

THE COST EFFECTIVENESS OF APPRENTICESHIP SCHEMES – MAKING THE BUSINESS CASE FOR APPRENTICESHIPS

Cost effectiveness –

evidence from Switzerland and Germany

Alexander Krauss,
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The cost effectiveness of apprenticeship schemes – making the business case for apprenticeships

Are apprenticeships “profitable” for companies?

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Are apprenticeships “profitable” for companies?

Simple answer: they feel to have a benefit, otherwise they would not do it.

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Are apprenticeships “profitable” for companies?

More sophisticated answer:

we don't really know the cost-benefit ratio, because cost as well as benefit are quite complex and we don't have good data*

*Hoeckl 2009, Muehlemann/Wolter 2013

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Are apprenticeships “profitable” for companies?

Current empirical studies claim:

Switzerland: net financial benefit

Germany: net investment

And:

“Overall ... IVET pays off for companies.”

(Jansen et al. 2015)

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Profitability in Switzerland: Strupler/Wolter 2012



Survey in 2010:
15,000 companies selected,
of which 4,447 participated

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Switzerland general model:

The productive results of the work of the apprentices

– gross expenses for the training of the apprentices
by the company

= Net benefit during the apprenticeship = **6,800 €**

“66% of apprenticeships end with net benefit”

Gross benefit (after apprenticeship)

= Net benefit + opportunity benefits

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Benefit in Switzerland

Net benefit:

Comparatively low level of remuneration

510 (first year) to 1,063 € (fourth year) recomm. 2015/16

Aargauischer Gewerbeverband

https://www.ag.ch/media/kanton_aargau/bks/dokumente_1/berufsbildung__mittelschulen/lehrbetriebe__berufsbildner/BKSBM_Empfehlung_AIHK_AGV_2014.pdf

= level of under 20% of wage level of fully qualified worker

Conlon 2013, p. 77, Conlon, G., et al. (2013): An international comparison of apprentice pay: Final Report. Low Pay Commission. London Economics, London

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/289425/London_Economics_Apprentice_Pay_FINAL.pdf

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Benefit in Switzerland

Gross benefit:

Opportunity costs!

Average recruiting and introductory training costs about

18,068 € (21,256 CHF)!


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Moderate net cost in Germany

Comparable methodology BIBB Cost-Benefit Survey/CBS, tradition since 70ies



Forschungs- und Arbeitsergebnisse aus dem Bundesinstitut für Berufsbildung | März

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- Inhalt**
- ▶ Kosten- und Nutzenermittlung der betrieblichen Ausbildung
 - ▶ Personalkosten der Auszubildenden machen mehr als die Hälfte der Bruttokosten aus
 - ▶ Zwei Drittel der Bruttokosten werden durch die produktiven Leistungen der Auszubildenden ausgeglichen
 - ▶ Hohe Varianz bei Kosten und Erträgen
 - ▶ Auszubildende in dreijährigen Berufen erwirtschaften die höchsten Erträge
 - ▶ Multivariate Analyse
 - ▶ Leichter Zugang des Mittelstandes

Anika Jansen | Harald Pfeifer | Gudrun Schönfeld | Felix Wenzelmann

Ausbildung in Deutschland weiterhin investitionsorientiert – Ergebnisse der BIBB-Kosten-Nutzen-Erhebung 2012/13

Was kostet die duale Ausbildung die Betriebe und welchen Nutzen liefert sie ihnen? Dieser Frage wird im Folgenden anhand der repräsentativen Befragung zu Kosten und Nutzen der betrieblichen Ausbildung 2012/13 (BIBB-CBS 2012/13) nachgegangen. Dabei zeigt sich, dass die betriebliche Ausbildung für einen Großteil der Betriebe zunächst mit Kosten verbunden ist, also eine Investition darstellt. Durch die Übernahme der Ausgebildeten können erhebliche Personalgewinnungskosten eingespart werden, die entstünden, wenn Betriebe Fachkräfte über den Arbeitsmarkt rekrutieren würden. Sie kompen-

3,032 training companies
+ 913 non-training
companies interviewed

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Germany

On average 17,933€ gross cost, 12,535€ benefit

5,398€ net cost (2007: 3,596 €)

High level of variation:

1/3 of companies probably have a net surplus !

