of manufacturing and commerce, crafts, agriculture, public service, liberal professions and home economics in Germany.

### **Supply and demand of qualifications up to the year 2030**

According to calculations by the Federal Institute for Vocational Education and Training (BIBB) and the Institute for Employment Research (IAB)<sup>1</sup>, the labour supply will increasingly decline more sharply than the labour demand owing to the demographic development (Figure 5).

The supply of persons who have completed initial vocational education and training will decline owing mostly to demographic factors and – provided there is no change in behaviour on the labour demand side – would be no longer able to meet the demand by about 2030. Even before that time, at this level of qualifications, we will face a rapidly increasing skilled manpower bottleneck is to be expected, mostly because the supply will increasingly not correspond to the demand in terms of the field of training. The demand for skilled labour will decline only slightly owing to the wage increases attainable as a result of the bottlenecks in the labour market.

In the tertiary education sector, both supply and demand will continue to increase – they are closely matched today. The expected demand for university graduates consists of approximately equal parts

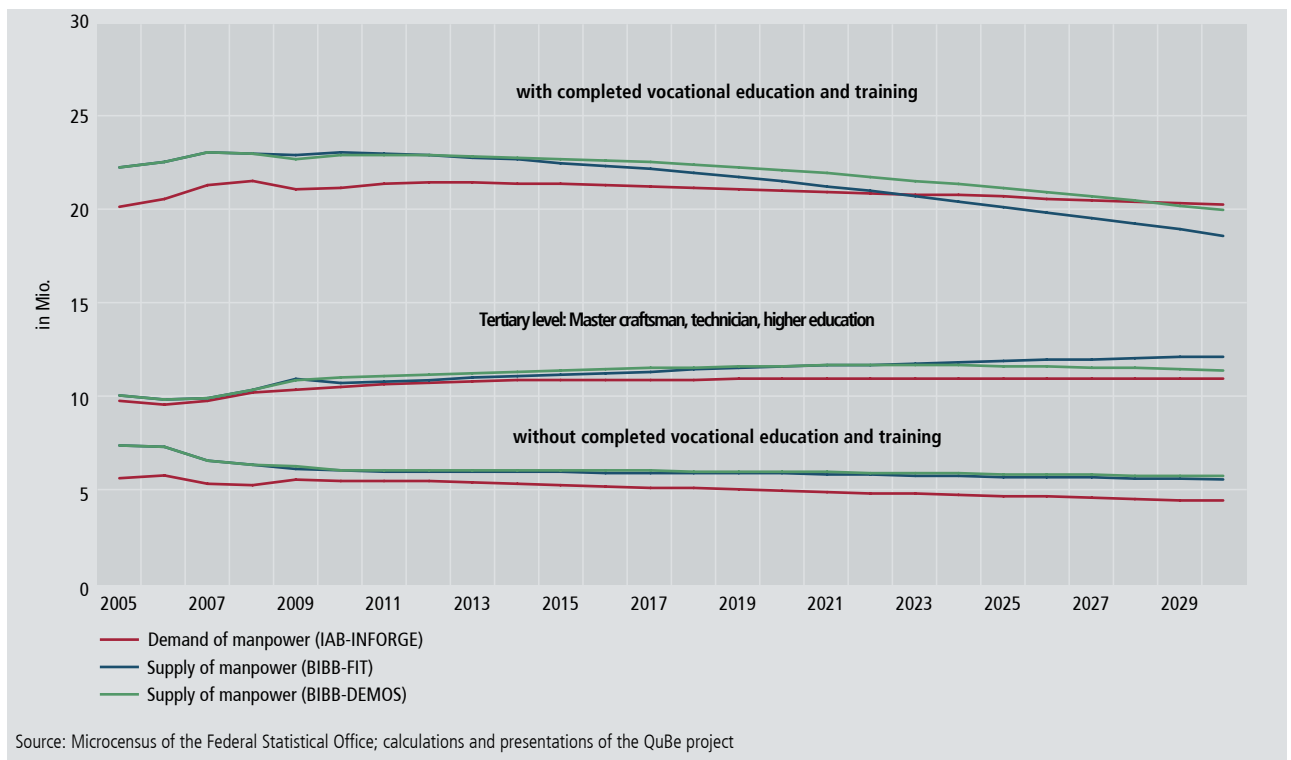
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<sup>1</sup> Helmrich et al. (2012): Shortages on the labour market: Changes in education and employment behaviour will mitigate shortages of skilled workers. New findings from the BIBB-IAB qualifications and occupational-field projections for the period up to the year 2030. Federal Institute for Vocational Education and Training (eds.), BIBB Report 6 (2012) 18. Bielefeld 2012

of replacement requirements and the new requirements resulting from structural change in the economy. The replacement requirements will grow sharply starting at the end of the second decade (from 2020 onwards) due to the retirement of the baby-boomer generation. The expected slight oversupply of university graduates is the result of the current trend towards more academic degrees. The company demand is also increasing, but not to the same extent. This applies in particular to bachelor's degrees. Empirically, however, there is so far not sufficient information about their chances and their prospects on the labour market.

The demand for workers who have not completed initial vocational training will decline somewhat. The proportion of young people who remain without vocational training certificates ("unskilled", not formally qualified), has been around 15% for many years with slight fluctuations. The corresponding supply could decline slowly owing to early intervention or second-chance qualification, but presumably more slowly than the demand. This group of persons will therefore not find any better employment opportunities in the labour market in the future either.

**Figure 5: Demand and supply of manpower by qualification level, in millions, 2005 to 2030**



## 2 Continuing vocational education and training indicators

**Continuing education** is understood to be the continuation or resumption of organised learning following completion of an initial phase of education of varying scope. In addition to continuing vocational education/training (CVET), this includes continuing general and political education, which is subsumed under the heading of “adult education”. The field of **CVET** in Germany is characterized by: a pluralism of providers, a largely market character, and a comparatively minimal degree of regulation. Continuing vocational training is divided into three parts: regulated continuing training, in-company training and individual continuing training. But only a small part of provision leads to a formal vocational qualification.

