

## Confusion about the 2004 increase in the number of training places

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At the end of 2004 the Federal Ministry of Education and Research (BMBF) disclosed the results of the BIBB survey on newly concluded training contracts for the placement year 2004. According to this survey the number of new training contracts increased countrywide by more than 15,300 over 2003, the first increase since 1999. There were about 14,100 more contracts in the west, and in the east the increase amounted to about 1,200.

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At the beginning of April 2005, the Federal Statistical Office (StBA) published data in a press release that deviated from those in the BIBB survey. It said the number of new training contracts had increased by only about 8,400. The increase had been 9,600 in the west and in the east the number had even fallen off. The number of new contracts had dropped there by about 1,200.

Now who is right? The BIBB or the Federal Statistical Office?

For many, this is not the first year that this question has come up. There have been differences in the calculations of the two institutions before, and they have repeatedly caused confusion. We shall therefore provide a few comments below on the calculations of the BIBB and the Federal Statistical Office. However, it is not a simple matter. Paradoxical as it may seem, both institutions are right, although the figures diverge.

It is important to know that the contract counts of the BIBB and the Federal Statistical Office are based on two different surveys, carried out separately, covering different periods. The two surveys have many things in common, but there are also some significant differences. We would like to introduce and briefly discuss the two surveys, their common features and their differences below.

## The survey of the Federal Institute for Vocational Education and Training on training contracts newly concluded by September 30.

- The legal basis of the BIBB survey was § 3 of the Vocational Training Promotion Act (BerBiFG) until 1 April 2005 and has been § 86 of the Vocational Training Reform Act (BBiG) since that date. It states: The Federal Government shall present a Vocational Education and Training Report once a year. And it shall contain, among other things, the number of "training contracts entered in the registry of apprenticeships" on 30 September of the given year and "concluded during the previous twelve months".  
In other words, the 2005 Vocational Education and Training Report must indicate, for example, how many training contracts there were on 30 September 2004 that had been concluded between 1 October 2003 and 30 September 2004. For that purpose the BIBB conducted its own survey in the autumn of 2004, as it does every year, among the agencies responsible for vocational education and training.» 01
- The main advantage of the BIBB survey for the period up to 30th September is that the reference period is identical with the business and placement year of the Federal Employment Agency (BA). The number of new contracts determined by the BIBB can thus be linked with the official BA statistics on the open apprenticeships (unbesetzte Ausbildungsstellen - UBA) as of 30 September and the applicants not yet placed (unvermittelte Bewerber - UVB). This is also how the officially identified apprenticeship supply (new contracts plus apprenticeships not yet occupied on 30 September) and the officially identified apprenticeship demand (new contracts plus applications not yet placed on 30 September) are calculated.
- In the BIBB survey, only selected features are recorded (quick survey): the number of newly concluded training contracts by sex» 02 of the trainee and a curtailment of the contract of apprenticeship» 03 . These data are collected separately for individual occupations» 04 at the level of the Employment Agency districts. Subsequent contracts are registered separately and, unlike in the federal statistics of the StBA, not added to the total number of new contracts, since as a rule the latter stipulate a training period of at least 24 months.
- The limitation to a few survey features makes possible very early recording of information on the outcome of the placement year that has just ended. The announcements of newly concluded training contracts for the period from 1 October of the preceding year until 30 September of the year of the survey are conveyed by the competent agencies to the BIBB by the end of November; the first evaluation results are then available at the beginning of December and are used for the Vocational Education and Training Report of the Federal government. The results are processed for the regional divisions nationwide, east, west, federal states and Employment Agency districts.

## Overview: a comparison of the BIBB survey and vocational education and training statistics of the Federal Statistical

|                  | BIBB survey on training contracts newly concluded by 30 September                                               | Vocational education and training statistics of the StBA for 31 December                                        |
|------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Legal basis      | § 86 Vocational Training Reform Act (BBiG) (before April 2005: § 3 Vocational Training Promotion Act (BerBiFG)) | § 88 Vocational Training Reform Act (BBiG) (before April 2005: § 5 Vocational Training Promotion Act (BerBiFG)) |
| Reporting routes | From the competent agencies (Chambers) directly to the BIBB in                                                  | From the competent agencies (Chambers) via the Statistical                                                      |

