



**MONASH UNIVERSITY – ACER
CENTRE FOR THE ECONOMICS OF EDUCATION AND TRAINING**

6th National Conference

VET: CONNECTIONS, COSTS & CONTRADICTIONS

Monday 26 August 2002
Ascot House, Ascot Vale, Victoria

**INDUSTRY SUPPORT FOR TRAINING: AN INTERNATIONAL
PERSPECTIVE¹**

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1. Government-employer training financing arrangements

The industry support for training is one of the important contributions to the overall national investment in human resources. Two other components involve the government allocation and the private individuals' financing of training. The government-employer financing arrangements regarding training vary from fiscal incentives to enterprises to strict regulations imposed on levels of enterprise training expenditures and supervisory involvement of national authorities in their implementation. Among such arrangements, several types of schemes have emerged.

First, in many countries, governments do not regulate enterprise training expenditure. In countries with well-developed employer commitment to human resources development (HRD), there is no need for such regulation. The employers' responsibility for training of employees may be legally recognized. However, in the countries with the so-called voluntarist system of skills development, the neutral role of governments commonly results in employer under investment in training (ILO, 1998a; Büchtemann and Soloff, 1998).

Second, governments can directly subsidize training at enterprises through reimbursable training expenditures or grants. Governments also offer various tax-related incentives for training through providing exemption from company income tax and property tax. Industry and government may agree to co-finance paid educational leave of employees.

Third, in many industrialized countries of Europe, collective labour agreements have become an instrument for voluntary industry financing of training. Agreements often include training clauses as well as creation of sectoral training funds which specify industry training schemes and minimum levels of resource allocations. Governments may intervene to promote such training clauses.

Fourth, some countries have introduced compulsory arrangements which secure certain levels of enterprise investment in training. Through this governments attempt to raise the level of training beyond that which is provided by the free market and to encourage a move towards the concept of lifelong training.

¹This paper is based on V.Gasskov: Government interventions in private financing of training, 2001, ILO

2. Government-enterprise co-financing of training

Government training interventions commonly support employment promotion schemes through industry-based training. They also support training in general, transferable skills while industry financed the job-specific skills.

The Government of *New Zealand* offers subsidies aiming at development of transferable, rather than job-specific, skills. This strategy assumes co-funding of generic industry-based training by Government and enterprises. Because generic training is more likely to occur at entry level, Government subsidies have been restricted to training that would lead to credit on the lowest levels (one to four) of the eight-level National Qualifications Framework (NQF). Second, because the Government has an interest in encouraging enterprises to offer systematic training beyond what they would have provided without any subsidy, it is essential that subsidized industry-based training be industry-led. In practical terms, this requires that training content and delivery arrangements be determined by the appropriate Industry Training Organizations (ITOs). This provides for the establishment of ITOs, which are responsible for setting standards and for arranging systematic training within their industry sectors. This policy aims to extend training to industries and occupations where there currently are no systematic training arrangements and to provide for training to industry standards. These activities are administered by an agency of the same name, Skill New Zealand, which provides Government training subsidies through the Industry Training Fund. At present there are 51 ITOs that cover about 70 per cent of the range of occupations in the New Zealand workforce.

Of the 51 industry sectors covered by ITOs, 31 had little or no structured industry-based training before the enactment of the Industry Training Act 1992. By the end of 1997, some 36 ITOs were receiving government subsidies for training delivery through the Industry Training Fund. Industry-based training is becoming more cost-effective for the Government. Although the Government's contribution through the Industry Training Fund has increased from NZ\$42 million in 1996 to NZ\$69 million in 1998, the Government's share of the total cost of training provided during this period has decreased from 41 per cent to 34 per cent. The numbers of students enrolled in formal programmes of study and in recognised industry training programmes are at record levels. The system has become more efficient in the sense of reduced costs per trainee. It has also resulted in more equitable access to training, which is reflected by enhanced participation of previously under represented groups (Preddey, 1999).