Publicly promoted **CVET** is targeted at various groups, from unemployed people with no school leaving certificate or without vocational qualifications to executives. The aims, content and duration of courses vary accordingly. Only some of the courses are designed to lead to qualifications which are recognised by law or awarded by industry's self-governing organisations (Chambers). Courses leading to **advanced vocational qualifications**, i.e. a *Meisterbrief* or another diploma, e.g. from a *Fachschule* (trade and technical schools and master's schools) are classified as ISCED 5B or EQF level 6 respectively.

### Key facts in brief

Data from the Adult Education Survey (AES) on the **continuing training of employed persons** in the years 2007 and 2010 show a decline in the rates of participation in job-related continuing education and training for Germany as a whole as well as for West and East Germany. The decreases applied to both company and individual job-related continuing education and training.

The continuing education and training rate for **women** (33%) was lower than for **men** (38%). The different participation rate of men and women is observed only in the case of company training, not in that of individual training.

If we compare the participation in continuing education and training of Germans without and with a **migration background** and of non-Germans, we note that the participation rates for Germans with a migration background and for non-Germans are considerably lower.

The more advanced the **school or vocational certificate**, the greater the probability of participation in continuing education and training.

According to data from the IAB Establishment Panel, 44% of **enterprises** participated in the **financing** of continuing vocational education and training courses in 2010. The participation depends to a great extent on the size of the company and is traditionally considerably higher in large enterprises than in small and medium-sized enterprises. According to the findings of the Institute for Employment Research (IAB, Institut für Arbeitsmarkt- und Berufsforschung), company continuing education and training activity fell off slightly last year.

According to data of the BIBB qualification panel, **participation in continuing education and training** is considerably greater in companies providing training than in companies not providing training. This difference remains even when the enterprises are differentiated according to various selected structural features.

In 2010 the number of **further training examinations** was approximately 110,000. In the crafts the number of examinations increased by approximately 8,500 in relation to the previous year, while in the field of manufacturing and commerce it decreased by approx. 5,300.



The 2011 survey of the Continuing Education and Training Monitor shows that the **business climate** in continuing education and training greatly depends on the source of funding. Whereas the business climate has attained clearly negative values among continuing education providers that are funded primarily by the employment agencies, it is developing positively among providers funded by enterprises.

The continuing vocational education and training **courses offered by the adult education centres** amounted to 70,800 nationwide in 2010, less than in the previous year. The programme area “work/occupation” accounted for 12.3% of the courses at adult education centres overall.

In the year 2010 there were approximately 486,000 admissions to **measures to promote continuing vocational education and training** pursuant to SGB III and SGB II (Social Code). A decrease of more than one fifth was recorded in relation to the previous year. The average attendance for the year amounted to 188,782 and was only a scant 5% less than in the previous year.

In the year 2009, 166,395 persons received assistance under the **Upgrading Training Assistance Act**. That was an increase of 5.6% over the previous year. Of those persons, 39% completed a full-time measure and 61% a part-time measure.

Overall, there are currently 218 **federal regulations** covering continuing vocational training and retraining. Of these statutory instruments, 91 apply to master craftsman examinations.

In the 2008/2009 school year there were 47,757 graduates who had passed their final examination at **technical schools**.

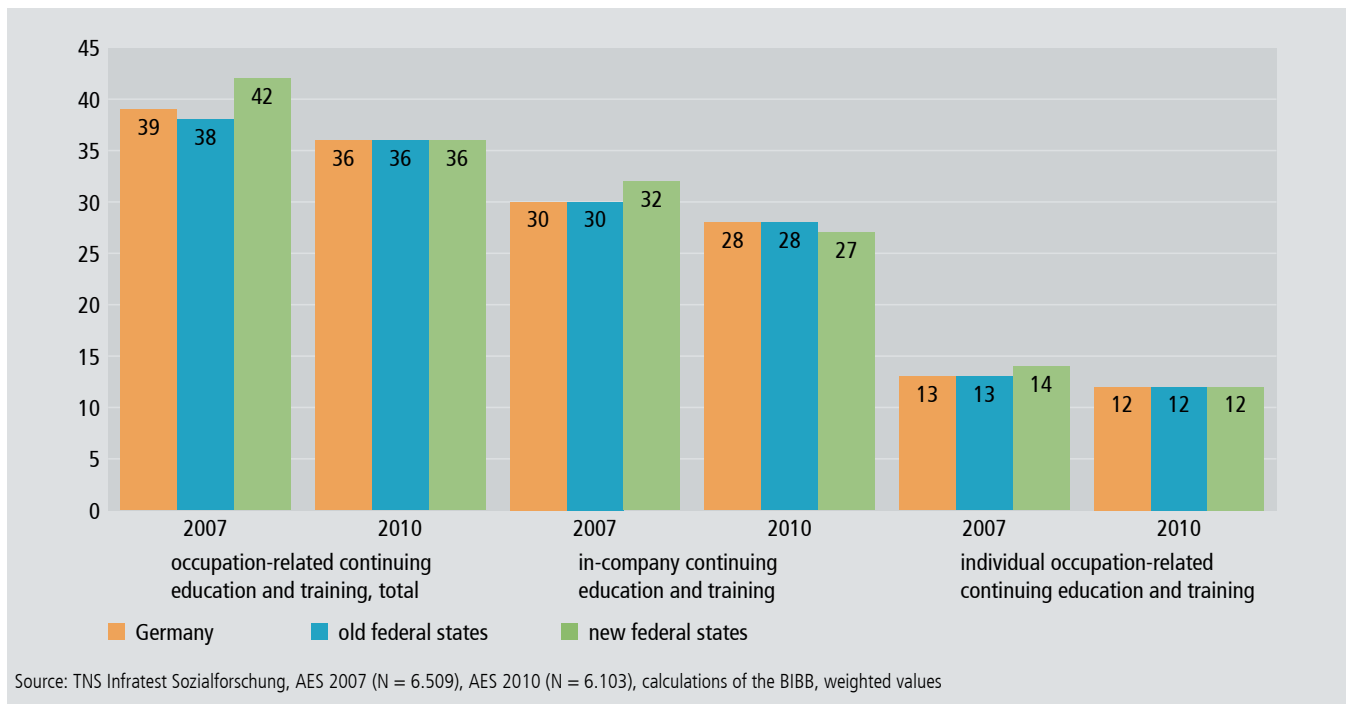
Public expenditure for continuing vocational education and training in 2010 was approx. €7 billion.

