VET Data Report Germany 2021

Facts and analyses to accompany the Federal Government Report on Vocational Education and Training – Selected findings

Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

Facts and analyses to accompany the Federal Government Report on Vocational Education and Training – Selected findings

Federal Institute for Vocational Education and Training

Federal Ministry
of Education
and Research

The Federal Ministry of Education and Research (BMBF) has the statutory duty to monitor developments in vocational education and training and to submit a report regarding such developments (Report on Vocational Education and Training) to the Federal Government until 15 of May each year (§ 86 Vocational Training Act, BBiG). The Federal Institute for Vocational Education and Training (BIBB) is required to assist in the preparation of the Report on Vocational Education and Training (§ 90 Paragraph 3, 1b).

Since 2009, BIBB has issued the "[Year] Data Report to accompany the Report on Vocational Education and Training. Information and analyses on the development of vocational education and training". This Data Report represents the central source of information and main data basis for the BMBF Report on Vocational Education and Training. The BMBF provides funding for the preparation and publication of the Data Report.

Citation:
Federal Institute for Vocational Education and Training (Ed.): VET Data Report Germany 2021. Facts and analyses to accompany the Federal Government Report on Vocational Education and Training – Selected findings. Bonn 2024. URL: https://www.bibb.de/dienst/publikationen/de/19715

1st edition 2024

Publisher:
Federal Institute for Vocational Education and Training
Friedrich-Ebert-Allee 114 – 116
D-53113 Bonn
www.bibb.de

Publication Management:
Strategic office „Publications and Scientific Information Services"
Email: publikationsmanagement@bibb.de
www.bibb.de/veroeffentlichungen

Editing staff: Isabelle Le Mouillour, Daniel Neff, Paula Klein

Order address: vertrieb@bibb.de

Production:
Verlag Barbara Budrich
Stauffenbergstraße 7
D51379 Leverkusen
www.budrich.de
Email: info@budrich.de

ISBN 978-3-96208-487-5 (Print)
ISBN 978-3-96208-438-7 (Open Access)
urn:nbn:de:0035-1085-6

Bibliographic information from the German National Library
The German National Library lists this publication in the German National Bibliography; detailed bibliographic data is available in the Internet at http://dnb.dnb.de.

Printed on eco-friendly paper

Preface

Dear readers,

The Federal Institute for Vocational Education and Training (BIBB) is publishing the English version of the Data Report for the 10th time. This English version is based on an abridged version of the German edition of the BIBB Data Report 2021.[1] It contains comprehensive information on and analyses of initial and continuing vocational education and training and provides information on international indicators and benchmarks.

In the 2020 reporting year, the COVID-19 pandemic in particular had a far-reaching impact on vocational education and training in Germany: the number of training places on offer fell and the number of young people seeking a training place decreased. The matching problems on the training market continued to increase, as it was difficult to bring together young people interested in training and companies offering vacancies under the current conditions. As a result, the number of newly concluded training contracts decreased. Due to a lower number of school leavers, a declining interest in training on the part of young people and an increasing number of unfilled training places, the BIBB had expected declines on the training market. Due to the coronavirus pandemic, however, these declines were massive. Programmes and measures taken at short notice in 2020 were only able to partially counteract the decline but were no longer able to prevent it completely.

Initial results indicate that certain applicant groups, such as applicants from previous years and people with a migration background, have been more affected by the pandemic. This poses a particularly great challenge for education policy because these groups of people are already at a higher risk of not achieving a formal vocational qualification in the long term.

This year's focus chapter „Upgrading Vocational Education and Training - Pathways to Career Advancement" takes a look at advanced vocational education and training from different perspectives and presents examples of various options for upgrading vocational qualifications in Germany.

We hope that you find this issue of the BIBB Data Report both informative and inspiring but also useful in your daily work!

Prof. Dr. Friedrich Hubert Esser
President

1 The Data Report is prepared by a multitude of authors from BIBB and other affiliated institutions who are not mentioned in the abbreviated translation. Furthermore, for the sake of simplification we have refrained from mentioning the citations which are featured in the original report.

Contents

Part A: Initial VET indicators

A1 Key facts on initial vocational education and training (2020)

Dual vocational education and training has a high degree of importance in Germany. Just over half of each age cohort (54.4% in 2019) commences training in one of the 323 training occupations recognised pursuant to the Vocational Training Act (BBiG) or the Crafts and Trades Regulation Code (HwO). At the end of 2019, there were approximately 1.33 million trainees in Germany as a whole. In 2020, societal and economic life in Germany was materially determined by the coronavirus pandemic. The training market was also forced to accept considerable restrictions.

Fewer newly concluded training contracts

- The number of newly concluded training contracts fell significantly in 2020. According to the results of the Federal Institute for Vocational Education and Training (BIBB) survey as of 30 September, a total of 467,500 new training contracts were concluded nationwide.[2] This represents a decrease of 57,600 contracts (-11.0%). The number of newly concluded training contracts was below 500,000 for the first time since 1992. The number of company-based training contracts decreased by 58,100 (-11.4%) to 452,600. The number of newly concluded extra-company training contracts rose 500 (+3.6%) to reach 14,900.

Lower training supply

- 527,400 training places were on offer nationwide. Training supply (newly concluded training contracts plus unfilled vocational education and training places) thus decreased by 50,700 places (-8.8%) compared to the previous year. The number of company-based training places on offer (not including primarily publicly funded training places) was 512,500. This means that firms and companies in Germany made 51,300 (-9.1%) fewer training places available than in the previous year.

Falling demand for dual vocational education and training

- There was also a sharp fall in demand (as per the extended definition = newly concluded training contracts plus all persons still seeking a training place as of the cut-off date of 30 September 2020). Following a decrease to 598,800 in 2019, the first time a figure below 600,000 had been recorded, demand declined further to 545,700 in 2020 (-53,000 or -8.9%). Decreases in supply and demand and in the number of newly concluded training contracts had already been expected even prior to the pandemic, particularly in the light of falling numbers of school leavers.

Increase in matching problems on the training market

- A significantly higher number of training places registered with the Federal Employment Agency remains unfilled (up by +6,800 or +12.8% to 59,900). 29,300 applicants (+4,800 or +19.7%) were categorised as unplaced. The number of applicants who maintained their wish to be placed in training but had commenced an alternative in the meantime was slightly lower than in 2019 (-300 or -0.6%). As of the cut-off date of 30 September 2020, therefore, a total of 78,200 applicants were still seeking a training place and wished to be placed appropriately via the employment agencies and Job Centres (2019: 73,700). Compared to the previous year, there was a rise both in the number of unfilled positions as a proportion of total company-based provision (2019: 9.4%, 2020 11.7%) and in the number of applicants expressed as a percentage of total demand who were still seeking a training place (2019: 12.3%, 2020: 14.3%). There are considerable differences between occupations and regions in this regard.

Training market figures for the 2019/2020 training year

- The supply-demand ratio (as per the extended definition) was 96.6 in 2020, the same figure as in the previous year. It was slightly lower in respect of company-based provision (2019: (94.2, 2020: 93.9). The progression rate of young people interested in training fell from 66.7% to 64.5%. The market situation changed only slightly because considerable decreases occurred on both the supply and the demand side.

2 Absolute figures have been rounded.

This "overall shrinkage" of the training market represents a key challenge with regard to securing a future basis of qualified skilled workers.

- Attention needs to be drawn to the fact that information from all the main statistics for 2020 is not yet available as the 2021 Data Report goes to press. For this reason, the following brief depiction of further central developments contains information from 2019 alongside data for 2020.

Entrants to the transitional sector

- According to an estimation made by BIBB on the basis of data from the Integrated Training Reporting Flash Report (iABE, see Annex – Data sources), the number of entrants to the transitional sector was 234,000 (2019: 249,500). This represents a further decline for 2020. In this case, too, the assumption needs to be made that measures were unable to take place or else were instigated to a limited extent only because of the pandemic. The estimate also indicates that more young people are remaining within the general school system.

Company participation in training

- Analyses conducted by the Federal Institute for BIBB Education and Training on the basis of the employment statistics of the Federal Employment Agency show that company participation in training has been falling over the past years. Whereas the rate of companies providing training was around 24% for a long period of time, there has recently been a discernible drop. In 2019, the training participation rate was 19.6% (2018: 19.7%). The decline in the number of companies providing training was caused by a decrease in the training participation rate by the smallest category of company (1–9 employees). This category, however, makes up the critical mass of firms in Germany. A correlation can be seen here with the increasing recruitment difficulties being experienced by companies in the smallest category.

Persons without a vocational education and training qualification

- According to BIBB calculations on the basis of the microcensus, in 2019, 14.7% of people in Germany aged between 20 and 34 (an extrapolated figure of 2.16 million) were not in possession of a vocational education and training qualification and thus were less well equipped for long-term qualified participation in working life (2018: 14.4% or 2.12 million people). Persons without a school-leaving certificate are at particular risk of failing to achieve a vocational education and training qualification. The proportion of unskilled workers falls if a higher school-leaving certificate is obtained. Persons with a migration background are also disproportionately likely to remain without a vocational qualification. The ratio of migrants aged between 20 and 34 who are without a formal qualification and with their own experience of immigration was 33.3% (for the purpose of comparison, the corresponding figure for Germans without a migration background is 8.5%).

A2 Current training market figures

A2.1 Developments on the training market

Introduction to terminology

The terms "vocational education and training places" and "training place supply" as used in the training market figures are not synonymous. The same applies in respect of the terms "training place applicants", "potential training place applicants" and "persons interested in training" (see Information Box). Several indicators are always necessary in order to describe the training market. One of the reasons for this is the fact that said indicators sometimes exhibit a conflicting relationship in terms of education and training policy. High supply-demand ratios, for example, are an indicator of good supply conditions for young people and are necessarily associated with higher rates of unfilled training places. The converse also applies.

Information Box – terminological distinctions within the scope of the training market figures

The terms vocational education and training places and training place applicants originate from the training market statistics produced by the Federal Employment Agency (BA, see Annex – Data sources). They encompass the places and applicants registered with the advisory and placement services with a view to obtaining placement support. Young people are only registered as training place applicants if individual suitability for the training occupations they wish to enter has been clarified or if the prerequisites for commencement of VET have been met.

The official training place supply each year, which determines the overall final figures, includes the newly concluded training contracts recorded by BIBB within the scope of its survey conducted as of 30 September (supply of training places successfully filled) together with the company-based VET places registered with the BA that have been offered to the labour administration authorities for placement during the reporting year and have not yet been filled as of 30 September (unsuccessful placements, supply of training places not filled).

Official training place demand, which again informs the overall final figures, is made up of young people interested in training who have either concluded a new training contract and have thus been recorded via the BIBB survey as of 30 September (successful demand) and further comprises the group of applicants still continuing their search for a training place on 30 September (unsuccessful demand).

The extended supply-demand ratio (eSDR) indicates arithmetically how many training places are on offer for each 100 potential training place applicants. "Extended" means that, unlike in previous calculations, all potential applicants recorded by the advisory and placement services as still seeking to secure a place at the cut-off date are additionally counted as unsuccessful training place applicants.

Registered training place applicants who have opted for alternative provision over the course of the year (e.g. a return to school, higher education study, employment, vocational preparation scheme) and who are no longer or initially no longer seeking a vocational training place as of 30 September are not in principle deemed to be potential training place applicants. They are instead counted as individuals interested in training. This group includes all institutionally recorded young people who displayed an interest in commencing dual VET at least at some point during the course of the reporting year and whose suitability in this regard has been ascertained insofar as they have not progressed to training.

A2.1.1 Supply and demand, supply-demand ratio

Supply and demand

The training market underwent a considerable and inevitable downturn in the 2020 reporting year. Compared to the previous year, training place supply within the scope of dual vocational education and training declined by 50,700 positions[3] (-8.8%) to 527,400. This drop in supply was accompanied by a decrease in demand of 53,000 persons (-8.9%) to 545,700 potential training place applicants → **Table A2.1.1-1**.

The severe contraction of the training market in 2020 is largely, albeit not entirely, due to the crisis events surrounding the COVID-19 pandemic. Decreases on the training market had already been expected, in particular as a consequence of a lower number of school leavers → **Table A2.1.1-2**, a fall in the interest in training and rising numbers of unfilled training places over the past years.

In terms of its extent, the strong shrinkage in the training market is roughly comparable to the development that occurred at the time of the world financial crisis in 2008/2009. In this instance, training place supply went

3 Whole figures given in the text are rounded to a multiple of 100. More precise values are provided in the tables, although here, too, all figures relating to the BIBB survey as of 30 September have been rounded to a multiple of three for reasons of data protection.

Table A2.1.1-1: **Development of supply and demand in Germany from 2010 to 2020 (cut-off date 30 September)**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020 compared to 2019	
												absolute Terms	in %
Training place supply[1]	**579.858**	**599.868**	**585.333**	**564.261**	**561.651**	**563.838**	**563.832**	**572.274**	**589.068**	**578.175**	**527.433**	**-50.742**	**-8,8**
▸ Primarily publicly financed[2]	41.043	30.459	25.905	21.681	20.394	18.864	17.550	15.879	14.883	14.367	14.889	+522	+3,6
▸ Company-based[3]	538.815	569.406	559.428	542.580	541.257	544.974	546.282	556.395	574.185	563.808	512.544	-51.264	-9,1
Including:													
Trade and industry (company-based)	320.511	345.249	339.420	325.521	322.164	321.120	320.130	324.216	336.108	327.735	288.207	-39.528	-12,1
Craft trades (company-based)	145.956	151.278	147.024	145.065	146.829	149.088	149.592	153.237	157.353	154.134	145.608	-8.526	-5,5
Public sector (company-based)	13.689	12.459	12.195	12.426	12.522	13.359	13.899	14.412	14.703	15.243	15.219	-24	-0,2
Agriculture (company-based)	12.522	12.627	12.474	12.522	12.660	13.059	13.074	13.317	13.221	13.062	13.251	+192	+1,5
Liberal professions (company-based)	43.332	43.752	44.829	43.779	43.818	45.321	46.638	47.592	49.242	50.556	47.217	-3.339	-6,6
Other areas, not stated	2.802	4.038	3.486	3.270	3.261	3.027	2.955	3.621	3.561	3.081	3.042	-39	-1,3
Training place demand[4]	**640.416**	**641.796**	**627.378**	**613.284**	**604.590**	**603.198**	**600.876**	**603.510**	**610.032**	**598.758**	**545.721**	**-53.037**	**-8,9**
▸ Male	369.504	377.457	369.267	362.877	360.390	362.022	364.107	375.168	384.921	379.215	346.620	-32.595	-8,6
▸ Female	270.912	264.342	258.111	250.407	244.200	241.173	236.769	228.339	225.111	219.531	199.053	-20.478	-9,3
▸ With lower secondary school-leaving certificate (estimate)	208.662	201.822	190.671	178.440	168.342	160.512	152.022	148.413	151.635	148.362	135.816	-12.546	-8,5
▸ With intermediate secondary school-leaving certificate (estimate)	272.232	268.314	262.752	256.449	255.102	253.479	251.268	247.632	246.837	241.023	219.771	-21.252	-8,8
▸ With higher education entrance qualification (estimate)	132.480	147.522	151.128	155.358	158.307	166.437	171.306	174.132	176.559	174.993	158.490	-16.503	-9,4
▸ Refugees[5]	-	-	-	-	-	-	5.667	14.710	21.461	20.435	17.212	-3.223	-15,8
Supply and demand ratio (eSDR)[6]	**90,5**	**93,5**	**93,3**	**92,0**	**92,9**	**93,5**	**93,8**	**94,8**	**96,6**	**96,6**	**96,6**	**+0,1**	**.**
▸ Company supply/demand ratio[7]	84,1	88,7	89,2	88,5	89,5	90,3	90,9	92,2	94,1	94,2	93,9	-0,2	.

[1] 1Newly concluded training contracts plus unfilled training places registered with the BA as of 30 September.
[2] (At least) in the first year of training.
[3] Training place provision minus newly concluded training contracts which are largely a result of public funding.
[4] Newly concluded training contracts plus persons still seeking a training place who were registered with the BA as of 30 September
[5] Only registered training place applicants who progressed to a training place or were seeking a training place as of the cut-off point.
[6] Number of training places per 100 persons seeking a training place.
[7] Number of company-based training places per 100 persons seeking a training place.
Note: All whole numbers connected with the execution of the BIBB survey of newly concluded training contracts are rounded to a multiple of three in order to comply with data protection stipulations.
Source: Federal Institute for Vocational Education and Training survey as of 30 September; Federal Employment Agency, training market statistics as of 30 September (special evaluations for preparation of the Report on Vocational Education and Training); calculations by the Federal Institute for Vocational Education and Training

Vet Data Report Gemany 2021

Table A2.1.1-2: **Development of the number of school leavers and of those completing school-leaving certificates from 2010 to 2020 (estimated figures for 2020)**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 (estimate)	2020 vs. 2010 (estimate)	
												absolute terms	in %
From general schools	**865.316**	**882.913**	**868.790**	**895.334**	**850.721**	**846.312**	**855.611**	**831.807**	**812.205**	**800.772**	**767.403**	**-97.913**	**-11,3**
Not achieved lower secondary school-leaving certificate	53.058	49.560	47.648	46.295	46.950	47.435	49.193	52.680	53.598	52.833	51.946	-1.112	-2,1
Lower secondary school-leaving certificate	179.753	168.660	157.498	151.314	146.649	139.948	139.243	134.389	133.515	132.429	134.422	-45.331	-25,2
Intermediate secondary school-leaving certificate	350.856	339.758	344.527	377.364	375.791	370.094	369.230	356.812	341.640	337.578	332.611	-18.245	-5,2
University of applied sciences entrance qualification	13.455	13.769	13.945	1.068	841	973	778	628	900	624	600	-12.855	-95,5
General higher education entrance qualification	268.194	311.166	305.172	319.293	280.490	287.862	297.167	287.298	282.552	277.308	247.824	-20.370	-7,6
From (partially qualifying) vocational schools	**389.293**	**369.380**	**355.368**	**338.330**	**338.001**	**344.496**	**354.830**	**369.424**	**373.851**	**350.133**	**343.254**	**-46.039**	**-11,8**
Pre-vocational training year	48.876	45.141	41.982	42.024	41.970	45.582	67.080	84.537	88.122	77.826	72.844	+23.968	+49,0
Full-time school-based basic vocational training year	31.023	29.676	26.421	25.272	26.220	27.774	5.292	5.238	4.944	4.725	4.514	-26.509	-85,4
(Partially qualifying) vocational school	187.465	172.784	161.262	150.404	149.199	146.292	154.652	151.639	153.195	147.891	147.665	-39.800	-21,2
Upper secondary schools specialising in business studies	49.836	50.202	52.818	53.307	54.621	57.495	60.057	61.437	61.035	58.278	57.566	+7.730	+15,5
Specialised upper secondary schools	72.093	71.577	72.885	67.323	65.991	67.353	67.749	66.573	66.555	61.413	60.665	-11.428	-15,9

The values stated here are based on figures from the Federal Statistical Office from 2010 to 2019; the figures for 2020 were estimated using the forecast by the Conference of the Ministers of Education and Cultural Affairs (KMK) and taking account of the last actual figures (2019). It was assumed that the relative rates of change between 2019 and 2020 would be broadly in line with the KMK forecast.
From 2014, the Federal Statistical Office has stated the school-based part of the university of applied sciences entrance qualification in Specialist Publications 11 Series 1 in a separate sub-section under "Intermediate qualification". These figures are not listed here. (Partially qualifying) vocational school leavers: full-time vocational school leavers not including those who have completed fully qualifying VET programmes.
The sharp increase in the pre-vocational training year correlates with immigration by young migrants. The substantial decrease in the school-based basic vocational training year has institutional reasons. North-Rhine Westphalia ceased to offer this from the school year 2015/2016 onwards.

Source: Federal Statistical Office, Education and culture, Specialist Publications 11, Series 1 (General schools) and Series 2 (Vocational schools), 2010/2011 to 2019/2020;
calculations by the Federal Institute for Vocational Education and Training

down by 54,000 positions (-8.5%) within a year, whilst demand on the part of young people dropped by 59,400 positions (-8.3%). At the time, however, these decreases were not solely caused by the financial crisis. A sharp fall in the number of school leavers, mainly due to demographic reasons, and a trend towards school-based higher qualifications were further contributory factors.

In 2020, compensation for the decrease in company-based supply via ("extra-company") training provision that is primarily publicly funded took place only to a very low extent. Compared to the previous year, extra-company training provision across the country as a whole grew by 500 positions or 3.6% to 14,900. Conversely, company-based provision fell by 9.1% or 51,300 positions to 512,500.

In 2020, the number of company-based training places on offer fell in almost all areas of responsibility. Over the past few years, training place demand has changed with respect to its structure of characteristics relating to gender, school-leaving certificate and migration background. → **Table A2.1.1-1**, → **Table A2.1.1-2**.

Supply–demand ratio

Because training place supply and demand contracted to a similar extent nationwide in 2020, there was virtually no change in the ratio between these two values (eSDR = extended supply-demand ratio). In arithmetical terms, there were 96.6 training places on offer per 100 potential training place applicants (just under +0.1 percentage points compared to the previous year 2019). This meant that, from the perspective of young people, the supply-demand ratio continued to be significantly better than in the preceding years (→ **Figure A2.1.1-1**).

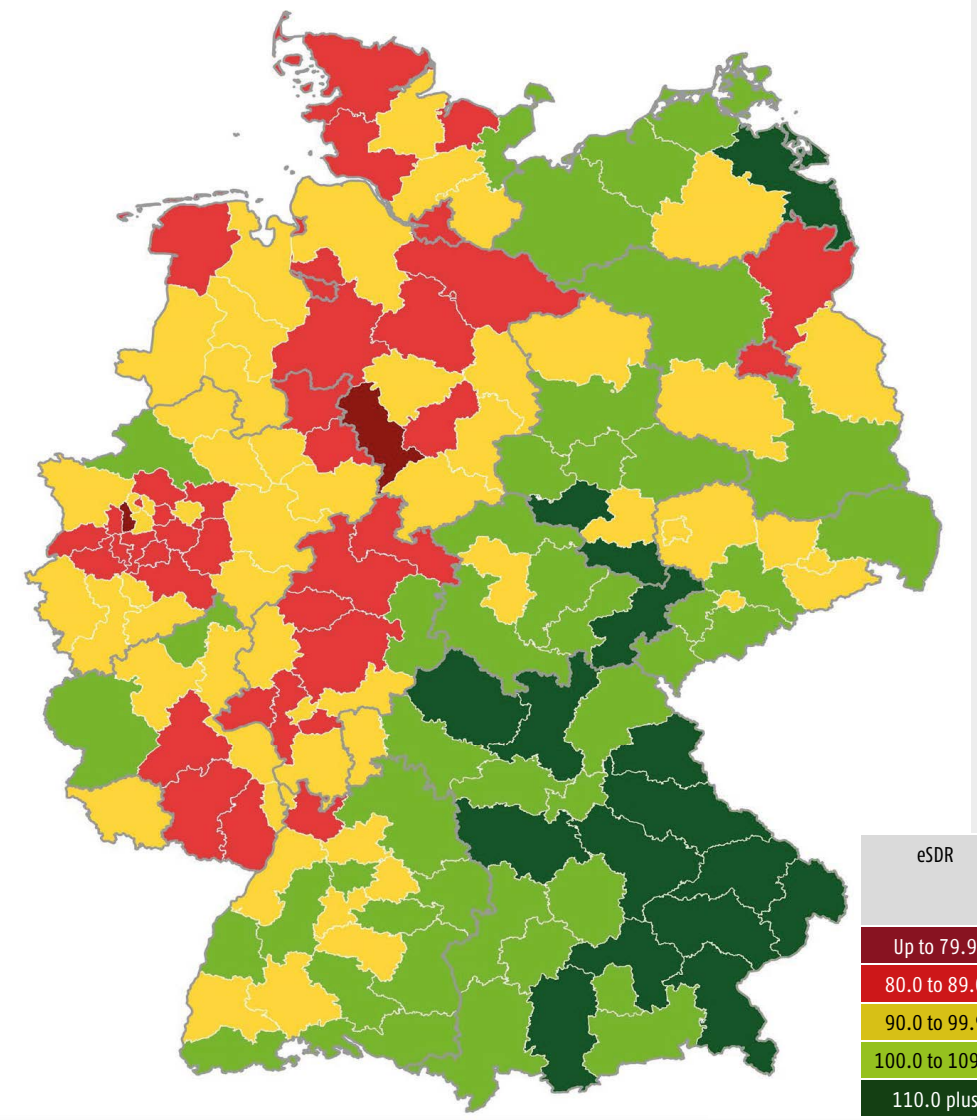
A2.1.2 Unsuccessful market participation and matching problems

At the time of the international crisis, a decline occurred both in the figures for training place supply and potential training place applicants and in the proportion of unsuccessful market participations. By way of contrast, 2020 saw a rise in these figures and in the proportion of unsuccessful market participation on both sides of the training market → **Table A2.1.2-1**.

The number of applicants registered with the BA as still "seeking a training place" on 30 September 2020 and who were therefore deemed to be unsuccessful potential applicants was 78,200 persons nationwide. This represented a rise of 4,500 unsuccessful potential training place applicants (+6.1%) compared to 2019. In 2020, the number of unsuccessful applicants as a proportion of officially identified demand was 14.3% (previous year: 12.3%).

Unused training contract potential in the 2020 reporting year was 59,900. This figure represents 59,900 unfilled training places as opposed to 78,200 potential applicants still seeking a training place. Unlike in the case of unused contract potential, one further relevant factor for the determination of matching problems (see Information Box) is the extent to which the side with the higher number of market participations (in 2020 the 78,200 unsuccessful young people) exceeds the smaller figure (in 2020 the 59,900 unfilled positions). This takes account of the circumstance that it makes a difference if, for example, 100 unfilled positions are contrasted in each case against 150 or even 500 unsuccessful applicants. The greater the side with the larger figure exceeds the side with the smaller figure, the greater the likelihood will be that supply and demand do not fundamentally match. In order to simultaneously delineate matching problems in terminological terms from recruitment problems (many unfilled positions but few unsuccessful young people) or from supply problems (many unsuccessful applicants but few unfilled positions), the determination is that matching problems exist if, as of the cut-off date of 30 September, both relatively many unfilled training places and relatively many unsuccessful young people are left over. Matching problems increased sharply in 2020 as a consequence of significant growths in the proportion of unfilled training places on offer and in the proportion of unsuccessful potential training place applicants. Nationwide, the "Matching Problems Index" rose to an all-time high of IP = 167.7. Regional market imbalances are one of the main reasons for matching problems on the training market (see Information Box). A comparison of regional proportions of unfilled training places and unsuccessful potential applicants makes it clear that regions with particularly severe recruitment problems often tend to have low numbers of potential applicants who are still seeking a training place. Conversely, in regions where supply problems are especially apparent, only a few vacant training places remain at the end of the year. Across the country as a whole, these two phenomena add up to relatively high numbers of unfilled positions and of potential training place applicants who are still searching. Occupational market imbalances are a further major cause of increasing matching problems on the training market. On the one hand, therefore, there are occupations that suffer from severe recruitment problems, whilst, on the other hand, we have numerous occupations in which many potential training place applicants fail to secure a training place (supply problems). As in previous years, recruitment problems in 2020 mainly occurred in hospitality, in craft trades in the food industry and in the cleaning sector. Supply problems were most likely to arise in media occupations and in parts of the commercial sector.

Figure A2.1.1-1: **Ratios between supply and demand for (eSDR) 2020 in the employment agency districts**



eSDR	Number of regions	Comparison 2019
Up to 79.9	2	0
80.0 to 89.0	37	33
90.0 to 99.9	56	67
100.0 to 109.9	42	36
110.0 plus	17	18

Source: Federal Institute for Vocational Education and Training survey as of 30 September; Federal Employment Agency, training market statistics as of 30 September (special evaluation for preparation of the Report on Vocational Education and Training); Calculations by the Federal Institute for Vocational Education and Training; © GeoBasis-DE/BKG (data changed), visualisation of the Employment Agency Districts: Federal Institute for Vocational Education and Training, Division 1.1

VET Data Report Germany 2021

Table A2.1.2-1: **Unsuccessful market participation in Germany from 2010 to 2020 (cut-off date 30 September)**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020 compared to 2019	
												Absolute terms	in %
Unfilled training places (according to BA training market statistics)	**19.898**	**30.487**	**34.075**	**34.720**	**38.449**	**41.678**	**43.561**	**48.984**	**57.656**	**53.137**	**59.948**	**+6.811**	**+12,8**
▸ *Proportion of company-based provision*	*3,7%*	*5,4%*	*6,1%*	*6,4%*	*7,1%*	*7,6%*	*8,0%*	*8,8%*	*10,0%*	*9,4%*	*11,7%*	*+2,3%*	*-points*
Including:													
Trade and industry	11.409	18.256	19.024	19.362	20.867	22.374	24.699	27.932	33.632	30.207	33.487	+3.280	+10,9
▸ *Proportion of company-based provision*	*3,6%*	*5,3%*	*5,6%*	*5,9%*	*6,5%*	*7,0%*	*7,7%*	*8,6%*	*10,0%*	*9,2%*	*11,6%*	*+2,4%*	*-points*
Craft trades	5.692	8.083	10.337	10.853	12.840	14.397	14.028	15.284	17.387	16.347	18.570	+2.223	+13,6
▸ *Proportion of company-based provision*	*3,9%*	*5,3%*	*7,0%*	*7,5%*	*8,7%*	*9,7%*	*9,4%*	*10,0%*	*11,0%*	*10,6%*	*12,8%*	*+2,1%*	*-points*
Public sector	169	95	250	235	147	108	152	197	310	214	630	+416	+194,4
▸ *Proportion of company-based provision*	*1,2%*	*0,8%*	*2,0%*	*1,9%*	*1,2%*	*0,8%*	*1,1%*	*1,4%*	*2,1%*	*1,4%*	*4,1%*	*+2,7%*	*-points*
Agriculture	282	281	356	455	545	518	532	484	605	592	726	+134	+22,6
▸ *Proportion of company-based provision*	*2,3%*	*2,2%*	*2,9%*	*3,6%*	*4,3%*	*4,0%*	*4,1%*	*3,6%*	*4,6%*	*4,5%*	*5,5%*	*+0,9%*	*-points*
Liberal professions	1.178	1.318	1.839	1.850	1.939	2.238	2.203	2.590	3.097	3.552	4.176	+624	+17,6
▸ *Proportion of company-based provision*	*2,7%*	*3,0%*	*4,1%*	*4,2%*	*4,4%*	*4,9%*	*4,7%*	*5,4%*	*6,3%*	*7,0%*	*8,8%*	*+1,8%*	*-points*
Other areas, not stated	1.168	2.454	2.269	1.965	2.111	2.043	1.947	2.497	2.625	2.225	2.359	+134	+6,0
Persons still seeking training places (according to BA statistics)	**80.456**	**72.417**	**76.119**	**83.742**	**81.388**	**81.037**	**80.603**	**80.221**	**78.619**	**73.721**	**78.237**	**+4.516**	**+6,1**
▸ % proportion of unsuccessful demand	12,6	11,3	12,1	13,7	13,5	13,4	13,4	13,3	12,9	12,3	14,3	+2,0	*-points*

Source: Federal Institute for Vocational Education and Training survey as of 30 September (special evaluations for preparation of the Report on Vocational Education and Training);
Federal Institute for Vocational Education and Training survey as of 30 September; calculations by the Federal Institute for Vocational Education and Training

VET Data Report Gemany 2021

Information Box – unused training contract potential

Unused training contract potential is always as high as the smaller number of the unsuccessful participations registered on both sides of the training market (because each of these unsuccessful participations is reflected in at least one unsuccessful participation on the other side of the market and, as a consequence of this, the potential was in place to bring every one of these market participations to a successful conclusion of contract).

Matching problems

In quantitative terms, the extent of matching problems can be mapped by multiplying the relative proportions of lack of success on both sides of the training market. The "Matching Problems Index" (IP) is calculated as the product of the number of unfilled positions as a percentage proportion of company-based training supply and the number of applicants still seeking a training place as a percentage proportion of training place demand.

Arithmetically, the range of values thus varies between 0% x 0% = 0 (no matching problems, no registered training places remain unfilled and no potential applicant is still seeking a training place at the end of the year) and the mathematically feasible but practically impossible value of 100% x 100% = 10,000 (all registered training places remain vacant and every single potential applicant is continuing to look for a training place at the end of the reporting year).

Regional training market differences

At the regional level, the officially identified supply-demand ratios depict the market situations as affected by (successful) mobility on the part of the young people rather than reflecting original local circumstances. This is because successful training place demand is equated with newly concluded training contracts at companies in the region. This value therefore also includes young people from outside the region. By the same token, local young people who have concluded their training contract with a company outside the area are absent. In some cases, there are considerable differences between the original regional market situations ("before" mobility) and the market situations as affected by mobility.

In contrast to successful demand, unsuccessful training place demand is measured solely with regard to place of residence. This also applies if local young people may have applied outside the region only. Training place demand also only encompasses training places from the region concerned, regardless of whether successful or unsuccessful.

Alongside regional and occupational discrepancies, characteristic-related discrepancies between supply and demand (e.g. with regard to (expected) school-leaving certificate or (preferred) size of company) also help to explain matching problems. Data from the BA Training Market Statistics makes it clear that the school-leaving certificates of the registered training place applicants significantly exceed the (minimum) school-leaving certificates expected by training place providers.

Ostensibly, this appears to be of benefit to young people's placeability into training. However, young people tend to opt for a training occupation typical of persons with their prior school learning and which brings them supposed advantages such as with respect to earnings, working conditions and acceptance of their career choice within their own social environment. The result is that typical "upper secondary school leaver occupations" often have too many potential applicants who compete with one another, whereas classic "lower secondary school leaver occupations" experience too little demand, and particularly serious recruitment problems then ensue. In the 2020 reporting year, only a lower secondary school-leaving certificate was expected for 60.4% of all unfilled training places.

At the same time, it is no longer the case that unsuccessful potential training place applicants primarily comprise young people without a school-leaving certificate or with only a lower-level qualification. In 2020, most unsuccessful potential applicants were in possession of an intermediate school-leaving certificate (29,700 or 38.0%). A further 20,200 or 26.0% held a higher education entrance qualification, and 22,700 or 29.0% of unsuccessful applicants had achieved a lower secondary school-leaving certificate. The proportion of unsuccessful potential applicants without a (lower secondary) school-leaving certificate was 1,500 persons or 1.9%.

The relatively low proportion of persons with a lower secondary school-leaving certificate amongst unsuccessful applicants does not, however, mean that this group has the best chances of avoiding failure in their search for a training place. A consideration of (estimated) rates of unsuccessful demand dependent on school-leaving certificate actually shows that the rate of failure has for some years been higher amongst potential applicants with a lower secondary school-leaving certificate than amongst persons in possession of an intermediate secondary school-leaving certificate and with a higher education entrance qualification. In 2020, just under 17% of all potential applicants with a lower secondary school-leaving certificate were unsuccessful. By way of contrast, the failure figures for potential applicants in possession of a higher education entrance qualification and for those with an intermediate secondary school-leaving certificate

were only just under 13% and 14%, respectively. On the basis of the available data, it is not apparent whether the crisis events surrounding the COVID-19 pandemic have disproportionately worsened or improved access opportunities for a certain group. In actual fact, the crisis seems to have lessened the chances of all demand groups relatively equally irrespective of school-leaving certificate.

A2.2 The significance of dual vocational education and training

This chapter presents dual vocational education and training pursuant to the BBiG/HwO in comparison to other stages in education and training. The aims are to align dual VET within the context of the overall education and training system and to define its significance vis-à-vis other educational sectors. Data from the iABE is used in particular because this is deemed to be especially appropriate for such a consideration.

In order to be able to document and align both the education and training and employment stages of an age cohort in as complete a way as possible, the following remarks are informed both by data from the iABE and by data from the microcensus (see Annex – Data sources). Attention needs to be drawn to the fact that the collation of different data sources with varying cut-off dates produces statistical blurring. Presentation of the cohorts therefore constitutes only an approximation of the true orders of magnitude. Depiction of actual education and training histories is not currently possible on the basis of official data.

Young people aged between 15 to 24 (population data)

With regard to the question as to in which educational sectors young people of a certain age are located, a useful approach is to relate young people within a particular age group (population data) to the resident population of the relevant age (e.g. young people in dual VET pursuant to BBiG/HwO aged between 15 and 24 as opposed to the resident population aged between 15 and 24). Proportions vary significantly depending on the age group considered. In this case, the 15 to 24 age group has been selected.

With regard to the following analysis, consideration needs to be accorded to the fact that young people spend different periods of time in the various types of education and training and employment sectors. Whereas dual VET pursuant to the BBiG/HwO usually takes three years, the duration of a course of higher education study may exceed five. Some measures in the "transitional sector" have a duration of less than a year. This means that young people in dual training will normally be recorded for three successive survey years in the population of the "vocational education and training sector", whereas participants in a measure in the "transitional sector" will generally only be counted once in a single year in this particular population.

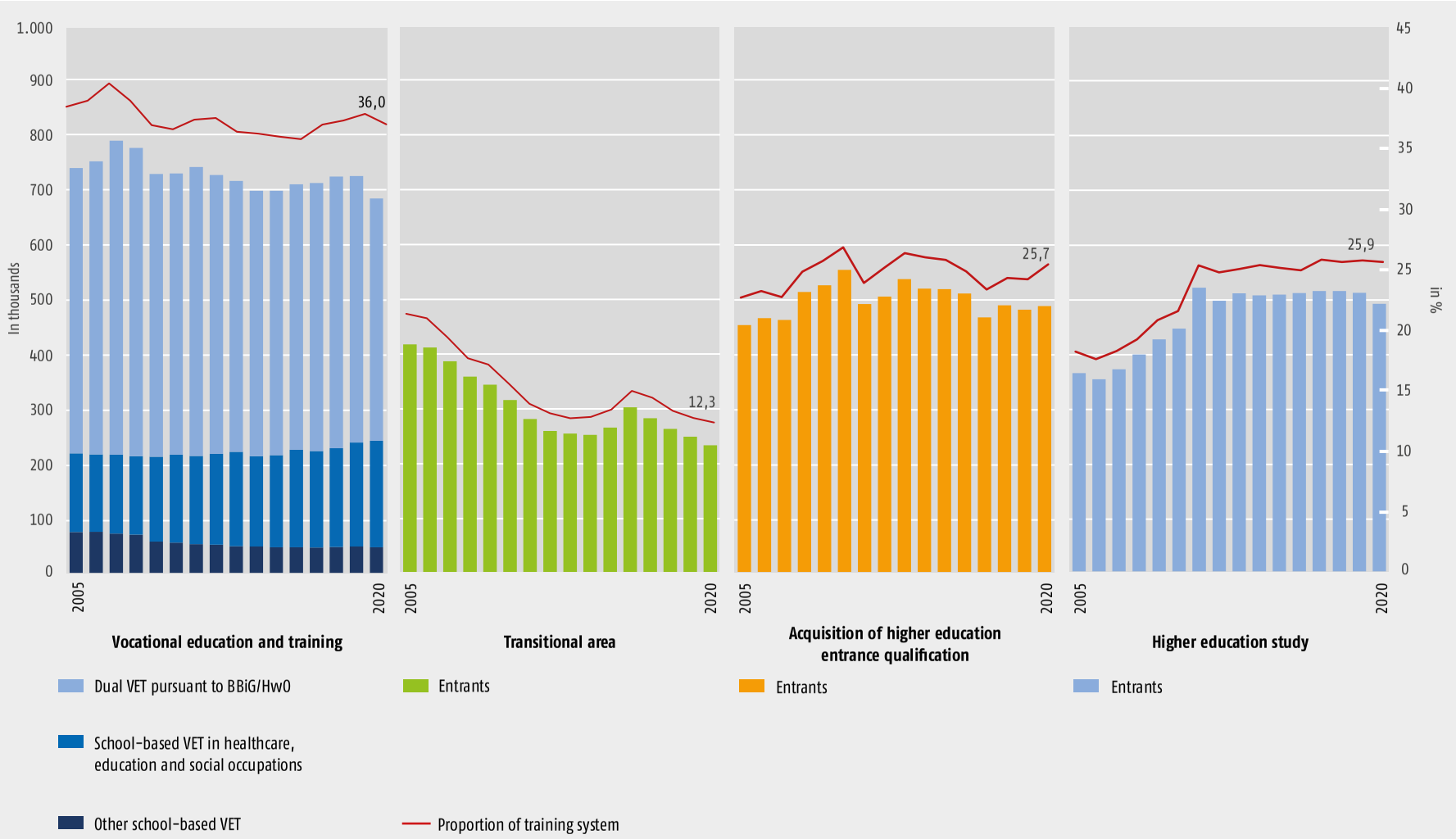
The first object of consideration is the 15 to 24 age group which was in formal education in 2019.

- 14% of the resident population in the selected age group were in dual vocational education and training pursuant to the BBiG/HwO. This means that dual VET constitutes a significant qualification stage for this age group.
- 5% of those aged between 15 and 24 were also in school-based vocational education and training. This includes training courses in the healthcare, education and social sectors. The demographic shift and the legal right to a place in childcare for children under three mean that there is already a severe shortage of qualified skilled workers in these areas. In addition, 1% of young people were in other forms of school-based VET, such as commercial assistant or design technology assistant, or in civil service training for medium level entry.
- 3% of young people aged from 15 to 24 were in partially qualifying measures within the "transitional sector". This includes all measures which aim to provide preparation for or help with integration into vocational education and training.
- A total of 34% of young people aged between 15 and 24 were aspiring to achieve a higher-level qualification – via acquisition of a general higher education entrance qualification (14%), via higher education study (18%) or via continuing training (1%). Students include young people completing a "traditional" degree at institutes of higher education or colleges of public administration as well as those participating in dual programmes at institutes of higher education or universities of cooperative education.

13% of young people outside formal education

- who had already obtained a formal educational qualification were in work (definition of the International Labour Organization). This represented the largest sub-group. Because this group of young persons in employment also includes those exercising a job for only a few hours per month (mini job), those in temporary work as auxiliary employees and those who are in "one-euro jobs", atypical forms of employment which deviate from normal working relationships are also recorded here.

Figure A2.2-1: **Development of sectors in the education and training system from 2005 to 2020 (estimated data for 2020)[1] – absolute and relative terms (100% = all persons entering the training system)**



[1] Total percentages do not add up to precisely 100% because of rounding.

Source: "Integrated Training Reporting System" and "Integrated Training Reporting Flash Report" based on data provided by the Federal Statistical Office, the Statistical Offices of the federal states and the Federal Employment Agency, (data status: 21.02.2021 and 16.03.2021) and supplementary estimation by the Federal Institute for Vocational Education and Training..

VET Data Report Gemany 2021

- Around 5% of young people aged from 15 to 24 were in employment without having previously obtained a formal educational qualification. 1% of the age group were neither in formal education nor in training (NEET).
- The destination of the others – 9% – could not be statistically clarified. In this instance, either no data was available or it was not possible to use the data in the analysis of the cohort without overlaps. These others include, for example, young people completing an internship, young people engaged in a "gap year" in Germany or abroad after completion of their upper secondary school-leaving certificate for the purpose of vocational or personal orientation, young people in work opportunities programmes with an element of training pursuant to Social Security Code II (SGB II, see Annex – Data sources), and young people performing voluntary social services.

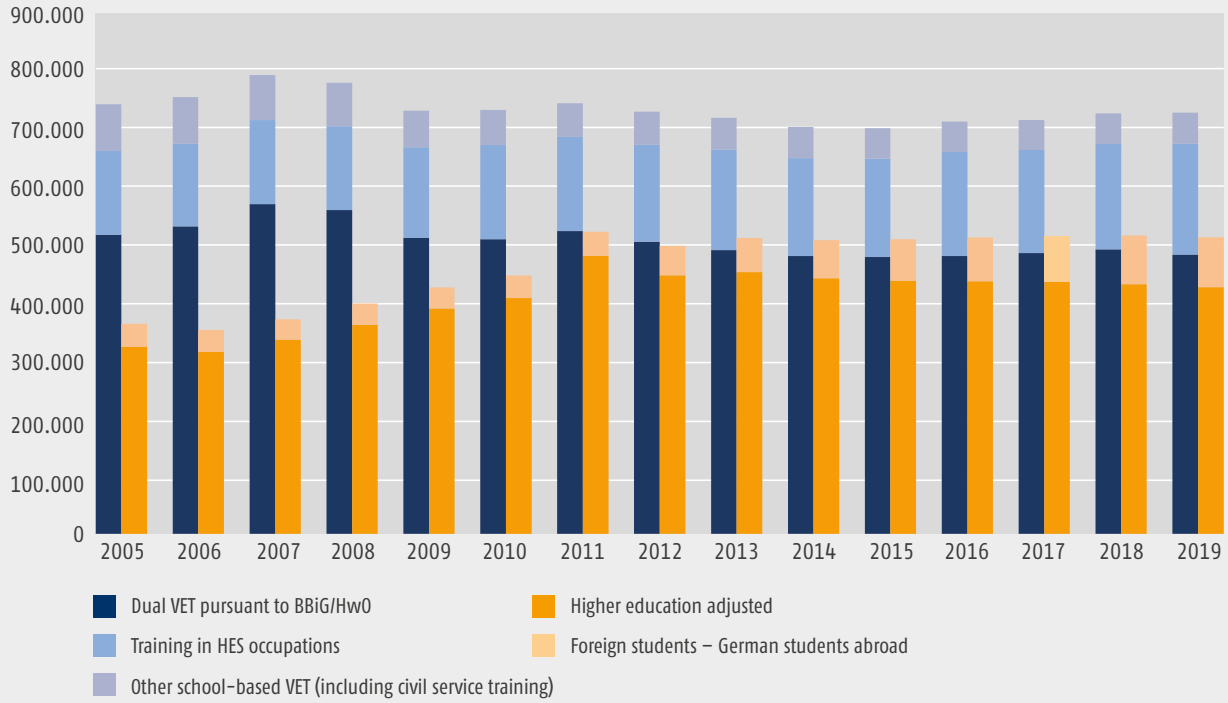
If the individual age groups are studied, distribution across areas of education differs considerably from cohort to cohort in line with the curriculum vitae. A clear characterisation of the various age groups with regard to qualification is displayed.

- 81% of young people aged 15 were still in lower secondary education.
- 51% of young people aged 17 aspired to a higher education entrance qualification. This age also accounted for 11% of young people in the "transitional sector", the highest proportion.
- The largest number of young people aged 19 (34%) were in dual or school-based VET.
- The age group of 22-year-olds was dominated by students, who made up 30%.
- 30% of 23-year-olds were already young members of the work force who had obtained a formal qualification. 2% of young people aged 24 had still not acquired a formal qualification and were not yet in employment.

Entrants in the education sectors

Below we look at all entrants to the education (and training) system regardless of age group. In this case, entrants to a sector were related to all entrants to the education (and training) system (e.g. entrants to the "vocational education and training" sector in relation to all entrants to the education (and training) system). Data on the education (and training) system for the year 2020 is based on an estimate carried out by BIBB in accordance with the 2020 iABE (see Annex – Data sources). In 2020, 36.0% (684,300) of entrants to the education and training

Figure A2.2-2: **VET and higher education entrants 2005 to 2019 in comparative terms**



Source: "Integrated Training Reporting System" based on data provided by the Federal Statistical Office, the Statistical Offices of the federal states and the Federal Employment Agency, data status: 21.02.2021; Federal Statistical Office: "Students at institutes of higher education, Specialist Publications 11, Series 4.1" and "German students abroad" (special evaluations for the Federal Institute for Vocational Education and Training, data status: 23.12.2020)

VET Data Report Gemany 2021

Table A2.2-1: **Entrants to the education and training sectors by selected characteristics (in %)**

Entrants by education and training sectors	2019 (2020[1] for the sector "Higher Education")						
	Proportion female[3]	Proportion non-German	Not achieved lower secondary school-leaving certificate	Lower secondary school-leaving certificate	Intermediate secondary school-leaving certificate[2]	University of applied sciences or general higher education entrance qualification	Proportion no information available/other
	in %	in %	in %	in %	in %	in %	in %
Training system (total)	48,9	16,7	4,9	13,5	45,0	34,8	1,8
Vocational education and training	47,6	12,9	3,0	20,9	50,5	23,0	2,7
▸ Dual VET pursuant to BBiG/HwO	36,8	12,6	4,2	23,2	45,7	23,4	3,5
▸ School-based VET in healthcare, education and social occupations	76,1	14,7	0,6	18,5	53,5	26,2	1,2
▸ Other school-based VET (including civil service training)	44,7	9,9	0,4	8,0	84,0	7,2	0,3
Integration into vocational training (transitional sector)	37,8	31,4	29,9	43,2	19,2	1,7	5,9
Acquisition of HEEQ (upper secondary)	53,4	6,5	0,1	1,4	97,9	0,2	0,3
Higher education study (2019)	51,8	24,5	0,0	0,0	0,0	100	0,0
Higher education study (2020)[1]	52,5	20,2					

[1] 1Preliminary data on the basis of the 2020 Integrated Training Reporting (iABE) Flash Report. Differentiated data for prior school learning is not yet available for 2020.
[2] Including school-based part of university of applied sciences entrance qualification.
[3] Persons whose gender is designated as "non-binary" or is "not stated" are randomly allocated to the male or female gender or to the categories of "male" and "female" in accordance with the evaluation possibilities available to the federal states (without proportional distribution and in the expectation of a value of 0.5).

Source: "Integrated Training Reporting System" and "Integrated Training Reporting Flash Report" based on data provided by the Federal Statistical Office, the statistical offices of the federal states and the Federal Employment Agency, (data status: 21.02.2021 and 16.03.2021)

VET Data Report Gemany 2021

system commenced fully qualifying vocational education and training. This means that, even in the coronavirus crisis year of 2020, VET accounted for the largest education and training sector. Just under two thirds (64.2%) of young people commenced dual training pursuant to the BBiG/HwO in this sector. The remainder (35.8%) embarked on school-based training. School-based VET in the healthcare, education and social sectors accounted for the majority of the latter. This means that a slow shift in entrant figures to more young people who are commencing vocational education and training in healthcare, education and social services occupations is being exhibited within the VET sector → **Figure A2.2-1**.

Current developments in the educational sectors are of particular interest in the year of the coronavirus crisis. For this reason, we will begin below by presenting developments in the educational sectors as compared to the previous year. In 2020, around 69,700 (-3.5%) fewer young people progressed to the education (and training) system in overall terms compared to the previous year.

The reasons for this development include a decline in the number of school leavers by -4.2% in 2020 as compared to the year 2019. Furthermore, it needs to be taken into account that the unemployment rate in the 15–24 age group rose compared to the previous year (from 4.4% in 2019 to 5.5% in 2020).

In overall terms, the "vocational education and training" sector recorded a decrease in entrants of 40,700 (-5.6%). Whereas the number of young people progressing to dual vocational education and training pursuant to the BBiG/HwO fell by around 44,400 (-9.2%), the number of entrants to school-based VET programmes in the healthcare, education and social sectors increased by approximately 5,200 (+2.7%) over the same period. The impact of the coronavirus pandemic is one of the reasons which may explain the decline in dual VET pursuant to the BBiG/HwO. The decrease in training place supply may have caused young people to revert to other education (and training) provision. During the same period, increases could be observed in the number of entrants to

the "acquisition of a higher education entrance qualification" (upper secondary) sector (a rise of 6,700 entrants, or +1.4%) and to school-based VET in healthcare, education and social occupations. The "higher education" sector also displayed a slight rise for the sub-group of German higher education entrants.

The number of entrants to the transitional sector has been falling continuously since 2016. In the year 2020, too, and compared to the previous year, the transitional sector showed a significant decline in the number of young people entering of 15,500 (-6.2%). At an initial glance, it may not appear plausible for entrant numbers to have fallen both in dual VET and in the transitional sector because the demographic decline was comparatively slight. Firstly, however, there are indications that young people were more likely to have remained in the general school system. Secondly, it is fair to assume that, in the wake of the pandemic, some transitional measures could only be executed in a limited fashion or else failed to take place at all and that this meant that fewer young people progressed to the transitional sector.

In the "higher education" sector, the number of entrants fell by 20,100 (-3.9%) compared to the previous year. More than one reason can be listed for this. Firstly, due to the return to the nine-year upper secondary school model in Lower Saxony, no complete upper secondary cohort left school. Secondly, we may assume that fewer foreign students commenced a course of higher education study in Germany owing to the restrictions brought about by the coronavirus pandemic. A significant decrease in foreign higher education entrants of -20.6% (-25,900) was recorded compared to the previous year. By way of contrast, the number of German higher education entrants showed a plus of 1.5% (+5,800) compared to 2019. This reveals a slight trend towards higher level training (2020 iABE).

A longer-term comparison (2005/2020), the sectors and accounts show different development dynamics → **Figure A2.2-2**. Whereas dual vocational education and training pursuant to the BBiG/HwO exhibited a positive development until 2007, a collapse occurred in 2009 for reasons including the economic crisis. Compared to the peak reached in 2007, a decline of around 23% was shown in 2020. This decrease was significantly exacerbated by the dynamics of last year. The greatest momentum took place in the "higher education" sector. The number of persons commencing a course of study is being influenced by the effects of eight-year upper secondary education and by the number of foreign students. Comparing between entrants to dual VET and entrants to higher education while taking into account that whilst foreign students arrive from abroad, young German people also commence a course of higher education study in other countries, the figures for 2019 reveal that more people still entered dual VET than started a programme of higher education. Nevertheless, it is important to point out that this chart is not yet able to take account of the developments of the coronavirus crisis year since current data on foreign students is so far not available for the year 2020.

The education (and training) sectors are examined below with regard to the characteristics available to the 2019 Integrated Training Report – gender, nationality and prior school learning → **Table A2.2-1**. Use is made of the (unestimated) previous year's data from the 2019 iABE.

A2.3 Training in the dual training system – analyses on the basis of the Vocational Education and Training Statistics

Vocational Education and Training Statistics (survey as of 31 December)

This chapter is based on the Vocational Education and Training Statistics (see Annex – Data sources) and encompasses the dual training occupations in accordance with the BBiG or HwO. These occupations include state-recognised training occupations pursuant to § 4 Paragraph 1 BBiG or § 25 Paragraph 1 HwO, dual training occupations being piloted pursuant to § 6 BBiG 60 or § 27 HwO and occupations in accordance with training regulations for persons with disabilities pursuant to § 66 BBiG or § 42m HwO.

A2.3.1 Total number of training contracts in the Vocational Education and Training Statistics

The total population data of trainees both in overall terms and differentiated according to the individual areas of responsibility and selected characteristics (gender, nationality) on the basis of data from the Vocational Education and Training Statistics is examined below. The population data comprises a tally of trainees across all years of training (1st, 2nd, 3rd and 4th year of training). This includes all persons who have a training contract pursuant to the Vocational Training Act (BBiG) or the Crafts and Trades Regulation Code (HwO) in force as of 31 December each year. For this reason, the total population data of trainees provides information on the whole scope of training performance provided by companies and vocational schools. On 31 December 2019, 1,328,964 persons were registered as trainees in dual vo-

Table A2.3.1-1: **Women as a proportion of all trainees by areas of responsibility[1], Germany 1992 to 2019 (in %)**

Year	Total number of trainees	Trade and industry	Craft trades	Public sector	Agriculture	Liberal professions	Housekeeping	Maritime sector[2]
1992	40,8	41,8	22,1	50,7	35,7	95,0	97,0	2,1
1993	40,4	41,8	20,8	52,0	34,3	95,1	96,7	2,5
1994	40,0	42,7	19,6	54,1	33,1	94,8	96,3	3,7
1995	39,8	43,2	19,2	56,7	32,7	94,9	95,7	3,9
1996	39,8	43,5	19,3	59,2	31,7	95,0	95,4	5,5
1997	39,9	43,5	19,8	62,3	30,7	95,3	95,0	7,0
1998	40,0	43,1	20,6	62,9	29,7	95,3	94,9	6,2
1999	40,5	43,4	21,3	63,0	28,5	95,5	94,6	4,1
2000	40,9	43,2	21,9	64,4	28,5	95,6	94,6	5,4
2001	41,0	42,4	22,4	64,6	27,2	95,6	94,1	6,5
2002	41,0	41,4	22,6	65,3	26,4	95,6	93,8	5,4
2003	40,6	40,5	22,7	64,9	25,2	95,5	93,0	4,5
2004	40,1	39,8	22,7	64,2	24,1	95,3	92,8	4,3
2005	39,7	39,5	22,9	63,4	23,2	95,1	92,5	4,2
2006	39,5	39,5	23,1	63,5	22,4	95,2	92,5	3,8
2007[3]	39,3	39,6	23,3	64,1	22,4	95,0	92,1	4,4
2008	39,6	39,8	23,7	64,3	23,0	95,0	92,2	–
2009	39,9	39,9	24,0	64,8	22,9	94,9	92,5	–
2010	39,8	39,6	23,8	65,3	22,7	94,7	92,5	–
2011	39,3	39,0	23,2	65,1	22,2	94,4	92,4	–
2012	39,0	38,6	22,7	65,2	21,9	94,0	91,8	–
2013	38,6	38,1	22,0	65,0	21,9	93,7	91,9	–
2014	38,3	37,6	21,6	65,3	22,0	93,4	91,7	–
2015	38,1	37,2	21,3	65,1	22,1	93,1	91,2	–
2016	37,8	36,7	21,1	64,6	22,3	92,8	90,3	–
2017	37,0	35,7	20,3	63,8	22,6	92,5	89,4	–
2018	36,1	34,7	19,2	63,4	22,7	92,0	88,6	–
2019	35,3	33,9	18,2	63,2	23,1	91,7	86,6	–

[1] Alignment of trainees to the areas of responsibility is generally determined by the competent body in charge of the training occupation rather than by the company providing training (with the exception of the craft trades). Trainees who are being trained in public sector companies or in liberal professions in the private sector economy are aligned to the areas of responsibility of trade and industry or craft trades. The area of responsibility of trade and industry reports the housekeeping occupations for the federal states of Hessen and Schleswig-Holstein.

[2] Since 2008, the area of responsibility of the maritime sector has no longer taken part in the Vocational Education and Training Statistics.

[3] Since 2007, extensive technical reporting adjustments have meant that data is not precisely comparable with previous years.

Source: "Trainee Database" of the Federal Institute for Vocational Education and Training based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), reporting years 1992 to 2019 (previous year's figures had to be used for Bremen for the 2015 reporting year because no data reporting took place). Calculations by the Federal Institute for Vocational Education and Training.

cational education and training pursuant to the BBiG or the HwO in Germany as a whole. This figure constitutes a slight drop compared to the previous year (-0.1%).

The significant decrease in total population data up until 2016 was caused by a substantial demographic collapse in the young resident population.

Development in the total population data in the areas of responsibility

Alignment of trainees to the areas of responsibility is generally determined by the competent body in charge of the training occupation rather than by the company providing training.

- The largest area of responsibility by a significant margin was trade and industry, which as of 31 December 2019 reported 769,335 trainees nationwide (around 58% of the total number). However, a slight decrease of 0.5% compared to the previous year was recorded in this area.
- In the craft trades, the second largest area of responsibility, constant decreases in the total population data until 2016 were followed by a rise in the last three reporting years up to 2019. However, compared to the previous year, the population data rose only slightly by 0.1% to 367,461 trainees.
- The number of training contracts in dual training occupations in the area of responsibility of the public sector saw a further significant increase in 2019 (+2.7%). This means that this area has recorded a growth of 18.7% since 2014. The characteristic of "alignment to a training venue in the public sector" has been recorded since the revision of the Vocational Education and Training Statistics. As a result, at least 17,595 trainees who were trained in the public sector in occupations in the other areas of responsibility should be added to the 41,193 registered trainees in the public sector for the year 2019. Nevertheless, the assumption must be made that the characteristic "alignment to a training venue in the public sector" is still being underrecorded within the scope of the Vocational Education and Training Statistics of the statistical offices.
- In the liberal professions, the total population data of trainees rose slightly once more (+0.6%) from 2018 to 2019.
- In the area of responsibility of agriculture, the number of trainees again fell slightly compared to the previous year to reach 32,331 in 2019 (-0.5%).
- As in previous years, the total population data for the 2019 reporting year in the comparatively small area of responsibility of housekeeping continued to decline (only 5,184 persons were trained in this area in 2019).

Proportion of women in dual training occupations

In 2019, the number of women as a proportion of all trainees in the dual vocational education and training system was 35.3%. This once again represented a significant decrease compared to the previous year (2018: 36.1%) → **Table A2.3.1-1**. The declining trend seen in recent years thus continued. The reasons for this are multifarious and, in some cases, also due to the demographic shift. The number of young men and women has decreased significantly over recent years in the wake of low birth rates. In the case of men, the gap in demand for dual training thus created has been reduced by strong male immigration. With regard to women, a compensation effect of this nature did not occur or took place only to a limited extent. Also, an increase in prior school learning for both genders in recent years has brought different consequences. Young women have increasingly been turning away from dual training provision in the supposedly "easier" service occupations, and greater numbers have instead been entering training programmes in the healthcare, nursing and social service occupations as well as gravitating to the public sector and institutes of higher education. According to the results of the Applicant Survey carried out by the BA and the BIBB, the reasons for this gender imbalance are also connected with different occupational wishes. In the wake of the shift towards a service society, increasing numbers of men are also entering training in the service sector. This leads to more male competition and thus further exacerbates the already high degree of competitive pressure amongst female applicants in their preferred occupations. Nevertheless, commercial and technical occupations, which continue to play a significant role in the dual VET system, are accorded very little consideration by women.

Proportion of foreigners in dual training occupations

The proportion of trainees holding a foreign passport virtually halved between the early 1990s and the year 2006 (1994: 8.0% as opposed to 2006: 4.2%). This temporary decrease is partially due to increased naturalisations. The proportion of foreigners amongst the general resident population fell likewise. Moreover, it is also likely that considerable shortages on the training market in the past have contributed towards the creation of a longer and more difficult transitional phase, particularly for young foreign people.

This declining trend has reversed in recent years. The proportion of foreigners has started to rise steadily again. In 2019, a new peak of 10.7% was reached → **Table A2.3.1-2**. The likelihood is that development has been materially brought about by an increase in the number of

Table A2.3.1-2: **Number of foreigners as a proportion of all trainees by areas of responsibility,[1] Germany 1992 to 2019 (in %)**

Year	Total number of trainees	Trade and industry	Craft trades	Public sector	Agriculture	Liberal professions	Housekeeping	Maritime sector[2]
1992	7,2	6,4	9,4	2,6	1,2	7,5	2,4	1,1
1993	7,8	6,9	9,8	3,0	1,2	8,3	2,7	1,6
1994	8,0	7,2	9,7	3,1	1,4	8,5	2,9	0,9
1995	7,7	7,0	9,0	3,1	1,8	8,6	3,6	1,0
1996	7,3	6,7	8,3	2,7	1,6	9,0	4,1	0,9
1997	6,8	6,3	7,6	2,4	1,4	8,8	4,5	0,9
1998	6,3	5,9	7,0	2,4	1,1	8,2	4,7	1,5
1999	5,9	5,6	6,6	2,3	0,9	8,0	3,9	1,7
2000	5,7	5,2	6,4	2,1	0,9	8,2	4,2	1,6
2001	5,5	5,0	6,2	2,2	0,8	7,9	4,3	0,0
2002	5,3	4,7	6,0	2,0	0,9	8,3	4,2	0,8
2003	5,0	4,4	5,7	2,1	0,8	8,3	4,1	2,3
2004	4,6	4,0	5,3	1,8	0,8	7,7	4,2	2,5
2005	4,4	3,8	5,1	1,7	0,8	7,3	4,0	2,3
2006	4,2	3,7	4,8	1,7	0,8	7,1	3,7	1,5
2007[3]	4,3	3,9	4,9	1,5	0,7	7,7	3,2	1,2
2008	4,5	4,1	5,2	1,5	0,7	8,1	3,6	-
2009	4,8	4,3	5,5	1,8	0,8	8,5	4,1	-
2010	5,1	4,5	5,9	1,7	0,7	9,1	4,6	-
2011	5,3	4,7	6,1	1,7	0,8	9,4	5,3	-
2012	5,5	4,9	6,3	1,9	0,9	10,0	5,8	-
2013	5,7	5,1	6,7	2,0	0,9	9,8	6,1	-
2014	6,1	5,4	7,2	2,0	1,2	11,4	5,6	-
2015	6,5	5,7	7,7	2,1	1,4	11,5	6,1	-
2016	7,3	6,3	8,8	2,4	1,7	12,5	6,7	-
2017	8,6	7,3	10,9	3,0	2,5	13,4	8,2	-
2018	9,9	8,3	13,1	3,3	3,1	14,5	8,5	-
2019	10,7	8,9	14,4	3,4	3,3	15,7	8,2	-

[1] Alignment of trainees to the areas of responsibility is generally determined by the competent body in charge of the training occupation rather than by the company providing training (with the exception of the craft trades). Trainees who are being trained in public sector companies or in liberal professions in the private sector economy are aligned to the areas of responsibility of trade and industry or craft trades. The area of responsibility of trade and industry reports the housekeeping occupations for the federal states of Hessen and Schleswig-Holstein.

[2] Since 2008, the area of responsibility of the maritime sector has no longer taken part in the Vocational Education and Training Statistics.

[3] Since 2007, extensive technical reporting adjustments have meant that data is not precisely comparable with previous years.

Source: "Trainee Database" of the Federal Institute for Vocational Education and Training based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), reporting years 1992 to 2019 (previous year's figures had to be used for Bremen for the 2015 reporting year because no data reporting took place). Calculations by the Federal Institute for Vocational Education and Training.

refugees. Over the past few years, there has in particular been a significant increase in the total number of trainees holding the nationality of a (non-European) country of asylum seeker origin (total population data for 2012: 2,763 as opposed to 47,553 in 2019). However, it is necessary to point out that the group of trainees holding the nationality of a country of asylum seeker origin is not clearly delineated from refugees. It may also include persons who have been resident in Germany for some considerable time and may have arrived in the country via other migration routes (e.g. work migration, family reunification).

The number of foreigners as a proportion of trainees is, however, not a suitable indicator for an assessment of the extent of integration into dual vocational education and training. In order to arrive at such an evaluation, the proportion of foreigners amongst trainees needs to be related to the proportion of foreigners of relevant age within the resident population. This takes place via the analysis of the training entrant rate of young people (see below). However, the proportion of foreigners is suitable for a comparison of areas of responsibility or for analyses at the level of individual occupations.

A2.3.2 Newly concluded contracts in the Vocational Education and Training Statistics

A summary of newly concluded contracts for 2019 (see Information Box) by selected characteristics introduced from the 2007 reporting year is presented below. Training entrants are delineated from other types of new contracts. Firstly, the newly concluded contract figures by areas of responsibility and compared to the previous year are outlined as shown within the scope of the Vocational Education and Training Statistics.

Information Box – newly concluded training contracts (also referred to in abbreviated form as new contracts)

Within the scope of the Vocational Education and Training Statistics, newly concluded contracts are defined as vocational education and training contracts entered into the index of vocational education and training contracts pursuant to the Vocational Training Act (BBiG) or the Crafts and Trades Regulation Code (HwO) in respect of which the training contract has begun within the recording period and is still in existence on 31 December (definition until 2006) or which has not been dissolved by 31 December (definition since 2007). The statistics only record contracts which actually begin.

The definitions of new contracts within the scope of the Vocational Education and Training Statistics and in the BIBB survey of newly concluded training contracts as of 30 September do not correlate because of differences between the two surveys with regard to design. The variance of terms in the two surveys does not merely relate to the time reference.

A total of 513,309 new training contracts[4] which had not been dissolved as of 31 December 2019 were entered into in the 2019 reporting year. This represents a slight decrease of 1.6% in the number of new training contracts compared to the previous year (521,901).

The newly concluded training contracts can be differentiated into four categories.

1. Vocational education and training contracts which are primarily publicly funded

The purpose of vocational education and training contracts which are primarily publicly funded (i.e. public funding accounts for more than 50% of overall costs in the first year of training) is to offer provision to young people who are at a market disadvantage (not having found a training place despite displaying the necessary maturity to enter an apprenticeship), who are socially disadvantaged, or who have learning difficulties or a disability. Of all newly concluded training contracts for the 2019 reporting year, 2.9% were reported in the Vocational Education and Training Statistics as being mainly publicly funded[5].

In the 2019 reporting year, 63.3% of all new contracts in training occupations in the area of responsibility of housekeeping across the country were primarily publicly funded. This was the highest proportion by some distance in any area of responsibility. The proportions of primarily publicly funded new contracts in agricultural occupations, in the craft trades and in trade and industry were just under 7%, 3.6% and 2.6%, respectively. The proportions in the areas of responsibility of the liberal professions (0.2%) and the public sector (0.3%) were even lower.

4 For data protection reasons, all absolute values in the Vocational Education and Training Statistics rounded to a multiple of three.

5 Total costs include both the training allowance and all other human resources costs, costs of materials and fees incurred in connection with the training. Any income from productive performance of the trainees is not taken into account.

2. Part-time VET

The possibility of part-time vocational education and training was enshrined in the Vocational Training Act (BBiG) of 2005. Pursuant to § 8 Paragraph 1 Clause 2 BBiG (in the version which was valid until 31.12.2019), part-time vocational education and training contacts are VET contacts in which daily or weekly training time is shortened. Up until now, very few dual VET contracts pursuant to the BBiG or the HwO have been concluded in part-time form. In the 2019 reporting year, too, only 2,283 new contracts were recorded as being part-time vocational education and training contracts (0.4% of all newly concluded contracts).

