*Human Resource Development International,*
*Vol. 9, No. 1, 5–24, March 2006*

Routledge
Taylor & Francis Group

**Peer-Reviewed Articles**

# More Vocational Education and Supplementary Training through Equalization of Costs? An Analysis of a Training and Development Fund in The Netherlands

NICO VAN DEN BERG*, FRANS MEIJERS** &
MAARTEN SPRENGERS†
*HIBIN, **Hague Technical University, †MarktMonitor

ABSTRACT *In a market economy, individual employers are confronted with several dilemmas when they have to make long-term investments in (re)training and HRD. Especially in small and medium-sized enterprises (SMEs), these dilemmas can easily lead to under-investment in education and supplementary training, unless institutional arrangements are created to reduce the risks of those investments. Since the mid-1980s, sectoral training funds, which operate on the basis of the principle of equalization, have been providing such an institutional arrangement in The Netherlands. They are jointly administered by representatives of the trade unions and employers' associations. In this article we investigate, on the basis of empirical data, if the most important goal of a sectoral training fund (i.e. to provide sufficient volume and professional quality in the workforce of the sector, by stimulating both the initial vocational education and the supplementary training) is actually achieved. We conclude that the desired effects of the equalization instrument are not achieved. This results in five challenges to prevent under-investment in – and to continue to stimulate – education and training.*

KEY WORDS: Sectoral training funds, cost equalization, effectiveness

## Introduction

As Van Hoof (2005) points out, vocational education and training has become a strategic policy domain in the eyes of many European governments. It is seen as a central element in a strategy to enhance the competitiveness of the economy. In the agreements made by the European leaders in 2001 in Lisbon (which have the goal of

*Correspondence Address:* Dr. F. Meijers, Prinsenlaan 24, 6542 TB Nijmegen, The Netherlands.
Tel. +31 24 377 52 42. Email: fmeijers@worldonline.nl

ISSN 1367-8868 Print/1469-8374 Online/06/010005-20 © 2006 Taylor & Francis
DOI: 10.1080/13678860500523072

ensuring Europe's economic future), raising the participation in, and the quality of, education and training are given high priority.

Participation in and quality of education and training are, however, not as easily defined as they were in the industrial era. It is clear that an important part of the maintenance and expansion of professional skills will involve learning processes that take place throughout the long-term careers of workers. Therefore education and training are presently part of a larger strategy employed by innovative organizations. In fact organizations must fulfil three requirements in order to survive in a knowledge economy (Volberda, 1999; Glastra *et al*., 2004):

- They must invest in strategic knowledge development. In other words, investments should be made, not only in product development but also in the anticipation of technological and market developments that will influence the production process. The needed expertise must be available, preferably just-in-time.
- They must ensure an efficient and effective transfer of knowledge. In other words, investments have to be made to create a vigorous learning environment. The knowledge available inside the organization, as well as the relevant knowledge outside it, must be available to as many employees as possible.
- Employees must develop 'career consciousness' as well as 'career competencies'. Labour relations are becoming more flexible due to the increasing uncertainties related to the tasks involved and the uncertainty of job permanence. These uncertainties force employees not to be just another 'cog in the wheel', but to maintain their employability, if possible within the range of their professional domain. This means that employers, as well as employees, must invest in professional development to deepen and widen their knowledge and skills.

## Sectoral Training Funds

Survival in a knowledge economy requires substantial long-term investments in education, (re)training and professional development/HRD. Streeck (1992) and Crouch *et al*. (1999) have shown that, in a free-market economy, individual employers are confronted with several dilemmas when they have to make long-term investments in (re)training and HRD. Especially in small and medium-sized enterprises (SMEs), these dilemmas may lead to under-investment in education and (re)training, unless institutional arrangements solve these dilemmas and reduce the risks of investment. Since the mid-1980s (a time of recession and high unemployment rates), sectoral training funds, which operate on the principle of cost equalization, have been providing this kind of institutional arrangement in The Netherlands. The funds are constituted under the so-called central labour agreements (CLAs), which are collective frameworks for personnel policies within a given sector. The funds provide the 'social partners' (i.e. trade unions and employer representatives) with an instrument to improve the labour market, its flexibility and the mobility of its workforce. Their goals are twofold: to contribute to a flexible labour market and to develop strategic knowledge for the companies in the sector.

The institution of sectoral funds is a unique solution; it exists only in Belgium and The Netherlands (Warmerdam and van den Tillaart, 1997; Warmerdam *et al*., 2001).

The funds are financed by a levy on the gross wages of all the firms belonging to a particular line of business; training costs are reimbursed in part to those firms actually training their employees. The funds are jointly administered by representatives of the trade unions and employers' associations. In theoretical terms this amounts to the collectivization of part of the training costs (Crouch *et al*., 1999).

According to Waterreus, there were 116 funds of this type in the Netherlands in 2002 (Waterreus, 2002; see also Waterreus, 1997). On average the levy equals 0.5 per cent of gross wages, but percentages range from 0.1 per cent (in some parts of retail industry) to 3 per cent (in the construction sector). Many funds have other sources of income besides the wage levy: for instance, subsidies from the government and from European agencies. Most funds divide their available assets among three types of activities: support of apprenticeship training within (initial) vocational education, additional training and retraining of employees and special work experience and training projects for the unemployed. In this article we focus on the first two activities: 1) (initial) vocational education to obtain professional knowledge and skills (the primary segment) and 2) supplementary training to refresh, widen and deepen craftsmanship (the secondary segment).

In the sector involved (HVAC and plumbing), the initial vocational education is focused mainly on apprenticeship training, which consists of one day of school and four days a week at the workplace. Since the mid-1990s, the demand for supplementary training has increased in most sectors, while apprenticeship training has decreased (Van den Tillaart and Warmerdam, 1997: 50). The extent to which training costs (which may even include wage costs) are reimbursed differs greatly. Those who manage the funds decide which courses qualify for reimbursement. According to Waterreus, half of the funds use a course catalogue, which lists courses offered by acknowledged branch-training institutions, as well as relevant courses from other training agencies. In-firm training courses may sometimes also qualify, for example in companies with very specific training demands. In some cases, reimbursement of funds requires that a firm develop training plans with which its workers; council must agree. Finally, funds also support special experimental training projects (Waterreus, 1997; Meijers and Teerling, 2003; Meijers, 2003).