In Denmark, the "open learning" avenue is offered to all adults, including self-employed persons, participating in job training, depending on professional experience and mainly in the form of part-time courses. The unemployed may avail of these training opportunities without having to give up unemployment benefits. The State currently finances 80 per cent of the course fee (CEDEFOP, 1998b). In addition, as in many other industrialized countries, training of employees and the unemployed can be financed through the voluntary employment insurance system. Funding sources include the membership contribution to the unemployment fund paid by insured persons (employees and the self-employed). This contribution has been on the increase over several years and equalled 8 per cent of total wages in 1998. Employers also contribute to this fund. The employment fund provides grants for training to both employees and the unemployed, although employees have first priority. In 1990-91, for example, employees constituted 65 per cent of participants in training programmes; the remaining 35 per cent were unemployed.

The fund's training allocation is channelled towards three major groups of institutions. First, the National Labour Market Training Agency (AMU) receives a central allocation amounting to one-third of its budget, which covers its basic operational costs as well as the cost of training programmes for disadvantaged groups. Second, the money goes to the bipartite

Labour Market Training Committees formed by the Minister of Labour for four major economic areas (industry, construction, commerce and services and the public sector). These Committees are fully responsible for programming employee training and financing courses in their economic sectors. They decide on and claim the allocation of government funds for adult training within their economic areas. The Committees contract out training to providers, including the AMU. Third, the Regional Labour Market Councils, which are responsible for the procurement of initial training courses and programmes for the unemployed, also receive allocations and purchase training from whatever providers in the market (Nielsen, 1995).

In *Australia*, the Federal Government offers direct subsidies to enterprises that engage apprentices and trainees. Non-profit, government-subsidized group training companies manage training, employment and placement of apprentices with “host” employers through to the completion of their qualification. Through group training companies the host employers are able to take on apprentices and trainees for variable periods and are relieved of many contractual and administrative responsibilities. Financial payments to enterprises are based on the commencement and completion of training. For a commencing apprentice or trainee at Australian Qualification Framework (AQF) levels 2, 3 or 4 an initial payment is offered to the employer of A\$1,250, with a further A\$1,250 being payable on progression from AQF 2 to AQF 3 or AQF 4. On recommencing an apprentice or trainee at AQF level 3 or 4, an employer is eligible for a A\$750 payment. To ensure progression to completion of a qualification an additional A\$1,500 is payable if the completing apprentice or trainee at AQF level 3 or 4 was “out of trade” before being recommenced by the employer. Additional incentives are offered to encourage the equitable representation of apprentices and trainees from target groups and to promote training in specific industries. For the commencement of a woman in a “non-traditional” apprenticeship or traineeship at AQF 2, 3 or 4 the employer is eligible for an additional A\$1,000 payment. As a result of this policy, over 1996-97 the number of commencing apprentices increased by 44,100 and trainees by 54,400. This brought the total number of apprentices in training in 1997 to 123,100 and trainees to 47,800, a record number. In recognition of the important function performed by group training companies the Federal Government offers a number of performance-based incentives. For each commencing apprentice or trainee at the qualification level 2, 3 or 4 a group training company is eligible for the commencement payment of A\$1,250 (as paid to a qualifying employer) plus an additional payment of A\$1,000 for each traineeship commencement. On recommencing an apprentice or trainee at the level 3 or 4 with a host employer, a group training company is eligible for a \$500 payment. For each completing apprentice or trainee at the qualification level 3 or 4 who was “out of trade” when re-commenced the group training company is eligible for a A\$1,500 payment (McMillan, 1999).

In *Belgium*, the Flemish Employment and Vocational Training Service (VDAB) offers industry subsidies for collective training programmes that cannot be provided within a VDAB training centre. This scheme also applies in the Brussels and Walloon Region. Salaries of trainees are subsidized up to the monthly minimum wage, while salaries of instructors are subsidized up to BEF 773 per hour. Companies bear other operational costs themselves.