### **Participation of the population in occupation-related continuing education and training**

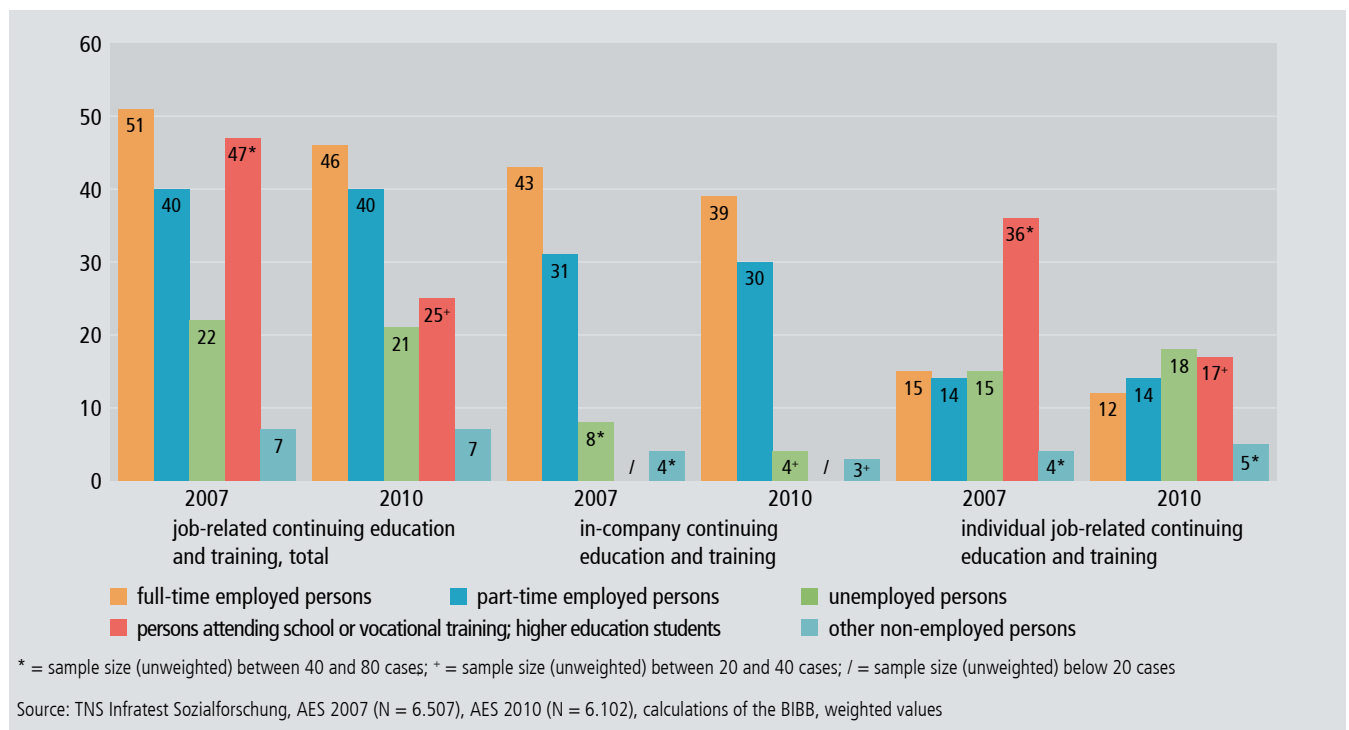
In the political discussion, continuing education and training is considered of great value for the acquisition and maintenance of skills and competence by an aging working population in times of rapid change in the world of work and its requirements. A distinction is drawn between in-company and individually organized occupation-related continuing education and training (Figures 6, 7).

A total of 39% of the population aged 25 to 64 attended at least one occupation-related continuing education and training measure in 2007. By 2010, attendance had declined to 36%. The level of attendance of **in-company** continuing education and training, with attendance rates of 30% and 28%, was considerably higher than that of **individual** job-related continuing education and training (13% and 12%). To a large extent occupation-related continuing education and training serves to meet an acute need and is therefore supported by the company.

**Figure 6: Rates of participation in occupation-related continuing education and training by regions, 2007 and 2010 (in %)**



**Figure 7: Rates of participation in occupation-related continuing education and training by employment status, 2007 and 2010 (in %)**