|                                         |                                                                                                                               |                                                                                                                                                                                                                                                                                      |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>reporting routes</b>                 | (Chambers) directly to the BIBB, in NRW via the LDS NRW to the BIBB                                                           | Offices of the federal states to the Federal Statistical Office                                                                                                                                                                                                                      |
| <b>Period covered</b>                   | 12 months, namely: 1 October of the previous year to 30 September of the current survey year                                  | 12 months, namely: 1 January to 31 December of every year                                                                                                                                                                                                                            |
| <b>Survey features</b>                  | Newly concluded training contracts in the period covered - according to sex, duration of training and individual occupations* | Newly concluded training contracts in the period covered - according to sex, school education, age and individual occupations                                                                                                                                                        |
|                                         | which were still in force on 30 September.                                                                                    | which were still in force on 31 December                                                                                                                                                                                                                                             |
|                                         | Subsequent contracts are not counted in the number of new contracts concluded                                                 | Subsequent contracts are counted in the number of new contracts concluded<br>Further features of the trainees: number of trainees (cohort) according to sex and nationality, examinations (taken, passed, resits) according to sex, dissolved contracts (according to training year) |
| <b>Deepest regional differentiation</b> | Employment Agency districts                                                                                                   | Federal states                                                                                                                                                                                                                                                                       |

*\* Detailed individual occupation registration since 2004, before that occupational groups and selected individual occupations*

## The survey of the Federal Statistical Office for 31 December

The legal basis of this nationwide statistic was § 5 of the Vocational Training Promotion Act (BerBiFG) until 1 April 2005 and has been § 88 of the Vocational Training Reform Act (BBiG) since that date. The survey is carried out by the Statistical Offices of the Federal States, which at the start of the year collect the data from the authorities responsible for vocational education and training and then pass it on to the Federal Statistical Office.

All newly concluded training contracts which were finalised in the same calendar year and were still in force on 31 December are recorded (as well as various features of the trainees and examination data differentiated according to individual occupations and federal states).

Provisional data (not differentiated according to individual occupations) is usually available at the end of March/beginning of April, the final and differentiated data being published in the late summer.

The statistics are based on the calendar year (1 January - 31 December) and not, as is the case with the BIBB survey, on the business year of the Federal Employment Agency (1 October - 30 September).

Advantages of the statistics: differentiated evaluations according to sex, age and school education are possible at the level of the individual occupation. However, the results are made available at a comparatively late stage, too late for an analysis of the current situation on the job market for training positions to be included in the Vocational Education and Training Report. In addition to this, it is not possible to link the figures with Federal Employment Agency data to provide more information about the supply of and demand for apprenticeships» 05.

## Applicable to both surveys:

- ▶ *The period covered is in each case twelve months.*
- ▶ *Interns, those on work experience and persons undergoing retraining are not counted.*
- ▶ *Training contracts where the first stage of a training course by stages has been completed and which are then newly concluded for the second stage of training (construction industry, textile branch) are included. Example: on conclusion of the two-year training course as a "civil engineering skilled worker" (stage 1), a further contract is signed for a one-year continuation apprenticeship as a "railway track engineer" (stage 2).  
In the case of the BIBB survey, however, such contracts are recorded and shown separately and are not included in the overall total of newly concluded contracts, unlike the Federal Statistical Office statistics.*
- ▶ *Training contracts are counted in such a way so as to record the contracts of trainees dissolving for example an existing training contract in order to continue their training in the same occupation but in a different company (and with a "new" contract). Contracts in force only for a short period of time (i.e. concluded within the last twelve months and then dissolved before the end of the same period) are not, however, counted as newly concluded contracts in either survey.*
- ▶ *Both surveys do not differentiate between in-company and external (i.e. largely publicly financed) training contracts.*

## The effects of the two counting methods

Looking at the total figures calculated by the BIBB and the Federal Statistics Office for training contracts newly concluded in 2004 leads one to the conclusion that the results for this year are virtually identical. The BIBB's national figure for newly concluded contracts is just under 573,000, and the Federal Statistics Office calculates just over 572,900 such contracts. There was, on the other hand, a larger difference in the previous year. In 2003, the BIBB's figure of 557,600 new contracts was significantly lower than the Federal Statistical Office's total of 564,500. This much smaller base was the reason why the growth in the BIBB figures for 2004 turned out to be so strong. There is obviously a considerable variation in the figures calculated from year to year by the BIBB and the Federal Statistical Office.

This is confirmed by a time series comparison. The table included shows the results of the BIBB and the Federal Statistical Office for 1992 to 2004, firstly with reference to areas of training and then in relation to the two major sectors "industry and commerce" and "crafts". As well as nationwide figures, separate data is also shown for west and east Germany.

As can clearly be seen, as far as the west is concerned and **with reference to all areas of training**, it is sometimes the BIBB and sometimes the Federal Statistical Office which arrives at the higher total figure, the BIBB figures being, on average, somewhat higher, however. For the new federal states of east Germany, the BIBB shows a significantly higher figure for the year 1992, thereafter, however, the Federal Statistical Office nearly always produces higher results. The rates of change compared to the previous year are sometimes better in the BIBB figures, and sometimes higher in those of the Federal Statistical Office. This applies to east and west equally.

