

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

Why we train like we train – and what we can learn

A look at Resource Countries:

Germany, Austria, Switzerland, Denmark, Netherlands

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

Main points of presentation:

1. Some simple thoughts about “*why* apprenticeship-like training”
2. System in Germany as an example for all of the resource countries
3. Points where other resource countries do it differently
4. The cost-benefit ratio
5. Points to develop

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Paradox: For many companies apprenticeships cause a net investment, apprentices are free to leave, nevertheless...

for Germans apprenticeships are mostly a matter of course

Why?

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Effectiveness of work-based learning

Credibility of Journeyman or Master as “Teacher”

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Effectiveness of work-based learning

Work as valid reality-check

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Effectiveness of work-based learning

Socialising youngsters into a productive team (transfer of knowledge, but even more work habits and tacit knowledge)

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Effectiveness of work-based learning

Schools: pupils are there to leave.

Companies: apprentices are there to stay! They are not interns!
Commitment from both sides

Profitability of company depends on the success of the training!

Companies highly motivated to train well!

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Effectiveness of work-based learning

Training is only as good as the trainer and the training company.

No one to blame!

To train well, you have to be a good company!

By training you *become* a good company!

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Conclusion: That is why apprenticeships are a proven tradition

Area of full consent of social partners

Result: A workforce allowing for flexible, high-tech, high-quality production

“Facharbeiter”=

Manual worker with high and broad skills

Ample supply

Easily retrained and redeployed

Certified portable skills

= Win-win situation for employers and workers

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...proven tradition

also in Austria, DK, NL and partly Switzerland

Systems of “collective skill formation” (Trampusch/Busemaier)

Not individual investment nor enforced state investment, but common contribution to a common good

- Consent
- Social Partner cooperation and strong role of social partner organisations
- Tripartite institutions

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The system in Germany



Dual Training at a Glance – 2

Dual Training

- Training is mainly provided in the company – supported by teaching in part-time vocational school (Berufsschule)
- Learning at both venues is governed by different but coordinated regulations.



Companies pay for in-company training
State pays for schools

Training contract with companies

Companies choose apprentices

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The system in Germany

344 Occupations, 3-3,5 years as a rule

Aim: full occupational proficiency BBiG §1(3)

Definition of occupational profiles by Federal institute with social partner involvement

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Full occupational proficiency – what is it?



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Process orientated training – the actual work process as the main learning opportunity

The full understanding of the process and ability to act competently as criterion e.g. in examinations

“Knowing” is not enough! “Working” is not enough!



Providing apprenticeships is **not** a matter of course, but a challenge for companies and apprentices alike

Why do they do it anyway?

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Securing the supply of high-quality junior staff

School leavers:

Germany:	2005: 939 T	2015: 837 T
East Germany:	207 T	120 T

Huge demographic challenge and already shortage of qualified workers

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Therefore: companies compete for the best applicants with high quality training

High level of vacancies (about 33.500), as companies lack appropriate applicants

Companies must learn to work with apprentices with lower educational attainment

Companies must learn to work with high potentials

Companies must learn to integrate e.g. migrants

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Therefore: Companies need “Learning Systems”

Work-based, but systematic learning process
= focus of recent innovation efforts

e.g. “Leittexte” (guiding texts)

Learning and Working Assignments

“Process oriented learning”

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Therefore:

The system must become more flexible to organise inclusiveness and mobility

2 years apprenticeships

Entry Qualifications

Dual studies

New institutional arrangements

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How do the other resource countries do it?

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The Swiss Solution

Highly **employer driven** system

3-4 year, but also 2 year programmes

230 occupations

Profiles defined by industry associations

High latitude of companies in shaping the training

High level of productive work

High involvement (2/3 of population)

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The Austrian Solution

Integrated system also for weaker students who could not find a placement

Flexible share of Vocational School training

Training coordinated between School and Company

Accepted pathway to careers

Many managers have had an apprenticeship as their initial training

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The Danish Solution

State Funding

Preparation in Vocational College

In-company programmes of *flexible* duration 1,5-5 years

Flexible training programmes in content and design

“Training guarantee” – no placement: training can be obtained school-based

Solidarity principle of financing apprenticeship placements

Employers Reimbursement Scheme EUR 393/employee/year

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The Dutch Solution

Two pillar system: school-based and apprenticeship based formation of the same qualifications (BOL vs BBL)

Communicating Vessels

Very differentiated system of occupations and certificates

Open to adult learners (25% >35 yr)

Integration also of weaker learners, although it is hard to find placements for them

High rate of progression to higher education

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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

Complicated answer:

we don't really know the cost-benefit ratio, because we don't have good data*

Empirical answer:

In Switzerland: mostly, in Germany: more and more

*Hoeckl 2009, Muehlemann/Wolter 2013

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Profitability in Switzerland: Strupler/Wolter 2012



Survey of 15.000 companies,
of which 4447 participated

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Switzerland General model:

The productive results of the work of the apprentices

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

= Net benefit during the apprenticeship

Net benefit + opportunity benefits = Gross benefit (after apprenticeship)

Overall net benefit: 7933 €

“66% of apprenticeships end with net benefit”

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**Average net cost in Germany,
net benefit in many companies**

Comparable methodology

On average **3596 € net cost**

1/3 of companies probably have a net surplus

Research Project of BIBB: Pfeiffer et al 2009; 2936 interviews

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Benefit in Switzerland

Opportunity costs!

Average recruiting and introductory training costs about

20.115€ !

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Moderate net cost in Germany

Comparable methodology

On average **3596 € net cost**

1/3 of companies probably have a net surplus

Research Project of BIBB: Pfeiffer et al 2009; 2936 interviews
Results for 2012/13 expected March 2015

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Compared to similar survey in 2000:

Productive contribution of apprentices:

2000: 7.730 2007: 11.692

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

Pfeiffer, BIBB, p. 4

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	Bruttokosten / gross costs (EUR)	Erträge / benefits (EUR)	Nettokosten / net costs (EUR)
Insgesamt / total	15.288	11.692	3.596
Betriebsgrößenklasse /company size			
1 - 9 Beschäftigte /employees	13.199	10.732	2.468
10 - 49 Beschäftigte /employees	13.989	11.019	2.969
50 - 499 Beschäftigte /employees	15.414	12.615	2.799
500 und mehr Beschäftigte / and more employees	19.035	11.870	7.165

Germany: Net cost by company size Pfeiffer et al 2009

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Insgesamt / total	15.288	11.692	3.596
Ausbildungsbereich: occupational field (econ. Sector)			
Industrie und Handel / industry and commerce	16.739	12.133	4.607
Handwerk / trade	13.334	10.820	2.513
Landwirtschaft / agriculture	12.100	11.138	962
Freie Berufe / liberal professions	12.958	12.691	268
Öffentlicher Dienst / public services	17.297	10.063	7.234

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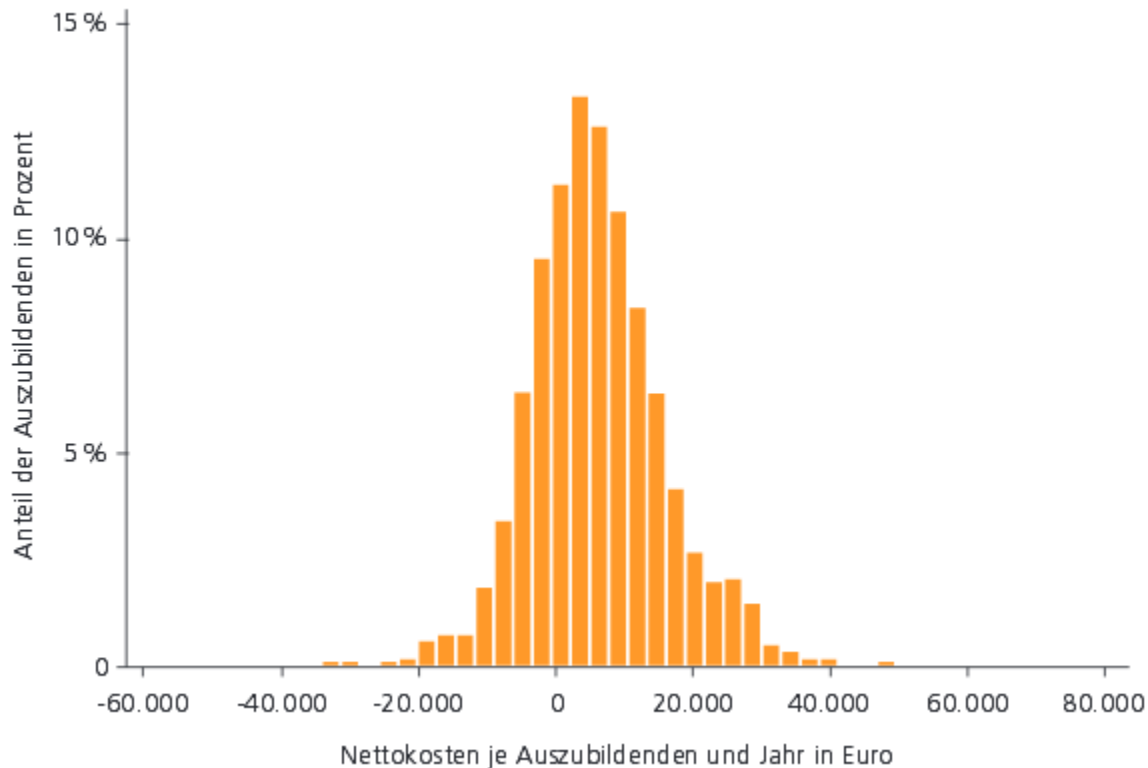
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Insgesamt / total	15.288	11.692	3.596
Lehrwerkstatt: / apprenticeship workshop			
Keine Lehrwerkstatt / no apprenticeship workshop	14.564	12.419	2.145
Lehrwerkstatt / apprenticeship workshop	20.063	6.890	13.174