The Leverage Fund for Innovation Oriented Training was launched in Belgium in 1998 with the aim of subsidizing training associated with investments in new technologies and work organization. The Fund has a budget of BEF 665 million and offers subsidies to private enterprises, sectoral training organizations and professional bodies. It mobilizes private funds for innovation and training (hence its name). Each training project has to prove that it reinforces the chances of workers, job-seekers or self-employed workers in the labour market and that it covers at least 20 participants and a minimum training duration of 20 hours per participant. The subsidy covers up to a maximum of 27.5 per cent of the total project costs, excluding workers’ wages. The maximum subsidy for the individual training project amounts to BEF 25 million; for collective training projects the maximum subsidy is BEF 100 million. Joint company training projects and projects involving low-skilled and/or long-term

unemployed job-seekers receive priority treatment. Applications for subsidies are organized in rounds. During the first round in the first half of 1998, 80 training projects out of 114 applications were approved, enabling provision training to more than 31,000 employees, 1,300 unemployed and 2,100 self-employed by the end of 1999. The total cost of all training projects amounted to BEF 2.9 billion which was covered from the following sources: the Leverage Fund (10 per cent), European Social Fund (16 per cent), sectoral training funds (9 per cent), paid educational leave fund (13 per cent) and contributions from private enterprises (52 per cent). As a result, about BEF 294.5 million of public funds were good enough to mobilize nearly BEF 2.7 billion from other financial sources, mainly from enterprises themselves. At the end of 1998, the second round started during which an amount of BEF 300 million was offered to selected projects involving training activities.

In Belgium, employers can obtain training for different categories of workers, such as those who are *about to be laid off* or workers in particular public employment schemes. Companies in economic difficulties or in restructuring, etc. can benefit from this incentive. Companies with less than ten workers are exempted from paying for retraining of employees; companies which employ ten to 25 workers and companies with 26 to 50 workers are charged 25 per cent and 50 per cent of the retraining cost, respectively. In 1998 more than 40,000 workers were trained for which employers were charged for a total amount of BEF 355 million. The government's cost amounted to BEF 56.6 million. This means that training for above categories of trainees was on average subsidized by 13.75 per cent. This intervention targets more equitable access of enterprises to training as small firms and companies in poor economic situation have much less opportunity to finance training on their own. The employer must commit to keeping workers employed after training for at least six months with at least the same pay as before the period of training and to providing salaries to employees during training hours as if they were at work (Geers, 1999).

To summarize, governments of industrialized countries offer training subsidies to industry with the aim of maintaining or increasing the volume of training provided. The most commonly subsidized schemes finance training of employees at risk of becoming unemployed. Government funding of industry training is very selective. Some governments finance only the programmes for employed people that lead to transferable skills, which employers are reluctant to finance. Some other governments contribute to the cost of research and development undertaken by industry. In order to encourage economic growth, governments usually opt to finance courses that aim at fulfilling industry's needs regarding priority skills. A relatively common priority in many countries has been co-financing of apprenticeships. Some governments also pursue the target of more equitable access to training by offering additional incentives to trainees from certain target groups. For instance, employers may receive additional grants for taking on female apprentices in non-traditional trades. Some governments offer low-cost training loans to allow companies to expand their investment in training. Relatively modest amounts of government funding have been able to attract considerable industry contributions to training schemes.

3. Industry voluntary training funds

Some industrialized countries have succeeded in applying the concept of joint government and social partner responsibility for VET. The pressure to expand training has evolved in the course of collective bargaining at the company, sector and state levels, and has resulted in the development of special training clauses in collective agreements. Following the development of these clauses, a number of sectoral training funds have been established. These are financed by employers' and sometimes by employees' payroll contributions. The collective training arrangements usually cover only part of the total national workforce and channel relatively small funds, thereby allowing essential freedom of training behaviour to the individual employer. Through sectoral funds, strong employer-government cooperation in

training has been achieved. States make voluntary contributions with the aim of supporting the development of particular training paths, such as apprenticeships and training for disadvantaged groups. The success of the European sectoral funds demonstrates that the expansion of the enterprise training can be achieved with limited government intervention.