3. New contracts with a shortening of duration of training of at least six months

The Vocational Education and Training Statistics use the variable "shortening of duration of training" to survey such reductions in the duration of training, which are agreed pursuant to § 7 or § 8 BBiG. Trainees and companies providing training may jointly apply for such reductions to the duration of training in accordance with a legal ordinance issued by the respective federal state governments "permitting the full or partial crediting to the period of training of courses at vocational schools or of vocational education training at another institution" (§ 7 BBiG) or if "there is an expectation that the goal of training can be attained within the shortened period" (§ 8 BBiG). This does not include shorter durations of training because of early admission to the examination or so-called follow-up contracts, in respect of which credit transfer is provided for a two-year course of VET in accordance with the training regulations.

Within the Vocational Education and Training Statistics for the 2019 reporting year, 18.9% of all newly concluded contracts were reported as being shortened by at least six months (not including follow-up contracts)[6]. In overall terms, these shortenings were disproportionately likely to be recorded in the area of responsibility of agriculture (31.7%), in individual federal states and also in other areas of responsibility.

4. Newly concluded contracts with previous VET

Alongside other reasons, such as prior participation in basic vocational training or vocational preparation, previous vocational education and training may constitute a further cause for shorter training contracts. The Vocational Education and Training Statistics differentiate between three characteristics of previous vocational education and training (previous dual VET pursuant to the BBiG/HwO which has been successfully completed; previous VET pursuant to the BBiG/HwO not successfully completed; previous school-based VET successfully completed[7]).

At least one of these types of prior learning was reported for a total of 11.2% of newly concluded training contracts (multiple responses were possible). Most cases involved prior dual vocational education and training, both programmes not previously successfully completed (6.7% or 34,644) and VET programmes successfully completed in the dual system (4.4% or 22,350). A school-based programme of vocational education and training that was successfully concluded was reported for comparatively few trainees with a new contract (0.6% or 3,147).

Training entrants and other types of newly concluded training contracts

Not all new training contracts are concluded by training entrants in the dual system. The number of newly concluded training contracts can therefore not be equated with the number of training entrants to the dual system (pursuant to BBiG or HwO) (see Information Box). A newly concluded contract represents a contractually-related characteristic that also occurs in the following circumstances.

a) A training contract is prematurely dissolved, and a new training contract is concluded in a different dual training occupation (change of occupation within the dual system) and/or with a different company providing training (change of company providing training within the dual system).[8]
b) A previous two-year programme of dual VET (BBiG/HwO) is carried on via a "continuation occupation" (follow-up contracts within the dual system).
c) Following successful completion of a programme of dual vocational education and training, a further training contract that does not constitute a follow-up contract is concluded in an occupation in the dual system (multiple training programmes within the dual system).

6 Follow-up contracts are excluded in this instance, even if they have been (wrongly) registered as a shortening.

7 School-based vocational education and training programmes that were begun outside the dual system and not concluded have thus far not been recorded within the scope of the Vocational Education and Training Statistics.

8 Pure changes of occupation cannot be differentiated from changes of company on the basis of the Vocational Education and Training Statistics.

Figure A2.3.2-1: **Training entrants and other types of newly concluded training contracts, Germany 2019**

A No prior VET

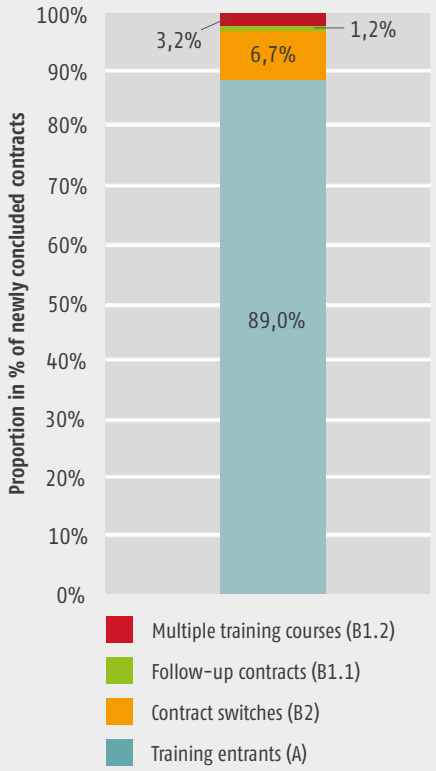
Training entrants

Newly ***concluded contracts without prior dual VET***

Note on recording: some persons reported as not having completed VET, albeit a slightly shortened programme. Some contract switchers were entrants in the same calendar year or in the previous year. Because of the definition of newly concluded training contracts, however, their first contract did not count as having been newly concluded. Switchers from a shortened programme must therefore be counted as entrants, otherwise they would never be recorded as such.

B With previous dual VET,

which was successfully completed		which was not successfully completed
Follow-up contracts (B1.1) With credit for two-year VET previously completed (continuation in accordance with training regulations)	**Multiple training courses within the dual system (B1.2)** No follow-up contract	**Contract switches (B2)** Switchers of company and occupation (who were not also training entrants in the calendar year or in the autumn of the previous year) *Note on recording: some recorded without this prior training, albeit significant shortening or another potential reason for shortening*



Source: BIBB "Trainee Database" provided by the Federal Statistical Office based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), 2019 reporting year. Calculations and delineations made by the Federal Institute for Vocational Education and Training (characteristic follow-up contract registered).

VET Data Report Gemany 2021

Information Box – training entrants

Training contracts are not only concluded with new entrants to vocational education and training. They also occur when a change of occupation or company takes place and in the case of so-called follow-up contracts and multiple instances of training within the dual system. BIBB records the number of entrants in the dual system both as a sub-group of new contracts and as a sub-group of training contracts commenced in overall terms. Reports regarding previous vocational education and training, notifications of the contractually agreed duration of training and of the year of birth of the trainees and further information on prior learning (potential reasons for shortening) are taken from the Vocational Education and Training Statistics and used for this purpose.

Training contracts reported as being associated with prior dual vocational education and training (successfully completed or not successfully completed) are not usually counted as training entrants. Exceptions in this regard are contracts with a slight shortening, where the first training contract may possibly have fallen into the same calendar year. This exceptional allocation only ever occurs if dual VET previously successfully completed is not also reported. This is only used in delineation regarding the new contracts because the definition of a newly concluded contract would otherwise mean that some trainees in the dual system are never counted as new entrants.

Those without prior dual VET are normally deemed to be entrants. Exceptions are contracts with a significant shortening without any obvious reason for such a shortening. This allows the conclusion that the prior VET was erroneously not reported.

If training entrants (see Information Box) are also distinguished by agreed duration of contract rather than merely by information regarding previous vocational education and training, approximately 89% of new contracts can be identified as having been concluded by entrants

(→ **Figure A2.3.2-1**). The remaining 11% are distributed across those who have already successfully completed a course of VET (4.4%) and those who switch contracts (6.6%). The latter are persons who have previously already concluded a dual training contract and, once this contract has been dissolved, go on to conclude another training contract in the same or in a different training occupation (change of training occupation or of company within the dual system). Only persons with a significant period of shortening are deemed to be contract switchers. Others are still counted as training entrants. Newly concluded training contracts reported as having been concluded subsequent to completion of previous dual VET can be further sub-divided into multiple instances of training within the dual system and so-called follow-up contracts. 1.2% of new contracts (see Information Box) were registered as follow-up contracts. These involve continuation of a two-year programme of VET previously completed in the dual system. Just under 3.2% of new contracts thus represent multiple instances of training within the dual system. The percentage values stated relate to the 2019 reporting year and have been largely stable since 2008 (the first year in which such differentiations could be made).

Information Box – follow-up contracts (in continuation of occupations)

Newly concluded contracts which represent a continuation of a two-year programme of dual VET successfully completed within a dual course of vocational education and training (BBiG/HwO, usually of three or three and a half years' duration) are designated as follow-up contracts. In this case, the only continuations to follow-up contracts which are counted are those in which the training regulations explicitly provide for credit transfer of the two-year vocational education and training (§ 5 Paragraph 2 Clause 4 BBiG). Up until now, such continuations are exclusively stipulated in occupations in the areas of responsibility of trade and industry and the craft trades. The training regulations make mention of continuation/extension of vocational education and training, of cumulative training occupations, of credit transfer regulations. Older training regulations also (still) refer to staged training. Dual training occupations, for which the training regulations state a credit transfer may be given for a completed two-year VET programme, will be referred to as "continuation of occupations" below. This characteristic has only been directly recorded within the scope of the Vocational Education and Training Statistics since the 2016 reporting year. Previously (from the 2007 reporting year), it was approximately determined on the basis of occupational information and on reports regarding duration of the training contract and prior learning.

A2.3.3 Developments in occupational structure in dual vocational education and training

The following chapter provides an analysis of selected developments in occupational structure within the dual vocational education and training system pursuant to the Vocational Training Act (BBiG and the Crafts and Trades Regulation Code, HwO) and shows how these are executed within the scope of permanent observations undertaken by BIBB on the basis of the Vocational Education and Training Statistics (survey as of 31 December). The Vocational Education and Training Statistics are particularly well suited to observe long-term developments. Characteristics such as general school-leaving certificates of trainees are also recorded, and these can be linked to data relating to occupational structure. Newly concluded training contracts serve as the basis for this chapter. Because of a change in the system used for alignment of occupations to the manufacturing sector and to the primary and secondary services sector (see Information Box) for the 2015 reporting year, an interruption to the time series needed to be accepted from the 2017 Data Report to accompany the Report on Vocational Education and Training onwards. This means that older summaries are no longer comparable with the current summary.

Trend 1: Tertiarisation of dual vocational education and training

Since the 1980s, the service sector has increasingly taken on a dominant role within the employment system in the Federal Republic of Germany, and this circumstance has also been reflected in the development of the service occupations (see Information Box) in dual vocational education and training. In this case, and with only a few exceptions, the proportion of newly concluded training contracts rose steadily from the mid-1990s until the year 2010 (65.1%). Since this time, it has declined once again to reach 62.1% in the 2019 reporting year → **Table A2.3.3-1**. The trend seen over recent years continued in that the decrease exclusively occurred amongst primary service occupations in the dual system (2010: 50.3% as opposed to 45.0% in 2019). By way of contrast, secondary service occupations recorded slight growths during this period, albeit from a significantly lower base – growth rates (14.8% in 2010 as opposed to 17.0% in 2019).

Information Box – manufacturing and service occupations

The (extended) occupational classification codes in accordance with the BA's 2010 Classification of Occupations (KldB 2010) were introduced into the Vocational Education and Training Statistics with effect from the 2012 reporting year to replace the KldB 1992, which had been used up until this point.

The following analyses deploy a structure relating to manufacturing and service occupations which is based firstly on the KldB 2010 and secondly on information regarding main task focuses taken from the 2011 microcensus. Within the scope of the 2011 microcensus, respondents were asked to choose the tasks which were most significant for their daily work from a list of 20 options. The proportions of tasks were added up in accordance with their alignment to the respective sector. This procedure allowed each of the individual occupations to be allocated to an occupational sector. The individual training occupations were directly categorised as manufacturing occupations, primary service occupations, or secondary service occupations.

Primary service occupations are distinguished from manufacturing occupations "with regard to the main focus of 'extension' of the production route upstream and downstream. They maintain the macroeconomic 'production flow' and inform consumption directly". Primary service occupations include occupations in which the main task focuses are on commercial and office activities or on general services such as catering, storage, transportation, cleaning and security.

Secondary service activities encompass tasks which are not usually physically tangible and thus represent immaterial goods which are predominantly produced intellectually. They are also referred to as knowledge work and are characterised by the fact that they improve industrial production in qualitative terms via increased furtherance and use of the human mind or "human capital". They include occupations with main task focuses such as measuring, testing, researching, designing, applying laws, advising, nursing and treating.

Considering the development, differentiated by gender, of the trainees shows that there has been a significant decrease over the course of time both in the absolute number of new training contracts concluded with women and in the proportion of women in the service sector. The consequence in the 2019 reporting year is that representation of female trainees in the service sector was only slightly higher than that of males (proportion of women in 2019: 54.0%, 2009: 61.8%) → **Table A2.3.3-1**.

Trend 2: Dual vocational education and training in STEM occupations

The significance of STEM occupations (see Information Box) has risen steadily within the dual vocational education and training system since the 2010 reporting year. A total of 179,040 new training occupations were concluded in STEM occupations in the 2019 reporting year. In absolute terms in 2019, the number of newly concluded training contracts in STEM occupations remained significantly below the figure recorded at the beginning of the 2000s. Nevertheless, even greater declines in the number of all newly concluded training contracts during the same period meant that the proportion of newly concluded contracts in STEM occupations went up proportionately in 2019 overall terms to reach a share of 34.9%, a new peak. From the mid-2000s to 2016, the proportion of women in STEM occupations increased constantly, apart from a small number of exceptions (2016: 11.5%). Even though women certainly hold preferences for selected STEM occupations, by far the greatest part of such occupations is male-dominated. Indeed, it is frequently the case that occupations are the exclusive domain of men. The increase in the proportion of women up until 2016 must also be categorised as relatively weak, especially given the various funding measures of recent years. It is possible that the causes here include individual reasons such as career choice decisions and company reasons within the scope of gender-specific recruitment behaviours.

In the group of STEM occupations in 2019, just under nine in ten of new contracts were once again concluded in the technical occupations. The proportion of women was 10.7%, virtually the same level recorded in the previous year (2018: 10.6%). The comparatively small area of healthcare technology is the only STEM sector in which women are in the majority (59.7%). This group includes the occupations of optician, audiologist, and dental technician. In the case of dual training occupations in the STEM sector, women thus occupy gender-typical niches. An above average proportion of women (35.6%) is also revealed in mathematically and scientifically aligned training occupations which mainly comprise laboratory tasks (e.g. biological laboratory technician, chemical laboratory technician, chemical technician and pharmaceutical technician). By way of contrast, females were less likely to be represented in the field of information technology (8.6%) than in the STEM occupations as a whole. Because of its rising significance since the mid-1990s, this sector will be examined in greater detail below with the assistance of the BIBB occupational field definitions.

Table A2.3.3-1: **Newly concluded training contracts in manufacturing and service occupations[1], Germany 2009 to 2019**

Year / Occupational group	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total, absolute terms											
Manufacturing occupations	198.891	194.925	201.693	196.749	188.340	187.185	187.062	186.003	191.970	196.845	194.745
Service sector occupations	362.277	364.107	364.131	352.257	337.557	331.209	329.577	323.994	323.709	325.059	318.564
Of which: Primary service sector occupations	280.458	281.367	279.096	267.543	255.027	249.249	246.351	241.356	240.309	238.899	231.057
Secondary service sector occupations	81.819	82.740	85.035	84.714	82.530	81.960	83.226	82.641	83.400	86.160	87.507
Total	**561.171**	**559.032**	**565.824**	**549.003**	**525.897**	**518.394**	**516.639**	**509.997**	**515.679**	**521.901**	**513.309**
Men, absolute terms											
Manufacturing occupations	183.951	180.777	187.458	182.052	174.132	172.386	172.113	170.622	177.039	181.461	179.268
Service sector occupations	138.282	144.705	148.878	144.201	139.668	138.048	139.344	139.347	144.435	148.221	146.652
Of which: Primary service sector occupations	109.899	115.773	117.924	113.505	109.581	108.000	108.993	109.293	113.073	115.047	112.119
Secondary service sector occupations	28.386	28.935	30.954	30.696	30.090	30.048	30.351	30.054	31.362	33.171	34.533
Total	**322.236**	**325.482**	**336.333**	**326.253**	**313.803**	**310.434**	**311.457**	**309.966**	**321.474**	**329.679**	**325.917**
Women, absolute terms											
Manufacturing occupations	14.940	14.148	14.235	14.697	14.208	14.802	14.949	15.381	14.931	15.384	15.477
Service sector occupations	223.995	219.402	215.253	208.056	197.889	193.161	190.230	184.650	179.274	176.838	171.912
Of which: Primary service sector occupations	170.562	165.594	161.175	154.035	145.446	141.249	137.358	132.063	127.236	123.849	118.938
Secondary service sector occupations	53.433	53.805	54.081	54.018	52.440	51.912	52.875	52.587	52.038	52.989	52.974
Total	**238.935**	**233.550**	**229.488**	**222.753**	**212.094**	**207.960**	**205.182**	**200.031**	**194.205**	**192.222**	**187.392**
Total, in % of all newly concluded contracts											
Manufacturing occupations	35,4	34,9	35,6	35,8	35,8	36,1	36,2	36,5	37,2	37,7	37,9
Service sector occupations	64,6	65,1	64,4	64,2	64,2	63,9	63,8	63,5	62,8	62,3	62,1
Of which: Primary service sector occupations	50,0	50,3	49,3	48,7	48,5	48,1	47,7	47,3	46,6	45,8	45,0
Secondary service sector occupations	14,6	14,8	15,0	15,4	15,7	15,8	16,1	16,2	16,2	16,5	17,0
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

[1] Detailed information on the approach adopted towards classification of the occupational groups and a full list of manufacturing and service sector occupations is available at: https://www.bibb.de/dokumente/xls/dazubi_berufsliste-p-dl_2019.xlsx

Source: "Trainee Database" of the Federal Institute for Vocational Education and Training based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), reporting years 2009 to 2019 (previous year's figures had to be used for Bremen for the 2015 reporting year because no data reporting took place). For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values. Calculations by the Federal Institute for Vocational Education and Training..

Information Box – STEM occupations in the dual system (BBiG/HwO)

Within the scope of the analysis of developments in occupational structure, the BIBB occupational grouping of "technical occupations" has been abandoned. In accordance with the BA definition, it has been replaced (including with retrospective effect) by the occupational group of "STEM occupations". The BA definitions takes the 5-digit code in the 2010 Classification of Occupations as its starting point and also includes dual training occupations (pursuant to the BBiG or HwO). The two delineations (BIBB technical occupations and BA STEM occupations) largely correlate for the dual training occupations.

The "STEM occupations" occupational aggregate

According to the BA definition, the "STEM occupations occupational aggregate" encompasses all tasks which can only be exercised by those with a high proportion of knowledge and skills from the fields of mathematics, information technology, the natural sciences and/or engineering. The construction and maintenance of technical plants and equipment are deemed to be part of the STEM occupations if these form the core component of a task but not the mere operation of machines. Task content is crucial for the definition of STEM occupations. Form of training, such as skilled crafts occupation or industrial occupation, for example, is not decisive in this regard. The occupational aggregate of "STEM occupations" includes both the highly qualified STEM occupations and the "medium-qualified" STEM occupations. This means, alongside complex specialist and specialist tasks, skilled worker tasks are also taken into account.

Trend 3: IT occupations in Industry 4.0

The digitalisation of the economy and of trade and industry can be expected to progress and to gain in significance over the coming years. This is being accompanied by a growing demand for IT occupations (see Information Box). Analyses have shown that a significant proportion of this additional demand will occur in manufacturing industry and not merely within the information and communication technology (ICT) sector alone. Even though the rising requirements will mainly relate to highly qualified skilled workers, an effect will also be felt at the intermediate qualification level.

The number of newly concluded training contracts in IT occupations has increased significantly since 1997, mainly because of the new occupations introduced in that year → **Figure A2.3.3-1**. Women are significantly underrepresented in the dual IT occupations to a similar degree as in the dual STEM occupations. Whereas the proportion of women was still at just under 20% in the mid-1990s, it fell during the subsequent period to 9.0% in 2019. In overall terms, a reproduction of gender-specific accesses and labour market segmentations also seems to be occurring in the IT occupations. And the low presence of women in IT occupations is probably in itself a key co-determining factor in female socialisation away from the IT occupations.

Information Box – core IT occupations

In order to delineate the IT occupations, occupational field 38 "Core IT occupations" has been included in the BIBB occupational field definitions with the aim of achieving comparability of occupational field analyses. Analyses by Hall and others have shown that the majority of persons in this occupational field is concerned with data processing and software development. In some cases, they are also involved with consultancy and with the organisation and sales of data processing systems.

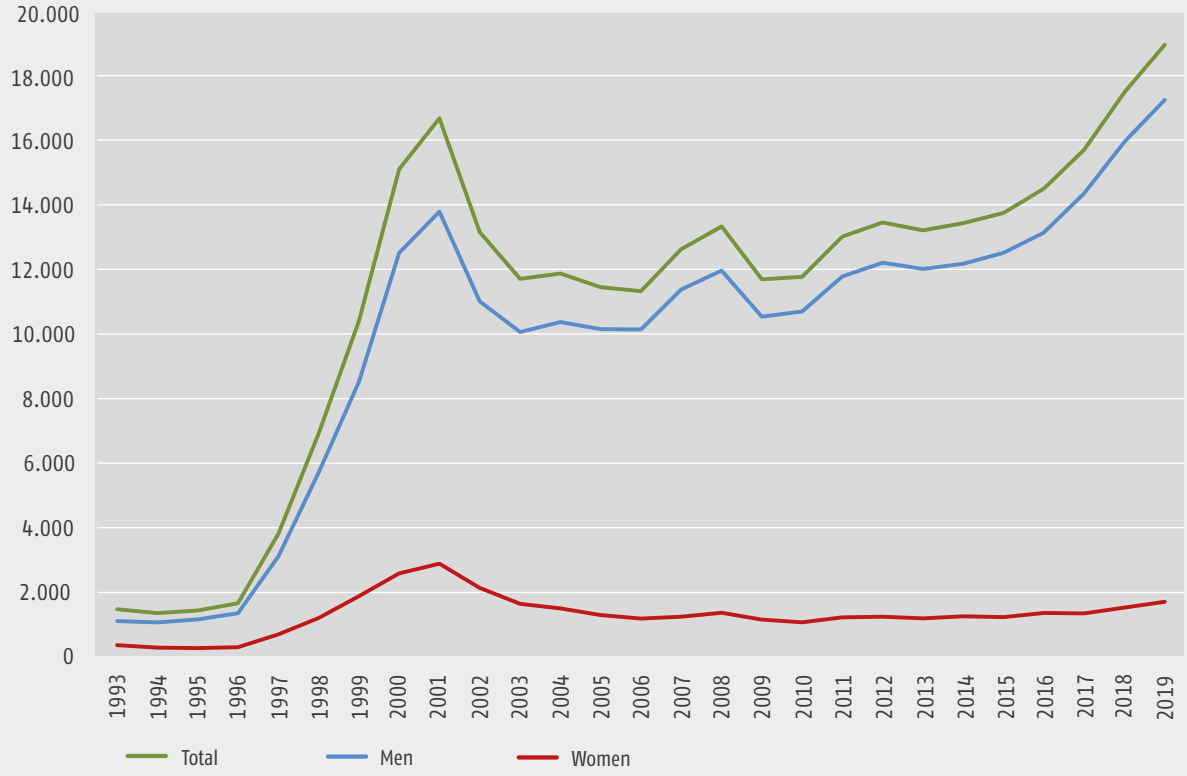
Occupational field 38 "Core IT occupations" is made up of the training occupations of information technology specialist, information technology officer, information and telecommunications system support specialist, and mathematical-technical software developer alongside the predecessor occupations of data processing specialist (abolished in 1997) and mathematical-technical assistant (abolished in 2007).

This delineation also correlates with main occupational group 43 "Occupations in computer science, information and communication technology" in the KldB 2010. Borderline cases always arise when classifications of this kind are used. The occupations of information technology and telecommunications system electronics technician and electronics technician for information and systems technology are included under occupational field 11 "Electrical occupations" rather than as core IT occupations. In the 2010 KldB, they are aligned with the main occupational group 26 "Occupations in mechatronics, energy electronics and electrical engineering".

Trend 4: The development of two-year training occupations

While cancellation, integration or conversion into three-year occupations have significantly reduced the number of two-year training occupations since the 1950s, greater attempts were once again made at the beginning of the 21st century to use two-year training occupations as a vehicle to create an additional provision of training places and thus to improve training opportunities for disadvan-

Figure A2.3.3-1: **Development of newly concluded training contracts in the dual IT occupations[1] by gender, Germany 1993 to 2019**



[1] Occupations include predecessor occupations in occupational field 38 "Core IT occupations" as defined by BIBB

Source: "Trainee Database" of the Federal Institute for Vocational Education and Training based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), reporting years 1993 to 2019 (for Bremen, previous year's figures had to be used for the 2015 reporting year because no data reporting took place). For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values.

VET Data Report Germany 2021

taged young people in particular. The potential offered by these occupations in terms of improving opportunities for young people has, however, been a controversial object of educational policy debate.

In 2019, a total of 42,660 new training contracts were concluded in state-recognised occupations with a training duration of 24 months (proportion of all new contracts 2019: 8.4%, 2018: 8.6%). The proportion of newly concluded training contracts in two-year training occupations has been in decline since 2010 (2010: 9.6%). This proportion was 13.7% in the federal states of then West Germany in the 1980s, a significantly higher level. This figure fell back to around 3% by the mid-1990s in the wake of the cessation of the "staged" training programmes in the electrical occupations in 1987[9].

A noteworthy aspect regarding the two-year training occupations is the fact that more than half (50.6%) of new training contacts in 2019 were concluded in the occupation of sales assistant for retail services. This occupation was followed at some distance by the occupations of warehouse operator (13.9%), machine and plant operator (10.1%), specialist in the hospitality services industry (5.2%) and civil engineering worker (4.3%).

A vocational qualification in a state-recognised training occupation is obtained upon successful completion of two-year vocational education and training. In most of the two-year occupations, completed training may be continued in a training occupation (usually of a duration of three years or three and a half years). In the 2019 reporting year, too, virtually all young people who completed a training contract in a two-year training occupation did so within an occupation whose regulations provide for credit transfer of training. Nevertheless, the Vocational Education and Training Statistics do not record wheth-

9 All values for the two-year training occupations relate exclusively to state-recognised dual training occupations and to former dual training occupations piloted. Occupations for persons with a disability (pursuant to § 66 BBiG or § 42m HwO) are not included.

er VET is actually continued after completion of two-year vocational education and training.

If we relate the number of registered follow-up contracts with the number of people completing two-year training, it is possible to obtain an approximation of the proportion of those who continue two-year training in a dual training occupation. In the 2019 reporting year, this represented around a fifth of those who had completed a two-year training programme.

Trend 5: Development of training occupations for persons with a disability

In 2019, 7,860 new training contracts were concluded in occupations for persons with a disability (pursuant to § 66 BBiG and § 42 HwO) (see Information Box). This figure was slightly lower than the previous year (2018: 7,989). Because the number of newly concluded contracts declined in overall terms in 2019, the number of new contracts in occupations for persons with a disability as a proportion of all new contracts was the same as the previous year, 1.5%.

Information Box – dual training occupations for persons with a disability

The general aim is for "disabled persons [...] to be trained in recognised training occupations" (§64 BBiG). Persons with a disability should only be trained in accordance with special regulations if their disability means that training in a recognised training occupation is out of the question. These training occupations are occupations with separate training regulations issued by the competent bodies (§ 66 BBiG or § 42m HwO) In the case of the data included in the Vocational Education and Training Statistics, it should be noted that no personal characteristic relating to the disability is recorded. The only aspects recorded are whether the respective training contracts reported are in state-recognised training occupations (or in former dual training occupations being piloted) or whether the contracts involve training programmes pursuant to a regulation issued by the competent bodies for persons with a disability.

Although the training regulations in occupations for persons with a disability are actually exclusively intended for persons with a disability, the increase in significance which these occupations have now assumed give rise to the supposition that such regulations have also served as problem-solving strategies to provide positions on the training market to young people during the partially problematic times of the past. Methodologically speaking, consideration needs to be accorded to the fact that the actual training situation of persons with a disability in the dual system cannot be mapped on the basis of the Vocational Education and Training Statistics (no personal characteristic relating to an existing disability is collected, and at the most, it is possible to evaluate whether a special type of funding took place for training contracts in the first year of training). 2,277 training contracts in state-recognised occupations received extra-company funding in the 2019 reporting year "pursuant to §§ 100 Clause 3, 235a and 236 German Social Security Code III, SGB III – (Extra-company training for persons with a disability)".

The statistical information on the type of funding is also not sufficient to map the group of persons with a disability. Not all training contracts with trainees with a disability are publicly funded. In 2019 around a third of contracts (32.7%) concluded in accordance with the chamber regulations of the competent bodies were mainly financed by companies.

Table A2.3.3-2: **Proportion of new training contracts concluded in occupations for persons with a disability[1], whole of Germany, 1993 to 2019[2] (in % of newly concluded contracts)**

Year	Germany
1993	1,4
1996	1,9
1999	1,9
2002	2,5
2005	2,7
2008	2,4
2009	2,5
2010	2,2
2011	2,1
2012	1,9
2013	1,9
2014	1,8
2015	1,8
2016	1,7
2017	1,6
2018	1,5
2019	1,5

[1] Occupations for persons with a disability pursuant to § 66 BBiG or § 42m HwO (until April 2005 § 48b BBiG or § 42b HwO); newly concluded contracts in these occupations have only been recorded since 1987.

[2] For the complete time series from 1993 to 2008, see BIBB Data Report, Chapter A5.4.

Source: "Trainee Database" of the Federal Institute for Vocational Education and Training based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), reporting years 1993 to 2019 (for Bremen, previous year's figures had to be used for the reporting year 2015 because no data reporting took place). Calculations by the Federal Institute for Vocational Education and Training. VET Data Report Germany 2021

A3 Recognised training occupations in accordance with the Vocational Training Act (BBiG)/ Crafts and Trades Regulation Code (HwO)

A3.1 Number and structure of recognised training occupations pursuant to BBiG/HwO

The following descriptions and definitions relate to occupations that are, or are considered to be, state-recognised pursuant to the BBiG and HwO. Pursuant to § 103 Paragraph 1 BBiG, recognised apprenticeships, semi-skilled occupations or comparably regulated training occupations whose occupational profiles, vocational education and training plans, examination requirements and examination regulations are applicable until the enactment of training regulations in accordance with § 4 BBiG constitute state recognised occupations within the meaning of § 4 BBiG including such occupations recognised prior to 1 September 1969.

In 2020, the number of training occupations recognised pursuant to the BBiG and HwO decreased from 324 to 323 compared to the previous year. This occurred because, as part of the updating process, the occupations of media designer for images and sound and film and video editor were combined to form a single training occupation. The consequence was that the latter occupation ceased to exist with effect from 1 August 2020. The number of recognised training occupations has thus fallen from 344 to 323 since 2011.

Information Box – structural characteristics

Mono occupations describe closed training programmes with a qualifications profile that does not formally exhibit any specialism. Training contents are thus identical for all trainees.

Training occupations with differentiations are training programmes with particular content for individual tasks or fields of activity. Differentiation particularly takes place in the form of main focuses and specialisms. Differentiation according to main focuses takes particular company characteristics into account. Main focuses do not usually take up more than six months of the whole of the period of training in the second and third years of training. Differentiation according to specialisms takes place to a greater extent if there are special sector-specific characteristics. The third year of training is earmarked for the imparting of necessary skills, knowledge and competencies. In contrast to main focuses, examination requirements are stipulated for each specialism.

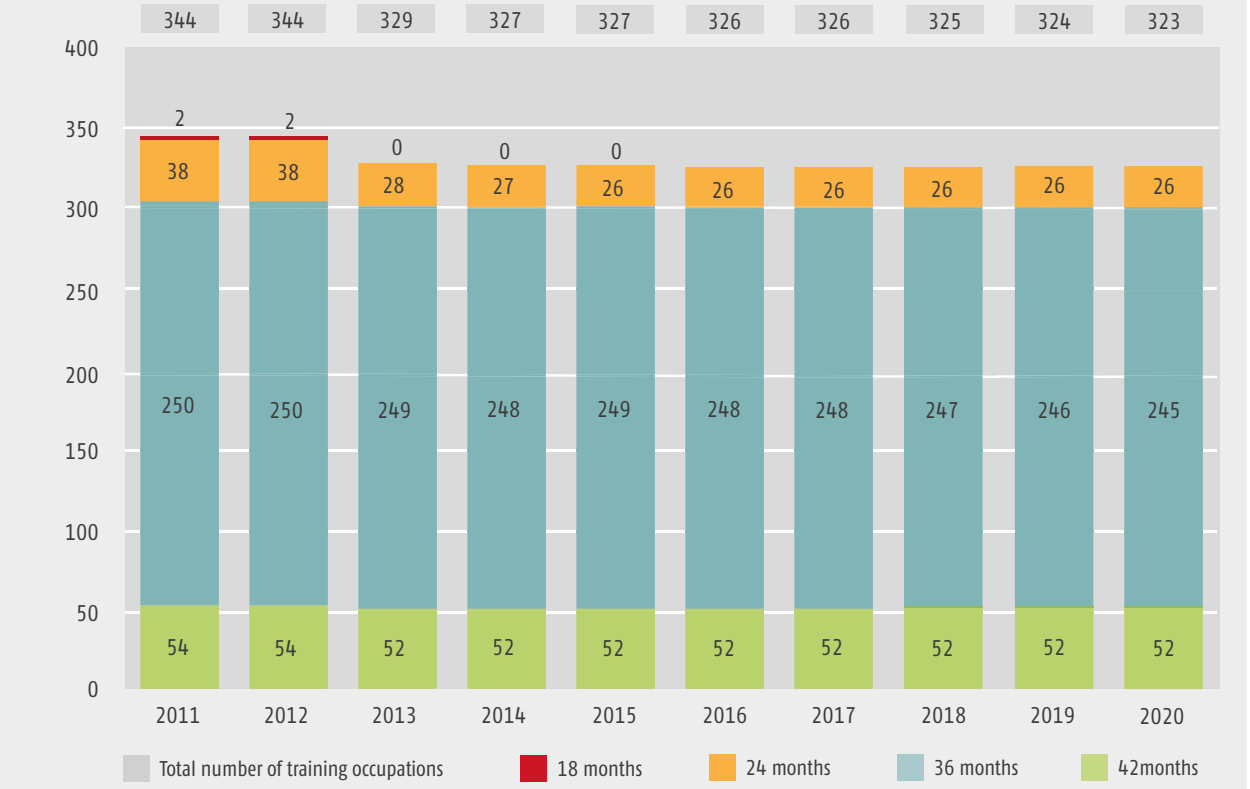
The use of elective qualifications mainly comes under consideration for highly specialised sectors, in which each company addresses a different spectrum and where specialisation beyond specialisms is required. This model permits different "bundles of qualifications" to be individually combined into an occupational profile in the second half of training. The number of units of elective qualifications offered and to be selected and the scope of time needed during training exhibit a wide variance in some cases.

Since the updating of the Vocational Training Act in 2005, it has been possible to add additional qualifications to training regulations to supplement or extend employability skills. Generally speaking, an elective qualification not chosen can be completed as an additional qualification which is then examined and documented on the certificate.

Distribution of the structural model (see Information Box) remains virtually unchanged compared to the previous year as the developments of the past 15 years continued.

- The number of mono-occupations has decreased from 262 to 236 since 2011.
- There has been a slight increase in the number of training occupations which contain differentiation (specialisms or main focuses) from 2011 (82 training occupations) to 2020 (87 training occupations). The proportion of all training occupations represented by these training occupations rose to 27%.
- Training occupations with elective qualifications have been enacted since 2000. There were five recognised training occupations with elective qualifications at this time. The total figure has increased to 27 by 2020.
- Training occupations with elective qualifications have been enacted since 2005. From 2005 to 2017, their overall number increased slowly but steadily to eight before twelve further occupations were added in 2018 in an endeavour to use additional qualifications to map the training requirements that had emerged as a result of increasing digitalisation. The total number thus rose to 20, a figure which remained unchanged in 2020 compared to the previous year. The relevant training occupations as at the present time are specialist retail assistant for the music branch (2009/2015), book seller (2011), print media technologist (2011), screen print media technologist (2011), tourism services management clerk (manage-

Figure A3.1-1: **Number of training occupations by duration of training from 2011 to 2020**



Source: Federal Institute for Vocational Education and Training, Index of Recognised Training Occupations (various years). VET Data Report Germany 2021

ment clerk for individual holidays and business trips) (2011), textile designer in the craft trades (2011), office manager (2014), wood mechanic (2015), plant mechanic (2018), electronics technician for automation technology (2018), electronics technician for industrial engineering (2018), electronics technician for building and infrastructure systems (2018), electronics technician for devices and systems (2018), electronics technician and electronics technician for information and systems technology (2018), industrial mechanic (2018), construction mechanic (2018), mechatronics fitter (2018), precision tool mechanic (2018), tools mechanic (2018) and milling machine operator (2018).

The number of training occupations for which credit transfer for further VET courses can be given (see Information Box) fell between 2011 (24 training occupations) and 2020 (21 training occupations). During the same period, there was also a decrease in the number of training occupations which can be credited towards other training occupations from 65 (2011) to 62 (2020).

Information Box – training occupations offering a credit transfer opportunity

Training regulations (TR) govern independent training occupations with different durations of training. Pursuant to the BBiG (§ 5 Paragraph 2 Clause 4 BBiG), a completed VET programme of a duration between 18 and 24 months may be continued in a training occupation stipulated in the TR. These occupations, for which a credit transfer may be provided, are of a training duration between 36 and 42 months.

A distinction is drawn between training occupations which can be used to provide a credit transfer and occupations for which a credit transfer may be given. Training occupations offering a credit transfer opportunity do not constitute staged training within the meaning of § 5 Paragraph 2 Clause 1 BBiG.

When the BBiG was updated in 2020, the existing credit transfer and interlinking opportunities between two-year and three-year occupations were expanded. In the case of failure to pass the final examination in a three-year or

three-and-a-half-year training occupation which follows on from a two-year programme, the qualification of the two-year training occupation is obtained as long as at least sufficient examination performances are achieved in the first part. By the same token, trainees who have successfully completed a qualification in a two-year training occupation are exempted from the first part of the final examination or from the intermediate examination in a three-year or three-and-a-half year training occupation which follows on from the two-year occupation (cf. § 5 Paragraph 2 Clauses 2a and 2b BBiG). This new regulatory possibility has not yet been enshrined in an ordinance.

Duration of training should be no longer than three years and no shorter than two years in every case (§ 5 Paragraph 1 Clause 2 BBiG). Deviations from this provision are possible. Ordinances are, for example, issued with regard to training occupations with a duration of three-and-a-half years.

From 2011 to 2020 the number of 42-month training occupations declined from 54 to 52. The number of training occupations with a training duration of 36 months declined compared to the previous year from 246 to 245. The number of training occupations with a training duration of 24 months decreased from 38 in 2011 to 26 in 2020.

A3.2 New and modernised training occupations

A total of 122 training occupations were updated between 2011 and 2020. These comprised 118 modernised occupations and four new training occupations. Eleven modernised training occupations entered into force with effect from 1 August 2020. As in past years, updating was strongly marked by digitalisation and by its far-reaching impacts and influences on the world of work. In addition, a number of older training regulations, some of which originated from the 1990s, were revised and adjusted to the currently valid standards for the structural design of training regulations. Three renamings to take account of the respective changes to occupational profiles also took place.

The continuing process of digitalisation is particularly affecting those training occupations which originally dealt with information and communication technologies. The effects of digitalisation are especially discernible in the updating of the IT occupations, which were modernised via a two-stage procedure. Originally, an ordinance existed for the four occupations of information technology specialist, information technology and telecommunications system electronics technician, information and telecommunications system support specialist and information technology officer. These dated back to the year 1997 and had already been in force for an unusually long period of over 20 years. In 2018, initial urgent adjustments were undertaken with regard to IT security within the scope of a partial update. This enabled companies to map the serious changes and new requirements brought about by digitalisation within vocational education and training itself. At the same time, a complete updating procedure was conducted for the purpose of a fundamental revision of these occupations. This was completed in 2020. As a result, four modernised training regulations mapping the changes in content and structure have emerged. The need for change, which could also be termed a pressure to adjust, was the outcome of the strong shifts in requirements taking place in the areas of networking, the Internet of Things, Industry 4.0 and the associated digitalisation of all areas of trade and industry.

Information Box – updating of training occupations

The starting point for the updating of training occupations within the dual system on the basis of §§ 4 Paragraph 1 of the Vocational Training Act (BBiG) and pursuant to § 25 Paragraph 1 of the Crafts and Trades Regulation Code (HwO) is a relevant skills requirement in trade and industry. If the contents of a training occupation are to be modernised or if a new occupation is to be created, the initiative for such a move usually emanates from the specialist associations, from the umbrella associations of the employers, from the trade unions or from BIBB. Classification by new and modernised training occupations has been applied to updates since the intensification of the updating system in 1996.

Updated training occupations

The designation "updated" indicates the circumstance that training regulations have been enacted. It is an umbrella term which encompasses new training occupations, modernised training occupations and simple transfer into permanent law. The characteristics of new or modernised are not applied to occupations for persons with a disability (66 BBiG or § 42r HwO).

New training occupations

A training occupation is designated as being new if its training regulations do not cancel a predecessor occupation pursuant to the BBiG/HwO.

Modernised training occupations

Training occupations whose training regulations rescind a predecessor occupation are deemed to be modernised. Predecessor occupations according to the BBiG/HwO are state-recognised training occupations or training occupations that are acknowledged to be state recognised (see Index of Recognised Training Occupations). A predecessor occupation is cancelled when the training regulations cease to be in force or when relevant provisions previously stipulated for occupational profiles, VET plans and examination requirements are no longer applied.

Amendment ordinances

Changes to training regulations which go beyond a rectification are usually enacted via amendment ordinances. An occupation is not deemed to be new or modernised if individual formulations or paragraphs are altered. Categorisation as "modernised" within the scope of the regulatory procedure may, however, ensue in the case of extensive adaptations.

Pilot ordinances

Pilot ordinances are exclusively enacted for a fixed term on the basis of § 6 BBiG or § 27 HwO for the purpose of testing certain circumstances prior to final enactment. If the piloting relates to the whole of the training occupation, it will be listed in the statistics as a new occupation being piloted. If parts of the training occupation have been piloted (e.g. examination regulations), the occupation will be designated as a state-recognised training occupation. Training occupations being piloted become state-recognised once transferred to training regulations pursuant to § 4 Paragraph 1 BBiG or § 25 Paragraph 1 HwO.

Fixed-term training regulations

Fixed-term training regulations cease to be in force on a stipulated date. The fixed term will be abrogated by an amendment ordinance following scrutiny and any realignment required.

In the case of the training occupation of information technology specialist, for example, it was necessary to introduce four further specialisms to provide four to choose from instead of only two as previously. New occupational titles also reflect the changes in content. The training occupation of information technology officer is now known as "digitalisation management specialist", whilst the occupation of information and telecommunications system support specialist is now "system management specialist". In addition, the laboratory occupations – chemical laboratory technician, biological laboratory technician and lacquer and varnish laboratory technician – have been updated by means of an amendment ordinance. The laboratory occupations are deemed to have been modernised because the introduction of two new elective qualifications entitled "Digitalisation in research, development, analytics and production" and "Working with networked and automated systems" has represented serious changes in content. The very designations of the elective qualifications infer that the aim of this measure is to extend digital competencies during vocational education and training.

The impacts of digitalisation are also obvious in the case of updates in the commercial sector. Although the tasks of bank clerks have been digitally influenced for decades, digitalisation is bringing about a further fundamental acceleration in the alteration of forms of work and business processes. Similar circumstances apply in the occupation formerly known as management assistant in wholesale and foreign trade. The digital networking of value-added chains, the opportunities afforded by using the Internet as a sales channel and the digitalisation of business processes have all altered occupational requirements. As part of the modernisation, the occupational title was changed to "wholesale and foreign trade manager" to reflect the fact that the aim is to teach trainees more management skills than was previously the case. At this juncture, it is necessary to remark that the pilot ordinance of 2013 for the training occupation of wholesale and foreign trade manager has been extended to 2025. One of the objectives of the pilot ordinance of 2013, which entered into force alongside the newly created training occupation, was to ascertain whether conducting the final examination in two parts at different times – a practice better known as the "extended final examination" – is the suitable form of examination for this occupation. A second aim was to scrutinise the structure, content and weighting of the parts of the examination and the implementation and examination of the additional qualification. The training regulations for the modernised training occupation of vehicle fitter were published for the year 2021. When they enter into force on 1 August 2021, the occupation will be renamed "vehicle interiors mechanic". In addition to the above, the following modernised training occupations entered into force in 2021 (status: 8 June 2021).

- Electronics technicians for motors and drive technology in accordance with the Vocational Training Act
- Electronics technicians for motors and drive technology in accordance with the Crafts and Trades Regulation Code
- Electronics technician
- Hairdresser
- Electronics technician for information technology

- Updating of the training occupation of brewer and maltster was also concluded in 2021. A new training occupation is being created in the form of "electronics technician for building system integration".

A3.3 Future developments with regard to updates of recognised training occupations pursuant to BBiG/HwO

Vocational education and training on the basis of the BBiG and the HwO always addresses both general and specific educational topics. This chapter reports on the educational policy debate within the context of the modernisation of standard occupational profile positions and provides examples of occupationally-specific anchor points for societal policy topics in training regulations.

The enshrinement of environmental protection as a standard occupational profile position in all training regulations has been an object of firm agreement between VET stakeholders since 1997. Further standard occupational profile positions such as "Vocational education and training, employment law and collective wage agreement law" and "Health and safety at work" were binding for industrial and technical occupations. By way of contrast, different versions were used in the commercial sector. The adoption of standard occupational profile positions as a cross-cutting minimum standard in all training regulations sends out an important educational policy signal for all institutions and stakeholders involved in the implementation of vocational education and training (companies, vocational schools, chambers, examination boards).

In 2019, the standard occupational profile positions were revised with regard to the social policy topics of sustainability and digitalisation and were adopted by the BIBB Board in April 2020. This renders them legally binding for all training occupations entering into force with effect from 1 August 2021. In addition to this, in November 2020, the BIBB Board drew up a Recommendation for application of the standard occupational profile positions in training practice. This calls for the new positions to be deployed across all training, including in areas where they are not yet a legally mandatory component of the regulatory instruments for technical reasons relating to ordinances – i.e. in the case of all training regulations which entered into force prior to 1 August 2021.

Information Box – key aspects of the realignment of standard occupational profile positions

Since August 2021, there have been four occupational profile positions which are intended to be valid for all updated and modernised occupations.

1) Organisation of the company providing training, vocational education and training, employment and collective wage agreement law
2) Health and safety at work
3) Environmental protection and sustainability
4) Digitalised world of work

The new occupational profile positions are competency-oriented and have been formulated pursuant to Board Recommendation No. 160. They are aligned with the goal of training mature workers who are well informed and able to act autonomously. Company co-determination, rights and duties in training and the limits of self-responsibility all play a role. The latter are oriented to the organisational rules and stipulations in the companies.

A4 Trainees

A4.1 Persons interested in training

The number of young people institutionally recorded as being interested in training includes all persons who have signed a training contract or who have been registered with the BA as a training applicant at least periodically. This figure thus encompasses young people who successfully conclude a training contract without involvement of the advisory and placement services[10], applicants who progress to vocational education and training with the assistance of these services, and applicants who are still seeking a training place as of the cut-off date of 30 September. The latter further include those registered by the BA as "other former applicants" who abandoned their wish to be placed prior to the cut-off date and who are therefore not counted in the official training place demand.

In 2020, the number of persons interested in training fell by 62,600 young people or -8.0% to 724,300. This represented a significant decrease compared to the previous year and is the lowest figure recorded since 1992, the first year in which it was possible to calculate training market figures for the country as a whole following reunification. Although the figure was also very low in the early 1990s for demographic reasons, a rapid rise was foreseeable at the time. This is no longer the case as of the present day.

Progression or participation rate (EQI)

In 2020, the national proportion of persons interested in training who concluded a new training contract (EQI – see Information Box) was 64.5%, a fall of 2.2 percentage points compared to 2019. This decrease, which is presumably also connected with COVID-19, indicates that more persons interested in training either remained unsuccessful in their search by the end of the year or else turned to alternatives such as a return to school. Like the eSDR, the progression rate is also characterised by significant regional variance.

10 This number is arithmetically determined as the difference between the number of newly concluded training contracts and the number of training place applicants registered with the BA who progress to a vocational education and training place.

Information Box – progression or participation rate (EQI)

The proportion of persons interested in training who conclude a new training contract is referred to as the progression or participation rate (EQI) of persons interested in training. This rate states the degree of success achieved in securing participation in vocational education and training by young people who are at least periodically interested in VET during the reporting year.

The total number of all persons institutionally recorded as being interested in training is differentiated from official training place demand by the inclusion of those training place applicants registered with the BA who abandoned their wish to be placed prior to the cut-off date (the term used in the BA's training market statistics being "other former applicants"). There were 178,600 such other former applicants in 2020. Nationwide speaking, they thus made up a proportion of 24.7% of all 724,300 persons interested in training. 67,600 of these 178,600 persons remained in the education system. 21,400 entered employment, and 5,200 went on to charitable or social services. A further 84,400 provided no more detailed information regarding their destination, and 24,800 of these were also registered as unemployed on 30 September. No information of any kind is available in respect of the destination of the remaining 59,500. However, we know from the Applicant Surveys carried out by the BA and the BIBB that usually only a small proportion of these persons will be in fully qualifying training (company-based, school-based, higher education). A relatively large number will be not working or unemployed or merely engaged in casual work.

In 2020, the total number of training place applicants registered with the BA was 473,000 → **Table A4.1-1**. Applicants registered with the BA thus represented a proportion of 65.3% of all 724,300 persons institutionally recorded as interested in training in 2020.

In 2020, a total of 210,600 or 44.5% of the total of 473,000 registered training place applicants had left school in a year prior to the reporting year → **Table A4.1-1**. Compared with the previous year, this number of so-called unplaced applicants from previous years decreased by 11,000 (-5.0%).

Even if applicants are colloquially referred to unplaced applicants from previous years by dint of the fact that they left school in an earlier year, it is not certain whether they were interested in obtaining a vocational education and training place in a previous year. For this reason, information on registered applicants for VET places who

Table A4.1-1: **Comparison of characteristics of applicants depending on placement status in the 2019/2020 reporting year**

	Total applicants		Of which:									
			Applicants progressing		Other former applicants (premature abandonment of wish to be placed)		Applicants still seeking a training place		of which:			
									Applicants with an alternative as of 30.09		Unplaced applicants	
Total	**472.981**	**100,0%**	**216.156**	**100,0%**	**178.588**	**100,0%**	**78.237**	**100,0%**	**48.888**	**100,0%**	**29.349**	**100,0%**
Gender												
Men	290.691	61,5%	132.972	61,5%	108.308	60,6%	49.411	63,2%	30.740	62,9%	18.671	63,6%
Women	182.272	38,5%	83.173	38,5%	70.275	39,4%	28.824	36,8%	18.146	37,1%	10.678	36,4%
Age												
Under 18	171.556	36,3%	93.550	43,3%	56.976	31,9%	21.030	26,9%	17.893	36,6%	3.137	10,7%
18 to 19 years	130.846	27,7%	61.976	28,7%	46.101	25,8%	22.769	29,1%	14.048	28,7%	8.721	29,7%
20 to 24 years	135.325	28,6%	52.221	24,2%	56.558	31,7%	26.546	33,9%	14.008	28,7%	12.538	42,7%
Aged 25 and over	35.252	7,5%	8.409	3,9%	18.951	10,6%	7.892	10,1%	2.939	6,0%	4.953	16,9%
Nationality												
Germans	390.205	82,5%	188.119	87,0%	140.006	78,4%	62.080	79,3%	39.298	80,4%	22.782	77,6%
Foreign nationals	81.458	17,2%	27.604	12,8%	37.970	21,3%	15.884	20,3%	9.451	19,3%	6.433	21,9%
School-leaving qualification												
Not achieved lower secondary school-leaving certificate	7.589	1,6%	3.444	1,6%	2.639	1,5%	1.506	1,9%	956	2,0%	550	1,9%
Lower secondary school-leaving certificate	127.445	26,9%	56.399	26,1%	48.319	27,1%	22.727	29,0%	14.195	29,0%	8.532	29,1%
Intermediate secondary school-leaving certificate	191.656	40,5%	101.643	47,0%	60.313	33,8%	29.700	38,0%	19.619	40,1%	10.081	34,3%
University of applied sciences entrance qualification	61.674	13,0%	21.887	10,1%	28.715	16,1%	11.072	14,2%	6.947	14,2%	4.125	14,1%
General higher education entrance qualification	59.405	12,6%	22.461	10,4%	27.681	15,5%	9.263	11,8%	5.205	10,6%	4.058	13,8%
No response	25.212	5,3%	10.322	4,8%	10.921	6,1%	3.969	5,1%	1.966	4,0%	2.003	6,8%
School attended												
General education school	224.671	47,5%	126.868	58,7%	68.306	38,2%	29.497	37,7%	17.483	35,8%	12.014	40,9%
Vocational school	189.749	40,1%	67.777	31,4%	84.283	47,2%	37.689	48,2%	26.091	53,4%	11.598	39,5%
Institutes of higher education and universities of cooperative education	23.739	5,0%	8.587	4,0%	10.876	6,1%	4.276	5,5%	2.214	4,5%	2.062	7,0%
No response	6.506	1,4%	2.097	1,0%	3.189	1,8%	1.220	1,6%	486	1,0%	734	2,5%
School leaver cohort												
In the reporting year	259.136	54,8%	127.682	59,1%	92.478	51,8%	38.976	49,8%	29.820	61,0%	9.156	31,2%
In the previous year	80.864	17,1%	44.456	20,6%	24.355	13,6%	12.053	15,4%	6.095	12,5%	5.958	20,3%
In earlier years	129.742	27,4%	43.128	20,0%	60.028	33,6%	26.586	34,0%	12.785	26,2%	13.801	47,0%
No response	3.239	0,7%	890	0,4%	1.727	1,0%	622	0,8%	188	0,4%	434	1,5%

Source: Federal Employment Agency, special evaluations for the Report on Vocational Education and Training; calculations by the Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

have sought a training place both in the current year and in previous years with the support of an employment agency or a job centre has been included in the BA training market statistics since 2014 (see Information Box). Persons who have been registered as applicants in the BA statistics in at least one of the last five reporting years are thus also designated as being unplaced applicants from previous years, albeit from a different perspective.

Information Box – applicants who have had contact with the advisory and placement services in previous years

In interpreting the figures relating to applicants who have had contact with the advisory and placement services in previous years, the BA bases alignment on the year categories when the person was last registered as an applicant in previous years. It is therefore not possible to state, for example, whether a person who was last registered one year before the reporting year actually sought a training place with the support of the BA in earlier years. By the same token, the fact that an applicant was last recorded a longer time ago does not give rise to the conclusion that such a person had sought a training place in vain throughout the entire period.

Of the 473,000 applicants registered nationwide in 2020, 183,900 persons (38.9%) had applied for a training place in at least one of the last five reporting years. Nevertheless, there was again a rise in the number of applicants from earlier reporting years as a proportion of all registered applicants (2019: 36.5%). Young people who experience a longer transitional phase into training are clearly more likely to maintain contact with the advisory and placement services than was the case in previous years.

A4.1.1 Highest general school-leaving certificate achieved by trainees with a newly concluded training contract

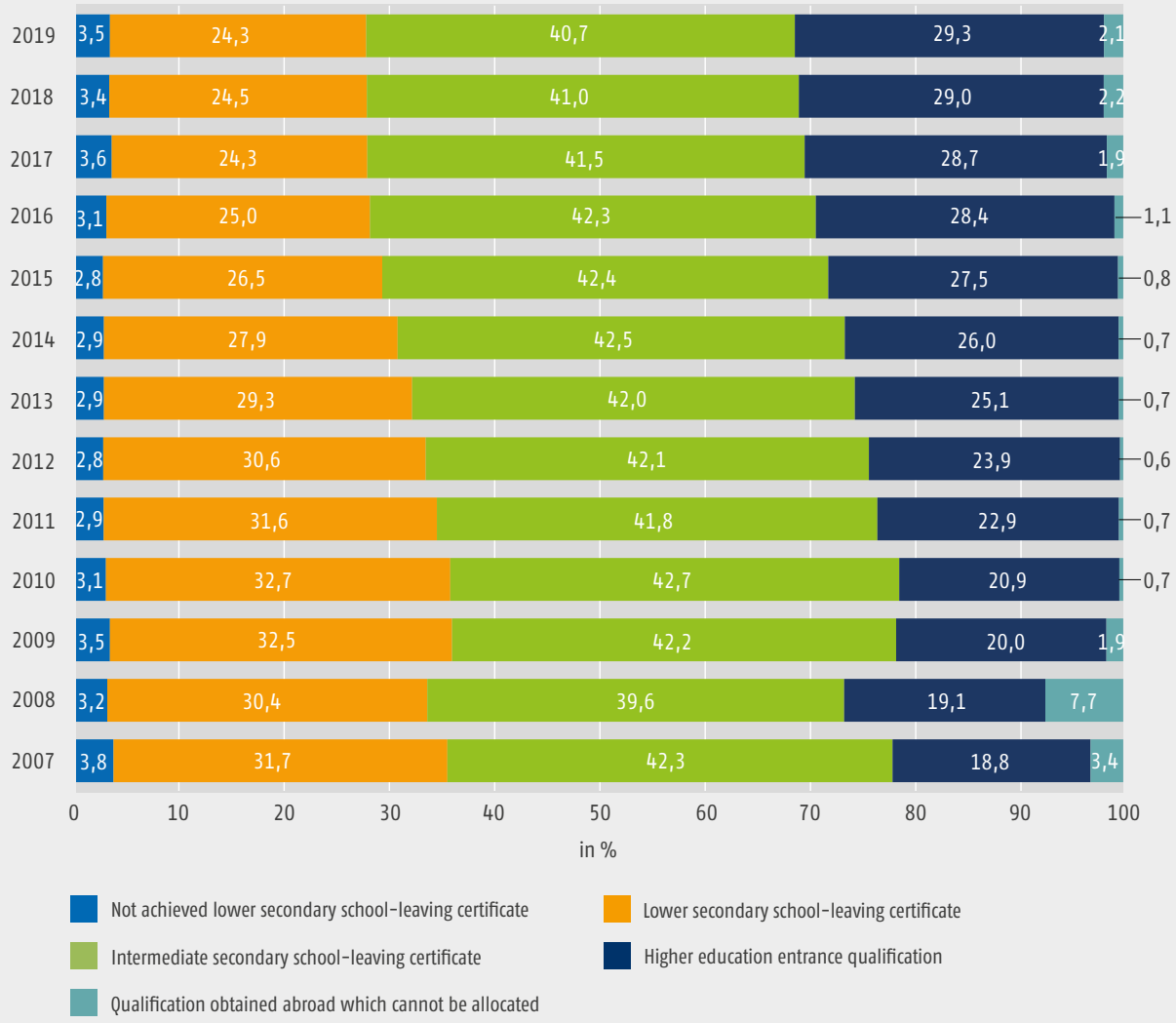
The trend towards higher level training over previous years with regard to general school-leaving certificates (see Information Box) on the part of trainees in the dual system continued in 2019. Although trainees with an intermediate secondary school-leaving certificate constituted the largest school qualification group in the dual VET system, their proportions have fallen slightly (absolute terms for 2019: 209,067 in 2014). Materially more significant shifts have been exhibited with regard to the upper and lower school qualification levels over the past ten years. With 150,633, the number of new contracts concluded by the group of trainees in possession of a higher education entrance qualification fell slightly in absolute terms (-0.3%) compared to the previous year. However, their proportion has risen constantly over the course of time from 20.0% in 2009 to a present level of 29.3%. By way of contrast, the proportion of new contracts concluded with lower secondary school leavers has declined significantly over the same period. Since 2015, the number of new training contracts concluded with young people in possession of a higher education entrance qualification has exceeded the number concluded with trainees with a lower secondary school-leaving certificate. The proportion of newly concluded contracts with young people without a lower secondary school-leaving certificate was once again very low (3.5%) → **Figure A4.1.1-1**. Fiercer competition took place between applicants with a higher education entrance qualification for the often scarce places in occupations they particularly favoured.

Information Box – recording of the highest general school-leaving certificate in the Vocational Education and Training Statistics

Since the revision of the Vocational Education and Training Statistics in 2007, the highest general school-leaving certificate achieved by trainees has been recorded as an independent characteristic which can be freely combined and evaluated for various groups of persons. This has significantly expanded opportunities for analysis. Type of school, i.e. where the qualification was acquired, is irrelevant. A distinction is drawn between the following categories: no lower secondary school-leaving certificate, lower secondary school-leaving certificate, intermediate secondary school-leaving certificate or comparable qualification, higher education entrance qualification, qualification obtained abroad which cannot be allocated to any of the above categories.

In the initial years following the revision of the Vocational Education and Training Statistics, especially in the 2007 and 2008 reporting years, the category "qualification obtained abroad which cannot be allocated" was reported to a conspicuously frequent extent. The assumption must be that this category was also used to cover other missing information regarding general school-leaving certificate. For this reason, the calculation of school qualification proportions for the years from 2007 to 2018 was conducted without the category "qualification obtained abroad which cannot be allocated". This category was reintroduced into the percentage calculations in the 2019 reporting year (including retrospectively). The school qualification proportions set out below thus differ from those contained in the data reports of previous years. In arriving at an interpreta-

Figure A4.1.1-1: **Prior school learning of trainees with a newly concluded training contract 2007 to 2019 (in %)**



Note: Unlike in the preceding years, the school qualification category "qualification obtained abroad which cannot be allocated" is included in the percentage calculations from the 2019 reporting year (including retrospectively). Because of the changed method of calculation, the percentage values of all types of school qualification are not comparable with those presented in past Data Reports. Account needs to be taken of the circumstance that, when the proportion of "qualification obtained abroad which cannot be allocated" is high, it may well be the case that other types of qualification are significantly underestimated. For the reasons and for further information on the change in the method of calculation of proportions of general school qualifications.

Source: "Trainee Database" of the Federal Institute for Vocational Education and Training based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), reporting years 2007 to 2019 (for Bremen, previous year's figures had to be used for the 2015 reporting year because no data reporting took place). Calculations by the Federal Institute for Vocational Education and Training.

VET Data Report Germany 2021

tion, account needs to be taken of the circumstance that, when the proportion of "qualification obtained abroad which cannot be allocated" is high, it may well be the case that other types of qualification are significantly underestimated. When observing individual types of school-leaving certificate, consideration should thus always be accorded to how much information is missing.

This means that potential displacement is no longer the sole future issue. A further aspect of growing interest is whether it will be possible to successfully compensate for the declining numbers of persons with no qualification higher than lower secondary school-leaving certificate by acquiring more persons with a higher education entrance qualification for vocational education and training in order to continue to secure a supply of skilled workers. BIBB carried out a special evaluation of this issue in

2016. The result showed an increased interest in dual VET on the part of persons in possession of a higher education entrance qualification.

A4.1.2 Highest general school-leaving certificate achieved by groups of persons

In 2019, young women leaving general schooling were once again significantly more likely than young men to have obtained a general higher education entrance qualification. This characteristic was also revealed in the case of newly concluded training contracts. 35.5% of female trainees concluding a new training contract in 2019 were in possession of a higher education entrance qualification (men: 25.8%). On the other hand, 27.2% of men had a lower secondary school-leaving certificate, whilst this was true for only 19.4% of women. Proportions of trainees with an intermediate secondary school-leaving certificate were virtually identical (men 40.7%, women: 40.8%).

Within the group of foreign trainees[11] concluding a new contract in 2019, around 42% were in possession of no qualification higher than a lower secondary school-leaving certificate (8.2% without and 34.2% with). This applied to around 26% of German trainees. Just over 30% of trainees holding German nationality were in possession of a higher education entrance qualification. The corresponding figure for trainees who were foreign nationals was 18%. Over the course of time, however, a significant rise has occurred in the number of foreign trainees as a proportion of those in possession of a higher education entrance qualification. Developments will be considered in greater detail below and differentiated according to the individual school-leaving certificates.

Trainees without a lower secondary school-leaving certificate

In 2019, 17,736 newly concluded training contracts with trainees without a lower secondary school-leaving certificate were reported. Compared to the previous year, this represents a slight rise from 3.4% to 3.5% in the proportion of all new contracts in the dual system represented by this school-leaving certificate group. With regard to nationality, there was a decrease in the proportion of foreign trainees (2018: 8.6% as opposed to 8.2% in 2019) and a slight rise in the proportion of German trainees (2018: 2.7% as opposed to 2.8% in 2019). Trainees without a lower secondary school-leaving certificate exhibited a comparatively high average age of 20.6 years. Young people without a lower secondary school-leaving certificate (20.1%) were disproportionately more likely to have completed vocational preparation training or basic vocational training prior to the conclusion of a new training contract. Longer transitional routes after leaving school may thus go at least some way to explaining the high average age.

Trainees without a lower secondary school-leaving certificate are heavily underrepresented in most areas of responsibility. One exception in this regard is the area of housekeeping, in which just under 30% of new training contracts in 2019 were concluded with trainees without a lower secondary school-leaving certificate. Young people without a lower secondary school-leaving certificate are disproportionately represented in the group of occupations for persons with a disability (36.3%). The same applies – albeit not to such an extent – to the group of two-year occupations, which are particularly aimed at young people with lower-level school-leaving certificates. The proportion in this case was 7.0%, significantly above the overall proportion for this school qualification group (3.5%).

As in the preceding years, the most popular occupation for trainees without a lower secondary school-leaving certificate in the 2019 reporting year was sales assistant for retail services (6.5%). This was followed by the occupations of hairdresser (4.1%), management assistant for retail services (3.7%) and painter and varnisher (3.5%). In overall terms, young people without a lower secondary school-leaving certificate exhibited a comparatively broad occupational dissemination. Only 34.5% of newly concluded training contracts with young people without a lower secondary school-leaving certificate were distributed across these ten most popular occupations. By way of comparison, the corresponding figure for young people with a lower secondary school-leaving certificate was 44.5% [12].

Trainees with a lower secondary school-leaving certificate

Compared to the previous year, the number of new training contracts concluded with young people in possession of a lower secondary school-leaving certificate decreased from 127,635 to 124,920 in 2019. This is the lowest value recorded for over ten years. The number of persons with a lower secondary school-leaving certificate as a proportion of new contracts has also declined in long-

11 Although the Vocational Education and Training Statistics record nationality, possible migrant background cannot be indicated. All trainees not in possession of a German passport are counted as foreign trainees. Young people who hold both German and non-German citizenship are not recorded as foreign trainees.

12 For reasons of rounding, the total values stated in the text may differ from the sum of individual values in the tables.

term comparison from 32.5% (2009) to 24.3% (2019). The proportion of foreign trainees rose slightly compared to the previous year (2018: 34.0% as opposed to 34.2% in 2019), whilst a small decrease occurred in the proportion of German trainees (2018: 23.2% as opposed to 23.0% in 2019). The average age of young people with a lower secondary school-leaving certificate was 19.4, the same level as in the previous year and thus still significantly lower than the average age of young people without a lower secondary school-leaving certificate.

The two-year occupation of sales assistant for retail services, in which 10,872 newly concluded training contracts were recorded, was once again in 2019 also the most popular occupation amongst trainees with a lower secondary school-leaving certificate (8.7% of all new training contracts concluded with lower secondary leavers). Trainees with a lower secondary school-leaving certificate accounted for more than half (50.9%) of all new contracts in this occupation. Further occupations in which lower secondary leavers showed above-average representation were warehouse operator (59.1%), painter and varnisher (56.4%) and hairdresser (51.0%). 44.5% of newly concluded training contracts were distributed across the ten most popular occupations. One reason for this could be that the occupational spectrum for young people with a lower level of prior school learning has been contracting for some considerable time due to rising cognitive requirements. Ultimately, the consequence is a severe occupational segmentation of the vocational education and training system. The causes of this may rest with the different cognitive requirements of the individual occupations or may also be due to company selection policy.

Trainees with an intermediate secondary school-leaving certificate

Young people in possession of an intermediate secondary school-leaving certificate form the largest group of school qualification types by some distance, a circumstance which has pertained over recent years. In 2019, the total number of new contracts concluded with intermediate secondary school leavers was 209,067. This school qualification group displayed the largest decrease in percentage terms compared to the previous year (-2.4%; 2018: 214,179 in 2014). Because decreases in the other school qualification levels were lower compared to the previous year, the proportion for intermediate secondary school leavers decreased only slightly from 41.0% (2018) to 40.7% (2019). The average age of trainees with an intermediate secondary school-leaving certificate at the time when a new training contract was concluded was 19.0 years.

Conspicuously, 32.2% of trainees in two-year occupations were in possession of an intermediate secondary school-leaving certificate despite the fact that the aim of two-year training occupations is to improve the chances of obtaining a training place for disadvantaged young people in particular. The most popular occupations amongst trainees with an intermediate secondary school-leaving certificate in 2019 were management assistant for retail services (6.0%) and office manager (6.0%). This school qualification group made up almost half (around 48%) of newly concluded contracts in these occupations. They were followed by the occupations of motor vehicle mechatronics technician (5.2%), medical assistant (4.4%) and industrial mechanic (3.7%). In overall terms, 40% of all trainees in possession of an intermediate secondary school-leaving certificate were distributed across the ten most popular occupations.

Trainees with a higher education entrance qualification

Even though the number of new contracts concluded with trainees in possession of a higher education entrance qualification fell slightly in absolute terms compared to the previous year (150,633 in 2019 as opposed to 151,107 in 2018), their proportion rose to reach a new peak of 29.3%. The reason for this is that the decreases for the other types of school qualification fell significantly more sharply in some cases. The average age for young people with a higher education entrance qualification was 21.3 years, significantly higher than that recorded for the other school qualification groups simply by dint of the longer period of general schooling completed.

Trainees with a higher education entrance qualification are frequently to be found in commercial training occupations. Six of the ten most popular occupations amongst trainees in possession of a higher education entrance qualification were in the commercial sector. The most common occupation was industrial clerk (7.8% of all trainees with a higher education entrance qualification). 69.6% of all trainees in this occupation held a higher education entrance qualification. The only occupations in which this proportion was higher were bank clerk (71.1%) and insurance and financial services broker (70.0%). Apart from the commercial occupations, the ten most popular occupations included information technology specialist, qualified tax assistant and clerk in public administration. As in previous years, the focus by trainees with a higher education entrance qualification on certain occupations was very strong. The effect of this was that the ten most popular occupations accounted for 43.0% of all new contracts concluded with trainees in possession of a higher education entrance qualification.