Research Project of BIBB: Jansen et al 2015; 3945 interviews

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Germany

62% are staff costs for apprentices

(Research Project of BIBB: Jansen et al 2015; figures of 2012/13)

802 € per month in Germany-West

737 € per month in Germany-East

...on average

(Beicht 2015: Tarifliche Ausbildungsvergütungen 2014)

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Germany

Compared to similar surveys in 2000, 2007:

Productive contribution of apprentices:

2000: 7,730 €; 2007: 11,692 € ; 2013: 12,535 €

Wenzelmann et al. 2009; Jansen et. al. 2015, BIBB, p. 4

**More emphasis on work-integrated learning,
instead of „apprentice workshops“!**

Wenzelmann et al. 2009, p. 4

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Note on work-based learning

Company based learning means neither school type learning run by companies, nor „just working“

Reforms in German apprenticeship organisation in the last 15 years focused on ways of organising systematic process orientated learning, integrated in the actual regular working process.

Typical methodologies are work and learning assignments, learning islands, project based learning.

The focus of learning is acquisition of full occupational proficiency, i.e. the ability to plan, implement and evaluate the respective work in a self-responsible manner.

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Note on work-based learning (cont.)

Project, challenge and team based forms of learning like used in the 42 school visited, are used also in modern forms of apprentice training developed by companies and through pilot projects in Germany in the last two decades.

In this context it could be shown that such project based learning can not only be useful in a highly competitive environment, but can be used to build the competencies of a broad range of learners.

A wide range of talents and competencies is used in the learning process.

Learners are fully responsible, achieve real results and are appreciated as a valuable part of the company, which for many learners is a positive and motivating contrast to school based environments.

(For a similar concept cf. the example of Swisscom)

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Note on work-based learning (cont.)

A wide range of transferable knowledge and experiences on the planning and implementation of process oriented, work-based learning are available from the tradition of research and development projects (Modellversuche) coordinated by the Federal Institute for Vocational Education and Training in Germany.

Additional fields of reform of the dual system, which helped to maintain its usefulness and benefit for companies concern the improved matching of companies' needs and students profiles, appropriate didactics for heterogeneous groups of learners, and methodologies of learning which are focused on building transversal and meta-competencies.

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Company size	Cost	Value produced	Net
1 - 9 employees	15.911	10.807	5.104
10 - 49 employees	16.452	12.199	4.254
50 - 499 employees	18.111	12.720	5.391
500 and more employees	21.757	14.403	7.354

Germany: Net cost by company size, Jansen et al. 2015

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Occupational field (econ. Sector)	Cost	Value produced	Net
Industry and commerce	19.535	13.389	6.146
Trade	15.187	10.798	4.390
Agriculture	14.043	12.750	1.293
Liberal professions	16.474	12.769	3.705
Public services	19.801	11.768	8.032

