



Funded by



German Office for international Cooperation in Vocational Education and Training



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1. Purpose of reporting and data management in vocational education and training (VET)



How can we analyse dysfunctional aspects in a VET system?

503500

How many young people are engaged in vocational education and training?

How many companies offer vocational education and training?

How effectively is a VET system working?

In which regions is VET demand greater than supply?

Which data sources can be used for reporting?



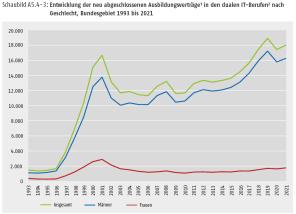
What are the requirements for future VET programmes?

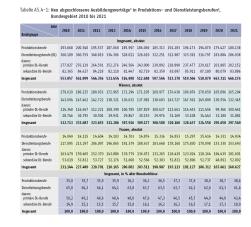


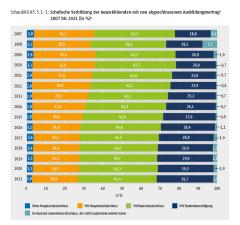
1. Purpose of reporting and data management in vocational education and training (VET)



Highlights from the Data Report to accompany the Report on VET (BIBB 2024)







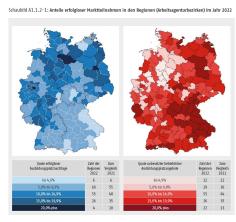
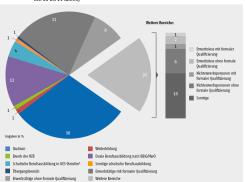


Schaubild A4-2: Junge Menschen im Alter von 20 bis 24 Jahren innerhalb und außerhalb formaler Bildungsangebote 2021 (in %) (Bestandsdaten) (100 % = Wohnbevölkerung im Alter und 20 bis 24 Jahrena)



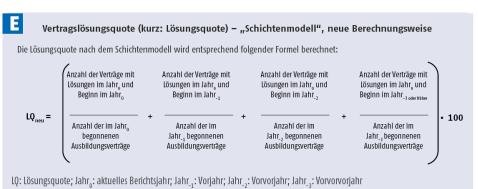
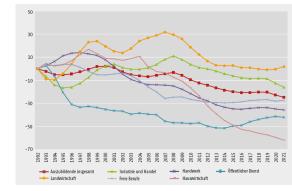


Schaubild A5.2-1: Entwicklung der Zahl der Auszubildenden am 31. Dezember von 1992 bis 2021 nach Zuständigkeitsbereichen (Basis = 1992)



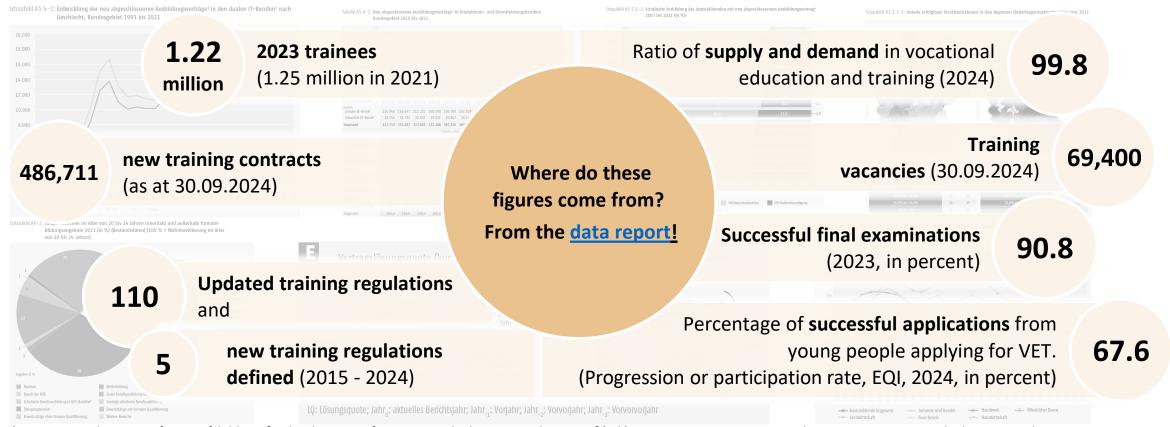
^{*} Source: Bundesinstitut für Berufsbildung [Federal Institute for Vocational Education and Training] (Ed.): Data Report to accompany the Report on Vocational Education and Training 2024. Information and analyses on the development of vocational education and training Bonn 2024 (https://www.bibb.de/datenreport/de/)