As stated earlier, training funds have two goals: to contribute to a flexible 'sectoral' labour market and to develop strategic knowledge for the sector. In this article, we concentrate on the first goal, not only because it is the most important goal for the training funds, but also because we do not have enough empirical evidence to make clear statements about the second goal. In the concluding section, however, we will pay some attention to the question of whether funds contribute to the development of strategic knowledge or not. Funds do contribute to a flexible 'sectoral' labour market by trying to provide sufficient volume and professional quality of the workforce in that particular sector. They do this by stimulating both (initial) vocational education and supplementary training. In this paper we will (in a case study of one particular fund) try to establish the effectiveness of those funds – with a focus on the equalization instrument – by investigating their effect on the volume and quality of education and training in the primary and secondary segment. Training funds have played a key role in sectoral training policies since 1986, and their role and influence is expected to increase during the coming years as a result of discussions involving employability and lifelong learning (Van Hoof, 1999, 2005).

However, despite their apparent influence, the effectiveness of these funds has hardly been studied. Research concerning sectoral training funds has concentrated primarily on the financial structure of sectoral training policies (Aalders, 1994), their role in the organization of sectoral training systems (Van den Tillaart *et al.*, 1998; Van den Tillaart and Warmerdam, 1997), their role in stimulating (re)training in SMEs (Warmerdam *et al.*, 2001; van den Tillaart and Warmerdam, 1997), and on the effectiveness of agreements that exist between the social partners concerned (De Vries and Hövels, 1991).

The few studies on the effectiveness of the fund involved reveal that many firms do not make use of the option of equalizing training costs. One study, conducted by ITM (a Dutch research institute) for the sectoral training fund for the HVAC (heating, ventilation, air conditioning and plumbing sector) into the causes of the under-utilization of the equalization funds (ITM, 1999), reveals that:

- Ninety-five per cent of companies confirm that schooling is very important to them and that they experience few financial barriers in investing in the training of their employees. Less than 10 per cent of the investigated firms felt that a higher level of financial compensation would provide more impetus for further training. In addition, it seems that firms are investing more frequently in training, while decreasing their use of existing equalization regulations. More than 90 per cent indicated that they were aware of the existence of these regulations and that they themselves were contributing to these funds. The most important reason for employers not utilizing these funds was the administrative red tape involved in obtaining them.
- Most employees were not aware of the fact they themselves were also contributing to the training funds: their contribution is not explicitly mentioned as a deduction on their monthly pay slips. Employers apparently consider the contribution for the training funds as their money (and the employees do not seem to disagree with that notion).
- Many employers have developed company-specific instruments (primarily clauses in labour contracts) so that, in the event an employee transfers to another company, investments in their training are paid back (either by the employees themselves or by their new employer).
- For many employers the funds provide no new impetus to invest in training because a large portion of the associated costs is already tax deductible.

These findings seem to indicate that the equalization regulations provide a financial solution to something that is not experienced as a financial problem. They also show that the funds are primarily viewed as an 'employer's instrument', which may be because businesses bear the costs and receive subsidies outside the employee's scope. The question as to whether the goals of the funds are actually being achieved, is still most relevant, however: in The Netherlands there is a debate as to whether the training funds work the way they were intended. Regrettably, the focus of this debate seems to be on whether training funds spend their money effectively or whether they just salt it away.

It is rather difficult to investigate whether the funds actually succeed in providing a flexible 'sectoral' labour market, because empirical data are virtually non-existent. The funds gather data primarily in order to account for their expenditures and

disbursements, not to reveal whether their efforts have increased the mobility of the workforce or promoted professional development. Therefore, it remains unclear whether the funds are achieving their goals or not. The training and development fund OLC for the sector HVAC and plumbing is – as far as we know – the only fund that has the kind of data needed to determine the effects achieved. The OLC has collected data for the last ten years regarding:

- the mobility of individual employees (by researching the yearly influx of employees as well as their mobility within the sector and their departure);
- the development of supply and demand on the labour market (by researching a company's expansion and replacement needs and by relating these to the output of the educational system and the influx of mid-career changers);
- the educational consumption (by researching the participation in trade education and the retraining of employees and firms on the basis of their own fund administration and the subsidies given to firms and employees);
- the technological trends and innovations and their application in firms (by researching the speed at which new technologies, laws and regulations are adopted by firms and employees).

This information gives us an accurate description of the development that this branch has undergone since 1995, especially because no major changes have been made in training fund regulations, or other related policies. The OLC data are published yearly by the fund managers in an annual report. The subsidies disbursed have also been included in these annual reports since 1998, which is why we examined the OLC data in the period between 1999 and 2002. We are aware that the results of our analysis are specific to the sector involved, but we consider them indicative for other SME sectors with similar funds: indeed, experts who were consulted have the impression that our findings are exemplary for other sectors as well.[1] These same experts also confirm that the trends discussed in the last section of this article are indicative of how most other training funds operate.

## A Portrait of the Sector HVAC and Plumbing

This sector includes almost 4,700 firms and more than 61,000 employees. It is primarily concerned with the provision of heating and plumbing services; mainly their installation, drawing and design. The two sub-sectors involved are: central heating, ventilation and air conditioning (HVAC) and sanitation, water services and roofing (plumbing). The most important (technological) developments during the last ten years have been the application and development of energy-efficient measures, improved assembly techniques and the integration of electronics in installations. The breakdown of firm size is roughly as follows:

- at least 700 individuals working independently, without personnel. They are plumbers who are primarily oriented towards the consumer market (in general, they are located 'around the corner' from their customers);
- approximately 3,200 firms with between one and fifteen employees, or about 18,000 people: these are small plumbing firms that offer a broad package of

products and services for the consumer market (these firms are generally also located 'around the corner');
- almost 700 firms with fifteen to fifty employees: about 18,000 people are employed in this category; they are primarily involved with standard production work in the housing sector;
- finally, there are about 250 firms with fifty or more employees: in this small group of larger firms, about 24,000 people are employed; these firms concentrate their activities in complex and large projects in the utilities sector.