In the *Netherlands*, employers' organizations and trade unions in the industrial branches have established Industrial Social Funds (ISFs) that are involved in financing training. Of the 7 million people in the Dutch labor force, nearly 3.3 million are covered by collective labour agreements. Of the 120 collective agreements concluded in 1998, some 100 contained training clauses and provided for enterprises to pay training levies and maintain the ISFs. The ISFs in the Netherlands are voluntary rather than statutory. The employers' organizations and unions are free to set up ISFs and to decide the rate of the payroll contributions to be collected without any interference from, or compulsion by, the Government. The ISFs do not require any government registration. They aim at raising moneys from the related branch of industry, as well as from the Government, to provide financial support for training and training related activities such as training needs assessment for the branch, advisory services, apprenticeships, skills upgrading and, most recently, training for the unemployed. In accord with government policy, ISFs aim at increasing employment and reducing the costs of the social security system.

The total volume of training in companies is increasing, which is reflected by the increase in individual employers' training budgets. In 1998 enterprises spent an estimated 3.5 billion Guilders on training, which equals 1.7 per cent of their total yearly wage bills. The average cost of training was 990 Guilders with half of this amount being accounted for by the income forgone by employees during training. The average rate of the training levy is 0.7 per cent of the wage bill. Some sectors train more and raise higher levies, others less. Levy-financed training has weakened the grounds for the "poaching" of skilled labor, which used to be popular with Dutch employers. Of the overall annual budget of 600 million Guilders, ISFs allocate 22 per cent for apprenticeships, 60 per cent for training of employees, 3 per cent for employment projects, and 15 per cent for childcare.

The following problems related to ISFs have been reported. First, small firms benefit from the ISF funded training less than big firms. Big firms can replace workers on training days more easily and are more prepared to comply with the ISFs' procedures. Second, participation in training is inequitable. Employees commonly do not have individual rights to a specified number of training hours. As a result, participation of unskilled workers, women and minority groups in the ISF funded training is low. This problem has been addressed in some industrial branches through establishing such right of employees to the ISF financed training. This entitlement to training can accumulate enabling to attend a longer course (Veeken, 1999).

In the *United Kingdom*, National Training Organizations (NTOs) oversee sectoral VET provision. The NTOs are mostly voluntary bodies formed by employers. They are intended to become self-financed. There are currently 65 NTOs, covering a wide range of industries in the private and public sectors. The NTOs are approved by Government to operate, generally for a three-year period and are accountable to the Department for Education and Employment, and to the territorial Departments of Government for Scotland, Wales and Northern Ireland. Several NTOs collect levies which are used for financing training.

For instance, the Engineering Construction Industry Training Board (ECITB) is a statutory training body which is accountable to the Secretary of State for Education and Employment. The overall vision of the ECITB is "to assist all companies engaged in engineering construction to become more competitive by continually improving the competitiveness of their personnel". In 1997, the ECITB covered some 372 companies and some 50,000 employees throughout Britain. The ECITB is engaged in a wide range of training activities

which include master's degree-level university programmes and support for the unemployed. The ECITB has the statutory power to raise a payroll levy. In 1997 the levy receivable was some £10.8m (Fairley; McArthur, 1999).

In *Denmark*, 15 sectoral funds have been set up through collective bargaining and cover between 700,000 and 1 million of Denmark's 2.9 million workers. Training funds have been established by special clauses in collective agreements for metal and plastic industries, transport, retail and other sectors. Employers' contribution varies across sectors from DKK0.03 to DKK0.13 per working hour to these funds, which annually collect at least DKK 60 million. These sectoral funds do not finance training courses directly but provide funding for the development of courses, job and qualification analyses and pilot projects. The government provides a substantial contribution to the cost (Nielsen, 1995).

In *Belgium*, companies have to pay a compulsory and flat-rate contribution as a percentage of the wage bill for the reintegration of the groups at risk in the labour market. This arrangement dates back to the 1989-90 intersectoral agreement concluded by the social partners, which contained a recommendation to devote a certain percentage of the wage bill to employment and training initiatives for groups at risk amongst the unemployed. The levy scheme now collects 0.2 per cent of a payroll; half of this being allocated to sectoral or company actions for training and employment of groups at risk.