Systematic differences can be seen in relation to the two main areas of "industry and commerce" and "crafts". The BIBB shows significantly lower figures for **crafts** in every year, an average of approximately 5,100 fewer newly concluded contracts year on year. The BIBB's lower figures for crafts than for industry and commerce apply equally to east and west.

In **industry and commerce**, there is the opposite trend, at least as far as the west is concerned. The BIBB figures here are regularly higher than those of the Federal Statistical Office, on average by about 3,700. However, for the east this regular pattern is not visible, sometimes the figures of the BIBB being higher and sometimes those of the Federal Statistical Office. Taking the average of all years, we arrive at a figure which is approximately the same.

### **Causes of the differences and deviating results**

In principle, it is not surprising that there are differences in the results from the data sources, since they differ in terms of the period covered and to a certain extent too in the methods of counting used. Nevertheless, the discrepancies represent a puzzle which has not yet been fully resolved.

The first area in which there are systematic differences in methods of counting relates to the allocation of subsequent contracts. The Federal Statistical Office includes these in the final total of newly concluded contracts, but the BIBB does not.

The most significant factor, however, is probably the different period covered (BIBB 1 October of the previous year to 30 September of the survey year, Federal Statistical Office the calendar year of 1 January to 31 December). At least three different effects need to be considered here:

- *In the new federal states, many government financed training places, which are provided there to compensate for the lack of company apprenticeships, are not filled until between October and December. The BIBB, which counts all newly concluded training contracts up until 30 September, can only include these places in the next survey, whereas the Federal Statistical Office registers them within the current year.*

*The interpretation of the two contract statistics becomes especially difficult when there is a change, either a fall or rise, in the number of government additional provision of training places. This change influences the figures of the Federal Statistical Office within the current year, but does not affect the BIBB's survey data in the first instance. Taken together with the in-company places and company-operated places from the previous year, which the BIBB can not register until now, this means that the BIBB would possibly record a significant increase (or decrease) in such a year, whereas the opposite would be the case for the Federal Statistical Office, which would have to register a discernable fall (or rise) in the numbers of trainees with new training contracts*

*Comparable effects arise when there are shifts in the relative proportions of external apprenticeships, company-operated apprenticeships and school-based training places within places in the programme realised after 30 September. This is because external or company-operated apprenticeships lead to a training contract and are thus counted, whereas the school-based training places are not included in the BIBB and Federal Statistical Office training statistics. This in turn means that the shift in favour of or away from company-operated and external places is registered in the Federal Statistical Office survey within the same year, but is not included by the BIBB in its statistics until a year later.*

- *Some companies only inform the Chambers at a relatively late stage that a new training contract has been concluded. This can be to do with the fact that the contract came into being relatively late and needed time to be processed by the guilds/local Chamber of Crafts and Trades. Or the companies first wished to wait for the end of the probationary period and check the training suitability of their trainees before having the training contract registered by the Chamber. The consequence of this can be that in individual years the BIBB survey shows fewer*

*contracts than that of the Federal Statistical Office. This is not discernable with reference to all training areas, but is visible in crafts.*

*Example: a contract was concluded at the end of September 2004 but not submitted to the Chamber for registration until December 2004. The Federal Statistical Office with its cut-off date of 31 December would record this contract in its 2004 survey, the BIBB, on the other hand, would*

- *The framework of the BIBB survey has a cut-off point (30 September), at which time many people commencing their training have not yet completed their probationary period. When, on the other hand, the Federal Statistical Office uses its cut-off point of 31 December to calculate the number of trainees with new training contracts, the probationary period is over for most. Now we know that it is precisely within the probationary period itself that many contracts are dissolved (in 2003 32,502 nationwide), as well as in the period immediately following. This means that many of the contracts dissolved in the probationary period are not recorded by the Federal Statistical Office, but are counted in the BIBB Survey» 06.*

*This should mean that the number of newly concluded training contracts recorded in the BIBB survey is regularly higher than that registered by the StBA survey. However, this is not generally the case. In the largest training area, industry and commerce, the BIBB annual average figures are around 3,700 new contracts higher, on the other hand, in the years 1992 to 2004, the BIBB survey recorded an annual average of 5,100 fewer crafts contracts than the Federal Statistical Office» 07. Why the BIBB statistical results relating to crafts are systematically lower remains unclear. Obviously the effects of contracts dissolved after 30 September conceal other influences.*

## **Conclusion and prospects**

It can be noted that in the BIBB survey as well as in that of the Federal Statistical Office part of the number of newly concluded contracts are not recorded to a greater or lesser extent. In the case of the BIBB, these are mainly training contracts which were concluded very late or where there was a delay in reporting the contracts to the competent bodies. As far as the Federal Statistical Office is concerned, on the other hand, those training contracts dissolved before the end of the calendar year have a greater chance of not being included. In addition to this, subsequent contracts are not treated in a unified way. In the BIBB survey, they are not recorded as part of the total number of newly concluded contracts, whereas the Federal Statistical Office registers them as new contracts.