Germany: Net cost by econ. sector, Jansen et al. 2015

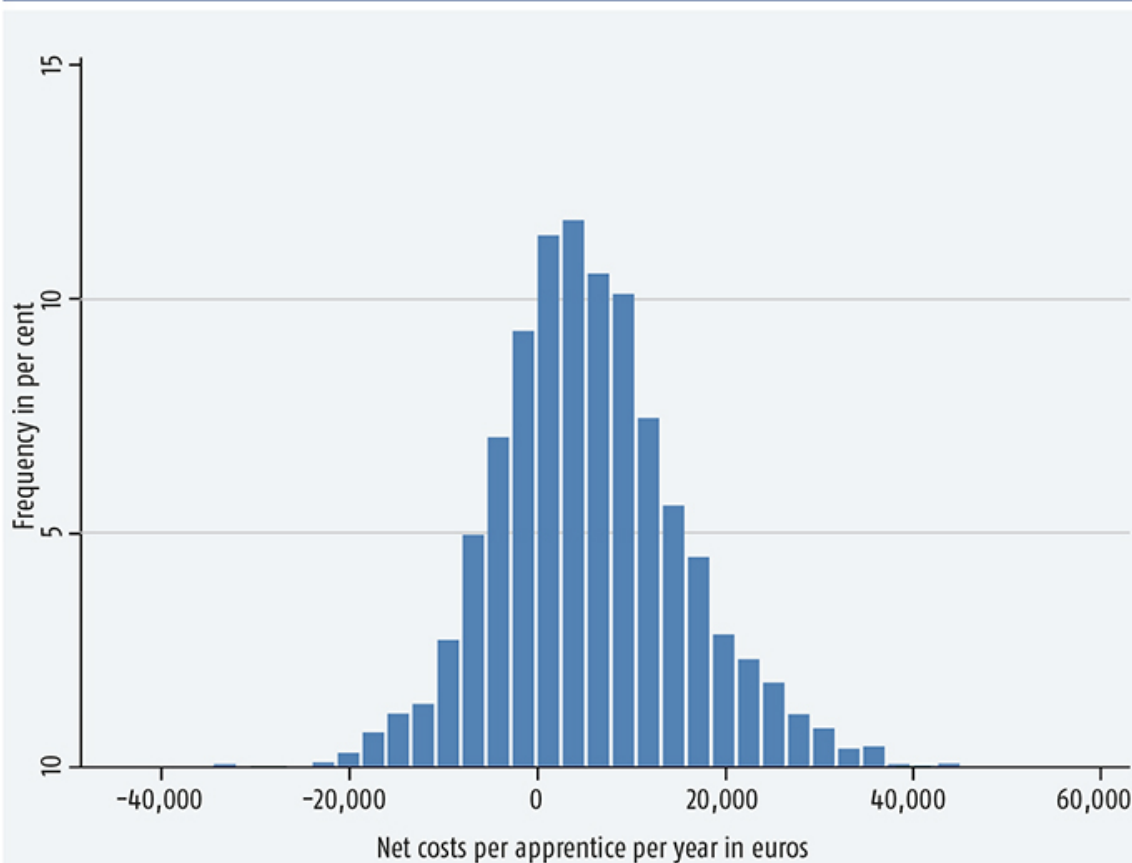
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Apprenticeship workshop	Cost	Value produced	Net
No apprenticeship workshop	16.889	13.492	3.396
Apprenticeship workshop	21.869	8.928	12.942

Germany: Net cost by apprenticeship workshop (no/yes), Jansen et al. 2015

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Figure 3: Distribution of net costs per apprentice per year (in euros)

