

EMPLOYMENT OPPORTUNITIES FOR THE DISABLED¹

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Abstract

Policy makers in the OECD Member States have developed quite different programmes and institutional arrangements to create and promote employment opportunities for the disabled. These policy approaches include legal interventions, employment support services, financial support of open employment and sheltered employment. This chapter describes the various instruments supporting employment of disabled people applied in the EU Member States and the USA. Their effectiveness is assessed, based on a review of available evaluation studies. Conclusions are drawn to further needs of evaluation research and policy recommendation are made.

This paper deals with vocational rehabilitation and employment promotion policies for disabled persons in the EU Member States and the USA. The diversity in institutional arrangements related to vocational rehabilitation and employment for people with disabilities between these countries provides a potentially ideal area of application for the target-oriented approach of evaluation, in order to assess the optimal policy mix for achieving certain targets under different socio-economic conditions and socio-political and institutional settings. Section 1 reviews the applied operational definitions of 'disability'. The size and characteristics and the labour market position of the target group are outlined. Next, in Section 2, some major patterns and developments in the institutional context related to vocational rehabilitation and employment for people with disabilities are presented. In the Sections 3-5 the instruments supporting the integration of the disabled persons into open employment are reviewed and the effectiveness of the various policy options is established based on available evaluation studies. Section 3 deals with legal interventions: equal opportunity legislation, quota systems and protection against dismissal. Section 4 focuses on employment support services: mainstream vocational services, on-the-job training, special education and supported employment. Section 5 reviews the financial support of open employment: wage subsidies and grants for workplace adaptation and technical aid and prevention and early intervention. Sheltered employment is discussed in Section 6. In the final Section 7 the policies applied in the selected countries are summarized, conclusions to further needs of research are drawn and some policy recommendations are made.

1. Definitions and characteristics of the target group

1.1 Definition and recognition

The definition of disability provides the basis for the classification of people into distinct (target) groups, and thus determines which individuals are eligible for different services. Related to eligibility assessments a wide array of definitions is applied, depending on the purpose of the programme or the ministry, institution or agency. These include the following dimensions: the severity or degree, the permanent nature, the types and the origin of disabilities (EC, 1988). Unclear definitions affect the efficiency of the measures adopted and present major barriers for evaluations of policies and programmes. In case the responsibility rests with the employer, e.g. France, Netherlands, UK, USA, legislation requires some external professional assessment in order to be effective and to avoid manipulation. Moreover, questions of definition are crucial to understand how goals and developments in this particular area interact with those of other policy areas, such as retirement policies and overall labour market policies (OECD, 1992).

In almost all EU countries, the definition of a handicap is related to work and income. Denmark, Italy and Luxembourg define a handicap as a reduction of the work capacity. In Belgium, France, Germany, the Netherlands, Portugal, Spain and the UK a handicap is defined as a reduced opportunity to get a job or to retain a job. In the USA disability is defined in line with the broad definition of the WHO.² In Sweden, disability is considered as a relationship between the individual and the environment (EC, 1988; Lunt and Thornton, 1993). Such a situational non-categorical definition is an important element in effective transition and employment policies. For the labelling according to type of disability focuses attention on the individual's deficiencies and emphasizes the negative aspects of his/her situation. There is a move away from a static medical concept of disability to interpretations focusing on environmental aspects. This dynamic definition implies that the degree to which a disability is handicapping depends on the situation experienced of the individual, the attitudes and expectations of

² An impairment is a psychological, anatomical, or mental loss, or some other abnormality. A disability is any restriction on, or lack of, ability to perform an activity in the manner or within the range considered normal. A handicap is a disadvantage resulting from an impairment or a disability (WHO, 1980).

others, and the intervention strategies and environmental modifications (OECD, 1992; 1994a; 1994b). Within a country there may be conflicts in the application of definitions of disability.