This sector has a large number of very small firms (almost 85 per cent of the firms have fewer than fifteen employees) and has grown steadily. The number of firms has increased by 15 per cent during the last ten years, and the number of employees has grown by almost 50 per cent. The average size of firms with personnel has increased from 11.5 employees to more than 14.5 employees. The economic fluctuations between 1993 and the present have not resulted in corresponding (temporary) fluctuations in this sector: the growth here has been gradual and continuous.

Our research problem is defined as follows: has the way in which the OLC has allocated its resources in the period 1999 – 2002 resulted in more vocational education (= more apprenticeships) and training (= more trainees and days of training), which would then fulfil the need for sufficient numbers of skilled personnel?

## Data Sources

For this study, a secondary analysis has been carried out on the data from the fund's financial administration. This administration registers all firms that are affiliated with the fund, and which employees are employed by those firms. The administration also registers – for accounting purposes – each firm and/or individual receiving benefits (those benefits intended to stimulate vocational training as well as those that support (re)training).

On the basis of the complete accounting of these benefits, it is possible to reconstruct the (subsidized) participation in training and schooling over time. The fund started with new procedures for the administration of benefits as of 1 January 1999. This administration procedure continues to the present day; data prior to 1 January 1999 are not registered in this administrative system. All subsidies paid out by the fund in the period between 1999 and 2003 are included in the analysis; we did not work with a sample. When we do refer to older data, this is based on data retrieved from the public domain (primarily Beilsma, 2002; Beilsma and Kans, 2002).

In addition, we used data from students involved in vocational education.[2] The Ministry of Education, Culture and Science administers these data via the CFI (Central Financial Institute). This administration registers the number of students participating in a specific vocational (MBO) programme at a specific community college (ROC) each year, as well as the number of students graduating each year.

## Findings

The question as to whether the fund is achieving its goals in creating a flexible 'sectoral' labour market is answered when a quantitative analysis is made of the

relationship between the quantity and content of schooling, in various segments of the sector, and the use of the subsidy regulations (i.e. the fund's financial facilities). We discuss the results of our analysis in the primary segment (vocational education) and in the secondary segment (supplementary training).

*Vocational Education (The Primary Segment)*

Not all funds include financial stimulation for the primary segment as part of their schooling policy. Some funds have no form of financial compensation whatsoever; some funds reimburse only the costs of study materials (books), whereas others support the entire schooling trajectory (in order to increase the influx of students, to reduce the drop-out rate and to motivate students to complete a diploma). The fund we are investigating here belong to this latter category. OLC provides reimbursements for firms that hire a trainee-employee: the reimbursement consists of an initial fee for the firm at the start of the trainee contract (to increase the number of trainee-employee contracts), a fee at the end of the first year (in order to reduce drop-out rates) and diploma fees for firms as well as for trainees to encourage the completion of the course, resulting in a diploma. The analysis of the effects of this kind of policy is intended to determine whether the number of trainee-employees has grown as a result of these regulations. First of all, we will present an analysis of the development of the number of subsidized individual training contracts during the period 1998–2003.

In Table 1 we see that the number of subsidized training contracts within the sector-specific training domains (HVAC and plumbing) decreased after an initial period of growth.[3] At the same time, the number of subsidized training contracts outside this domain (in, for instance, electrical construction, welding, machinery mechanics) increased. This indicates a lack of the demarcation between sectors which appears to occur in firms. Increasingly, HVAC and plumbing firms now have a non-installation-technical trainee in their company. This is possible only if the firm is actually involved in non-installation-technical activities or if the definition of its sector domain changes (i.e. in 2005 the electrical engineering sector converged with the plumbing and HVAC to form a new sector).

In addition, there seems to be a relationship between the average training level and the number of trainees. If the number of trainees is high, then the average training

**Table 1.** Number of trainees subsidized by the fund, per year and level

| Level | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|---|---|---|---|---|
| 4 (specialist) | 108 | 124 | 87 | 99 | 70 |
| 3 (experienced craftsman) | 1378 | 1689 | 1393 | 1284 | 926 |
| 2 (basic practitioner) | 1677 | 1822 | 1679 | 1455 | 1310 |
| 1 (trainee) | 14 | 29 | 33 | 100 | 93 |
| Total within the CLA domain | 3177 | 3664 | 3192 | 2938 | 2399 |
| Average level | 2.50 | 2.52 | 2.48 | 2.47 | 2.41 |
| No CLA domain | 399 | 444 | 474 | 563 | 453 |

level is also high; the smaller the number of trainees, the lower the average level of education. At first glance, this analysis does not show that the fund's activities (in this case, the provision of subsidies) achieve their intended goal. In fact, the opposite seems to be the case: despite the availability of subsidies and the goal of ending up with more and better-trained craftsman, the number of trainees – as well as their level of training – decreased.

The decrease in the number of apprenticeships may have been caused by a lack of potential trainees. Therefore we took into account the number of young people actually available to participate in vocational education. Table 2 shows the relationship between the results in Table 1 and the number of young people in the general population. The total number of young people in The Netherlands as well as the actual number of young people following an HVAC and plumbing training programme (with data from the CFI) is presented in the first two rows of the table. We see that, while the number of available young people increased (2000 – 2002), the number of participants in vocational education for HVAC and plumbing actually decreased. In the third row, the number of training contracts subsidized by the funds is shown. Compared with the total number of students, that number decreased quite dramatically: from more than 50 per cent subsidized training contracts in 1998 to about 35 per cent in 2002.