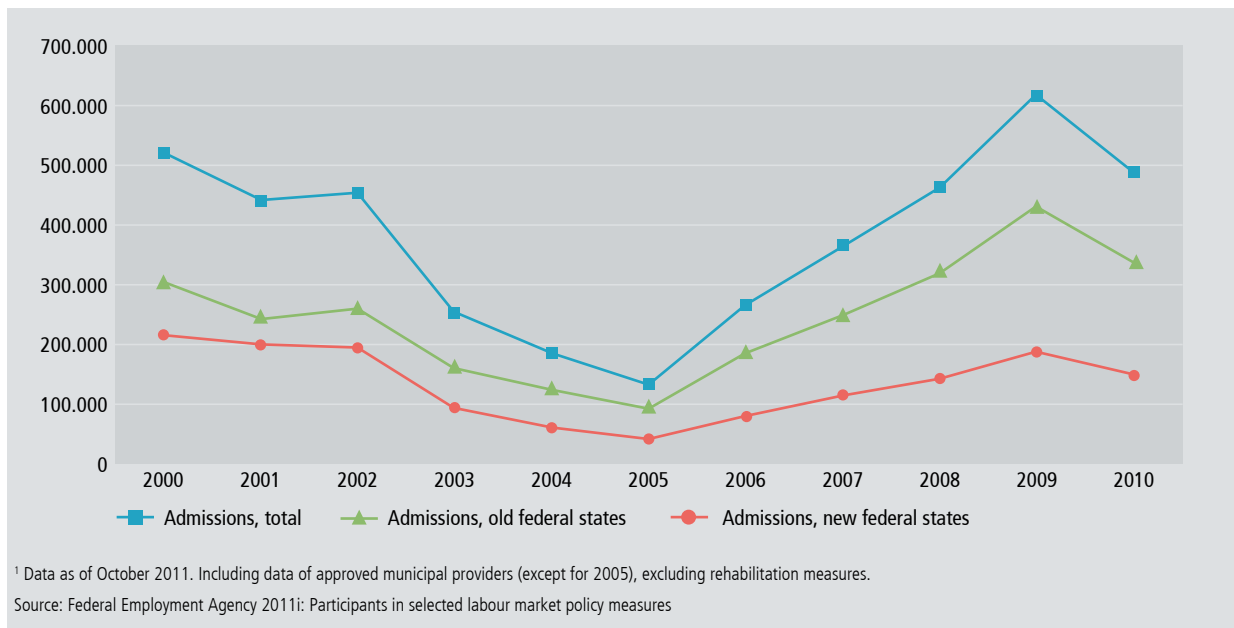


### **Continuing education and training measures supported by the Federal Employment Agency (SGB III and SGB II)**

Qualification acquisition in the context of labour market policy instruments is supported by the Employment Agencies under Book Three of the Social Code (SGB III). Support by the job centres for employable persons requiring assistance is provided under Book Two of the Social Code (SGB II). Among the labour market policy instruments that make qualification possible for people within the jurisdiction of SGB II and SGB III are continuing vocational education and training, continuing vocational education and training for persons with disabilities and ESF-financed qualification programme while on short-time work. The Federal Employment Agency supports continuing vocational education and training of workers when it is necessary to integrate unemployed persons into the labour market, to ward off the concrete threat of unemployment or because it is recognized that continuing education and training is needed owing to the lack of a vocational qualification. Consideration is given to whether the unemployment could be ended without continuing education and training, whether other labour market policy instruments are more promising and whether attaining the education goal will make integration into the labour market probable. If the conditions for assistance are present, an education voucher to cover the cost of continuing education and training is issued. The education voucher can have a time limit and be limited to a given region and to certain education goals and applies to the relevant certified courses.

In the last few years, initially between 2000 and 2005, support for continuing vocational education and training has been curtailed through redirecting funds in the context of the regional labour market programmes (Figure 8). In addition, training measures have increasingly been used as one of the services to improve qualifications. The decrease in measures continued at a slower rate up to the year 2005. Starting in 2006, support for continuing vocational education and training was increased again and reached its high point in 2009, only to fall off once again in 2010. In 2010 there were a total of 586,453 admissions to qualifying courses of the Federal Employment Agency, of which 486,795 were to continuing vocational education and training, 23,609 to continuing vocational education and training for persons with disabilities, 10,050 to aptitude testing and training measures and 65,981 to ESF qualification while on short-time work. The proportion of measures leading to a certificate in a recognized training occupation continued to rise (to 52,100 or by a good 10%).

**Figure 8: Admissions to courses of continuing vocational education and training under SGB III and SGB II between 2000 and 2010<sup>1</sup>**



### Upgrading Training Assistance Act (AFBG)

The Upgrading Training Assistance Act (AFBG), funded jointly by the federal and state governments and in existence since 1996 – the so-called "Meister-BAföG" – establishes an individual legal claim to support for upgrading vocational training, that is, master's courses or other training leading to the acquisition of an equivalent further training certificate. Compared to 2009 the number of approved grants increased to 166.395 (5.6%) in 2010 (Figure 9).

**Figure 9: Approved grants pursuant to the Upgrading Training Assistance Act (AFBG) total, full-time and part-time, from 2001 to 2010**



## Vocational careers with and without a continuing education and training certificate (OECD activity "Skills beyond School")

Following "Learning for Jobs" the OECD started another activity in 2011, the "Skills beyond School" project directed toward the field of vocational education and training. It focuses on vocational qualifications acquired after completion of school and/or initial training at upper secondary school level (ISCED 5B). On behalf of the Federal Ministry of Education and Research (BMBF) and in co-operation with the Conference of the Ministers of Education and Cultural Affairs (KMK), the BIBB compiled a national background report on that subject. In the following, upgrading vocational training is quantified with regard to its significance for various age groups and with regard to "returns on investment" compared to alternative vocational education pathways (based on the 2008 microcensus).

**Table 3: Distribution of different vocational qualification certificates in the population – view of the total population by age group**

Age (grouped)	training without further training		training with further training certificate		training and higher education (with or without further training certificate) <sup>1</sup>		higher education degree		without vocational qualification certificate <sup>1</sup>	
	m	f	m	f	m	f	m	f	m	f
15–19	2,3 %	2,7 %	0 %	0,1 %	0 %	0 %	0 %	0 %	97,5 %	97,0 %
20–24	40,2 %	39,1 %	1,2 %	1,3 %	0,1 %	0,2 %	1,2 %	2,4 %	57,0 %	56,8 %
25–29	54,4 %	56,1 %	4,1 %	2,5 %	2,0 %	2,1 %	11,0 %	14,0 %	28,3 %	25,0 %
30–34	55,3 %	58,1 %	6,6 %	3,3 %	4,4 %	3,2 %	15,4 %	15,8 %	17,9 %	19,1 %
35–39	56,9 %	62,5 %	8,4 %	4,0 %	5,3 %	3,7 %	14,0 %	12,2 %	14,8 %	17,2 %
40–44	57,7 %	64,9 %	10,3 %	4,8 %	5,5 %	3,6 %	12,9 %	9,8 %	13,2 %	16,4 %
45–49	58,3 %	63,4 %	10,3 %	4,9 %	4,6 %	2,8 %	12,8 %	9,7 %	13,5 %	18,6 %
50–54	57,9 %	62,2 %	10,3 %	5,0 %	4,7 %	2,7 %	13,9 %	10,4 %	12,7 %	19,1 %
55–59	57,8 %	61,0 %	10,9 %	4,4 %	5,6 %	2,3 %	13,1 %	8,5 %	11,9 %	23,1 %
60–64	56,1 %	59,0 %	11,2 %	4,1 %	5,7 %	1,7 %	13,0 %	7,1 %	13,2 %	27,5 %
65+	56,2 %	43,6 %	11,9 %	2,7 %	3,9 %	0,5 %	10,0 %	3,2 %	16,9 %	48,2 %

The difference between the sum of the percentages per line and 100% is due to missing data in the records (< 1% for under 65-year-olds).