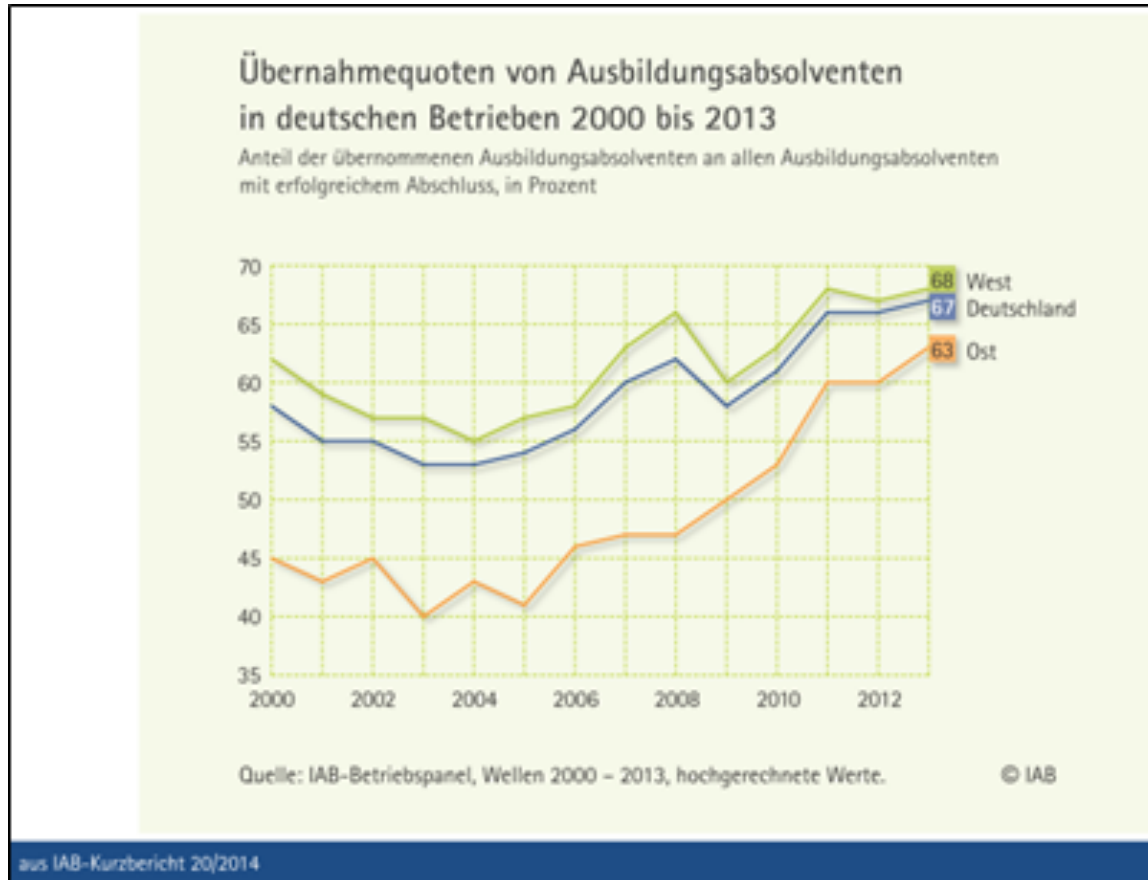


Germany: Distribution of net costs per apprentice per year BIBB Report 1/2015

Explanatory note: The bars reflect the percentage share of apprentices with the given net costs (horizontal axis).

Source: BIBB-CBS 2012/13

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67% are taken on after the apprenticeship!

(82% in comp. >500 !)

Germany: Share of apprentices taken on by companies after apprenticeship
IAB kb 20/2014, p. 6

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Average cost of recruiting from the labour market:

8,715 €

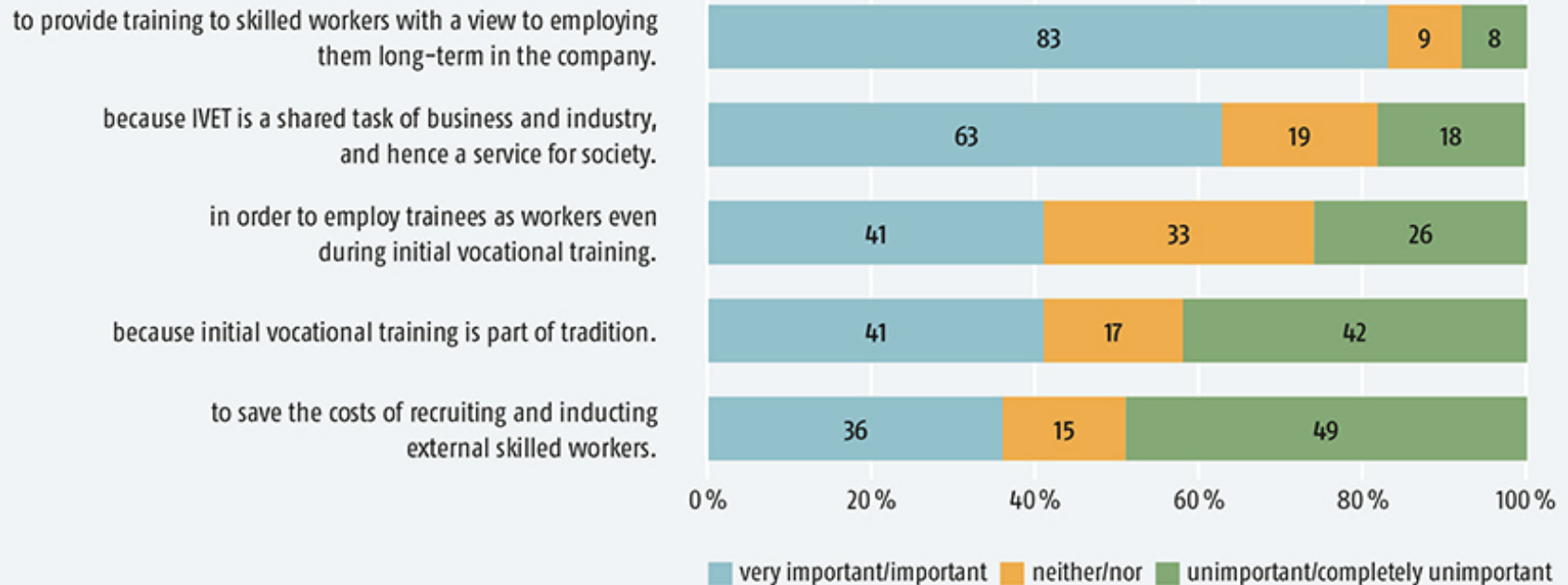
(up to 16,458€ in companies >500)!