1. Purpose of reporting and data management in vocational education and training (VET)



Highlights from the Data Report to accompany the Report on VET (BIBB 2025)



^{*} Source: Bundesinstitut für Berufsbildung [Federal Institute for Vocational Education and Training] (Ed.): Data Report to accompany the Report on Vocational Education and Training 2025. Information and analyses on the development of vocational education and training Bonn 2025 (bibb.de/datenreport/de/)



2. VET reporting in Germany: two reports

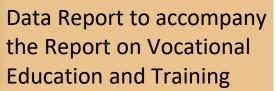


Separating the Vocational Training Report into political and non-political parts

2009: BIBB board recommendation for the restructuring of **the Vocational Training Report** and dividing it into a:

non-political part

- is independent of political considerations
- **BIBB** is responsible



The data report provides the empirical basis for the Report on VET

political part

- is consulted upon and adopted by the federal government
- ▶ BMBF is responsible
- BIBB is involved in preparation of the draft report

Report on Vocational Education and Training





2. VET reporting in Germany: two reports

German Office for International Cooperation in Vocational Education and Training

Features of the Data Report to accompany the Report on VET



- ▶ The Data Report to accompany the Report on VET...
 - ... is a central data compendium,
 - ... draws on empirical data and social research,
 - ... is based on a scientifically-proven system of indicators,
 - ... is supplemented by **research findings** and
 - ... provides key indicators for initial and continuing VET.
- Indicators illustrate the development over time (long-term monitoring, "long series data") and show regional differences (indicators for the regional VET market)
- ► The selection of indicators is guided by the **availability of data** and by the key issues in education and training policy



German Office for International Cooperation in Vocational Education and Training

Legal basis under the Vocational Training Act (BBiG) - Part 4

Vocational training research, planning and statistics

Section 84: Objectives of vocational training research

Section 85: Objectives of vocational training planning

Section 86: Report on Vocational Education and Training

Section 87: Purpose and compilation of VET statistics

Section 88: Surveys





Legal basis under the Vocational Training Act (BBiG) – Part 4

Section 86: Report on Vocational Education and Training

(1) The Federal Ministry of Education and Research must constantly track developments in vocational education and training and must submit a corresponding report (Report on Vocational Education and Training) to the Federal Government by 15 May each year.

The report shall describe the current state and probable further development of vocational education and training.

If there are indications that a regionally and sectorally balanced supply of initial training places may be at risk, the report shall include proposals for remedying such a situation.





German Office for International Cooperation in Vocational Education and Training

Legal basis under the Vocational Training Act (BBiG) – Part 4

Section 86: Report on Vocational Education and Training

- (2) As a rule, the report must specify
 - 1. for the preceding calendar year
 - a) on the basis of the data furnished by the competent bodies, the initial training contracts entered in the Register of Initial Training Relationships under this Act or under the Crafts and Trades Regulation Code which were concluded during the twelve months prior to 1 October of the preceding year and were still in existence on 30 September of the preceding year as well as
 - 2. for the current calendar year
 - a) the number of persons expected to be seeking training places up to 30 September of the current year,

b) the number of training places offered to the Federal Employment Agency for placement which were not filled on 30 September of the preceding year and the number of persons registered with the Federal Employment Agency on that date as seeking training places;

b) an estimate of the number of training places expected to be on offer up to 30 September of the current year.



German Office for International Cooperation in Vocational Education and Training

Legal basis under the Vocational Training Act (BBiG) – Part 4

Section 87: Purpose and compilation of vocational training statistics

- (1) Federal statistics are compiled for the purposes of planning and organising vocational education and training.
- (2) The Federal Institute for Vocational Education and Training and the Federal Employment Agency support the Federal Statistical Office in the technical and methodological preparation of the statistics.
- (3) The surveying and processing programme must be designed in agreement with the Federal Institute for Vocational Education and Training in such a manner that the data compiled can be used for planning and organising vocational training within the scope of the competencies defined in a given case.