For instance, in the USA the American with Disability Act (ADA) prohibits employers from discussing disability at interviews, while receipt of work-subsidy incentives depends on prospective employees declaring themselves as disabled (Lunt and Thornton, 1993).

1.2 Characteristics of disabled people population

Estimates of the size, composition and employment situation of people with disabilities are essential to form sound employment policies. The present statistics on the characteristics and the labour market situation of disabled persons are rather inadequate and limited. Definitions vary widely between countries, and between government departments within countries. In the OECD countries disabled persons make up about 10 per cent of the population of working age. Only about 30-40 per cent of the persons with disabilities is in the labour force, compared with 2 in 3 persons of the general population. In Europe and the USA the unemployment rate among disabled persons is 2 to 3 times as high as the general unemployment rate. Moreover, not only the unemployment rate is higher, also the duration is longer. A considerable part belongs to the long-term unemployed (Haveman *et al.*, 1984; Semlinger, 1984; Semlinger and Schmid, 1985; Grammenos, 1991; OECD, 1992; McLaughlin *et al.*, 1992; Lunt and Thornton, 1993). In Europe and the USA two thirds or more of the not working disabled people of working age indicated they would like a job and would be willing and able to accept a job, if a suitable job was available (Hardman, 1994; OECD, 1992; Delsen and Klosse, 1992). A paid job is preferred, because it produces cash and satisfaction; it is evidence of status and recovery and work may be used as therapy (Wansbrough and Cooper, 1980). The increase in the value attached to paid employment will be strengthened by the reduction in social security benefits.

The characteristics of the group of disabled people of working age are that they are mainly older male workers with relatively low educational level and professional status. The number of disabled people increases with age. The majority of the working disabled are employed in low functions and low status and income occupations corresponding to their low educational

level. They are frequently underemployed. The proportion of disability pensioners has increased in most countries and replaced unemployment benefits. The majority (50-80 per cent) of the disabled persons are physically disabled, mostly motor impairment. About 5 to 15 per cent are mentally retarded or psychiatric people. Experience in Europe and the USA shows that most reintegration takes place in larger enterprises. To a large extent this concerns reemployment and replacement of their own old employees that are partially disabled. Recruitment from outside is small. Smaller firms employ relatively few disabled employees, but recruit relatively more from outside. In general enterprise policy towards workers is limited to those who incur a disability while working within the company. A policy of taking on those who are outside the company and labour market is very rare, especially in the industrial sector. The commercial service sector has the most favourable working conditions for employment of disabled workers (Haveman *et al.*, 1984; Semlinger and Schmid, 1985; Delsen and Bemelmans, 1987; Sadowski and Rendenbach, 1989; Seyfried, 1992; OECD, 1992; Lunt and Thornton, 1993; Mul *et al.*, 1995).

Table 1 Public Expenditure and New Participants in Labour Market Measures for the Disabled in Selected OECD Countries, 1992/1993

participants	<i>Vocational Rehabilitation</i>		<i>Work for the Disabled</i>		<i>Total</i>	
	Public	New	Public	New	Public	New
	expen- diture (% GDP)	participants (% labour force)	expen- diture (% GDP)	participants (% labour force)	expen- diture (% GDP)	participants (% labour force)
Austria		0.03	0.4 ^a	0.02	0.1 ^a	0.05
0.5 ^a						
Belgium	0.05	—	0.10	—	0.15	—
Denmark	0.33	2.5	0.15	0.6	0.49	3.1
Finland		0.08	0.7	0.10	...	0.17
0.7						
France	0.02	0.4	0.06	...	0.08	0.4
Germany	0.14	0.3 ^b	0.11	—	0.25	0.3 ^b
Ireland		0.14	...	...	...	0.14
...						
Italy	...	...	...	...	...	...