Some 49 industry sectors registered their funds as non-profit organization or as training bodies. For some other sectors, a social fund, or a fund for social security takes care of the training function. A growing number of sectors make an additional voluntary contribution for training of the groups at risk. Sectoral levy revenues vary from 11 to 300 million BEF depending on the sector. In 1997, these sectors generated a revenue of 1.38 billion BEF (compulsory levy plus voluntary contributions) of which 1.14 billion BEF was transferred to the training funds. Of the latter amount, 14.4 per cent was spent on initiatives for education (16.3 million BEF), 57.3 per cent was spent on training for workers (635.7 million BEF), 21.1 per cent on training of unemployed job-seekers (240.7 million BEF) and 7.1 per cent on other activities, such as studies and training materials (81 million BEF). Training initiatives in the above sectors reach about 1,500 students per year, mainly apprentices and full-time vocational students. In 1997, sectors trained some 8,000 job-seekers and financed skill upgrading of 50,000 workers (Geers, 1999).

Voluntary training funds agreed upon through collective bargaining without any government intervention have proved to be successful in attracting government grants and are able to address important issues of strategic HRD in their industry sectors. Levies are usually raised at relatively low rates leaving a responsibility for training with individual employers. Sectoral training funds have been able to establish and maintain a dialogue between employers in the sector and to discourage poaching of skilled crafts workers. Governments offered contributions to these funds for achieving certain national objectives, such as development of apprenticeships and training of disadvantaged groups.

4. Training levies

Revenue-generating levies

Revenue-generating taxes are commonly assessed as a percentage of enterprises payrolls, at a fixed rate per working hour or at a fixed rate per employee. Less frequently, training taxes are assessed on companies' production or export value or the value of work contracts. Revenue-generating schemes aim at funding national or sectoral VET agencies and are mainly administered or controlled by governments. Such funding schemes have been the most reliable source of funds for VET systems in countries facing persistent shortages of public education and training funds and where other sources of revenues are limited. The revenue-

generating levy mechanism is widespread in Latin America and the Caribbean region; it is also utilized in many industrialized countries in the form of employment insurance funds to finance training of the unemployed.

For instance, in Brazil, the four major sector-based training corporations — SENAI, SENAC, SENAR and SENAT— are privately managed and are financed from the payroll levy. Established under the Brazilian Civil Code, they are administered by the private National Federations of Employers (Industry, Commerce, Agriculture and Transport). The SENAR is exceptional in that it has a tripartite board involving employees' representatives. These vocational training institutions (VTIs) have a particular status and are formally supervised by the Ministry of Labour's Secretariat of Vocational Education (SFDP). The SENAI's funds are obtained from a payroll contribution of 1 per cent (known as the "ordinary contribution") from industries. Industrial corporations with over 500 employees have to pay an "additional contribution" of 0.2 per cent directly to SENAI. This is used for scholarship programmes for technicians, managers and teachers from SENAI and contributing corporations. In SENAC, however, levy-based funds make up 70 per cent of its revenues; the residual part of its budget is generated through sales of services. By contrast, SENAR is funded by the 2.5 per cent levy assessed on companies' production value. SENAT is financed by a levy of 1 per cent.

Enterprises do not buy training services from VTIs; in return for their contributions, they receive free training courses from them. The problem of shortages of training incentives at the company level has recently been addressed by partially exempting those enterprises that finance their own training courses from the levy (Leite, 1995).

Levy exemption schemes

A levy-exemption mechanism allows firms to eliminate or reduce their levy obligations by the amount of training they provide or purchase. This funding scheme assumes that, in all probability, firms are most likely to know what their training needs are. They are likely to spend their money on appropriate training programmes. This mechanism eliminates the burden of employers having to pay a levy at the beginning of a financial year. Funds that have been earmarked for training remain with the employer, who can then establish a plan for spending them effectively. The levy-exemption mechanism operates through employers' individual actions and is normally supervised by the national general revenue service. Therefore, a levy-exemption mechanism does not require special and costly organizations to be established. On the other hand, levy-exemption deals with each employer individually and provides less opportunity to develop national or sectoral training policies and activities.