Germany: Net cost by company size Pfeiffer et al 2009

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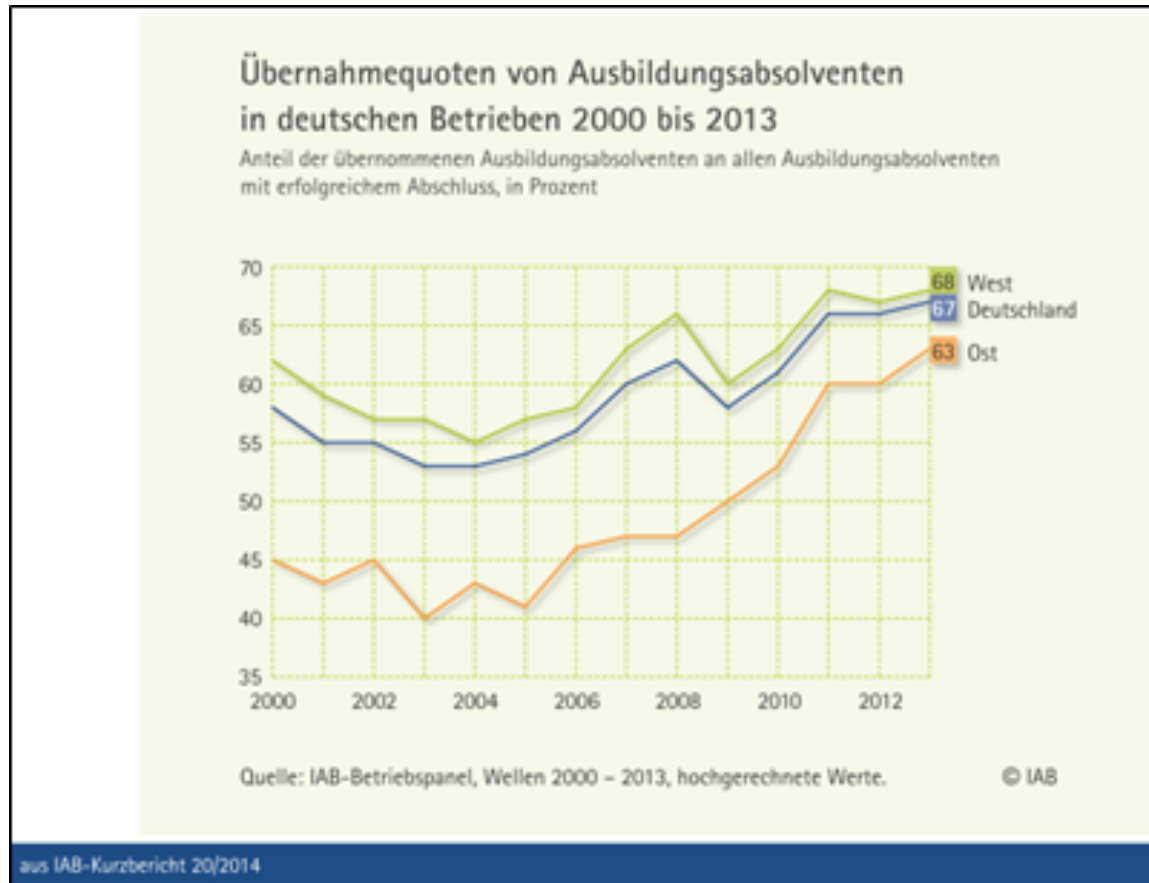
Auszubildende und ihre Nettokosten – Verteilung in der Stichprobe (in Euro)



Germany: Distribution of net cost and benefit BIBB Report 8/09

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Germany: Share of apprentices taken on by companies after apprenticeship I
AB 2013

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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
- 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 life-long-learning (not just working)
- Companies need support and cooperation structures
- Monitoring of the (real) cost-benefit ratio