The decrease is even more pronounced if we consider only training contracts within the domain of the CLA (see the fourth row). In this case, the decrease is more than 15 per cent: from a little less than half the training contracts in HVAC and plumbing, to about a third of the fund-subsidized training contracts. The 'demarcation' problem mentioned previously seems to be steadily increasing. Increasingly, firms in the HVAC and plumbing sector are applying for support from the fund in order to subsidize training programmes that are not related to sector-specific skills and knowledge.

This may be caused by a lack of vacancies and room for apprenticeships. For instance, the branch might be in a slump due to economic fluctuations. That is why we must also examine the capacity of the labour market to absorb young trainees. Our particular data are also from a sector where practical training is dominant (more than 80 per cent of the trainees are trained on the job as apprentice-employees by a company). In a period of economic downturn, it seems reasonable to conclude that the ability to train young people 'on the job' is jeopardized by that downturn. For this reason, we consider not only the development of those firms and employees, but also the shift in supply and demand in the economy during the same period.

Table 3 shows that, during the period studied, the number of employees (and the number of firms) increased gradually by 6,500 people, while those firms simultaneously indicated that demand exceeded supply by 2 per cent, decreasing to 1 per cent (excess demand decreased by 50 per cent over time). Despite the growth in this sector, there remains room for even more growth and this is in itself a remarkable finding: that a sector is able to develop so fortuitously in such difficult economic times. Our conclusion is that in this case the labour market posed no obstacle to training young people on the job.

For the primary segment of vocational education and the effects of the fund's efforts, we conclude, on the basis of this analysis, that 'process' subsidies for vocational education did not have the desired effect. During the period that subsidies

**Table 2**. Number of people 15 to 24 years old, number of trainees in HVAC and plumbing, number of trainees subsidized by the fund, sub-divided by CLA, year and level

| | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|---|---|---|---|---|
| Number of people (× 1000) in the Netherlands of ages 15–24 years | 1.912 | 1.891 | 1.883 | 1.893 | 1.913 |
| Number of trainees in the CLA domain according to CFI | 6.943 (0.36%) | 7.955 (0.42%) | 8.270 (0.44%) | 8.212 (0.43%) | 7.961 (0.42%) |
| Number of training contracts subsidized by the fund | 3.576 (51.51%) | 4.108 (51.64%) | 3.666 (44.33%) | 3.501 (42.63%) | 2.852 (35.82%) |
| Number of trainees in the CLA domain subsidized by the fund | 3.177 (45.76%) | 3.664 (46.06%) | 3.192 (38.60%) | 2.938 (35.78%) | 2.399 (30.13%) |
| Number of training contracts subsidized by the fund, outside the CLA domain | 399 (10.04%) | 444 (9.75%) | 474 (11.45%) | 563 (13.85%) | 453 (13.71%) |

were widely available for vocational education, and despite the availability of enough potential trainees and sufficient room in the labour market, the number, as well as the achievement level of students, has decreased and the subsidies now represent a decreasing portion of this segment of vocational education.

*Supplementary Training (The Secondary Segment)*

In the secondary segment, with its emphasis on short-term training and retraining, the same picture we saw in the primary segment appears. The fund has subsidies available for training that are not limited to subsidies for technical training; in addition, the fund has provided a non-designated contribution of one day per employee per year. This means that a company may accumulate the training days of all its employees and subsequently designate them to a particular employee or employees as they see fit.

From the analysis of the subsidies given for (re)training (Table 4), we see that, after the initial growth of the number of subsidized days (until the end of the 1990s), the number of subsidized days decreased from almost 25,000 in 2000 to just over 21,000 in 2002. During the same period, the number of employees increased. With a decreasing number of subsidized days, the conclusion is clear: the number of subsidized (re)training days per employee decreased.

Because we have analysed the financial administration of the fund, we have no insight into the actual number of training days in the sector. There are no data available about training, either from the CFI or from the training institutions themselves. In other words, it is difficult to determine what firms and employees are actually doing with respect to schooling and training.[4] With the subsidies, we only see the portion of (re)training which actually falls under the subsidy regulations and is administered by the fund. It is possible, for example, that the sector is doing more

**Table 3.** Number of firms, number of employees and percentage of excess demand by year

| | Number of firms | Number of employees | % excess demand |
|---|---|---|---|
| 1998 | 4617 | 54807 | −2.2 |
| 1999 | 4678 | 56638 | −2.0 |
| 2000 | 4733 | 58739 | −2.1 |
| 2001 | 4774 | 59760 | −2.0 |
| 2002 | 4753 | 61056 | −1.8 |
| 2003 | 4731 | 61239 | −1.1 |

**Table 4.** Number of employees and subsidized (re)training days 2000 through 2002

| | Number of employees | Number of subsidized days | Average number of days per employee |
|---|---|---|---|
| 2000 | 56105 | 24882 | 0.44 |
| 2001 | 57834 | 22883 | 0.40 |
| 2002 | 59328 | 21328 | 0.36 |

on training, but that this is not reflected in the actual subsidy declarations of that sector. For the time being, however, there is no indication that this is happening, and it would seem that the funds are contributing less and less to the (re)training of employees.

The question as to whether funds are pursuing an effective (re)training policy can also be considered by looking at the relationship between the number of subsidized schooling days and firm size. The principle of equalization should demonstrate that small(er) firms are doing more in terms of employee training: as a result of equalization the investment risk decreases for those firms. This seems to be only partially true in the sector we are studying. For the purpose of analysis, we have divided firms into large ones and small ones.

The average firm size in 2002 in the *entire sector* determines whether we consider a firm to be large or small. The average size of a firm was fifteen employees. In the period between 1999 and 2002, the total number of firms with employees in this sector increased by 5 per cent, from 3778 to 3954. This growth can be seen for small firms (2992 to 3134) as well as for large ones (from 786 to 820). If we look at the size of the companies receiving a training subsidy, then we see that those firms are twice as large as the average. If we assume that obtaining a subsidy is equivalent to (re)training efforts, then we may conclude that primarily larger firms are training their employees (see Table 5).