In *France*, firms are assessed to two payroll levies -- an apprenticeship tax and a training tax. Both training levies are assessed on company payrolls and operate as levy-exemption schemes. This means that they are not collected at the beginning of the fiscal year. Rather, the payment of these taxes is due at the end of each year unless an employer can present evidence that the amount which equals these tax bills has been spent on authorized training. The oldest one, the apprenticeship tax of 0.5 per cent, dates back to 1925 and intends to promote and finance apprenticeships. It is mainly used by enterprises for financing, along with the State, local communities and professional organizations, the cost of apprentice training in the Apprenticeship Training Centres (*Centre de formation d'apprentis*, (CFA)). Due to the continuing increase in the number of apprentices, the revenue from this tax was insufficient to cover the CFA services.

The so-called "training tax" was introduced in France in 1971. It aims to finance further training and retraining of people already in employment. The training tax rate has almost doubled since its inception. Currently, it stands at 1.5 per cent of the company wage bill. The tax-based allocation is utilized to finance the employer training plan (0.9 per cent), alternance contracts (0.4 per cent), and the individual training leave and skills assessment leave (0.2 per cent) (see section 2.3). Since the inception of the training tax, it has been increasingly utilized

by employers. The amount of the tax which was not spent by employers and was to be collected by the State decreased from FF665 million in 1972 to almost nil in 1987 and onwards. As a result, one employee out of three is benefiting from training every year (as compared to one out of 12 in 1972, one out of six in 1978, and one out of four in 1987). While the overall compulsory training expenditure is 2.0 per cent of a payroll, the real average training expenditure amounts to 3.8 per cent. It can be calculated from the above that almost 2.7 per cent of a payroll is spent by employers on training of their employees which is three times the allocation left at their disposal (0.9).

The so-called alternance (sandwich) programmes aim to improve inclusion of young people into society and economy. For instance, qualification contracts are offered for a term from 6 to 24 months. The State provides an allowance of FF5,000 for each recruitment. In 1997, more than 100,000 contracts were signed. Adaptation contracts are offered to the young people who have already a certain qualification and need some more training (200 hours) in order to facilitate their adaptation to a specific job. Some 56,000 of such contracts were concluded in 1997. More than 160,000 alternation contracts were signed in 1997 as compared to more than 211,000 apprenticeship contracts. The overall number of trainees on all apprenticeship and alternation contracts amounted in 1997 to almost 500,000. Employers finance alternation programmes from continuing training tax for which 0.4 per cent of the payroll is allocated (amounted to FF5.5 billion in 1997). While the Government provided for this purpose some FF2.7 billion in the form of subsidies and the welfare cost exemptions (Bas, 1999).

In the Province of Quebec, Canada, a training levy of the French type has been introduced. The law, known as the *Loi favorisant le développement de la formation de la main-d'oeuvre*, required firms to devote one percent of their payrolls to training or submit an equivalent amount to the Quebec Minister of Revenue. The law is currently being phased-in, according to the size of payrolls at Quebec enterprises. This phase-in commenced in 1996 only for enterprises having a payroll in excess of C\$1 million, about a quarter of all employers at the time. The second phase-in occurred in 1997 for enterprises with payrolls in excess of C\$500,000. The third was in 1998 for enterprises with the payroll in excess of C\$250,000. A levy-based contribution of C\$12 million to the *Fond Nationale pour le Formation de la Main d'oeuvre* (FNMO) is anticipated in the FY 1998-99. Small enterprises, who face barriers to meeting the requirement to invest in training are permitted to pool their training budgets.