A4.1.3 Prior vocational preparation and basic vocational training of trainees with a newly concluded training contract

The transitional sector enables young people who do not fulfil the prerequisites for the commencement of vocational education and training or cannot find a training place for other reasons to improve their individual competencies with a view to entering training or employment. Nevertheless, these education and training courses do not lead to a full vocational qualification. The following results relating to prior participation in a vocational preparation scheme or in basic vocational training are based on data on newly concluded training contracts included in the Vocational Education and Training Statistics (see Information Box).

Of the total of 513,309 newly concluded training contracts in 2019, 39,291 were reported as involving prior participation in a measure within the transitional sector. The proportion of young people who completed a vocational preparation measure and/or basic vocational training prior to training decreased compared to the previous year to 7.7% (2018: 8.3%). This is the lowest value since 2008 both in absolute and relative terms.

Proportions of vocational preparation training and basic vocational training declined in all areas of responsibility compared to the previous year. However, significant age differences continued to be exhibited between the individual areas → **Table A4.1.3-1**.

Table A4.1.3-1: **Previous participation in vocational preparation training or in basic vocational training by areas of responsibility, Germany 2019**

Area of responsibility[1]	Total new training contracts	Previous participation in vocational preparation training or basic vocational training (multiple responses possible)											
		Total[2]		*Of which:*									
				Company-based training measure		Prevocational training measure		School-based vocational preparation year		School-based basic vocational training year		Full-time vocational school not leading to a full vocational qualification	
	Absolute terms	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %
Trade and industry	301.206	10.398	3,5	1.611	0,5	3.066	1,0	1.539	0,5	597	0,2	4.158	1,4
Craft trades	138.705	23.469	16,9	4.188	3,0	4.860	3,5	3.174	2,3	5.883	4,2	6.345	4,6
Public sector	14.799	291	2,0	93	0,6	51	0,3	21	0,1	21	0,1	126	0,9
Agriculture	12.933	2.193	17,0	276	2,1	495	3,8	273	2,1	1.017	7,9	177	1,4
Liberal professions	43.749	1.983	4,5	594	1,4	600	1,4	354	0,8	132	0,3	576	1,3
Housekeeping	1.920	960	50,0	18	0,9	612	31,9	249	13,0	24	1,3	114	5,9
Total	**513.309**	**39.291**	**7,7**	**6.777**	**1,3**	**9.684**	**1,9**	**5.610**	**1,1**	**7.674**	**1,5**	**11.493**	**2,2**

[1] Alignment of trainees to the areas of responsibility is generally determined by the competent body in charge of the training occupation rather than by the company providing training (with the exception of the craft trades). Trainees who are being trained in public sector companies or in liberal professions in the private sector economy are aligned to the areas of responsibility of trade and industry or craft trades. The area of responsibility of trade and industry reports the housekeeping occupations for the federal states of Hessen and Schleswig-Holstein.

[2] Total values are lower than the line totals for the individual measures because of the possibility of multiple responses.

Source: BIBB "Trainee Database" provided by the Federal Statistical Office based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), 2019 reporting year. For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values. Calculations by the Federal Institute for Vocational Education and Training.

Information Box – Vocational Education and Training Statistics: Recording of vocational preparation training or basic vocational training since 2007

The Vocational Education and Training Statistics were redesigned in 2007 and shifted to contract-related individual recording with an extended catalogue of characteristics. Three types of prior learning have been recorded separately from one another since this time: highest general school qualification, prior vocational preparation training or basic vocational training and information regarding previous vocational education and training. This approach enables prior learning to be fully indicated for all trainees with a newly concluded training contract.

Only vocational preparation training or basic vocational training courses which have been completed and are of a minimum duration of six months are counted as prior vocational preparation training or basic vocational training. The following types are differentiated.

- Company-based training measure (Introductory training, introductory training year [EQJ], training module, company internship)
- Vocational preparation scheme[13]
- School-based vocational preparation year (BVJ),
- School-based basic vocational training year (BGJ) (not including a cooperative BGJ [part-time])
- Full-time vocational school not leading to a full vocational qualification

Multiple responses are possible. Continuous data mapping transitional processes until progression to a training place are, however, not available because the respective points in time at which the training schemes have been completed are not recorded.

In light of the frequently bemoaned lack of apprenticeship entrance maturity displayed by young people and the necessary second chance qualification this entails, it seems useful to undertake a differentiated consideration by general school-leaving certificate in connection with participation in vocational preparation training and basic vocational training. Although school-leaving certificates do not constitute a formal prerequisite for entry to vocational education and training pursuant to the BBiG/HwO, it has been shown that school leavers in possession of the lower secondary school-leaving certificate or without any qualification are significantly less likely

Table A4.1.3-2: **Previous participation in vocational preparation training or basic vocational training by groups of persons, Germany 2019**

Group of persons	Total new training contracts	Previous participation in vocational preparation training or basic vocational training (multiple responses possible)											
		Total[1]		*Of which:*									
				Company-based training measure		Prevocational training measure		School-based vocational preparation year		School-based basic vocational training year		Full-time vocational school not leading to a full vocational qualification	
	Absolute terms	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %
Men	325.917	28.980	8,9	4.971	1,5	6.531	2,0	4.023	1,2	6.483	2,0	8.235	2,5
Women	187.392	10.311	5,5	1.809	1,0	3.153	1,7	1.587	0,8	1.191	0,6	3.261	1,7
Germans	453.651	32.457	7,2	4.245	0,9	8.043	1,8	4.683	1,0	6.849	1,5	10.194	2,2
Foreign nationals	59.658	6.834	11,5	2.532	4,2	1.641	2,8	927	1,6	828	1,4	1.302	2,2
Total	**513.309**	**39.291**	**7,7**	**6.777**	**1,3**	**9.684**	**1,9**	**5.610**	**1,1**	**7.674**	**1,5**	**11.493**	**2,2**

[1] Total values are lower than the line totals for the individual measures because of the possibility of multiple responses.

Source: BIBB "Trainee Database" provided by the Federal Statistical Office based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), 2019 reporting year. For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values. Calculations by the Federal Institute for Vocational Education and Training.

VET Data Report Germany 2021

13 Vocational preparation schemes which are of at least six-month duration and which cannot be allocated to any of the other categories stated.

to progress to training immediately upon completion of general schooling.

The significant differences which emerge from a consideration of proportions of vocational preparation training and basic vocational training differentiated according to general school-leaving certificate thus also come as little surprise. Around a fifth (20.1%) of trainees without a lower secondary school-leaving certificate who concluded a new training contract in 2019 had previously completed a measure in the transitional area. The proportions of those in possession of a lower (13.4%) or intermediate (6.4%) secondary school-leaving certificate were significantly lower in some cases. As expected, proportional values fall in line with the rising level of the general school-leaving certificate achieved by the trainees. The lowest proportion of 2.8% was accordingly recorded for those in possession of a higher education entrance qualification → **Table A4.1.3-2**.

Differentiated in accordance with the individual types of measures, young people without a lower secondary school-leaving certificate were most likely to have completed vocational preparation measures prior to commencement of dual training (9.5%). Vocational preparation measures were also most common amongst trainees with a lower secondary school-leaving certificate (4.0%). In proportional terms, young people in possession of an intermediate secondary school-leaving certificate were most likely to have attended a course not leading to a full vocational qualification at a full-time vocational school (2.6%). The same applies to trainees with a higher education entrance qualification (1.6%). With regard to differentiation by gender and nationality of the trainees, too, results of a comparison of proportions in prior vocational training and basic vocational training show a variance in 2019. As in the previous years, men (8.9%) were more likely than women (5.5%) to have taken part in a vocational training measure prior to commencement of vocational education and training → **Table A4.1.3-2**.

A4.2 Age of trainees and training participation of young people in the dual system

The Vocational Education and Training Statistics have surveyed the age or year of birth of trainees (see Information Box) in the dual system (BBiG or HwO) since the 1993 reporting year. However, it has only been since 2007 that the year of birth has been collected for all trainees or examination candidates in the dual system. The proportions of the various age groups and average age are presented below in line with the previous differentiation of the age categories.

Information Box – age of trainees – recording within the scope of the Vocational Education and Training Statistics

After the changeover to a training contract-related individual data survey from the 2007 reporting year onwards, the date of birth of trainees has been collected for every training contract (not just newly concluded contracts). Since this time, it has been possible to differentiate all individual age cohorts. The age is calculated on the basis of the difference between reporting year and year of birth.

Note

Older persons who obtain a vocational qualification are fundamentally underrepresented amongst trainees. Although there is no general age limit for commencement of dual vocational education and training, older people usually acquire vocational qualifications within the scope of retraining courses (which may also take place on an in-company basis), via so-called external admissions to the final examination or within the framework of advanced training programmes rather than undertaking training in the dual system. For this reason, they are not included in the trainee data (or in data relating to training contracts) in the Vocational Education and Training Statistics.

Average age – calculations by BIBB

Arithmetical mean

Average age is calculated as an arithmetical mean. Within the scope of the aggregate data reporting which took place until the 2006 reporting year, the recording of newly concluded training contracts was differentiated by age. "16 and younger" and "24 and older" were used as the lower and upper age categories, respectively, and the individual age cohorts were otherwise differentiated. Until the 2006 reporting year, the calculation of all contracts was informed by the bottom and top age groups of 16 or 24, respectively. Since the 2007 reporting year, year of birth of trainees has been collected for all training contracts, and it has been possible to include all age cohorts in the calculation separately (including those aged over 40).

Because precise recording takes place only by year (reporting year – year of birth), the average age calculated underestimates the actual average age.

Average age (see Information Box) of trainees concluding a new contract has risen virtually continuously since 1993. In 1993, more than half of trainees concluding a new training contract were aged below 18. By the 2019 reporting year, this figure had halved to about 25.8%. The rise in the average age of trainees concluding a new

Table A4.2-1: **Trainees with a newly concluded training contract, training entrants and persons completing training by age, Germany 2019**

Group of persons	Trainees with a newly concluded training contract											
	Age cohort in %										Newly concluded contracts in absolute terms	Average age[1]
	Aged up to 16	17 years	18 years	19 years	20 years	21 years	22 years	23 years	24 bis 39 years	40 and older		
Total	11,3	14,6	15,1	15,5	12,4	8,5	5,9	4,1	12,3	0,4	513.309	20,0
Men	12,3	15,8	15,0	14,4	11,5	8,1	5,8	4,1	12,7	0,2	325.917	19,9
Women	9,5	12,4	15,4	17,5	13,8	9,1	6,1	4,1	11,6	0,6	187.392	20,1
Germans	12,3	15,6	15,9	16,1	12,2	8,2	5,7	3,8	10,0	0,3	453.651	19,6
Foreign nationals	3,4	6,6	9,5	11,0	14,0	10,4	7,9	6,3	29,6	1,2	59.658	22,5
Group of persons	**Training entrants as a sub-group of trainees with a newly concluded training contract**											
	Age cohort in %										Training entrants in absolute terms	Average age[1]
	Aged up to 16	17 years	18 years	19 years	20 years	21 years	22 years	23 years	24 bis 39 years	40 and older		
Total	12,6	15,8	15,7	15,6	12,0	7,8	5,4	3,7	11,1	0,3	456.795	19,7
Men	13,7	17,2	15,5	14,3	11,1	7,4	5,4	3,8	11,5	0,2	290.130	19,6
Women	10,7	13,4	16,1	17,8	13,6	8,5	5,5	3,6	10,4	0,5	166.665	19,8
Germans	13,7	16,9	16,4	16,1	11,8	7,6	5,1	3,4	8,7	0,2	403.824	19,4
Foreign nationals	3,8	7,3	10,1	11,3	13,8	9,9	7,7	6,1	29,0	1,1	52.971	22,4
Group of persons	**Persons completing training (trainees who have passed the final examination)**											
	Age cohort in %										Number of persons completing training in absolute terms	Average age[1]
	Aged up to 19	20 years	21 years	22 years	23 years	24 years	25 years	26 years	27 to 42 years	43 and older		
Total	10,5	15,9	18,4	17,1	12,1	7,5	5,0	3,6	9,7	0,2	383.292	22,5
Men	10,0	16,9	19,3	16,0	11,4	7,3	5,0	3,7	10,2	0,1	231.135	22,5
Women	11,1	14,3	17,0	18,7	13,3	7,8	4,9	3,4	9,1	0,4	152.157	22,6
Germans	11,0	16,3	18,7	17,3	12,2	7,4	4,8	3,4	8,8	0,2	355.173	22,4
Foreign nationals	4,2	10,7	14,5	14,7	11,9	9,0	6,9	5,2	22,1	0,7	28.122	24,3

[1] Unlike in earlier publications, a value of +0.5 for the respective age cohorts is no longer included in the calculation for newly concluded contracts and training entrants. Nevertheless, account should be taken of the fact that the Vocational Education and Training Statistics survey the year of birth of trainees. This means that age is only precisely recorded with regard to the year. A training contract usually commences in August/September, whilst final examinations predominantly take place in the months of June/July. Actual average age is above that calculated, at least for the newly concluded contacts and training entrants considered as of the cut-off date of 31 December. Because it is not possible to determine precisely by how many months the average age is distorted, the addition of +0.5 to the calculation was abandoned, including with retrospective effect. Unlike in earlier publications, all age cohorts are included individually in the calculation of the average age.

Source: BIBB "Trainee Database" provided by the Federal Statistical Office based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), 2019 reporting year. For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values. Calculations by the Federal Institute for Vocational Education and Training..

VET Data Report Germany 2021

training contract has been caused by longer periods of schooling at lower secondary level as trainees increasingly achieve higher school-leaving certificates[14] and by longer durations of transition to VET. Serious changes in recording the prior learning of trainees have made it more difficult to make a longer-term time comparison. Taking only the years 2007 to 2019 into account, the

14 The proportion of trainees in the dual system with a higher education entrance qualification rose steadily. No long-term time series are currently available regarding national average age of general school leavers. For this reason, no clear differentiation can be made with regard to the extent to which a higher VET entry age is brought about by a higher school-leaving age for all types of qualification. Nevertheless, for the period from 2007 to 2012, we know that there was no rise in the school-leaving age of those with a lower secondary school-leaving certificate (16.6 years) and with an intermediate secondary school-leaving certificate (17.1 years).

proportion of trainees with a higher education entrance qualification (partially also caused by double upper secondary school-leaving cohorts) rose from 18.8% to 29.3%. During the same period, the proportion of trainees reported to have previously taken part in a vocational preparation scheme or in basic vocational training fluctuated between about 8% and just under 12%. Over recent years, an increase in the average age has essentially only been ascertained amongst trainees who do not hold a German passport. Since the 2012 reporting year, the average age of German trainees (newly concluded contracts) has been 19.6 years. In the case of foreign trainees, average age increased virtually constantly over the same period from 20.3 (2012) to 22.5 (2019).

A4.3 Training participation of young people in the dual system

This section considers the extent of the proportion of young people commencing or successfully completing dual vocational education and training pursuant to the BBiG/HwO in the first place, regardless of the age at which they do so. For this purpose, arithmetical rates are calculated on the basis of the Vocational Education and Training Statistics and the Population Forecast by means of an aggregation method (see Information Box). These rates may be interpreted as indicators of the quantitative significance of the dual system and as a measure of the integration of various groups of persons.

Training entrant rate

The training entrant rate (see Information Box) is an indicator of the proportion of young people who commence dual vocational education and training. It does not, however, take account of the age at which this takes place or of the length of the transition from general school to VET. For the 2019 reporting year, the result is an arithmetical proportion of 54.4% of young people (resident population) who at some point during the course of their life commence dual vocational education and training → **Table A4.3-1**. Also included are persons who (will) commence or have commenced a course of higher education study or another type of training at some point prior to or after dual vocational education and training or at the same time (dual programme)[15].

The training entrant rate in the dual system declined annually from 2011 to 2016. A total decrease of 6.3 percentage points occurred between these two points. The longer-term decrease in training participation in the dual system by young people has been associated with a growing propensity towards higher education study on their part. The higher education entrant rate has, however, not gone up over recent years. For the 2019 reporting year, the Federal Statistical Office (2020) calculates a higher education entrant rate of 45.5% of the resident population (German and foreign students not including students from abroad and not adjusted for the effect caused by the shift to eight-year upper secondary education). The training entrant rate particularly varies by gender and nationality, as can be discerned from → **Table A4.3-1**.

Training completion rate

If we consider the population's participation in the dual system, the question of how many percent commence training is not the only issue to arise. Another object of interest is how many percent successfully complete vocational education and training and achieve a relevant vocational qualification. In the 2019 reporting year, 383,292 trainees passed their final examination in the dual system. For 359,142 of these persons, this constituted their first achievement of a vocational qualification in the system (see Information Box).

The training completion rate (TCR) reached 39.0% for the 2019 reporting year → **Table A4.3-2.** In overall terms, the training completion rate for the dual system was significantly higher than the higher education completion rate (Germans and foreigners together 32.1% in 2019).

The arithmetical proportion of female German nationals in the resident population who have succeeded in obtaining a vocational qualification in the dual system at some point during their curriculum vitae was 36.2% in 2019. Only 13.4% of the female foreign nationals in the resident population achieved a dual vocational qualification. The corresponding proportion of male foreign nationals was 14.3%. With regard to the completion rate, however, account must also be taken for the 2019 reporting year of the special development in the foreign residential population that has taken place since 2015 (significant increase in foreign males in particular, mainly due to refugee migration). A very strong increase in the number of foreign trainees was recorded from 2017 onwards, especially with respect to those who are nationals of a country of asylum-seeker origin[16]. An average of three years may

15 For this reason, the entrant rates for various education sectors add up to more than 100%.

16 The Vocational Education and Training Statistics merely record nationality, not refugee migrant background. The country delineation used here is based on a differentiation between refuge and migration states undertaken by the Federal Employment Agency. ("The aggregate total comprises nationals of those non-European countries which have produced the most asylum applications over recent years. These constitute the following eight countries: Afghanistan, Eritrea, Iran, Iraq, Nigeria, Pakistan, Somalia and Syria").

Table A4.3-1: **Training entrant rate by personal characteristic, 2011 to 2019 (in %)[1]**

Year	Training entrant rate						
	Total	Germans of which:			Foreign nationals[2] of which:		
		Total	Men	Women	Total	Men	Women
2011	58,0	60,3	70,5	49,6	35,4	38,8	31,8
2012	56,5	59,0	68,9	48,6	33,7	36,3	30,9
2013	54,3	56,9	66,5	46,8	31,7	35,1	28,1
2014	53,4	56,3	66,0	46,0	31,1	33,2	28,8
2015[2]	52,4	56,7	66,8	46,1	26,0	25,8	26,2
2016[2]	51,7	55,8	66,2	44,9	27,6	28,7	26,3
2017	52,9	55,7	67,1	43,6	34,2	39,3	26,9
2018	54,5	56,5	68,8	43,5	38,7	46,2	28,2
2019	54,4	56,3	69,3	42,7	38,4	45,1	29,4

[1] The completion rates for the years 2011 and 2013 were also recalculated on the basis of the Population Forecast data for 2011 and 2013 taken from the 2011 census. They therefore deviate from the values published in the 2015 Data Report and in 2014.

[2] This rate is calculated by establishing the ratio between all first entrants and the resident population. Account should be taken of the fact that persons who do not hold German nationality may be counted as part of the resident population in the Population Forecast. This happens regardless of their residency status by dint of the fact that they are formally registered under registration law. To this extent, persons who cannot be expected to progress (directly) to dual VET are also recorded. A significant decline in the training entrant rate will occur for the group of persons affected in circumstances where the resident population increases significantly due to special developments (e.g. a sharp rise in the number of refugees). Also, "as a consequence of the development of the population size, the results of the migration statistics have only been comparable with the values of the previous year to a limited extent since the 2016 reporting year because of methodological changes and further technical developments" (see: https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Bevoelkerungsstand/Methoden/Erlauterungen/methodischehinweise-2016.html).

Source: "Trainee Database" of the Federal Institute for Vocational Education and Training based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), reporting years 2011 to 2019 (previous year's figures had to be used for Bremen for the reporting year 2015 because no data reporting took place) and the Population Forecast of the Federal Statistical Office (population as of 31 December), reporting years 2011 to 2019 on the basis of the 2011 census. Calculations by the Federal Institute for Vocational Education and Training..

VET Data Report Germany 2021

Table A4.3-2: **Training completion rate by personal characteristic, 2011 to 2019 (in %)[1]**

Year	Training completion rate						
	Total	Germans of which:			Foreign nationals[2] of which:		
		Total	Men	Women	Total	Men	Women
2011	47,8	50,5	57,7	43,0	22,2	23,4	21,0
2012	45,4	48,5	55,7	40,9	19,8	20,6	18,8
2013	44,5	48,1	55,0	40,8	18,1	18,7	17,3
2014	43,8	48,1	55,4	40,4	16,3	16,4	16,2
2015[2]	41,9	47,9	55,6	39,7	12,9	12,0	14,1
2016[2]	40,4	48,6	56,6	40,3	12,0	11,2	13,3
2017	39,4	45,9	53,9	37,5	11,7	11,3	12,5
2018	39,1	45,4	53,6	36,9	12,4	11,8	13,3
2019	39,0	44,9	53,1	36,2	13,9	14,3	13,4

[1] Since the updating of the Vocational Education and Training Statistics in 2007 and the switch to recording individual data, the statistics have provided age information for those completing training, and those successfully completing training for the first time can also be delineated. The completion rates for the years 2011 and 2013 were also recalculated on the basis of the Population Forecast data for 2011 and 2013 taken from the 2011 census. They therefore deviate from the values published in the 2015 and 2014 Data Reports.

[2] This rate is calculated by establishing the ratio between all first entrants and the resident population. Account should be taken of the fact that persons who do not hold German nationality may be counted as part of the resident population in the Population Forecast. This happens regardless of their residency status by dint of the fact that they are formally registered under registration law. To this extent, persons who cannot be expected to progress (directly) to dual VET are also recorded. A significant decline in the training entrant rate will occur for the group of persons affected in circumstances where the resident population increases significantly due to special developments (e.g. a sharp rise in the number of refugees). Also, "as a consequence of the development of the population size, the results of the migration statistics have only been comparable with the values of the previous year to a limited extent since the 2016 reporting year because of methodological changes and further technical developments" (see: https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Bevoelkerungsstand/Methoden/Erlauterungen/methodische-hinweise-2016.html).

Source: "Trainee Database" of the Federal Institute for Vocational Education and Training based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), reporting years 2011 to 2019 (previous year's figures had to be used for Bremen for the reporting year 2015 because no data reporting took place) and the Population Forecast of the Federal Statistical Office (population as of 31 December), reporting years 2011 to 2019 on the basis of the 2011 census. Calculations by the Federal Institute for Vocational Education and Training.

VET Data Report Germany 2021

elapse before these persons have entirely passed through training. The special development of the resident population also means that a comparison of completion rate and entrant rate cannot usefully be interpreted, particularly for foreign persons.

A4.4 Educational behaviour of young people

A4.4.1 Results from the 2010 Applicant Survey carried out by the Federal Employment Agency (BA) and the Federal Institute for Vocational Education and Training (BIBB)

In order to obtain reliable data on the situation of training place applicants at the transition to training during the coronavirus pandemic, BIBB joined forces with the BA in the autumn of 2020 to carry out a non-scheduled BA/BIBB Applicant Survey (see Annex – Data sources). As is the case with all BA/BIBB Applicant Surveys, the special survey conducted in 2020 concentrated on applicant groups who run a higher risk of failing to find a training place and of remaining outside training for the long term. They are considered to be important educational policy target groups, and the focus is on supporting them in making the transition to training. This significant educational policy group includes training place applicants who wished to begin training at an earlier point in time than the current training year (unplaced applicants from previous years), applicants who have broken off contact with the BA (applicants whose destination is unknown), applicants from a refugee/migration background ("persons within the context of forced migration" – see Information Box) and migrants without a refugee background.

Information Box – applicants with a migration background (and refugee background)

Since 2016, the BA's training reporting system has surveyed whether a migration background is in place in respect of applicants who are third-country nationals ("persons within the context of forced migration"). **Applicants from a refugee background** are persons who have been allocated the characteristic "persons within the context of refugee migration" within the scope of the BA's training market statistics. Allocation of the characteristic is decided by nationality and residence status of the applicants. Third-country foreigners with a temporary residence permit (§ 55 Asylum Act), with a residence permit as refugees (§ 22–26 Residence Act) or with leave to remain (§ 60a Residence Act) are thus registered as applicants within the context of forced migration.

Whereas applicants with a refugee background can thus already be identified in the training market statistics, this is not possible for migrants without a refugee background.

Migration background is indirectly defined for persons without the context of refugee migration who were included in the 2020 BA/BIBB Applicant Survey. Applicants born in Germany who are in possession of German citizenship only and who have only learned German as their native language are considered to be persons without a migration background. All other persons are assumed to be with a migration background. However, this definition does not permit a migration background to be identified for some applicants. This applies to applicants who were born in Germany, who hold Germany nationality only, whose sole native language is German but whose parents were immigrants. In this case, information on the parents of the young people would be required in order to identify a migration background. For reasons of data privacy, however, collection of information on parents is not permitted in the BA/BIBB Applicant Survey.

A4.4.2 The group of applicants whose destination is officially unknown

In the 2020 reporting year, no further placement endeavours were made in respect of 18% of applicants registered with the employment agencies and job centres operating as joint institutions because such applicants had failed to report back. According to the BA's training market statistics, such persons are deemed to be applicants whose destination is unknown at the end of the reporting year. Compared to 2018, the proportion of such persons increased by only one percentage point. This could be an indication that young people were able to maintain contact with the BA despite the restrictions introduced to combat the pandemic.

Around 9% of applicants from the 2020 reporting year whose destination was unknown were in company-based training pursuant to the BBiG/HwO as of the end of 2020. 1% were in extra-company or full-time school training in a BBIG/HwO occupation. 3% had progressed to training in the school-based occupation system or to another form of training outside BBiG/HwO, and 4% were in higher education study. This meant that only 17% of applicants whose destination was officially unknown were in fully qualifying training. This is in line with the result from 2018. 60% of applicants whose

destination was known were in fully qualifying training at the time of the survey. 5% of registered applicants whose destination was unknown were attending a general school at the time of the survey. 16% were in a partially qualifying training course or partially qualifying measure (partially qualifying full-time vocational school, specialised upper secondary school, school-based vocational preparation year or similar, vocational preparation measure, introductory training, internship). Applicants whose destination was known were slightly less likely to be attending a general school (6%) or to be in partially qualifying training (17%). Of applicants whose destination was unknown, 8% were in employment and a further 7% in casual work. 37% were not working or unemployed and 6% were in another destination, e.g. were staying at home for personal reasons. The proportions of these rather less favourable destinations amongst such persons were considerably higher than amongst applicants whose destinations were known. Of the latter, 4% were employed and a further 3% were in casual work. Only 6% were not working, and a mere 1% were in another destination. Compared to 2018, the proportion of unemployed amongst applicants whose destination was unknown rose by six percentage points (2018: 31%). At the same time, the proportion of those in casual work fell by four percentage points (2018: 11%).

The proportion of refugee applicants was higher amongst applicants whose destination was unknown than in the group of applicants whose destination was known (10% as opposed to 6%). The destination of applicants from another migration background was also more likely to be unknown (38% as opposed to 29%). This distribution was already revealed in 2018. The proportion of unplaced applicants from previous years, i.e. of those who had already sought to obtain company-based training in the preceding years, was relatively high amongst applicants whose destination was officially unknown (36%). Unplaced applicants from previous years who had attempted to enter training more than two years previously were in particular strongly represented amongst applicants whose destination was unknown. This indicates that there was a significant decline in willingness to report back to the employment agencies or job centres if the search for a training place has continued for a very long time. Young people who had achieved no qualification higher than the lower secondary school-leaving certificate were frequently represented amongst applicants whose destination was officially unknown (34%). Virtually no differences were, however, revealed in the case of persons with a higher education entrance qualification.

A4.4.3 The group of unplaced applicants from previous years

According to the training market statistics produced by the Federal Employment Agency (BA), applicants from previous school leaver cohorts made up 44% of all applicants registered with the employment agencies and job centres in the 2020 reporting year. As well as identifying whether applicants already attempted to obtain a company-based training place at an earlier point, the BA/BIBB Applicant Survey also records the training year in which they first sought to enter training.

On the basis of the 2020 BA/BIBB Applicant Survey, the number of unplaced applicants from previous years as a proportion of all training place applicants was calculated to be 26% for the 2020 reporting year[17]. This means that while the proportion of unplaced applicants from previous years has risen slightly compared to 2018, it still remains below the proportions recorded between 2006 and 2016. In the 2020 reporting year, the proportion of men in the group of unplaced applicants from previous years was 61%, the same overall proportion recorded in the group of first-time applicants, i.e. those applying for training for the first time in 2020 → **Table A4.4.3-1**.

At the time of the survey, 34% of unplaced applicants from previous years in the 2020 reporting year were in company-based VET pursuant to the BBiG or HwO. The corresponding proportion amongst first-time applicants was 42%. In 2018, too, more initial applicants than unplaced applicants from previous years had progressed to company-based training (43% as opposed to 41%). Unplaced applicants from previous years in the 2020 reporting year were more likely to be unemployed than unplaced applicants from previous years in the 2018 reporting year (19% as opposed to 13%). Proportions of unemployment are particularly high amongst persons whose initial application was made more than one year previously (application in the year preceding the previous year or earlier). Almost a quarter, respectively, were unemployed in 2020. In 2018, the corresponding proportions were 15% (first application in the year preceding the previous year) and 14% (first application at an earlier point).

11% of unplaced applicants from previous years and 18% of first-time applicants were in a partially qualifying training course or partially qualifying measure (partially qualifying full-time vocational school, school-based vocational preparation year or similar, vocational prepa-

17 In the case of around 5% of the training place applicants surveyed, missing information meant that it was not possible to clarify whether they were unplaced applicants from previous years or not. The actual rate of unplaced applicants from previous years could thus be slightly underestimated.

Table A4.4.3-1: **Characteristics of unplaced applicants from previous years and first-time applicants in the 2020 reporting year**

Characteristics	Unplaced applicants from previous years				First-time applicants
	Total	*Including:*			
		Previous year	Prior year	Earlier years	
	in %	in %	in %	in %	in %
Gender					
Male	61	60	64	60	61
Female	39	40	36	41	39
Age					
Aged 16 and under	3	5	1	0	26
17 years	9	14	3	<1	24
18 years	16	20	16	3	14
19 to 20 years	32	33	32	30	21
Aged 21 and over	40	28	49	66	15
Missing information	< 1	1	0	0	1
Migrant and refugee background					
Without migration background	57	56	51	71	64
With a migrant background in total	40	42	46	26	34
Of which:					
With another migrant background	33	34	36	22	29
With a refugee background	8	8	10	4	6
Unclear whether there is a migrant background, but no refugee background	3	2	3	3	2
Highest school-leaving qualification					
No (recognised) qualification	3	3	3	2	4
Lower secondary school-leaving certificate	28	29	24	28	28
Intermediate secondary school-leaving certificate	43	43	43	41	49
University of applied sciences or general higher education entrance qualification	26	25	29	27	19
Cannot be aligned or information missing[1]	1	1	1	1	1
Total[2]	**100**	**100**	**100**	**100**	**100**

[1] Including foreign qualifications where it is unclear whether these are recognised in Germany and qualifications where it is not clear whether these are German qualifications or foreign qualifications.

[2] Discrepancies as a result of the rounding up or down of figures mean that the total of the individual percentage proportions does not always add up to precisely 100%.

Source: 2020 BA/BIBB Applicant Survey; calculations by the Federal Institute for Vocational Education and Training (weighted) VET Data Report Germany 2021

ration measure of an employment agency or job centre, introductory training, internship). The fact that unplaced applicants from previous years are less likely to progress to a partially qualifying training course was revealed in 2018, the explanation being that many had already taken part in relevant training programmes or measures at an earlier juncture.

A4.5 Regional mobility of trainees

Mobility of young people may exert a sustainable influence on the situation on the training market at a regional level. Official information on the mobility of young people in connection with their vocational education and training can be obtained from the Employee Statistics of the Federal Employment Agency. These statistics indicate where trainees live and where their training places are located. Regional mobility as of the cut-off date of 30 September 2019 is portrayed below on this basis. In interpreting the information, account needs to be taken of the fact that the BA Employee Statistics merely reflect mobility as factually realised, i.e. cases in which young people do not change their main place of residence following commencement of a training programme. If persons who change their main place of residence were to be included, then successfully realised mobility would be even higher. This data has not previously been statistically quantifiable. Nevertheless, the BA's statistics are introducing a new concept which will permit a materially more precise recording of mobility readiness and of mobility factually realised.

Information Box – new concept for the recording of mobility readiness and of mobility factually realised

The BA is introducing a new concept for its annual statistical reporting system with effect from July 2021. This will involve combining data from the statistics on applicants with data from the employment statistics and will permit more precise recording than previously of the transition and longer-term destination of applicants in training. Regional results are also encompassed. A combination of regional characteristics of applicants (e.g. place of residence during the application phase) and characteristics taken from the employment statistics (e.g. place of work during employment) will allow statements regarding the regional mobility of trainees to be derived.

Up until now, regional mobility of young people interested in training has been estimated on the basis of data from the employment statistics in conjunction with the results of the BIBB survey of newly concluded training contracts as of 30 September. The new procedure for the BA statistics will afford an opportunity to trace mobility on the training market in a more differentiated and more apposite way. It will, for example, be possible to use the new procedure to record whether successful applicants have moved their main place of residence for the purpose of commencing training.

As of the cut-off date of 30 September 2019, around 110,400 of the 1,650,500 employees registered as trainees by the BA at this time were not living in the same federal state in which their company providing training was located. As a result of mobility across the federal states, larger proportions of available training places, in particular in the city states of Bremen, Hamburg und Berlin, are filled by residents from outside the state.

The city states mostly offer many more training places than the local areas of young people interested in training. Diversity of supply is also materially higher than in less densely populated regions. Appreciable numbers of young people living within the city states also complete training outside their own federal state. These proportions are, however, significantly lower than the numbers commuting in. The latter, therefore, clearly preponderate. The consequence of this is that urban markets which were once favourable or very favourable for the young people living there prior to mobility tend to become difficult markets because of mobility and trainees commuting in. Evaluations at the level of the employment agency districts show that mobility has brought about changes of this nature to the market situations in most centres of metropolitan regions.

From the perspective of the young people, the federal states in which mobility particularly reduces pressure on training markets are Brandenburg, Mecklenburg-Western Pomerania, Lower Saxony, Rhineland Palatinate, Saxony-Anhalt, Schleswig-Holstein and Thuringia. In the above cases, the rates of trainees commuting out to other federal states are noticeably higher than the rates of those commuting in (by more than three percentage points in each case). The two federal states in which most resident trainees actually also receive their training are North Rhine-Westphalia (97.3%) and Bavaria (97.1%), followed by Baden-Württemberg (96.0%). One of the reasons for this is presumably the circumstance that these three states have the highest populations and the highest amount of training place supply in absolute terms. In the case of Bavaria, the above average prospects offered by the training market situation probably also have a role to play from the point of view of young people. Trainees from Brandenburg are the least likely to undergo training in their own state (74.5%), followed by some distance by trainees from Bremen (84.6%).

Within the scope of the 2020 BA/BIBB Applicant Survey, young people interested in training were asked to provide information on whether they had applied for company-based VET places located more than 100 km from their place of residence. Daily commuting is scarcely feasible if the company providing training is more than 100 km away from a trainee's home address. This means that a move would be required in most cases. 7% of respond-

ents stated that they had actually applied for training places offered more than 100 km from home. Whereas young men, younger applicants and applicants with a lower secondary school-leaving certificate were relatively unlikely to send out applications beyond a radius of 100 km from their place of residence, such an approach was much more common amongst women, older applicants and those in possession of a higher education entrance qualification. By way of contrast, there appears to be no meaningful influence on trainees' decisions to submit applications supraregionally by dint of whether they are resident in cities (densely populated areas), towns and suburbs (areas of medium population density) or rural areas (thinly populated areas) (see Information Box). In overall terms, the impact on mobility behaviour of the local market situation as locally recorded seems to be slight. Only in regions with a supply-demand ratio (eSDR) of over 110 are supraregional applications slightly less likely (4%) than in a market which is less comfortable from the young people's perspective. The individual application history of the young people surveyed is actually more significant than the general training market situation on the ground. The tendency on the part of young people to submit supraregional applications rises if the year in which commencement of training was first sought is in the more distant past (i.e. the young people affected have been seeking a training place for a relatively long period of time).

Respondents who were in dual vocational education and training at the time the BA/BIBB Applicant Survey took place were also asked about their actual mobility behaviour in connection with commencement of training. 6% stated that they had moved home to begin training. However, trainees originally from rural regions were slightly more likely than their counterparts from densely populated areas to state that they had moved home for the purpose of training. The fact that applicants from rural regions were not more likely to submit applications for places further than 100 km away could indicate that young people tend to move home in order to enter training less than 100 km away.

Daily commuting is observed significantly more frequently than moving home. Just under a quarter (24%) of all respondents in dual VET stated that they commuted a daily distance of more than 20 km (one-way journey) to the company providing training. Trainees residing in rural regions were especially likely to report such trips (32%), whereas only 16% of trainees in towns and cities stated that their route to work exceeded 20 km.

A4.6 Young adults who have not completed vocational education and training

The number of young adults without a formal vocational qualification is a significant labour market policy indicator. Those without a professional or vocational qualification bear a higher risk of unemployment even given a healthy and prevailing economic environment. In 2019, the unemployment rate of persons without a professional or vocational qualification was 17.0%. This contrasts with an overall unemployment figure for Germany of only 5.2%. They also earn significantly less on average than employees who have completed vocational education and training. A reduction in the rate of young adults without a formal qualification (nfQ – see Information Box) thus materially improves their chances on the labour market.

The microcensus (see Annex – Data sources) currently provides data up until the year 2019. Data relating to the population in private households indicates that the proportion of young adults aged between 20 and 34 who have not completed vocational education and training rose once more in 2019 compared to the previous year **→ Table A4.6-1**.

In interpreting these results, consideration must be accorded to the changes that took place to the microcensus questionnaire for the 2017 wave. Since this date, many individual characteristics including level of qualification have been solely aligned to private households. The nfQ rates for the year 2019 reported here therefore do not encompass persons living in communal accommodation. Conspicuous within the results are the differences between male and female migrants of Turkish origin who have their own experience of migration. The nfQ rate amongst women in this group of persons was 11.4 percentage points above the corresponding rate for men (women from a Turkish migration background and with their own experience of migration: 56.5%, men in the same group of persons: 45.1%).

Table A4.6-1: **Young adults without vocational education and training from 2015 to 2019**[1]

Year	Aged 20 to 24		Aged 20 to 29		Aged 20 to 34		Aged 25 to 34	
	Proportion of unskilled persons (in %)	Absolute terms (in millions, extrapolated)	Proportion of unskilled persons (in %)	Absolute terms (in millions, extrapolated)	Proportion of unskilled persons (in %)	Absolute terms (in millions, extrapolated)	Proportion of unskilled persons (in %)	Absolute terms (in millions, extrapolated)
2015	12,1	0,52	12,6	1,19	13,2	1,90	13,6	1,38
2016	13,3	0,58	13,6	1,32	14,0	2,08	14,3	1,50
2017	13,5	0,59	13,9	1,35	14,2	2,12	14,5	1,53
2018	13,9	0,61	14,0	1,33	14,4	2,12	14,6	1,51
2019	13,8	0,61	14,4	1,34	14,7	2,16	15,1	1,55

[1] Because of a change to the survey method, results are based on the population in private households and on data from the 2011 census. They therefore differ from those presented in earlier data reports.

Source: Research data centres of the statistical offices, microcensuses 2015 to 2019, calculations by the Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

Table A4.6-2: **Young adults aged from 20 to 34 without a vocational qualification in 2019**[1]

	With a vocational qualification or in training or attending school		No formal qualification		Total		Proportion of non-formally qualified persons in %
	Absolute terms (in thousands)	in %	Absolute terms (in thousands)	in %	Absolute terms (in thousands)	in %	
Male	6.440	51,4	1.182	54,8	7.622	51,9	15,5
Female	6.098	48,6	973	45,2	7.071	48,1	13,8
Total	**12.538**	**100,0**	**2.155**	**100,0**	**14.693**	**100,0**	**14,7**
20 to 24 years	3.793	30,3	606	28,1	4.399	29,9	13,8
20 to 29 years	4.192	33,4	733	34,0	4.925	33,5	14,9
30 to 34 years	4.553	36,3	816	37,9	5.369	36,6	15,2
Total	**12.538**	**100,0**	**2.155**	**100,0**	**14.693**	**100,0**	**14,7**
Including							
25 to 34 years	**8.745**	**69,7**	**1.549**	**71,9**	**10.294**	**70,1**	**15,1**
Lower secondary school-leaving certificate	1.413	11,3	757	35,2	2.170	14,8	34,9
Intermediate secondary school-leaving certificate	3.581	28,7	458	21,3	4.038	27,6	11,3
Higher education entrance qualification	7.294	58,4	443	20,7	7.738	52,9	5,7
No qualification	205	1,6	489	22,8	695	4,7	70,4
Total	**12.493**	**100,0**	**2.147**	**100,0**	**14.641**	**100,0**	**14,7**
Germans	10.395	82,9	1.090	50,6	11.485	78,2	9,5
Foreign nationals[2]	2.143	17,1	1.065	49,4	3.208	21,8	33,2
Total	**12.538**	**100,0**	**2.155**	**100,0**	**14.693**	**100,0**	**14,7**

[1] Because of a change to the survey method, results are based on the population in private households and on data from the 2011 census. They therefore differ from those presented in earlier data reports.

[2] Includes dual nationality.

Source: Research data centres of the statistical offices, microcensus 2019, calculations by the Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

Information Box – persons without a formal qualification (nfQ)

nfQs or "unskilled persons" are deemed to be all persons (of working age) who are not able to demonstrate successful certified participation in formal (standardised, state-regulated or recognised) education and training courses, i.e. who have not completed dual or school-based vocational education and training or a course of study at a university of applied sciences or institute of higher education (or an equivalent qualification). Those who have undergone semi-skilled training or completed an internship are considered to be not formally qualified. Especially in the age cohorts forming the object of investigation, the nfQs include a considerable number of persons who have not yet finished their vocational training or else are completing voluntary military service, the Federal Voluntary Service or a voluntary social or ecological year. For this reason, pupils,[18] students, trainees and persons performing voluntary service were not counted as persons who had failed to complete VET in the evaluation of the microcensus data. The proportion of those not in possession of a formal qualification relates to all persons in the relevant age cohort.

18 All persons who had attended a school within the past twelve months were classified as pupils.

A5 Training contracts

A5.1 Newly concluded training contracts – results of the BIBB survey as of 30 September 2020

For the purpose of the survey of newly concluded training contracts as of 30 September 2020 (see Information Box), the competent bodies responsible for vocational education and training pursuant to the BBiG and HwO notified the Federal Education and Training (BIBB) of 467,484 newly concluded training contracts (naa) nationwide for the period from 1 October 2019 to 30 September 2020. Compared to the survey of the previous year (2019: 525,039 naa), this represents a drop of 11% (-57,552 naa).

Information Box – newly concluded training contracts (also referred to in abbreviated form as new contracts)

In the BIBB survey of newly concluded training contracts (naa) as of 30 September, new contracts are defined as vocational education and training contracts entered into the register of initial training relationships pursuant to the BBiG or HwO that were concluded between 1 October of the previous year and 30 September of the current year and which have not been prematurely dissolved.

Follow-up contracts are recorded separately (see below). Unlike in the survey of 31 December conducted for the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (referred to in abbreviated form as the survey as of 31 December), they are not added to the overall total of new contracts. Here, too, however, it is necessary to bear in mind that not all trainees with a new contract are training entrants to the dual system. Training contracts are also newly concluded following premature dissolutions or in the event of second training programmes within the dual system. Because of the differences stated above and other deviations in design, the definitions of new contracts within the scope of the BIBB survey as of 30 September and in the survey as of 31 December do not correlate.

Alignment of training contracts to the areas of responsibility

Categorisation of training contracts to the areas of responsibility is generally determined by the type of the training occupation rather than by the company providing training. There are exceptions for trainees being trained in a trade and industry occupation at a craft trades company (industrial occupation in the craft trades). In the aggregation of training contracts by areas, such contracts are aligned to the craft trades. The same applies to craft trade occupations for which training takes place at companies in the area of trade and industry (skilled crafts occupation in industry). These training contracts are aligned to the area of trade and industry in the aggregated figures. For this reason, the term used is "areas of responsibility" rather than "areas of training" because actual training performance in individual areas does not necessarily correlate with count results by areas of responsibility. Whereas the BIBB survey as of 30 September does not record the company characteristic "alignment to the public sector", this aspect is included in the survey of 31 December conducted for the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states. The latter enables a more precise recording of training delivery by the public sector.

Apart from the area of agriculture (+120 naa/+0.9%), all areas of responsibility were affected by decreases in the number of newly concluded training contracts in 2020. As expected, the area of trade and industry maintained pole position in the comparison of newly concluded training contracts by areas of responsibility → **Table A5.1-1**.

In 2020, declines in the number of newly concluded training contracts were recorded both for men (-10.6%/-35,421 naa) and for women (-11.5%/-22,167 naa). 36.4% of new training contracts reported for the 2020 survey were concluded with women. A trend has been discernible for a number of years that fewer and fewer training contracts in the dual system pursuant to the BBiG/HwO are being concluded with women, and this also continued in 2020. An ongoing reduction in the proportion of women can be identified over the course of time (2019: 36.6%). Women are still dominant in the areas of the liberal professions (2020: 91.6%/ 2019: 91.3%), housekeeping (2020: 87.0%/ 2019: 84.7%) and the public sector (2020: 62.7%/ 2019: 62.3%). They played only a subordinate role in the craft trades (2020: 19.0%/ 2019: 19,8%) and in maritime transport (2020: 8.4%/ 2019: 7.7%). In 2020, the proportion of women concluding new contracts was below the corresponding proportion of men in all federal states.

In the case of the BIBB survey as of 30 September, a differentiation is drawn between training contracts which encompass the regular duration of training (as stipulated in the training regulations) and such contracts in respect of which a shortening of at least six months is agreed at

Table A5.1-1: **Newly concluded training contracts by areas of responsibility from 2004 to 2020**

	Results in the counting period of 1 October of the previous year to 30 September																	2020 vs. 2019	
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Absolute terms	%
Germany																			
Trade and industry	322.758	316.164	336.936	367.485	369.195	333.405	331.044	342.783	332.622	317.265	311.733	308.244	304.302	304.272	309.831	304.593	262.206	-42.384	-13,9
Craft trades	168.291	157.026	162.603	179.697	170.070	155.583	155.178	154.506	147.327	142.137	141.234	141.513	141.768	143.718	145.308	142.875	132.195	-10.680	-7,5
Public sector[1,2]	15.129	14.172	14.082	13.413	13.227	13.725	13.554	12.402	12.009	12.216	12.417	13.281	13.791	14.253	14.448	15.087	14.646	-441	-2,9
Agriculture	15.192	14.784	15.813	15.903	15.327	14.646	13.923	13.482	13.260	13.158	13.164	13.551	13.566	13.701	13.464	13.368	13.488	120	0,9
Liberal professions[1]	46.539	43.617	42.111	44.556	43.947	42.675	42.441	42.612	43.095	42.051	42.051	43.140	44.562	45.096	46.245	47.100	43.140	-3.960	-8,4
Housekeeping[1]	4.875	4.119	4.320	4.473	4.272	3.996	3.582	3.345	2.763	2.559	2.421	2.262	2.139	2.106	1.992	1.899	1.701	-198	-10,4
Maritime sector	195	297	288	360	306	279	240	249	183	156	183	168	141	141	126	117	108	-9	-8,5
Total	**572.979**	**550.179**	**576.153**	**625.884**	**616.341**	**564.306**	**559.959**	**569.379**	**551.259**	**529.542**	**523.200**	**522.162**	**520.272**	**523.290**	**531.414**	**525.039**	**467.484**	**-57.552**	**-11,0**

[1] Not including new training contracts for which other bodies (chambers) are responsible.
[2] Not including career track training in the civil service.
For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values.
Source: Federal Institute for Vocational Education and Training survey as of 30 September

VET Data Report Germany 2021

Table A5.1-2: **Development in the number of newly concluded training contracts in state-recognised training occupations in which training regulations stipulate a duration of training of two years[1]**

	2017		2018		2019		2020		2020 vs. 2019	
	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %
Germany										
Newly concluded training contracts of shortened duration in total	44.523	100,0	45.570	100,0	44.322	100,0	40.158	100,0	-4.164	-9,4
Company-based	40.881	91,8	42.432	93,1	41.436	93,5	37.239	92,7	-4.197	-10,1
Primarily publicly financed (extra-company)	3.645	8,2	3.138	6,9	2.886	6,5	2.919	7,3	33	1,2

[1] Not including occupations for persons with a disability (pursuant to § 66 BBiG or § 42m HwO)
For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values.
Source: Federal Institute for Vocational Education and Training survey as of 30 September

VET Data Report Germany 2021

Table A5.1-3: **Newly concluded training contracts, follow-up contracts with rate of change compared to the previous year divided by areas of responsibility**

Area of responsibility	2018			2019						2020					
	Newly concluded contracts	Follow-up contracts	Total	Newly concluded contracts	Rate of change	Follow-up contracts	Rate of change	Total	Rate of change	Newly concluded contracts	Rate of change	Follow-up contracts	Rate of change	Total	Rate of change
Germany															
Trade and industry	309.831	5.133	314.964	304.593	-1,7	5.346	4,1	309.939	-1,6	262.206	-13,9	6.129	14,6	268.335	-13,4
Craft trades	145.308	975	146.283	142.875	-1,7	1.032	5,8	143.907	-1,6	132.195	-7,5	981	-4,9	133.176	-7,5
Public sector	14.448	0	14.448	15.087	4,4	0	.	15.087	4,4	14.646	-2,9	0	.	14.646	-2,9
Agriculture	13.464	0	13.464	13.368	-0,7	0	.	13.368	-0,7	13.488	0,9	0	.	13.488	0,9
Liberal professions	46.245	.	46.245	47.100	1,9	.	.	47.100	1,9	43.140	-8,4	.	.	43.140	-8,4
Housekeeping1	1.992	0	1.992	1.899	-4,7	0	.	1.899	-4,7	1.701	-10,4	0	.	1.701	-10,4
Maritime sector	126	.	126	117	-6,4	.	.	117	-6,4	108	-8,5	.	.	108	-8,5
Total	**531.414**	**6.108**	**537.522**	**525.039**	**-1,2**	**6.378**	**4,4**	**531.417**	**-1,1**	**467.484**	**-11,0**	**7.110**	**11,5**	**474.594**	**-10,7**

Rate of change: Rate of change compared to previous year
Reprint, including of extracts, only permitted if the source is stated.
For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values.
Source: Federal Institute for Vocational Education and Training, Survey as of 30 September 2020 VET Data Report Germany 2021

the outset (shortened duration of training: naa_kurz). For the 2020 survey, the competent bodies registered 70,611 newly concluded training contracts in respect of which a shortening of at least six months was stipulated from the outset (see Information Box). This corresponds to a proportion of 15.1% of all newly concluded training contracts. Observed over the course of time, the proportion of shortened training contracts increased in 2020, although there was a fall in absolute numbers. In relation to the reports for the 2019 survey (76,602 naa_kurz), this represents a national decrease of 7.8% (Germany: -5,991 naa_kurz).

40,158 training contracts with a duration of up to 24 months were reported nationwide for the 2020 survey. This thus constituted a proportion of 8.6% of newly concluded training contracts → **Table A5.1-2**. Training contracts with a duration of two years were most likely to be concluded in the area of responsibility of trade and industry (2020: 37,101 contracts), a proportion of 92.4%. 3,057 contracts with a training duration of two years were registered in the craft trades. Sales assistant for retail services once again assumed top position in the area of trade and industry. 21,438 new contracts were concluded in this training occupation (including reports from the craft trades: 21,459). This was followed by the occupations of warehouse operator (5,280 contracts, total: 5,325) and machine and plant operator (3,396 contracts, total: 3,447). Construction occupations were the most popular in the area of responsibility of the craft trades: building construction worker (858 contracts in the craft trades/total: 1,146), followed by civil engineering worker (651 contracts in the craft trades/total: 1,944) and construction finishing worker (555 contracts in the craft trades/total: 639).

Information Box – shortening of duration of training

A shortening of the duration of training is possible when recognition or credit transfer can be given for certain education (and training) qualifications (e.g. basic vocational training year, attendance of a full-time vocational school, intermediate or higher-level educational qualification). The BIBB survey of 30 September only designates training contracts as shortened if the shortening of the duration of training is at least six months and if shortening is stipulated at the time when the contract is concluded. New contracts concluded by young people who change the company during training (e.g. because of bankruptcy on the part of the company providing training) are also generally counted as shortened contracts.

Regulations relating to so-called follow-up contracts (see Information Box) affect the areas of responsibility of trade and industry and the craft trades. In the BIBB survey as of 30 September, the competent bodies responsible for vocational education and training are requested to report newly concluded follow-up contracts separately from newly concluded training contracts. This split recording is an attempt to gain an idea of how many training contracts have been newly concluded in a continuation of occupation (stated in the training regulations)

following the successful completion of VET (usually of two-year duration). The purpose of obtaining this information is to arrive at an assessment as to whether the opportunity to continue VET after a programme has been completed is being received in practice.

Despite the fact that the definition of follow-up contracts for the BIBB survey as of 30 September has remained unchanged for many years, it once again proved impossible in 2020 to achieve a standardised (statistical) understanding of follow-up contracts from the competent bodies in terms of compilation of data, even though there has been an increase in the reports of follow-up contracts (2020 versus 2019: +11.5%). This indicates a decrease in the under recording that has repeatedly been identified previously. Nationwide, 7,110 follow-up contracts were reported by the competent bodies for the 2020 survey) → **Table A5.1-3**.

A5.2 Results of post-placement given the effects of the coronavirus pandemic

The coronavirus pandemic has considerably impaired the balance on the training market and has slowed down compensatory processes. It also proved impossible to make up for this deficit in the so-called "fifth quarter" or post-placement period (see Information Box). A total of 74,600 training places were registered for immediate commencement between October 2020 and January 2021. This was 7,800 training places more than in the same period one year previously. This figure included the 59,900 places which were left unfilled on 30 September and a further 14,700 training places which were reported to the advisory and placement services at a later point. Just under 72,700 or 97.4% of the 74,600 places reported were company-based training places.

The places reported contrasted with 76,600 applicants who had asked the advisory and placement services for support in commencing a training place before the 2020 training year was over. The number of applicants registered in the "fifth quarter" went up by 12,400 compared to the previous year. Unlike in the previous year, the number of training places remaining to be filled nationwide was lower than the number of applicants still waiting to be placed. In arithmetical terms, 97.4 training places were available for every 100 applicants. There were also considerable differences between the federal states.

Both sides of the training market, the young people and the companies, were forced to contend with these extreme imbalances. Placement activities in the "fifth quarter" are not just difficult because of the large regional imbalances. A further problem was that the occupational imbalances and disparities in characteristics between the supply to be filled and the demand to be placed which were already observable at the end of September were largely carried over into the "fifth quarter". 80.4% of the places reported in the "fifth quarter" and 56.0% of the applicants reported during this period were from the group of unsuccessful market participations already registered as of 30 September 2020.

In addition to this, the assumption must be made that many of the training places in the "fifth quarter" which do not originate from the subset of places already unfilled on 30 September are the result of contract dissolutions in the probationary period and that companies have an interest in quick post-recruitment. However, the occupations which are affected to a greater degree by premature contract dissolutions are occupations which suffer from recruitment difficulties anyway. For all of these reasons, the training market in the "fifth quarter" is once again significantly more characterised by matching problems than the training market situation during the regular placement period.

The national post-placement progression rate of applicants to a vocational education and training place was a relatively low 9.2%, whereas 73.0% were still seeking a training opportunity. The remaining 17.7% constituted "other former applicants", i.e. applicants who abandoned their wish to be placed prior to progressing to a VET place or whose destination remains unknown → **Table A5.2-1**. Progression rates were virtually unchanged compared to the previous year (previous year: progression to training: 9.4%, still seeking training: 72.5%, status of "other former applicants": 18.0%). Only slight differences were discernible between the various applicant groups with regard to progression rates. In January 2021, the number of training places still to be filled within the scope of post-placement activities for 2020 had significantly shrunk to 12,000. This represents a proportion of 16.1% related to all 74,600 places reported for post-placement between October 2020 and January 2021. This proportion is slightly higher than that recorded at the end of the 2019/2020 reporting year, when 11.3% of the total of 530,300 places reported remained unfilled.

Table A5.2-1: **Registered training place applicants for commencement of training by the end of 2020 by placement status**

	Total number of registered applicants		Of which: Placement status in January 2021									
			Applicants progressing		Other former applicants		Applicants still seeking a training place		Of which:			
									Applicants with alternatives		Unplaced applicants	
	Column 1		Column 2		Column 3		Column 4		Column 5		Column 6	
	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %
Total	**76.560**	**100,0**	**7.054**	**9,2**	**13.582**	**17,7**	**55.924**	**73,0**	**23.367**	**30,5**	**32.557**	**42,5**
Gender												
Male	48.280	100,0	4.114	8,5	8.686	18,0	35.480	73,5	14.935	30,9	20.545	42,6
Female	28.277	100,0	2.939	10,4	4.896	17,3	20.442	72,3	8.432	29,8	12.010	42,5
Nationality												
German	60.246	100,0	5.807	9,6	10.483	17,4	43.956	73,0	18.464	30,6	25.492	42,3
Foreign	16.021	100,0	1.230	7,7	3.056	19,1	11.735	73,2	4.820	30,1	6.915	43,2
Age												
Under 20	33.979	100,0	3.548	10,4	5.198	15,3	25.233	74,3	13.260	39,0	11.973	35,2
20 to 25 years	31.745	100,0	2.931	9,2	6.002	18,9	22.812	71,9	8.099	25,5	14.713	46,3
25 years and over	10.836	100,0	575	5,3	2.382	22,0	7.879	72,7	2.008	18,5	5.871	54,2
School leaver cohort												
In the year 2020	30.617	100,0	3.097	10,1	4.538	14,8	22.982	75,1	12.780	41,7	10.202	33,3
In the year 2019	13.747	100,0	1.536	11,2	2.222	16,2	9.989	72,7	3.384	24,6	6.605	48,0
In the year 2018	9.352	100,0	874	9,3	1.784	19,1	6.694	71,6	2.362	25,3	4.332	46,3
Earlier years	21.880	100,0	1.468	6,7	4.815	22,0	15.597	71,3	4.687	21,4	10.910	49,9
No response	964	100,0	79	8,2	223	23,1	662	68,7	154	16,0	508	52,7
School leaving qualification												
Not achieved lower secondary school-leaving certificate	1.384	100,0	71	5,1	273	19,7	1.040	75,1	477	34,5	563	40,7
Lower secondary school-leaving certificate	23.426	100,0	1.931	8,2	4.441	19,0	17.054	72,8	7.288	31,1	9.766	41,7
Intermediate secondary school-leaving certificate	27.011	100,0	2.605	9,6	4.296	15,9	20.110	74,5	8.668	32,1	11.442	42,4
university of applied sciences entrance qualification	8.778	100,0	874	10,0	1.183	13,5	6.721	76,6	2.879	32,8	3.842	43,8
General higher education entrance qualification	8.633	100,0	882	10,2	1.765	20,4	5.986	69,3	2.310	26,8	3.676	42,6
No response	7.328	100,0	691	9,4	1.624	22,2	5.013	68,4	1.745	23,8	3.268	44,6
Former status end of September 2020												
Applicants who progressed	7.728	100,0	1.158	15,0	959	12,4	5.611	72,6	3.301	42,7	2.310	29,9
Other former applicants	6.789	100,0	513	7,6	912	13,4	5.364	79,0	1.770	26,1	3.594	52,9
Applicants with alternative opportunities	13.605	100,0	852	6,3	1.887	13,9	10.866	79,9	9.822	72,2	1.044	7,7
Unplaced applicants	29.272	100,0	2.261	7,7	7.288	24,9	19.723	67,4	2.998	10,2	16.725	57,1
Not a registered applicant in 2019/2020	19.166	100,0	2.270	11,8	2.536	13,2	14.360	74,9	5.476	28,6	8.884	46,4

Source: Bundesagentur für Arbeit *[Federal Employment Agency]*: Arbeitsmarkt in Zahlen. Der Ausbildungsmarkt. Ausbildungsbeginn bis Ende des Jahres 2020 *[The training market in figures. Commencement of training by the end of 2020]*. Germany, January 2021, Nuremberg. Here: Tables 2 to 4.1; calculations by the Federal Institute for Vocational Education and Training

A5.3 Premature dissolution of training contracts

The topic of premature contract dissolutions has been an object of debate in dual vocational education and training since the 1980s, when there was a steep rise in such dissolutions. Fears of a shortage of skilled workers likewise have led to the reduction of the number of contract dissolutions or the avoidance of training drop-outs in vocational education and training being accorded major scrutiny, and it continues to form part of the educational policy agenda. Within this context, goals have been formulated with the particular objectives of encouraging disadvantaged young people into dual VET and of securing the quality of vocational education and training. Contract dissolutions are also seeing attention because of the situation brought about by the coronavirus pandemic and the measures which have been instigated in this context. Because 2019 is the current reporting year in the Vocational Education and Training Statistics, no correlations with the training situation against the background of coronavirus will as yet be analysed and discussed.

The terms "premature contract dissolutions" and "training drop-outs"

Premature contract dissolutions (see Information Box) in dual vocational education and training usually take place in the form of a severance agreement or via the giving of notice of termination. The Vocational Education and Training Statistics do not provide any personal continuous data and therefore do not indicate whether premature contract dissolution means a complete drop-out from vocational education and training.

Information Box– prematurely dissolved training contracts (also referred to in abbreviated form as contract dissolutions)

Prematurely dissolved training contracts are **defined** as contracts which are terminated before expiry of the period of training stated.

One form of premature dissolution of a vocational education and training contract is the **notice of termination of training contract**. This is governed by § 22 of the Vocational Training Act (BBiG). During the probationary period (a maximum of four months), a training contract may be cancelled by either party at any time and without any requirement to give notice. After the probationary period, the trainee only may cancel the training contract by giving ordinary notice of termination of four weeks for one of two reasons: "training in another occupation" or "abandonment of vocational education and training". If the company providing training wishes to give notice of termination of the contract after the probationary period it must, in light of the particular significance of the training contract for occupational development, state a "compelling reason".

Further instances of premature contract dissolution are the conclusion of a severance agreement, the arrangement of a court settlement with the object of severance, the contesting of the training contract for reasons such as error or deceit pursuant to §§ 119ff. German Civil Code, the death of the trainee (not in the case of the death of the trainer since their legal successor will take on the role), de facto ending of training because of absenteeism or failure to provide training.

Because the Vocational Education and Training Statistics only collect data on contracts or training relationships actually entered into, **contract dissolutions that take place prior to commencement of training are not recorded**.

Destination following contract dissolution is not recorded. Training histories within the dual system (the precise month of contractually agreed commencement and agreed end of the contract, contract dissolution, examination participation and result) are only recorded for the respective training contract. Data from different training contracts for the same person and data from a training contract from the different reporting years cannot be linked. No full continuous data is thus available. Contract dissolutions with or without entire abandonment of training in the dual system cannot be differentiated.

The reasons for contract dissolutions are not (any longer) recorded in the Vocational Education and Training Statistics.

Contract dissolution ≠ drop-out Not every premature contract dissolution represents a drop-out from training, and not every drop-out is associated with a contract dissolution. These two terms intersect, but they are not congruent.

The findings presented below always refer to premature contract dissolutions in dual vocational education and training in overall terms and not specifically to training drop-outs.

Premature contract dissolutions 2019 by time of dissolution

In the 2019 reporting year, 154,149 training contracts were dissolved nationwide prior to the expiry of the training time stated in the contract → **Table A5.3-1**. A

Table A5.3-1: **Premature contract dissolutions by areas of responsibility[1] and time of contract dissolutions[2] (in absolute terms and in % of all contract dissolutions[3]), Germany 2019**

Area of responsibility	Total premature contract dissolutions		*Of which dissolved:*									
			Within the probationary period (maximum of 4 months)[2]		After the probationary period, within the first 12 months		After 13 to 24 months		After 25 to 36 months		After more than 36 months	
	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %
Trade and industry	78.621	100,0	27.264	34,7	26.865	34,2	18.165	23,1	5.313	6,8	1.014	1,3
Craft trades	55.557	100,0	16.758	30,2	17.649	31,8	14.028	25,2	5.640	10,2	1.482	2,7
Public sector	933	100,0	264	28,3	294	31,5	237	25,4	117	12,5	21	2,3
Agriculture	3.498	100,0	918	26,2	1.200	34,3	948	27,1	360	10,3	72	2,1
Liberal professions	14.976	100,0	5.802	38,7	4.551	30,4	3.063	20,5	1.329	8,9	231	1,5
Housekeeping	564	100,0	90	15,9	225	39,7	156	27,5	81	14,3	15	2,6
Total	**154.149**	**100,0**	**51.096**	**33,1**	**50.784**	**32,9**	**36.597**	**23,7**	**12.837**	**8,3**	**2.835**	**1,8**

[1] Alignment of trainees to the areas of responsibility is generally determined by the competent body in charge of the training occupation rather than by the company providing training (with the exception of the craft trades).

[2] Period between beginning and contract dissolution (in months); the Vocational Education and Training Statistics have not calculated the probationary period as generally of four months' duration since the 2016 reporting year. It is instead reported by the competent bodies in accordance with the agreement stated in the training contract.

[3] Contract dissolutions, where the commencement of training is a certain number of months in the past as a proportion of all contract dissolutions (within the respective area of responsibility); not the dissolution rate and not "genuine" continuous data!

Source: BIBB "Trainee Database" provided by the Federal Statistical Office based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), 2019 reporting year. For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values. Calculations by the Federal Institute for Vocational Education and Training.

VET Data Report Germany 2021

consideration of the time which elapses between the beginning of training contracts and premature dissolution shows that, as in previous years, about two thirds of training contracts that are dissolved are dissolved within the first year following commencement of training.

Contract dissolutions in training occupations in the area of responsibility of the liberal professions were slightly more likely to take place within the probationary period, when 38.7% of all contract dissolutions occurred. In housekeeping training occupations, only 15.9% of all contract dissolutions occurred during the probationary period, but they took place comparatively frequently at later times during training. Of the relatively few contract dissolutions in training occupations in the public sector, 14.8% did not occur until during the third year of training and later. Otherwise, in overall terms, a comparison between areas of responsibility reveals a similar distribution of contract dissolutions over the time following the beginning of the training relationship.

In the 2019 reporting year, the total dissolution rate (see Information Box) for dual vocational education and training, which may be interpreted as an approximate value for the number of training contracts dissolved as a proportion of training contracts commenced, was 26.9% (DRnew). The dissolution rate during the probationary period was 9.0%, after the probationary period 17.9%. The dissolution rate is not a personally related rate. The proportion of trainees who exhibit (at least) one contract dissolution will be below the dissolution rate and cannot be determined for Germany on the basis of the Vocational Education and Training Statistics → **Table A5.3-2**.

In overall average terms for the dual system, virtually the same dissolution rate was revealed in the 2019 reporting year for both women (26.7%) and men (27.1%). The dissolution rate for women during the probationary period was 9.7%, 1.2 percentage points above the corresponding dissolution rate for men. After the probationary period, the dissolution rate for women was 17.0%, just over 1.5 percentage points lower than that of men → **Table A5.3-2**.

Table A5.3-2: **Contract dissolution rates (LQ_{neu} in %)[1] by personal characteristics and areas of responsibility[2], Germany 2019**

Personal characteristic	LQ_{neu} by time of dissolution			LQ_{neu} by areas of responsibility					
	Total	Within the probationary period (maximum of 4 months)	After the probationary period	Trade and industry	Craft trades	Public sector	Agriculture	Liberal professions	Housekeeping
Gender									
Male	27,1	8,5	18,5	23,4	34,4	8,4	23,9	31,8	27,2
Female	26,7	9,7	17,0	23,9	38,6	5,2	26,0	29,9	26,1
Nationality									
German nationality	25,8	8,6	17,2	22,5	34,3	6,4	23,8	29,6	26,3
Not German nationality (foreign nationals)	35,3	11,8	23,6	32,5	40,5	8,6	41,8	32,7	25,2
Highest general school-leaving qualification									
Not achieved lower secondary school-leaving certificate	39,4	12,2	27,2	35,6	46,7	3,6	34,5	44,4	27,8
Lower secondary school-leaving certificate	38,9	12,8	26,1	36,3	42,4	10,4	32,4	40,2	28,2
Intermediate secondary school-leaving certificate	25,3	8,4	16,9	23,2	30,5	7,7	20,5	28,9	17,2
With higher education entrance qualification	16,1	5,7	10,5	14,4	23,7	5,1	16,6	24,8	20,7
Total	**26,9**	**9,0**	**17,9**	**23,5**	**35,2**	**6,4**	**24,4**	**30,1**	**26,3**

[1] Multi-tier model of the Federal Institute for Vocational Education and Training based on the new method of calculation, in % of training contracts commenced.

[2] Alignment of trainees to the areas of responsibility is generally determined by the competent body in charge of the training occupation rather than by the company providing training (with the exception of the craft trades).

Source: "Trainee Database" of the Federal Institute for Vocational Education and Training based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), reporting years 2016 to 2019; calculations by the Federal Institute for Vocational Education and Training.

VET Data Report Germany 2021

If we consider dissolution rates in accordance with the general school-leaving certificate previously acquired, a clear correlation is revealed between higher dissolution rates and lower levels of general school-leaving certificates achieved by trainees. Dissolution rates also vary between areas of responsibility → **Table A5.3-2** and between training occupations → **Table A5.3-3**.