To analyse the equalization principle, we considered the degree to which larger and smaller firms utilized the subsidies of the fund. The utilization of subsidies increased by 10 per cent over the studied period, from almost 650 firms (17 per cent) who received subsidies in 1999 to 1065 firms (27 per cent) in 2002. From this point of view, the effectiveness of the fund increased enormously in a short period of time (almost 60 per cent). However, if we consider the actual utilization of subsidies by small and large firms independently, it becomes apparent that something different is occurring in these two groups: small and large firms do not make equal use of the (re)training subsidies of the fund.

In 1999, 305 smaller firms (more than 10 per cent of the total number in that group) received (re)training subsidies from the fund. In 2002, this number had increased to 584 firms (19 per cent): an increase of 80 per cent. At the same time, the number of employees receiving (re)training at these small firms increased from almost 65 per cent to more than 71 per cent. This means that, when a small firm received a (re)training subsidy in 2002, it received it for more than 70 per cent of its employees (see Table 6).

**Table 5.** Number of large and small firms and average size of firms receiving training subsidies from 1999 through 2002

| | Number of small firms | Number of large firms | Total number of firms | Average size of firms | Average size of firm that receives training subsidy |
|---|---|---|---|---|---|
| 1999 | 2992 | 786 | 3778 | 10 | 38 |
| 2000 | 3049 | 810 | 3859 | 12 | 30 |
| 2001 | 3095 | 827 | 3922 | 13 | 32 |
| 2002 | 3134 | 820 | 3954 | 14 | 30 |

In Table 7 we see that large firms are much more successful than smaller ones in obtaining subsidies. In 1999, 342 (43.5 per cent) of these large firms received a subsidy; in 2002 this number had increased to 481 firms (58.7 per cent). However, if we compare the number of subsidized days to the maximum number of days a firm is entitled to, then another picture emerges. The relative utilization of days increased for participating small firms in this period from 64 per cent to 71 per cent; these percentages are respectively 49 per cent and 56 per cent for the large firms. Therefore, the large firms participate in training programmes more frequently than the small firms, but, when small firms do participate, they utilize a larger share of their (schooling day) entitlement than the large firms do.

Table 8 demonstrates that the number of employees in the sector has been increasing steadily for years. This increase is proportionally larger than the increase in the number of firms, therefore the average firm size is increasing (in 2003 the average firm size was almost fifteen people).

If we consider the total number of employees in this branch, then we see that, in 1999, 13.9 per cent received one or more days of schooling subsidized by the training fund. This percentage increased to 20.5 per cent in 2002. The small(er) firms scored below average during the entire period between 1999 and 2002: in 1999 6.9 per cent of their employees received one or more days of schooling subsidized by the fund and in 2002 this had grown to 18.1 per cent. The large(r) firms scored slightly above average: 16.4 per cent in 1999 and 21.1 per cent in 2002. The differences between the large(r) and small(er) firms decrease over time,

**Table 6.** Small firms that receive training subsidies and the percentage of employees that receive training, 1999 through 2002

| | Small firms receiving subsidies | | |
|---|---|---|---|
| | Number of firms | % | % of employees that receive training |
| 1999 | 305 | 10.2 | 64.0 |
| 2000 | 604 | 19.8 | 73.0 |
| 2001 | 577 | 18.6 | 71.0 |
| 2002 | 584 | 18.6 | 71.0 |

**Table 7.** Large firms that receive training subsidies and the percentage of employees that receive training, 1999 – 2002

| | Large firms receiving subsidies | | |
|---|---|---|---|
| | Number of firms | % | % of employees that receive training |
| 1999 | 786 | 43.5 | 49.0 |
| 2000 | 810 | 62.6 | 60.0 |
| 2001 | 827 | 61.1 | 56.0 |
| 2002 | 820 | 58.7 | 56.0 |

**Table 8.** Number of employees receiving training, employed by large and small firms

| | Total | | | Small firms | | | Large firms (>15) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Number of employees | Employees receiving training | % | Number of employees | Employees receiving training | % | Number of employees | Employees receiving training | % |
| 1999 | 53876 | 7496 | 13.9 | 14204 | 976 | 6.9 | 39672 | 6520 | 16.4 |
| 2000 | 56105 | 12965 | 23.1 | 11519 | 2200 | 19.1 | 44586 | 10765 | 24.1 |
| 2001 | 57834 | 12714 | 22.0 | 11566 | 2315 | 20.0 | 46268 | 10399 | 22.5 |
| 2002 | 59382 | 12714 | 20.5 | 11984 | 2172 | 18.1 | 47398 | 10002 | 21.1 |

but remain visible. In 2002, on average, slightly more than one in five of the employees in larger firms received subsidized training, while slightly less than one in five of the employees in smaller firms received subsidized training (the difference was 3 per cent in 2002). In other words, an employee of a larger than average firm has a 3 per cent greater chance of being found in the subsidy administration, than an employee of an average or smaller-than-average firm does.

Skill development is a high priority if we consider the goals of the fund. On that basis, one may infer that funds would emphasize the stimulation of technical-training skills, perhaps even at the cost of more general and non-technical courses. The differences between subsidies paid for technical versus general courses may be considered for the fund studied here. (The fund has classified the educational programme into the area of expertise it addresses.) This applies to the primary as well as to the secondary segment.[5] On the basis of these data, we show the distribution of training days for the years 2000–02 in Table 9.

In Table 9 we see that the majority of subsidies for (re)training are spent on increasing the training of non-technical skills. This is true for technical courses that are not recognized by the fund, as well as courses not focused on technical skill development. So it would seem that the fund was not stimulating the technical skill development of employees, but, rather, supporting their *general* development. In light of the positive growth in this sector, and the possible stimulation attributed to the fund, this finding is rather difficult to explain.[6] It does seem that the training subsidies do not necessarily have a one-to-one relationship with the main goal of the fund – which is to ensure that sufficient numbers of qualified personnel become available.