German Office for International Cooperation in Vocational Education and Training

Legal basis under the Vocational Training Act (BBiG) – Part 4

Section 88: Surveys

- (1) The annual federal statistics comprise
 - 1. for each training contract: a) sex, year of birth, nationality of trainees, b) official municipality code of trainees' place of residence at the time of conclusion of the contract, c) general-education school-leaving certificate, previous participation in prevocational or basic vocational education and training, previous initial training and previous course of studies of trainees...
 - 2. for every instance of participation in a VET examination, with the exception of the training contracts covered by no. 1: sex, year of birth and prior learning of the examinees, occupational sector, repetition of the examination, type of examination, success in the examination

- 3. for every trainer: sex, year of birth, nature of their technical qualifications.
- 4. for every participant in a procedure for determining competency and every participant in a supplementary procedure...

The reporting period for surveys is the calendar year The information is collected with the data status as of 31 December of the reporting period.



GOPHAN Office for International Cooperation in Vocational Education and Training

Legal basis under the Vocational Training Act (BBiG) – Part 4

Section 88: Surveys

- (2) The names and addresses of the persons required to give information, sequence numbers of data sets on trainees, examinees and trainers and the company number of the training premises
- (3) The competent bodies are obliged to provide such information
- (4) The data collected [...] are processed as individual pieces of information by the Federal Statistical Office and the statistical offices of the Länder and transmitted to the Federal Institute for Vocational Education and Training for purposes of preparing the Report on Vocational Education and Training and conducting vocational training research.







General procedure

- In accordance with the Vocational Training Act (BBiG), the Report on Vocational Education and Training must be submitted each year by 15 May.
- The scheduling for the preparation of the data report, which forms the basis of the Report on Vocational Education and Training, is determined by this deadline.
- ► The data report provides comprehensive data and information on vocational education and training and must also be published as a draft by 15 May each year (as a PDF on the BIBB website).
- ▶ It is published at a later date in printed form, taking into account feedback from the public.

Basic concept behind VET reporting:

▶ The data report should be based on indicators and facilitate information and background analyses of longterm developments in vocational education and training. The indicators should therefore be measured over the long term.





Main thematic structure of the data report

Preface from the BIBB President

Contents

Part A: Initial VET indicators (12 subsections, approx 290 pages)

Part B: Continuing VET indicators (4 subsections, approx 85 pages)

Part C: Special focus (varies, approx. 50 pages)

Part D: Monitoring of the internationalisation of VET (4 subsections, approx 50 pages)

List of abbreviations, figures and tables

List of tables on the internet

Bibliography

List of key terms







Activities – year 1

Data report team	March	April	May	from November
	 Research into new topics within BIBB/introduction of new topics 	Prepare structure (draft version)	 Joint editorial meeting with Federal Ministry of Education and Research (BMBF) Arrive at a deadline for articles Inform authors 	► Compile articles for BIBB editorial meeting
Authors				Ongoing from September
				Data collection, analysis, articles





Activities – year 1/2

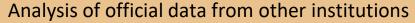
Data report From December to March 15 May July September team Publication of Publication of Publication of ▶ Articles according to schedule (deadlines depend on data, draft version printed version online version many articles have to be updated later on), (PDF) online if following (HTML) with editing and, if necessary, revising by the vocational feedback from additional authors general public information training report has been approved and **January February** published by the Second joint Summary German federal editorial meeting for each chapter cabinet. with Federal (clear structure), with author if Ministry of **Education** and necessary Research (BMBF)



Data sources:

Analysis of official data collected by BIBB

- ▶ BIBB survey of newly concluded training contracts as of 30.09.
- Trainee data from vocational education and training statistics



Federal Employment Agency statistics

Training activities by company size

German microcensus (Federal Statistical Office)

Persons without vocational skills

Training market statistics (Federal Employment Agency)

Persons seeking training position without success.