Table A5.3-3: **Training occupations[1] with the highest and lowest contract dissolution rates in%[2], Germany 2019**

Training occupations with the highest dissolution rates	Area of responsibility[3]	Training contracts commenced	Dissolution rate (LQ_{neu})	Training occupations with the lowest dissolution rates	Area of responsibility[3]	Training contracts commenced	Dissolution rate (LQ_{neu})
Scaffolder	TI/CT	471	52,1	**Specialist in media and information services**	TI/PS/CTEx	560	4,0
Hairdresser	CT	11.232	50,7	**Clerk in public administration**	PS/CT	6.982	4,0
Driver	TI/CTEx	4.431	49,9	**Forest manager**	AG	675	7,7
Industrial cleaner	CT	1.029	49,4	**Social insurance clerk**	PS	2.446	8,2
Building and object coater	CT	729	47,8	**Chemical technician**	TI/CTEx	2.340	8,3
Restaurant specialist	TI/CTEx	3.225	47,2	**Aircraft mechanic**	TI/CTEx	735	8,8
Cook	TI/CTEx	9.600	46,5	**Chemical laboratory technician**	TI/CTEx	1.709	9,0
Salesperson specialising in foodstuffs	TI/CTEx	6.333	45,5	**Industrial clerk**	TI/CTEx	17.450	9,2
Specialist in furniture, kitchen and removal services	TI/CTEx	699	45,3	**Road maintenance worker**	TI/PS	641	9,5
Beautician	TI/CTEx	429	44,9	**Judicial clerk**	PS	877	9,6
Protection and safety specialist	TI	1.347	44,4	**Sewage engineering technician**	TI/PS/CTEx	383	9,7
Professional caterer	TI/CTEx	1.821	44,1	**Bank clerk**	TI/PS	9.382	9,9
Roofer	CT	3.978	42,8	**Process technologist in the metal industry**	TI/CTEx	577	10,2
Butcher	TI/CT	1.512	41,9	**Specialist in labour market services**	PS	725	10,2
Specialist in the hospitality services industry	TI/CTEx	2.712	41,8	**Electronics technician for automation technology**	TI/CTEx	2.387	10,3
Baker	TI/CT	2.619	41,7	**Mechatronics fitter**	TI/CTEx	8.769	10,5
Painter and varnisher	CT	7.353	41,6	**Technical product designer**	TI/CTEx	2.568	10,6
Florist	TI/CTEx	1.056	41,0	**Surveying technician**	TI/PS/CTEx	872	10,7
Pastry cook	CT	2.034	40,2	**Biological laboratory technician**	TI	484	10,8
Specialist in the hotel business	TI/CTEx	9.948	39,8	**Industrial mechanic**	TI/CTEx	12.976	11,0

[1] Training occupations in which at least 300 contracts were commenced in the year 2019, not including occupations for persons with a disability. Occupations may include the respective predecessor occupation.

[2] Multi-tier model of the Federal Institute for Vocational Education and Training based on the new method of calculation, in % of training contracts commenced. Calculation of the proportion is informed by data from the last four reporting years.

[3] LP = liberal professions, TI = trade and industry, CT = craft trades, CTEx = TI occupation where training takes place in the craft trade sector, PS = public sector, AG = agriculture

Source: "Trainee Database" of the Federal Institute for Vocational Education and Training based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), reporting years 2016 to 2019. Absolute values are rounded to a multiple of three for reasons of data protection. Calculations by the Federal Institute for Vocational Education and Training.

VET Data Report Germany 2021

A5.4 Final examinations in vocational education and training and pass rates

At the end of the training time, final examinations are held in all recognised training occupations in the dual system pursuant to the BBiG or the HwO. Their purpose is to provide evidence that the requisite employability skills have been achieved by determining whether candidates have acquired the skills, knowledge and competencies necessary for the awarding of certification and for the qualified exercising of the occupation in which training has taken place (pursuant to § 38 BBiG/§ 32 HwO). If the final examination is not passed, it may be resat on a maximum of two occasions (§ 37 Paragraph 1 BBiG/§ 31 Paragraph 1 HwO). The following results relating to final examinations of the trainees (see Information Box) and to the so-called external examinations are based on data from the VET statistics supplied by the Federal Statistical Office and the statistical offices of the federal states (referred to in abbreviated form as the Vocational Education and Training Statistics).

Information Box – final examinations of trainees (Vocational Education and Training Statistics)

The Vocational Education and Training Statistics (survey as of 31 December) use the partial dataset relating to trainees in dual vocational education and training pursuant to the BBiG or HwO (data record type 1) to record on an annual basis the month and year in which **final examinations** took place for all training contracts (the term "journeyman examinations" is used in the craft trades).

The number of **participations** in **examinations** counts all final examinations conducted in the calendar year. The number of **examination candidates** counts all training contracts in the reporting year in respect of which there has been participation(s) in examinations. If, for example, a final examination and a resit have been reported within the same training contract, then two participations in examinations and one examination candidate will be recorded.

As well as recording participation in examinations, the Vocational Education and Training Statistics also collect information on **examination success** (differentiated as passed, not passed and definitively not passed). For the first participation, they also record **type of admission** (differentiated as premature, scheduled [i.e. in accordance with the training contract] and following extension).

Final examinations of trainees and pass rates in time comparison terms

90.5% of all trainee participations in examinations (EQ I) were successful in the 2019 reporting year. 92.8% of all candidates passed the examination (EQ II, representing 383,292 persons). A total of 29,760 candidates failed the examination in 2019. As in previous years, the vast majority of these had not yet made use of their last examination attempt. Persons who fail a second resit are not permitted to take the examination again. In the 2019 reporting year, this only applied to 1,926 persons or 0.5% of all examination candidates. The number of resits as a proportion of all examinations (see Information Box) has been fluctuating between about 6% and 7% since 2008. In the 2019 reporting year, 6.4% of all trainee participations in examinations were resits.

Information Box – examination success/pass rates

In the vocational education and training statistics (survey as of 31 December), the partial data set on trainees in dual vocational education and training according to the BBiG or HwO records the month and year of the final examinations taken for all training contracts.

The number of examinations taken counts all final examinations held in the calendar year. The number of participants in examinations counts all training contracts in the reporting year with participation(s) in examinations. If, for example, a final examination and a repeat examination are reported within a training contract, this means that two examinations were taken and one participant took the examination.

In addition to participation in examinations, the VET statistics also record examination success (differentiated according to: passed, failed, definitively failed) and, in the case of the first participation in examinations, the type of admission (differentiated according to: early, on time [i.e. according to training contract], after extension).

Findings relating to final examinations in dual VET in the 2019 reporting year are considered with regard to various differentiations below. In the 2019 reporting year, scheduled admission was reported for 89.3% of all candidates for a final examination. Scheduled admission within this context refers both to the training duration stated in the training regulations and to the duration stipulated in the training contract. The pass rate is clearly shown to decline constantly following each attempt at the examination (first examination and second resit). In

Table A5.4-1: **Final examinations and examination success (in absolute terms and in %) in dual vocational education and training by personal characteristics (trainees), Germany 2019**

	Men	Women	Germans	Foreign nationals	Not achieved lower secondary school-leaving certificate	Lower secondary school-leaving certificate	Intermediate secondary school-leaving certificate	Higher education entrance qualification	No information on school qualification[1]	Total
Examination participations	258.714	164.766	387.948	35.535	11.928	95.292	181.707	129.741	4.815	423.480
Of which: Re-sits	18.549	8.718	23.037	4.230	1.200	13.179	9.999	2.382	510	27.267
Examination candidates	251.136	161.916	379.287	33.768	11.520	90.504	177.582	128.865	4.584	413.052
Examinations passed (number completing programme)	231.135	152.157	355.173	28.122	9.807	76.128	167.277	126.297	3.786	383.292
Successful examinations in % of all examination participations (EQ I)[2]	89,3	92,3	91,6	79,1	82,2	79,9	92,1	97,3	78,6	90,5
Proportion of re-sits (in % of all examination participations)	7,2	5,3	5,9	11,9	10,1	13,8	5,5	1,8	10,6	6,4
Successful examinations in % of all candidates (EQ II)[3]	92,0	94,0	93,6	83,3	85,1	84,1	94,2	98,0	82,6	92,8

[1] Information on the highest general school qualification achieved may only be absent if a school qualification obtained abroad cannot be allocated. In some cases, missing information is reported here for other reasons. This category cannot be usefully interpreted. It is merely included so as to be able to estimate for the number of examination participants or examination candidates for which information regarding school qualification is missing.

[2] Number of examinations passed as a proportion of all examinations conducted (success rate I). Calculation takes place on the basis of rounded absolute values.

[3] Number of examinations passed as a proportion of all candidates (success rate II). Calculation takes place on the basis of rounded absolute values.

Source: "Trainee Database" of the Federal Institute for Vocational Education and Training based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), reporting year 2019. For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values. Calculations by the Federal Institute for Vocational Education and Training.

VET Data Report Germany 2021

2019, the average pass rate (EQ II_{neu}) for the first attempt at the examination was 92.2%. The pass rate for those who had failed at some point in the past and who took part in a first resit in 2019 was only 68.1%. The pass rate for third attempts at the examination in 2019 was a mere 53.7%.

Compared by areas of responsibility, the pass rate (EQ II_{neu}) varies between 95.5% in training occupations in the public sector and 89.1% in the craft trades. It is also revealed that higher pass rates were achieved alongside a lower proportion of resits. If a differentiation is made by individual dual training occupations (only occupations with at least 300 participations in examinations in 2019 are considered), then the pass rate (EQ II_{neu}) fluctuates considerably. It ranges from 69.1% in the occupation of building and object coater to virtually 100% in the case of media agent for digital and print media. The patterns shown are similar to those also displayed in the analysis of premature contract dissolutions, i.e. lower pass rates were achieved in circumstances where dissolution rates were less favourable.

A6 Training in the vocational school system, in the public sector and at institutes of higher education

A6.1 School-based vocational education and training

Vocational education and training at vocational schools, referred to in abbreviated form as "school-based VET", describes a highly heterogeneous field. This construct covers various forms of training, the common factor being that such training does not take place within the dual system pursuant to the BBiG/HwO. Most school-based VET lies within the area of cultural sovereignty of the federal states and is thus governed by federal state law. National framework agreements of the Conference of the Ministers of Education and Cultural Affairs (KMK) are in place for many training courses regulated by federal state law. Alongside training courses governed by federal state law there are, however, examples of training in the healthcare sector and in geriatric nursing which come under the jurisdiction of federal law (outside the BBiG/HwO).

The occupations enshrined in federal law are currently undergoing major change. The new Nursing Professions Act (PflBG), which entered into force on 1 January 2020, collated the previously separate occupations of geriatric nurse, registered general nurse and paediatric nurse into the new and standardised occupation of qualified nurse. The first cohort commenced training in the 2020/2021 school year. Differentiated data on trainees in this new generalist nursing occupation will be recorded in the nursing training statistics (PfleA, see Annex – Data sources) from the 2020 survey year onwards. Training in the occupation of midwife was also reformed within the scope of the Midwife Reform Act (HebRefGe), which also entered into force with effect from 1 January 2020. Training now takes place academically within the framework of a dual higher education course of study. Midwife training in accordance with the old law may in addition be commenced at a trade and technical school during a transitional period which runs until the end of 2022. Nationwide standardised regulations were also created for the first time in the training programmes leading to the qualifications of anaesthesia assistant and operating theatre technician. The foundations for these are provided by the Anaesthesia Assistant and Operating Theatre Technician Act. This law, however, does not enter into force until 1 January 2022. Modernisation also took place in the four specialisms contained within the occupation of medical laboratory assistant – laboratory analysis, radiology, functional diagnostics and veterinary medicine. The Medical Laboratory Assistant Reform Act will enter into force on 1 January 2023. Training in the occupation of technical pharmaceutical assistant was updated, and the new regulations in this case will also be effective from 1 January 2023.

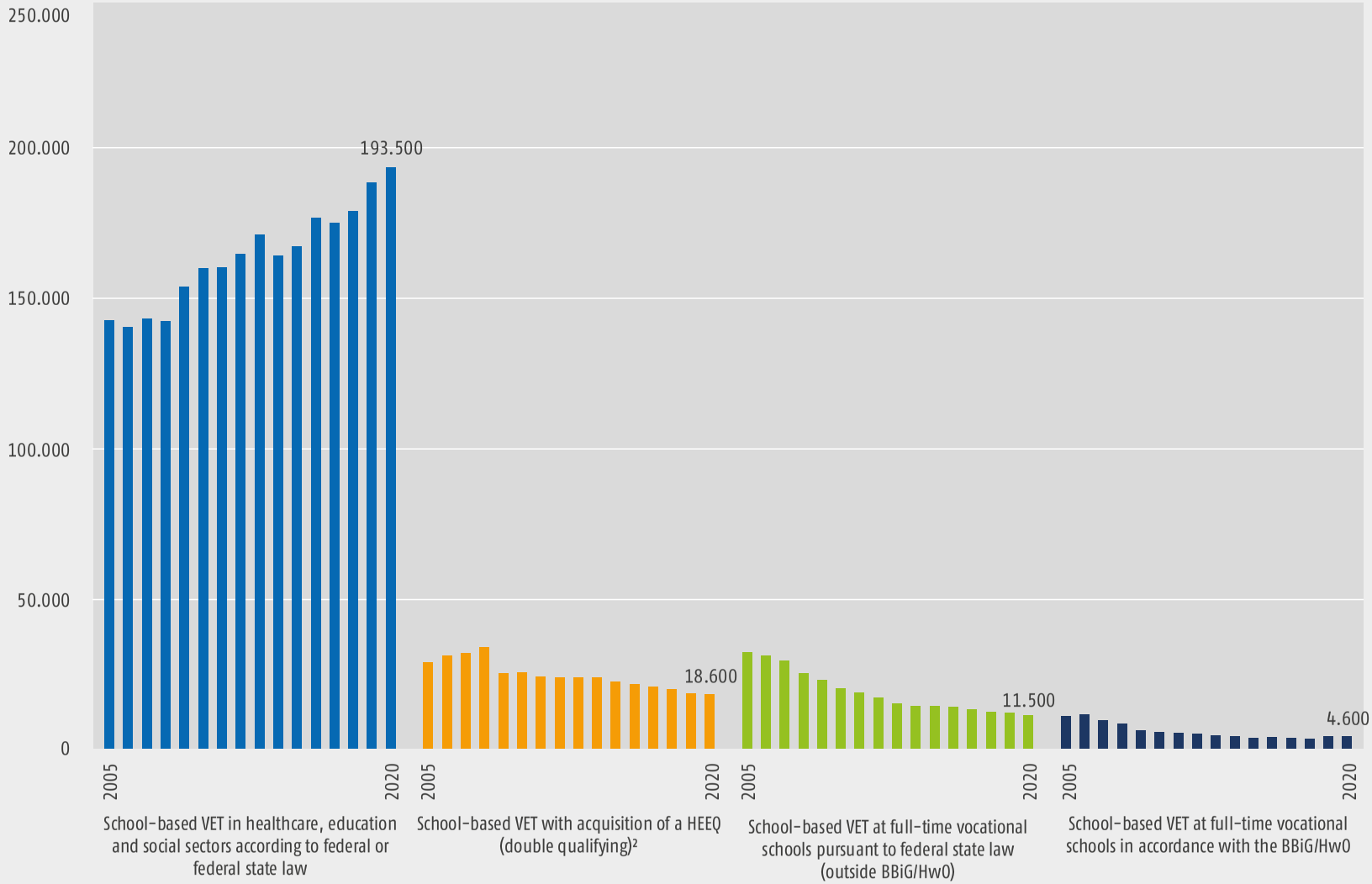
Many of the healthcare, teaching and social professions governed by both federal and federal state law are taught at the company (e.g. a hospital) and at the learning venue of the school (such as a healthcare and nursing school). Applying the term "school-based" VET to these training programmes, which are actually structured more along dual lines is therefore misleading. This is, however, also established practice. There is also a small number of recognised training occupations pursuant to the BBiG/HwO, in which training may take place at full-time vocational schools via regulatory exemptions. School-based training programmes are delivered at various types of schools – full-time vocational schools, technical academies, specialised upper secondary schools, trade and technical schools, healthcare sector schools and part-time vocational schools. This differentiation according to specific types of schools has emerged over the course of time and is codified under federal state law.

A6.1.1 Significance and development – systemic consideration

The data for the 2020 reporting year is informed by an estimation undertaken by BIBB on the basis of the Integrated Training Reporting Flash Report. Presentation takes place in a way that is differentiated according to training accounts. Around 228,300[19] young people commenced a programme of school-based vocational education and training in 2020. Whilst the number of entrants has remained comparatively stable in overall terms since 2005, the individual training accounts have undergone highly different development → **Figure A6.1.1-1**. In addition to this, the school-based training programmes are contrasted with regard to gender, nationality and prior learning. The (unestimated) previous year's published data from the 2019 Integrated Training Reporting System is used for this purpose.

19 In the 2020 training year, the summation of entrants to the four school-based training accounts differs slightly in overall terms from the number of entrants stated in the school-based VET programmes because estimated values have been rounded.

Figure A6.1.1-1: **Entrants in school-based VET accounts 2005 to 2020[1]**



HEEQ = Higher education entrance qualification

[1] The estimations mean that the data published here for the year 2020 deviate from the data presented in the 2020 Integrated Training Reporting (iABE) Flash Report.

[2] At full-time vocational schools pursuant to federal state law (outside BBiG/HwO) and specialised upper secondary schools.

Source: "Integrated Training Reporting System (iABE)" and "Integrated Training Reporting Flash Report" based on data provided by the Federal Statistical Office, the Statistical Offices of the federal states and the Federal Employment Agency, data status: 21.02.2021 and 16.03.2021) and supplementary estimation by the Federal Institute for Vocational Education and Training.

VET Data Report Germany 2021

Table A6.1.1-1: **Entrants to school-based vocational education and training by gender, nationality and prior school learning 2019 (in %)**

School-based VET	2019						
	Proportion female	Proportion non-German	Proportion without lower secondary certificate	Proportion with lower secondary certificate	Proportion with intermediate secondary certificate[1]	Proportion with university of applied sciences or general higher education entrance qualification	Proportion no information available/other
	in %	in %	in %	in %	in %	in %	in %
▶ At full-time vocational schools pursuant to BBiG/HwO	55,0	17,9	1,2	31,0	56,1	10,8	0,9
▶ At full-time vocational schools pursuant to federal state law outside the BBiG/HwO	55,4	16,1	0,8	18,8	59,5	19,9	1,0
▶ With acquisition of HEEQ (double qualification)[2]	41,5	12,5	0,3	2,1	93,3	4,3	0,1
▶ In healthcare, education and social sectors according to federal or federal state law	76,1	14,7	0,6	18,5	53,5	26,2	1,2

HEEQ = Higher education entrance qualification

[1] Including school-based part of university of applied sciences entrance qualification.

[2] At full-time vocational schools pursuant to federal state law (outside BBiG/HwO) and specialised upper secondary schools.

Source: "Integrated Training Reporting System (iABE)" based on data provided by the Federal Statistical Office, the Statistical Offices of the federal states and the Federal Employment Agency (data status: 21.02.2021)

VET Data Report Germany 2021

A6.1.2 Significance and development – occupational structure consideration

The following remarks focus on the significance and development of occupations in the various training accounts. We begin by looking at pupils in healthcare, education and social occupations in the first school year. This is the most significant group within the school-based VET programmes. The most popular occupations in the 2019/2020 school year are presented alongside their development since the 2012/2013 school year. No developments in occupational structure over the course of time are shown for training courses at full-time vocational schools according to federal state law and pursuant to the BBiG/HwO because these programmes are of only slight quantitative significance.

Training in healthcare, education and social occupations according to federal or federal state law[20]

Training in healthcare, education and social occupations generally takes place at healthcare sector schools or, in some federal states, at part-time vocational school, full-time vocational schools and trade and technical schools. In approximately 50 occupations, around half of pupils are trained in accordance with federal state law regulations.

The main focus of the training programmes is in the areas of nursing and education. In the 2019/2020 school year, the most significant programmes by some distance were those leading to the qualification of nursery school teacher, which attracted around 35,000 pupils in the first school year. Over 25,000 first-year school pupils were recorded for each of the occupations of geriatric nurse and registered general nurse. There were over 18,000 first-year pupils in training programmes leading to the qualification of social care assistant. The corresponding figure for socio-pedagogical support worker and child-care assistant was more than 13,000 → **Table A6.1.2-1**.

Training programmes governed by federal state law (outside BBiG/HwO)

The following remarks concern only training programmes not included in the healthcare, education and social occupations described above which lead to a qualification pursuant to federal state law. These federal

20 Not including training programmes in healthcare, education and social occupations pursuant to the BBiG/HwO (e.g. medical assistant).

Table A6.1.2-1: **Popular training programmes in healthcare, education and social occupations according to federal state and federal law[1], pupils in the first school year 2012/2013 to 2019/2020[2]**

		2012/2013		2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020		Change in proportion of females (percentage points)	Change 2019/2020 compared to 2012/2013 (in %)	Proportion of training programmes in healthcare, education and social occupations[3] (in %)		Change in proportion of training programmes in healthcare, education and social occupations (percentage points)
KldB 2010	Occupational title	Absolute terms	Proportion of females (in %)	Absolute terms	Absolute terms	Absolute terms	Absolute terms	Absolute terms	Absolute terms	Absolute terms	Proportion of females (in %)			2012/2013 (total: 164.776)	2019/2020 (total: 188.370)	
In accordance with federal law																
82102	Geriatric nurse	21.503	77,9	24.060	23.313	23.612	24.130	24.310	24.846	27.309	72,2	-5,7	27,0	13,0	14,5	1,5
81302	Registered general nurse	22.776	77,9	23.689	23.239	22.911	23.656	23.467	24.108	25.728	77,8	-0,1	13,0	13,8	13,7	-0,1
81713	Physiotherapist	7.918	63,4	7.931	8.265	8.346	8.176	7.970	7.836	8.799	59,8	-3,6	11,1	4,8	4,7	-0,1
81822	Technical pharmaceutical assistant	3.918	90,9	3.664	3.636	3.756	3.747	3.856	3.702	3.936	83,3	-7,6	0,5	2,4	2,1	-0,3
81723	Occupational therapist	3.563	88,3	3.744	3.670	3.610	3.720	3.645	3.537	4.122	87,4	-0,9	15,7	2,2	2,2	0,0
In accordance with federal state law																
83112	Nursery school teacher[4]	28.509	82,1	30.299	30.772	31.655	31.207	32.128	33.282	34.956	79,5	-2,6	22,6	17,3	18,6	1,3
83142	Social assistant[5]	16.546	79,4	17.075	17.093	17.055	17.320	17.397	17.988	18.582	75,3	-4,1	12,3	10,0	9,9	-0,1
83112	Socio-pedagogical support worker, childcare assistant	12.397	85,4	12.167	12.446	12.743	12.446	12.553	13.032	13.497	82,0	-3,4	8,9	7,5	7,2	-0,3
82101	Old-age care assistant	7.367	80,0	7.577	7.849	7.728	8.010	8.130	8.484	9.147	69,9	-10,1	24,2	4,5	4,9	0,4
81301	Healthcare assistant	3.143	78,4	3.324	3.741	3.486	3.773	3.968	4.545	5.106	70,6	-7,8	62,5	1,9	2,7	0,8

[1] Pupils not in training pursuant to the BBiG/HwO are depicted here.

[2] The occupational title is not always available in Baden-Württemberg for the year cohorts 2012/2013 to 2019/2020 (exception: healthcare sector schools). No differentiation by occupational title is possible for the 2013/2014 year cohort in Saarland. No differentiation by occupational title is possible for the 2012/2013 year cohort in Mecklenburg-Western Pomerania.

[3] Total from the 2019 Integrated Training Reporting System (Account I 05)

[4] Deviations from previous representations occur in North Rhine-Westphalia for the year cohorts from 2012/2013 to 2016/2017 because of a retrospective correction of the data relating to nursery school teachers.

[5] The occupation of "social care assistant" has also been reported here since the 2018/2019 year cohort.

Source: Federal Statistical Office, Specialist Publications 11, Series 2, Table 2.9, year cohorts 2012/2013 to 2019/2020 (special evaluation, data status 22.02.21); Integrated Training Reporting System (data status 21.02.2021)

Table A6.1.2-2: **Popular school-based training programmes pursuant to federal state law (LR)[1], pupils in the first school year cohort 2019/2020**

KldB 2010	Occupational title	Total[2]	Women	Proportion of females (in %)	Proportion of LR occupations 2019 (in %)[3]	Federal states (number)
43102	Information technology assistant	2.610	132	5,1	8,3	BY, BE, NI, NW,ST (5)
23212	Technical design assistant	2.535	1.533	60,5	8,1	BE, BB, HB, HH, MV, NI, NW, ST, SH, TH (10)
43112	Commercial assistant – information processing	2.139	714	33,4	6,8	BE, HE, NI, NW, ST, SH (6)
71412	Commercial assistant – foreign languages	2.121	1.287	60,7	6,7	BE, HB, HH, HE, NI, NW, ST, SH, TH (9)
43122	Information technology assistant (computer engineering)	1.233	99	8,0	3,9	BY, BE, HB, HE, MV, RP, SH, TH (8)
41212	Technical biological assistant	1.086	630	58,0	3,5	BY, BE, BB, HB, HH, HE, NI, NW, RP, ST, TH (11)
41322	Technical chemical assistant	978	396	40,5	3,1	BY, BE, HB, HH, HE, NI, NW, SH, TH (9)
82322	Beautician (school-based training)	918	909	99,0	2,9	BY, BE, HB, NW, SN (5)
71413	Foreign languages correspondent (training)	894	675	75,5	2,8	BY, HB (2)
71302	Commercial assistant – business management	759	318	41,9	2,4	BE, NW, TH (3)

[1] Not including training programmes in the healthcare, education and social sectors
[2] The occupational title is not always available for Baden-Württemberg.
[3] Total of school-based training programmes in accordance with federal state law from the 2019 Integrated Training Reporting System (Accounts I 03 + I 04) = 31,425.
BB=Brandenburg, BE=Berlin, BY=Bavaria, HB=Bremen, HE=Hesse, HH=Hamburg, MV=Mecklenburg-Western Pomerania, NI=Lower Saxony, NW=North Rhine-Westphalia, RP=Rhineland Palatinate, SH=Schleswig-Holstein, SN=Saxony, ST=Saxony-Anhalt, TH=Thuringia
Source: Federal Statistical Office, Specialist Publications 11, Series 2, Volume 2019/2020, Table 2.11 – full-time vocational schools except (I); 2019 Integrated Training Reporting System (data status 21.02.2021)
VET Data Report Germany 2021

state-regulated training courses mostly culminate in a "state-certified assistant" qualification (sometimes referred to as "state-recognised") and are thus frequently designated as "assistant training". Such programmes are usually aimed at pupils who have achieved an intermediate secondary school-leaving certificate. This field is characterised by a wide range of different training programmes. Classic areas of provision include laboratory technology, communication and design technology, secretarial work and foreign languages.

The precise number of training occupations under federal state law cannot be precisely identified because the titles used by the KMK for vocational qualifications governed by federal state law are not clearly reflected in the specialist series of publications relating to "Vocational schools" produced by the Federal Statistical Office. If the specialist publication series list of training courses governed by federal state law is adjusted for healthcare, education and social occupations at full-time vocational schools, around 90 occupations remain. → **Table A6.1.2-2** presents the ten most popular training occupations for 2019/2020.

Training programmes pursuant to BBiG/HwO at full-time vocational schools

Training in a recognised training occupation pursuant to the BBiG/HwO is normally conducted in dual form, i.e. at the company and at a part-time vocational school. In addition to this, exceptions are included in both the BBiG and the HwO which permit full-time school-based training at vocational schools. At such vocational schools, training contents are implemented according to the recognised general training plans. Full-time school-based training pursuant to the BBiG/HwO is possible in accordance with two regulations (equivalence of examination school-leaving certificates (cf. § 50 Paragraph 1 BBiG or § 40 Paragraph 1 HwO); admission to the final examination (cf. § 43 Paragraph 2 BBiG)). Vocational education and training at full-time vocational schools pursuant to BBiG/HwO is strongly characterised by the occupations depicted in → **Table A6.1.2-3**.

Table A6.1.2-3: **Popular school-based training programmes pursuant to BBiG/HwO, pupils in the 1st school year cohort 2019/2020**

KldB 2010	Occupational title	Total[1]	Proportion of females (in %)	Proportion of all school-based BBiG/HwO occupations in 2019[2] (in %)	Federal states (number)
82322	Beautician	948	99,4	13,4	NI, NRW, SN, ST, TH (5)
72112	Bank clerk	798	53,4	11,3	BW (1)
71402	Office manager	771	54,1	10,9	BY, BE, NW (3)
28222	Custom tailor	231	84,4	3,3	HE, NW, RP (3)
28222	Textile and apparel sewer	156	73,1	2,2	BY, BE (2)
83212	Housekeeper	144	93,8	2,0	BY, HH, HE, NW (4)
24512	Precision machinist	132	4,5	1,9	BY, RP (2)
26112	Mechatronics fitter	102	5,9	1,4	BW (1)
43102	Information technology specialist	99	12,1	1,4	BY (1)
22342	Joiner	87	27,6	1,2	BY, BE, HE, RP (4)
93312	Wood sculptor	87	65,5	1,2	BY, HE, SH, TH (4)

[1] The occupational title is not always available for Baden-Württemberg.
[2] Total of all school-based BBiG/HwO occupations in 2019 = 7,050
BE=Berlin, BW=Baden-Württemberg, BY=Bavaria, HE=Hesse, HH=Hamburg, NI=Lower Saxony, NW/NRW=North Rhine-Westphalia, RP=Rhineland Palatinate, SH=Schleswig-Holstein, SN=Saxony, ST=Saxony-Anhalt, TH=Thuringia

Source: Federal Statistical Office, Specialist Publications 11, Series 2, Volume 2019/2020, Table 2.11 – full-time vocational schools in accordance with (l)

VET Data Report Germany 2021

A6.2 Training in the public sector

In the public sector, training takes place in special public sector occupations as well as, for example, in occupations which are registered with the chambers of commerce and industry and chambers of crafts and trades and in healthcare occupations. The human resources statistics of the Federal Statistical Office also count civil servants in preparatory training, candidates and trainees as staff in training.

According to this extended delineation, around 250,700 persons were in training in the public sector as of the cut-off date of 30 June 2019 (Federal Government, federal states, local government, local government associations, social insurance providers, the Federal Employment Agency and legally independent institutions under public law). 136,100 persons were completing civil service training. 24,000 had concluded a training contract within the scope of or subsequent to a course of higher education study without being taken on as a civil servant (e.g. trainee lawyers). 90,500 trainees were registered for the remaining training occupations. These primarily comprise training programmes for healthcare professions pursuant to the Vocational Training Act (BBiG) and for nursery school teachers. In the following remarks, the term “trainees” refers only to the group of persons mentioned above. As a ratio of the full-time equivalent of employees in the public sector subject to mandatory social insurance contributions, these 90,500 trainees represent a training rate of 3.5% as of the cut-off date of 30 June 2019. There was a relatively high number of training contracts in the Federal Government sector, where the training rate was 4.6%. The rate in the federal state sector was 2.9%. The rates in the local government and social insurance sectors were 4.0% and 3.5%, respectively.

The training rate in the public sector has fallen in overall terms since the year 2000. Development varied in the

individual areas of employment. Whereas a decrease was recorded for the federal states and for local government authorities, a recruitment campaign undertaken by the Federal Government led to a considerable rise in the training rate. After virtually doubling between 2000 and 2010, the training rate has, however, been declining ever since. The social insurance training rate fell between the years 2004 and 2010. The main reasons for this were fewer training contracts at health and pension insurance companies and rising numbers of employees at the BA during this period. After a brief rise to 3.9% in the year 2011, the training rate fluctuated between 3.4% and 3.7% until mid-2019. One major cause of the decline in the local government area was the disincorporation of local government hospitals from the public sector since these accounted for a relatively high proportion of training. As of mid-2019, 22,300 training places in the public sector were located at hospitals, sanatoriums and university clinics. Within this context, consideration needs to be accorded to the fact that hospitals operating under civil law, e.g. as a limited company, do not count as part of the public sector even if they are entirely publicly owned. There were thus a further 25,500 trainees in hospitals and sanatoriums under private law which were in the majority ownership of public employers. The rise in the training rate in the local government area which has been observable over recent years can be explained by increased training at child daycare centres.

A6.3 Dual higher education courses of study

Dual higher education courses of study combine the learning venues of an institute of higher education (the term institute of higher education further encompasses universities of cooperative education in this context) and a company or practice partner. Further learning venues may also be involved within the scope of the course of higher education study.

The most recent survey of the database of the BIBB specialist portal "TrainingPlus" (see Annex – Data sources) showed that a total of 1,622 dual courses of study were registered at German institutes of higher education as of the cut-off date of 30 November 2019. The number of dual students enrolled in these courses was over 108,000. Increasing numbers of companies are also making dual study training places available. Whereas a total of 18,168 companies were participating in 2004, this number had risen to 51,000 cooperating companies or locations at the cut-off date of the survey. The number of dual programmes of higher education studies has more than tripled in overall terms since 2014 (512), whilst the number of students (2004: 40,982) and the number of companies entering into cooperative arrangements have more than doubled during this period.

The specialist subject areas of engineering and business administration still account for the largest number of individual courses (595 and 580 programmes of study, respectively). Compared to overall provision, these make up 36% and 35% of all dual programmes from which students can choose. The most popular specialism in numerical terms is business administration with 48,868 students. The corresponding figures for the specialist areas of engineering and social work/education/healthcare/therapy were 26,625 and 13,556 students, respectively.

Formats of dual higher education courses of study

The following formats can be differentiated on the basis of the recommendations of the German Council of Science and Humanities (WR). Integrative training and practice-integrated study provision exist within the area of *initial VET*. In the area of *continuing training*, occupationally integrated study and training also takes place alongside practice-integrated study provision → **Figure A6.3-1**.

A consolidation of dual courses of study as an independent education and training pathway can be noted during the reporting period from 2011 to 2019. Definitive statements on dual higher education study were made within the context of the Higher Education Accreditation State Treaty in particular.

The tendency of provision of dual higher education study to shift towards the integration of practice continued. As of the cut-off date, the proportion of the latter type of programme was 50.5% as compared to 34.9% for the training-integrated format. The proportion of mixed form, i.e. programmes of study which cannot be definitively aligned either to the training-integrated or practice-integrated format, was 14.6% (2016: 13.9%).

Figure A6.3-1: **Formats in dual higher education study**

Individual educational stage		Study format	
		Dual	Not dual
Initial VET	With VET	Training-integrated	In-Training
	With practical elements	Practice-integrated	Practice-accompanying
Continuing training	With VET	Occupation-integrated	Alongside work
	With practical elements	Practice-integrated	Practice-integrated

Source: Depiction by the Federal Institute for Vocational Education and Training

A7 Company participation in training

A7.1 Company participation in training (BA employment statistics)

In the 2019 reporting year, participation by trade and industry in the company-based training of young people and young adults stabilised at a low level for the third year in succession. As the rates of companies providing training and training rates (see Information Box) suggest in their capacity as indicators of company participation in training, the negative trend of the past ten reporting years appears to have come to an end, at least in average terms. Company-based training has obviously regained greater connectivity with the general development of company and employee numbers, although there are significant differences between the various company size categories, economic sectors and federal states. One trend which has continued in particular compared to previous reporting years is that a larger proportion of company-based training activity is taking place at medium-sized and major companies and that sharp declines in training participation by the smallest class of companies and by small companies are being recorded.

Information Box – definitions and indicators for company participation in training

Employees subject to mandatory social insurance contributions include all employees including trainees who are liable for health insurance, pension insurance, long-term care insurance contributions under the law of employment support or for whom the employer is required to make contributions.

Trainees encompass all employees in training who are subject to mandatory social insurance contributions and who have been reported to the BA via the groups of persons codes 102, 121, 122, 141 and 144. These are usually trainees whose training contract is governed by the provisions of the Vocational Training Act (BBiG), or the Craft and Trades Regulation Code (HwO), or who are completing vocational education and training on maritime ships sailing under a German flag. Relatively broadly defined alignment criteria mean that trainees in the healthcare sector whose training is not governed by the BBiG or HwO are also encompassed. As a result, the total number of trainees on the basis of the Employee Statistics is usually higher than in the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states. The total number of trainees includes all persons who have a training contract pursuant to the BBiG or the HwO as of the cut-off date of 31 December each year.

The **rate of companies providing training** measures the number of companies providing training as a proportion of all companies with employees subject to mandatory social insurance contributions, including companies providing training. In calculating the rate of companies providing training, no differentiation is made between companies entitled to provide training and companies not entitled to provide training.

The **training rate** denotes the proportion of trainees expressed as a percentage of all employees subject to mandatory social insurance contributions, including trainees.

On 28 August 2014, the **employment statistics** of the Federal Employment Agency underwent a **revision** which was also retrospectively applied to **company statistics** going back to 1999. This revision is the outcome of modernised data preparation involving more precise results and additional contents for these statistics and includes more comprehensive delineation of employees subject to mandatory social insurance contributions and improved alignment of type of employment amongst other features.

Participation in training by companies in Germany

According to the employment statistics of the Federal Employment Agency (Employment statistics of the BA, see Annex – Data sources), around 425,800 companies out of a figure of just over 2.2 million companies with at least one employee subject to mandatory social insurance contributions (see Information Box) were participating in the vocational training of young people as of 31 December 2019. Compared to the previous year, the number of companies providing training increased by around 1,500, whereas the total number of companies rose by around a further 5,500 companies (+0.3%). The rate of companies providing training (see Information Box) fell by 0.1 percentage points to 19.6% compared to the previous year but still remained at a comparable level → **Table A7.1-1**.

The training rate was 4.8% and thus remained constant compared to the previous year. Total number of trainees rose nationwide by about 28,000 to reach around 1.63 million (+1.7%). The number of employees subject to mandatory social insurance contributions increased by approximately 454,000 to about 33.7 million. This represented a rise of 1.4%.

Table A7.1-1: **Companies, companies providing training and rate of companies providing training by company size categories between 2007, 2018 and 2019 in Germany**

Company size categories	Companies				Companies providing training				Proportion of companies providing training			
	2007	2018	2019	2018–2019	2007	2018	2019	2018–2019	2007	2018	2019	2018–2019
	Absolute terms	Absolute terms	Absolute terms	in %	Absolute terms	Absolute terms	Absolute terms	in %	in %	in %	in %	In percentage points
1 to 4 employees	1.287.579	1.283.766	1.279.921	-0,3	152.354	86.573	83.296	-3,8	11,8	6,7	6,5	-0,2
5 to 9 employees	346.210	385.697	387.300	0,4	122.903	101.186	99.685	-1,5	35,5	26,2	25,7	-0,5
Smallest category of company	**1.633.789**	**1.669.463**	**1.667.221**	**-0,1**	**275.257**	**187.759**	**182.981**	**-2,5**	**16,8**	**11,2**	**11,0**	**-0,3**
10 to 19 employees	189.054	230.351	233.875	1,5	84.599	87.940	88.724	0,9	44,7	38,2	37,9	-0,2
20 to 49 employees	123.463	156.322	159.237	1,9	66.680	76.802	78.202	1,8	54,0	49,1	49,1	0,0
Small companies	**312.517**	**386.673**	**393.112**	**1,7**	**151.279**	**164.742**	**166.926**	**1,3**	**48,4**	**42,6**	**42,5**	**-0,1**
50 to 99 employees	46.869	58.001	58.801	1,4	30.575	36.232	36.698	1,3	65,2	62,5	62,4	-0,1
100 to 249 employees	28.605	35.008	35.312	0,9	21.155	24.932	25.269	1,4	74,0	71,2	71,6	0,3
Medium-sized companies	**75.474**	**93.009**	**94.113**	**1,2**	**51.730**	**61.164**	**61.967**	**1,3**	**68,5**	**65,8**	**65,8**	**0,1**
Small/medium-sized companies overall	**2.021.780**	**2.149.145**	**2.154.446**	**0,2**	**478.266**	**413.665**	**411.874**	**-0,4**	**23,7**	**19,2**	**19,1**	**-0,1**
250 to 499 employees	8.661	10.557	10.666	1,0	7.146	8.321	8.486	2,0	82,5	78,8	79,6	0,7
500 or more employees	5.070	6.202	6.322	1,9	4.478	5.301	5.421	2,3	88,3	85,5	85,7	0,3
Large companies	**13.731**	**16.759**	**16.988**	**1,4**	**11.624**	**13.622**	**13.907**	**2,1**	**84,7**	**81,3**	**81,9**	**0,6**
Total	**2.035.511**	**2.165.904**	**2.171.434**	**0,3**	**489.890**	**427.287**	**425.781**	**-0,4**	**24,1**	**19,7**	**19,6**	**-0,1**

Source: Revised Employment Statistics of the Federal Employment Agency, cut-off point in each case 31 December; calculations by the Federal Institute for Vocational Education and Training.

VET Data Report Germany 2021

Development of company participation in training

As in previous years, declines in the total number of companies providing training in the 2019 reporting year are exclusively due to losses in the area of the smallest category of companies. In the case of companies with up to nine employees, the number of companies providing training declined by 2.5%. The smallest category of companies with up to four employees were even more badly affected → **Table A7.1-1**. Developments in total numbers of trainees and in rates of training by company-size categories reinforce the trend that training activity in the area of small companies decreased and that, at least to some extent, this is due to a higher level of activity amongst medium-sized and major companies. In overall terms, changes in rates of companies providing training and in training rates by economic sectors were quite heterogeneous between 2018 and 2019. As in previous years, the rate of companies providing training and the training rate rose once more at a national level in the area of medical services and in the public sector. By way of contrast, and also compared to the previous year, there were a number of economic branches which exhibited a generally negative trend. These particularly included the chemical and pharmaceutical sectors, accommodation and hospitality, research and development and other "person-related services".

A7.2 Company participation in training (BIBB Training Panel)

Company-based training continues to play an important role for firms and companies in Germany with respect to covering the requirements for young qualified skilled workers and in order for companies to acquire the long-term services of employees they have trained themselves. Nevertheless, only 426,000 companies out of a total of 2.17 million companies with employees subject to mandatory social insurance contributions were still training young people and young adults at the end of 2019. This meant that the proportion providing training was 19.6%, a slight fall compared to the previous year.

This section uses data from the BIBB Establishment Panel on Training and Competency Development (see Annex – Data sources) to investigate the level of company participation in training in 2019 and 2020 and to examine which indications exist with regard to problems in filling training places. Account will be taken of the following

Table A7.2-1: **Indicators of company participation in training by structural characteristics in 2019 and 2020 (in %)**

	Companies with training place provision		Companies with new recruitments				Companies with (some) training places unfilled			
	Proportion of all companies (in %)		Proportion of all companies (in %)		Proportion of companies with training place provision (in %)		Proportion of all companies (in %)		Proportion of companies with training place provision (in %)	
	2018/2019	2019/2020	2018/2019	2019/2020	2018/2019	2019/2020	2018/2019	2019/2020	2018/2019	2019/2020
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10
Company size category										
1 to 19 employees	15,2	14,2	6,2	6,0	40,7	42,1	8,2	7,4	54,0	52,2
20 to 99 employees	46,0	43,0	35,3	32,2	76,7	75,0	16,9	15,8	36,8	36,7
100 to 199 employees	62,2	63,3	54,5	56,0	87,6	88,4	23,1	16,6	37,2	26,2
200 or more employees	77,4	79,7	74,2	73,7	95,9	92,4	21,0	18,1	27,2	22,7
Economic sector										
Primary sector	22,8	11,7	10,1	7,3	44,3	62,8	9,2	3,8	40,1	32,5
Manufacturing	30,7	31,3	19,8	19,9	64,4	63,6	14,3	11,8	46,7	37,7
Construction	28,2	31,3	17,0	15,1	60,4	48,2	14,8	18,0	52,6	57,7
Trade and repairs	19,8	21,7	12,5	11,6	63,4	53,5	8,3	10,2	42,0	46,7
Company-related services	14,9	11,7	6,0	6,7	40,0	56,8	8,7	5,3	58,5	45,0
Personal services	15,1	12,1	6,2	6,0	41,1	49,5	9,7	5,8	64,6	48,1
Medical and nursing services	23,7	21,5	11,8	10,3	49,7	48,1	7,2	10,0	30,6	46,6
Public services	11,1	12,6	7,9	9,7	71,5	77,0	2,4	2,3	21,9	18,3
Chamber type										
Chamber of commerce and industry	15,8	15,6	9,5	9,9	60,2	63,6	8,3	6,5	52,5	41,7
Chamber of crafts and trades	27,7	28,4	14,9	12,4	53,7	43,7	14,7	15,5	53,1	54,6
Both chamber of commerce and industry and chamber of crafts and trades	35,4	35,1	16,0	19,5	45,1	55,4	20,4	16,1	57,6	45,9
Other chambers overall	19,6	16,0	8,9	9,2	45,1	57,2	7,2	5,9	36,6	36,9
Total	**19,6**	**18,5**	**10,5**	**10,1**	**53,6**	**54,4**	**9,4**	**8,5**	**48,1**	**45,9**

Source: BIBB Establishment Panel on Training and Competence Development, 2019 and 2020 survey phases, cross-sectionally weighted and extrapolated results

VET Data Report Germany 2021

indicators for the 2018/2019 and 2019/2020 training years.

- Proportion of companies which offered training places pursuant to the BBiG/HwO
- Proportion of companies which concluded training contracts pursuant to the BBiG/HwO
- Proportion of companies at which at least one training place pursuant to the BBiG/HwO remained unfilled

Requirement of trade and industry for skilled workers which companies have trained themselves

The average proportion of companies which offered training places pursuant to the BBiG/HwO for the 2019/2020 training year was 18.5%, a drop compared to the previous year (19.6%) → **Table A7.2-1**. As a consequence, fewer than one company in five out of a total of 2.17 million companies offered training places for the 2019/2020 training year.

Information Box – classification of economic sectors in the BIBB Training Panel

- Primary sector (agriculture/forestry, mining, energy/water supply, waste industry)
- Manufacturing industry (manufacture of chemical and pharmaceutical products, electrical, metal working and engineering sectors, vehicle manufacture, manufacture of other goods such as wood, paper, foodstuffs, textiles)
- Construction sector (building and civil engineering, preparatory construction site and installation works)
- Trade and repairs (motor vehicles trade, wholesale and retail, repairs sector)
- Company-related services (financial, legal and housing sector services, research/development, architectural and engineering firms, advertising/market research, temporary employment, travel, security sector)
- Person-related services (accommodation, hospitality, information and communications, transport, warehousing sector, hairdressing, other person-related services)
- Medical and nursing services (healthcare, social services, doctor's surgeries, clinics, homes)
- Public services (public administration, education, teaching, associations, lobbying groups, not-for-profit organisations)

In overall terms, the analyses show that recruitment difficulties on the training market are continuing. They also make it clear, however, that individual company groups are particularly badly affected by this. In the case of small companies and smaller companies with up to 99 employees in particular, these recruitment difficulties seem to be reflected in a dwindling readiness to offer training places. Larger medium-sized companies and major companies, on the other hand, are gaining in significance as providers of company-based training.

A7.3 Training personnel in company-based training

The statutory provisions stipulate that trainers who are responsible for the planning and implementation of training in the dual system must be able to demonstrate their personal and professional aptitude. This refers both to occupational knowledge, skills and competencies and to occupational and vocational teaching qualifications. Relevant aptitude is usually proved via an examination pursuant to the Ordinance on Trainer Aptitude, AEVO (see 2019 Data Report, p.45). Skilled workers providing training support are exempted from this regulation. The trainers responsible for training are registered with the competent bodies. At small and medium sized-companies, training personnel will frequently deliver training in addition to carrying out their other tasks. Major companies are more likely to employ full-time trainers.

Trainer aptitude examinations

In 2019, a total of 98,478 persons took part in trainer aptitude examinations conducted in the areas of trade and industry, the craft trades, agriculture, the public sector and housekeeping, 63,951 men and 34,527 women. 91,335 persons passed the examination. This represents a pass rate of 92.7%. The proportion of women amongst the successful candidates was 35.6%. The number of AEVO examinations rose by 3,672 compared to the previous year. 38,313 registered trainers were exempted from the AEVO examination and were thus not required to demonstrate their professional aptitude. 29,049 of these persons were from the area of trade and industry.

Master craftsman examinations

In the year 2019, 40,467 persons participated in master craftsman examinations in the areas of trade and industry, the craft trades, agriculture, the public sector and housekeeping (87.4% men and 12.6% women). 34,899 candidates passed the examination. The pass rate was thus 86.2% → **Table A7.3 -1**.

Table A7.3-1: **Master craftsman examinations passed in 2017, 2018 and 2019 by training areas and gender**

Training area	Total						Gender											
	2017		2018		2019		2017				2018				2019			
							Male		Female		Male		Female		Male		Female	
	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %
Trade and industry	12.855	36,4	12.720	36,5	12.750	36,5	12.051	93,7	801	6,2	11.868	93,3	855	6,7	11.910	93,4	840	6,6
Craft trades	20.373	57,7	19.941	57,2	20.040	57,4	17.040	83,6	3.333	16,4	16.566	83,1	3.375	16,9	16.644	83,1	3.393	16,9
Agriculture	1.635	4,6	1.749	5,0	1.707	4,9	1.398	85,5	237	14,5	1.446	82,7	303	17,3	1.407	82,4	300	17,6
Public sector	240	0,7	273	0,8	306	0,9	213	88,8	27	11,3	237	86,8	36	13,2	273	89,2	33	10,8
Housekeeping	204	0,6	171	0,5	96	0,3	6	2,9	201	98,5	3	1,8	168	98,2	3	3,1	93	96,9
Total	**35.307**	**100,0**	**34.854**	**100,0**	**34.899**	**100,0**	**30.705**	**87,0**	**4.599**	**13,0**	**30.120**	**86,4**	**4.737**	**13,6**	**30.234**	**86,6**	**4.662**	**13,4**

Source: Federal Statistical Office, Specialist Publications 11, Series 3. For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values. Calculations by the Federal Institute for Vocational Education and Training. Gender: male, female, non-binary and "No gender entry in register of births". (Because of their very small sample sizes, the Federal Statistical Office allocates the latter two characteristics to the "male" category for the 2019 reporting year. BIBB follows this approach).

VET Data Report Germany 2021

Table A7.3-2: **Number of trainers from 2010 to 2019 by areas of training**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Trade and industry	280.224	276.789	290.763	290.136	288.633	287.211	291.891	295.998	303.453	304.788
Craft trades	253.434	250.260	241.956	233.682	227.496	223.719	220.434	207.468	208.380	207.228
Agriculture	22.341	22.344	23.226	23.337	23.541	23.709	23.667	23.853	24.036	24.348
Public sector	18.909	19.029	20.709	20.349	19.077	19.176	19.503	19.776	19.287	19.008
Liberal professions	97.182	93.930	92.160	91.554	90.855	90.588	88.785	86.214	86.508	84.936
Housekeeping	3.105	3.153	3.168	3.090	3.012	2.919	2.868	2.769	2.772	2.715
Total	**675.198**	**665.508**	**671.985**	**662.148**	**652.617**	**647.322**	**647.148**	**636.078**	**644.436**	**643.023**
Women	158.604	158.136	162.447	162.123	160.983	162.534	164.205	163.281	166.608	166.650
Men	516.594	507.372	509.538	500.022	491.634	484.788	482.943	472.794	477.828	476.370

Source: Federal Statistical Office, Specialist Publications 11, Series 3. For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values. Calculations by the Federal Institute for Vocational Education and Training. Gender: male, female, non-binary and "No gender entry in register of births". (Because of their very small sample sizes, the Federal Statistical Office allocates the latter two characteristics to the "male" category for the 2019 reporting year. BIBB follows this approach).

VET Data Report Germany 2021

Trainers registered with the competent bodies

In 2019, the total number of registered trainers in the training areas of trade and industry, the craft trades, agriculture, the public sector, the liberal professions and housekeeping in Germany was 643,023. Information regarding age distribution of training staff by gender is provided in → Table A7.3-3.

Table A7.3-3: **Age of training staff 2017, 2018 and 2019 by gender**

Age group	Total						Gender											
	2017		2018		2019		2017				2018				2019			
							Male		Female		Male		Female		Male		Female	
	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %
Aged 29 and under	34.762	5,5	34.638	5,4	34.564	5,4	18.514	3,9	16.248	10,0	18.567	3,9	16.071	9,6	18.734	3,9	15.830	9,5
30 to 39 years	119.563	18,8	124.316	19,3	126.708	19,7	79.407	16,8	40.156	24,6	82.710	17,3	41.606	25,0	84.753	17,8	41.955	25,2
40 to 49 years	175.129	27,5	167.497	26,0	160.218	24,9	129.604	27,4	45.525	27,9	123.313	25,8	44.184	26,5	117.469	24,7	42.749	25,7
Aged 50 and over	306.623	48,2	317.984	49,3	321.532	50,0	245.270	51,9	61.353	37,6	253.238	53,0	64.746	38,9	255.415	53,6	66.117	39,7
Total	**636.077**	**100,0**	**644.435**	**100,0**	**643.022**	**100,0**	**472.795**	**100,0**	**163.282**	**100,0**	**477.828**	**100,0**	**166.607**	**100,0**	**476.371**	**100,0**	**166.651**	**100,0**

Source: BIBB "Trainee Database" provided by the Federal Statistical Office based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), 2019 reporting year. For reasons of data protection, absolute values are rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values. Calculations by the Federal Institute for Vocational Education and Training. Gender: male, female, non-binary and "No gender entry in register of births". (Because of their very small sample sizes, the Federal Statistical Office allocates the latter two characteristics to the "male" category for the 2019 reporting year. BIBB follows this approach).

A8 Costs and financial funding of vocational education and training

A8.1 Development of training allowances based on collective wage agreements

Trainees in the dual system of vocational education and training have a legal right vis-à-vis their company providing training to receive an appropriate training allowance which rises with every year of training (cf. § 17 BBiG). Legislation ascribes three functions to the training allowance. Firstly, the intention is that it should remunerate trainees for their productive work at the company during training whilst also covering an appreciable amount of their living expenses. A further objective of paying the allowance is to ensure the development of a sufficient supply of up-and-coming young qualified skilled workers.

The allowance payments are of considerable financial significance to the trainees. At the same time, they also constitute the largest cost factor for the companies in terms of implementation of the training programmes. According to data from the sixth survey on the costs and benefits of company-based training for the training year 2017/2018, human resources costs of trainees (gross training allowances and statutory social benefits and social benefits paid on the basis of a collective wage agreement or voluntarily) made up a total of 61% of company training costs. Training allowances accounted for 45%.

Companies providing training are required to pay an appropriate training allowance pursuant to the BBiG (§ 17). Training allowances are fundamentally deemed to be appropriate because they have been negotiated by the contractual parties to collective wage agreements. The assumption is, therefore, that sufficient heed has been given to the interests of both sides. The updated BBiG, which entered into force on 1 January 2020, introduced a minimum training allowance (cf § 17 BBiG), which sets a lower floor for appropriate remuneration. The law stipulates an annual increase. Nevertheless, provisions made under collective wage agreements are excluded from the minimum training allowance.

BIBB has been observing and analysing the development of training allowances based on collective wage agreements since 1976. These evaluations are based on agreements on training allowances as amended in around 500 important collective wage agreement areas in Germany. Current information on remuneration rates is compiled by the Federal Ministry of Labour and Social Affairs (BMAS) from the collective wage agreement registry held at the ministry on an annual basis as of 1 October. This is supplemented by data researched by BIBB on contracts which have not yet been lodged with the collective wage agreement registry but which are already valid. This database allows average training allowances based on collective wage agreements to be calculated for the whole of Germany and for individual training occupations.

The method of calculation was changed in 2019. The evaluation as of 1 October 2020 identified that a total of 82% of trainees were subject to a collective wage agreement and to the training allowances stipulated in such an agreement. In the remaining cases, either no collective wage agreement was in place or else was not contained in the BMAS list or included amongst the collective wage agreements additionally researched. The Vocational Education and Training Statistics do not contain any information as to whether companies providing training are bound by a collective wage agreement. For this reason, too many trainees tend to be allocated to a collective wage agreement. However, because not all collective wage agreements can be included, there may also be branches in which more trainees are being trained at companies bound by a collective wage agreement than it was possible to identify by means of the procedure used. In order to compensate for these differences, data relating to the proportion of trainees at companies bound by a collective wage agreement collected by the IAB Establishment Panel (see Annex – Data sources) are included in the calculation of average training allowances based on collective wage agreements.

Determination of overall average value always takes account of all training occupations in which training takes place in accordance with the BBiG or the HwO in the dual system, i.e. at a company and at a vocational school, and to which a collective wage agreement can be allocated.

In 2020, the overall average of training allowances based on collective wage agreements was €963[21] per month → **Table A8.1-1**.

A consideration of the development of training allowances over the past ten years shows that, in overall average terms, increases since 2011 have always been higher than 2020 with the exception of the year 2017. Rises of significantly more than 3% were recorded in most years. From 2012 to 2014, training allowances even went up by over 4%. The increase in 2017 was 2.6%, the same as in 2020. No final conclusion can yet be reached as to the extent to which the relatively small rise in 2020 was caused by the impacts of the coronavirus crisis or is connected with the

21 Training allowances based on collective wage agreements are gross amounts which are subject to social insurance contributions. Income tax may also be deducted if overall income (training allowance and any other income) exceeds the tax-free allowance threshold.

Table A8.1-1: **Training allowances based on collective wage agreements 2020 (average gross monthly amounts in €) and percentage increase compared to 2019 by certain characteristics**

Characteristics	Total	
	Training allowance based on collective wage agreements in €	Percentage increase as of 2019
Total	963	2,6
Training area		
Trade and industry	1.017	2,0
Craft trades	850	3,5
Agriculture	898	3,1
Public sector	1.076	2,3
Liberal professions	892	3,8
Housekeeping	959	4,1
Gender		
Women	953	2,7
Men	968	2,4
Year of training		
1st year of training	869	2,5
2nd year of training	955	2,7
3rd year of training	1.050	2,2
4th year of training	1.081	2,4

Source: BIBB Training allowances based on collective wage agreements database, calculations by the Federal Institute for Vocational Education and Training VET Data Report Germany 2021

economic downturn which was already being indicated beforehand. Upcoming collective wage agreement negotiations were actually postponed in a variety of areas. Agreements for normal increases in remuneration were, however, reached in sectors which were less affected. Collective wage agreement rises stipulated prior to the coronavirus pandemic were also implemented. Effects on the training places market must also be assumed, especially in branches badly hit by the pandemic. Because calculations for the year 2020 were conducted using the Vocational Education and Training Statistics as of the cut-off date of 31 December 2019, these developments cannot yet be mapped and will not be reflected until next year's figures are calculated.

Around 46% of trainees at a company bound by a collective wage agreement received training allowances based on collective wage agreements of more than €1,000 in 2020. 35% of trainees were paid between €801 and €1,000. Relatively low allowances of less than €800 were recorded for a fifth of trainees. In 2020, around 1% of trainees were affected by training allowances based on collective wage agreements that were below the stipulated limits for minimum training remuneration in the various years of training (cf. BBiG § 17)[22]. In 2020, there were significant differences in the level of allowances between the various training occupations. The overall German average was above €1,100 in a total of eleven occupations. The highest training allowances of €1,235 were paid in the occupation of carpenter. 26 occupations had average allowances of less than €800. 18 of these are craft trade occupations (hairdresser, baker, joiner, painter and varnisher and plant mechanic for sanitary, heating and air conditioning systems). The 13 occupations with the lowest average allowances were all craft trade occupations. The lowest average training allowance based on a collective wage agreement identified was €599 for the occupation of chimney sweep. Training allowances based on a collective wage agreement were also under €800 in five occupations in the area of agriculture (wine grower, animal caretaker, agricultural services specialist, farmer and equine manager). The only occupation in the training area of trade and industry in which training allowances of under €800 were paid was florist (€744). In this area of training, average training allowances based on a collective wage agreement were above €1,000 in most occupations. Training allowances below this level were paid in only just over a third of occupations.

A8.2 Public expenditure on vocational education and training

→ **Table A8.2-1** documents spending from public budgets on vocational education and training from 2001 to 2020. It takes account of all expenditure which can be allocated in a source-specific manner in connection with the development, improvement, implementation and support of training programmes pursuant to BBiG § 1 Paragraphs 1 and 2. Items of spending which may relate to vocational education and training but cannot be clearly allocated to the VET system in accordance with the costs-by-cause principle are not included. The latter encompass examples such as the children's and youth service measures provided by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth. Although the intention of some of these programmes is to facilitate transition to the labour market, it is highly likely that they would be implemented in an identical or similar way were a vocational education and training system not to exist.

The crosses included in → **Table A8.2-1** indicate whether a spending item is mainly caused by recognised VET programmes within the dual system (DS), by measures delivered in the transitional system (TS) and/or by the

22 1st year of training € 515, 2nd year of training € 608, 3rd year of training € 695, 4th year of training € 721.

school-based occupation system (SBS). The division is, however, not always precise. One position may contain expenditure for one or more areas. In addition to this, no definitive delineation exists for the transitional system. A number of individual items continue to relate expenditure on continuing training, to a considerable extent in some cases. Because of these difficulties regarding delineation, totalling the marked lines in the table only allows us to arrive in each case at an upper limit for overall public spending on VET in DS, TS and SBS. The supposition is that the volumes of spending attributable to the respective sectors are actually lower.

The following further indications should be taken into account in interpreting the table and in conducting comparisons with previous years.

With regard to the federal ministries, all items of expenditure are recorded which are attributable to vocational education and training in accordance with objective considerations. On the basis of a pre-existing assignment plan, most expenditures are allocated to the areas of continuing training and labour market policy in the annual financial statistics and in the Educational Financing Report produced by the Federal Statistical Office, the positions shown in → **Table A8.2-1** effectively also relate to training funding to a significant extent. They are aligned to the budgetary areas of the ministries and in some cases collate several funding programmes and measures. Because changes of delineation frequently occur, it is difficult to interpret the development of individual budgetary areas over the course of time. In overall terms, however, federal expenditure has increased slightly of late (particularly by the Federal Ministry of Education and Research, BMBF). This has been largely due to measures for the integration of refugees into vocational education and training. Maintenance benefits paid to full-time pupils at vocational schools in accordance with the Education and Training Assistance Act (BAföG) constituted the largest spending item at federal level by some distance. 100% of these payments were made as grants. Up until the year 2014, 65% of this expenditure was allocated to the Federal Government and 35% to the federal states. The Federal Government has been responsible for the entire funding since 2015.

In the years 2020 and 2021, the Federal Government programme "Securing training places" is supporting small and medium-sized companies and institutions providing training by making a total of €500 million available, so that their training place provision can be maintained during the coronavirus pandemic. €150 million of this funding is earmarked for 2020.

Spending by the federal states and by local government authorities on vocational schools (part-time and full-time vocational schools, vocational preparatory schools, specialised upper secondary schools, vocational upper secondary schools, vocational grammar schools) is taken from the annual financial statistics of the Federal Statistical Office. Because the intention is to present expenditure incurred by the public budgets, net spending is offset against direct revenues received by the public purse. Preliminary actual spending in 2019 was just over €8.8 billion. Expenditure has thus risen significantly since 2015. During the same period, spending per pupil at vocational schools (including trade and technical schools) has grown by 17% to €5,828.[23] According to the Consumer Prices Index calculated by the Federal Statistical Office, the increase in real terms in per capita spending since 2015 has been 11.2%. Costs to the public purse for 2020 are estimated at just under €9 billion. If the number of hours taught per type of school in the 2019/2020 training year is used as an allocation formula, the estimate is that part-time vocational schools will account for €3.3 billion of the budgetary funding made available for 2020.

The remaining €5.7 billion are used to finance further types of school in the vocational education and training system, such as full-time vocational schools, specialised upper secondary schools, vocational upper secondary schools, the vocational preparation year, the basic vocational training year and the trade and technical schools.

The funding programmes of the federal states dedicated to training cannot be precisely quantified. Like the federal programmes, most of these may possibly be ascribed to the areas of continuing training, labour market policy or economic policy in the annual financial statistics. Funding volume of the federal states was in the amount of €0.5 billion up until the year 2015. This figure is likely to include financing from the European Social Fund. VET-related expenditure of the BA encompasses both vocational education and training itself and vocational orientation and preparation. → **Table A8.2-1** does not include funding for integration at the second threshold. This represents an employment policy measure. A large part of BA funding is used to support trainees who are particularly disadvantaged (and therefore flows in turn into extra-company training). Assisted training (AsA), a support measure for companies to train young people who would otherwise find it hard to obtain a training place, has formed a new part of the BA's set of instruments since 2015.

Benefits provided by the BA for persons with a disability are not taken into account in → **Table A8.2-1**. Although these are partially connected with training activities, it is

23 The calculation is in each case based on weighted pupil numbers for the two years of training relevant to the respective calendar year. Part-time pupil figures have also been converted into full-time equivalents.

Table A8.2-1: **Public expenditure on vocational education and training (Part 1)**

	2001	2015[17]	2016	2017	2018	2019	2020	Dual system	School-based system	Transitional system	Includes continuing training[18]
	in € billions	in € billions	in € billions	in € billions	in € billions	in € billions	in € billions				
BMBF[1]											
Funding for extra-company vocational training centres[2]	0,043	0,042	0,056	0,072	0,072	0,072	0,072	X		X	
Student grants (BAföG) for full-time vocational school attendees (full-time vocational schools, vocational preparation schools, specialised upper secondary schools and trade and technical schools not including VET)[3]	0,227	0,435	0,423	0,434	0,416	0,399	not available		X	X	
International exchange and cooperation in vocational training	0,007	0,011	0,009	0,013	0,014	0,015	0,017	X	X		X
Innovations and structural development of vocational training	k.A.	0,075	0,076	0,064	0,056	0,058	0,100	X	X	X	X
BIBB (operation and investments)	0,028	0,036	0,042	0,038	0,040	0,051	0,053	X	X	X	X
Support for gifted students in vocational education and training[4]	0,014	0,046	0,049	0,052	0,053	0,061	0,062				X
Measures for the improvement of vocational orientation	-	0,066	0,061	0,065	0,066	0,077	0,097			X	
Securing of training[5]	-	-	-	-	-	-	0,150	X			
Discontinued measures[6]	0,291	-	-	-	-	-	-	X	X		X
BMWi[1]											
VET for the SME sector – trainee instruction[7]	0,042	0,044	0,045	0,047	0,050	0,052	0,049	X			
Securing a supply of skilled workers for small and medium-sized enterprises[8]	-	0,014	0,017	0,021	0,022	0,020	0,025	X		X	
BMAS[8]											
Special measures for younger persons within the legal scope of Social Security Code II (SGB II)[10]	k.A.	0,127	0,121	0,122	0,121	0,117	0,117	X		X	
Federal states, local government authorities, special purpose associations[11]											
Vocational schools[12]											
▶ Part-time vocational school	3,080	2,821	2,848	2,983	3,097	3,227	3,331	X			
▶ Full-time vocational schools	1,848	2,119	2,166	2,221	2,307	2,396	2,466		X	X	
▶ Basic vocational training year, pre-vocational training year	0,515	0,428	0,479	0,608	0,616	0,584	0,583			X	
▶ Other vocational schools (not including trade and technical schools)	0,865	1,627	1,664	1,726	1,762	1,796	1,822		X		
Training programmes of the federal states[13]	0,173	ca. 0,5	k.A.	k.A.	k.A.	k.A.	k.A.	X	X	X	
Federal Employment Agency[9]											
Vocational education and training subsidies (company-based VET, vocational preparation schemes) including subsidy for a second programme of training	0,405	0,310	0,290	0,287	0,263	0,258	0,291	X		X	
Course costs for vocational preparation schemes	0,388	0,203	0,198	0,193	0,184	0,180	0,174			X	
Extra-company VET, training support measures[14]	0,811	0,303	0,269	0,249	0,230	0,220	0,216	X		X	
Assisted training	-	0,004	0,238	0,040	0,046	0,041	0,035	X			
Introductory training[10]	-	0,026	0,028	0,037	0,034	0,027	0,023			X	
Measures for detailed vocational orientation[15]	k.A.	0,033	0,037	0,046	0,052	0,059	0,052			X	
Discontinued measures[16]	0,862	0,000	0,000	0,000	-	-	-	X		X	
Career entry support for young people	-	0,088	0,135	0,167	0,191	0,186	0,145			X	
Funding for young people's residential homes	0,044	0,001	0,003	0,009	0,007	0,005	0,004	X	X	X	X

Table A8.2-1: **Public expenditure on vocational education and training (Part 2)**

[1] Actual values in accordance with Federal Government budgetary calculations. Budget appropriations for 2020.
[2] Figures include investments and ongoing spending.
[3] Funding pursuant to the Federal Education and Training Assistance Act (BAföG) for pupils at full-time vocational schools, vocational preparatory schools and classes at specialised upper secondary schools where completed VET is not required. Actual values for all calendar years stated in accordance with upgrading training assistance figures produced by the Federal Statistical Office. Does not take loan repayments into account. Up until the year 2014, 65% of spending was allocated to the Federal Government and 35% to the federal states. The Federal Government has borne the full financing since 2015. Benefits for pupils in classes at specialised upper secondary schools where completed VET is not required are taken into account from 2011.
[4] In accordance with its purpose, this item tends to include spending on continuing vocational education and training (continuing training grant) and the funding of academic education (advancement grant).
[5] This refers to time-limited coronavirus-pandemic assistance which is scheduled to be paid in the years 2020 and 2021. Target values are in line with the federal budget.
[6] Includes the Special Programme for Apprenticeship Developers and Regional Associations for Vocational Education and Training in the federal states of eastern Germany (including Berlin), the Future Initiative for Vocational Schools (ZIBS) and the special schemes instigated by the Federal Government, the federal states of eastern Germany and Berlin for the creation of additional jobs in the federal states of eastern Germany.
[7] Presented here until 2011: "Funding of training courses in extra-company VET in the craft trades".
[8] The "Securing a supply of skilled workers for small and medium-sized enterprises" budget is used to fund a range of programmes and initiatives, most of which relate closely to vocational education and training. Examples include "Support to SMEs in filling training places in a precisely matched way and in the integration of foreign skilled workers", even though the main focus is on SME funding. Until 2014, only expenditure on the programme "Precise Recruitment" is listed here (interruption of series).
[9] Actual spending for the respective budgetary year. Not precisely quantifiable – grants to cover school requirements paid to parents of vocational school pupils within the scope of "Class II" unemployment benefits. These are likely to be in the low tens of millions. Not included: education and training services from authorised local government providers which are not recorded within the Federal Employment Agency's financial system.
[10] Included: extra-company VET, training support measures, assisted training, introductory training (a regular benefit within the scope of SGB III since 1 October 2008, was previously funded as a special programme from the budget of the Federal Ministry of Labour and Social Affairs, BMAS).
[11] Actual values for 2001, preliminary actual values for 2015 to 2019, target values for 2020.
[12] Basis for the estimation of expenditure in the calendar years 2001 and 2010 to 2019 is the number of hours taught per type of school in the school years ending and beginning in the respective calendar year and expenditures on vocational schools. Basis of the estimation for the year 2020 is the number of hours taught per type of school in the 2019/2020 school year and expenditures on vocational schools in the 2020 calendar year. Until the 2014 Data Report, estimation took place on the basis of pupil days. Since the 2015 Data Report, however, only values estimated on the number of hours of teaching are presented, including with retrospective effect.
[13] Values stated from 2010 onwards are based on a BIBB survey. This survey has, however, not been conducted since 2016, see indications in the text.
[14] Until 2013, this item also includes expenditure on support for disadvantaged young people with (around €0.013 million in 2013). No longer included from 2014. Stated as "Vocational education and training for disadvantaged young people" until the 2016 Data Report.
[15] Pursuant to § 33 SGB III, the prerequisite for funding is third-party participation of at least 50%. However, no figures are available with regard to the proportion of public and private funding within the scope of this co-financing.
[16] Included: the training bonus discontinued since 01.04.2012, socio-pedagogical support for vocational education and training preparation and the Immediate Programme for the Reduction of Youth Unemployment.
[17] Not all years are presented for reasons of space. Information from 2002 to 2014 are available in earlier issues of the Data Report.
[18] Items which also contain a significant scope of expenditures on continuing vocational training are marked with a cross.