The payroll tax is payable to Revenue Québec after deducting training expenses. Thus the amount due to the *Fond nationale pour le formation de la main-d'oeuvre* (FNFMO) is only a very small fraction of the tax. Unspent training allocations can be brought forward to the next fiscal year. The information provided on tax returns by employers to the *Ministère du revenu du Québec* (MRQ) may also contain deductions for other legal obligations in addition to training: mainly, health services and Québec Pension deductions. It takes the MRQ two years to separate these expenditures, in order to provide valid training expenditure data. This data treatment cycle at MRQ is noted to delay interpretation for two years after the over 300,000 tax returns have been submitted. The estimated data for 1996 indicate that 1,218 public sector employers contributed to the FNFMO an amount of C\$255,000 (2.56 per cent of payrolls), while 6,889 private sector employers contributed almost C\$14.3 million (2.1 per cent), with the average national training expenditure being 2.26 per cent. An evaluation of the effectiveness of the training tax is planned for the year 2000. However, it was noted that some employers who became subject to the legislation in 1997 have begun to deliver training rather than to pay into the Fund. This indicates that the government intervention results in the development of the training culture in Quebec (Wilson, 1999).

The levy-exemption schemes for financing enterprise training have strong advantages over other schemes in terms of employers' freedom of training and funding operations, low cost of administrations and true impact on industry training. Levy-exemption schemes leave

responsibility for planning and implementation of training with enterprises themselves. In contrast to other levy-based schemes that generate revenues, the government contribution is limited only to the provision of legal and tax arrangements for the implementation. An environment needed for levy-exemption mechanisms involves a relatively strong commitment and discipline of employers to finance training since legal and tax control of the enterprise training expenditures is postponed until the end of each year.

Levy-grant and reimbursement schemes

Levy-grant funding schemes use payroll contributions centrally collected from enterprises and distributed between them as grants. Administration of levy-grant schemes requires that certain bodies be established. Grants usually do not closely reflect firms' levy payments and can be destined towards priority training programmes, strengthening training facilities in individual enterprises as well as the development of national training curricula, provision of advisory services and so on. A levy-grant scheme therefore allows a much greater redistribution of levy-based funds towards firms which train. Some levy-paying firms may receive no training grants at all if they do not offer training or if their activities do not follow national training priorities. The administration of levy-grant schemes requires many case-by-case decisions and management competence, and may involve considerable cost.

For instance, in Denmark, companies have to pay a compulsory contribution into the Employer-Trainee Fund (AER), which is assessed as a fixed amount of DKK1, 500 per full-time employee per year. The AER is jointly administered by employers and trade unions. Each year the management of the Fund makes a recommendation on the level of this compulsory contribution which is to be approved by the Parliament. The financing mechanism operates as a company training cost reimbursement scheme. Those employers who enter into apprenticeship contracts are entitled to have 90 per cent of their apprentices' allowances paid during the school-based training periods and 80 per cent of their travel expenses reimbursed from this Fund. An additional subsidy, graded according to years of training, was added for each new apprenticeship contract created by companies. Subsidies for each training contract are fixed at DM5,000 in the first year of training and DM4,000 for each further training year of the five-year training period. Therefore, only those companies which do provide training are able to benefit from these funding arrangements. The share of government funding of in-company initial training amounts to about one-fourth of that provided through company compulsory contributions. Along with the State subsidy of some DM110 million, the total budget of the Fund amounts to some DM400 million and is used for financing of some 65,000 trainees. The AER fund is cited as a successful example of the alternative financing scheme for apprenticeships. The Danish levy system's administrative costs have been less than 2 per cent of its budget (Nielsen, 1995; Görner and Hagedorn, 1998; CEDEFOP, 1998b)

The Skills Development Fund (SDF) of Singapore was established in 1979 to provide incentives for the development of higher-level skills. Since 1986, the SDF has been guided by the National Productivity Board under the Ministry of Trade and Industry. Its primary role is to develop employer-based training. This goal is pursued through the collection of a levy and the provision of financial incentives and assistance to employers. Financial incentives are grants awarded on a cost-sharing basis. Cost-sharing ensures that firms are financially committed to proper selection and implementation of subsidized upgrading programmes.

The Skills Development Levy Act of 1979 empowered collection of the levy from all employers at the rate of 2 per cent of the remuneration of low-waged and consequently low-skilled employees earning S\$750 per month or less. The Government, an employer, also contributes to the SDF.. The SDF also realigned its funding guidelines to favour training of the persons who earn S\$1,000 or less a month and/or have A-level qualifications and below. The revised emphasis on worker training arose from concern that employers emphasized

training of their senior and middle management staff to the detriment of the general workforce.