## Conclusion

The usefulness of the mandatory contribution (i.e. levy) – and thereby the survival of sectoral training funds – has, as mentioned before, recently been a subject of discussion among politicians and employers, and to a lesser extent within trade unions in the Netherlands. On the basis of the results presented here, it would seem that there is a good reason for that. With regard to the primary training segment and the effects of the funds' efforts, we conclude that the availability of subsidies for vocational education – as a means of equalization (i.e. reducing investment risks) – has not resulted in the desired effects. The number of the trainees who follow primary vocational education relevant to the sector is in fact decreasing. Additionally, a decreasing portion of the vocational education in the relevant sector is achieved by those subsidy instruments.

**Table 9.** (Re)training consumption by technical and non-technical training

| | Number of subsidized days | Technical skills | Non-technical skills |
|---|---|---|---|
| 2000 | 24882 | 32.7% | 67.3% |
| 2001 | 22883 | 32.9% | 67.0% |
| 2002 | 21328 | 42.3% | 57.7% |

The results for the secondary segment are equally negative. Despite the fact that, during the period studied, the number of firms and the number of employees has steadily increased, the number of subsidized training days has remained constant (if not decreased) since 2000. Primarily large firms are utilizing the funds' assets, though a successfully functioning equalization principle would also encourage training in small and medium-sized enterprises to do so. Regardless of the findings above, we are not arguing for cancellation of the funds. Instead, we would like to provide the funds' social partners with contemporary tools to assist in their decision making. The fund boards also need to reflect more fully on their own goals. In putting this forward we have formulated five challenges which illustrate what we feel is needed in the future, not only with respect to new policies but also with respect to new research.

## Challenges

The first challenge involves *the individual employee – a point of primary interest*. The present form of equalization functions as an instrument to 'level the playing field' between firms, whereby the employee does not have to invest time and money (with the possible exception of evening courses and clauses to deal with premature departure from the company). The personal responsibility of the employee for his/her own professional development is not addressed and he/she is not supported in the development of his/her career competencies. With regard to this last point, Kuijpers (2003) has clearly shown that the majority of employees have scarcely any career competencies: a fact which is detrimental to their employability. The interests of employees and employers are in competition with one another. The employer as well as the employee desires maximal income and recognition from labour: where labour is not a goal in and of itself, but is an instrument for the acquisition of income and recognition. Investments in employees must therefore be profitable for the employer: he will not invest more in his personnel than the amount of income and recognition that he receives (within his time horizon) in return. The intervention of a fund does not alter this basic equation.

Of course, the employee would like to gain more income and recognition, too. However, the average employee would rather work overtime, or cancel a course if he is too busy, than go to school in the evening. For this reason, it is likely that the funds' interests, in the present context, are mainly employers' interests. They contribute to the educational level of a branch, but achieve that in a way that contributes little or nothing to the career development of employees.

The majority of the subsidized courses taken by employees do not result in a diploma that is useful outside one's branch nor do they result in a wage increase. For this reason, training is primarily advantageous for employers: they accumulate and anchor knowledge in the enterprise without having to offer any financial compensation. Smart employers would certainly be willing to advance payment for the fees so that personnel would be able to follow courses. However, by an anticipated career (i.e. wage) effect, they often demand conditions. For example, that the acquired benefits must remain in the enterprise, either by requiring the employee to remain in the firm for several years, or by ensuring that an employee pays back all costs to the employer if he/she leaves the company earlier than agreed. In other

words, the first challenge is to give the individual employee a central place in the activities and instruments of the funds' policy. This could be implemented by making arrangements in the Collective Labour Agreement concerning 'transfer' funds (which seems to be a good substitute for equalization measures) and by developing branch-level facilities that would enable employees to obtain career competencies so that they may, in effect, earn back their investments.

The second challenge has to do with *the financing of training within a perspective of life-long learning*. Until now, the funds have primarily financed the education and training of employees. In the future, funds also need to develop a policy that would stimulate individual development of employees as well as that of potential employees. The distinction between initial (vocational education) and post-initial education (supplementary training) is artificial and outdated. Vocational education is based on the myth that students make conscious and correct career and educational choices, that robust career profiles exist and that learning paths are logically associated with careers. The allocation and development of talent are two completely different matters. In the first place an individual must make a stable career choice – and, thereby, must develop a corresponding work identity – before he or she can concentrate on (professional) competencies (Meijers and Wardekker, 2002; Law *et al*., 2002). One could say that the dynamics of the labour market in fact 'condemn' employees to life-long learning, in which the initial trajectory plays a minor role: vocational education functions more as a sorting machine than as an incubator. Early drop-out rates are enormous: in the metal and technical branches 50 per cent of the young people leave within a year (Sprengers and Beilsma, 2003). The resulting shortage is not recouped in the (re)training financed by the branch itself. The fund's attention tends to be directed more towards legal obligations and general skills than towards technical skills. Fund managers should concentrate more on (co-)financing the career choice processes of (aspiring) employees and better tailor their investments towards the specific learning needs in different career phases and individual employees.

The third challenge involves *the development of strategic knowledge*. In the interviews we conducted with several experts on the functioning of the training funds (see note 1) and based on the data presented in the previous sections, two problems become clear. First of all, funds are primarily offering banking services. Second, they resemble a training fund as opposed to a development fund, because schooling is seen as a goal in itself, rather than a means of developing a particular sector. Of course, funds must continue to be used to invest in schooling and development; but their training function must be regarded as instrumental in developing sectors, especially in the light of the growing necessity to promote the employability of workers. The goal should be to employ the fund's assets in such a way as to enable a maximum production of knowledge and flexibility in service to the entire sector. This is a completely different perspective than that of training as many people as extensively as possible (as experts confirm: what financial investments can accomplish is ultimately limited).