Source: Federal Ministry of Finance, federal budgets, Federal Ministry of Finance, budget account of the Federal Statistical Office, Specialist Publications 11, Series 2 – Vocational Schools, Federal Statistical Office, Specialist Publications 11, Series 7– BAföG, Federal Statistical Office, Specialist Publications 14, Series 3.1 – Financial results of the public budgets, Federal Employment Agency, Quarterly Reports, Federal Employment Agency, Quarterly Reports, Federal Employment Agency, Monthly Financial Results (SGB II and SGB III), information provided by the Federal Statistical Office (January 2021). VET Data Report Germany 2021

likely that most are not causally attributable to the vocational education and training system. The same applies to the benefits paid by the Federal Ministry of Labour and Social Affairs (BMAS) to persons with a disability in accordance with the provisions contained within German Social Security Code II (SGB II) and to the programme operated by the BMAS since 2014 for fast-track integration and guidance for disabled persons. The financial contribution made by the public purse is supplemented by the contribution made by companies providing training in the private and public sectors. This expenditure is traditionally estimated by BIBB.

A8.3 Funding of vocational education and training

A8.3.1 Measures pursuant to German Social Security Code

Regular national provision is stipulated in German Social Security Code and is mostly put out to tender by the Federal Employment Agency and or the job centres for implementation by education and training organisations. The following presentations of measures are based on the funding statistics of the Federal Employment BA → **Figure A8.3.1-1**.

Figure A8.3.1-1: **Regular provision of the Federal Employment Agency/job centres**

<table>
<tr><th>Vocational orientation</th><th>Vocational and training preparation</th><th>Vocational education and training</th><th>Second-chance training</th></tr>
<tr><td rowspan="2">Measures for detailed vocational orientation</td><td>Vocational preparation schemes (BvB, BvB-Reha, BvB-Pro)

Introductory training

Programmes aimed at facilitating the entry of people into the labour market and professional integration

Funding for young people who are difficult to reach (FseJ)</td><td>Vocational education and training at extra-company institutions (integrative and cooperative)

Training support measures (abH)</td><td rowspan="3">Work opportunities</td></tr>
<tr><td colspan="2">Assisted training (AsA)</td></tr>
<tr><td colspan="3">Career entry support (BerEB)</td></tr>
</table>

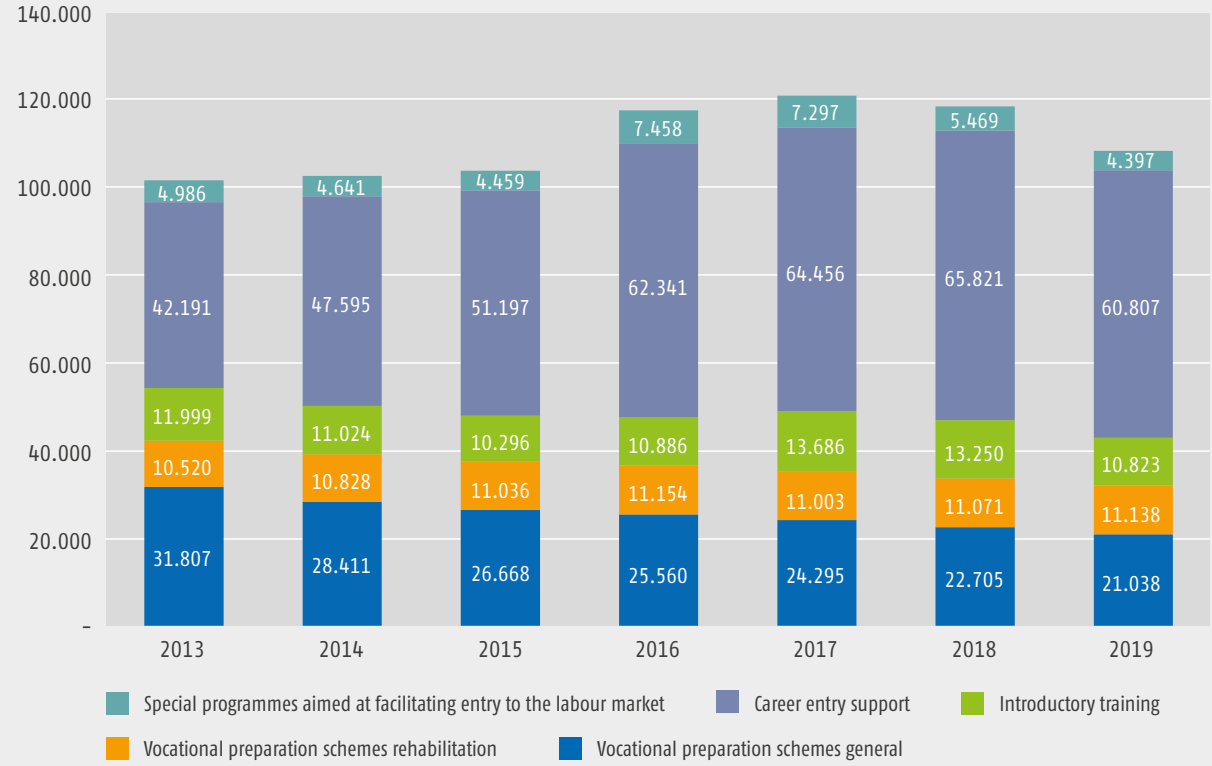
Source: Compilation by the Federal Institute for Vocational Education and Training VET Data Report Germany 2021

Brief explanation of regular provision

- Vocational orientation provision takes place in various contexts. Separate concepts and provision from the federal states and nationwide support from the Vocational Orientation Programme of the Federal Government exist alongside the provisions in SGB II. Unlike previously, the instrument of career entry support can only be continued if co-financing is in place. This is only the case in very few federal states hitherto. Vocational orientation also takes place via practical placements and company-based phases, something which is proving very difficult in the current situation because of the coronavirus pandemic. This also affects the vocational guidance provided by the BA.
- The BA offers a series of services within the scope of its statutory obligation to provide vocational orientation (§ 33 SGB III). These include information and presentation events, workshops on career choice topics and various media provision. The primary target groups are school pupils and all persons seeking to enter training in general.
- In addition to the statutory remit of the BA as governed pursuant to § 33 SGB III, § 48 SGB III affords an opportunity to provide further vocational orientation provision. This is offered by VET institutions and other providers at general schools to a range of target groups. The core elements of these measures include comprehensive information on occupational fields, exploration of interests, aptitude and competency assessment, career choice and decision-making strategies, aid with the self-assessment of propensities and abilities, realisation strategies and socio-pedagogical assistance and support. The grant paid to the providers comprises up to 50% of costs eligible for funding.
- Career entry support is a measure which offers individual vocational orientation support to pupils whose education is at jeopardy. With effect from 1 April 2012, career entry support was adopted as a regular instrument of the BA and is enshrined in law in § 49 SGB III. From 2015, the Federal Government made a total of around €1 billion available for career entry support during the funding period from 2014 to 2020. €500 million of this comes from financing provided by the European Social Fund (ESF), the BMAS and the BA. This secured financing up until the 2018/2019 school year. Because the ESF funding period ended in 2020, the instrument is now only available if co-financing is forthcoming from third parties, preferably via the federal states themselves.
- Funding for young people who are difficult to reach (FseJ) is aimed at young people and young adults aged from 15 to 25 who have difficulties in fulfilling the requirements for successful integration into work or training or in applying for or receiving social benefits pursuant to SGB III. Difficulties must have their basis in the individual life situation of the young people. The aims at the end of the funding are for specific follow-up prospects to be in place and for target agreements for binding further steps to have been concluded where possible.

Measures within the context of vocational preparation expanded significantly up until 2009. The number of vocational preparation measures has been declining since 2010. In 2019, this trend continued in respect of all measures with the exception of the rehabilitation

Figure A8.3.1-2: **Participants in various vocational preparation measures 2013 to 2019 (annual average total numbers)**



Source: Federal Employment Agency, funding statistics; depiction by the Federal Institute for Vocational Education and Training VET Data Report Germany 2021

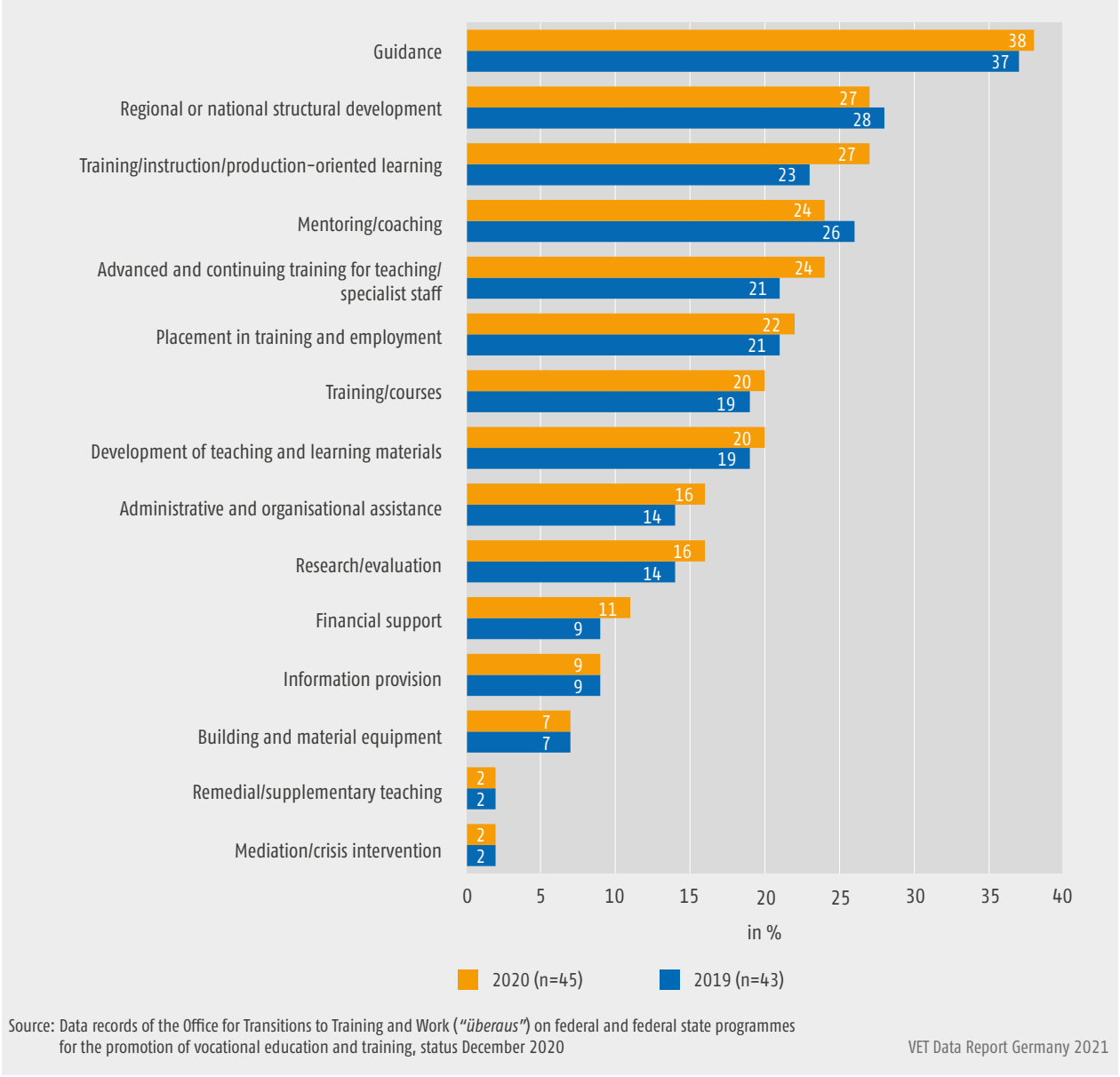
scheme. Participation numbers in general vocational preparation measures (BvB) pursuant to § 51 SGB III once again decreased. The number of participants in special programmes aimed at facilitating entry to the labour market ("activation") and in introductory training also fell in 2019. This followed an increase in the participation figures between 2016 and 2018, largely because of entry by young refugees. A consideration of data relating to entries up until August 2020 gives rise to the assumption that the number of participants in these measures will have fallen significantly in 2020 as a whole. No overview can as yet be presented as to in which form this was caused by the effects of coronavirus → **Figure A8.3.1-2**.

A8.3.2 Federal government and federal state programmes for the funding of vocational education and training

The data records of the Office for Transitions to Training and Work ("*überaus*") contained a total of 45 federal programmes and 287 federal state programmes in December 2020. More than two thirds of the federal programmes, the same proportion as in the previous year, were providing funding in the area of "vocational education and training". The field of activity of vocational education and training forms the predominant aspect of the federal state programmes, and "second-chance training" tends to play a subordinate role. The following figures (→ **Figure A8.3.2-1**, → **Figure A8.3.2-2**) show the respective provision of the Federal Government and federal state programmes. As in the 2019 reporting year, there was a further fall in the proportion of federal programmes aimed at supporting refugees.

Particular mention should be made of a new federal programme adopted in the year 2020. This has the objective of avoiding training drop-outs and of maintaining training place supply. The "Securing training places" programme is jointly funded by the Ministry of Education and Research, the Ministry for Economics Affairs and Climate Action and the Ministry of Labour and Social Affairs. It is reacting to the coronavirus pandemic by offering financial support to companies providing training and to institutions providing training in the healthcare and social occupations in order to retain the training level, to avoid short-time working, to allow trainees to be taken

Figure A8.3.2-1: **Planned/realised provision for the funding of vocational education and training within the scope of federal programmes (multiple allocations, in %)**

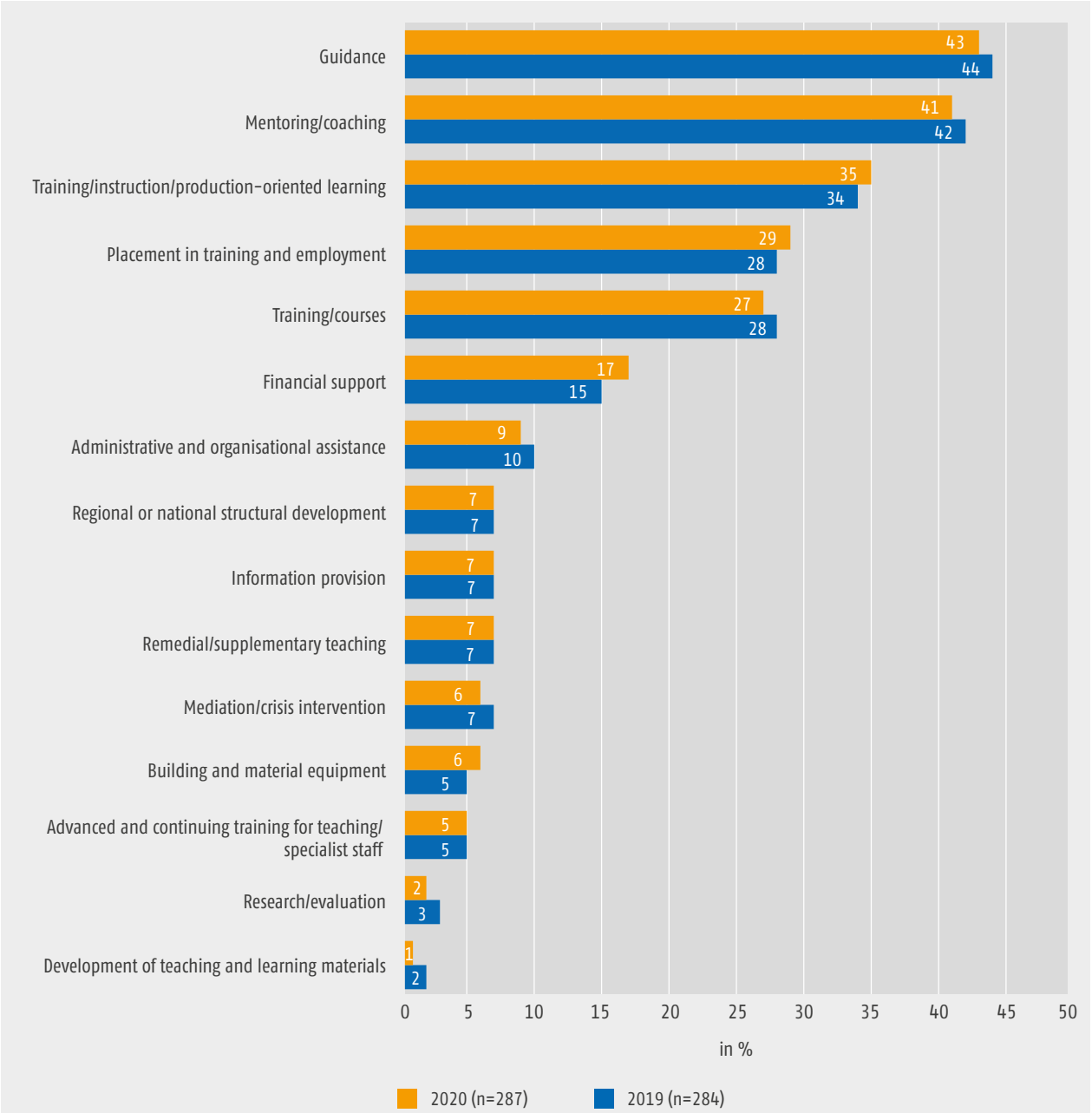


Source: Data records of the Office for Transitions to Training and Work (*"überaus"*) on federal and federal state programmes for the promotion of vocational education and training, status December 2020

VET Data Report Germany 2021

on from other companies and to be able to offer commissioned and cooperative training. Funding providers have also reacted to the coronavirus pandemic at a federal state level. In formal terms, various approaches have been adopted. New funding guidelines have been issued in some cases. In other instances, however, existing programmes have been temporarily expanded with regard to funding prerequisites. Funding has been provided for the taking on of trainees from companies which have become insolvent, for the creation of additional training contracts or for provision of inter-company training. In December 2020, the data records of the Office for Transitions to Training and Work ("*überaus*") indicated ten federal state programmes which were seeking to combat the impacts of the coronavirus pandemic in a targeted way.

Figure A8.3.2-2: **Planned/realised provision for the funding of vocational education and training within the scope of federal state programmes (multiple allocations, in %)**



Source: Data records of the Office for Transitions to Training and Work (*"überaus"*) on federal and federal state programmes for the promotion of vocational education and training, status December 2020

VET Data Report Germany 2021

A8.4 Funding of inter-company vocational training centres (ÜBS) and centres of excellence

Inter-company vocational training centres have an important role to play as partners of both dual vocational education and training and of advanced and continuing training. They supplement company-based training by delivering more detailed practical training in particular. This means that support provision to secure training can be made available to small and medium-sized enterprises (SMEs). New requirements for initial and continuing vocational education and training are constantly emerging in the wake of technological innovations. Inter-company vocational training centres make a particular contribution towards securing the ability of small and medium-sized enterprises to provide training. Increasing specialisation means that SMEs often find it difficult to impart all the competencies relevant to an occupational profile. The BMBF has been supporting inter-company vocational training centres since the 1970s by making relevant funding available.

The aim is to maintain VET at the same high level in accordance with the latest status of technology right across Germany. The Federal Institute for Vocational Education and Training works on behalf of the BMBF to finance projects within the area of initial vocational education and training.

Funding is geared towards relevant input factors appertaining to quality development of company-based or inter-company training but may also be aligned to related process factors.

In 2020, 15 of these projects commenced work in the BMBF's "Special programme for the promotion of digitalisation in inter-company vocational training centres and centres of excellence", which involved a total of 25 stakeholders from the areas of industry, the craft trades, the construction sector, the craft trades, commerce and agriculture. All development and piloting projects concentrated on adaptation of teaching and learning scenarios and processes with regard to digital requirements, on the further development of vocational educational concepts and on training for training staff.

Alongside funding for these projects, procurement of digital equipment makes up the largest proportion of the programme in financial terms. This is because the programme's objective is to support inter-company vocational training centres in implementing their training remit by enabling them to shape the digital shift within their own institutions. About €131.6 million have been invested in more than 200 inter-company vocational training centres across Germany since 2016. €30 million has been made available for this special programme every year until 2023. Applications for the funding of digital equipment may be submitted on an ongoing basis, and there are special deadlines running up until and including 2021 for applications for the implementation of development and piloting projects. In 2020, a total of €69.8 million was paid out to the providers of the inter-company vocational training centres within the scope of regular funding and the special programme for modernisation of facilities in areas such as digitalisation and for further development to create centres of excellence.

A9 Training and employment

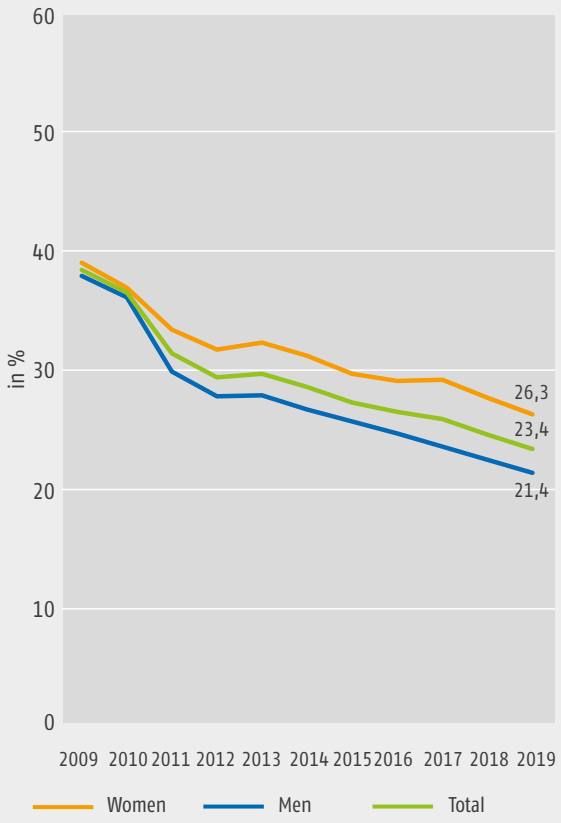
A9.1 Transitions to employment

The following section analyses the occupational transition phase of young people who have completed dual training from their own point of view. The employment statistics of the BA are used to show the proportion of persons completing training who then immediately register as being unemployed. By way of contrast, in the case of the analysis using the Institute for Employment Research (IAB, see Annex – Data sources) Establishment Panel Survey, the focus is on the companies' perspective. The Data Report provides an annual record of the number of persons who register as unemployed immediately upon concluding company-based training. The information on unemployment supplied by the Federal Employment Agency relates to the period of time directly following training irrespective of the duration of unemployment. Occurrence of an initial phase of unemployment as early as this point in time is significant to the transition into working life. The number of persons completing training is taken from the Vocational Education and Training Statistics produced by the Federal Statistical Office and the statistical offices of the federal states. The rates thus calculated differ considerably from the general unemployment rate for young people who have completed dual training.

Extrapolations based on figures from the BA showed that around 90,000 persons registered as unemployed following completion of dual vocational education and training in the year 2019. This produces an unemployment rate of 23.4% related to the total number of persons completing dual training (around 383,000 persons) (2019: 24.6%. Unemployment has been decreasing almost continually since 2009, when the rate was more than 15 percentage points higher → **Figure A9.1-1**.

The rates stated in the preceding chapters are each snapshots of the situation directly following completion of dual training from the respective points of view of the companies of the persons receiving training. These results need to be differentiated from the medium or long-term labour force unemployment and general unemployment rates (see Information Box) of persons completing dual training. Based on data from the microcensus (see Annex – Data sources) for individuals aged between 18 and 24, the labour force unemployment rate in 2019 for persons who had completed dual training[24] was only 2.9%. This was the same level as recorded in the previous year. If we expand the age range forming the object of consideration to 18 to 34, it is also possible to use the data from the microcensus as a basis for calculating the labour force unemployment rates of persons with different training qualifications and for comparing these rates with one another[25] → **Table A9.1-1**.

Figure A9.1-1: **Unemployment rate after successful completion of dual training in Germany by gender 2009 to 2019 (in %)**



Source: Federal Employment Agency, Federal Statistical Office, Federal Institute for Vocational Education and Training VET Data Report Germany 2021

24 On the basis of the microcensus, a total labour supply of 8,005 persons aged between 18 and 24 who have completed dual training can be identified for the year 2019.

25 The expansion of the age group is necessary in order to achieve sufficiently large sample sizes for the individual training qualifications.

Table A9.1-1: **Persons aged 18 to 34 in private households by vocational qualification and employment status in 2019 (extrapolations in thousands) and labour force unemployment rate**

Employment status		Persons aged 18 to 34, not in training, and for whom valid information regarding vocational qualification is available						
		Total	Of which					
			persons without formal qualification	formally qualified persons				
				Together	Of which with highest training qualification			
					Apprenticeship in the dual system	Full-time vocational school qualification[1]	Master craftsman/ technician qualification[2]	(Administrative) degree from a university of applied sciences/ university, doctorate
Total	2019	**10.705**	**2.307**	**8.398**	**4.582**	**430**	**1.076**	**2.310**
	2018	**10.698**	**2.277**	**8.422**	**4.782**	**418**	**992**	**2.230**
	2017	**10.825**	**2.278**	**8.547**	**4.924**	**433**	**990**	**2.200**
	2016	**10.866**	**2.224**	**8.642**	**5.056**	**454**	**1.000**	**2.132**
	2015	**10.473**	**2.023**	**8.451**	**5.088**	**443**	**925**	**1.994**
Labour demand	2019	8.988	1.349	7.638	4.133	386	1.005	2.115
	2018	8.907	1.281	7.626	4.305	372	926	2.024
	2017	8.921	1.222	7.699	4.397	380	923	1.999
	2016	8.936	1.190	7.746	4.478	404	928	1.936
	2015	8.664	1.092	7.572	4.489	396	867	1.821
Unemployed persons	2019	422	224	198	127	12	11	49
	2018	461	244	217	141	12	12	52
	2017	503	266	238	164	16	12	46
	2016	550	277	272	197	11	12	52
	2015	580	284	295	219	13	12	51
Economically inactive persons	2019	1.295	734	562	322	32	61	147
	2018	1.330	752	578	336	34	54	154
	2017	1.401	790	611	363	38	56	155
	2016	1.381	757	624	381	39	60	144
	2015	1.230	647	584	380	34	47	122
Unemployment rate	2019	**4,5%**	**14,2%**	**2,5%**	**3,0%**	**2,9%**	**1,0%**	**2,3%**
	2018	**4,9%**	**16,0%**	**2,8%**	**3,2%**	**3,2%**	**1,3%**	**2,5%**
	2017	**5,3%**	**17,9%**	**3,0%**	**3,6%**	**3,9%**	**1,3%**	**2,3%**
	2016	**5,8%**	**18,9%**	**3,4%**	**4,2%**	**2,7%**	**1,3%**	**2,6%**
	2015	**6,3%**	**20,7%**	**3,8%**	**4,7%**	**3,1%**	**1,4%**	**2,7%**

[1] Including completion of preparatory training for medium level entry to the civil service.

[2] Including qualification from a trade and technical school in the former GDR and qualification from a university of applied sciences or university of cooperative education.

Sample sizes **2019**: completed dual training n = 40,100, completion of full-time vocational school n = 3,718, master craftsman or technician qualification n = 9,482, degree from a university of applied sciences/university or doctorate possible n = 19,615, no formal qualification n = 18,652.

Sample sizes **2018**: completed dual training n = 43,166, completion of full-time vocational school n = 3,669, master craftsman or technician qualification n = 8,766, degree from a university of applied sciences/university or doctorate possible n = 18,739, no formal qualification n = 18,371

Sample sizes **2017**: completed dual training n = 43,101, completion of full-time vocational school n = 3,775, master craftsman or technician qualification n = 8,782, degree from a university of applied sciences/university or doctorate possible n = 18,683, no formal qualification n = 18,353

Sample sizes **2016**: completed dual training n = 43,144, completion of full-time vocational school n = 3,888, master craftsman or technician qualification n = 8,655, degree from a university of applied sciences/university or doctorate possible n = 17,668, no formal qualification n = 17,552

Sample sizes **2015**: completed dual training n = 40,707, completion of full-time vocational school n = 3,528, master craftsman or technician qualification n = 7,506, degree from a university of applied sciences/university or doctorate possible n = 15,598, no formal qualification n = 15,388

Source: Microcensus 2015 to 2019

Information Box – Labour force unemployment rates versus general unemployment rates

Labour force unemployment rates and general unemployment rates are based on different survey concepts. The general unemployment rate relates to the total of registered unemployed persons. Labour force unemployment, on the other hand, is determined via surveys. A person is deemed to be unemployed under the latter definition if they are aged between 15 and 74, works for less than one hour per week but were actively engaged in looking for a job in the four weeks preceding the survey and are available to start work within two weeks. Indeed, these two rates usually differ sharply from one another. The general labour force unemployment rate in Germany in 2019 was 3.1%, whereas the general unemployment rate was 5.0%.

A9.2 Qualifications and occupational field projections

This section presents the results of the sixth wave of the basic projection of the qualifications and occupational field projections (QuBe Project – see Information Box), which are conducted under the joint lead management of the Federal Institute for Vocational Education and Training (BIBB) and the Institute for Employment Research (IAB) in conjunction with the Institute of Economic Structural Research (GWS). A number of methodological extensions were adopted compared to the fifth projection wave. There is now a differentiated designation of qualification-specific gains and losses which have occurred because of migration. In the sixth wave, participation in employment is also determined subject to economic development. In addition, a new indicator for assessment of the requirements-specific and occupationally-specific skilled worker situation is provided in the form of adjusted search duration.

Information Box – BIBB-IAB qualifications and occupational field projections (QuBe Project)

The QuBe projections, developed in conjunction with the Institute of Economic Structural Research (GWS), use model calculations to show how the supply of and demand for qualifications and occupations may develop in the long term. The microcensus (last survey conducted in 2017), an official representative statistic produced by the Federal Statistical Office in which one percent of all households in Germany participate each year and which provides information on the population and labour market, serves as the database. The National Accounts (included in the present projection until the year 2019) serve as the foundation for a projection of the macro economy. Register data supplied by the BA on employees subject to mandatory social insurance contributions (SVB) and on employees solely working in part-time jobs subject to flat-rate deductions (AGB) delivers additional information on the labour demand by occupation and by the relevant wages paid (included in the present projection until the year 2017). Results are differentiated in up to 141[26] three-digit codes (occupational groups) of the 2010 Classification of Occupations (KldB).

The present results are based on the basic projection of the sixth projection wave. This builds on the methods of the previous waves and introduces further new features. The basic projection pursues an empirically based concept. Only types of behaviour previously demonstrable are projected into the future. Changes in behaviour not identifiable in the past thus do not form part of the basic projection.

The outbreak of COVID-19 in 2020, a new type of infectious disease, presents an unpredictable cause variable for economic development. The long-term consequences of the pandemic cannot currently be assessed. Economic consequences are thus merely considered as an external shock, the view being that the old momentum will be restored to the economic system in the medium term following a brief deviation from the long-term development. After the inclusion of current economic data, of the Economic Stimulus Package adopted by the Federal Government on 3 June 2020 and of the Climate Package of 16 December 2019, the basic projection shows a consistent development pathway on the German labour market until the year 2040.

Information Box – QuBe Data Portal

The QuBe Data Portal (**www.qube-data.de**) illustrates the results of the QuBe projections and shows possible development pathways for labour supply and demand. The results of the basic projection can be accessed for the years 2015 to 2040 and are differentiated according to 141 occupational groups and 37 main occupational groups or by qualifications (supply) or by requirements levels (needs). On the supply side, labour supply is shown in terms of number of persons and work volume potential is indicated at the level of hours. The demand side lists labour

26 The KldB 2010 encompasses a total of 144 occupational groups. However, because no rank differentiation is made with respect to members of the regular armed forces, only 141 occupations are shown.

Table A9.2-1: **Net new labour supply and persons leaving working life by qualification level (ISCED) in the years 2020 to 2040**

Year/period	Without a full vocational qualification (ISCED 010-344)	With a vocational qualification (ISCED 351-444, 454)	Upgrading training, Bachelor qualification or degree from a university of applied sciences (ISCED 453, 554-655)	Higher education qualifications (not including a Bachelor's degree or a degree from a university of applied sciences) (ISCED 746-844)	Reported as being in training	Total
Total labour supply in 000's						
2020	5.099	19.256	12.265	6.239	3.678	46.536
2025	4.912	18.567	12.189	6.911	3.579	46.158
2030	4.638	17.669	11.918	7.493	3.555	45.273
2035	4.389	17.030	11.590	7.991	3.650	44.651
2040	4.238	16.852	11.414	8.455	3.731	44.691
Persons leaving working life in 000's						
2020 bis 2025	567	2.659	1.178	657	-	5.060
2025 bis 2030	626	2.773	1.388	633	-	5.420
2030 bis 2035	601	2.576	1.488	661	-	5.326
2035 bis 2040	566	2.168	1.360	655	-	4.749
2020 bis 2040	2.360	10.176	5.414	2.605	-	20.555
Net new domestic labour supply in 000's						
2020 bis 2025	407	2.159	1.001	1.040	-	4.607
2025 bis 2030	434	2.130	1.084	1.030	-	4.678
2030 bis 2035	456	2.198	1.134	1.021	-	4.809
2035 bis 2040	514	2.199	1.176	1.023	-	4.913
2020 bis 2040	1.811	8.687	4.395	4.114	-	19.007
Net new labour supply from abroad in 000's						
2020 bis 2025	-27	-189	101	289	-	174
2025 bis 2030	-82	-256	34	184	-	-120
2030 bis 2035	-103	-260	26	138	-	-200
2035 bis 2040	-99	-209	8	96	-	-205
2020 bis 2040	-311	-914	168	707	-	-350

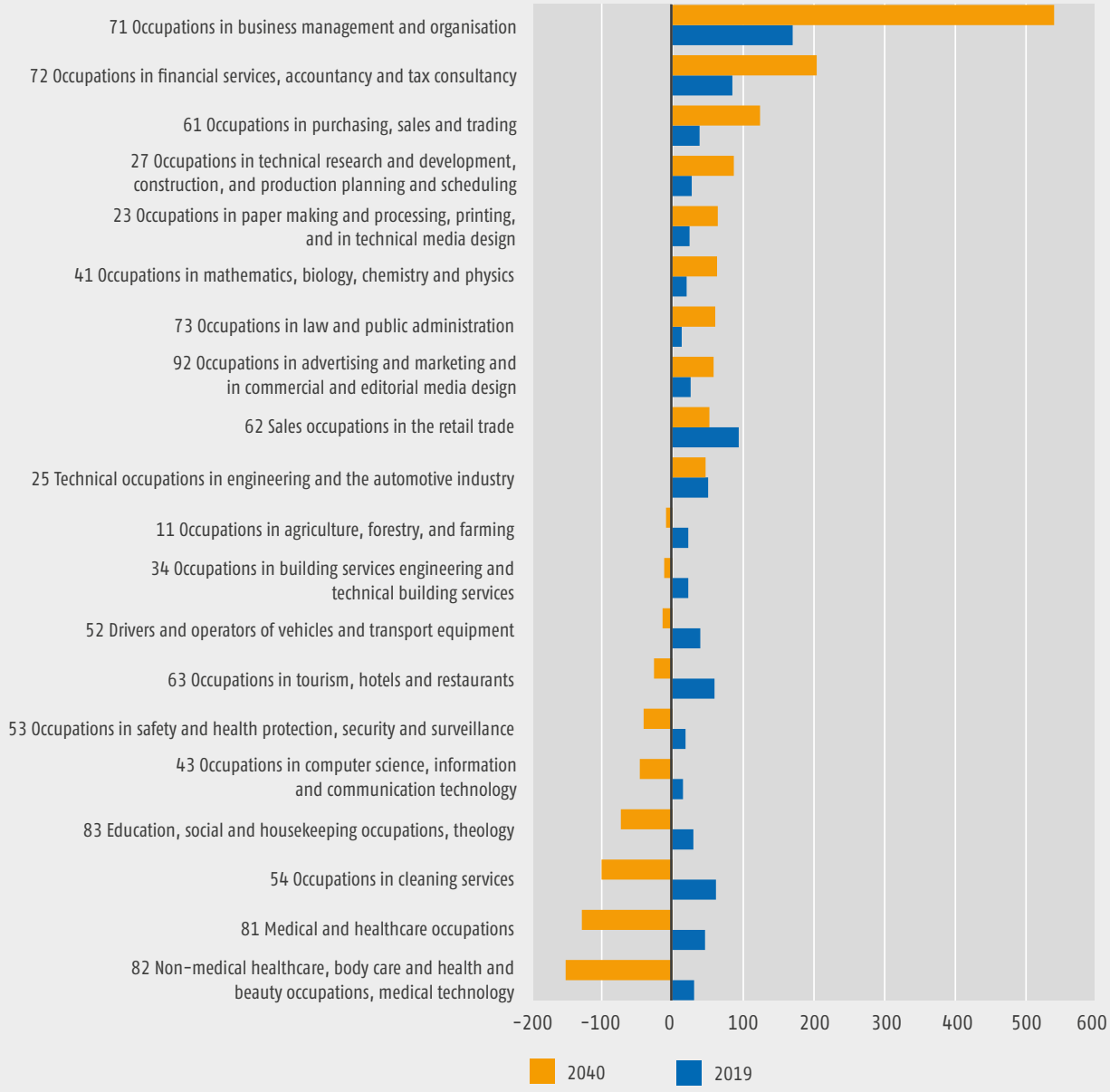
Source: QuBe Project, sixth wave VET Data Report Germany 2021

demand or the work volume requirement which is needed for production of goods or for the provision of services sought after. It is also possible to contrast the two sides of the labour market against each other. The skilled worker situation in an occupation is also depicted via the new indicator of the adjusted search duration. The results of the interactive database enquiries are presented in the form of tables, diagrams and maps and can be downloaded for further use in various file formats (SVG, PNG, HTML, CSV).

Expected population development

The QuBe Population Projection is based on the population projection of the integrated labour supply and population model developed by the Institute for Employment Research (IAB). This model indicates that the population will grow to a peak of around 84.1 million persons by the year 2030. This figure will decline to around 83.7 million by the year 2040. By way of contrast, the working age population of persons aged between 15 and 69 will decline constantly over the projection period to reach a level of only 53.4 million in 2040.

Figure A9.2-1: **Most marked labour shortages and surpluses by main occupational groups between 2019 and 2040 (in thousands of people)**



Source: QuBe Project, sixth wave

VET Data Report Germany 2021

Labour supply by qualifications

The first factor which is of relevance in terms of determining labour supply by qualifications is the number of persons leaving working life by qualifications. Labour supply is further dictated by the new supply of workers streaming into the labour market each year from the education and training system or from abroad. The sixth projection wave provides the first opportunity to differentiate this net new supply by net new supply from the domestic education and training system and net new supply from abroad. The development of these values and total labour supply in number of persons is presented in → **Table A9.2-1**, separated according to qualification levels in the projection period. This reveals that cohorts departing working life exhibit a higher formal qualification.

Development of labour supply and demand at the occupational level

The above remarks make it clear that future structural changes will become apparent on both the labour supply and labour requirements side up until 2040. In order to discover the extent to which these changes on both sides of the market match occupationally, labour supply needs to be compared with labour demand at the occupational level.

The mapping of occupational flexibilities constitutes a unique characteristic of the QuBe Project. Occupational flexibilities are used as a vehicle to portray the extent to which persons switch from the occupation in which they have trained to a different task area depending on gender, age and nationality. The occupational field in which the largest proportion of persons remain in the occupation in which they have trained (the so-called stayer proportion) is "health, social services, teaching and education", the figure here being just under 75%. The occupational areas in which the labour demand is most likely to switch are "Company organisation, accountancy, law and administration" and "Transport, logistics, protection and security".

If account is taken of these occupational mobilities, which are modelled in the projection with regard to aspects such as wage development, it is then possible to summarise labour supply and labour demand by occupations. → **Figure A9.2-1** presents a comparison for the years 2019 and 2040 between the main occupational groups with the ten largest surpluses and the main occupational groups with the ten largest shortages in 2040.

A10 Young people with a migration background and young refugees

Around 21.2 million people (26%) in the population of Germany have a migration background (see Information Box). The majority of persons with a migration background (65%) originate from a different European country, i.e. they have either migrated from such a country themselves or else are the descendants of persons who have arrived in Germany from a different European country. According to the microcensus, around one in three young people or young adults in Germany have a migration background (2019: 15 to 19 years: 35%; 20 to 25 years: 33%). A large majority (63%) of persons aged between 15 and 25 with a migration background were born and grew up in Germany. The predominant language spoken in most households with a migration background (62%) is German. Even though migration to Germany by those seeking protection continues to decline, the integration of young refugees into vocational education and training and subsequently into qualified employment remains an important educational policy task, especially in light of the challenges created by the pandemic. Young people with a migration background are a highly heterogeneous group.

A10.1 Young people with a migration background

Differences continue to be exhibited with regard to participation in training by the resident population holding German or foreign nationality who commence dual VET pursuant to the BBiG or HwO (training entrant rate). Although the training entrant rate of 38.4% for young foreign people in 2019 was virtually unchanged compared to the previous year (2018: 38.7%), it was once again significantly lower than the training entrant rate for young German people (56.3%; 2018: 56.5%). Compared to the previous year, the training entrant rate of males holding a foreign passport declined by one percentage point to 45.1% (2018: 46.2%). The difference between male training entrants with a German and with a foreign passport remains considerable and is also significantly higher than the difference between female training entrants. In 2019, the training entrant rate for males with a German passport was much higher than for males with a foreign passport (69.3% and 45.1%, respectively). The difference between female training entrants in 2019 was lower (German nationality 42.7%, foreign nationality 29.4%). Virtually no change was shown compared to the previous year for German female training entrants (2019: 42.7%, 2018: 43.5%). By way of contrast, the training entrant rate of foreign females rose by around one percentage point compared to the previous year of 2019 (2019: 29.4%, 2018 28.2%).

According to data from the Integrated Training Reporting System and taking all education sectors into account (vocational education and training, acquisition of a general higher education entrance qualification [upper secondary level]), 31.4% of all non-German training entrants were in the transitional sector in 2019. This figure is significantly higher than the average of all training entrants not in possession of German nationality (16.7%). On the other hand, entrants without German nationality were underrepresented in the sector "vocational education and training" (12.9%) and in the sector "acquisition of a general higher education entrance qualification" (6.5%) but overrepresented in the sector "higher education study".

Information Box – migration background

The Vocational Education and Training Statistics, the school statistics and the Integrated Training Reporting System record nationality rather than a migration background. The nature of this database means that statements made on persons can only be differentiated by nationality. The term "migration background" permits differentiation of persons within a migration context. The characteristic of migration background collected in empirical surveys is usually a construct comprising several variables which are each operationalised in a different way. For this reason, it is necessary in each case to disclose the criteria for the definition of a migration background and to justify their selection. The empirical investigations conducted by BIBB mostly record current nationality and native language (or first language(s) learned). Information in respect of country of birth, periods of time spent in Germany and refugee migration background is also sometimes collected.

Because official statistics are unable to provide any answers to questions regarding the transition to vocational education and training by young people with a migration background, sample surveys are used for this purpose. According to the 2020 BA/BIBB Applicant Survey, 29% of applicants with a migration background registered with the BA were in company-based VET pursuant to the BBiG or HwO as of the end of 2020 – 28% of migrant applicants with no refugee experience and 32% of migrant applicants with refugee experience. This compares to a figure of 46% for applicants without a migration background. In the case of migrant applicants, extra-company training does not help to compensate for their lower

Table A.10.1-1: **Persons aged 20 to 34 not in possession of a professional or vocational qualification by migration status 2015 to 2019 (in %)[1]**

	Year	Men	Women	Total
Germans	2015	9,8	9,2	9,5
	2016	9,8	9,0	9,4
	2017	10,0	8,6	9,3
	2018	10,0	8,6	9,3
	2019	10,1	8,8	9,5
Foreign nationals[2]	2015	30,8	31,6	31,2
	2016	33,4	33,5	33,4
	2017	33,3	32,8	33,0
	2018	33,7	32,5	33,2
	2019	34,0	32,3	33,2
Turkish nationals[2]	2015	41,5	47,4	44,4
	2016	38,9	45,3	42,0
	2017	36,0	43,4	39,6
	2018	37,1	37,0	37,0
	2019	34,8	35,3	35,0
Germans without a migrant background	2015	8,7	8,2	8,5
	2016	8,9	8,2	8,5
	2017	9,0	7,9	8,5
	2018	8,8	7,7	8,3
	2019	9,0	8,0	8,5
Migrants without any personal experience of migration	2015	21,1	17,8	19,6
	2016	20,8	18,5	19,8
	2017	20,0	16,6	18,5
	2018	17,9	14,6	16,4
	2019	18,0	14,5	16,4
Migrants with personal experience of migration	2015	29,1	30,1	29,6
	2016	31,5	30,9	31,2
	2017	32,7	31,3	32,0
	2018	33,5	32,3	32,9
	2019	34,2	32,4	33,3
Migrants of Turkish origin with no personal experience of migration	2015	27,7	22,5	25,2
	2016	26,6	23,4	25,1
	2017	25,9	21,9	24,0
	2018	26,0	19,7	22,9
	2019	23,6	18,6	21,1
Migrants of Turkish origin with personal experience of migration	2015	51,7	65,0	58,7
	2016	46,7	61,5	54,1
	2017	45,6	60,0	53,2
	2018	46,6	57,1	52,0
	2019	45,1	56,5	50,7

[1] Because of a change to the survey method, results are based on the population in private households and on data from the 2011 census. They therefore differ from those presented in earlier data reports.

[2] Includes dual nationality.

Source: Research data centres of the statistical offices, microcensuses 2015 to 2019, calculations by the Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

levels of transitions to company-based training. However, both migrant applicants with no refugee experience and migrant applicants with refugee experience were also significantly more likely to remain outside the education and training system at the end of the year. At the end of 2020, they were around twice as likely as applicants without a migration background (6%) not to be in employment subject to mandatory social insurance contributions or to be in casual work (with a refugee background: 12%, with a migration background without a refugee background: 11%) and were considerably more likely to be unemployed (without a migration background: 9%; with a refugee background: 14%; with a migration background without a refugee background: 16%). According to the BA's training market statistics, applicants with a migration background are much more likely to be amongst those whose destination is unknown than to be included in the group with a known destination (48% as opposed to 34%).

If account is taken of important factors such as application behaviour, prior school learning, region of origin and training occupations for which the young people have applied, the BA/BIBB Applicant Surveys (see Annex – Data sources) and the German National Educational Panel Study (NEPS) provide evidence that applicants with a migration background or school leavers not in possession of a higher education entrance qualification are significantly less likely than those without a migration background to progress to company-based vocational education and training. In most cases, this continues to apply 20 months after the end of general schooling. Young people of Turkish or Arab origin are particularly affected. These results point in the same direction. Despite committed search activities and longer transitional processes, young people with a migration background are less likely to progress to company-based or fully qualifying training (in all forms). These lower chances of progression to vocational education and training for young people with a migration background or from certain groups of origin cannot be definitively explained by less favourable prior learning, school achievements or meta cognitive abilities, by occupational preferences or search strategies, by the cultural and social resources that have formed objects of investigation thus far, by social origin, by support provision in the transitional process or by the regional training market situation. Even if school qualifications, final marks, training or occupational preferences, application activities, characteristics of relevance to the training market, social origin and social integration are all the *same*, school leavers not in possession of a higher education entrance qualification are less likely to obtain a training place if they have a migration background than if they do not. An effect is thus being exerted by further cause variables which lie beyond the factors taken into account, which are connected with a migration background, and which indicate structural exclusion. Chances of progres-

sion only begin to equalise amongst the (small) group of third-generation school leavers.

This also exerts an effect on placement in vocational training. Young people with a migration background are, for example, considerably less likely to progress to their preferred occupation. In addition, the general conditions governing their company-based training are frequently less favourable. They are, for instance, more likely to undergo training in occupations with a higher contract dissolution rate. This is reflected in the contract dissolution rate of trainees holding a foreign passport. In 2019, this rate was 23.6% in the probationary period, around 6 percentage points higher than the contract dissolution rate for trainees with a German passport (17.2%). In the case of foreign nationals, the contract dissolution rate in the probationary period was 11.8%. The corresponding rate amongst those holding German nationality was 8.6%. The difference between the two groups was around three percentage points. If due consideration is accorded to the less favourable school-leaving certificates of foreign trainees, to the training occupations and to other characteristics, then virtually no differences are any longer shown with regard to the number of contract dissolutions amongst dual trainees with a foreign passport as compared to those holding German nationality.

Young adults with a migration background are significantly less likely to acquire a vocational qualification. In 2019, the proportion of young adults (aged between 20 and 34) with a migration background who had grown up in Germany and had not achieved a vocational qualification, i.e. held no formal qualification, was 16.4%. This figure was twice as high as that for the comparison group of Germans without a migration background (8.5%).

Clear differences in nfQ rates by nationality are visible on the basis of the 2019 data relating to the population in private households. Whereas only 9.5% of young adults aged between 20 and 34 who hold German nationality were not in possession of a formal qualification in 2019, the corresponding figure for foreign nationals of the same age was 33.2%, more than three times higher. The proportion of Turkish nationals not in possession of a formal vocational qualification was as high as 35.0% → **Table A.10.1-1**. The rise in refugee migration in 2015 and 2016, which for methodological reasons did not become apparent in the microcensus until 2016,[27] led to an increase in the nfQ rate in the population as a whole from 2015 onwards. One particular cause was new immigration[28] of persons aged between 20 and 34 from countries affected by war and crisis such as Afghanistan, Eritrea, Iraq, Iran, Nigeria, Pakistan, Somalia and Syria.[29] In 2016, 30% of new immigrants aged between 20 and 34 came from these countries. The nfQ rate for this group was 61.7%. This contrasts with an nfQ rate of 41.1% for all new immigrants. To present a comparison, the nfQ rate for persons holding German nationality fluctuated slightly around a level of 9.5% during the period following 2015.

Finally, in interpreting these results in light of increased refugee migration over recent years, it is necessary to draw attention to the fact that new migrants in particular are underrecorded in the microcensus. The limitation to persons in private households means that all those living in joint accommodation such as reception centres are not taken into account.

A10.2 The group of applicants with a migrant and refugee background

Evaluations of the 2020 BA/BIBB Applicant Survey show that almost a third (31%) of applicants in the 2020 reporting year were categorised as other migration background. A further 6% had a refugee background. Around 37% of applicants thus had a migration background. The proportion of applicants with a migration background thus underwent virtually no change compared to 2018. This followed a significant increase from 2016 to 2018 due to the high level of refugee migration → **Figure A10.2-1**.

In the 2020 reporting year, the proportion of women in the other migration background applicant group was 41%, almost as high as the figure for the group of applicants without a migration background (39%) → **Table A10.2-1**. Because of the demographic structure of the refugees, the proportion of women amongst them (24%) was considerably lower. Nevertheless, the female proportion of refugees rose sharply compared to 2018 (2018: 15%). As in 2018, significant differences were exhibited in 2020 between the proportion of persons aged 21 and upwards.

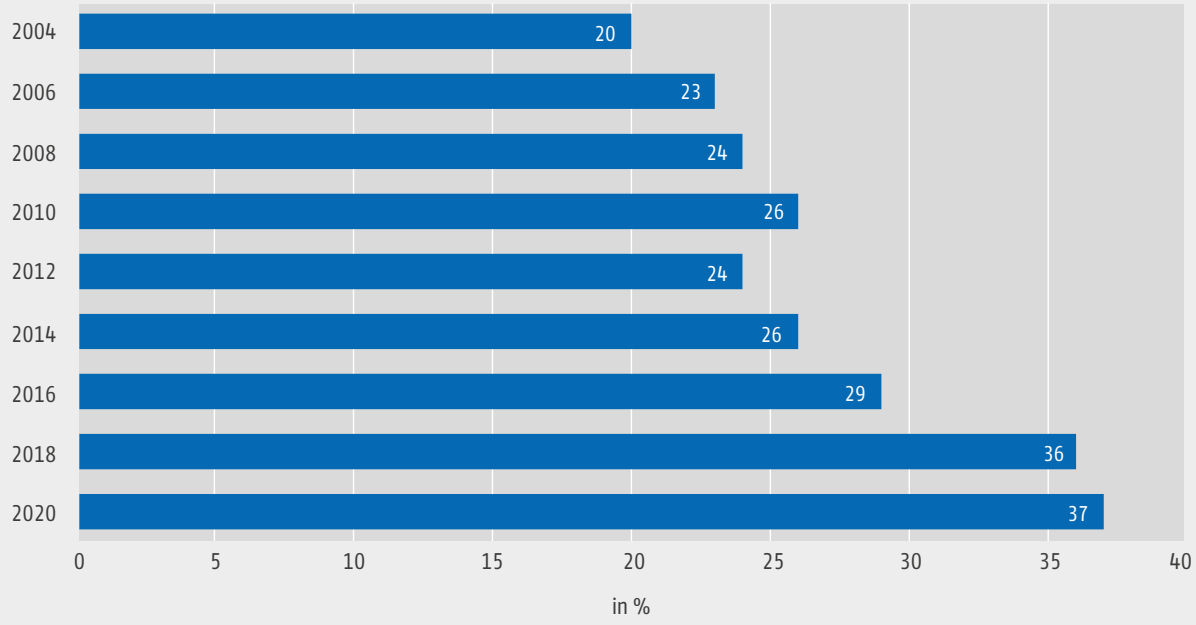
At the time of the survey, 46% of applicants without a migration background were in company-based VET pursuant to the BBiG or HwO. The corresponding proportions were lower for applicants with a migration background (other migration background: 28%; refugee background: 32%). Rates of destination in companies fell for all three groups compared to 2018. However, the other migration background applicant group was affected worst in this regard, displaying a minus of four percentage points

27 Because refugees were mostly accommodated in emergency shelters at the beginning of the migration wave, there was no possibility that they would be selected to take part in the microcensus.

28 New migrants are persons who have moved to the territory of the Federal Republic of Germany in the current or previous year.

29 The list of countries is aligned to the IAB Immigration Monitor.

Figure A10.2-1: **Number of applicants with a migration background as a proportion of all applicants from 2004 to 2020[1] (in %)**



[1] In the surveys from 2004 to 2014, missing information meant that no clarification could take place in each case with regard to approximately 1% of applicants as to whether a migrant background was in place or not. In the 2016 survey, the relevant proportion was 2%. In 2018 and 2020, it was less than 1% and 2%, respectively.

Source: BA/BIBB Applicant Surveys from 2004 to 2020; BA/BIBB Forced Migration Survey 2018; calculations by the Federal Institute for Vocational Education and Training (weighted)

VET Data Report Germany 2021

(2018: 32% as opposed to 2020: 28%). If the observation period is extended, the rate of destination in companies for applicants without a migration background is at least as high in 2020 as in the years from 2010 to 2016 and indeed in some instances is even higher. This does not, however, apply to persons with a migration background.

In the case of destination of applicants with a migrant or refugee background, a differentiation is made in the analysis between destination in forms of training and non-fully qualifying destinations. With regard to destinations in forms of training, which may also lead to a fully qualifying (vocational) qualification, virtually no changes are shown compared to 2018. 5% of applicants without a migration background were in extra-company or full-time school-based vocational education and training pursuant to the BBiG or HwO, or in training in the school-based occupation system[30] or in other VET outside the BBiG/HwO. A further 4% were studying at a university, a university of applied sciences or a university of cooperative education. 4% of other migration background applicants were completing extra-company training pursuant to the BBiG or HwO or training in the school-based occupation system, and 3% were studying.

The corresponding proportions for refugees were 5% (extra-company training), 4% (training in the school-based occupation system) and 1% (higher education study).

Almost no changes compared to 2018 were revealed in non-fully qualifying destinations either. Conspicuously, however, more persons were unemployed in 2020 than in 2018. This was true for 9% of persons without a migration background (2018: 7%), for 16% of other migration background applicants (2018: 12%) and for 14% of refugees (2018: 9%). In the case of the refugees, it is also revealed that only 1% completed introductory training in 2020. This contrasts with a figure of 4% in 2018. This decrease could exert a negative impact on access to company-based training since introductory training materially increases the chances of refugees of progressing to a company-based training place.

30 This refers to VET outside the scope of the BBiG/HwO, i.e. governed by other provisions under federal or federal state law.

Table A10.2-1: **Characteristics of applicants by migration and refugee background in the 2020 reporting year (in %)**

Characteristics	Applicants without a migrant background	Applicants with a migrant background	Applicants with a refugee background
	in %	in %	in %
Gender			
Male	61	59	76
Female	39	41	24
Age			
Aged 16 and under	24	15	4
17 years	22	18	8
18 years	14	17	10
19 to 20 years	23	25	19
Aged 21 and over	17	24	59
Missing information	1	1	1
Unplaced applicants from previous years			
Unplaced applicants from previous years	23	27	30
First-time applicants	73	67	60
No allocation possible	3	7	10
Highest school-leaving qualification			
(As yet) no school qualification	3	4	9
Lower secondary school-leaving certificate	25	33	46
Intermediate secondary school-leaving certificate	51	42	27
University of applied sciences or general higher education entrance qualification	21	20	14
Cannot be aligned or information missing[1]	<1	2	5
Total[2]	**100**	**100**	**100**

[1] Including foreign qualifications where it is unclear whether these are recognised in Germany and qualifications where it is not clear whether these are German qualifications or foreign qualifications.
[2] Discrepancies as a result of the rounding up or down of figures mean that the total of the individual percentage proportions does not always add up to precisely 100%.
Source: 2020 BA/BIBB Applicant Survey; calculations by the Federal Institute for Vocational Education and Training (weighted) VET Data Report Germany 2021

A10.3 Integration of refugees into training

As in previous years, immigration to Germany of persons seeking protection fell once more in 2020. The Federal Office for Migration and Refugees (BAMF) registered the submission of around 103,000 asylum applications in 2020. This was the lowest number since 2013. Although immigration to Germany of persons seeking protection fell sharply in the years following 2015 and 2016, the education and labour market policy challenges associated with the integration of young refugees into training and work still persist.

During the reporting year, the effects of the coronavirus pandemic added further challenges with regard to integration of refugees into training. On the training market, companies registered 50,000 fewer places than in the 2019 reporting year. In sectors such as hotels and hospitality, which were particularly impacted by the lockdown regulations introduced as a result of the coronavirus pandemic, the number of training contracts concluded in the 2020 reporting year in occupations such as specialist in the hotel business, professional caterer or cook was significantly lower than in the previous year. These are training occupations which are relatively popular with trainees who are nationals of a country of asylum seeker origin.

Knowledge as to the extent to which refugees participate in the "preparation for training" sector and with regard to which specific measures they may have undertaken or completed has been sketchy thus far on the basis of the official data. This is because migration backgrounds are not recorded statistically. More detailed information on participation by refugees in transitional measures of the BA (see Information Box) is provided by the BA's funding statistics. The statistical population of the funding statistics is made up of instances of funding or participations by persons in active labour market promotion measures (§ 3 Paragraph 2 SGB II) and in integration benefits of the Federal Government (§§ 16 to 16g SGB II). The statistics tell us that an annual average of 22,000 persons within the context of forced migration participated in career entry support, in assisted training, in vocational preparation schemes, in introductory training or in training support measures between September 2019 and August 2020 → **Table A10.3-1**.

Information Box – BA measures mainly aimed at refugees

The BA has designed measures which are predominantly directed towards refugees within the scope of its "measures aimed at facilitating the entry of people into the labour market and at achieving professional and occupational integration". These can be demonstrated in the BA funding statistics for employment agencies and for job centres operating as joint institutions. No data relating to these measures is available for job centres run under the sole responsibility of an authorised local government provider.

Perspectives for refugees (PerF) This is a twelve-week measure aimed at assessing the professional competencies of participants. Competency assessment takes place at the company. The providers of the measure also identify occupationally related knowledge of German, offer assistance with orientation on the German labour market and give guidance on the preparation of application documentation.

Perspectives for young refugees (PerjuF) The goal of this measure, which is of a duration of six to eight months, is to connect young refugees with the training market. Important components include assessment of competencies and predispositions, the imparting of occupationally related language skills, application training, prevention of addiction and debts and the basic principles of living a healthy lifestyle. The measure also stipulates deployments at companies, during which participants are able to gather practical experiences.

Perspectives for young refugees in the craft trades (PerjuF-H) This measure forms part of the "Routes into training for refugees" instigated by the BMBF, the BA and the German Confederation of Skilled Crafts (ZDH). The objective is to prepare young refugees for vocational education and training in the craft trades. Within the scope of PerjuF-H, participants spend between four to six months at a company in order to gain initial experiences in occupational areas in the craft trade sector, such as metal working electrical engineering or wood.

"Competence assessment, early entry to the labour market and language acquisition" (KompAS) Depending on the way in which it is implemented at a local level, KompAS includes activities relating to competency assessment and to introducing participants to the German training and employment system and to the country's usual social norms and culture. A further objective is to create contacts with various organisations such as companies, local authorities, advisory bodies and chambers. The measure extends over a period from 200 to 400 hours. Participation takes place in parallel with a BAMF integration course. As well as being aimed at refugees, the funding is directed towards persons who have no knowledge or only insufficient command of German, such as German nationals with a migration background.

Cooperation model with continuing training providing occupational connectivity (Kommit) The essential element of Kommit is a four to twelve-week company-based piloting phase to assess the competencies of participants and guide them towards an occupational activity. The company-based piloting phase is preceded by a twelve-week preparatory course at the premises of the provider of the measure. Participants receive personal support whilst performing their tasks at the company. The aspiration following completion of the measure is for the company to offer the participants employment subject to social insurance contributions. This measure is aimed at refugees, low-skilled persons and persons with a migration background.

Combination of occupationally-related language support for young refugees (KomjuF) The Instrument "Combination of occupationally-related language support for young refugees" is similar to other programmes designed for refugees in that it aims to impart language skills and knowledge of the German training and labour market. Funding is directed towards refugees aged under 35 with the objective of helping them to make a career choice and to prepare for training. Duration of participation is six to eight months.

Table A10.3-1: **Number and entries of participants in selected labour market policy instruments, September 2019 to August 2020**

Labour market policy instruments	Number (twelve-month average)										Entries (twelve-month average)		
		Including		Including (in %)								Including	
	Total number of participants	Persons within the context of forced migration	in %	Men	Women	Not achieved lower secondary school-leaving certificate	Lower secondary school-leaving certificate	Intermediate secondary school-leaving certificate	university of applied sciences or general higher education entrance qualification	No response	Total number of participant entries	Persons within the context of forced migration	in %
Germany													
Federal Employment Agency (BA) career choice and VET measures[1]	**140.276**	**22.047**	**15,7**	**81,5**	**18,5**	**17,9**	**47,6**	**11,0**	**12,8**	**10,6**	**117.910**	**18.809**	**16,0**
Career entry support	50.632	3.473	6,9	51,1	48,9	5,1	77,7	10,8	0,6	5,9	17.205	1.256	7,3
Assisted training	9.304	3.578	38,5	90,5	9,5	19,7	43,3	10,6	15,2	11,2	5.711	1.960	34,3
Vocational preparation schemes	31.556	1.380	4,4	70,9	29,1	29,5	49,1	15,9	4,1	1,4	50.065	2.604	5,2
Introductory training	8.805	2.691	30,6	83,0	17,0	22,2	42,8	11,5	16,6	6,9	13.688	3.595	26,3
Training support measures	39.980	10.925	27,3	89,0	11,0	18,9	40,4	10,4	16,2	14,0	31.241	9.394	30,1
BA measures mainly aimed at refugees	**1.328**	**920**	**69,3**	**67,4**	**32,6**	**31,5**	**25,1**	**5,7**	**14,9**	**22,8**	**4.358**	**2.934**	**67,3**
Perspectives for refugees (PerF) (only in SGB III)	260	203	78,4	84,1	15,9	32,4	13,6	5,9	18,2	29,7	1.254	988	78,8
Perspectives for young refugees (PerjuF)	292	262	89,7	79,6	20,4	32,5	42,1	6,7	10,8	7,8	874	770	88,1
Perspectives for young refugees in the craft trades (PerjuF-H)	*	*	*	*	*	*	*	*	*	*	22	19	86,4
Perspectives for female refugees	234	141	60,5	0,0	100,0	28,6	9,6	3,9	17,7	40,2	506	282	55,7
Competency assessment, early entry to the labour market and language acquisition (KompAS)	27	7	25,8	72,6	27,4	29,8	9,5	0,0	23,8	36,9	72	11	15,3
Combination of occupationally-related language support	261	173	66,2	76,4	23,6	29,8	13,9	5,3	33,0	18,0	405	281	69,4
Cooperation model with continuing training providing occupational connectivity (Kommit)	255	129	50,7	76,7	23,3	29,4	12,5	6,6	37,0	14,4	1.225	583	47,6
Combination of occupationally-related language support for young refugees (KomjuF)	*	*	*	*	*	*	*	*	*	*	*	*	*

Figure values lower than 3 which arithmetically permit the conclusion of such a value are anonymised for reasons of data protection.

[1] Not including results relating to participation in vocational orientation measures pursuant to § 48 SGB III.

Source: Federal Employment Agency, funding statistics, data and district status: December 2020, calculations by the Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

Part B: Continuing vocational education and training indicators

B1 Key facts on continuing education and training

- The **Climate Index** of the 2020 **Continuing Training Monitor** shows that the continuing education and training sector was also badly affected by the coronavirus pandemic. Compared to the previous year, the Climate Index tumbled by 57 points to -13 and entered negative territory for the first time. This meant that the mood in the continuing education and training sector was worse than that in the service sector in overall terms.
- In 2019, **course provision at adult education centres** includes 45,362 courses in the programme area of "Skills for working life – IT – organisation/management".
- Within the scope of labour market policy instruments, training is funded by the employment agencies pursuant to German Social Security Code III (SGB III), and by the job centres pursuant to Security Code II (SGB II). In 2019, there were 330,643 entries to **measures for the promotion of continuing vocational training** pursuant to SGB II and SGB III. This constitutes an increase of 8.7% compared to the previous year.
- In 2019, around 167,000 persons received funding within the scope of the **Upgrading Training Assistance Act (AFBG)**. This corresponded approximately to the level of the previous year.
- In 2020, 6,078 persons who had completed training in various occupations were accepted into the **continuing training scholarship** funding programme. There were 1,014 new entries to the **advanced grant programme**.
- Around 385,000 training grant vouchers and 29,000 savings vouchers were issued via the **Continuing Education Grant Programme** up until the end of December 2020. Significantly more women than men participate in this programme.