The main reason for the differing results of the BIBB and the Federal Statistical Office is the three months difference in the period covered. This has various, complexly interwoven effects on the survey results and on the annual rates of change. The most recent differences in the results for the new federal states of east Germany (BIBB growth of 1,200, Federal Statistical Office decrease of 1,200) make it clear that the effects are in no way insignificant. There has not been thus far, however, any clear research into how the various influences individually affect the surveys of the BIBB and the Federal Statistical Office. One reason for this is that neither the BIBB nor the Federal Statistical Office differentiates in their surveys according to company training contracts and those contracts which originate from government additional provision.

The results pose the question of how the statistical situation can be improved in the future to enable developments on the job market for training positions to be portrayed in a transparent way and to allow for reliable interpretations to be made. Experience shows that the BIBB survey of newly concluded training contracts until 30 September as well as the statistics available on vocational education and training up to 31 December are both used as tools by those seeking the response to various questions. The user of the time series can console him or herself that he or

she at least has "the choice" of being able to decide between the two differing results year for year. There is hope for 2007. At that point, the newly designed survey framework, which was passed together with the Vocational Training Reform Act, will be implemented » 08 and this will presumably be able to resolve at least some of the existing uncertainties.

Tabelle:

📄 **Newly concluded training contracts: Results of the BIBB survey and the survey of the Federal Statistical Office (in German)**

📄 **Vocational Training Reform Act (in German)**

## Selected BIBB publications on this subject

- ▶ Brosi, Walter; Troltsch, Klaus  
*Ausbildungsbeteiligung von Jugendlichen und Fachkräftebedarf der Wirtschaft  
Forschung spezial, Heft 8*
- ▶ Walter Brosi, Klaus Troltsch, Joachim Ulrich  
*Nachfrage Jugendlicher nach Ausbildungsplätzen  
Analysen und Prognosen 2000 - 2015  
Forschung spezial ; Heft 2*
- ▶ Walter Brosi; Elisabeth M. Krekel; Joachim Gerd Ulrich (Hrsg)  
*Sicherung der beruflichen Zukunft durch Forschung und Entwicklung  
Ergebnisse einer Delphi-Befragung*
- ▶ Schweikert, Klaus  
*Aus einem Holz? Lehrlinge in Deutschland  
Eine Ost-West-Längsschnittuntersuchung*
- ▶ Krewerth, Andreas; Tschöpe, Tanja; Ulrich, Joachim Gerd; Witzki, Joachim (Hrsg.)  
*Berufsbezeichnungen und ihr Einfluss auf die Berufswahl von Jugendlichen  
Theoretische Überlegungen u. empirische Ergebnisse*

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- 1 In North Rhine-Westphalia this survey is conducted by the NRW Office for Data Processing and Statistics (LDS NRW). The LDS then transmits the complete data for NRW to the BIBB.
  - 2 Gender-specific differentiation has been possible since 2002.
  - 3 As long as the curtailment amounts to at least six months and is already determined when the contract is concluded
  - 4 The complete individual occupation registration replaced aggregation in so-called accumulative or residual groups in 2004. Up to 2003 most of the new contracts were registered, counted and identified in these groups.
  - 5 Under certain circumstances this would be possible, but the results pertaining to the relative levels of supply and demand are too far removed from the beginning of the training year. Irrespective of that, results for most years would be significantly worse. The underlying cause of this is that many new apprentices dissolve their contracts in the early months and reappear on the market as applicants, but are not able to be "accommodated" by 31 December.

- 6 This effect is compensated for to a certain extent in the Federal Statistical Office survey, when an initial training contract is dissolved and another contract is signed for the purpose of a direct continuation of training (in another company or occupation). However, it should be considered that the BIBB also records these contracts, albeit not until the following survey year.
- 7 In as much, it is not without justification that the crafts trades point out that finalised results relating to the number of new contracts could only be calculated on 31 December.
- 8 See here Gesetzesbeschluss des Deutschen Bundestages ("Law passed by the German Bundestag") in Published Proceedings of the Bundesrat ("Bundesrat Drucksache") 49/05 (28 January 2005), § 88 S.15f.

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