(Jansen et al. 2015, p. 11)

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Why DO companies offer apprenticeships? The case of Germany

Figure 6: The company provides IVET, ... (Importance of reasons for in-house IVET, as percentage of training companies)



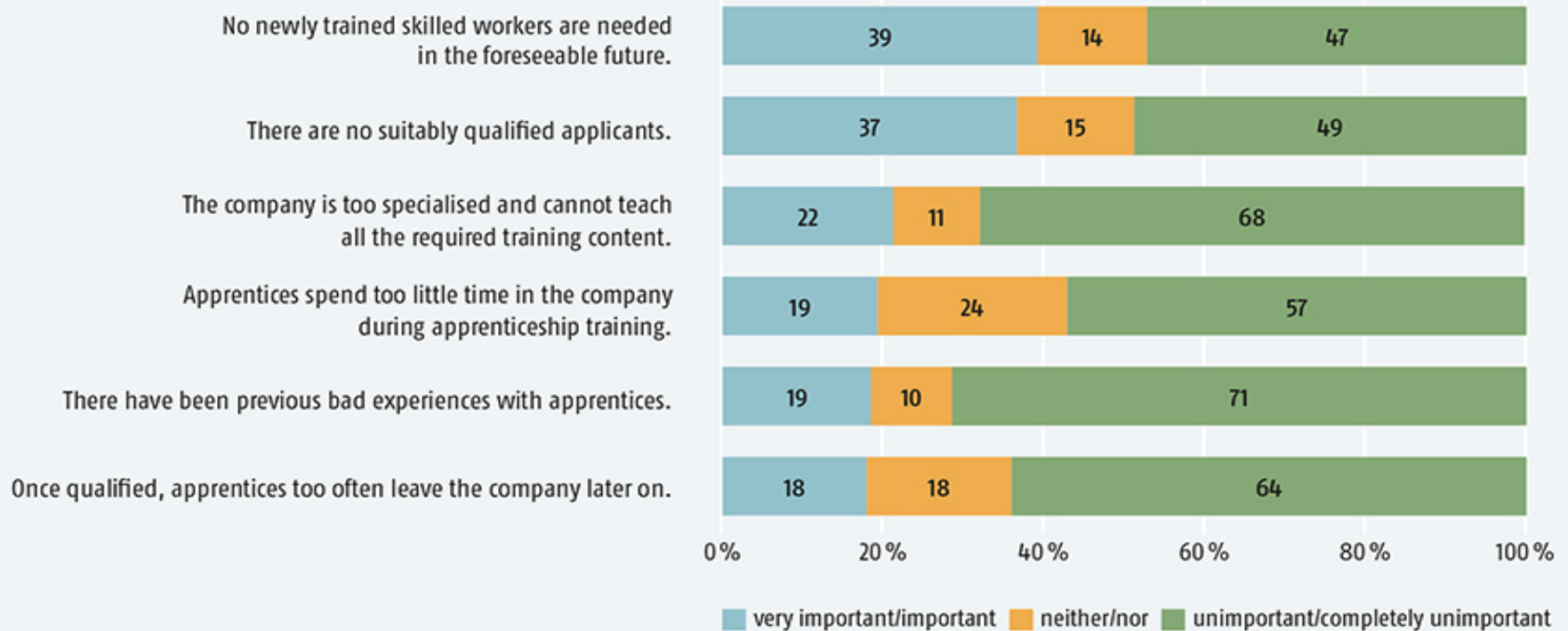
Source: BIBB-CBS 2012/13

Jansen et al. 2015

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Why do companies NOT offer apprenticeships? The case of Germany

Figure 7: Importance of reasons for not providing apprenticeship training (as percentage of non-training companies)



Source: BIBB-CBS 2012 / 13

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Summary: Why *do* companies offer apprenticeships?

- Costs must be reasonable, but in collective skills formation systems companies also train, when it is a net investment
- Securing HR base (adhesive effect)
- Learning by training
- Competent training and good apprentices as proof of professionalism of the company
- Companies train because there is a net benefit, but it is a quite complex one

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Points for development

- Companies must become a great place for lifelong learning (not just working)
- Companies need support and cooperation structures to address needs of weaker learners
- Monitoring of the (real) cost-benefit ratio