Social partners and training fund managers share the belief in the equalization of training costs so that they may reduce investment risks associated with education and training. It seems, however, that during the last few years these risks have played a minor role. In addition, there are also other ways of addressing these risks (for

example, study-work contracts with reimbursement clauses). If funds were really concerned with the production of knowledge, it would seem that the investment risks involved – in the development of innovative training programmes – would have been more important. The equalization goal of a training fund should not be defined in terms of participation or schooling consumption, but in terms of the development of innovative schooling programmes, for both supplementary training (in the perspective of new products, techniques and regulations) as well as initial schooling (of the future workforce). These innovative programmes should then be subsidized by the training fund until a greater demand develops. Then, the programme should become part of regular vocational education, as provided by the community colleges (ROCs). The fund could then also temporarily benefit from this development in order to recoup some of its investment and to prevent others (i.e. commercial training institutions) from asking exorbitant prices for the more popular ('old') courses. The fund should ideally regulate the market by promoting innovative developments and facilitating price reductions. A form of cooperation should arise between the funds and the sectoral institutions within the National Qualification Structure (who could either greatly facilitate or hinder the transfer of these innovative programmes to the standard ROC programme). According to the experts interviewed this concept is rather utopian, because the schools for vocational education and sectoral training institutions earn most of their profit from 'yesterday's courses'. Training institutions are very conservative in the development of innovative material, because of the investment risks involved. They are equally conservative in transferring to regular vocational programmes because this often results in a loss of turnover with regard to course activities. Funds must, in essence, become 'mutual guarantee institutions' in order to reduce the innovation risks in training courses and formal educational trajectories.

The fourth challenge involves the necessity to *create vigorous learning environments* instead of concentrating only on the financing of training. The literature (see, e.g., Walton, 1999) illustrates that small(er) firms offer a more vigorous learning environment than larger ones. Ideally, the skilled trainee is able to obtain an overview of the entire process and has many opportunities to develop the necessary experiences in a small, safe environment. In this situation, informal learning is primary. The opportunities of participating in formal education are, however, more limited than in large(r) firms. Knowing this, it is paradoxical that small(er) firms are more oriented towards formal qualifications. It is generally assumed that large(r) firms train employees for the small(er) ones – this, however, is not reflected in the data. There is a relatively large influx of worse-educated employees to the larger firms, whereas employees in smaller firms tend to develop themselves more broadly. The opportunities for growth in specialized and management functions, on the other hand, exist primarily in larger firms, which results in a flow of personnel from smaller to larger firms. As a result of both these trends a relative balance exists within the total picture. During economic fluctuations in the labour market, this balance between large and small firms within HVAC and plumbing is also apparent. Large firms often work on large projects that have a long duration. When they finally begin to suffer from a recession, the economic problems have usually already been resolved for the smaller firms. Fund managers must strive towards an optimization of personnel

exchanges between large and small firms, so that the sector as a learning environment is strengthened.

The fifth and final challenge has to do with *the processes of policy-making and the management* of the training funds themselves. It appears that the social partners of almost all funds do not limit their attention to strategic decision-making, but also focus largely on tactical decision-making. The directors of these funds are viewed as being only implementers of policy. In this way, the investment power of the funds is determined mainly by a political consensus in the Collective Labour Agreement. The vigour and effectiveness of the funds are thereby easily influenced by recent political developments in the 'arranged marriage' between social partners. The trade unions or the employers may easily claim a fund's success as their own. A fund's failure, however, is considered the fault of the management and never the fault of the board of directors. This brittle consensus in every political deal is not conducive to feelings of personal involvement and responsibility in such a complex theme as (re)training and HRD. The dynamics between national parties and regional problems do not simplify the matter. Indeed, this dynamic forces the fund's management and board of directors towards risk-aversive behaviour, where general instead of specific goals set the agenda.

In order to achieve the goals set out by European governmental leaders in Lisbon, a more proactive attitude is needed, whereby a fund's board of directors are willing to define the 'common good' for each branch in quantifiable, operational terms. When these operational goals are formulated, the pursuit of this 'common good' becomes more of a project- or firm-based process, and less of a political goal. This requires patience and a different kind of discussion between the social partners than is presently found in CLA negotiations. It is doubtful whether this is a realistic option when the same decision-makers meet each other on varying advisory bodies and boards. Perhaps defining a mandate to the funds' directors, who are more oriented towards project management, would offer some solace. In this way, the funds' directors would function within the general context of a CLA, which preferably lasts longer (e.g. five years) than the average duration of a labour accord (e.g. one to two years). Consequently fund managers and social partners could professionalize their approach in this complex domain of working and learning.

## Acknowledgements

The help of dr. J. van Hoof and dr. H. van den Tillaart, who commented on an earlier draft of this paper, is gratefully acknowledged.

## Notes

1 The experts interviewed were representatives of the Max Groote Expertise Center (a research institute of the University of Amsterdam, specializing in vocational education), the training fund for electrical installation (OFE), the fund for the metal industries (A + O) and the federation of Dutch employers' associations (VNO-NCW).

2 The process of training a craftsman begins in the initial vocational education (the primary segment). This is secondary education that is sub-divided into the preparatory intermediate vocational education (VMBO) for 12 – 15-year-olds and the intermediate vocational education (MBO) for 16 – 20-year-olds. The intermediate vocational education has two variants: the first variant emphasizes classroom training

and the second (dual) variant emphasizes practical training by apprenticeship. The VMBO and the MBO are both organized and paid for by the government. The post-initial vocational education (the secondary segment), which is concerned with the continuation of professional training, is mainly organized and paid for by the branch itself (via the training funds).

3 The CLA (collective labour agreement) determines which domain is assigned to which fund. Installation technique has been assigned to the fund studied here. There are forty different vocational training programmes that are relevant to installation technique. We therefore classify these programmes as belonging to the domain of this fund. There are students who follow a non-installation technique programme, but are employed by a company associated with the fund: these students are assumed not to belong to the CLA domain.

4 Research has shown that firms and employers are more actively (re)training, which can be reconstructed on the basis of the funds' subsidy administration. Previous research demonstrates that one third of the schooling efforts are not registered in the funds' administration (Aalders, 1994; Onstenk, 1997; Warmerdam and Tillaart, 1997). In addition, it is known that actual schooling by firms and employees is related to workloads in those firms. If the workload is high, then less time is invested in schooling and schooling arrangements are often annulled.