B2 Continuing education and training providers

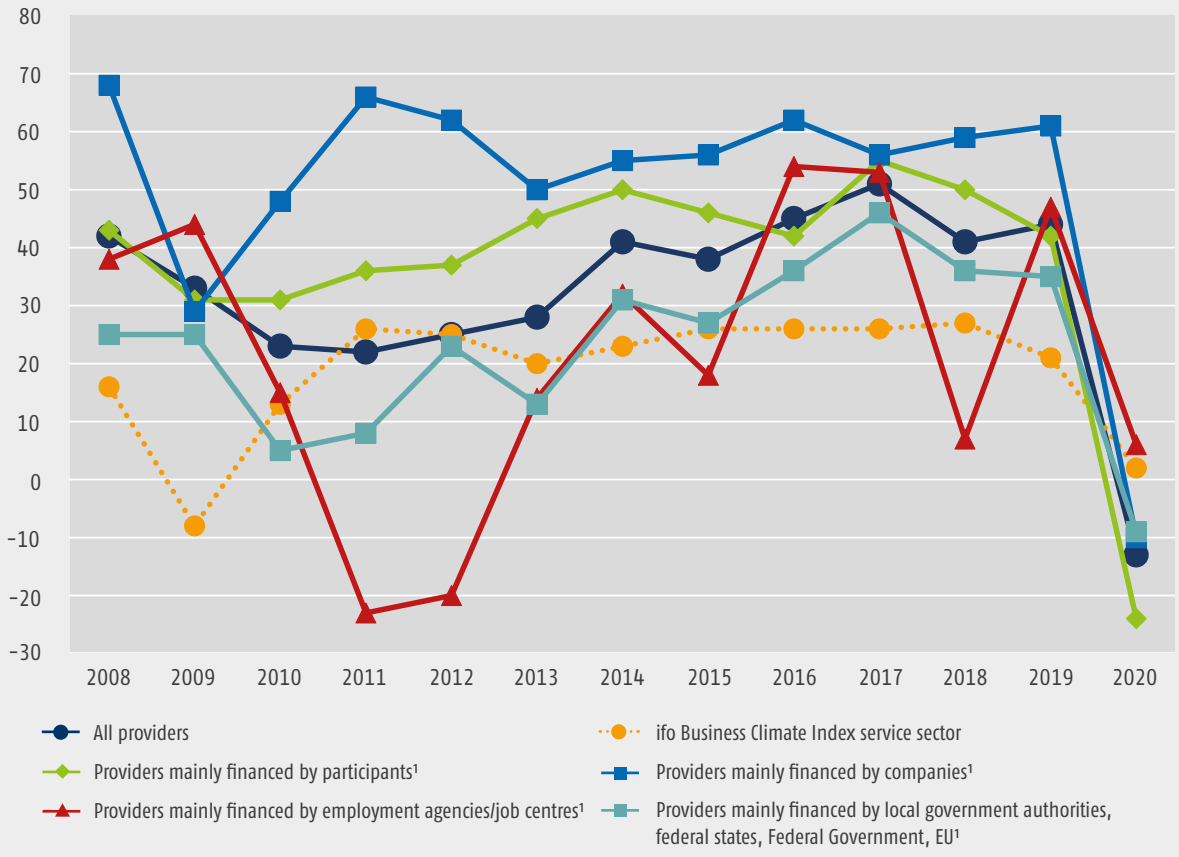
B2.1 Continuing education and training providers – results of the 2020 Continuing Training Monitor

The main thematic focus of the 2020 **Continuing Training Monitor** was on "Coronavirus – impacts on continuing education and training providers" (see Annex – Data sources). This looked at the reactions of continuing education and training providers to the pandemic situation until the summer of last year. In addition, this year's survey also once again reviewed the economic climate in the continuing education and training sector and collected fundamental structural data on continuing education and training providers. The results presented below are based on weighted and extrapolated data from 1,925 institutions.

Economic climate and provider structure within the focus of the Continuing Training Monitor

The continuing education and training sector had been badly affected economically by the impacts of the coronavirus pandemic up until the time of the survey in the summer of 2020. The overall Continuing Training Monitor Climate Index for continuing education and training providers (see Annex – Data sources) tumbled from 57 to -13 compared to the previous year. This was the first time a negative value had been recorded → **Figure B2.1-1**. Assessment of the current economic situation was -23, a serious score which was obviously mainly caused by losses of revenue incurred because provision could only be partially realised. The expectation value of -3 reflects the fact that providers are not expecting any improvement over the coming twelve months and to this extent assumed as early as the summer of 2020 that continuing training operations would suffer longer-term impairments in the wake of the pandemic. Changes in demand, such as delayed investments in continuing train-

Figure B2.1-1: **Development of Continuing Training Monitor Climate Index values from 2008 to 2020**



¹ 50% or more of revenues in continuing training originate from the financing sources stated.
The climate values are informed by evaluations of the current and future situation. They may fluctuate between -100 and +100. Higher values indicate a better climate.
Source: BIBB/DIE Continuing Education and Training Monitor 2008 to 2020;ifo Business Climate Index service sector 2008 to 2020 VET Data Report Germany 2021

Table B2.1-1: **Climate Index, economic situation and expectation for selected sub-groups of continuing education and training providers 2020**

		Climate Index	Situation	Expectation	Number of providers (situation)
		Averaged by situation and expectation	Balance[1] positive/negative	Balance[1] better/worse	Extrapolation on the basis of providers
All providers		-13	-23	-3	1.319
Revenues/contributions from participants	No revenues	4	-4	12	223
	1% to 25%	-11	-24	2	465
	25% to 49%	-15	-21	-8	198
	50% and more	-24	-33	-15	390
Revenues/contributions from companies	No revenues	-17	-17	-17	487
	1% to 25%	-14	-27	0	361
	25% to 49%	-7	-17	4	102
	50% and more	-10	-31	13	326
Revenues/contributions from employment agencies/ Job Centres	No revenues	-16	-22	-10	830
	1% to 25%	-15	-33	5	257
	25% to 49%	-14	-24	-3	57
	50% and more	6	-9	22	132
Revenues/contributions from local government authorities, federal states, Federal Government, EU	No revenues	-5	-17	9	596
	1% to 25%	-24	-38	-9	262
	25% to 49%	-30	-40	-19	139
	50% and more	-9	-11	-7	279
Type of institution	Private sector commercial	-7	-27	15	385
	Private sector not-for-profit	-12	-22	-2	200
	Company-based training institute	2	-7	11	49
	Business related (chamber, guild, professional association or similar)	-3	-17	13	116
	Adult education centre	-36	-42	-29	208
	Vocational school, institute of higher education/ university of applied sciences, university of cooperative education	36	44	28	96
	Church, political party or trade union institution, foundation set up by an association or society	-21	-25	-16	241
Main alignment of the continuing training provision	Vocational	-2	-16	14	620
	General	-31	-32	-29	278
	Vocational and general	-22	-31	-13	267
	Continuing training is an ancillary task	4	-6	15	147
By way of comparison	ifo (Institute for Economic Research) Business Climate Index service sector	2	2	1	

[1] The balance is the difference between the positive and negative proportional values and has a theoretical range from +100 to -100.

Source: BIBB/DIE Continuing Education and Training Monitor 2020,
extrapolated values on the basis of n = 1,319 valid responses; ifo Business Climate Index service sector (monthly values for July)

ing and the adjustment of general legal conditions to the pandemic situation are likely to have played a part in the structuring of provision.

This meant that, at the time of the survey, the economic mood was worse in the continuing education and training sector than in the service sector as a whole for the first time since 2011. The comparison with service sector companies in overall terms makes it clear that continuing training is an area which has been particularly badly affected economically by the consequences of the pandemic.

A differentiated consideration by the various main financing sources of the providers shows a collapse in the economic climate across all segments. The decline in segment-specific climate values compared to the previous year ranged from 41 points for institutions mainly operating on behalf of the employment agencies and job centres to 71 points for providers predominantly funded by company customers. There was also an above-average fall of 66 points amongst providers primarily financed by participants or self-payers (all providers: a decrease of 57 points). This makes it clear that the pandemic situation has exerted a particularly strong business effect on the privately financed continuing education and training sector.

According to the 2020 Continuing Training Monitor, occupationally-related continuing training was a main task for two thirds of providers. Continuing vocational education and training was one field of work or business alongside others for one quarter of providers.

With regard to distribution by types of provider, the information which emerged from the **Continuing Training Monitor** revealed clear differences in respect of whether continuing vocational training is a main or ancillary task of the institution. Private sector institutions made up more than half of providers which mainly focus on the delivery of continuing vocational education and training (main task). 38% were profit-oriented and 17% were not-for-profit institutions. Chambers and guilds or the training centres of such institutions (11%) and joint institutions run by groups such as trade unions and associations (10%) each accounted for one tenth of providers whose main task is continuing vocational education and training.

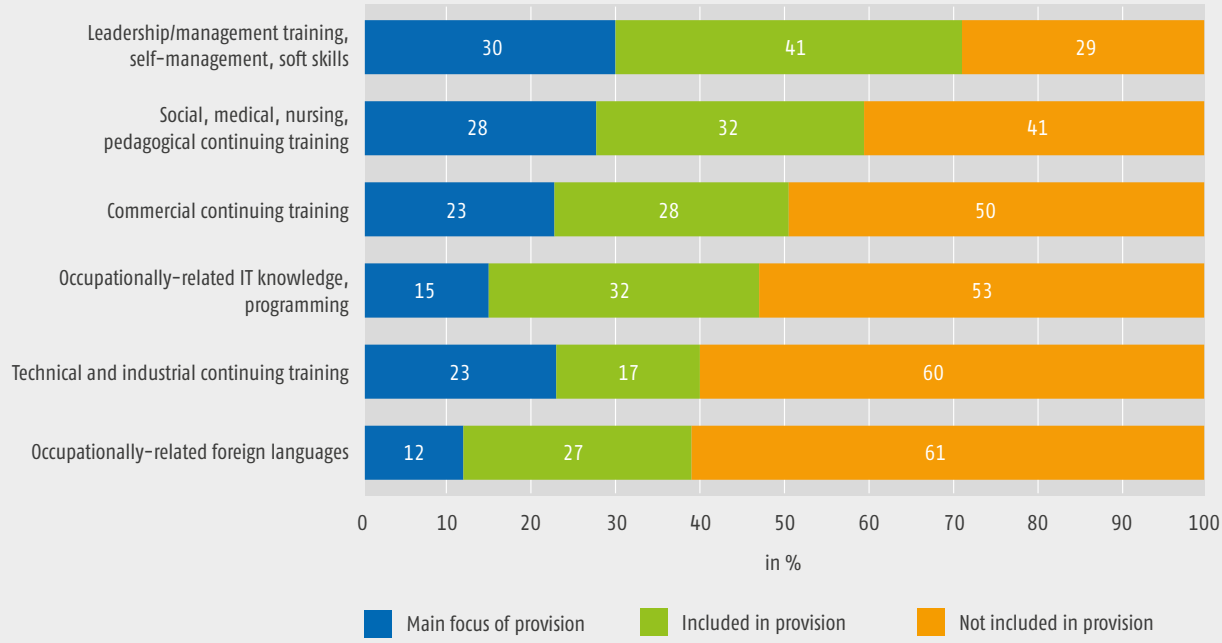
By way of contrast, institutions which categorise continuing vocational training as an ancillary task, adult education centres and collaborative providers displayed the highest proportions, each making up one quarter (25%). The fact that the latter was significantly more likely to view continuing vocational training as a main task corresponds with results from the continuing training statistics of the German Protestant Working Group for Adult Education and the Catholic Federal Working Group for Adult Education, which show that comparatively low proportions of the provision implemented in the continuing training institutions of these associations are occupationally aligned. Private providers also accounted for a quarter of institutions offering continuing vocational education and training as a subordinate work or business area (commercial 12% and not-for-profit 13%). The remaining quarter was made up of vocational schools (9%), chamber institutions (9%), institutes of higher education, universities of applied sciences or universities of cooperative education (4%), company-based training institutes (3%) and other state providers (1%).[31]

In line with the diversity of types of institutions, the thematic spectrum of provision of continuing vocational education and training is very wide ranging and can only be mapped in broad terms by the **Continuing Training Monitor**. Providers of continuing vocational training often have different business and financing strategies in place with private customers and with public clients or funding bodies → **Table B2.1-1**.

The most common focus on private customers amongst all provider types of continuing vocational education and training was observed in the case of chamber institutions, private sector commercial providers and the institutes of higher education, universities of applied sciences. In the case of the training centres of the chambers or of their continuing training area, in 2019, 40% drew a majority of funding from participants or self-payers. 29% received most of their financing from company customers. By way of contrast, 39% of private sector commercial providers derived the bulk of their funding for companies. This was almost twice as high as the amount which originated on the basis of individual participations (21%). Half (51%) of the institutions offering academically-based continuing training were reliant on participation fees paid by individuals. 13% of such institutions had a customer base primarily made up of companies. Just under one in two (44%) of company-based training institutions were predominantly financed from private contributions. The vast majority (74%) of vocational schools (trade and technical schools) was mainly financed via public funding. This correlates with the fact that participation in regulated upgrading training programmes is usually free of charge. The highest proportions of providers principally operating on behalf of the employment agencies or job centres were found amongst commercial or non-profit institutions in the private sector (22% in each case).

31 Difference to 100% because of rounding.

Figure B2.1-2: **Thematic areas of continuing vocational education and training (in %; basis: providers of continuing vocational education and training)**



Source: BIBB/DIE Continuing Education and Training Monitor 2020, extrapolated values on the basis of n = 1,734 valid responses VET Data Report Germany 2021

B2.2 Continuing vocational training services given by adult education providers

B2.2.1 Continuing vocational education and training at adult education centres

In accordance with the relevant federal state laws, adult education centres play a particular role in the provision of continuing training to the population in many federal states. Fundamental responsibility for continuing vocational education and training lies with the Federal Government, whilst the federal states are in charge of general and political continuing training. Nevertheless, the continuing training laws of the federal states normally stipulate that continuing vocational education and training is an area which is eligible for funding. The adult education centre statistics (see Annex – Data sources) have been in existence since 1998 and are used to depict the equipment and provision of adult education centres.

In terms of content, more than half (54.2%) of the courses were assigned to the specialist area of IT media basic principles/general applications. Just under half (50.2%) of the course participations were located here, too. This specialist area accounted for a proportion of

Table B2.2.1-1: **Courses offered in the programme area of "Skills for working life – IT – organisation/ management" at adult education centres, 2018 and 2019**

Year	Courses	Of which in commissioned and contracted measures	Hours of teaching	Of which in commissioned and contracted measures	Take-up	Of which in commissioned and contracted measures
2018	45.321	5.943	1.205.225	397.077	371.223	65.404
2019	45.362	6.400	1.128.239	324.903	360.183	64.545

Source: Adult Education Centres Statistics Database (German Institute for Adult Education, DIE) 2018, 873 VHS; 2019, 879 VHS BIBB VET Data Report Germany 2021

28.3% of teaching hours because shorter courses mainly took place.

Generally speaking, women made more use of adult education centre provision than men (in 2019, women accounted for 74.2% of course participations). The female proportion in the programme area of "Skills for working life – IT – organisation/management" is lower than in course participations as a whole. Just under two thirds, or 65.2%, of course participations in this area in 2019 were by women.

B3 Publicly funded continuing training

B3.1 Continuing vocational education and training measures funded pursuant to SGB III and SGB II

Training within the scope of labour market policy instruments is funded via the employment agencies in accordance with German Social Security Code III (SGB III). Support provided by the job centres for persons who are capable of work but require assistance takes place pursuant to German Social Security Code II (SGB II – see Information Box). As of 1 January 2019, the Skills Development Opportunities Act expanded the possibilities for the funding of continuing vocational education and training for employees. Guidance provision for workers (continuing training guidance) and for employers (labour market consultancy) were also extended by dint of this law. The aims of these measures are to help improve employability in a timely and preventative way, to counter the occurrence and reinforcement of unemployment, and to make companies aware of their adjustment and training needs. Funding for employed workers was also redefined.

Information Box – conditions of funding

Funding of continuing vocational education and training is governed by §§ 81 ff. of Social Security Code (SGB) III. The prerequisite for funding by the BA is an assessment that continuing training will help achieve occupational integration or avert impending unemployment. Unemployed workers may also be funded in order to improve individual employability via the expansion of their occupational competencies if this is "appropriate given the situation and development of the labour market" (§ 81 (1) SGB III). Employees can receive funding for the acquisition of a vocational qualification via the second-chance route if they are not in possession of such a qualification (or if there is a prospect that they will no longer be employed in their occupation after a period of several years of unskilled or semi-skilled work) and provided that they are suited to the occupation and that there is an expectation that the vocational qualification will improve employment opportunities (cf. § 81 (2) SGB III). Guidance from the employment agency also needs to have taken place, and both the measure and the provider must be authorised for the funding.

Funding for employed workers is governed by § 82. Prerequisites here include a requirement that the skills, knowledge and competencies imparted should extend beyond short-term upgrading training which is exclusively workplace related. The measure must also be conducted outside the company or by an authorised provider and must be of a duration of more than 120 hours. Numerous factors determine the amount of continuing training costs and of any grants to supplement pay that will be met by the BA or the company. These particularly include company size, characteristics of the employee and the existence of a company agreement or of a collective wage agreement that covers continuing training.

If the prerequisites for funding are in place, a training voucher will be issued to guarantee that continuing training costs will be met. The training voucher may be time-limited or restricted regionally or to certain training objectives.

Persons eligible for funding include both employees who are funded by the employment agencies pursuant to SGB III and persons who are capable of work but require assistance pursuant to SGB II. Within the legal scope of SGB II and as a departure from the usual training voucher procedure, continuing training measures may be assigned if the suitability and personal life circumstances of job seekers require this and if no appropriate measure is available. The aim here is to facilitate participation in continuing training by groups of persons who are detached from the labour market (cf. § 16 (3a) SGB II). Separate funding conditions apply to special programmes of the BA.

BA funding statistics

Funding of continuing vocational education and training is differentiated into three categories.

1. Continuing training leading to a qualification – retraining delivered by a provider and company-based individual measures resulting in a qualification in a state-recognised training occupation.
2. Qualifications-oriented continuing vocational training – continuing training courses leading to a certified partial qualification.
3. Other continuing vocational training – Including occupationally-related cross-cutting continuing training programmes, occupational upgrading training courses and measures aimed at the promotion of basic competencies which prepare for commencement of continuing vocational training leading to a qualification.

Occupationally-related cross-cutting continuing training and the acquisition of partial qualifications are recorded by the BA but not by the authorised local government providers. The funding statistics collect data on instances of funding or participations by persons in active labour promotion measures. Instances of funding or participations are recorded rather than persons. This means that someone who receives more than one funding benefit during a period or at a point in time will be counted more than once.

The labour market policy instruments which facilitate training for persons covered by the legal sphere of SGB II and SGB III include continuing vocational education and training, continuing vocational education and training for disabled persons and ESF training during periods of short-time working → **Table B3.1-1**.

Funding of continuing vocational education and training

Funded continuing vocational education and training has undergone relatively constant development over the past nine years following a temporary rise in funding which reached its zenith in 2009. In 2019, the number of entries to continuing vocational education and training measures rose slightly compared to the previous year (+8.7%). Average annual total numbers have also remained relatively constant over the past seven years, during which time the tendency has been for a growth in participants within the scope of the legal sphere of SGB III. During the reporting period, the number of measures funded pursuant to SGB III as a proportion of average annual total numbers has ranged from about 49.4% (2012) and the current level of 65.2%.

There was virtually no change in the proportion of female entrants to funded continuing vocational education and training measures compared to the previous year. In 2019, there was a slight rise in the proportion of entries to measures leading to a qualification in a recognised training occupation. It should be remembered that the figure for "continuing vocational training leading to a qualification" encompasses both groups and company-based individual retraining programmes. Measures which offer preparation for participation in an external examination and certified partial qualifications are not included. In 2019, persons without a vocational education and training qualification accounted for 40.9% of entries to funded continuing vocational education and training (2018: 39.7%).

In 2019, the proportion of entries accounted for by persons aged under 25 was slightly below the level recorded for the previous year (2018: 7.2%). The focus of support given to persons under 25 with skills requirements is on placement in vocational education and training. The number of foreigners as a proportion of entries to continuing training rose once more, from 23.7% to 26.2%. In 2019, the proportion of long-term unemployed fell further from 10.3% to 9.2%.

Because low-skilled persons still have poorer opportunities on the labour market – the rate of unemployment amongst persons without a vocational education and training qualification in 2019 was 17.7%, and 52% of all unemployed persons were not in possession of a vocational training qualification – the BA supports both unemployed and employed workers by providing retraining, partial qualification courses and preparatory courses for the external examination which lead to a vocational qualification either directly (continuing training resulting in a qualification) or via partial stages (qualifications-oriented continuing vocational training). 52,236 entries to continuing training leading to a qualification and 74,993 entries to qualifications-oriented continuing vocational training were recorded in 2019. The Future Starter initiative provides an additional way of addressing young adults aged between 25 and 35 who do not have a vocational qualification.

Funding can be provided for training courses in occupations for which a training duration of at least two years is stipulated in accordance with regulations under federal or federal state law. Since 1 August 2016, continuing training grants of €1,000 or €1,500 have been payable for the successful completion of intermediate or final examinations following continuing vocational education

Table B3.1-1: **Participation in continuing vocational education and training under the legal sphere of SGB III and SGB II in the year 2019**

	Number of participants (annual average)			Admissions/entries/approvals (annual total)		
	Total	SGB III	SGB II	Total	SGB III	SGB II
Continuing vocational education and training 2019, including:	181.409	125.529	55.880	356.901	234.590	122.311
Funding of continuing vocational education and training	159.154	103.701	55.454	330.643	208.965	121.678
Of which general rehabilitation continuing training measures	6.142	4.430	1.712	6.230	4.068	2.162
Grant to supplement the pay of employees in continuing vocational education and training	22.255	21.829	426	26.258	25.625	633

Source: Federal Employment Agency 2020a: Labour market 2019 VET Data Report Germany 2021

Table B3.1-2: **Continuing training of employed workers – basic funding**

	Smallest category of company	Small and medium-sized enterprises	Larger companies	Major companies
	< 10	< 250	> 250	> 2.500
Payment of course costs	Up to 100 %	Up to 50 %	Up to 25%	Up to 15 %
Grant to supplement pay (during the continuing training)	Up to 75 %	Up to 50 %	Up to 25 %	Up to 25 %

Source: SGB III 82 (2), (3) VET Data Report Germany 2021

and training. Data is only currently published for funding within the legal sphere of SGB III. During the period from August 2016 to December 2019, 1,795 continuing training grants were recorded as being paid for exits to an intermediate examination. 18,996 continuing training grants were paid for exits to a final examination, and 10,570 continuing training grants were paid for exits to an intermediate and to a final examination.

§ 82 (1) stipulates the following prerequisites for assumption of continuing training by the BA.

1. Skills, knowledge and competencies imparted should extend beyond short-term upgrading training which is exclusively workplace-related.
2. Acquisition of a recognised vocational qualification should normally have been at least four years previously.
3. The employee has not taken part in continuing vocational training funded in accordance with this provision during the past four years preceding submission of application.
4. The measure should be conducted outside the company or by an authorised provider and must be of a duration of more than 160 hours.
5. The measure and the provider of the measure are authorised for the funding.

The amount of the basic funding is dependent on company size. In the case of companies with fewer than 250 employees, cost sharing by the employer may not be required if the employee is aged 45 or over when participation commences or if the employee is disabled. Grants to supplement pay for the continuing training of persons in employment may be funded in full if employees meet the requirements for continuing training funding because they do not have a vocational qualification. Such grants also include the flat-rate employer proportion of the overall social insurance contribution. The employer's minimum participation in the course costs is reduced if a company agreement on continuing vocational education and training or a collective wage agreement stipulating continuing vocational training is in place and if the company has an increased need for continuing training.

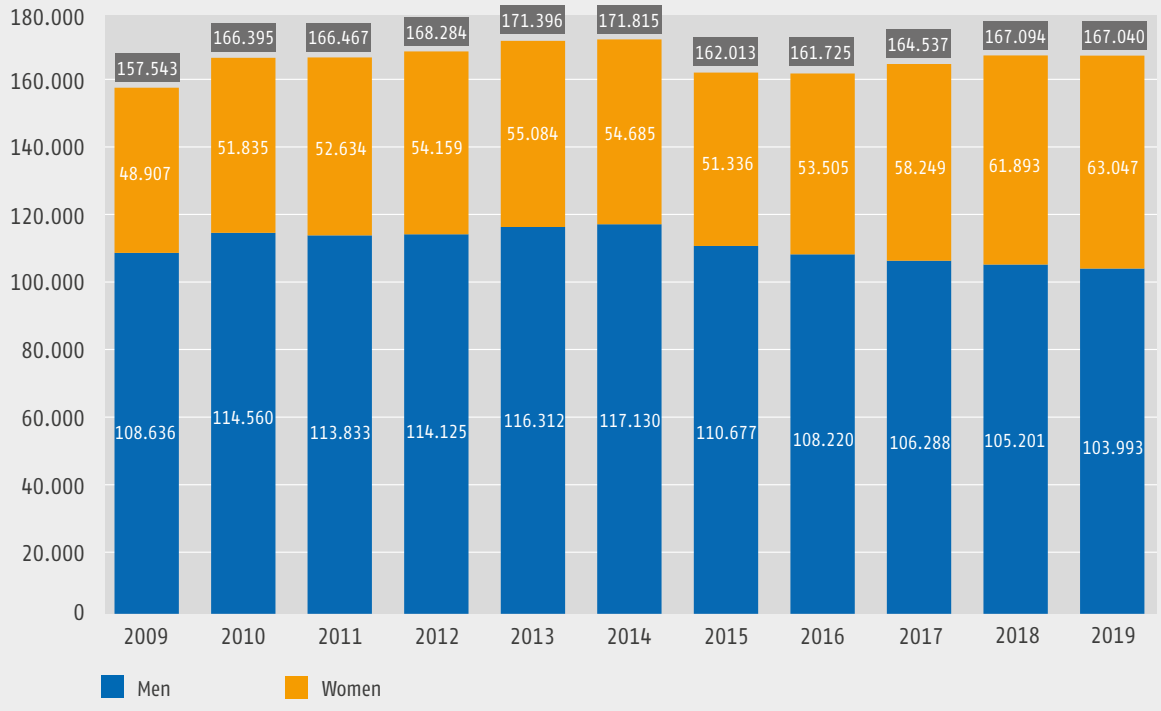
B3.2 Funding and take-up of upgrading training

The Upgrading Training Assistance Act (AFBG) – referred to in German as the "*Meister- oder Aufstiegs-BAföG*" – is jointly financed by the Federal Government and the federal states and has been in existence since 1996. It provides for an individual right, irrespective of age, to funding of upgrading training courses – i.e. courses leading to a master craftsman qualification or other programmes to prepare for a comparable advanced training qualification (see Information Box). According to the AFBG statistics published in July 2020, funding for 167,040 persons was approved in 2019. These comprised 85,580 (51.2%) persons who had applied for a full-time measure and 81,460 (48.8%) who had applied for a part-time measure.

Information Box – Upgrading Training Assistance Act (AFBG)

The AFBG supports the expansion and extension of vocational qualifications in order to use higher level training as a vehicle to counter the shortage of skilled workers, to secure Germany's competitiveness and to make advancement opportunities in practice-related career pathways more attractive. The AFBG is a comprehensive funding instrument for advanced vocational training which fundamentally extends across all occupational areas regardless of the form in which the advanced training is completed (full-time, part-time, school-based, extra-school, media-aided, distance learning). A loan waiver scheme is used to create an incentive to enter self-employment after successful completion of the advanced training. Funding is linked to certain personal, qualitative and time requirements. Higher education qualifications are not funded.

Figure B3.2-1: **Funded persons (approved funding) pursuant to the Upgrading Training Assistance Act (AFBG) by gender 2009 to 2019**



Source: Federal Statistical Office 2020, Specialist Publications 11, Series 8

VET Data Report Germany 2021

The Fourth Law for the Amendment of the AFBG, which entered into force on 1 August 2020, has improved the benefits on offer. There is now a legal right to funding for each of the three new stages of advanced training enshrined in the BBiG and the HwO and for equivalent advanced training qualifications.[32] Assistance with living costs for full-time measures has been turned into a full grant. Maintenance contributions are dependent on income and assets. The grant towards the contribution for course and examination costs, which is not dependent on income and assets, and the loan waiver upon examination success were both increased from 40% to 50%. The loan is completely waived if a firm is subsequently set up. Further funding contributions and grant elements were also increased. Loans for the *"Aufstiegs-BAföG"* (Upgrading Training Assistance Act) are managed and approved by the KfW Development Bank in Bonn. They are granted free of interest and repayments during the advanced training and for a qualifying period of two years up to a maximum term of six years. The funding recipients themselves decide whether they wish to avail themselves of a loan and determine the amount taken out.

In the case of full-time measures, the maximum funding term is 24 months. This is extended to 48 months for part-time measures. If a programme or course is split into more than one section (staged measures), then these need to be completed within a certain period (within 36 months for full-time measures and within 48 hours for part-time measures).

At schools, 86.5% of full-time provision (58,842) was approved. The corresponding proportions for courses at institutes and for distance learning courses were 30.0% (26,681) and 0.5% (51) respectively. As in previous years, the vast majority of persons (80.2%) who received approval in 2019 were aged between 20 and 35. As was the case in the previous year, the group of those aged between 20 and 25 made up the greatest proportion of approvals amongst persons funded (37.2%). They were followed by the 25 to 30 age group (29.3%). The group of persons aged between 30 to 35 were in third position (13.7%), followed by those aged between 35 and 40 (7.7%). If the group of overall approvals of funding is differentiated by gender, first position amongst women was taken by the group aged from 20 to 25. In the case of

32 In the case of measures at the first level of advanced training, part-time provision is only funded if its duration is at least 200 teaching hours.

Table B3.2-1: **Approved fundings in the ten most popular advanced training occupations by specialism/occupation 2019**

Ranking	Specialism/occupation	Total		Of which female	
		Number	in %	Number	in %
1	State-recognised nursery school teacher	29.765	17,8	25.086	39,8
2	Industrial foreman in the metal industry (certified)	11.141	6,7	504	0,8
3	Senior business clerk (certified)	9.657	5,8	5.990	9,5
4	State certified engineering technician	7.023	4,2	463	0,7
5	State certified electrical engineer	5.266	3,2	245	0,4
6	Bachelor Professional in motor vehicle technology	4.726	2,8	107	0,2
7	State certified machine technician	4.690	2,8	325	0,5
8	Master craftsman in electrical engineering	4.592	2,7	85	0,1
9	Industrial foreman in the electrical industry (certified)	3.336	2,0	157	0,2
10	Bachelor Professional in management accountancy (certified) (IHK)	3.148	1,9	335	3,7
	Total:	**83.344**	**49,9**	**35.297**	**56,0**

Source: Federal Statistical Office 2020, Specialist Publications 11, Series 8 VET Data Report Germany 2021

men, most approvals were recorded for the 25 to 30 age group. As in the previous year, the largest group in part-time advanced training programmes was the group aged between 25 to 30, followed by the 20 to 25 age group. The opposite applied to full-time measures. 49.9% of persons with approved funding in 2019 (83,344) were aiming to achieve a qualification in one of the ten most popular advanced training occupations → **Table B3.2-1**.

Following successful completion of the continuing training measure and in accordance with the regulation in force at the time, persons funded received a waiver of 40% of their remaining loan for the fee for the measure upon application. 31,545 funded persons availed themselves of this after passing the examination ("pass waiver"). The total loan amount waived was €38,559 million. Average amount waived was €1,222.

In 2019, total funding benefits of €693,877 million were authorised. This figure includes grants in the amount of €294,458 million and loans amounting to €399,419 million. In overall terms, financial expenditure approved compared to the previous year thus increased by 4.2%.

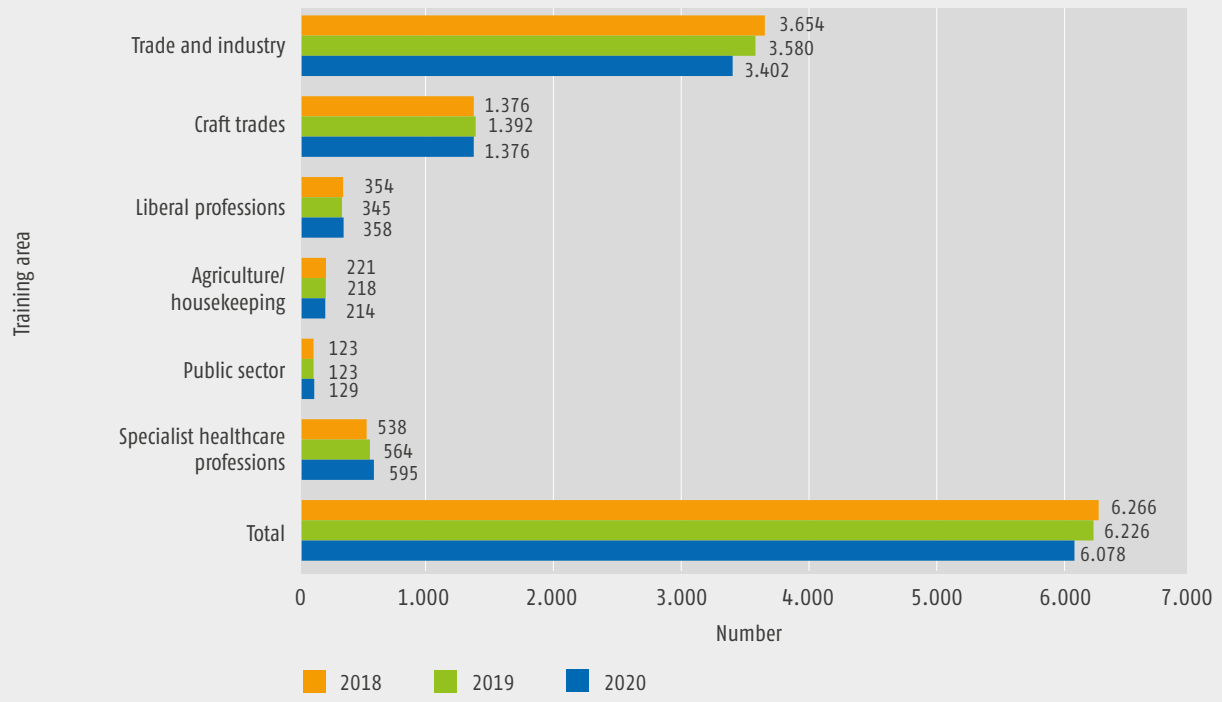
In the year 2020, the KfW approved 39,608 loans within the scope of the AFBG (2019: 52,676). Approved volume was €128.2 million (2019: €236.5 million). This represents a decrease in loan approvals of 24.8%. A fall of 45.8% in funding volume was revealed compared to the previous year. This sharp decrease is probably primarily due to the updating of the AFBG. Since this time, 100% of living costs have been funded in the form of a grant. Previously, maintenance loans accounted for 40% of the credit volume. Part of the decrease is also presumably caused by the coronavirus pandemic because this led to the postponement of some measures. Expenditure pursuant to § 28 AFBG, including reimbursement to the KfW Development Bank pursuant to § 14 Paragraph 2, is covered by the Federal Government (78%) and the federal states (22%). The AFBG proportion of the Federal Government is entirely covered by the BMBF.

B3.3 Continuing training scholarship programme and advancement grant

B3.3.1 Continuing training scholarship programme

The "continuing training scholarship" programme run by the Federal Ministry of Education and Research (BMBF) supports talented career entrants with further training following the successful completion of initial vocational education and training. This scholarship funds participation in professional continuing training courses leading to qualifications such as master craftsman, technician and certified senior clerk. It also covers demanding interdisciplinary continuing vocational education and

Figure B3.3.1-1: **Admissions by training areas 2018 to 2020 (not including German chambers of commerce and industry abroad)**



Source: Stiftung Begabtenförderung berufliche Bildung, status: 14.02.2021 VET Data Report Germany 2021

training programmes such as IT courses, intensive language courses and higher education study pursued on an in-service basis. Funding is available for the scheme, for travel and accommodation costs and for expenditure on necessary equipment. Scholarship recipients may apply for grants up to a total of €8,100 for an unlimited number of continuing training courses eligible for funding within the three-year funding period. The scholarship holder makes a self-contribution in the amount of 10% of costs eligible for funding per measure.

The continuing training scholarship began in 1991 as a programme entitled "Support for Gifted Trainees" and initially took on 1,713 particularly able young employees who had completed dual training. Since this time, more than 150,000 young people have received a continuing training scholarship. Whereas 192 VET competent bodies took part at the outset, this figure has now grown to include almost 300 chambers and other competent bodies. Between 1991 and the present day, the Federal Government has made over €500 million available for the continuing training scholarship.

In 2020, the participating chambers and competent bodies admitted 6,078 new persons who had completed training in 262 different occupations to the funding programme. This meant that the BMBF's target of 6,000 new admissions was met → **Figure B3.3.1-1**. The BMBF has been making additional financing available on an annual basis since as long ago as 2010 in order to take particular account of lower secondary school leavers who have completed training and of persons with foreign roots. In 2020, 14.6% of new entrants to the programme had a migration background. This is an increase in the proportion of 0.8 percentage points compared to the previous year. This group of persons is traditionally most strongly represented in the liberal professions, where 22.4% of the new entrants had foreign roots.

A consideration of the distribution of this target group across the various occupations reveals that two occupations are particularly conspicuous in the liberal professions. 33% of newly admitted qualified dental employees and over a quarter of legal assistants had a migration background. In other occupational areas, the highest proportions of new entrants with a migration background in 2020 were management assistants for retail services (23.2%) and physiotherapists (just under 23%).

B3.3.2 Advancement grant

The "advancement grant" programme, funded by the BMBF and implemented by the "Training Support for Gifted Pupils" Foundation (SBB), creates higher education incentives for persons with occupational experience with or without a higher education entrance qualification obtained via the school route. It is the only talent programme to support occupationally talented persons who wish to achieve an academic qualification whilst continuing to work and support their families. The commencement of a higher education course of study is tied to age insofar as it must be possible to enter working life upon successful completion of the study programme.

The advancement grant was launched in 2008. Since this time, 12,922 scholarship recipients have been admitted to the programme. 1,014 new entrants joined in 2020 alone. Just over a quarter of all applicants have been awarded a scholarship since the commencement of the programme. Scholarship holders who study on an in-service basis receive €2,700 per year. Full-time students receive €941 per month, including an allowance to buy books. Parents are entitled to a flat-rate support payment of €150 per month for their own children aged under 14. An additional €200 per month can be provided for a maximum period of one year for phases of study at institutes of higher education abroad. Funding is granted for the duration of the normal time of study. The advancement grant is the only Federal Government funding programme which supports in-service courses of higher education study.

Particularly able employees who have completed vocational education and training or upgrading training, who have at least two years of occupational experience and who are not yet in possession of a higher education entrance qualification are eligible for funding. Those who are already studying must submit an application before the end of their second semester.

Following admission to the funding programme, about 40% of scholarship holders have thus far chosen an in-service course of higher education study. Around 60% opted for a full-time study model. Just under a third of scholarship recipients commenced a course of higher education study in healthcare sciences, medicine, agriculture or nutritional sciences. They were closely followed by the subject groups of law, economics and social sciences. One in five studied a STEM subject. Funding recipients preferred courses of higher education study at universities of applied sciences over courses at universities. Just over 60% enrolled at a university of applied sciences.

Over 7,100 scholarship holders have successfully completed their course of higher education study since the funding programme began. Just over nine in ten funding recipients completed their first course of study by obtaining a bachelor's or master's degree (continuing training). About one in twenty embarked on a course of higher education study leading to a "Diploma" or a State Examination.

Particularly successful scholarship holders who have completed a bachelor's degree may receive ongoing funding for a subsequent master's course. Around one in seven benefited from this. Just over 66% have now successfully completed this second course of higher education study.

B3.4 Funding for acquisition of a vocational qualification via the second-chance route

Vocational education and training qualifications may be acquired via the second-chance route within the scope of retraining pursuant to §§ 58 ff. BBiG, § 42j-§ 42n HwO or via admission to the examination pursuant to § 45 (2) BBiG or § 37 (2) HwO (external examination). **Retraining** programmes are used to prepare employees who have given up their previous task for a new occupational task. The duration of funded retraining programmes is generally at least a third shorter compared to regular training. The **external examination** allows persons to acquire a recognised school-leaving certificate for an occupation in which they are working. Preparation measures for the external examination are usually funded by the BA over a period of six months.

Continuing training measures are deemed to be qualifications-related **second-chance training** if they prepare candidates for the subsequent acquisition of a vocational qualification and if they build on existing competencies where relevant, e.g. work experiences, training completed in the so-called transitions or training programmes which have been broken off. The aim of training provision structured in the form of partial qualifications which cover the contents of a recognised training occupation when taken in their entirety is to expand employability skills on a step-by-step basis. Similar to qualifications-related second-chance training programmes, they may lead to a vocational qualification via admission to the external examination.

The data situation (see Information Box) regarding the second-chance acquisition of a vocational qualification is heterogeneous and incomplete. The target group of qualifications-oriented continuing training provision compris-

es persons whose occupational integration is jeopardised because of an absence of vocational qualifications, e.g. young adults who have not completed vocational education and training.

Persons who have failed to obtain a vocational qualification or a utilisable vocational qualification and who for different reasons probably cannot be guided towards a vocational education and training qualification via the vehicles of retraining or preparatory courses may be funded by the BA in qualifications-related measures in the form of partial qualifications. For this reason, the BA developed standardised **partial qualifications** providing occupational connectivity for the first time in the project "Optimisation of training provision for the low-skilled unemployed". These were then piloted from 2010 onwards. The objectives are to facilitate quick integration into the labour market and to make competencies acquired usable along a gradual route to a vocational qualification. Training modules[33] developed within the JOBSTARTER CONNECT are also being used by the BA for partial qualifications.

Information Box – data situation on qualifications-oriented continuing training

Qualifications-oriented continuing training programmes form a subset of participants in the external examination (plus occupations governed by provisions under federal state law) and of funding numbers of the qualifications-oriented measures of the BA which is not precisely quantifiable.

The Vocational Education and Training Statistics records the annual number of external participants in final examinations in occupations governed under the BBiG and HwO. A differentiation is drawn with regard to whether admission has taken place on the basis of relevant practical occupational experience or on the basis of a school-based course which is recognised as being equivalent to the training occupation.

The BA's funding statistics indicate access numbers and total average annual numbers for continuing vocational and training measures. This data is available in a form which is differentiated by age, gender, employment status and legal sphere. Continuing vocational education and training is fundamentally separated into "continuing vocational training leading to a qualification" and "other continuing vocational training". Group-organised and company-based individual measures which offer a qualification in a recognised training occupation are counted as "continuing vocational training leading to a qualification". Measures which aim to impart skills in an occupation in which training has taken place or in an occupation which is being exercised, measures for second-chance final, external examinations and continuing training measures leading to a certified partial qualification are aligned to "other continuing vocational training". Retraining programmes, partially qualifying measures and preparations for the external examination are collated within the BA as "qualifications-oriented continuing training".

The chambers of commerce and industry (IHKs) have been offering competency assessments for partial qualifications with an IHK school-leaving certificate since the conclusion of the evaluation of their pilot initiative "certification of partial qualifications" (term 2013 to 2016). The target group consists of adults aged over 25 who have not been able to complete retraining for a variety of reasons and who do not yet have sufficient occupational experience for admission to the final examination as "external candidates". Provision by the German employers' associations and vocational education and training institutes of German trade and industry is also structured via partial qualifications in the "Employer partial qualification initiative". Within the scope of the National Continuing Training Strategy, the BMBF cooperates with the Association of German Chambers of Commerce and Industry and the training institutes of German trade and industry to promote "the quality-assured development and nationwide standardised implementation in occupations which are in particular demand", e.g. via the project ETAPP.

In its Recommendation of 15 March 2018 – "Qualifications-oriented training of adults: conditions and factors governing success" – the BIBB Board formulated education and training policy recommendations for various types of continuing training provision which offer preparation for the acquisition of a vocational qualification. This Recommendation also highlights conditions supporting success such as guidance, the structuring of learning provision, financing issues and the role of the companies, access by external candidates to the final/journeyman examination, documentation on the acquisition of occupationally-related competencies and cooperation between the relevant stakeholders.

33 Nationally standardised and competency-oriented training modules for 22 occupations were piloted between 2009 and 2015 in the BMBF-funded programme JOBSTARTER CONNECT. The aim was to shape segments of VET in a more efficient and sustainable way in order to facilitate vocational training and entry into working life for even more young people. Young people capable of training in vocational preparation and semi-skilled and unskilled young adults were trained via the modules whilst using existing training and funding structures.

Funding for acquisition of a vocational qualification via the second-chance route

Qualifications-related continuing training programmes may be funded by the BA as retraining or via the imparting of partial qualifications both for the unemployed and for employed workers.

The Law to reinforce unemployment insurance coverage and CVET (AWStG) has introduced new elements to strengthen qualifications-oriented continuing training and has modified the priority given to placement stipulated in § 4 SGB III. Placement in work does not take precedence over continuing training funding if continuing training can achieve permanent occupational integration. A further provision that has applied to qualifications-oriented continuing training since 1 August 2016 is that continuing training grants of €1,000 and €1,500 are payable for the successful completion of intermediate or final examinations respectively (§ 131a (3) SGB III). The acquisition of necessary basic competencies in the fields of reading, writing, mathematics and information and communications technologies can be funded if this is required for successful participation in a continuing training programme which leads to a qualification in a training occupation (cf. § 81 (3a) SGB III).

B3.5 Public spending on continuing training

Continuing vocational education and training is funded by the Federal Government, the federal states, local government authorities and the Federal Employment Agency (BA). → **Table B3.5-1** documents spending from public budgets on continuing vocational training from 2001 to 2020. Expenditure on general, political, cultural and scientific continuing training is not presented.

The main contribution made by the Federal Government to the financing of continuing vocational education and training is the funding of living costs for persons participating in such programmes. This includes provision of support pursuant to the Upgrading Training Assistance Act and upgrading training assistance for pupils at trade and technical schools who have completed VET. There are also funding programmes offered by various ministries. Spending on such programmes is consolidated within budgets to form funds. In accordance with the assignment plan pursuant to § 14 of the Federal Budget Code (BHO), the functional indicators 144, 152, 153 and 155 denote the budgets which are allocated to the area of continuing vocational education and training funding in the annual financial statistics of the Federal Statistical Office. However, some of these budgets mainly relate to the general or tertiary educational system or contain spending items which are more closely connected with funding of vocational education and training. By the same token, there are also budgets which clearly serve the funding of continuing vocational education and training although their functional indicators suggest otherwise. This applies in particular to the special measures of the BMAS for younger people within the scope of German Social Security Code II (SGB II). For this reason, → **Table B3.5-1** indicates the budgetary areas which can be allocated in a source-specific manner to continuing vocational education and training rather than making reference to the annual financial statistics. Federal Government budgetary areas (and table items relating to the federal states, local government bodies and the BA) which contain a significant extent of training expenditure are marked with a cross at the end of the line.

The federal states participate in the financing of continuing training in a similar way to the Federal Government via programmes conducted by the different ministries. The problem of delineation described also applies here. For expenditure by the federal states, use is therefore made of the annual financial statistics of the Federal Statistical Office. For 2020, these indicate a planned contribution by the federal states for other continuing training purposes (functional indicator 153) in the amount of €494 million. There is also a contribution of €89 million from the municipal associations and local government authorities. However, as described above, funding programmes are only included if the functional indicator explicitly shows that they are allocated to the field of continuing vocational education and training within the assignment plan. It is likely that many programmes that relate to continuing vocational education and training are also included in the area of labour market policy. For this reason, the annual financial statistics may underestimate the actual contribution made by the federal states to continuing vocational education and training funding. A BIBB survey on the amount of funding provided for continuing vocational education and training programmes for the year 2010 arrived at the conclusion that (planned) spending by the federal states was of the order of €0.5 billion. This is, however, a very rough estimate that is subject to considerable uncertainties. No information is available for the following years. No statement can be made regarding the size of the overlap between the amount shown in the annual financial statistics for spending on continuing vocational education and training and the BIBB estimate of the programme volume.

Acting together with local government and municipal associations in some cases, the federal states continue to finance adult education centres and teacher training institutes. The relevant spending can also be gleaned from the annual financial statistics. Because the intention

is to present expenditure incurred by the public budgets, the concept of basic funding needs to be applied. For this reason, an approximation has been made by estimating the amount spent on the "Skills for working life – IT – organisation/management" programme area of adult education as a proportion of overall federal state and local government authority spending on adult education and by estimating the extent of the programme area shown in the adult education centre statistics as a proportion of the total volume of hours taught. Following the revision of the adult education centre statistics, the previous "work-occupation" programme area was refocused and renamed "Skills for working life – IT – organisation/management" from the 2018 reporting year onwards. The restructuring of the programme areas now enables the inclusion of specialist areas which impart occupationally relevant qualifications, and which were previously contained in the other programme areas.
In addition to this, the federal states are involved in the funding of upgrading training. Their proportion is statutorily fixed at 22% and can be calculated on the basis of information provided in the budget of the BMF, which bears the whole Federal Government proportion of 78%. The BMBF budget sets off the repayment of loans from previous periods against the monies paid out to recipients of funding in the respective period. For this reason, it provides no information regarding the actual amount of funding in the respective period (see Specialist Publications 11, Series 8 of the Federal Statistical Office). However, this contribution essentially comprises the actual cost to public budgets anyway. Account should also be taken of the contributions made by the federal states to benefits paid in accordance with the Federal Education and Training Assistance Act (BAföG) to pupils at trade and technical schools who have completed VET. 100% of this funding is paid in the form of a grant, and the full cost of this has been borne by the Federal Government since 2015 → **Table B3.5-1**. An additional €350 million have been earmarked for upgrading training for the years 2019 to 2021 within the scope of the National Continuing Training Strategy.

Finally, the federal states finance the trade and technical schools and institutes of higher education. However, spending by institutes of higher education for the purposes of continuing vocational education and training are not taken into account in the federal state spending listed in → **Table B3.5-1**. A study into the structure and organisation of continuing vocational education and training at institutes of higher education comes to the conclusion that large parts of the costs are covered by fees paid by participants.

Mention should be made of the fact that public employers also naturally support the continuing vocational education and training of their own staff. This takes place via assumption of direct costs of continuing vocational education and training and via continued payment of wages during such continuing training.

Funding of continuing vocational education and training by the BA on the basis of German Social Security Code III (SGB III) essentially includes the costs of the continuing training itself, unemployment benefit paid during continuing training and grants to supplement pay during such training. According to the BA, unemployment benefit is designated as "unemployment benefit during continuing training" as soon as it is granted for participation in a continuing vocational education and training measure. Usually, however, persons have a right to receive unemployment benefit by dint of the fact that they are unemployed. Strictly speaking, this means that not all of the costs should be interpreted as educational spending in accordance with the costs-by-cause principle. Because the duration of the right to receive unemployment benefit increases by half of the duration of continuing training in the case of participation in a continuing vocational education and training measure, it is likely that the proportion to be allocated to educational spending is at least 50%. → **Table B3.5-1** does not take account of benefits provided by the BA to persons with a disability. In accordance with its purpose, associated expenditure should not presumably be largely interpreted as educational spending even if it is in some cases incurred within the context of continuing training activities.

Spending by the BA initially declined sharply from 2001 and fell to a minimum in 2012 because of a deterioration in leeway within labour market policy. Over recent years, it has been rising slightly but continuously. Alongside initial and continuing training funding on the basis of SGB III, the BA is also responsible for the implementation of measures funded by the BMAS on the basis of the SGB II. The criterion for funding pursuant to SGB II is a phase of unemployment which lasts for longer than one year. For this reason, the vocational training promotion schemes within the scope of the legal sphere of SGB III are similar to those covered within the legal sphere of SGB II. Mention should be made of the fact that spending by the BMAS on the funding of continuing vocational education and training within the legal sphere of SGB II is not recorded to the extent that such expenditure is incurred by authorised local government providers.

In some cases, the funding made available by federal ministries, the BA and the federal states is supplemented by EU funding. The relevant programmes are co-financed by the European Social Fund (ESF). A total of around €7.5 billion is available to the Federal Government and the federal states for this purpose in the funding period from 2014 to 2020. Planned investments in education,

Table B3.5-1: **Public expenditures on continuing vocational education and training**

	2001 in € billions	2015[11] in € billions	2016 in € billions	2017 in € billions	2018 in € billions	2019 in € billions	2020 in € billions	Training[12]
BMBF[1]								
International exchange and cooperation in vocational training	0,007	0,011	0,009	0,013	0,014	0,015	0,017	X
Innovations and structural development of vocational training	n.a.	0,075	0,076	0,064	0,056	0,058	0,100	X
BIBB (operation and investments)	0,028	0,036	0,042	0,038	0,040	0,051	0,053	X
Support for gifted students in vocational education and training	0,014	0,046	0,049	0,052	0,053	0,061	0,062	X
Upgrading Training Assistance Act (AFBG)[2]	0,045	0,182	0,200	0,252	0,261	0,264	0,392	
Continuing training and lifelong learning	n.a.	0,038	0,047	0,079	0,094	0,074	0,052	
Upgrading training assistance for pupils at trade and technical schools who have completed VET[3]	0,081	0,124	0,117	0,112	0,098	0,088	n.a.	X
BMWi[1]								
VET for the SME sector – advanced training institutions[4]	0,027	0,029	0,025	0,018	0,018	0,029	0,037	
BMAS[5]								
Funding of continuing vocational training within the legal scope of SGB II[5]	n.a.	0,563	0,568	0,543	0,506	0,566	0,485	X
Grants to supplement pay for the continuing training of unskilled workers and employees threatened by unemployment (AEZ-WB)	n.a.	0,001	0,002	0,002	0,003	-	-	X
Federal states, local government authorities, special purpose associations[6]								
Trade and technical schools[7]	0,566	0,746	0,820	0,811	0,762	0,786	0,807	X
Upgrading Training Assistance Act (AFBG)[2]	0,013	0,051	0,056	0,071	0,074	0,074	0,111	
Adult education centres (funding code 152), programme area of "Skills for working life – IT – organisation/management", up until 2017 "Work and employment"[8]	0,088	0,036	0,035	0,035	0,035	0,035	n.a.	
Other continuing training (funding code 153)[9]	0,485	0,363	0,389	0,425	0,457	0,482	0,578	X
Advanced and continuing training for teaching staff (funding code 155)	0,130	0,119	0,130	0,136	0,138	0,155	0,167	
Federal Employment Agency[5]								
Funding for continuing vocational education and training[10]	6,982	1,068	1,149	1,235	1,287	1,482	1,539	
Unemployment benefits whilst undertaking continuing vocational training		1,060	1,093	1,126	1,107	1,217	1,269	
Funding for young people's residential homes	0,044	0,001	0,003	0,009	0,007	0,005	0,004	X
Supplementary training provision co-financed via funding from the ESF in the case of receipt of short-time allowance, seasonal short-time allowance or transfer short-time allowance	-	0,000	-0,000	-0,000	-0,000	-0,000	-0,000	

n.a. = not available

[1] Actual values in accordance with Federal Government budgetary calculations. Budget appropriations for 2020.

[2] The values presented do not provide any information on funding actually paid out to recipients in the respective period.

[3] Funding for pupils at trade and technical schools requiring completed VET Actual values for all calendar years stated in accordance with upgrading training assistance figures produced by the Federal Statistical Office. Does not take loan repayments into account. Up until 2014, 65% of spending was allocated to the Federal Government and 35% to the federal states. The Federal Government has borne the full financing since 2015.

[4] Up until 2011: "funding of extra-company advanced training institutions". It records funding for extra-company vocational training centres which focus on advanced and continuing training activities.

[5] Actual spending for the respective budgetary year. Not included: BMAS expenditures for authorised local government providers not recorded via the finance system of the BA. Funding of continuing vocational education and training and continuing training of persons in employment have no longer been indicated separately since 2019 because of changes in the aggregation of spending.

[6] Actual values for 2001, preliminary actual values for 2015 to 2019. Target values for 2020.

[7] Basis for the estimation of expenditures in the calendar years 2001 and 2015 to 2019 is the number of hours taught per type of school in the school years ending and beginning in the respective calendar year and expenditures on vocational schools. Basis of the estimation for the year 2020 is the number of hours taught per type of school in the 2019/2020 school year and expenditures on vocational schools in the 2020 calendar year. Until the 2014 Data Report, estimation took place on the basis of pupil days. Since the 2015 Data Report, however, only values estimated on the number of hours of teaching are presented, including with retrospective effect.

[8] Estimated with the assistance of public spending on adult education centres according to the Federal Statistical Office and the proportionate volume of teaching in the programme area of "Skills for working life – IT – organisation/management" (since 2018) or "Work and employment" (up until 2017) according to adult education centre statistics (2010: 15.0%, 2013: 11.3%, 2014: 10.5%, 2015: 9.3%, 2016: 8.2%, 2017: 7.8%; after revision of the programme areas: 2018: 7.2%, 2019: 6.9%).

[9] Function 153 collates the former functions 151 (funding of continuing training) and 153 (other continuing training institutions). In addition, the items contain expenditures on general and political continuing training. The extent to which continuing training programmes of the federal states have been taken into account here is unclear. These may be allocated to other functional areas in the annual financial statistics where possible.

[10] This item collates BA expenditures on the funding of continuing vocational training (FbW) and grants to supplement pay for the continuing training of persons in employment (AEZ-WB) from 2014. Includes, inter alia, expenditures on the "Initiative to support structural change (IFlaS)" and "Training for persons in employment (WeGebAU)". Because of changes to the aggregation of expenditures, FbW and AEZ-WB are no longer stated separately.

[11] Not all years are presented for reasons of space. Information from 2002 to 2014 are available in earlier issues of the Data Report.

[12] Items which also contain a significant scope of expenditures on initial VET are marked with a cross.

Source: Federal Ministry of Finance, federal budgets; Federal Ministry of Finance, budget account of the Federal Statistical Office, Specialist Publications 11, Series 2– Vocational Schools; Federal Statistical Office, Specialist Publications 14, Series 3.1 – Financial results of the public budgets Federal Employment Agency, Quarterly Reports; Federal Employment Agency, Monthly Financial Results (SGB II and SGB III); German Institute for Adult Education, adult education centre statistics, information provided by the Federal Statistical Office (February 2021)

VET Data Report Germany 2021

training and vocational education and training for competencies and lifelong learning (main funding focus C) make up around €2.4 billion. This means that the maximum annual amount of ESF funding benefiting initial and continuing VET is likely to be between €0.3 billion and €0.4 billion. The fall compared to the prior period is connected with the general decrease in German structural funding and does not imply that less significance is being accorded to initial and continuing training in the present funding period. ESF funding for continuing training is not separately indicated in → **Table B3.5-1** since it is at least partially taken into account in the budgetary areas of the ministries already listed. Not all ministries indicate ESF funding used separately. For this reason, it is not possible without further information to make any statement regarding the extent to which the financing contribution made by the public purse is further raised via ESF grants compared to the information in the table.

B3.6 The Federal Government's Continuing Education Grant Programme

The Continuing Education Grant Programme has been in place since December 2008 and supports workers on low incomes with participating in individual occupation-related continuing vocational education and training. The Federal Government's Continuing Education Grant Programme is funded by the BMBF and the ESF. It is currently in its third funding phase. Funding conditions have been adjusted several times over the course of the phases, and the current conditions have been applicable since July 2017 (see Information Box). Around 385,000 continuing education grant vouchers and 29,000 savings vouchers had been issued by the end of December 2020. Experiences from the two preceding funding periods have shown that just under 75% of grant vouchers are actually redeemed.

Information Box – Continuing Education Grant Programme

The Continuing Education Grant can be used to support continuing training measures which impart occupationally specific knowledge or skills and to support continuing training programmes which aim to reinforce general employability skills.

The Continuing Education Grant encompasses two financing instruments which are applicable cumulatively.

- **Training grant voucher:** The Federal Government uses the training grant voucher to support the continuing training interests of workers by paying 50% of course fees. The maximum amount which can be funded, however, is €500. The voucher may be received by persons who are in employment for at least 15 hours a week and whose annual taxable income does not exceed €20,000 for singles (or €40,000 in the case of joint assessment).
- **Saving voucher:** Continuing training saving (saving voucher) is available to those who have used an employee savings bonus to build up a savings credit in accordance with the Capital Accumulation Act (VermBG). A saving voucher issued under the Continuing Education Grant Programme permits early access to capital saved without loss of the employee savings bonus. It may be used irrespective of annual income and can also supplement the training grant voucher in order to finance the remaining part of the self-contribution. Continuing training saving makes it easier to finance costly continuing training measures which are often of long-term duration. Participation in a face-to-face consultation in one of about 530 advisory centres located all over Germany is obligatory for receipt of the voucher.

This part of the programme has been extended due to the impacts of the pandemic on its implementation. The issuing of training grant vouchers will end on 31 December 2021. Vouchers may still be redeemed until 30 June 2022. Continuing training measures funded must be completed by the end of 2022.

Over the three funding periods, participant structure in terms of individual socio-demographic characteristics has altered only slightly → **Table B3.6-1**. The Continuing Education Grant is mainly used by employees and self-employed persons in sectors in which there is a high degree of pressure for continuing training accompanied by low levels of income and/or in sectors in which employers are unlikely to contribute to the continuing training costs of their employees. This is, for example, the case in the field of therapy.

Demand for the Continuing Education Grant has risen slowly but steadily since an amendment of guidelines in 2017. At the start of 2020, significantly more than 2,000 consultation meetings were being conducted per month. In mid-March, demand suddenly collapsed by over 80% as a result of the coronavirus pandemic. Distance consultancy was introduced with effect from 24 March 2020 in order to react to the altered situation. This facilitated a catch-up process which enabled the decline in demand to be gradually tackled. Significantly fewer consultation meetings were held in April (-56%) and May (-32%) 2020 than in the corresponding period of the previous year. By June, however, the situation had recovered to the extent that the meetings were taking place with the

Table B3.6-1: **Continuing Education Grant Programme – core indicators over the course of time (proportion in %)**

	1st funding phase (12/2008 to 11/2011)	2nd funding phase (12/2011 to 06/2014)	3rd funding phase (07/2014 to 12/2021) Status: 31.12.2020
Gender			
Male	26	25	23
Female	74	75	77
Alter			
Under 25	12	11	5[1]
25 up to under 35	32	33	33
35 up to under 45	30	27	28
45 up to under 55	22	23	25
55 and older	4	5	9
Employment status			
Full-time employee	40	34	25
Part-time employee	36	41	50
Self-employed	19	22	23
Not in employment and eligible for funding	4	3	3
Educational level as per ISCED (1997)			
ISCED 1 & 2	3	3	3
ISCED 3 & 4	66	64	61
ISCED 5 & 6	31	33	36
Migrant background			
Without a migrant background	85	82	78
With migrant background	15	18	22

[1] The under-25 group has only been eligible to receive funding since the start of the 3rd wave on 1 July 2017.

Source: Administrative data from the Continuing Education Grant Programme, calculations by the Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

same frequency as the year before. Demand only fell slightly (-9%) when a new lockdown came into force in November and then remained at this level until the end of 2020.

Since the form of consultancy began to be recorded in June 2020, 37% of all participants have taken part in a distance meeting. There were no major differences between the age groups, and no trend was discernible. Those under 25 were slightly less likely than average to take part in a distance consultation meeting (31%), and likelihood amongst persons aged over 55 was similar (35%). By way of contrast, a tendency is revealed if educational background is considered. The higher the educational level, the more likely it was for distance consultancy to take place (32% in the case of ISCED levels 0-2, 41% in the case of ISCED levels 7-8). Precisely the opposite occurs in the case of the income groups. The higher the income, the smaller the likelihood was of distance consultancy. In this regard, however, consideration must be accorded to the fact that the Continuing Education Grant is aimed at workers with a maximum annual taxable income of €20,000. This means that the highest income group able to access the programme is not in possession of much money anyway.

Part C Special focus: Vocational education and training leading to higher qualifications – routes for occupational advancement

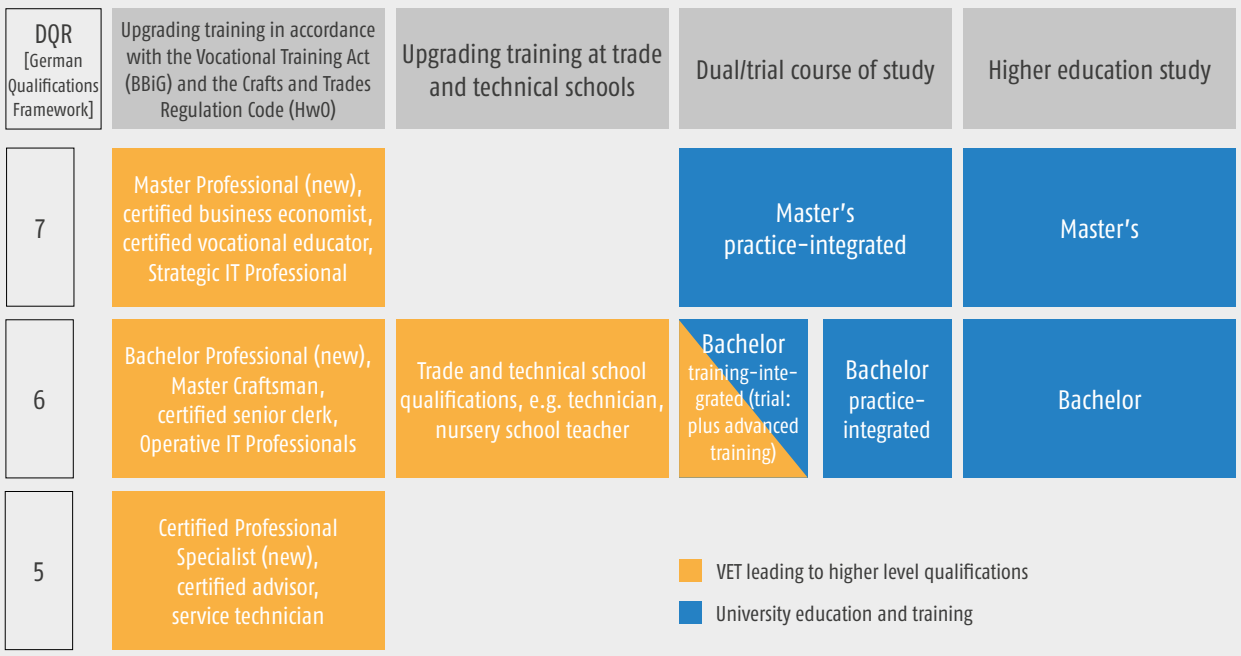
C1 Introduction and summary

The dual system of vocational education and training makes a major contribution towards securing a supply of skilled workers and towards the social integration of young people in Germany. At the same time, it has been under pressure for some years. There is also a growing tension with the higher education sector. In order to ensure that vocational education and training remains – or once again becomes – an attractive option for a large number of young people, those completing VET need clearly defined, socially recognised and above all widely known prospects for further occupational development which facilitate attractive and equivalent career pathways even without a higher education qualification. The various forms of upgrading training in Germany offer an opportunity to advance into specialist and management positions or, in particular in the case of the master craftsman qualification in the craft trades sector, the chance to become self-employed. The alignment of upgrading training qualifications to the German Qualifications Framework (DQR) means that this form of vocational training has been directly related to higher education qualifications for the first time → **Figure C1-1**. When the updated BBiG entered into force in 2020, the previous designation of "upgrading training" was replaced by the term "vocational education and training leading to higher qualifications". This sends out a clear signal in respect of fostering social recognition in the national context. It is also a robust approach with regard to international comparability since the term "higher VET" is used internationally to designate provision which leads to higher level vocational qualifications. At the same time, the updated act enshrined in law the three stages of advanced training that are usual in practice on the basis of levels 5 to 7 of the DQR. New standardised titles were also introduced for these qualifications.

The federal states are afforded the opportunity in law to use the new designations for trade and technical school qualifications, too. The law allocates a minimum time scope of learning to the three stages of advanced training. This is defined as a prerequisite for the acquisition of the skills, knowledge and competencies at the relevant DQR reference level. This minimum scope of learning indicates a particular characteristic of upgrading training pursuant to the BBiG and HwO in the education system. Only examinations and admission to examinations are statutorily regulated. Preparatory courses are offered on the open market. These are not mandatory, and no comprehensive statistical data is collected. The consequence within the international context has thus far been that most qualifications in this area are not recorded in international education and training statistics because the latter are based on formal input criteria. The updated Upgrading Training Assistance Act, which also entered into force in 2020, permits consecutive funding for advanced training at all three stages. This is in line with the agreement set out in the National Continuing Training Strategy.

Completion of upgrading training pursuant to the BBiG and HwO or pursuant to comparable advanced training regulations under federal state law at a trade and technical school or at a technical academy constitutes acquisition of a general higher education entrance qualification. The prerequisite here is that the course encompasses at least 400 teaching hours. The Federal Government-federal state competition "Advancement through education – open institutes of higher education" took place across two rounds between 2011 and 2020, during which time provision was drawn up for the closer interlinking of vocational and academic education. In some federal states, it is legally possible to commence a master's course of study directly upon completion of an advanced training qualification at DQR reference level 6. Dual courses of higher education study are a mixed form of both pathways which have established themselves as an alternative to vocational education and training or to a pure course of higher education study.

Figure C1-1: **Formal qualifications at levels 5 to 7 of the German Qualifications Framework (DQR)**



Note: this is a simplified presentation, which relates only to the formal alignment of the qualifications to the VET and higher education sector.