<sup>1</sup> Not comparable with the calculations of the rate of people with no formal qualifications because students, higher education students, trainees, people doing military or community service and people in measures of further and continuing vocational training and retraining are included.

Source: Total population of 82.1 million, microcensus 2008, calculations of the Federal Institute for Vocational Education and Training

Initial vocational education and training combined with a recognized upgrading training course is just one of many opportunities for a vocational career. All in all, about one eighth of all persons with initial vocational training have completed a course of upgrading training (Table 3).

Completing initial training without the later acquisition of a continuing training certificate is still the rule for over 50% of the population. The lower rates for initial and continuing education and training certificates for those under 35 years of age are in part purely a matter of age (the certificates are acquired later) and in part the effect of changed preferences of the younger age groups (in favour of university degrees and/or turning away from formal continuing education and training). Initial vocational education and training remains the most common basis for working life.

Among persons without university entrance qualifications (Hochschulzugangsberechtigung, HZB) it is, at approximately 90%, the most frequent kind of post-compulsory education after general schooling. But even for approximately 45% to 55% of those with university entrance qualifications, initial vocational education and training is an alternative to university. About 25% to 30% of an age group with HZB take initial vocational education and training without acquiring a university degree at a later stage. Those with university entrance entitlement take recognized upgrading training courses relatively more frequently. Depending on the age cohort, their inclination towards upgrading training is up to 50% greater (persons aged 25 to 34) or approximately 25% greater (persons aged 45 to 54) than that of persons without HZB. The proportion of continuing training certificates rises with increasing age. This process seems to continue until the age of 45. The following table shows the different effects of the different certificates on status and income (Table 4).

**Table 4: Returns on Investment – labour market related results of vocational education and training**

	training without further training		training with further training certificate		training and higher education (with or without further training certificate) <sup>1</sup>		higher education degree		without vocational qualification certificate <sup>1</sup>	
	m	f	m	f	m	f	m	f	m	f
<b>Employment status</b>										
unemployed persons	6,3 %	5,4 %	2,8 %	4,1 %	2,5 %	2,9 %	2,8 %	3,5 %	11,1 %	7,3 %
inactive persons	11,5 %	22,6 %	9,4 %	17,4 %	8,0 %	11,4 %	7,4 %	16,8 %	26,4 %	44,0 %
<b>Income (€)</b>										
1st quartile (25%)	2.000	1.000	2.400	1.500	2.900	1.600	3.000	1.800	700	400
2nd quartile (median)	2.500	1.500	3.000	2.200	3.800	2.500	4.000	2.600	1.850	900
3rd quartile (75%)	3.200	2.300	4.000	2.900	5.000	3.350	5.000	3.500	2.600	1.600
<b>Type of vocational activity</b>										
simple activity	9,5 %	18,2 %	1,3 %	6,2 %	1,5 %	3,3 %	1,9 %	5,4 %	37,9 %	48,8 %
managerial activity	23,9 %	12,7 %	46,9 %	20,7 %	44,9 %	21,9 %	36,5 %	21,1 %	16,7 %	10,4 %
qualified activity	66,6 %	69,2 %	51,8 %	73,1 %	53,6 %	74,8 %	61,6 %	73,5 %	45,4 %	40,8 %
<b>Entitled to give instructions to other employees</b>										
yes	73,0 %	59,9 %	86,0 %	67,0 %	77,8 %	60,4 %	72,3 %	57,1 %	57,8 %	45,0 %
<b>Time-limited employment</b>										
yes	9,2 %	10,6 %	5,6 %	9,5 %	8,9 %	14,5 %	12,1 %	19,4 %	21,7 %	18,7 %

<sup>1</sup> Including people with higher education certificate, further training certificate and initial education and training.

Source: OEmployee Survey (BIBB/BAuA) 2006 and microcensus 2008, calculations of the Federal Institute for Vocational Education and Training

Higher vocational qualification generally leads to higher income. Without any vocational qualification the average income is significantly low i.e. the income of persons with a vocational qualification is expected to be about 50% higher compared with person of this group.

### 3 In focus: Transitions from school into VET

Transitions from school into training are a central educational policy topic. To a considerable degree they are a yardstick for the efficiency and success of the dual system of vocational education and training in Germany. The focus and objectives of the diagnoses and discussions on the topic of transitions have changed in the course of the recent years: For a long time problem analyses focused equally on the transitions at the first threshold, from school to initial training, and at the second threshold, from initial training to work. Due to the declining numbers of school leavers and the rising demand for skilled workers, the chances of training being directly followed by vocational activity have improved.

The **transition area in the narrower sense** covers measures and courses of education that serve to prepare for or lead up to initial vocational education and training ("integration into vocational training"). The **transition area in the broader sense** additionally includes full-time-school measures without strong job practice components and vocational orientation measures (for example the career orientation programme of the BMBF, intensified vocational guidance, mentoring for the transition to the labour market). The frequently used term **transition system** is controversial, since there is so far no consistent system of transition. However, at the moment there are a number of initiatives in the Federal Länder directed towards the goal of developing such a transition system. **Transition management** is the term used to describe the active organisation of the transition area in the narrower or broader sense.