Supplementary analysis of survey data from BIBB research projects

- ▶ BA/BIBB applicant survey
- BIBB Transition Survey

Processing and analysis of official data provided by other institutions

German VET census as at 31.12 (Federal Statistical Office, BIBB)

- Participation in vocational education and training (structural features)
- Early contract termination





Data sources:

Data collected at regular intervals

- ▶ Indicators for initial vocational education and training
- ▶ **Developments** on the training market
- ▶ Transition from school to VET
- Apprenticeship/vocational education and training (e.g.: Number of trainees, number of contracts, age, level of education, premature contract dissolutions, examinations in the dual system, updating and introduction of occupations, participation of companies in vocational education and training, costs and benefits, types of funding...)



- ➤ **System monitoring**, e.g.: Development of the vocational education and training system compared to the transitional system (Integrated Report for VET, iABE)
- ▶ **Transition** from VET to employment
- ► Indicators for advanced and continuing VET
- Permeability/transition between VET and university-level education and training
- ▶ International indicators, system monitoring, mobility



2. VET reporting in Germany: Indicators



Indicators (indicator: Latin indicare "to show") are **measured variables** (absolute values or key figures) which can be used to quantify (operationalise) specific issues and current situations in vocational education and training (actual values) and highlight development over time (cf. Schnell/Hill/Esser 1995, p. 121 pp).

They are an important **basis** for regular reporting in vocational education and training.

Comparing measured values and the status quo against normative social values or politically-set goals (target values) highlights where (political) action is required and can be used as a basis for shaping and structuring vocational education and training (policy advice).

Indicators are tools used for **classifying** features **based on an ordering principle**.

Both the principle of classification as well as the nature and number of categories used are the result of **human decisions**.

Different classification strategies may be useful depending on the context of use.

Indicators are intended to help us classify observations of the real-world object of study, to attribute them to non-observable phenomena and ultimately to form a reliable basis for the evaluation of these phenomena.

Source: Meyer, Wolfgang: "Indikatorenentwicklung: eine praxisorientierte Einführung, 2004" [Development of indicators: a practical introduction] http://www.ceval.de/typo3/fileadmin/user-upload/PDFs/workpaper10.pdf



2. VET reporting in Germany: Indicators



Indicators as a basis for (political) decision making

Important

Strict separation between data provision and data evaluation

- Conflicts may arise depending on perspectives/interests when evaluating the data.
- Conflicts must not impact on provision of data.

- A question of political will and of the willingness of decision-makers to shape the process
- Indicators are only as good as the data they are based on!
- Indicators are more than percentages!
- ► A good indicator is a simple (easy-to-understand) indicator!

Name of the indicator Core message: Source: Monitoring period/ key date: Relevance to VET policy decisionmaking: Reference parameters: Formula: Possible differentiations (gender, age, regions etc.): Limitation of the indicator

Considerations regarding interpretation/FAQs



2. VET reporting in Germany: Indicators



Examples

Rate of companies providing training: The rate of companies providing training is the number of companies providing training as a proportion of all companies including companies providing training.

Number of companies with employees subject to social insurance contributions in training

100

Number of companies with employees subject to mandatory social insurance contributions

Success rate I – participation related success rate (EQI)
The indicator shows, among other things, the proportion of examinations passed as a proportion of all examinations conducted including recent examinations.

Sources: BIBB, Rate of companies providing training, 2024, https://www.bibb.de/de/4355.php, BIBB, Success rate I (EQ I) – participation-related success rate, 2025, https://www.bibb.de/de/4713.php



2. VET reporting in Germany: Ensuring quality



Quality assurance occurs at various levels

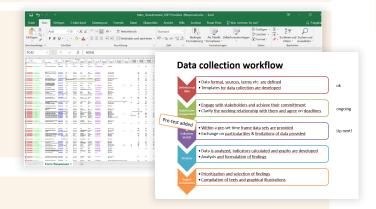
- Editorial group: BIBB President and heads of department, members of the editorial teams, public relations team, two members of the BMBF
- ► Two **joint editorial meetings**, a BIBB meeting (discussion of chapters, report structure and future special focuses)
- Texts are submitted according to a prescribed structure (Quality assurance conducted by head of department and persons responsible for each chapter)
- ► The editorial group provides **authors** with transparent **feedback**
- ▶ Short-term changes to structural content can always be addressed in planning discussions
- BIBB and BMBF are constantly sharing information.