The SDF has been effective in making continuous efforts to develop a training culture in small firms, which is a persistent problem in many countries. As in many other countries, these firms were reluctant to train because of lack of expertise and funds as well as a critical mass of trainees. The SDF initiated the establishment of 16 industry-based training centres, financing 90 per cent of start-up costs, directors' salaries for the first three years, and recovering their recurrent costs. In 1991, 14 per cent of almost 62,000 of firms with fewer than 10 employees, 65 per cent of 11,700 firms with ten to 49 employees, and all other firms applied to SDF. In FY1996, more than 2800 SMEs applied to SDF for funding of training. All companies employing more than 50 employees receive training grants from SDF. One the major performance indicators is the total volume of employers' involvement in SDF's subsidized training, which has substantially increased. In the financial year 1990/1991, almost 106,000 training places were supported with grants totalling S\$90 million, compared with only 33,000 training places in 1981. Another indicator is the number of applications from firms received annually by the SDF. These have more than doubled reaching 32,000 in 1991.

Almost 30 per cent of SDF-supported training places in FY97 were committed to employees earning wages below S\$1,000, almost 29 per cent was committed to employees earning between S\$1,000 and \$1,499 and 41 per cent was committed to training of all other employees. The proportion of persons earning less than S\$1,000 per month has declined from 71 per cent in 1987 to 22 per cent in 1997. Workers indicated that the investment in training leading to improved skill levels has been one key factor in enhancing their abilities to command higher wages (Skills Development Fund, 1996/97; 1997/98).

Levy-grant schemes are powerful instruments for raising moneys and financing priority training activities. As for most other levy-based schemes, governments usually do not contribute financially to the national skill development funds, while they do extend their legal support to the funds' operations. Effectiveness of such schemes depends on management skills of the funds' managers and their ability to identify national priorities and focus on the most cost-efficient programmes. Levy-reimbursement schemes have produced a much weaker national impact as they assume slow procedures and high operational costs. In most countries applying levy-grant and reimbursement schemes, there is a growing understanding of the need for differentiation of rates of the training tax across industry sectors and size of enterprises reflecting differences in their need for and cost of employee training.

Advantages and disadvantages of levy-based schemes

The major advantage of levy-based schemes is their ability to raise national VET funds and secure a certain measure of enterprise training through self-financing. To a certain extent, such schemes also allow management of the content and quality of the training offered by employers through the establishment of conditions for a given programme to become eligible for financing from levy-based funds. On the other hand, serious liabilities have also become apparent. Levy-based funding schemes may not have enough power to mobilize additional enterprise training. As a result, they may end up subsidizing programmes that would have been provided by firms in any case.

Under levy-based funding schemes, many firms tend to implement programmes that accomplish little beyond meeting the compulsory training level. In many countries, employers never recover their levy contributions in full. Large enterprises tend to benefit disproportionately from tax-based funding schemes. Many smaller firms pay levies but, for various reasons, fail to participate, thus losing their money. The same scheme can never work equally well for all firms, large or small, well established or vulnerable. Those firms and sectors showing little sensitivity to a particular funding mechanisms should be assisted by the

introduction of other, potentially more attractive schemes. Special efforts should be made to administer incentive schemes at lower cost and with higher flexibility. Sharing decision-making power between employers and employees would do much to improve the quality of levy-financed training.

Debate continues over whether levy rates should be uniform or differ across sectors. The need for training and training costs vary among industries, as do skill levels. Levy rates that do not reflect these differences seem counterproductive. This problem has been recognized and sometimes addressed by categorizing enterprises by type of activity and establishing different regulations for each category.

Although a time frame for reasonable and sustainable growth of employer-based training is hard to predict, monitoring of the levy-based financing should take place, and government should act in accordance with achieved progress. If employer-based training expenditures consistently increase, and the training market shows evidence of strength, it might prove useful to revise levy rates downward.

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