#### Reform discussions and structural reforms

As early as 2007 the Innovation Circle on Vocational Education and Training had taken up 3 aspects of transition in its "10 guidelines for the modernisation and structural improvement of vocational education":

1. The improvement of apprenticeship entry maturity is to be achieved and supported particularly through intensified vocational guidance, individual support and mentoring from school up to the transition to training and employment as well as through the linkage of schooling and practical experience.
2. Training preparation for disadvantaged persons is to be optimised through concerted regional initiatives and networks and the coordination of the instruments for assisting disadvantaged people.
3. Transitions are also to be optimised, in that pathways to in-company training – particularly for unplaced applicants from previous years – are assured through compatible and creditable qualification measures and in particular through admission to the external examination, through training modules and through the expansion of introductory qualifications. Thus the guidelines refer to 3 fields of action: the school, the transition between graduation and initial training and the transition from measures to initial training and vocation. The target groups are students with weaker school performance, disadvantaged young people, including above all young people with migration backgrounds, and unplaced applicants from previous years.

In 2007, the BIBB Board also adopted a position paper on "training for unplaced applicants from previous years via training modules" (cf. Hauptausschuss des Bundesinstituts für Berufsbildung 2007) as well as a recommendation entitled "suggestions for action for the vocational qualification of disadvantaged young people" (cf. Hauptausschuss des Bundesinstituts für Berufsbildung 2008). Both are geared to a wide range of target groups. The position paper on the training modules is geared to unplaced applicants from previous years as its target group, with this group at times being seen as very

heterogeneous. It is argued that special measures for this target group should be limited in time, i.e. they should be discontinued when the demographic trend is reversed and the number of school graduates decreases. The recommendation contains a broad definition of young people who are considered disadvantaged, and an equally wide range of suggestions for action in order to be able to meet their individual assistance requirements.

The co-operation of local stakeholders in implementing effective models of transition management also was an important topic from a federal standpoint. Appropriate projects were supported in the "Vocational Qualification Prospects" programme from 2008 to 2010. Existing promotion opportunities and support were to be so co-ordinated as to facilitate the transition from school to initial training for young people. While the first round of funding was directed towards "more effective target-group-oriented support for young people", the current second round of funding is designed to use the experience gained "to arrange co-operative structures and structural responsibility in such a way that the promotion instruments can be used in a more flexible and need and target-group oriented manner".

In 2009 an "Agreement of the signatories to the National Pact for Career Training and Skilled Manpower Development in Germany, the Federal Employment Agency (BA) and the Commissioner for Migration, with the Conference of the Ministers of Education and Cultural Affairs" dealt with the twin goals of "guaranteeing apprenticeship entry maturity and strengthening vocational guidance". The document urges that by integrating current impulses and concepts, individual projects should be turned into regular measures to be anchored in practice nationwide. Practice classes should be offered nationwide according to demand as a means of assisting young people with learning problems. Career orientation should be introduced in all schools and, combined with it, transition management should be optimised using positive experiences from some Federal Länder, and in addition regional co-operation between schools and enterprises should be expanded.

With the goal of comprehensive co-ordination of all measures, the BMBF initiative "Qualify and Connect – Education chains up to the completion of training", started in 2010, is helping young people to prepare for graduation, to complete their initial training and their entry into the labour market and. In this effort the Federal Ministry of Education and Research (BMBF) is relying on the systemic, country-wide implementation of proven and successful instruments and linking them with one another. Thus the Federal Ministry of Labour and Social Affairs (BMAS), the BA and the BIBB, in co-operation with the Länder, are to establish a new conceptual framework for expanding and where possible stabilizing the preventive support for young people.

The BIBB Board had resumed its participation in the discussion with its 2011 recommendation "Guidelines for improving the transition from school to work". It underlines in particular the priority of regular in-company training. The recommendation of the Board is not target-group oriented, but formulates guidelines that should guide "transition management" – meaning the organisation of the transition area: It should prepare early, promote, mentor and advise individually, be in proximity to occupational and company practice, be coordinated and steered regionally, be transparent and compatible and its evaluation should be process-related.



## Integrated training reporting

The integrated training reporting (Integrierte Ausbildungsberichterstattung - iABE) is a federally uniform reporting system. The reporting system represents structures of and developments in educational opportunities for school leavers in its entirety. It separates the education and training pathways of young people in an accurate manner. The "integration into vocational training" sector ("transition area") comprises 10 education accounts with measures designed to prepare young people for or lead them to a subsequent course of initial vocational education and training. Education programmes with similar vocational teaching content are grouped together in accounts. In the year 2011, approximately 294,294 persons entered measures in the transition area. This amounts to 14.3% of training beginners (Table 5, Figure 10). The beginners are unevenly distributed among the accounts. The "vocational preparation courses of the Federal Employment Agency" make up the largest part of the sector at 21.5%. The second highest proportion of beginners, 17.7%, is in the account "courses of training at full-time vocational schools leading to a general secondary education certificate".

**Table 5: Beginners in the "integration into vocational training" sector, 2011**

Accounts	Germany	Share in %
Integration into vocational training (transition area)	294.294	100,0
including:		
vocational preparation measures (BvB) of the BA	63.369	21,5
courses of training at full-time vocational schools leading to a general secondary education certificate	52.219	17,7
courses of training at full-time vocational schools imparting basic professional skills that can be accredited	44.051	15,0
vocational preparation year (BVJ) including one-year (vocational) introductory classes <sup>1</sup>	38.968	13,2
basic vocational training year (BGJ), in full-time schooling	28.150	9,6
courses of training at full-time vocational schools imparting basic professional skills, without accreditation	25.076	8,5
courses of training at vocational schools for employed/unemployed students without training contract <sup>2</sup>	16.251	5,5
introductory qualification (EQ) of the BA	16.151	5,5
courses of training at vocational schools for students without training contract who aspire to general secondary education certificates <sup>3</sup>	6.238	2,1
mandatory internships preceding teacher's training at vocational schools	3.821	1,3
In comparison: total training events	2.060.004	