Source: Depiction by the Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

C2 Routes for occupational advancement

C2.1 Upgrading training programmes pursuant to the BBiG and HwO

C2.1.1 Advanced training examinations

Advanced vocational training forms part of vocational education and training within the meaning of the BBiG or HwO. Unlike initial training regulations and their general training plans, the advanced training regulations under federal law and the advanced training examination regulations of the competent bodies essentially only govern examination requirements. An advanced training examination in accordance with the BBiG/HwO is usually sat after completion of dual VET and following relevant subsequent occupational experience, usually of several years' duration. The task of advanced vocational education and training pursuant to § 1 Paragraph 4 BBiG is to retain and expand knowledge and skills, to adapt knowledge and skills to technical development (updating training) or to facilitate professional advancement (upgrading training).[34] The Federal Government may enact so-called advanced training regulations for upgrading training pursuant to § 53 BBiG or § 42 HwO. These create a nationwide standardised foundation with regard to contents to be imparted and examination provisions for state-recognised advanced training qualifications. If no nationwide standardised regulatory measures have been put in place, the competent bodies (chambers) may act themselves to stipulate advanced training regulations for their own regional area of responsibility in accordance with § 54 BBiG or § 42a HwO. There are currently 220 Federal Government legal ordinances in place. 746 ad-

Table C2.1.1-1: **Advanced training examinations passed in 2019 pursuant to the BBiG/HwO by specialisms and gender**

	Men		Women		Total		Proportion of women in %
	Absolute terms	in %	Absolute terms	in %	Absolute terms	in %	
Commercial advanced training examinations	**23.919**	**39,8**	**22.329**	**74,0**	**46.248**	**51,2**	**48,3**
Specialist commercial clerk	1.557	2,6	3.324	11,0	4.881	5,4	68,1
Certified senior clerk	12.918	21,5	12.111	40,2	25.029	27,7	48,4
Master Professional in Business Management	3.129	5,2	1.221	4,0	4.350	4,8	28,1
Other commercial advanced training examinations	6.315	10,5	5.673	18,8	11.988	13,3	47,3
Master craftsman examinations	**30.234**	**50,3**	**4.662**	**15,5**	**34.899**	**38,7**	**13,4**
Industrial foreman	9.750	16,2	582	1,9	10.332	11,4	5,6
Specialist foreman	2.154	3,6	258	0,9	2.412	2,7	10,7
Master craftsman	16.644	27,7	3.393	11,3	20.040	22,2	16,9
Other master craftsman examinations	1.686	2,8	429	1,4	2.115	2,3	20,3
Other advanced training examinations	**5.967**	**9,9**	**3.162**	**10,5**	**9.126**	**10,1**	**34,6**
Specialist assistant in the healthcare sector	18	0,0	2.439	8,1	2.457	2,7	99,3
Other advanced training examinations in service occupations	240	0,4	111	0,4	348	0,4	31,9
Other industrial and technical advanced training examinations	5.709	9,5	612	2,0	6.321	7,0	9,7
Total	**60.120**	**100,0**	**30.156**	**100,0**	**90.276**	**100,0**	**33,4**

Source: Federal Statistical Office, Specialist Publications 11, Series 3, calculations of the Federal Institute for Vocational Education and Training. For reasons of data protection, all data (absolute values) is rounded to a multiple of three. For this reason, the overall value may deviate from the total of the individual values

VET Data Report Germany 2021

34 Participation in regulated advanced training may be supported by state funding instruments such as the Upgrading Training Assistance Act, the advancement grant and the continuing training scholarship programme and the Continuing Education Grant.

vanced training occupations are governed by legal regulations issued by competent bodies.

Selected results from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states are reported below. In 2019, the pass rate for advanced training examinations was 82.9%. This figure has been in constant slight decline since 2012 (86.9%). In 2019, men (83.7%) were again slightly more successful than women (81.4%). The higher pass rates achieved by men in overall terms can be consistently observed since 1992. As → **Table C2.1.1-1** shows, the specialisms in which advanced training qualifications are completed vary significantly by gender.

C2.1.2 Insights into selected areas

Training pathways in the area of craft trade restoration

One example of the creation of nationwide standardised advanced training regulations is the "Ordinance for the examination leading to the recognised advanced training qualification of certified restorer in the craft trades", which entered into force in 2019. In 2020, the designation "Master Professional in Restoration in the craft trades sector" was added to the title of the qualification. This ordinance covered a total of 19 craft trades and was the first national regulation relating to the retention of intangible artisanal cultural heritage and to restoration and conservation of tangible cultural heritage. The advanced training regulations thus introduced replaced around 300 advanced training regulations issued by the chambers of crafts and trades. Pursuant to § 3 of the ordinance, persons may be admitted to the final examination in one of these craft trades if they can demonstrate successful completion of the master craftsman examination in the craft trade in question. This reflects the notion of a career concept in that demonstration of skills, knowledge and competencies at master craftsman level affords the opportunity to pursue training at a further level. One particular characteristic of the area of craft trade restoration is the existence of training programmes which lead to the qualification of journeyman for restoration works in the craft trades. This is located between a qualification in a recognised training occupation and a master craftsman qualification in the respective craft trade. Such qualifications can, for example, be found in the craft trade areas of bookbinding, painting and decorating, parquet floor laying and joinery. Within this scope, journeymen acquire competencies for tasks at qualified restoration companies.

This example shows how occupational career pathways – in the sense of vertical permeability within the vocational training system – can be systematically developed on the basis of journeyman qualifications in different craft trades and via interim stages leading to the qualifications of journeyman for restoration works in the craft trades, master craftsman and Master Professional in Restoration in the craft trades sector. A continuous vocational training pathway which extends over several levels of qualifications, and which is based on the principle of the regulated occupation is particularly clearly discernible here.

The IT continuing training system

In 2002, the social partners, the associations, the education and training institutions and the field of academic research joined forces with experts from practice to create a national IT continuing training system (IT-WBS) at three levels – Specialists, Operative Professionals and Strategic Professionals. The IT-WBS dovetailed with four new dual IT training occupations and aimed to offer attractive career pathways to trained skilled IT workers and lateral entrants. This tripartite structure, which anticipated today's DQR structuring at levels five, six and seven, was not the only new feature. A didactic and curricular concept of work process-oriented learning and certification under public law at the entry level of the specialists were also introduced.

The IHK and DIHK advanced training statistics show that the number of examination candidates varies between 500 and 800 per year. If we compare these figures with the potential of between 15,000 and 16,000 persons who have now completed training in the dual IT occupations, it becomes apparent that the IT-WBS has not yet achieved a broadly based impact amongst the target group and the companies. The IT-WBS has been described and analysed in numerous publications, in which constant reference has also been made to the problems regarding its implementation in practice.

The reasons for the low degree of relevance enjoyed by the IT-WBS are related to its unfamiliarity, the strong competitive situation with the manufacturers' certificate and the "unclarified relationship with the higher education qualifications of bachelor's and master's degrees". Nevertheless, those who are aware of the IT-WBS are also appreciative of it. Smaller and medium-sized companies in particular view Operative Professionals as a good opportunity to secure a supply of young skilled workers whose practical experience is seen as offering an advantage over higher education graduates. In addition, permeability with the higher education sector has improved over recent years.

Upgrading training in the non-technical public sector

In 2019, the public sector comprised a total of 4.9 million employees. Around 3.2 million of these are subject to collective wage agreements. There were approximately 250,650 "persons in training" in the public sector in 2019. 41,193 were trainees in various occupational areas in accordance with the BBiG. In 2019, 2,847 persons in the public sector successfully completed advanced training/master craftsman examinations, including 1,767 women. The figure across all areas was 90,276 persons.

A multitude of differently structured advanced training regulations issued by competent bodies in accordance with the BBiG exists in the area of general administration. These compete with collective wage agreements, in particular with "Employee courses II". No connective vocational training programmes are offered in the area of justice. The first nationwide standardised state-recognised advanced training regulations pursuant to the BBiG were introduced in the area of social insurance in 2012 in the form of certified senior insurance clerks specialising in pension insurance and miners' social insurance. Recognised Federal Government provision and specific provision for the AOK Statutory Health Insurance Company exist within the area of statutory health insurance. The BA has an internal upgrading system in the field of statutory unemployment insurance. Upgrading training for employees in the area of statutory accident insurance is secured via academic training only. This gives rise to an inconsistent picture in overall terms. In the cross-sectional areas of media and information or office administration, which contain the training occupations of specialist in media and information services and office manager, connective training is only available regionally or in a very restricted form and is sometimes only possible via a higher education route. On the other hand, a training occupation in the public sector is not recognised in further upgrading training in some instances.

C2.1.3 Programmes for those who have completed the upper secondary school-leaving certificate

Programmes for persons who have completed the upper secondary school-leaving certificate interlink dual VET – usually shortened – at level 4 of the DQR with nationwide standardised vocational upgrading training governed by federal law at DQR reference level 6. There is mostly a further opportunity to complete the trainer aptitude examination.

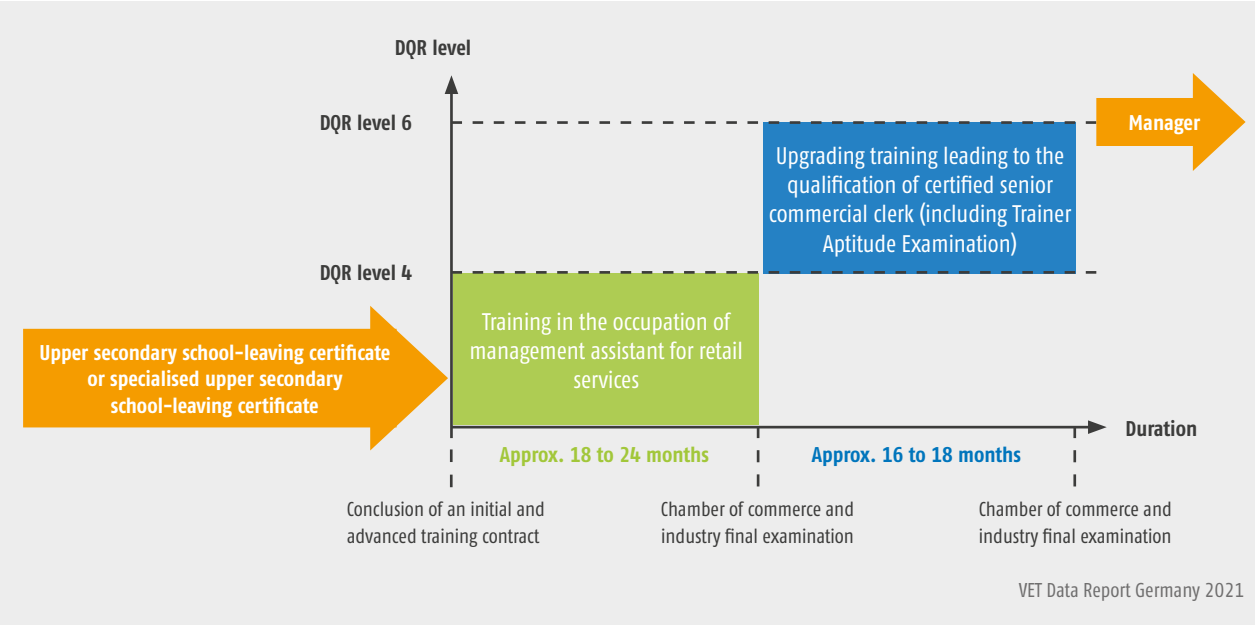
The target group for these specific training programmes comprises school leavers who are in possession of a university of applied sciences or general higher education entrance qualification. The term "programme for persons who have completed the upper secondary school-leaving certificate", which was popularised by the retail sector in particular, is derived from this circumstance. The initial precursors of the programmes of today were developed in the 1970s. Over the course of the decades, they have become established as a significant training instrument for young managers, especially in the area of sales. Those who complete programmes aimed at persons who have completed the upper secondary school-leaving certificate may progress to senior skilled worker roles and to middle-management positions in sales, such as team leader, divisional head, head of department or branch manager. They may also be located in areas such as human resources, marketing, sales, key account management, procurement, controlling, logistics, distribution or administration. → **Figure C2.1.3-1** presents the essential structure of these programmes aimed at persons who have completed the upper secondary school-leaving certificate, taking the retail sector as an example.

The results of an analysis of job advertisements shows a continuous increase in the number of advertisements mentioning programmes for those who have completed the upper secondary school-leaving certificate from 2,187 in 2015 to 16,142 in 2019. It is revealed that programmes aimed at persons who have completed the upper secondary school-leaving certificate are particularly widespread in commercial occupations (sales and management), to which 95% of the job advertisements in this study refer. On the basis of the BA's training market statistics, a continuous rise can be observed over the past ten years in the number of positions offered for "certified senior commercial clerk", the most popular programme of this kind. At the same time, however, there has also been an increase in the number of unfilled vacancies.

BIBB's company survey data, which in 2018 was collected for the sectors of trade, logistics, tourism and financial services, showed a higher relevance for such programmes in the financial services and trade sectors.

The chief motivations for companies in establishing such programmes are to secure the services of high-ability school leavers in the longer term and to enhance the attractiveness of the company for school leavers who are in possession of a university of applied sciences or general higher education entrance qualification. 25.7% of companies stated that their most important motivation was more rapid training of staff for medium-level specialist and management positions. This means that there

Figure C2.1.3-1: **Programmes in the retail sector for those who have completed the upper secondary school-leaving certificate**



are significant similarities in the motivations behind establishing programmes aimed at persons who have completed the upper secondary school-leaving certificate and dual higher education courses of study.

Analyses on the use by companies of programmes for those who have completed the upper secondary school-leaving certificate and of dual programmes of study indicate a close interlinking of these two initial and advanced training strategies. Companies which offer dual courses of higher education study are also more likely to avail themselves of programmes aimed at persons who have completed the upper secondary school-leaving certificate. In addition to this, both survey data and case studies show that provision of programmes directed at those who have completed the upper secondary school-leaving certificate is mainly limited to major companies and to small and medium-sized enterprises with between 50 and 250 employees. If qualitative research results are taken into account, these outcomes can be explained by dint of the fact that programmes of this type require higher financial and human resources which larger companies are more easily able to manage. Sector-specific effects also reinforce the special relevance of programmes aimed at persons who have completed the upper secondary school-leaving certificate in trade and in the financial services industry.

However, if established company-based VET structures are drawn upon, holders of the upper secondary school-leaving certificate may definitely represent a skilled worker training option for smaller firms. This particularly applies when cooperation with state education and training institutions such as a state vocational school takes place within the scope of such a programme. Previous surveys have shown that this does not tend to be common, especially in the case of larger companies with programmes directed at upper secondary school leavers.

C2.2 Interface to the higher education sector

C2.2.1 Dual courses of higher education study for the higher-level training of skilled workers

Dual higher education study has experienced a considerable upturn over the past 20 years. Around 5% of students are now engaged in a dual programme. The corresponding figure for universities of applied sciences is 13%. This is a field which is dominated by higher education provision in business administration and in the STEM specialisms. According to the “Training Plus” database, courses of higher education in STEM subjects accounted for just under half (793) of all dual higher education study provision in 2019. There were 33,656 dual students in these subjects, more than a third of the total of all dual students. In the business administration

subjects, 48,868 dual students across 580 programmes of study were recorded.

The particular value of a dual course of higher education study is perceived as lying in a coupling of practical occupationally-related knowledge and academic and theoretical knowledge which particularly meets the requirements of the new competency profiles which have emerged in the wake of the deep-seated technological and socio-structural shift which has occurred in trade and industry and in society. The way in which work and higher education study are connected has changed both quantitatively and qualitatively over the course of the last 20 years or so. In the mid-1990s, more than a third of higher education students were in possession of a vocational qualification, i.e. students had frequently completed a programme of vocational education and training prior to commencement of their degree studies (a peak of 38% was reached in 1993/1994). At universities of applied sciences in particular, persons with a vocational qualification already made up about two in three higher education students (the peak here being 1993/1994, when the proportion was 70% – more than two thirds). Nevertheless, this figure declined considerably in the period leading up to the start of the 2010s. By 2012, only 22% of entrants at institutes of higher education in overall terms held a vocational qualification. The numbers have been relatively stable since this time, although the decline persisted in the area of the Universities of Applied Sciences. In 2016, only just over a third (35%) of higher education entrants were able to demonstrate a vocational qualification.

Dual courses of higher education study underwent a very significant expansion during the same period. A growth of 265% in the number of dual students to 108,202 was recorded in the "Training Plus" database from 2004 to 2019. The universities of applied sciences account for most of this provision. Only 3% of dual higher education courses of study are delivered by universities. Although the increase in dual students does not balance out the decrease in those embarking upon a higher education course of study after having completed VET first, it is clear that there is a continuing interest in combining vocational and higher education.

Dual higher education study and the consecutive linking of vocational and higher education have led to the development of a hybrid model which makes it possible to integrate training and degree level study within a single education and training programme. One consequence of this is a shortening of the education and training period since the duration of a dual course of higher education study is mostly between six and nine semesters. By way of contrast, vocational education and training normally lasts for two or three years. A bachelor's course of study will add at least a further three years. In the case of a dual degree, there is also the attendant expectation that, in terms of their curriculum, vocational contents will be linked with the higher education contents, thus supporting the transfer to occupational tasks. Last but not least, dual higher education study is rendered attractive because of the opportunity to receive financial support from the company and by dint of the high rates of trainees who progress to permanent employment.

A considerable proportion of students is already in possession of a vocational qualification, and advanced training qualifications have even been obtained in individual cases. According to a study by the German National Academy of Science and Engineering (2014), more than a third (35.8%) of dual students in this area already held a vocational qualification, mostly following dual training (27.6%). 2.8% had achieved qualifications at master craftsman or technician level. 19.3% of students already in possession of a vocational qualification were upper secondary school leavers.

The majority of learners who has achieved a vocational qualification beforehand was in practice-integrated or occupationally integrated formats of dual higher education study, where they accounted for 32% and 65.7% of students, respectively. In contrast to training-integrated courses of study, which also lead to a vocational training qualification, no regulated vocational education and training qualification is included in practice-integrated or occupationally integrated study models. However, even in training-integrated courses of study, as many as 25% of students already hold a vocational qualification beforehand. These figures suggest that – at least in the area of STEM subjects – dual courses of higher education study are also being individually used for the purpose of further occupational development.

Nevertheless, only learners who have acquired a higher education entrance qualification via the school route are taking advantage of the opportunities to obtain a higher-level qualification via a dual course of study. Even though persons holding vocational qualifications formally enjoy access to an institute a higher education as a consequence of the resolutions adopted by the Conference of the Ministers of Education and Cultural Affairs in 2009, the proportion of dual students without an upper secondary school-leaving certificate or university of applied sciences entrance qualification is extremely small. The highest rate recorded between 2009 and 2015 was a mere 1%. This figure is continuing to fall despite all the demands in the area of educational policy to open up institutes of higher education further. Between 2016 and 2018, in fact, no entrants to dual courses of higher education study who had gained their entrance via a vocational qualification were statistically recorded. Other forms

of opening, such as the credit transfer of competencies acquired via vocational means, also seem to be scarcely used in dual higher education study.

C2.2.2 Academic continuing training for persons with a vocational qualification

Academic continuing training courses (see Information Box) offer promising opportunities for personal and occupational development. The German Council of Science and Humanities sees academic continuing training as part of lifelong learning and as something which should be developed further and expanded in the interests of the "sustainable development of qualified skilled workers". Although access to institutes of higher education for persons with vocational qualifications who had not acquired a higher education entrance qualification via the school route were restricted in the past, opportunities to study for a degree without having passed the upper secondary school-leaving certificate or to have vocational competencies credited towards a course of higher education study were considerably expanded just over ten years ago. In the summer of 2020, the BIBB Board recommended the extension of academic continuing training and appealed to the federal states to "create further access opportunities to various quality-assured forms of academic continuing training which are also combinable as necessary".

Access to academic continuing training for persons with vocational qualifications

The opportunities available for persons with a vocational qualification to enter degree level study at an institute of higher education were considerably expanded in the wake of the Lisbon Strategy for the creation of a joint European Education and Employment Area in the early 2000s. Resolutions adopted by the Conference of the Ministers of Education and Cultural Affairs (KMK) in 2002, 2008 and 2009 stipulated that institutes of higher education should be opened to vocational qualifications and to competencies acquired via a vocational route.

Information Box – definition of "academic continuing training"

Academic continuing training [is] the continuation or resumption of organised learning after conclusion of an initial phase of education and training which usually takes place following commencement of employment or a family commitment. Continuing training provision embraced is in accordance with the specialist and didactic level of an institute of higher education.

Programmes of continuing training during a second phase of education and training (viewed subjectively) may contain the following.

- Retraining for a new occupation
- Other advanced or continuing training in an occupation
- Other second training
- Commencement of a course of higher education study after occupational activity
- An additional course of higher education after or alongside a professional activity

Academic continuing training programmes are understood to include courses of study which lead to a bachelor's or master's qualification and measures which are documented via school-leaving certificates, credit points for study outcomes according to the European Transfer and Accumulation System (ECTS), or other forms of certification without being (directly) linked to an academic degree.

Access to academic continuing training for persons with vocational qualifications is possible via two procedures. Credit which accounts for up to 50% of the required study outcomes may be given for a vocational qualification at the second level of upgrading training (master craftsman, technician etc. and the Bachelor Professional since the updating of the BBiG in 2020) or for knowledge and skills acquired outside higher education which are partially equivalent to a course of higher education study in terms of content and level. The duration of this is thus considerably shortened.

These stipulations were statutorily implemented at the federal state level by the early 2010s. Whereas advanced training qualifications are consistently recognised as constituting unrestricted access to an institute of higher education, differences exist with regard to access opportunities on the basis of completion of a programme of vocational education and training. These especially relate to the duration of occupational experience required (two or three years), to the necessity of entrance examinations or "test studies" or to provisions with respect to specialist affinity of the preferred course of study. Academic continuing training is linked with the goal of increasing permeability between educational areas by opening up institutes of higher education to persons with vocational qualifications. Viewed in purely formal terms, the expanded opportunities for access to higher education mean a break with the historically entrenched and exclusive system governing entry to higher education. They open up equivalent educational pathways via vocational qualifications alongside the upper secondary school-leaving certificate (or the restrictions of the specialised upper secondary school-leaving certificate). From an educa-

Table C2.2.2-1: **Formats of academic continuing training**

Qualification	Format	Credit points according to ECTS*	Reference level (DQR)
Master's	Continuing training in the form of a Master's degree	60 to 120	7
Bachelor	Continuing training in the form of a Bachelor's degree	180 to 240	6
Certificate	Diploma of Advanced Studies (DAS)	At least 30	7
	Certificate of Advanced Studies (CAS)	At least 10	7
	Diploma of Basic Studies (DBS)	At least 30	6
	Certificate of Basic Studies (CBS)	At least 10	6
	Continuing training course with an examination	1 to 9	6 or 7
Certificate of participation	Continuing training course without an examination	None	6 or 7

*Credit points for higher education learning in accordance with the European Credit Transfer and Accumulation System (ECTS)

Source: German Association for University Continuing and Distance Education (DGWF) 2018 VET Data Report Germany 2021

tional policy point of view, the opening of the institutes of higher education for persons with vocational qualifications was supported by two programmes (the BMBF pilot initiative ANKOM and the Federal Government-federal state competition "Advancement through education – open institutes of higher education"). These enabled the qualitative extension of structural approaches and greater quantitative implementation.

The data situation regarding the supply and use of academic continuing training is fragmented and diverse with respect to object of consideration and surveying system. This means that statements on participation in academic continuing training, especially by persons with vocational qualifications, are only possible to a limited extent. Development of access of persons with vocational qualifications to higher education study can be traced by the regular evaluations of the Federal Statistical Office which are conducted by the Centre for Higher Education (CHE). These show a significant and steady growth in the number of entrants, students and graduates with vocational qualifications, albeit at a low level. In 2002, there were only 13,609 students with vocational qualifications at German institutes of higher education. These made up less than 1% of the total number of students. By 2018, this figure had risen to 62,107 students, representing a proportion of 2.17%.

The growth in the number of students with vocational qualifications is distributed differently across the types of higher education institutes and across courses of study. The proportion of students with a vocational qualification is significantly higher at universities of applied sciences than at institutes of higher education. Many more are to be found at private institutes of higher education than at state institutes of higher education. In 2018, more than half of courses of study undertaken by persons with vocational qualifications were in the field of economics, law and social sciences (54.32%).

With regard to the study success of persons with vocational qualifications, there is no evidence of significant differences to students in possession of a higher education entrance qualification acquired via the school route. Admittedly, there is an increased risk of drop-out in the initial semesters, but this is mainly caused by financial and family problems rather than by performance problems. The crediting of vocational competencies towards a course of higher education study remains a major challenge for institutes of higher education.

Academic continuing training programmes do not merely comprise the usual higher education study formats leading to a bachelor's or master' degree. School-leaving certificates are offered for further formats below these levels → **Table C2.2.2-1**.

The school-leaving certificate qualifications of Advanced Studies (CAS) and Diploma of Advanced Studies (DAS) are based on the structuring of academic continuing training formats in Switzerland. In Germany, the Rectors' Conference (HRK) has used funding from the BMBF to launch a project for the development of a continuing training portal. According to surveys carried out within the scope of the competition "Advancement through education – open institutes of higher education", a flexible structuring of study provision which is geared towards occupational and family circumstances is a key prerequisite for continuing training programmes in the higher education context. During the second round of the Federal Government-federal state competition, a shift from in-service programmes of study to course-based formats was ascertained in overall terms. In 2019, the latter accounted for more than 80% of programmes, including the school-leaving certificate programmes and CAS and

DAS, whereas the number of study programmes as a proportion of provision of academic continuing training fell by 8.9% to under 20% (19%) as compared to 2017. Over the same period, the school-leaving certificate courses recorded a rise of 11.6 percentage points to 47.3%. This trend becomes even more apparent if the figures are compared with the first round of the competition, in which conventional courses of study still made up nearly 40% of continuing training provision in 2019. The survey also showed that course-based formats are being developed for the flexibilisation of bachelor's or master's courses of study and increasingly also as separate academic continuing training programmes.

C3 Data and analyses

C3.1 Higher VET qualifications in the population over the course of time

Vocational education and training leading to higher qualifications is usually completed after vocational education and training and/or several years of occupational experience. The aim of advanced training is to retain, adapt or expand employability skills and to advance in an occupation (cf. § 1 Paragraph 4 BBiG). In 2018, 124,685 persons were recorded in the school and Vocational Education and Training Statistics as having completed advanced training. There has been a moderate increase of 8% in the number of persons completing advanced training since 2009. The greatest rates of growth in this regard have been recorded in the commercial service occupations and in social pedagogy and special educational needs. In order to present the development of higher VET qualifications on the basis of the microcensus (see Annex – Data sources), the most comprehensive category needs to be used (including healthcare sector schools, nursery school teachers). The proportion of the population which has completed higher VET (and comparable qualifications) has fluctuated slightly between 7% and 9% since 2005. By way of contrast, the proportion of the population with a higher education qualification increased from 11.7% in 2005 to 17.9% in 2018 since the Bologna Reform. Whereas twenty years ago the proportions of qualifications in higher VET and in the academic sector were approximately the same (ratio 1:1), the relative significance of higher VET compared to academic education is declining in comparative terms (current ratio 1:2). In 2018, the proportion of persons with higher vocational qualifications amongst the labour demand was 5.9%, slightly higher than in the population as a whole (5.5%) → Table C3.1-1.

If a differentiation is made by nationality, differences are revealed between holders of German and foreign passports. The proportion of persons with higher vocational qualifications amongst German nationals amongst the population (5.9%) and amongst the labour demand (6.4%) was significantly higher than the figures for persons who were foreign nationals (2.1% and 2.8%, respectively).

C3.2 Is higher VET worthwhile? Occupational positions, income and subjective benefit

In Germany, vocational education and training leading to higher level qualifications ("upgrading training") offers a career pathway to senior professional and management positions which in many other countries are only accessible via academic qualifications. Previous studies on educational returns mostly focus on employment income and do not differentiate between the various types of advanced training qualifications. This article differentiates between master craftsman, technician and commercial advanced training qualifications.

The data source is the representative 2018 BIBB/BAuA Labour Force Survey, which provides multifarious indicators for the measurement of occupational success and permits a valid delineation of higher vocational qualifications. This article compares the labour demand with higher VET (highest qualification) and trainees who have completed company-based training without higher VET (apprenticeship). The analyses in the article are based on weighted data and are conducted for women and men

Table C3.1-1: **Higher VET in the population and amongst the labour demand by gender 2018 (in %)**

	Population			Labour demand		
	Total	Men	Women	Total	Men	Women
Master craftsman, technician or equivalent qualification from a trade and technical school (including trade and technical school in the former GDR, specialist academy)	5,5	8,2	2,9	5,9	8,4	3,1
Qualification from a school for healthcare and social occupations (two or three years)	2,5	0,8	4,2	3,3	1,0	5,8
Qualification from a training institute/school for nursery school teachers	0,9	0,1	1,5	1,1	0,2	2,1
Total	**8,9**	**9,1**	**8,6**	**10,3**	**9,6**	**11,0**

Note: Population or labour demand aged 15 and above in private households at main place of residence; data on the basis of the new Population Forecast.

Source: Research Data Centre of the Federal Statistical Office and the statistical offices of the federal states, 2018 microcensus; calculations by the Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

Table C3.2-1: **Occupational positions and income with higher vocational education and training (in € and in %)**

	Higher vocational education and training				Company-based training not including HVET[2]
	Master craftsman qualification	Technician	Advanced commercial training	Total[1]	
Line manager function					
Total	59	32	35	45	23
Men	60	34	48	51	27
Women	*	*	26	30	16
Professional career (project or budget responsibility)					
Total	74	58	58	65	38
Men	74	61	74	71	41
Women	*	*	45	51	32
Gross monthly wage (in €, mean value)[3]					
Total	3.754	3.835	4.250	3.919	3.046
Men	3.855	3.859	4.582	4.003	3.180
Women	*	*	3.846	3.568	2.634
Gross hourly wage (in €, mean value)					
Total	20,0	21,6	23,0	21,3	16,5
Men	20,7	22,2	25,2	22,0	18,4
Women	*	*	21,2	19,5	15,2

Note: dependent employees
* Sample sizes are too small to permit a statistically robust statement (n<100).
[1] Not including other advanced training programmes
[2] HVET = higher vocational education and training
[3] Only full-time employees (working time >= 35 hours/week)
Source: 2018 BIBB/BAuA Labour Force Survey

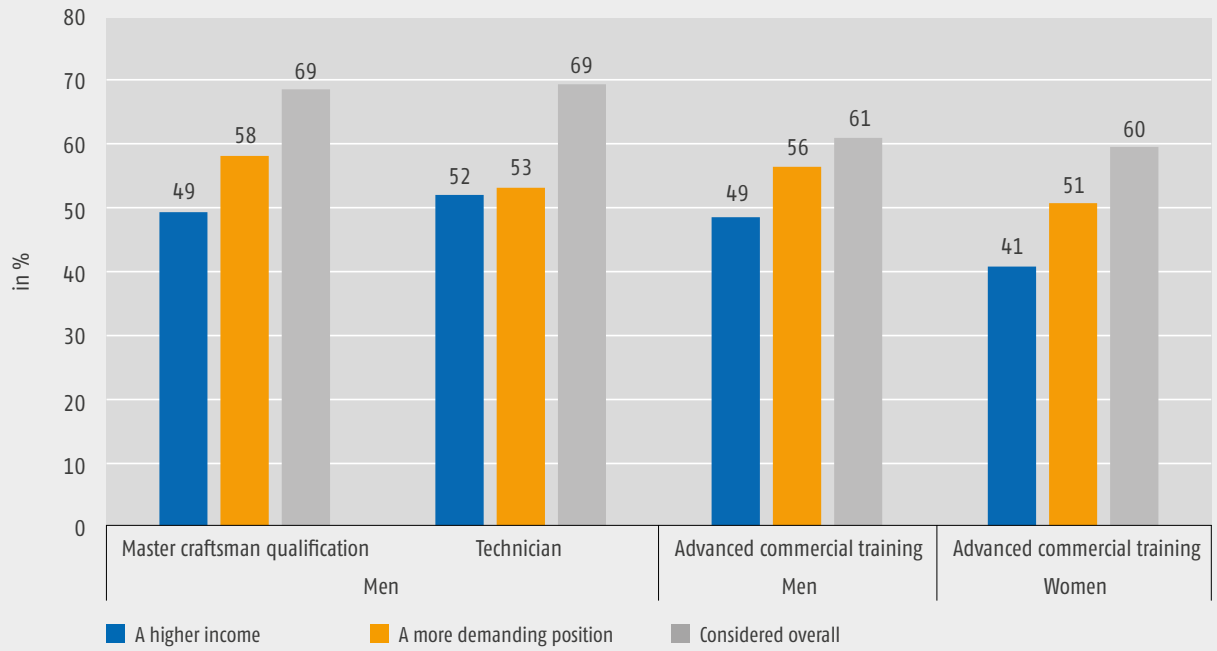
VET Data Report Germany 2021

separately because of gender-specific career choice. In the case of women, results are only shown separately for commercial advanced training qualifications because the sample sizes for master craftsman and technician qualifications are too small to be statistically reliable.

The dataset contains information on 1,593 employees with a higher vocational education and training qualification. This represents a (weighted) proportion of the labour demand with higher VET (9.7% of men and 5% of women). 44% of persons who have completed higher VET have a master craftsman qualification. 16% hold a technician qualification, 29% a commercial advanced training qualification and 11% another kind of advanced training qualification. Workers with another type of advanced training qualification (n = 213) are excluded from the following analyses because these mostly involve occupations in the healthcare sector which are not usually based on dual training pursuant to the BBiG. The comparison group comprises the labour demand with company-based VET without higher vocational training (n = 6,748).

A look at the social structure of the higher vocational training shows that more than one in four persons (27%) with an advanced training qualification are in possession of a higher education entrance qualification (upper secondary school-leaving certificate/specialised upper secondary school-leaving certificate). This proportion is significantly lower amongst all the labour demand who have completed company-based VET/an apprenticeship (14%). The differences between advanced training qualifications are even more apparent. 38% of the labour demand with a commercial advanced training qualification have a higher education entrance qualification (technicians 33%). In the case of master craftsman qualifications, the proportion of persons in possession of a higher education entrance qualification is, on the other hand, only 17%. More than one in three (36%) have a lower secondary school-leaving certificate. With regard

Figure C3.2-1: **High subjective benefit of higher vocational education and training by qualification and gender (in %)**



Note: employees with higher VET (without other advanced training). The chart presents the answer categories "a lot" and "quite a lot" in response to the question: "Has this training brought you a lot, quite a lot, some, few or very few benefits thus far?"

Source: 2018 BIBB/BAuA Labour Force Survey

VET Data Report Germany 2021

to the composition of genders, a lower proportion of women is generally revealed amongst the labour demand with a higher VET qualification (25%) as compared to the labour demand which has completed company-based vocational education and training (40%). The proportions of women also differ greatly by qualification. The proportion of women is particularly low amongst those who have completed advanced training leading to the qualifications of master craftsman and technician (12% and 11%, respectively). In the case of persons with a commercial advanced training qualification, however, the proportion of women is 52% – an even higher figure than for the labour demand without higher VET.

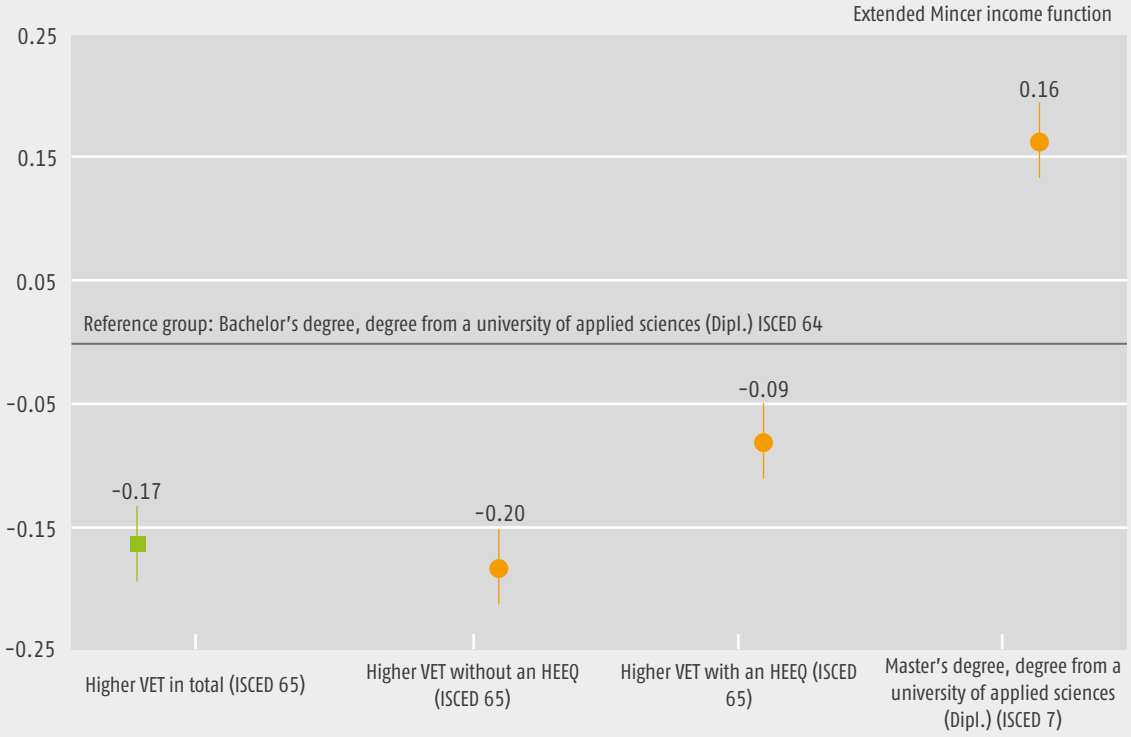
Higher vocational education and training builds on dual training to provide preparation for senior specialist and management positions or for self-employment. According to the 2018 Labour Force Survey, 14% of the labour demand with an advanced training qualification are not in dependent employment. They are instead either self-employed (13%) or freelance workers (1%). Because people generally take master craftsman examinations in the craft trades with the aim of going on to run their own company, the self-employment rate for this group (20%) is higher than that of technicians (5%) or of the labour demand with a commercial advanced training qualification (10%). The rate of self-employment amongst men (17%) is accordingly higher than that of women (9%).

It is clearly revealed that employees with higher vocational training are more likely to have embarked on a specialist career than employees who have not completed higher VET (65% as opposed to 38%) → **Table C3.2-1**.

The wage premium[35] for persons with a higher VET qualification vis-à-vis employees who have completed company-based training, i.e. the percentage growth in the gross hourly wage, is 18%. If related to the labour demand (including self-employed persons), the premium is 16%. Women earn 17% less than men on average. The gender pay gap in the group of persons with a higher VET qualification does not differ significantly from that in the group with company-based vocational education and training. In the case of persons in dependent employment, the wage premium for higher VET is 17% for men and 18% for women. With respect to commercial occupations, men achieve higher wage premiums than women (18% as opposed to 16%). The difference is, however, not statistically significant.

35 The calculation takes place on the basis of an extended Mincer equation (with qualification, occupational experience (BE), BE²) and linear regression models using the logarithmised gross hourly wage as a dependent variable.

Figure C3.2-2: **Comparison of income with higher VET and academic training**



Note: dependent employees aged 20 to 65; linear regressions on the logarithmised gross hourly wage with robust standard errors controlling for occupational experience, squared occupational experience, gender, age (50+), migration background, social origin, school mark ((very) good), occupational field in which training took place, civil status (married), children, place of work (West/East), HEEQ (higher education entrance qualification).

Source: 2018 BIBB/BAuA Labour Force Survey

VET Data Report Germany 2021

The assessment of respondents as to how much use their advanced vocational training has been to them serves as the subjective indicator of the benefit of higher VET. In overall terms, respondents (2018 Labour Force Survey) evaluate the benefits of higher vocational training as high. All in all, higher vocational training has been of very good benefit to almost one in two workers (46% of the labour demand). 20% thought the advanced training had been quite useful → **Figure C3.2-1**.

The income gap to persons with academic qualifications is reduced significantly if only academic qualifications at ISCED level 6 are used for the comparison. Compared to employees with bachelor's degrees (persons aged 25 to 34 in full-time employment), the employee history data of the BA even showed that those with a higher vocational qualification even earned similarly high incomes. University of applied sciences "Diploma" degrees, which are also aligned to ISCED level 6, are conflated with master's and other "Diploma" degrees in the BA data. If part-time employees are also included, as is possible in the microcensus, the wages of those aged between 20 and 35 with bachelor's qualifications are higher than those of persons with a higher vocational qualification who also hold a higher education entrance qualification.

Only a few studies differentiate higher VET qualifications and academic qualifications by the specialism of the occupation in which training has taken place. On the basis of the 2018 Labour Force Survey, those with academic qualifications achieved higher average incomes than persons who had completed higher VET, even if comparisons were made of persons completing qualifications in the same occupational field → **Table C3.2-1**.

Differentiation by occupational field in which training has taken place or by specialism reveals significant differences in the wage premiums. In the commercial and economic sector, income differences between those who had completed higher VET and persons with academic qualifications were significantly smaller than for technical occupations.

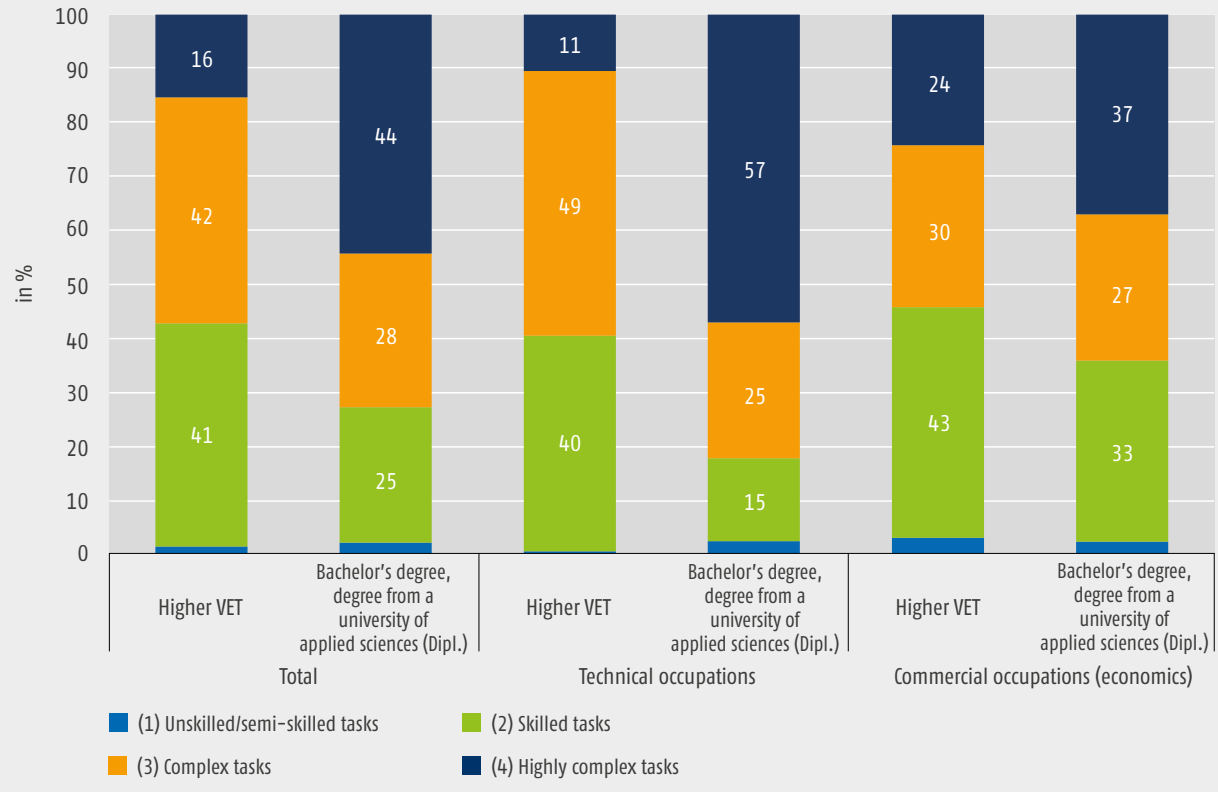
C3.3 Comparison of higher VET and academic vocational education and training

Almost one in two workers with higher VET has a master craftsman qualification (44% of the labour demand). 16% have completed a technician qualification. Commercial advanced training qualifications account for a proportion of 29% (21% certified senior clerks, business economists and 8% specialist commercial clerks). Other advanced training qualifications make up 11% of the total. Significant differences emerge if differentiation by gender is made due to the differing career choice of women and men. Master craftsman qualifications are most prevalent amongst men (55%), whereas commercial (50%) and other advanced training qualifications are dominant amongst women (most of the latter being advanced training programmes in the healthcare sector such as specialist nurse, nursing services etc.).

The 2010 Classification of Occupations (KldB 2010) was used for a comparison with those holding academic qualifications. Around 40% of the labour demand with a higher VET qualification trained in a technical occupation (e.g. engineer or electrical engineer). The same was true for 34% of those with an academic qualification of bachelor's or a traditional "Diploma" from a university of applied sciences (e.g. mechanical or electrical engineers). 27% of the labour supply who had completed higher VET (or state-certified senior clerk and business economist qualifications) had been trained in a commercial or business administration occupation. The corresponding proportion for those with academic qualifications (such as business economists with a degree level qualification) was 21%. The figures for persons who had trained in other occupations were therefore 33% in the case of those with vocational qualifications (e.g. master craftspersons) and 46% for the academically qualified (e.g. social education workers). This group is highly heterogeneous, and it is very difficult to compare qualifications.

Although most workers with a higher VET qualification were at level 3 (complex specialist tasks) or above → **Figure C3.3-1**, persons with academic qualifications were, however, more likely than holders of vocational qualifications to be performing highly complex tasks (level 4). → **Figure C3.3-2** makes it clear that persons with vocational qualifications and persons with academic qualifi-

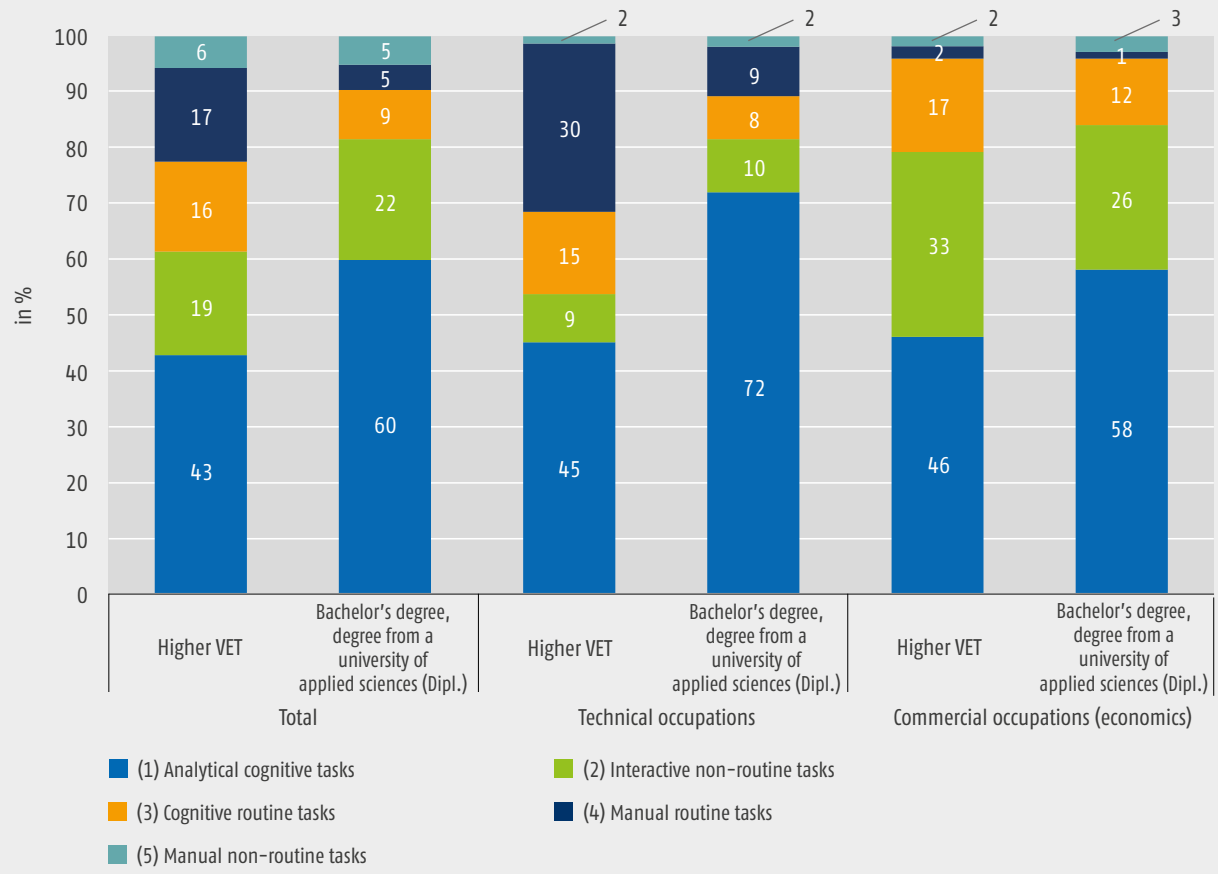
Figure C3.3-1: **Requirements level (KldB 2010) by education and training qualification and specialism (in %)**



Source: 2018 BIBB/BAuA Labour Force Survey

VET Data Report Germany 2021

Figure C3.3-2: **Main task focus (TASK) by qualification and specialism (in %)**



Source: 2018 BIBB/BAuA Labour Force Survey

VET Data Report Germany 2021

cations also differ with regard to main task focus (TASK) and that, in turn, these differences vary in accordance with the occupational field of the training. The likelihood (79%) that workers in possession of a higher-level VET qualification in a commercial or business administration occupation could be aligned to the task type of cognitive non-routine (analytical and interactive) was comparable to the likelihood that persons with academic qualifications could be so aligned (84%).

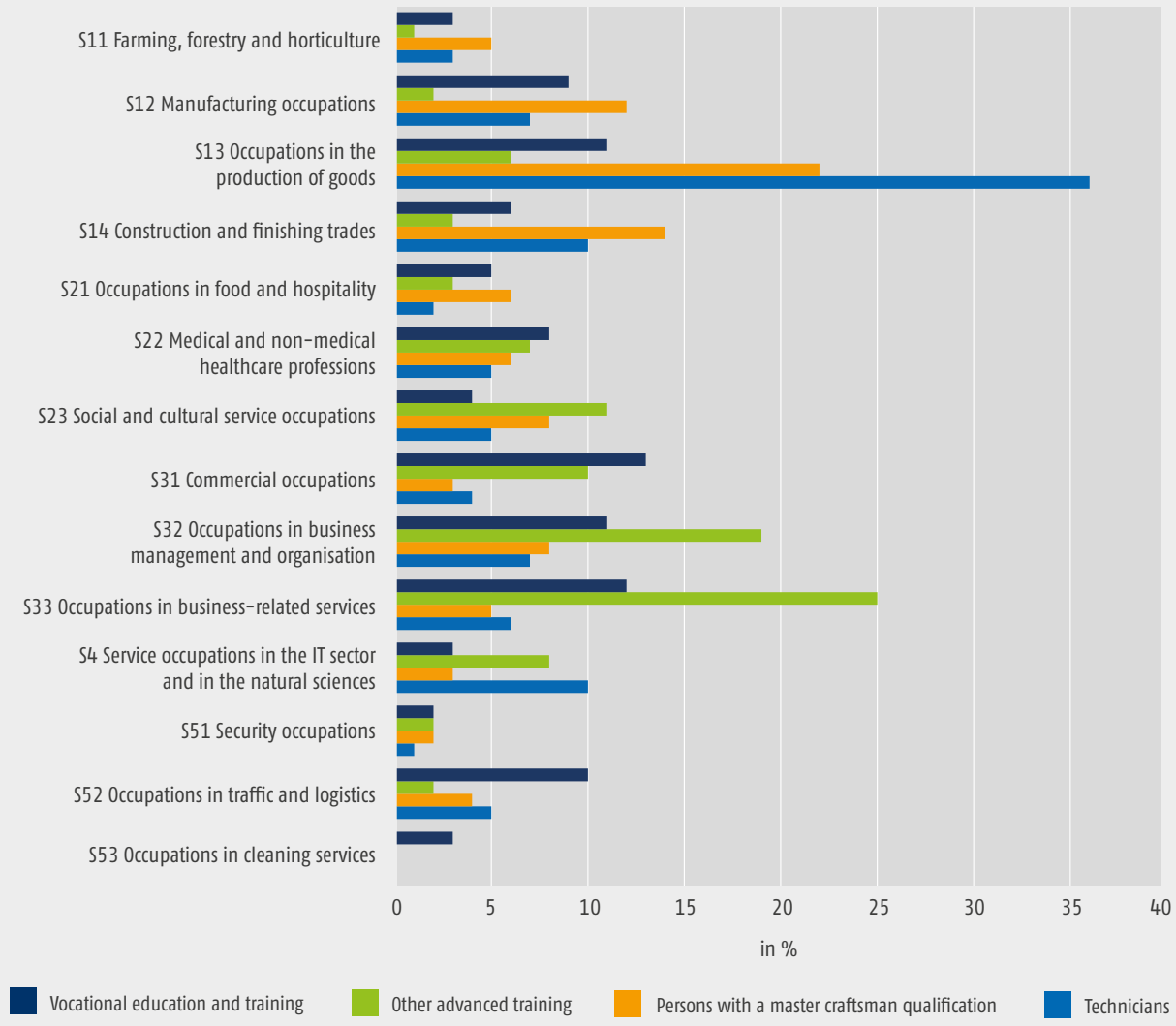
C3.4 Labour demand with higher VET (National Educational Panel Study)

A total of 6.4% (weighted) of the labour demand considered within the scope of the National Educational Panel Study (NEPS, see Annex – Data sources) stated that their highest education and training qualification was an advanced training qualification. 3.3% stated a master craftsman qualification, 1.4% a technician qualification and 1.7% another advanced training qualification.

→ **Figure C3.4-1** illustrates the occupational segments across which those who have competed various advanced training qualifications are distributed. The vast majority of the labour supply with a master craftsman or a technician qualification was working in technical manufacturing occupations.

However, the indicators reported thus far only permit limited statements regarding actual working conditions, which may in turn influence factors such as work satisfaction, motivation or performance. On the basis of the NEPS, persons with advanced training qualifications exhibited higher values in virtually all dimensions compared to those who had not completed higher VET. They were therefore more likely to be entrusted with varied tasks which they were also able to perform in a largely autonomous manner. Their employment was also more likely to require a high degree of interactions with other people and the exercising of analytical tasks such as the reading and composition of texts or the application of mathematical skills. One final dimension, on the other hand, needs to be considered in a more differentiated

Figure C3.4-1: **Distribution of persons who have completed training across occupational segments (in %)**



Source: NEPS, start cohort 6, doi:10.5157/NEPS:SC6:11.0.0, weighted results from wave 4; calculations by the Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

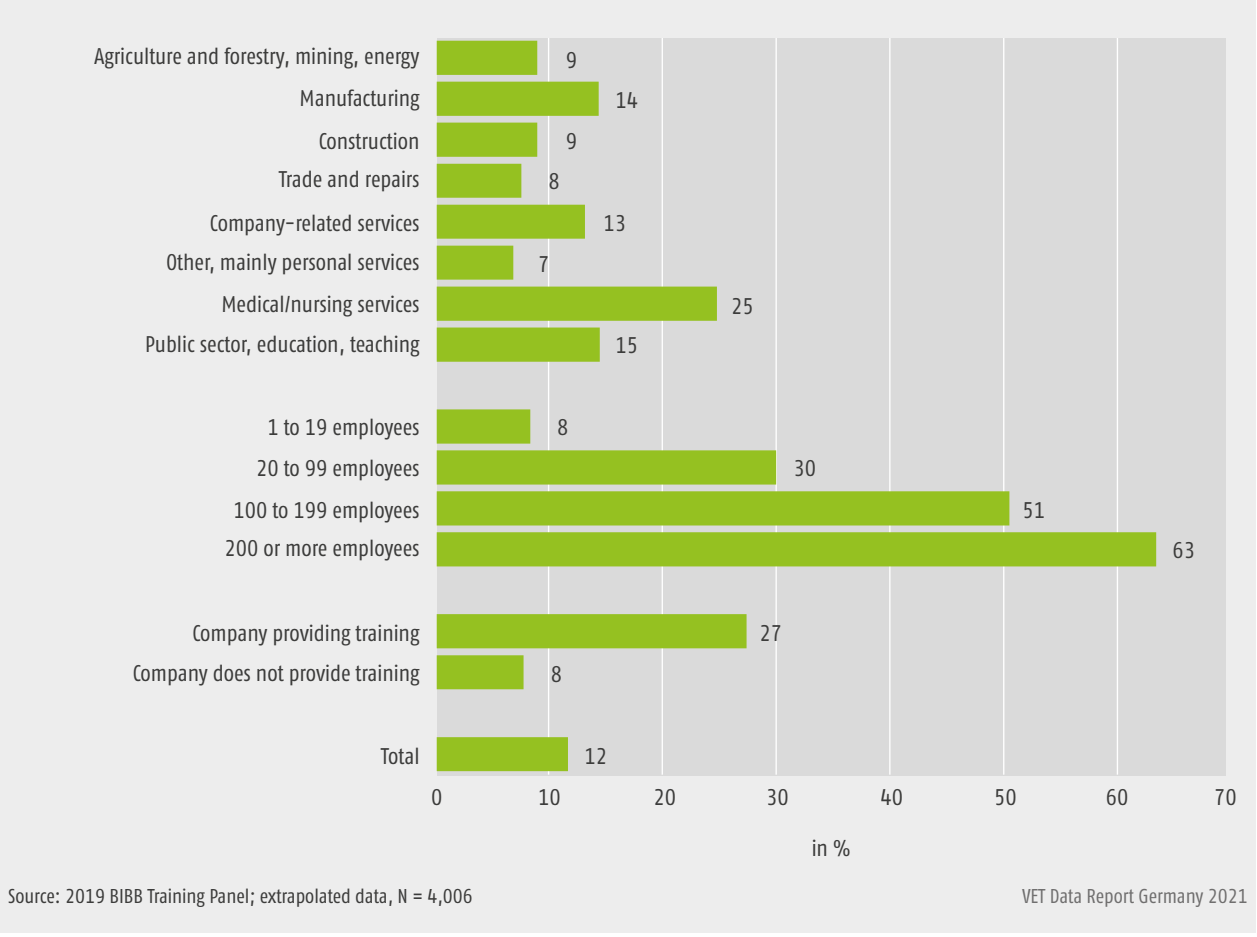
way. Persons with master craftsman qualifications in particular stated that they were more likely than persons without higher VET to have to exert themselves physically during the course of their work. By way of contrast, this was clearly less likely to be the case amongst technicians and persons with another kind of advanced training qualification.

C3.5 Results from the BIBB Training Panel

The digital shift is changing the work and competency requirements being made of employees and is thus leading to a greater need for continuing training. We can also observe that greater use of technology at companies is associated with a higher level of participation in initial and continuing VET.

The BIBB Training Panel (see Annex – Data sources) differentiates company-funded advanced and continuing training measures as (1) general continuing training measures in the form of courses and seminars, (2) continuing training measures which do not form part of a course and which take place at the workplace directly outside organised course provision such as induction in the workplace or self-directed learning using computer programmes and (3) upgrading training. Continuing training measures are deemed to be company-funded if companies release their employees to take part for all

Figure C3.5-1: **Proportion of companies funding upgrading training in 2018 by selected characteristics (in %)**



Source: 2019 BIBB Training Panel; extrapolated data, N = 4,006

VET Data Report Germany 2021

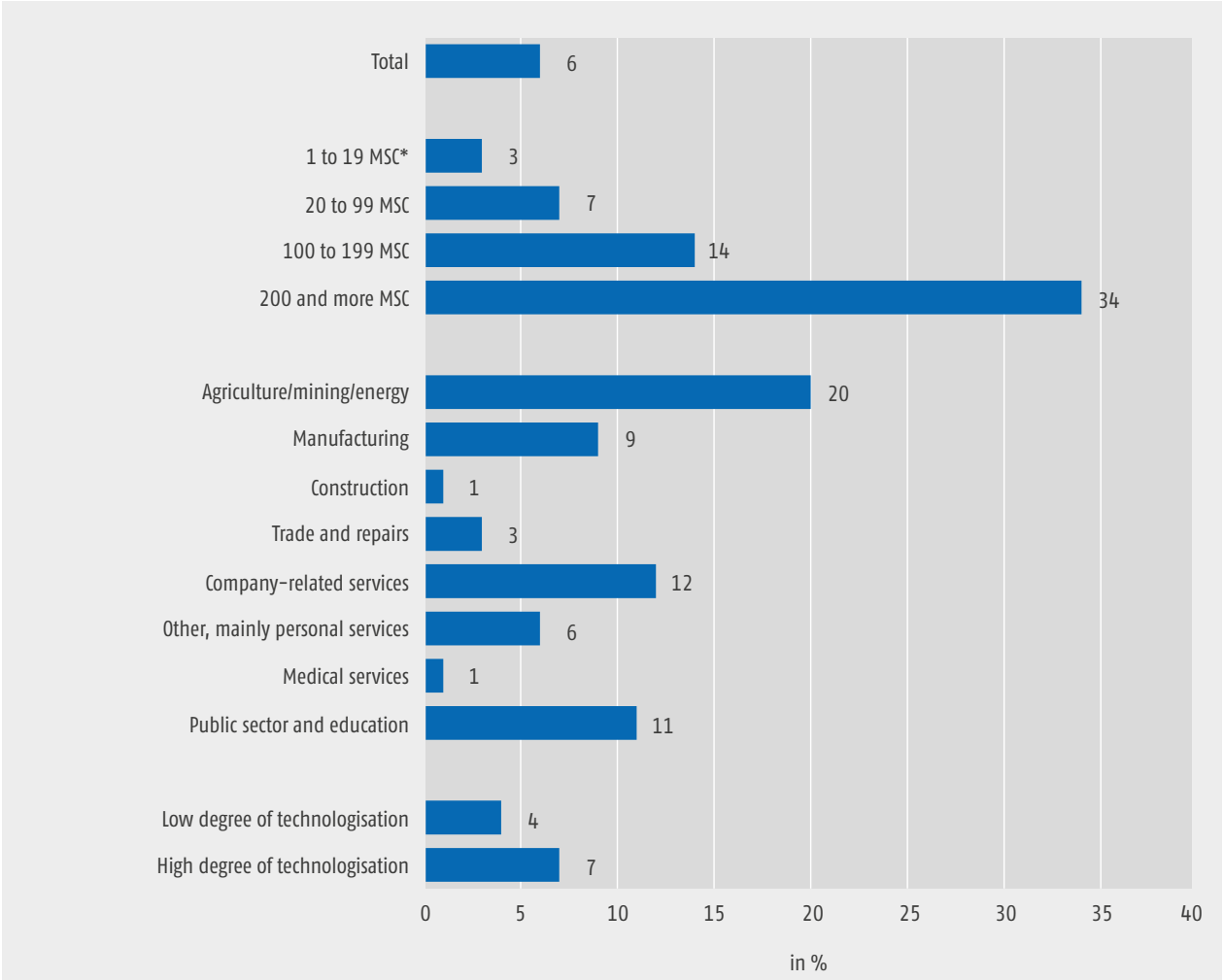
or some of the time or if they pay the costs of participation in continuing training measures in whole or in part. Upgrading training programmes differ from other continuing training measures because employees gain a recognised advanced training qualification such as master craftsman or technician, which enables them to raise their formal qualification level. The examination regulations governing advanced training courses are stipulated either by legal ordinance issued by the Federal Government or federal states or by legal regulations put in place by the competent bodies.

According to the results of the BIBB Training Panel, a total of 62% of companies supported continuing training measures for their employees in the form of courses and seminars in the 2018 reference year. A comparison across economic sectors shows that upgrading training programmes at companies which provide medical and nursing services are receiving an above-average level of funding (25%). The proportion of companies offering upgrading training also rose in line with company size → **Figure C3.5-1**. Companies with a high degree of technologisation were significantly more likely to fund upgrading training programmes for their employees (18%) than companies with a low degree of technologisation (5%). This result is of particular interest against the background that upgrading training programmes for employees may mean a career jump within the company. Staff can thus also benefit from digitalisation.

Companies are able to cover their skills needs both via external recruitment and via internal initial and continuing training activities. Alongside dual training in occupations governed by the BBiG/HwO, another possibility is to combine company-based phases of learning with higher education within the scope of a dual higher education course of study. According to the results of the BIBB Training Panel, just under 6% of companies providing training pursuant to the BBiG/HwO had dual students amongst those training in BBiG/HwO occupations in the 2018 reference year. → **Figure C3.5-2** presents the proportion of companies with dual students amongst their BBiG/HwO trainees in 2018 by structural characteristics.

The work requirements of companies are reflected in the qualifications structure of their employees. By the

Figure C3.5-2: **Proportion of companies with dual students amongst their BBiG/HwO trainees by structural characteristics, 2018 (in %)**



* MSC = employees subject to mandatory social insurance contributions

Source: BIBB Training Panel 2019; weighted data, N = 2,135

VET Data Report Germany 2021

same token, a company's qualifications structure permits inferences to be drawn regarding the level of requirements of the tasks. In companies with dual students, the average proportion of employees who had completed company-based VET or were in possession of a master craftsman, technician or comparable advanced training qualification was lower. At the same time, the average proportion of employees with a university of applied sciences/university degree was higher at companies with dual students than at companies without dual students. This shows that the likelihood that academic training will be funded within the field of training is higher if more staff members hold academic qualifications.

Part D: Monitoring of the internationalisation of vocational education and training

D1 Indicators for vocational education and training in Europe

D1.1 Development of vocational education and training in selected countries with dual VET

Vocational training in the dual system, which places the main emphasis on company-integrated learning, is of particular significance to the acquisition of skills that are in demand on the labour market. Data for the measurement of youth unemployment in international comparative terms shows that countries with dual systems are particularly likely to exhibit low rates. The system of dual training in Germany is typically compared with the training systems in Switzerland and Austria since these countries display the greatest systemic similarities. Analysis of the development of company-integrated training has been expanded to include a number of further countries over the past few years. This is because dual training has attracted considerable attention in recent times, and company-integrated forms of training do not only occur in countries with a dual system. Nevertheless, international analysis of provision of company-based training is not without problems. Making comparisons is frequently hampered by the structural differences between the vocational education and training systems of the various countries. One major dimension in the comparison of VET systems is the significance accorded to vocational training provision at the upper secondary level.

For this reason, it is also useful to look at company-based VET as a proportion of employment on the labour market. This involves considering the number of persons with a company-based training contract as a ratio of the labour demand. Data on company-based training contracts based on national statistics is used to calculate training rates in the international part of the Data Report (AQint), whilst labour demand figures are based on international data from the ILO statistics (see Information Box).

Information Box – (AQint) in international comparative terms

In Germany, the training rate is calculated as the number of trainees as a proportion of employees subject to mandatory social insurance contributions. Because there are major national differences with regard to the organisation of contracts of employment, training rates were calculated on the basis of labour demand (denominator) for the purpose of international comparison. Labour demand information is taken from ILO figures, and information regarding company training contracts is based on data from national training statistics. The apprenticeships stated conceal very different specific regulations and arrangements in terms of contents and forms.

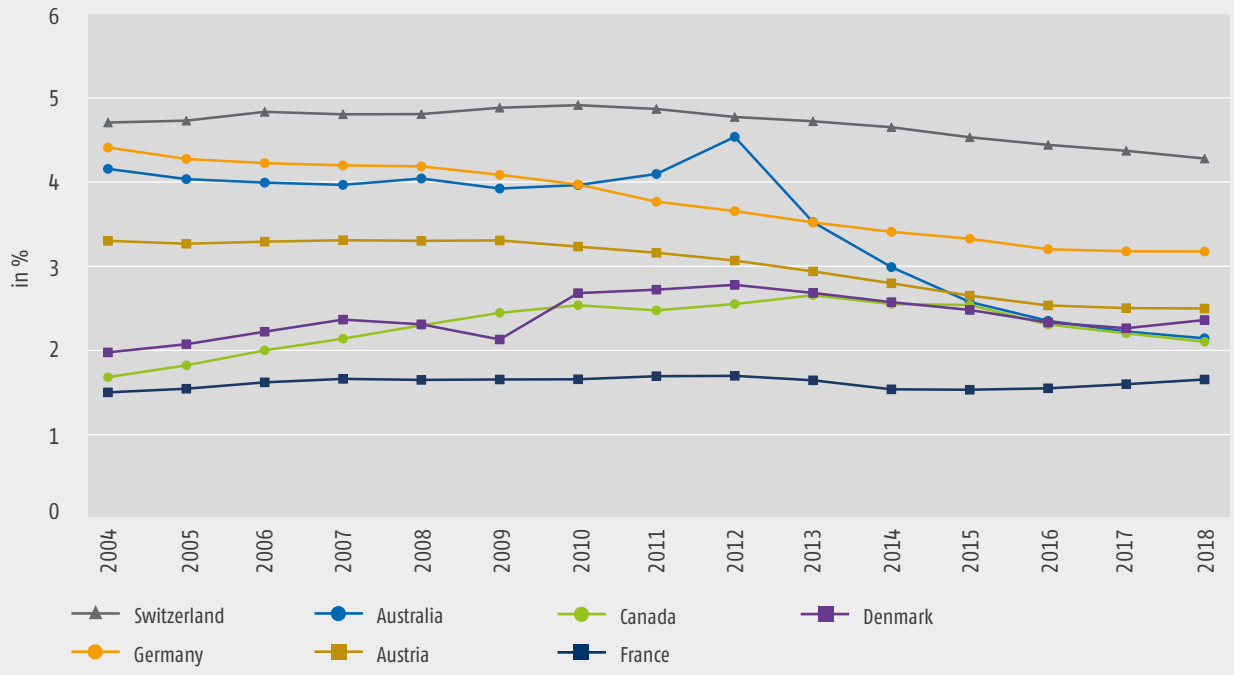
Recording the training rate as a relevant indicator of dual vocational education and training practice is therefore certainly suited to the investigation of various VET systems. Nevertheless, account needs to be taken of the considerable national differences in the ways in which company-based training is structured. In the OECD figures referred to above, this is reflected in the fact that company-based training is in many cases linked with post-secondary educational provision rather than being aligned to the secondary school sector. There is also a host of further differences which cannot be elaborated on at this point. Finally, with regard to the interpretation of the training rate, attention needs to be drawn to the fact that the absolute number of training contracts must always be differentiated from the relative level. Data on the working age population shows that, since 2004, labour demand has risen in the countries forming an object of consideration. An increase in the number of company-based training contracts does therefore not automatically mean a higher training rate.[36]

The database of the training rate also permits an approximate comparison of the most popular areas of training in the companies considered in 2018.[37] This provides a

36 The training rate may even fall if labour demand increases more strongly than the number of company-based training contracts because the number of trainees will decrease proportionally.