5 See www.loopbaanplanner.nl for the distribution of educational resources by specialty and level. The fund has, since 2000, classified the educational offering into technical (with a specialization) and general education. The type of education is registered when subsidies are given.

6 Previous research has indicated that there is a direct relationship between schooling and the duration of employment. More schooling leads to a longer relationship between employee and employer. A differential effect for technical versus non-technical (re) training has not been found (Beilsma, 2002).

## References

Aalders, M. (1994) *Bedrijfsopleidingen: organisatie en financieringsstructuur* (Corporate training; organisation and financial structures) (Assen: Van Gorcum).

Beilsma, R. (2002) *Succesvol werk: Arbeidsmarktsucces van werknemers in de installatiebranche* (Success on the labour market of employees in the installation sector) (Woerden: MarktMonitor).

Beilsma, R. and Kans, A. (2002) *Tien jaar werknemers in de installatietechniek: Kerngegevens voor de periode 1992–2001* (Ten years employees in the installation sector) (Woerden: Marktmonitor; Amsterdam: Dijk 12).

Crouch, C., Finegold, D. and Sako, M. (1999) *Are Skills the Answer? The Political Economy of Skill Creation in Advanced Industrial Countries* (Oxford: Oxford University Press).

De Vries, B. and Hövels, B. (1991) *Afgesproken! Onderzoek effectiviteit scholingsafspraken in CAO's* (Effectiveness of collective agreements on education and training) (Nijmegen: ITS).

Glastra, F., Haar, S. van der, Lens, M. and Schedler, P. (2004) *Losse Koppelingen: Over flexibilisering van arbeid, organisatie en leefwereld* (Flexibilization of work, organization and life world) ('s-Gravenhage: Reed Business Information).

ITM (1999) *Non-respons cursusaanbod ESF: Een onderzoek naar de achtergrond van gebrek aan belangstelling voor een goedkoop cursuspakket op maat* (Non-response of enterprises to training opportunities) (Woerden: OLC).

Kuijpers, M. (2003) *Loopbaanontwikkeling: onderzoek naar competenties* (Career development and career competencies) (Enschede: Twente University Press).

Law, B., Meijers, F. and Wijers, G. (2002) New perspectives on career and identity in the contemporary world, *British Journal of Guidance and Counselling*, 30, pp. 431–49.

Meijers, F. (2003) Scholing en vouchers: een stand van zaken (Training and vouchers: an overview), *Handboek Effectief Opleiden* pp. 3.01–3.16 ('s-Gravenhage: Elsevier Bedrijfsinformatie).

Meijers, F. and Teerling, L. (2003) Is leren leuk? De motiverende invloed van het persoonsgebonden opleidingsbudget (The motivating influence of individual learning accounts), in: S. de Vries, E. Wortel and A. Nauta (Eds) *Excelleren voor en door mensen: Theorie en praktijk voor optimaal Human Resource Management* pp. 86–99 (Deventer: Kluwer: Zaltbommel: INK).

Meijers, F. and Wardekker, W. (2002) Career learning in a changing world: the role of emotions, *International Journal for the Advancement of Counselling*, 24, pp. 149–67.

Onstenk, J. (1997) *Lerend leren werken* (Learning to work) (Delft: Eburon Uitgeverij).

Sprengers, M. and Beilsma, R. (2003) *Mobiliteit van werknemers in de MBT-sector* (Mobility of employees in SMEs) (Woerden: MarktMonitor).

Streeck, W. (1992) *Social Institutions and Economic Performance* (London: Sage).

Van den Tillaart, H. and Warmerdam, J. (1997) *Sectoral Training Policies towards Small and Medium Sized Enterprises* (Nijmegen: ITS).

Van den Tillaart, H., Van den Berg, Sj. and Warmerdam, J. (1998) *Work and Learning in Micro Car-Repair Enterprises: A Comparative Study on the Relationship between Technological and Organisational Developments and Training Activities in Micro Car-Repair Enterprises in Four European Countries. Synthesis Report*. CEDEFOP document (Luxembourg: Office for Official Publications of the European Communities).

Van Hoof, J. (1999) Vocational education, industrial training policy and company training in the Netherlands: an exploration. Paper presented at the HRM Conference, Rotterdam, 19 November.

Van Hoof, J. (2005) Vocational education and the integration of young people in the labour market: the case of The Netherlands, in: H. Bradley and J. van Hoof (Eds) *Youth, Labour Markets and Citizenship* pp. 214–32 (Bristol: Policy Press).

Volberda, H. W. (1999) *Building the Flexible Firm: How to Remain Competitive* (Oxford: Oxford University Press).

Walton, J. (1999) *Strategic Human Resource Development* (Englewood Cliffs, NJ: Prentice Hall/Financial Times).

Warmerdam, J. and Van den Tillaart, H. (1997) *Sectoral Approach to Training: Synthesis Report of Trends and Issues in Five European Countries*. CEDEFOP document (Luxembourg: Office for Official Publications of the European Communities).

Warmerdam, J., Van den Tillaart, H., Meersch, W. van der, Denijs, J., Besucco, N. and Tallard, M. (2001) *Sectoral Training Policies for SME's in Belgium, France and The Netherlands* (Nijmegen: Instituut voor Toegepaste Sociale Wetenschappen (ITS); Leuven: Hoger Instituut Voor de Arbeid (HIVA); Paris: Association de Recherche sur le Travail, L'Innovation en la Societe (ATIS)).

Waterreus, J. M. (1997) *O&O-fondsen onderzocht* (Training funds investigated) (Amsterdam: Max Goote Kenniscentrum).

Waterreus, J. M. (2002) *O&O-fondsen op herhaling: Stand van zaken scholingsfondsen 2002* (Trendreport on sectoral training funds 2002) (Amsterdam: Max Goote Kenniscentrum).