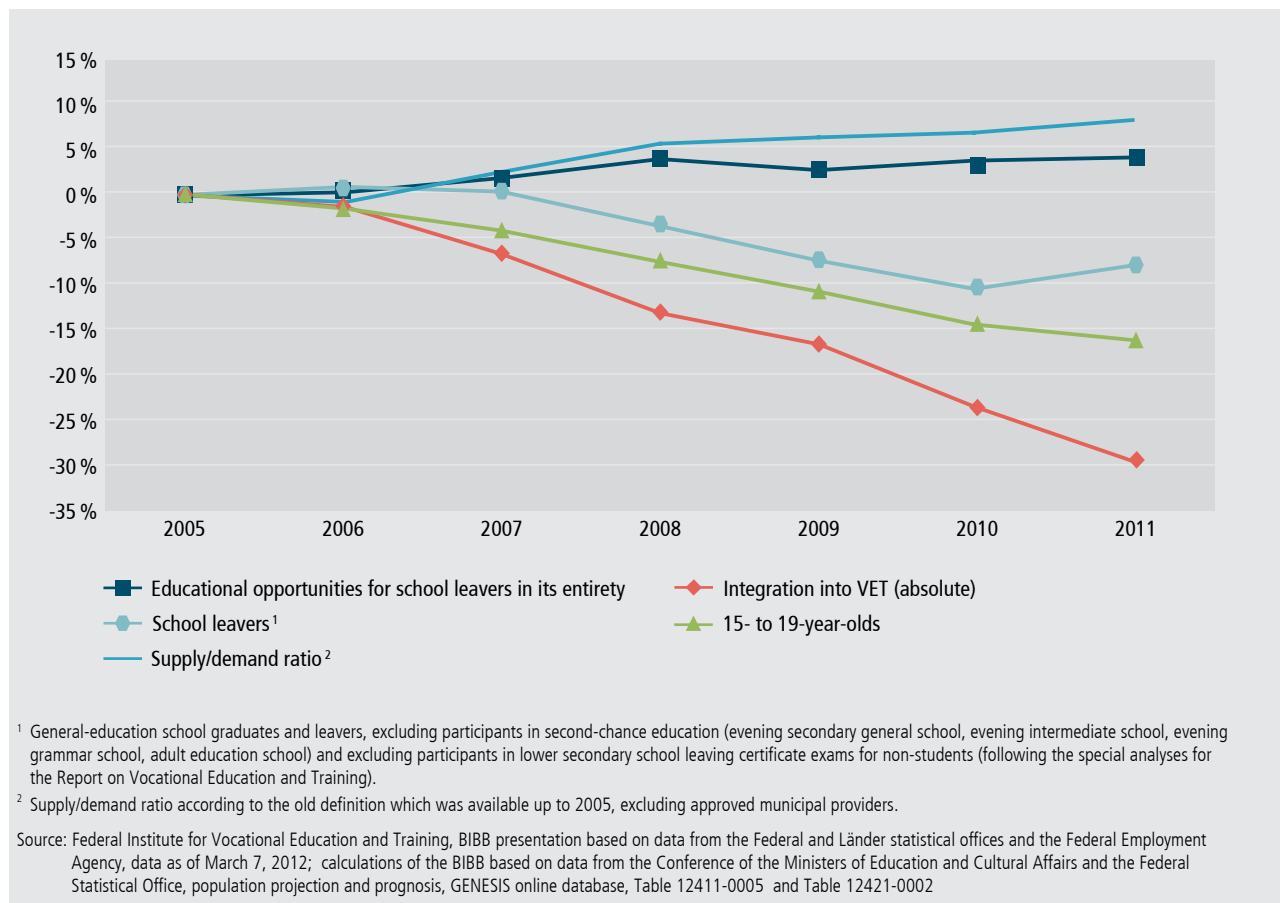
<sup>1</sup> Excluding employment agency measures if possible (except for Rhineland-Palatinate).

<sup>2</sup> Excluding employment agency measures if possible (except for Baden-Württemberg).

<sup>3</sup> Excluding employment agency measures if possible.

Source: Calculations of the Federal Institute for Vocational Education and Training, based on data from the Federal and Länder statistical offices and the Federal Employment Agency; Data as of March 7, 2012

**Figure 10: Development of the "integration into vocational training" sector**



An accurate forecast of developments in the transition area is hardly feasible, particularly since the time and extent of market cycles and potential economic crises cannot be predicted. For pragmatic reasons it seems reasonable therefore to work with different training supply scenarios (2012 to 2025):

- in scenario 1 the supply of training places is expected to decrease approx. 10.000 per year from 2012 to 2025
- in scenario 2 a constant supply of around 600,000 training places is projected for the period from 2012 onwards, unchanged from 2011.
- in the rather unrealistic scenario 3, for the sake of intelligibility and in contrast to scenario 1 it is assumed that the number of training places offered increases annually by 10,000 places over 2011.

Assuming the pessimistic scenario 1 (annual decrease of 10,000 training places offered), a drop in the number of participants to under 230,000 could be expected. In scenario 2 (no change in the number of training places offered) the number of beginners in the transition area would drop to under 165,000. Scenario 3 (annual increase of 10,000 places) implies an expected number of approximately 100,000 young people as beginners in the transition area. This would be considerably fewer persons than at the peak of the vocational training market crisis in the year 2005 (446,500), but nevertheless it would still be enough to be able to assume the continued existence of a (shrunken) transition area in the future.

## 4 International indicators, system monitoring, mobility

### Transitions from school to training in the international context

The transition between school and gainful employment is fraught with risks in all countries of the OECD, to which the following remarks apply. Demographic changes as well as the continuing structural changes are leading to constant changes in youth job markets. Despite these trends, valid for all developed national economies, there are salient national differences in the form and quality of employment entrance processes, due for the most part to institutional differences.