37 The period 2018/2019 or 2018 to 2019 was considered for France and Switzerland.

Figure D1.1-1: **Training rate – company-based trainees as a proportion of labour demand in international comparative terms (in %)**



Source: Information on training contracts in the respective countries are based on national statistics.
Austria: Association of Austrian Chambers of Commerce and Industry 2020a; **Canada:** Statistics Canada 2020; **France:** Direction de l'évaluation 2013, pp. 154ff., 2015, pp. 144ff., 2017, pp. 136ff., 2018, pp. 136ff., 2019, pp. 136ff., 2020, p. 133; **Switzerland:** Federal Office of Statistics 2020b; **Germany:** BIBB Data Report 2020, Chapter A5.2, pp. 97ff.; **Australia:** National Centre for Vocational Education Research 2020, Table 1; **Denmark:** National Ministry of Education 2020. Data relating to labour demand is taken from the international statistics of the ILO (International Labour Organization 2020). Calculations by the Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

foundation for the identification of national differences and commonalities and makes it possible to obtain a differentiated perspective of the training landscape.

D1.2 Youth unemployment in European comparative terms

This chapter reports on youth unemployment in Europe on an ongoing basis. When using and interpreting data, consideration needs to be accorded to the fact that different concepts are used to measure youth employment (see Information Box). The value of these usually lies below the most common indicator, the youth unemployment rate.

Information Box – measurement of youth unemployment in international comparative terms – approaches and empirical concepts

Number of unemployed young people as a proportion of the labour supply of the same age (youth unemployment rate according to the ILO concept)

This indicator provides information on the number of unemployed young people as a proportion of the whole workforce potential of the same age and is formed as a quotient of unemployed persons and labour supply (labour demand plus unemployed persons in the labour force).

Number of unemployed young people as a proportion of the population of the same age (labour supply and economically inactive persons)

A further indicator for the youth unemployment relates the number of unemployed young people to all persons (labour supply and economically inactive persons) in the same age group. It thus states the proportion of unem-

ployed persons in the age group. This number is smaller than the youth unemployment rate because of the larger denominator.

Relative youth unemployment

In order to control for aspects such as the effects of economic development, youth unemployment in the respective country may be related to overall unemployment (in accordance with the ILO definition). Unemployment rates for those aged under 25 are contrasted with unemployment rates for those aged between 25 and 74 for this purpose. The resultant quotient (relative youth unemployment) shows the extent to which young people are particularly badly affected by unemployment in relation to all unemployed persons.

NEET rate – not in education, employment and training – young people who do not form part of the labour demand and are not engaged in education or continuing training

This indicator relates to the relative/percentage proportion of young people (of a given age group and of the respective gender) who, compared against the overall population of the same age, are not in employment/work and are not pursuing further education courses or training. Two conditions must be fulfilled for respondents in the numerator. (a) They are not in work (i.e. they are unemployed or are economically inactive according to the ILO definition) and (b) they are not in education or training (neither formal nor informal) in the four weeks preceding the survey. The numerator relates to the entire population of the same age group and of the respective gender apart from respondents who did not answer the question "Participation in regular (formal) education and training".

So-called NEET rates will be reported below to supplement youth unemployment rates pursuant to the ILO concept (relative youth unemployment and number of unemployed persons as a proportion of the population of the same age). Significant differences are revealed in the data because of the various definitions and design concepts. The data for the year 2019 is updated below. The annual figures are adjusted for seasonal fluctuations and thus deliver more reliable results in overall terms. Supplementary information on the quarterly rates for the third quarter of 2020 is supplied for reasons of current validity. In all countries forming an object of observation in 2019, unemployment amongst young people (aged 15 to 24) was significantly higher in overall terms than amongst the age group of those from 25 to 74 (2019: 5.8%). Germany continued to exhibit the lowest rate compared to the countries considered.

2019 saw a continuation of the trend of average relative unemployment in the EU (28 countries) since 2015 (2018: 2.53% as opposed to 2019: 2.62%) → **Table D1.2-1**.

Table D1.2-1: **Unemployment, youth unemployment, relative youth unemployment and NEET rates in European comparative terms (Part 1)**

Country	Unemployment rate in % of the labour supply aged 15 to 24 youth unemployment[1]											Ranking 2015	Ranking 2016	Ranking 2017	Ranking 2018	Ranking 2019	Ranking 2020/Q3	Unemployment rate in %[1] of the labour supply aged 25 to 74										
	2005	2009	2012	2013	2014	2015	2016	2017	2018	2019	2020/Q3[4]	Unemployment rate (15-24)	Unemployment rate (15-24)	Unemployment rate (15-24)	Unemployment rate (15-24)	Unemployment rate (15-24)	Unemployment rate (15-24)	2005	2009	2012	2013	2014	2015	2016	2017	2018	2019	2020/Q3
European Union (28 countries)	18,9	20,2	23,2	23,7	22,2	20,4	18,7	16,9	15,2	14,4	-							7,6	7,6	9,0	9,5	9,0	8,3	7,5	6,7	6,0	5,5	-
Belgium	21,5	21,9	19,8	23,7	23,2	22,1	20,1	19,3	15,8	14,2	17,7	*10*	*8*	*10*	*9*	*8*	*7*	7,1	6,6	6,4	7,1	7,3	7,3	6,8	6,1	5,2	4,6	5,5
Denmark	8,6	13,5	15,8	14,8	14,2	12,2	12,2	12,4	10,5	10,1	13,3	*5*	*4*	*6*	*5*	*5*	*4*	4,2	5,1	6,4	6,1	5,7	5,3	4,9	4,7	4,2	4,2	5,2
Germany	15,5	11,2	8,0	7,8	7,7	7,2	7,1	6,8	6,2	5,8	-	*1*	*1*	*1*	*1*	*1*	-	10,6	7,3	5,1	4,9	4,7	4,4	3,8	3,4	3,1	2,9	-
Greece	25,8	25,7	55,3	58,3	52,4	49,8	47,3	43,6	39,9	35,2	34,2	*15*	*13*	*15*	*15*	*15*	*13*	8,4	8,4	22,3	25,4	24,8	23,4	22,2	20,2	18,2	16,4	15,2
Spain	19,6	37,7	52,9	55,5	53,2	48,3	44,4	38,6	34,3	32,5	40,4	*14*	*12*	*14*	*14*	*14*	*14*	7,7	15,7	22,5	23,8	22,3	20,2	17,9	15,7	13,9	12,8	14,5
France	20,3	22,9	23,7	24,1	24,2	24,7	24,5	22,1	20,8	19,6	22,1	*11*	*9*	*11*	*12*	*11*	*8*	7,1	7,1	7,9	8,4	8,9	8,9	8,5	8,1	7,8	7,3	7,5
Italy	24,1	25,3	35,3	40,0	42,7	40,3	37,8	34,7	32,2	29,2	30,9	*13*	*11*	*13*	*13*	*13*	*12*	6,3	6,4	8,9	10,3	10,7	10,1	10,0	9,8	9,3	8,8	8,7
Latvia	15,1	33,3	28,5	23,2	19,6	16,3	17,3	17,0	12,2	12,4	14,8	*7*	*6*	*8*	*7*	*7*	*5*	9,3	15,4	13,6	10,7	10,0	9,3	9,0	8,1	7,1	5,9	7,9
Luxembourg	13,7	17,2	18,8	15,5	22,6	17,3	18,9	15,4	14,2	17,0	26,0	*8*	*7*	*7*	*8*	*9*	*10*	3,8	4,1	4,2	5,2	4,8	5,7	5,3	4,7	4,9	4,6	6,3
Netherlands	11,8	10,2	11,7	13,2	12,7	11,3	10,8	8,9	7,2	6,7	10,8	*4*	*2*	*2*	*2*	*2*	*1*	4,8	3,2	4,7	6,1	6,5	6,1	5,1	4,1	3,2	2,8	3,1
Austria	11,0	10,7	9,4	9,7	10,3	10,6	11,2	9,8	9,4	8,5	11,0	*3*	*3*	*3*	*3*	*3*	*2*	4,7	4,4	4,2	4,7	4,9	5,0	5,3	4,9	4,3	4,0	5,0
Portugal	16,2	20,3	37,9	38,1	34,8	32,0	28,0	23,9	20,3	18,3	26,4	*12*	*10*	*12*	*11*	*10*	*11*	6,7	8,6	13,9	14,7	12,5	11,1	9,9	7,8	6,1	5,6	6,6
Sweden	22,8	25,0	23,6	23,5	22,9	20,4	18,9	17,9	17,4	20,1	22,3	*9*	*7*	*9*	*10*	*12*	*9*	5,8	5,9	5,7	5,7	5,7	5,6	5,3	5,2	4,9	5,1	6,9
United Kingdom	12,7	19,1	21,2	20,7	17,0	14,6	13,0	12,1	11,3	11,2	15,6	*6*	*5*	*5*	*6*	*6*	*6*	3,3	5,6	5,7	5,4	4,4	3,8	3,6	3,2	3,0	2,7	3,4
Norway	*11,5*	*9,2*	*8,5*	*9,1*	*7,9*	*9,9*	*11,2*	*10,4*	*9,7*	*10,0*	*11,7*	*2*	*3*	*4*	*4*	*4*	*3*	*3,3*	*2,1*	*2,3*	*2,5*	*2,8*	*3,4*	*3,7*	*3,3*	*2,9*	*2,8*	*4,0*

Table D1.2-1: **Unemployment, youth unemployment, relative youth unemployment and NEET rates in European comparative terms (Part 2)**

Country	Younger people affected compared to older people: (UER 15-24)/(UER 25-74) (Relative youth unemployment)											Ranking 2015	Ranking 2016	Ranking 2017	Ranking 2018	Ranking 2019	Ranking 2020/Q3	Share of unemployed in the workforce (15-24) and economically inactive population (15-24)						NEET (15-24)[3]	NEET (15-24)	NEET (15-24)	NEET (15-24)	NEET (15-24)
	2005	2009	2012	2013	2014	2015	2016	2017	2018	2019	2020/Q3	UER (15-24)/ UER (25-74)	UER (15-24)/ UER (25-74)	UER (15-24)/ UER (25-74)	UER (15-24)/ UER (25-74)	UER (15-24)/ UER (25-74)	UER (15-24)/ UER (25-74)	2015	2016	2017	2018	2019	2020/Q3[5]	2015	2016	2017	2018	2019*
European Union (28 countries)	2,49	2,66	2,58	2,49	2,47	2,46	2,49	2,52	2,53	2,62	-							8,5	7,8	7,0	6,3	6,0	-	12,0	11,6	10,9	10,5	10,1
Belgium	3,03	3,32	3,09	3,34	3,18	3,03	2,96	3,16	3,04	3,09	3,22	*11*	*10*	*11*	*10*	*9*	*8*	6,6	5,7	5,4	4,7	4,4	5,6	12,2	9,9	9,3	9,2	9,3
Denmark	2,05	2,65	2,47	2,43	2,49	2,30	2,49	2,64	2,50	2,40	2,56	*6*	*7*	*7*	*7*	*6*	*4*	7,1	7,3	7,5	6,3	6,1	8,3	7,0	6,7	7,6	7,7	7,7
Germany	1,46	1,53	1,57	1,59	1,64	1,64	1,87	2,00	2,00	2,00	-	*1*	*1*	*1*	*2*	*1*	-	3,5	3,5	3,4	3,1	3,0	-	6,2	6,7	6,3	5,9	5,7
Greece	3,07	3,06	2,48	2,30	2,11	2,13	2,13	2,16	2,19	2,15	2,25	*5*	*5*	*4*	*4*	*4*	*3*	12,9	11,7	10,9	9,3	7,9	7,6	17,2	15,8	15,3	14,1	12,5
Spain	2,55	2,40	2,35	2,33	2,39	2,39	2,48	2,46	2,47	2,54	2,79	*7*	*6*	*6*	*6*	*7*	*5*	16,8	14,7	12,9	11,3	10,7	13,0	15,6	14,6	13,3	12,4	12,1
France	2,86	3,23	3,00	2,87	2,72	2,78	2,88	2,73	2,67	2,68	2,95	*8*	*9*	*8*	*8*	*8*	*7*	9,2	9,1	8,2	7,8	7,2	8,4	12,0	11,9	11,4	11,1	10,6
Italy	3,83	3,95	3,97	3,88	3,99	3,99	3,78	3,54	3,46	3,32	3,55	*15*	*15*	*14*	*13*	*11*	*11*	10,6	10,0	9,1	8,4	7,6	7,8	21,4	19,9	20,1	19,2	18,1
Latvia	1,62	2,16	2,10	2,17	1,96	1,75	1,92	2,10	1,72	2,10	1,87	*2*	*2*	*3*	*1*	*2*	*1*	6,7	6,9	6,7	4,6	4,5	5,2	10,5	11,2	10,3	7,8	7,9
Luxembourg	3,61	4,20	4,48	2,98	4,71	3,04	3,57	3,28	2,90	3,70	4,13	*12*	*12*	*12*	*9*	*13*	*13*	6,1	5,8	4,7	4,7	5,9	9,3	6,2	5,4	5,9	5,3	5,6
Netherlands	2,46	3,19	2,49	2,16	1,95	1,85	2,12	2,17	2,25	2,39	3,48	*3*	*4*	*5*	*5*	*5*	*10*	7,7	7,4	6,1	4,9	4,7	7,5	4,7	4,6	4,0	4,2	4,3
Austria	2,34	2,43	2,24	2,06	2,10	2,12	2,11	2,00	2,19	2,13	2,20	*4*	*3*	*1*	*3*	*3*	*2*	6,1	6,5	5,5	5,3	4,8	6,5	7,5	7,7	6,5	6,8	7,1
Portugal	2,42	2,36	2,73	2,59	2,78	2,88	2,83	3,06	3,33	3,27	4,00	*9*	*8*	*9*	*11*	*10*	*12*	10,7	9,3	8,1	6,9	6,3	8,0	11,3	10,6	9,3	8,4	8,0
Sweden	3,93	4,24	4,14	4,12	4,02	3,64	3,57	3,44	3,55	3,94	3,23	*13*	*12*	*13*	*14*	*14*	*9*	11,2	10,4	9,8	9,4	11,1	12,1	6,7	6,5	6,2	6,0	5,5
United Kingdom	3,85	3,41	3,72	3,83	3,86	3,84	3,61	3,78	3,77	4,15	4,59	*14*	*14*	*15*	*15*	*15*	*14*	8,6	7,6	7,0	6,4	6,3	8,7	11,1	10,9	10,3	10,4	10,5
Norway	*3,48*	*4,38*	*3,70*	*3,64*	*2,82*	*2,91*	*3,03*	*3,15*	*3,34*	*3,57*	*2,93*	*10*	*11*	*10*	*12*	*12*	*6*	*5,5*	*6,1*	*5,6*	*5,3*	*5,5*	*6,8*	*5,0*	*5,4*	*4,6*	*4,9*	*4,8*

*The most recent data for NEET rates were from 2019 at the time of data collection.

[1] Eurostat: Unemployment rates by gender, age and nationality. LFS series - Detailed annual survey results. 2020a.

[2] Eurostat: Population by sex, age, nationality and labour force status. LFS Series - Detailed annual survey results. 2020c.

[3] Eurostat: Young people not in employment and not in education or training. 2020e.

[4] Eurostat: Unemployment rates by sex, age and nationality. LFS series - Detailed quarterly survey results. 2020b.

[5] Eurostat: Population by sex, age, nationality and labour force status. LFS Series - Detailed quarterly survey results. 2020d.

Source: Eurostat, data from Labour Force Survey (LFS), unemployment according to ILO concept; calculations by the Federal Institute for Vocational Education and Training

D2 Mobility in vocational education and training

Policy goals and quantitative development

Increasing mobility in vocational education and training is a high-priority goal of European and national educational policy. In its Recommendation on vocational education and training issued in 2020, the Council of the European Union formulated the objective of increasing the proportion of persons gaining international experience during VET to 8% by the year 2025. The European benchmark which is valid until 2020 (6%) is thus being raised by two percentage points whilst the timeline is also being extended. At a national level, the German Bundestag formulated a goal in January 2013 that at least 10% of trainees should gain experience abroad during their training in 2020. A mobility study published by the National Agency Education for Europe at BIBB has shown that 5.3% of all persons completing vocational education and training in 2017 had spent a period of learning abroad as part of their programme. Strong growths in the Erasmus+ programme in 2018 and 2019 and an expansion of funding for the Training Worldwide programme[38] permit the estimation that a mobility rate of 7% was achieved in the year 2019. Even though this falls short of the objective of experience abroad for 10% of persons completing vocational education and training, it was possible to ascertain a significant rise in the mobility rate. The figure of 7% is more than double the mobility rate of 3.2% identified in 2010 and, related to Germany, even exceeds the European benchmark of 6% for the year 2020.

Erasmus+

By the end of 2020, a total of €14.8 billion had been made available in Europe to fund the qualifications and employability of more than 4 million people. This meant that 40% more funding had been made available in Erasmus+ for general and vocational education and training compared to the predecessor programme. Just under two thirds (63%) of the whole budget was earmarked for cross-border mobility of individual persons. The remaining funding was allocated to the purposes of supporting partnerships, of promoting reforms aimed at modernising general and vocational education, and of promoting innovation, entrepreneurship and employability. In Germany, four national agencies are responsible for the implementation of Erasmus+. The National Agency Education for Europe at BIBB is responsible for the sectors of vocational education and training and adult education.

The medium-term financial framework of the European Union and the regulation for the subsequent programme over the period from 2021 to 2027 were adopted at the end of 2020. The programme will receive a budget of €24.57 billion plus €1.7 billion in additional funding. This represents a virtual doubling of the programme budget.

Erasmus+, mobility in vocational education and training, coronavirus pandemic

The current programme Erasmus+ (2014 to 2020) has expanded its target perspective. At an individual level, the central focus remains on improving competencies and employability. Since 2014, however, the European programme for mobility in vocational education and training has had an additional emphasis at the institutional and systemic level. The aim is that participation in mobility projects will help companies and institutions to enhance the quality and attractiveness of training provision and to foster the internationalisation of their own organisations. At the level of education systems, the objectives are to improve the recognition of competencies, to smooth transitions between education sectors including the informal sector and to initiate policy reforms in the long term.

The number of stays abroad applied for and approved in the year 2020 are presented in → **Table D2-1**. Stays abroad approved dropped by about 12% compared to the previous year. Nevertheless, they remained above the levels recorded for the year 2018. The reason for the decrease is uncertainty as to whether stays abroad in the United Kingdom, the destination country that attracts the highest numbers, would still be eligible for funding or not within the scope of the 2020 call for proposals. The result was that demand for stays abroad did not rise for the first time since 2007.

The follow-up programme to run from 2021 to 2027 will further simplify the funding of stays abroad by arranging for institutions to be accredited for the entire duration of the term. This provides a basis on which institutional funding can take place. VET institutions were permitted to apply for accreditation from the autumn of 2020 onwards so that institutional funding can commence in 2021. 395 institutions have submitted relevant applications, and decisions regarding these will be made by the start of 2021.

38 Because of the limited geographical reach of Erasmus+ and of other national funding programmes, the BMBF launched a programme called "Training Worldwide" (**www.ausbildung-weltweit.de**) at the beginning of 2019. This is being implemented by the National NA at BIBB. Training Worldwide *(AusbildungWeltweit)* is a broadly based support programme which allows stays abroad to be completed all over the world during the course of vocational education and training. The target countries are all those not covered by the European education programme Erasmus+.

Table D2-1: **Erasmus+ mobility in vocational education and training 2020, applications/approvals**

	Number of projects applied for	Number of projects approved	Number of participants applied for	Number of participants approved	Budget applied for in € million	Budget approved in € million
Learners	Integrated projects	Integrated projects	23.434	23.131	Integrated projects	Integrated projects
Vocational education and training staff	Integrated projects	Integrated projects	5.937	5.865	Integrated projects	Integrated projects
Total	**574**	**559**	**29.371**	**28.996**	**59,9**	**58,8**

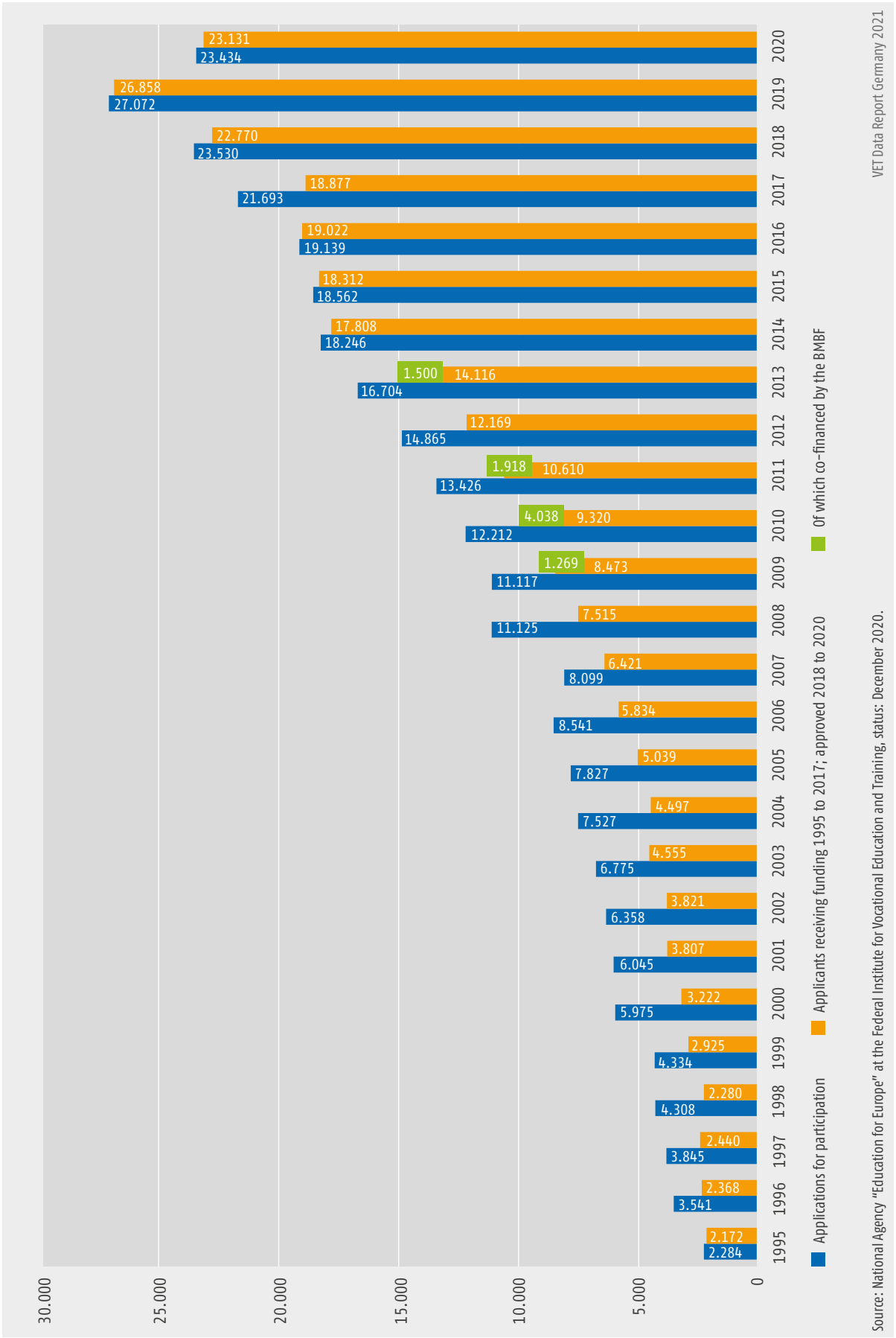
Source: National Agency "Education for Europe" at the Federal Institute for Vocational Education and Training, status: December 2020 VET Data Report Germany 2021

Measured against the number of stays abroad approved in 2019, the Erasmus+ programme is involved in the financing of almost two thirds of all stays abroad and in over 90% of publicly financed stays abroad in vocational education and training in Germany. This makes Erasmus+ the largest funding programme for stays abroad in VET by some distance.

Training courses and occupations funded

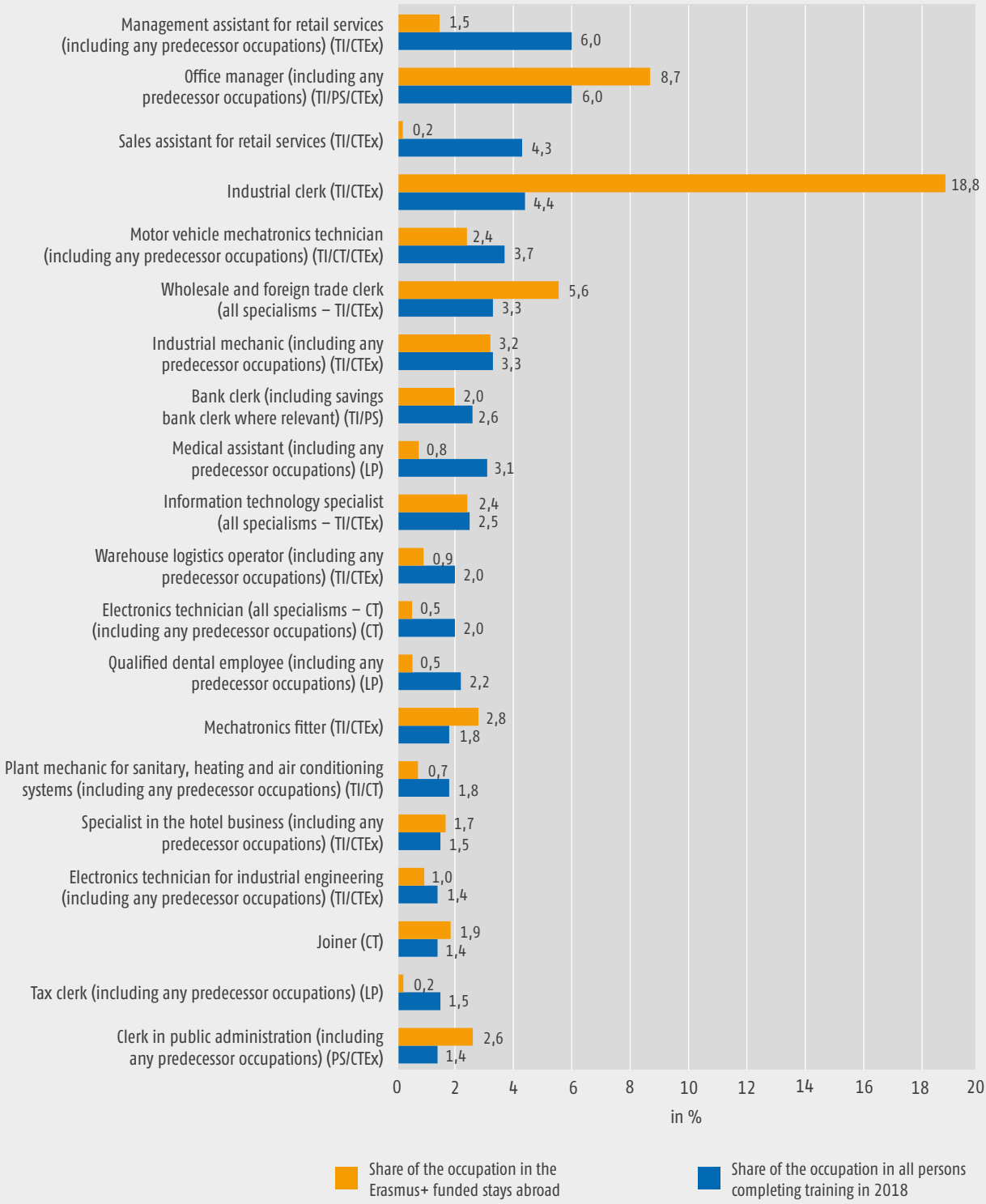
The projects approved in 2017 expired in 2019 and could be analysed in the year 2020. The most current figures regarding training courses and occupations funded are thus available for these projects. 91% of the learner target group were in initial vocational education and training. The other sub-groups were in vocational training preparation measures (3%), regulated continuing training (3%) and in their first year following completion of initial or continuing training (3%). Of the persons in initial vocational education and training, 61% came from the dual system and 39% from school-based training programmes. → **Figure D2-2** shows the degree to which the 20 most popular training occupations were represented in the Erasmus+ programme by presenting the proportion they made up of all persons completing VET and of all funded Erasmus+ learners.

Figure D2-1: **Erasmus+ mobility in vocational education and training 1995 to 2020, learners**



Source: National Agency "Education for Europe" at the Federal Institute for Vocational Education and Training, status: December 2020.

Figure D2-2: **Proportion of Erasmus+-funded stays abroad compared to rates of persons completing the top 20 training occupations pursuant to the BBiG/HwO 2018 (in %)**



Source: National Agency Education for Europe at the Federal Institute for Vocational Education and Training (BIBB); "Trainee Database" of the Federal Institute for Vocational Education and Training based on data from the Vocational Education and Training Statistics of the Federal Statistical Office and the statistical offices of the federal states (survey as of 31 December), training occupations as a whole not including § 66 BBiG/ § 42m HwO.

VET Data Report Germany 2021

D3 Recognition of foreign professional and vocational qualifications

The recognition laws of the Federal Government and the federal states (see Information Box) pursue two objectives. The first aim is to improve the integration of persons with foreign qualifications who are already living in Germany. A second objective is that the immigration of qualified workers will help address the country's skills gap.

In 2019, skilled workers made a total of 43,128 applications for recognition in Germany of professional and vocational qualifications obtained abroad. More than three quarters of cases (33,120) involved professions and occupations governed by federal law. Just under a quarter (10,005) concerned professions and occupations governed by federal state law. With regard to the former, this once again constituted a significant increase compared to the previous year (29,202). The number of applications concerning professions and occupations governed by federal state law remained at the same level as the previous year (9,912). The dominant professions governed by federal law for which applications for recognition were made in 2019 were doctor (medical practice licence) and registered general nurse, the same two occupations which had led applications by some considerable distance in previous years as is explained below. These two professions accounted for almost two thirds of applications (64.6%). In the case of the professions and occupations governed by federal state law, two professions made up nearly two thirds of applications. These were engineer (3,105 applications), teacher training or teacher (2,397) and nursery school teacher (1,083), closely followed by the occupation of social education worker (813).

In 2019, 29,421 higher education qualifications obtained abroad were also submitted to the Central Office for Foreign Education (ZAB) for a school-leaving certificate evaluation. Although this involves a different kind of procedure, it also serves the purpose of integrating skilled workers with foreign qualifications into the German labour market and can also facilitate entry to the country for the purpose of employment. School-leaving certificate evaluation is offered for higher education qualifications if there is no intention of exercising a regulated profession, e.g. in the case of qualifications as a mathematician or sociologist.

Information Box – recognition laws of the Federal Government and the federal states

The "Law to improve the assessment and recognition of professional and vocational education and training qualifications acquired abroad" – referred to in abbreviated form as the "Recognition Act" – entered into force at the federal level on 1 April 2012. It is a "composite act" which encompasses the Professional and Vocational Qualifications Assessment Act (BQFG) and amendments and adjustments to the specific laws and ordinances governing occupations and professions (e.g. in the HwO and the Federal Medical Code).

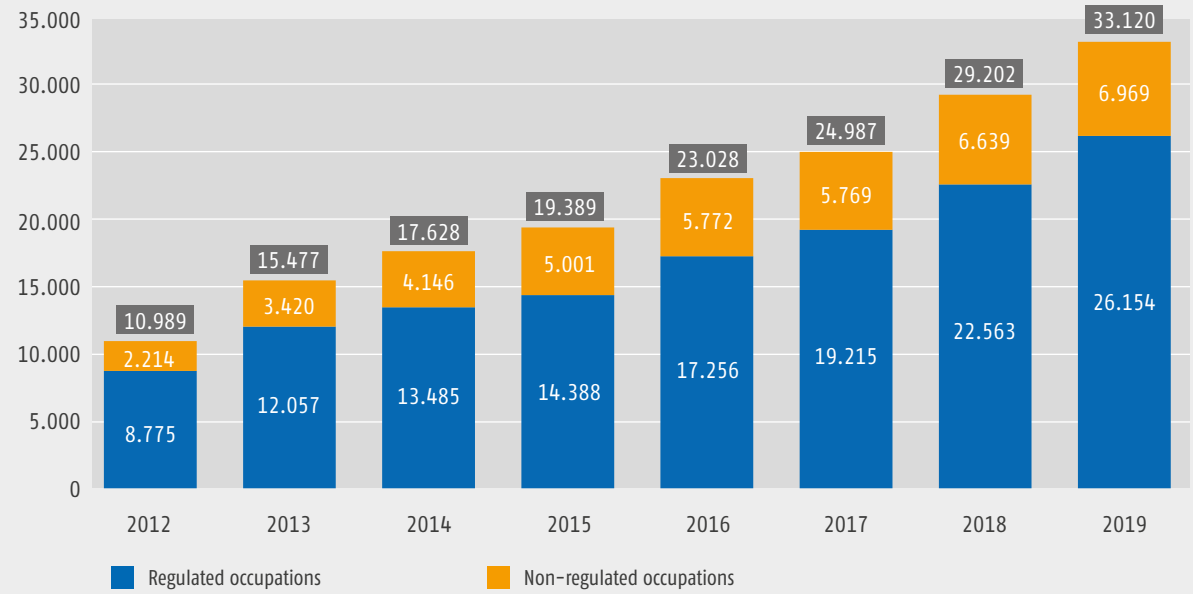
16 recognition acts of the federal states entered into force between August 2012 and July 2014. These contain relevant provisions for professions and occupations governed by federal state law. Depending on the occupation or profession and the federal state, recognition via the BQFG is subject to the laws governing the professions, to training regulations or to a combination of both.

Persons interested in migrating to Germany are able to submit an application for a recognition procedure whilst they are still abroad. The number of "foreign applications" for professions and occupations governed by federal law also rose in 2019 to reach a proportion of around 30%. This is generally[39] one of the prerequisites for a residence permit for the purpose of employment or seeking a job in Germany for skilled workers in third countries, i.e. countries outside the EU/EEA/Switzerland. As a study by the Recognition Monitoring Project shows, successfully completing the complex recognition and visa procedures constantly creates numerous challenges, particularly for skilled workers migrating from third countries.

A series of measures aimed at countering these challenges became effective in 2020. The Skilled Immigration Act introduced legal changes such as an accelerated skilled worker procedure, and a further aim is for new stakeholders to fill gaps in guidance services and with regard to responsibility for skilled workers who are still abroad. The Central Service Agency for Professional Recognition (ZSBA) is also offering more detailed advice and application support for skilled workers located abroad who are interested in migrating to Germany. The ZSBA has been set up at the BA's Central Foreign and Special-

39 Migration of skilled workers from third countries is not dependent on recognition in every case since persons qualified abroad also arrive in Germany via other entry arrangements, such as within the context of family reunification or as refugees. Within the scope of economic migration, however, recognition is particularly necessary for skilled workers with non-academic vocational education and training (with the exception of IT) or for those who intend to work in a regulated profession.

Figure D3-1: **Development of applications relating to occupations governed by federal law by type of regulation, 2012 to 2019 (absolute terms)**



Note: For reasons of data protection, all figures (absolute values) are in each case rounded to a multiple of 3. The overall value may therefore deviate from the total of the individual values.
As far as the first reporting year of 2012 was concerned, the competent bodies responsible for recognition were only determined within the course of the reporting year in some cases and had to set up their reporting systems from scratch. For this reason, reports may not have been completed or have taken place in a timely manner in all cases. In 2013, the reports made by a number of agencies were incomplete and erroneous. No data is available for Bremen for the year 2015. For this reason, information from 2014 has been used for this particular federal state. In the 2016 reporting year, the area of the medical healthcare professions was under reported by a figure in the low hundreds for the federal states of Hamburg and Schleswig-Holstein. To this extent, the federal result should be viewed as a minimum figure.
From 2016: including applications in respect of which procedures ended without a notice (withdrawn applications).

Source: Official statistics pursuant to § 17 of the Federal Professional Qualifications Assessment Act (BQFG) or pursuant to the respective laws governing the professions which make reference to § 17 BQFG. Reporting years 2012 to 2019. Survey by the Federal Statistical Office and the statistical offices of the federal states; evaluation and representation by the Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

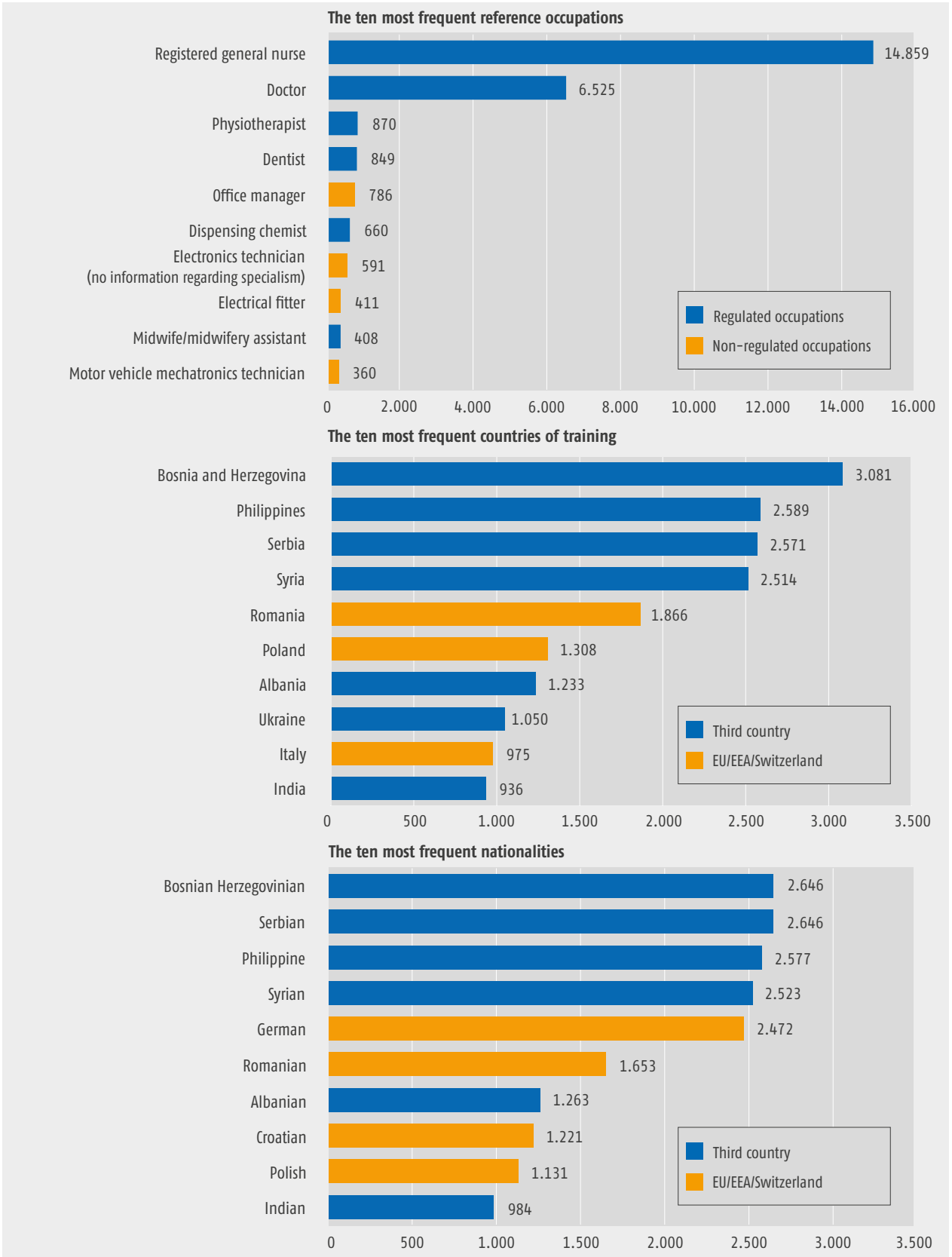
ist Placement Agency (ZAV) in Bonn and commenced its work on 1 February 2020. In addition, new areas of responsibility have been introduced for immigration departments (ABHs), and central ABHs and pooling systems for certain visa matters have been established in some cases. State-funded recruitment projects have been stepped up, too. The measures instigated in Germany and in most countries across the world from the spring of 2020 in a bid to stem the COVID-19 pandemic are likely to have considerably restricted or inhibited take-up of the new possibilities. Results from the official statistics on the recognition system in the pandemic year of 2020 are expected in late summer 2021.

Applications for recognition of a qualification obtained abroad for professions and occupations governed by federal law increased by 13.4% in 2019 compared to the previous year. Once again, most applications (79.0%) were for regulated professions. The remaining 21% related to non-regulated occupations. Compared to the previous year, the volume of applications for regulated professions rose by +15.9%. The increase in applications for non-regulated occupations was +5.0%. Since the entry into force of the recognition Act on 1 April 2012, the official statistics on professions and occupations governed by federal law have recorded a total of 173,823 applications for recognition. → **Figure D3-1** illustrates the application figures and their constant upward development between 2012 and 2019.

Foreign applications

The legal entitlement to a recognition procedure applies regardless of the place of residence of persons interested in training. This means that persons living abroad may also submit an application for recognition of their foreign professional or vocational qualification. The competent bodies reported 9,840 foreign applications for the year 2019. This is the highest volume recorded since the entry into force of the Recognition Act and accounted for 29.7% of the total of 33,120 applications. Foreign applications related primarily to medical healthcare

Figure D3-2: **Number of applications relating to occupations governed by federal law in the ten most frequent reference occupations, countries of training and nationalities, 2019 (absolute terms)**

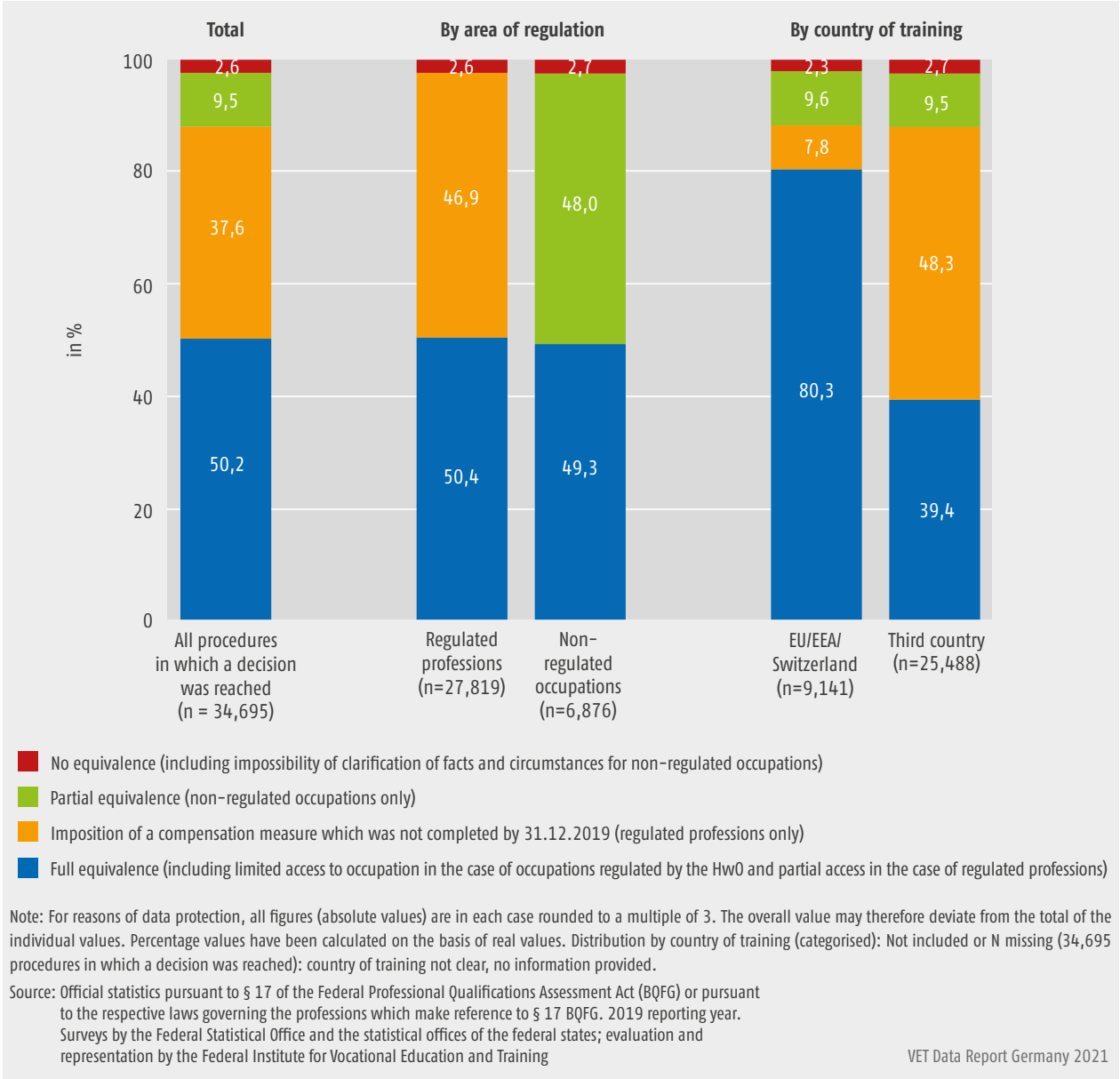


Note: for reasons of data protection, all figures (absolute values) are in each case rounded to a multiple of 3. The overall value may therefore deviate from the total of the individual values.

Source: Official statistics pursuant to § 17 of the Federal Professional Qualifications Assessment Act (BQFG) or pursuant to the respective laws governing the professions which make reference to § 17 BQFG. 2019 reporting year. Surveys by the Federal Statistical Office and the statistical offices of the federal states; evaluation and representation by the Federal Institute for Vocational Education and Training

VET Data Report Germany2021

Figure D3-3: **Results of procedures relating to professions and occupations governed by federal law in which a decision was reached in 2019, in overall terms and differentiated by area of regulation and country of training**



Note: For reasons of data protection, all figures (absolute values) are in each case rounded to a multiple of 3. The overall value may therefore deviate from the total of the individual values. Percentage values have been calculated on the basis of real values. Distribution by country of training (categorised): Not included or N missing (34,695 procedures in which a decision was reached): country of training not clear, no information provided.

Source: Official statistics pursuant to § 17 of the Federal Professional Qualifications Assessment Act (BQFG) or pursuant to the respective laws governing the professions which make reference to § 17 BQFG. 2019 reporting year. Surveys by the Federal Statistical Office and the statistical offices of the federal states; evaluation and representation by the Federal Institute for Vocational Education and Training

VET Data Report Germany 2021

professions. In overall terms, 92.3% of foreign applications were for regulated professions. Non-regulated occupations made up 7.7%. 71.8% of the 9,840 foreign applications originated from third countries. Just over a quarter (28.2%) were received from EU/EEA countries and Switzerland. The country from which most foreign applications were submitted was the Philippines (1,668 foreign applications), followed by Serbia (1,107) and Hungary (909). The official statistics have recorded a total of 28,947 foreign applications since the Recognition Act entered into force.

German reference occupation

The 33,120 applications made from Germany and from abroad in 2019 once again revealed a consistently high demand for the recognition of foreign professional qualifications for medical healthcare professions. This area accounted for over three quarters (78.7%) of all applications. → **Figure D3-2** shows the ten most common German reference occupations for the year 2019. These encompass 79.5% of the applications.

Country of training

Qualifications from third countries have gained in significance in overall terms during recent years. They have accounted for more than half of the annual volume of applications since 2016. This trend continued in 2019. 71.7% of the total of 33,120 applications originated from third countries. Just over a quarter (28.2%) were received from EU/EEA countries and Switzerland. → **Figure D3-2** shows the ten most common countries of training for the year 2019.

Outcome of recognition procedures – overall view 2019

For the year 2019, the competent bodies reported 34,695 procedures relating to professions and occupations governed by federal law in which a decision had been reached (see Information Box). This was 5,979 more than in the previous year. Half of the 34,695 procedures in which a decision had been reached (50.2%) ended with a notice attesting full equivalence. In almost one in ten procedures (9.5%), the competent bodies awarded partial equivalence. A compensation measure in respect of which completion was still outstanding as of 31 December 2019 was "imposed" in just over a third (37.6%) of procedures. The percentage of procedures in respect of which the competent bodies established no equivalence was once again in the low single figures → **Figure D3-3**.

Annex: List of abbreviations

Abbreviation	German	English
AFBG	Aufstiegsfortbildungsförderungsgesetz	Upgrading Training Assistance Act
BA	Bundesagentur für Arbeit	Federal Employment Agency
BAföG	Bundesausbildungsförderungsgesetz	Federal Training Assistance Act
BAuA	Bundesanstalt für Arbeitsschutz und Arbeitsmedizin	Federal Institute for Occupational Safety and Health
BAMF	Bundesamt für Migration und Flüchtlinge	Federal Office for Migration and Refugees
BBiG	Berufsbildungsgesetz	Vocational Training Act
BIBB	Bundesinstitut für Berufsbildung	Federal Institute for Vocational Education and Training
BMAS	Bundesministerium für Arbeit und Soziales	Federal Ministry of Labour and Social Affairs
BMBF	Bundesministerium für Bildung und Forschung	Federal Ministry of Education and Research
BvB	Berufsvorbereitende Bildungsmaßnahme	Vocational preparation scheme
CT	Handwerk	Craft trades
CTEx	IH-Beruf im Handwerk ausgebildet	TI occupation where training takes place in the craft trade sector
DIE	Deutsches Institut für Erwachsenenbildung – Leibniz-Zentrum für Lebenslanges Lernen e. V.	German Institute for Adult Education – Leibniz Centre for Lifelong Learning
DQR	Deutscher Qualifikationsrahmen	German Qualifications Framework
EQI	Einmündungsquote Ausbildungsinteressierte	Progression rate of persons interested in training
eSDR		Extended supply-demand ratio
ESF	Europäischer Sozialfonds	European Social Fund
HwO	Handwerksordnung	Crafts and Trades Regulation Code
IAB	Institut für Arbeitsmarkt- und Berufsforschung	Institute for Employment Research
iABE	Integrierte Ausbildungsberichterstattung	Integrated Training Reporting System
ILO		International Labour Organization
ISCED		International Standard Classification of Education
KldB 2010	Klassifikation der Berufe 2010	2010 Classification of Occupations
KMK	Kultusministerkonferenz	Conference of the Ministers of Education and Cultural Affairs
LP	Freie Berufe	Liberal professions
NEET		Not in education, employment and training
NEPS		German National Education Panel Study
naa	Neu abgeschlossene Ausbildungsverträge	Newly concluded training contracts
nfQ	nicht formal Qualifizierte	non formal qualification
PerjuF-H	Perspektiven für junge Flüchtlinge	Perspective for young refugees in the craft trades

Abbreviation	German	English
PS	Öffentlicher Dienst	Public sector
SGB II (Wissenschafts-datenbank)	Grundsicherung für Arbeitssuchende	Basic income support for job seekers
SGB III (Wissenschafts-datenbank)	Arbeitsförderung	Employment promotion
SME		Small and medium-sized enterprises
STEM		Science, technology, engineering, and mathematics
TI	Industrie und Handel	Trade and industry
ÜBS	Überbetriebliche Berufsbildungsstätten	Inter-company vocational training centres
VET		Vocational education and training

Annex: Data sources

Source	Description
Institute for Employment Research (IAB)	The IAB is a "special agency" and academic research centre of the BA. Its research is mainly directed towards benefits of active labour market promotion measures and the contribution these make to achievement of the objectives of SGB III. The latter include, for example, improvement of individual employability, equalisation of the genders on the labour market and avoidance of over-qualified employment.
Integrated Training Reporting System (iABE)	The iABE is a reporting system which collates various official statistics (statistics on general and vocational schools, higher education statistics, human resources statistics, funding statistics) to provide an overview of the education (and training) system. Alongside data on dual vocational education and training pursuant to the BBiG/HwO, it also includes data on entrants to other fully qualifying VET programmes outside the BBiG/HwO such as school-based VET in healthcare, education and social occupations, data on the transitional sector, data on education and training programmes which facilitate acquisition of a higher education entrance qualification, and data on higher education study. The iABE is particularly suitable when the focus is on aligning dual vocational education and training into the context of the overall education (and training) system. This may, for example, involve comparing the numbers of entrants to VET to the numbers of entrants to higher education, to school-based VET, or to the transitional sector. Because of the federalism of the education system, 820 different courses exist in Germany's 16 federal states at vocational schools alone. These and other education and training programmes are systematised in the iABE in accordance with their overarching educational goal. At the highest level, the iABE differentiates four education sectors. ▶ Vocational education and training: all fully qualifying vocational education and training programmes are collated here. Alongside dual VET pursuant to the BBiG/HwO, these include school-based vocational education and training programmes and civil service training for medium level entry. ▶ Integration into vocational training (transitional sector): this sector records partially qualifying education and training courses which lead to general qualifications at the lower secondary level. The common goal of these programmes is preparation for or integration into vocational education and training. ▶ Acquisition of a higher education entrance qualification (upper secondary level): this sector records all education and training courses at vocational and general schools which facilitate the acquisition of a higher education entrance qualification (university of applied sciences entrance qualification, general higher education entrance qualification/upper secondary school-leaving certificate). ▶ Higher education study: courses of higher education study, whether at institutes of higher education or at institutes such as universities of cooperative education, are pooled in the higher education sector. The education sectors consist of "accounts". The "vocational education and training" sector, for example, comprises six accounts. These include accounts such as "Dual VET pursuant to BBiG/HwO" and "School-based VET in healthcare, education and social occupations". This year, the data of the **Integrated Training Reporting Flash Report** of 16 March 2021 are only robust to a limited extent. Firstly, data from the previous year which does not map current developments has been reported in some cases from large federal states (Baden-Württemberg, Lower Saxony, Schleswig-Holstein). In addition to this, the healthcare, education and social occupations account (I 05) is underreported. Because of the introduction of the new nursing training statistics in some federal states (North Rhine-Westphalia, Lower Saxony and Saxony-Anhalt), no data on pupils at healthcare schools in the new training programme for the occupation of qualified nurse was recorded for the 2020 reporting year.

Source	Description
	With the exception of the "Higher education study" sector (for which complete and current data is available), the data used for the year 2020 is based on an estimation by BIBB. Benchmark data for the sectors "Vocational education and training", "Transitional sector", "Acquisition of a higher education entrance qualification (upper secondary level)" and the underlying accounts were calculated on the basis of average rates of change shown in available federal state data. No estimation of the data by gender and nationality was performed. In this case, the previous year's data published in the "2019 Integrated Training Reporting System" was used instead. Estimated data shown is rounded to the nearest hundred.
Employment statistics of the BA	The employment statistics provide data on employees subject to mandatory social insurance contributions, on employees working for only a small number of hours each month, and on their contracts of employment. They also contain information on the companies employing these persons. The employment statistics are derived from employer reports to the social insurance system. These reports are based on the regulations contained in the joint procedure for reporting to the statutory health insurance, long-term care insurance, pension and unemployment insurance schemes and are submitted monthly six months in arrears. Evaluations for "midi-jobs" (contracts of employment subject to mandatory social insurance contributions with regular remuneration in the range between €450.01 and €1,300 [between €400.01 and €800 until 31 December 2012, between €450.01 and €850 until 30 June 2019]) can only be performed for the cut-off date of 31 December because of data availability.
BIBB survey	The BIBB survey as of 30 September is an annual total survey of all newly concluded training contracts in the dual system as of the cut-off date of 30 September. Data on newly concluded training contracts is then combined with data from the business statistics of the Federal Employment Agency (BA) – which also have a cut-off date of 30 September – to produce an analysis of supply of and demand for training places in a timely manner at the beginning of the training year. The BIBB survey is particularly used in conjunction with data from the training market statistics of the BA as of 30 September. The current validity of the data means that prompt calculations can be undertaken with regard to supply and demand in the dual system.
Vocational Education and Training Statistics	The Vocational Education and Training Statistics of the Federal Statistical Office and the Statistical Offices of the Federal States (referred to in abbreviated form as the Vocational Education and Training Statistics) are a total annual survey of data relating to dual vocational education and training pursuant to the Vocational Training Act (BBiG) or the Crafts and Trades Regulation Code (HwO). The survey period in each case is the calendar year, although a number of values (total population of trainees, in some cases newly concluded contracts) are also determined at a cut-off date (31 December) (and were reported in this fashion until 2006). The Vocational Education and Training Statistics have been carried out at the federal level since 1977. The Vocational Education and Training Statistics collect various sub-datasets ("data record types"). The statutory basis for the data status of the following analyses is formed by § 87 and § 88 BBiG as valid until 31 December 2019. In accordance with § 88 BBiG, data for the Vocational Education and Training Statistics is collected from the competent bodies via the Federal Statistical Office and the statistical offices of the federal states and is transmitted to the Federal Institute for Vocational Education and Training (BIBB) for the purposes of preparing the Report on Vocational Education and Training and the conducting of VET research. Reforms introduced by the Vocational Education and Training Modernisation Act (BBiMoG) of 12 December 2019 (in force since 1 January 2020) will largely apply from the 2021 reporting year onwards due to transitional provisions (see § 106 BBiG as amended with effect from 1 January 2020). The Vocational Education and Training Statistics also record aspects such as participation and passes in advanced training examinations pursuant to the BBiG/HwO. Differentiating characteristics are gender, area of training, examination success, the advanced training occupation, the year of birth of the candidates and regional characteristics. The competent bodies report advanced training examinations (including master craftsman examinations) they have conducted during the calendar year (reporting year is the calendar year, cut-off date 31 December). In the case of advanced training examinations that consist of several parts (e.g. courses, modules), examinations and participants are not recorded until the last stage is reached which, when successfully completed, will permit use of the new occupational title. Examinations which were not passed are also counted insofar as there is no further possibility of a resit. Information is also collected as to whether the respective examination is a resit or not. Examination success is differentiated by whether the examination has been passed or not passed.

Source	Description
	Nevertheless, a number of limitations need to be considered. Full training histories within dual VET cannot be mapped on the basis of the Vocational Education and Training Statistics. The Vocational Education and Training Statistics are a contract-related individual data recording system. Data on the training contracts of trainees who conclude more than one contract in the dual system during the course of their educational biography cannot be interlinked. Data reports from different years regarding the same training contract can also not be connected. With regard to the analysis of time series, consideration needs to be accorded to the fact that initial implementation problems for data reports following the revision of the Vocational Education and Training Statistics means that data on contract dissolutions and examinations is not available for the 2007 reporting year. Great caution also must be exercised when interpreting the Vocational Education and Training Statistics newly introduced in 2007 over the initial years.
BA/BIBB Applicant Survey	BIBB has been conducting an Applicant Survey in conjunction with the Federal Employment Agency (BA) since the 1990s in order to improve the data situation regarding registered training place applicants. The BA/BIBB Applicant Survey is a written postal representative survey of young people and young adults who were registered with the BA as training place applicants. It uncovers circumstances not mapped by the training market statistics of the Vocational Education and Training Statistics and thus provides key information on target groups which are significant in educational policy terms, such as applicants with a migration background. The BA/BIBB Applicant Survey is implemented jointly by the BIBB and the BA on behalf of the BMBF. The survey was carried out every two years between 2002 and 2018. However, a three-year cycle has now been adopted, meaning that the next regular survey will take place in 2021. An unscheduled BA/BIBB Applicant Survey was conducted in 2020 because of the outbreak of the coronavirus pandemic at the start of the year and the ensuing limitations for vocational preparation and the seeking of a training place. The training market statistics of the BA for the placement year 2019/2020 (1 October 2019 to 30 September 2020) served as the basis for the sample used in the 2020 BA/BIBB Applicant Survey. The survey only included applicants whose place of residence was in Germany and who were registered with the employment agencies and with job centres operating as joint institutions together with the Federal Employment Agency (JCgE). It was not possible to take account of applicants from the area of responsibility of job centres under local government control (JCzkT). The sample survey was conducted by the Institute for Employment Research (IAB). A random sample of 40,000 persons was drawn from the defined statistical population of 453,495 applicants. In order to be able to survey a sufficiently large number of applicants with a refugee background, these target groups were taken into consideration to a slightly disproportionate extent in the sample. 3,000 refugees were randomly selected. The 40,000 persons chosen received a four-page questionnaire by mail at the end of November 2020 together with a request to take part in the survey. The questionnaire used for the 2020 BA/BIBB Applicant Survey contained standard questions which are included in every such survey (e.g. questions regarding current occupational destination or application activities) as well as questions on the effects of the coronavirus pandemic on career choice and the search for a training place. By the end of January 2021, 7,125 applicants had taken part in the study (adjusted response rate: 18%). Data was then weighted on the basis of the characteristics of gender, officially registered destination, region of residence and refugee background. Persons who provided no information on the weighting characteristics were excluded from the evaluations. The evaluation encompassed a total of 6,861 persons.
Microcensus	The microcensus is a representative study in which 1% of the German population take part each year via an ongoing household sample. Its purpose is to provide statistical information on the economic and social situation of the population and on employment, the labour market and training. The questions included in the microcensus comprise a fixed basic programme covering facts and circumstances which reoccur each year. There is a statutory requirement to provide information in response to the vast majority of questions. In addition to this, there are also additional programmes which are included in a four-year cycle. Some of these do not involve a statutory requirement to provide information. The fixed basic programme of the microcensus includes personal characteristics (age, gender, nationality), the context of the family and household and other characteristics such as main and secondary residence, employment, job search, unemployment, economic inactivity, school pupil, higher education student, general and vocational education qualification.

Source	Description
	Because of a change to the survey method, results from 2017 onwards are only available on the basis of the population in private households. Results from earlier years have been adjusted in this respect and differ from the results in previous Data Reports.
Specialist series of publications relating to "Vocational schools"	The specialist series of publications relating to "Vocational schools" has provided detailed data on vocational schools since the 1992 reporting year. Alongside figures on pupils – including 1st year pupils – and on those completing programmes and leavers in the various types of school, it also contains data on classes, entrants, teaching staff and teaching hours. The following characteristics of school year, occupational title, gender and federal state are, for example, available for pupils by type of school. "KldB 2010" has been used for the classification of occupations since the 2012/2013 school year.
BIBB Training Panel	The BIBB Establishment Panel on Training and Competence Development (BIBB Training Panel) is a regular annual survey used to collect representative longitudinal data on the training activities of companies in Germany. The indicators collected by the BIBB Training Panel relate to the supply of training places, new recruitments and unfilled training places for the respective training year. In the case of training places for the 2019/2020 training year, this includes, for example, training places which are commenced as of 1 August 2019 (or later). Selection of the companies takes place using a disproportionately stratified random sample of the statistical population of all companies with at least one employee subject to mandatory social insurance contributions. Company information is collected via computer-assisted personal interviews (CAPI). There is also an option to use computer-assisted web interviewing (CAWI). More than 4,000 companies took part in the survey in 2020. Because of the restrictions on contact caused by the coronavirus pandemic, most interviews were conducted by telephone (CAPI on phone).
Continuing Training Monitor Surveys	The Continuing Training Monitor (wbmonitor) is a cooperative project conducted by the BIBB in conjunction with the DIE. Every year, all providers of continuing vocational and/or general training which are known to wbmonitor are requested to complete an online questionnaire on changing main thematic focuses, the economic climate, services and structures. The 17,411 providers invited to take part in 2020 responded to the survey between the end of June and the beginning of August. For further information and definitions, see **www.wbmonitor.de**. The **Continuing Training Climate Index** maps the way in which the continuing education and training providers assess the economic situation. It is calculated on the basis of the geometric mean of the differences between positive and negative verdicts of the current business situation and expectation in one year. The information given by the providers is weighted on the basis of the volume of training hours delivered in the previous year. Values lie between -100 and +100. The Continuing Training Monitor Climate Index is a conceptual adaptation of the Institute for Economic Research (ifo) Business Climate Index.
Nursing training statistics (PfleA)	The nursing training statistics are the first federal statistics relating to training in the nursing professions. They are designed as a full survey with compulsory reporting by the competent bodies of the federal states, which are responsible for the pay-as-you-go financing for nursing training. The competent bodies report to the statistical offices of the federal states on the basis of data transmitted to them by schools and providers of the practical training for the purpose of the pay-as-you-go financing. The PfleA collects individual data on trainees. The survey takes place annually as of the cut-off date of 31 December for the respective calendar year. The only socio-demographic data recorded is gender and year of birth. Information collected with respect to the training contract comprises date of commencement of training, scope of training (full-time/part-time), training allowance, receipt of certain funding and, in the event the training contract being ended, the date and the reason for termination. If the reason for termination is successful completion of the final examination, then the type of qualification is recorded (general qualification as a nurse or specialist qualification as geriatric nurse or registered children's nurse). Otherwise, the available categories are "no qualification" and "final examination definitively not passed". Differentiations in trainee data are also possible by federal state, by type of school and by provider of the practical training.

Source	Description
National Educational Panel Study (NEPS)	The NEPS maps longitudinal data on educational and training achievements, training processes, and competence development in formal, non-formal and informal contexts over an entire lifetime. Six starting cohorts were selected for this purpose. These range in age from infants to adults who have reached pension age and comprise more than 60,000 persons. These persons are surveyed annually to test their competencies. Further information on the NEPS is available at **https://www.lifbi.de/**.
	The NEPS data was collected between 2008 and 2013 as part of a framework programme to promote empirical educational research funded by the BMBF. Since 2014, the NEPS has been continued by the Leibniz Institute for Educational Trajectories (LIfBi) at the University of Bamberg in conjunction with a network that covers the whole of Germany.
Adult education centre statistics	The adult education centre statistics cover all courses, the relevant teaching hours involved, and individual participations. They are collected annually (calendar year). A course is defined as a continuing training programme if it consists of at least three course hours of teaching and if it is organised by the respective adult education centre. A "course hour" is defined as comprising a lesson time of 45 minutes. Participation means attendance of a course. If the same person attends more than one course within a period of observation, they will be counted as a participation each time. This means that the number of participations is normally higher than the number of persons who attend courses during a reporting year. Since the adult education centre statistics were revised in 2018, course programmes and individual courses have been deemed to be occupationally related if "didactic planning clearly indicates that they are suitable for or aligned to occupational application of the course contents". However, not all adult education centres implemented alignment of individual courses to this new characteristic for the 2019 reporting year. In addition to this, treatment was not uniform between the federal state associations, as is indicated by aspects such as the very differing magnitudes of the proportion of occupationally-related courses from federal state to federal state. Because of this data situation, the 2019 reporting year uses the previous approximation of continuing vocational training via the programme area in which most continuing training courses are located in terms of content. The consequence of this is that it is still not possible to present provision in other programme areas outside the programme area of "Skills for working life – IT – organisation/management", imparting knowledge and skills which are useful occupationally or which are aimed at certain occupational groups. The scope of this provision is not validly quantifiable at present because of the changeover of the statistics. The revision also affects the category of commissioned and contract measures, which were previously only surveyed at the level of programme area. These are now recorded per specialist area. Due to this change to the survey method and owing to the modification of the content division of the programme areas, no time series can presently be depicted for data until 2017 and after 2018.
Collaborative continuing vocational education and training statistics (collaborative statistics)	The results presented relate to the provision of continuing vocational training realised in the 2018 reporting year by continuing education and training providers operating collectively in the associations of the Federal Working Group Work and Life (BAK AL), the German Protestant Working Group for Adult Education (DEAE) and the Catholic Federal Working Group for Adult Education (KBE). Continuing vocational training provision realised is firstly based on the alignment of courses to occupationally-related programmes in which didactic planning mainly relates to the occupational use of course contents (e.g. discernible from the description of the course or from its certification) or which are directed at certain target groups with a defined vocational qualification or occupational task. Secondly, alignment with continuing vocational training takes place on the basis of the categorisation of courses to the thematic areas of "World of work – special interest group" and "Media applications – technology". Courses are usually counted if they generally encompass a time volume of up to three hours (e.g. lectures, discussion forums) or if they usually extend over more than three course hours (e.g. longer courses, seminars, programmes, study trips). A "course hour" is defined as comprising a lesson time of 45 minutes. Participation means attendance of a course. If the same person attends more than one course, they will therefore be counted as participation each time. This means that the number of participations may be higher than the number of participating persons.

Source	Description
	In the 2018 reporting year, 1,121 institutions form the statistical population of member organisations within collaborating associations of continuing education and training providers (BAK AL: 141; DEAE: 415; KEB: 565). Recording rates vary between the associations (recording rates in the area of "Courses": BAK AL: 97.9%; DEAE: 77.1%; KEB: 66.7%) (cf. Christ/Horn/Lux 2020). The results presented are based on absolute values from the institutions surveyed without extrapolation to the statistical population. For this reason, the assumption would be that course provision in continuing vocational training actually realised is higher in the statistical population of all associated institutions. To this extent, the adjusted absolute figures are minimum values.
Training Plus database	BIBB uses its specialist portal Training Plus to offer information on all aspects of the topics of dual courses of higher education study and additional qualifications. BIBB has been the sole provider of the portal since 2015. The core of the portal is a database, which details the provision from institutes of higher education and cooperating companies/practical institutions from all over the country. 1,662 dual courses of higher education study and around 2,300 additional qualifications are currently included in the database. Training Plus contains the most comprehensive information on existing provision of dual courses of higher education study and of additional qualifications in the area of initial VET in Germany. The data recorded is based on voluntary information from providers. For this reason, completeness of the data situation cannot be assumed. Nevertheless, the data may be viewed as an indicator of developments in dual higher education study.
Reference company system (RBS)	The RBS is an access panel, i.e. a stable pool of companies has been established which have expressed their readiness to make themselves available to BIBB for surveys. This permits rapid and reliable analyses to be conducted on current topics. Around 1,400 companies are currently being surveyed about once or twice a year on the latest issues affecting company-based VET.

Annex: List of figures and tables

Figures

Tables

Federal Institute for Vocational Education and Training
Friedrich-Ebert-Allee 114 – 116
D-53113 Bonn

Phone +49 228 107-0

Web: www.bibb.de
Email: zentrale@bibb.de

Federal Institute for
Vocational Education
and Training