3. Proven practice internationally: Lessons learned from Ghana



- Cooperation between the Commission for TVET (CTVET) and GOVET in place since 2019
- GOVET advisesCTVET ondata reportingand monitoring



Two reports published to date:2021 and 2023



Project phases

Definition of objectives

Definition of content structure and indicators

Involvement of interest groups

Data collection

Creation of author teams

Compiling of report

Internal and external checks

Validation workshop

Publication of the report



3. Proven practice internationally: Lessons learned from Ghana



Success factors

- Create capacity for team members at CTVET
- Diverse teams of authors from different departments
- Joint project planning
- Before publication: Checking and validation workshop with interest groups
- Data collection and conducting data analyses, both internally

Challenges

- Availability and quality of data
- IT system infrastructure, hosting, administration and maintenance
- Financing





3. Proven practice internationally: Lessons learned from Vietnam



- ▶ BIBB, GIZ and NIVT (Vietnam National Institute for Vocational Training) have been working together on VET reporting since 2011
- Close collaboration between researchers, particularly on the following aspects:
 - Quality assurance of Report on Vocational Education and Training
 - Coordination
 - Cooperation with interest groups
 - Feedback on individual chapters
 - Knowledge management
 - Presentation of data
- ▶ Range of publications relating to BIBB cooperation



3. Proven practice internationally

Further information on both examples

Ghana

- 2021 report
- **Published August 2022**
- **Ghana TVET Report 2021**





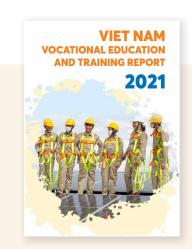
Ghana

- 2022 and 2023 reports
- Published in April 2024
- **Ghana TVET Report 2023**



Vietnam

Most recent report: Viet Nam vocational education and training report 2021



- List of reports in the BIBB website: **BIBB/NIVT-Vietnam**
- Guideline for sustainable development of VET reporting in Vietnam

Guideline for sustainable development of TVET reporting in Viet Nam (bibb.de)



4. Success factors in the VET reporting development process and recommendations



- legally binding mandate and defined roles and responsibilities
- stable funding
- definition of clear indicators and reference dates
- regular data analysis and long-term statistics
- diverse teams of authors from the institution and beyond
- validation using external experts
- agreement on scientific standards for data management, analysis and research



4. Success factors in the VET reporting development process and recommendations





The goal

- What needs to be measured?
- Which situations need to be described (on a regular basis)?

Group reporting to

- Who is the target group for the report? (public)
- This can influence the data processing.

Prerequisites

- What data is (regularly) available?
- Are there data gaps?
- How can data gaps be closed (in the future)?

"SMART"

S	Sno	cific
J	Spe	CITIC

M Measurable

A Achievable

R Relevant

T Time bound

Result

List of indicators for a vocational training report

Benefits

Provides basis for further development of VET system.

Indicators correspond clearly to the desired theoretical objective, are measurable and can be applied to the desired working context, are relevant to the solution concerned and are understandable for all participants.



5. Further references and materials



- English version of the German Vocational Training Report (2021)
 - BIBB / VET Data Report Germany 2021
- BIBB website on VET research
 Federal Institute for Vocational Education and Training
 (BIBB) Germany
- Short summary of the cooperation with Vietnam for the purpose of preparing a vocational training report BWP 6/2014 (bibb.de)
- Project report from BIBB cooperation with the Philippines
 - <u>Federal Institute for Vocational Education and Training</u>
 (BIBB) Germany

- ► In German: Guideline for the sustainable development of VET reporting in Vietnam
 BIBB/VET reporting in Vietnam – a reflection on the advisory process
- UNESCO indicators for vocational education and training
 - **Conference on Education Statistics**



GOVET at BIBB