In the majority of the European countries the transition from school to occupation is a multi-stage, but still continuous, process. Nevertheless different patterns and a large range of variations between the countries show up with regard to the career entry processes. If one looks at where school leavers end up (university/continuing education, initial vocational education and training, gainful employment, unemployment, inactivity) in the first five years after leaving school, eight transition types can be distinguished (Figure 11).<sup>2</sup>

### Types of transition

First of all there is a group of school leavers who after a very short period of inactivity return to the education system for an extended period and/or continue their education biography at higher education establishments or universities ("**return**"). Transitions of this kind should frequently occur in countries with a high proportion of tertiary education certificates and in countries with well developed continuing education and training systems. The second type of transition ("**failure**") comprises those who are unemployed for a long time – i.e. for 5 years – after leaving school and whose transition can therefore be regarded as a failure. In the countries where this type of transition is frequent, school leavers face major problems, since the job market and its institutions are unable to make enough jobs available. Something similar applies to transitions of the third type ("**dropout**"), which comprises people who are inactive in the first 5 years after leaving school. Although in principle not all inactive persons are interested in gainful employment, it can be assumed that a not inconsiderable proportion of those who are inactive are at the disposal of the job market (so-called hidden labour reserve). School leavers who perform transitions of the "**link**" type, which involves a brief education and training phase of 2 to 3 years, are to a large extent integrated into working life. The occurrence of this type of transition, like the "return" type, is an indication of existing and perceived continuing education and training opportunities. The "**interruption**" and "**detour**" types likewise lead to gainful employment after 2 to 3 years. However, this is preceded by a short phase of inactivity or unemployment. Transitions of these two types most likely include search phases which, with a duration of 2 to 3 years, are relatively long but finally end in gainful employment. The "**bridge**" type includes all school leavers who take up initial vocational education and training. The subsequent gainful employment, even if delayed, shows its integrating effect. Countries with a strongly minted vocational education and training system might have a high proportion of this type of transition. The most direct transition to the job market is made by the "**express**" type of school leavers who find gainful employment immediately after finishing school.

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<sup>2</sup> Cf. Brzinsky-Fay, Christian: Lost in Transition? Labour Market Entry Sequences of School Leavers in Europe. In: European Sociological Review 23 (4), 2007, 409–422

**Figure 11: Transition types by country**



Denmark, France, Ireland and Poland were scrutinised more closely (in: Datenreport zum Berufsbildungsbericht 2012). Denmark has a relatively well-attended dual system of education and training; the other countries have school-dominated systems and at the same time a wide variety of opportunities in the "transition area". In all these countries youth unemployment is considerably higher than the overall unemployment rate (Table 6). Denmark fares best in this respect. In Poland and Ireland in particular the youth unemployment rate exceeds that of the 25- to 74-year-olds very significantly. France too is affected by relatively high youth unemployment, however. Various factors lead to this. They range from different demographic trends through the economic situation and its effects on the job market to the different mechanisms in the job markets etc. In addition, the matching of supply and demand, the matching of qualifications and the forms of vocational education certainly play a role.

Just as relevant in this context is the proportion of early school leavers, defined as the group of 15- to 24-year-olds with the highest lower secondary school leaving certificate, who are neither employed nor in education/training (Table 7). This group is in the focus of educational policy efforts in the transition area. The low rate in Poland is remarkable; here, as in most former east block countries, a relatively high general education level prevails. Germany ranks in the middle of the table. The somewhat better, almost identical figures for Denmark and Ireland indicate a comparable integrative power for quite different systems.

The variety of transition opportunities, including modular structures, in the countries examined obviously does not prevent youth unemployment, and usually does not prevent early school leaving either. In all countries efforts are under way to reinforce practice-oriented vocational education and training and/or vocational preparation. Even though they include approaches with formal programmes, the trend is obviously toward more practical courses, including some at the tertiary level.

**Table 6: Unemployment rates (in %)**

	Denmark	France	Ireland	Poland	Germany	EU-27
15- to 24-year-olds	14,9	23,8	29,3	27,8	8,1	22,7
25- to 74-year-olds	6,4	8,1	13,1	8,1	5,2	8,4
Total	7,8	9,8	14,6	10	5,5	9,8

Source: Eurostat Labour Force Survey; [http://epp.eurostat.ec.europa.eu/portal/page/portal/employment\\_unemployment\\_lfs/data/main\\_tables](http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_unemployment_lfs/data/main_tables), as of January 19, 2012

**Table 7: Early school leavers (in %)**

	Denmark	France	Ireland	Poland	Germany	EU-27
15- to 24-year-olds	10,7	12,8	10,5	5,4	11,9	14,1

Source: Eurostat Labour Force Survey; [http://epp.eurostat.ec.europa.eu/portal/page/portal/employment\\_unemployment\\_lfs/data/main\\_tables](http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_unemployment_lfs/data/main_tables), as of January 19, 2012

A comparison of types of transition shows that in Denmark the "return" coupled with the "bridge" type of transition dominates; in France "express" is most prevalent, followed by "interruption"; in Ireland "express" is most important as well, followed by "interruption", while the "link" and "return" transition types are also significant; in Poland "return" and "detour" are dominant. In Germany, 60% belong to the "bridge" type – here the predominant dual system of vocational education and training obviously offers the majority a sound basis for the transition.

## Mobility

The European Union's LEONARDO DA VINCI programme, coordinated in Germany by the National Agency *Education for Europe* at the BIBB, promotes, among other things, mobility projects that make foreign stays for learning purposes possible for young adults in initial training, employed workers and education personnel, as well as innovation transfer projects and partnerships.

Stays abroad – especially long-term ones – provide an excellent opportunity to acquire international vocational competence. Foreign language skills, international expertise and intercultural knowledge are important building blocks for an internationally viable qualification.

In the year 2011, 16.800 young men and women received grants in 700 projects. Thus the sharp rise in periods of learning abroad applied for and approved continued in 2011. The number of participants in the field of initial training doubled between 2006 and 2011. This considerable increase is due in part to the national co-financing of mobility projects by the Federal Ministry of Education and Research (BMBF). The European mobility budget was increased in the year 2011 in the context of the LEO Plus Initiative by €1.4 million in national incentive funds, so that more than 1,900 trainees received national co-financing.

A study published by the National Agency Education for Europe in the year 2011 entitled "Hidden Mobility in Vocational Education and Training" determined for the first time how many German trainees and vocational school students spent time abroad in the context of their education and training. In the years 2007 to 2009 an average of 23,500 persons spent time learning abroad during their initial vocational education and training. It follows that 3% of the persons taking initial vocational education and training receive a part of their training abroad (Figure 12).

**Figure 12: LEONARDO DA VINCI Mobility 1995–2011 – initial training participants**