Luxembourg	0.01	—	0.09	—	0.10	—
Netherlands	...	...	0.62	0.1	0.62	0.1
Portugal	0.05	0.1	...	...	0.05	0.2
Spain	...	...	0.01	0.1	0.01	0.1
Sweden	0.12	0.5	0.74	0.2	0.85	0.8
United Kingdom	...	0.1	0.02	0.1	0.03	0.1
United States	0.05	0.8	...	...	0.05	0.8

Notes

... = nil or less than half of the last digit used.

— = data not available.

a 1990

b 1992.

Source

Employment Outlook (Table I.B.2, pp. 54-61) by OECD, 1994, Paris, Copyright 1994 by OECD.

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Related to public policy towards the disabled only data on special programmes for the disabled are available (See table 1). Vocational rehabilitation include ability testing, work adjustment measures and training other than ordinary labour market training. Work for the disabled include sheltered employment and subsidies to regular employment. These measures for the disabled do not cover the total policy effort in support of the disabled. In Sweden and the Netherlands, compared with other EU countries, very large public resources are devoted to work for the disabled (sheltered employment), while in Denmark expenditure on vocational rehabilitation is the highest. Also the number of new participants is the highest in Denmark. In the USA, despite the fact that expenditure on vocational rehabilitation is relatively low, the number of new participants is relatively high. Related to work for the disabled in Denmark the number of new participants is the highest, while expenditure is moderate. High expenditures in Sweden and the Netherlands do not correlate with high number of new participants.

Future employment prospects for people with disabilities may increase. The ageing of the workforce and the slowing down of the growth rates of the labour force may force employers to look beyond their traditional sources for entry-level workers, e.g. to people with disabilities. The development towards the service sector and white collar work increases the employment opportunities for those with a physical impairment. Disabled people also clearly benefit from the recent developments in new technologies, especially those with physical impairment, e.g. more possibilities for home-work. However, workers with cognitive limitations or mental impairment will increasingly experience difficulty finding work (Wadensjö, 1984; Delsen and Bemelmans, 1987; Sadowski and Rendenbach, 1989; Seyfried, 1992; OECD, 1992; McLaughlin *et al.*, 1992).

2. Institutional context

In each country a large number of independent institutions and services is involved in rehabilitation and employment for and concerned with the schooling and training of disabled persons. These include ministries,

social security agencies and (regional) organizations of (and for) people with disabilities with different objectives and cultures. Countries vary in their attachment to specialist or mainstream employment support services. In Sweden it is limited to those who need special resources in order to find, obtain and retain employment or for whom mainstream services are not sufficient. Specialist provisions are strong in countries with traditions of assessment of disability, for the purposes of social security benefits or social welfare services (Austria, Belgium, France and the Netherlands). In a number of countries separate provisions are replaced by mainstream provisions and the introduction of specialists in the latter. For instance, personal assistants in enterprises in Denmark (Seyfried, 1992; Lunt and Thornton, 1993).

In the USA and Denmark there is a change towards organizations of disabled people wishing to provide their own separate specialist services (Lunt and Thornton, 1993). Their involvement results in better services tailored to the special needs of disabled people (OECD, 1992). With the rise of disabled people organizations, in the EU countries there has been an attempt to shift the responsibility for employment of disabled people away from the state towards the private sector (Seyfried, 1992; Lunt and Thornton, 1993). Decentralization of decision-making deprives the central authorities of their power and responsibility to push forwards a policy. Decentralization also causes problems for monitoring and evaluation of implementation of policy. There is a lack of communication and co-ordination in activities. This resulted in a fragmented and unco-ordinated system of institutions, agencies, benefits and services and duplications and conflict in policy (Delsen, 1989; Seyfried, 1992; Lunt and Thornton, 1993; OECD, 1992; 1994b).

Also institutional incongruence may slow down the move towards integration.³ For example, in France and Portugal the costs of integrated special education provisions are financed out of the state or local budgets and those of segregate provision are financed by the social security system. In these cases the education authorities are reluctant to promote integration if this results in a transfer to their budget of considerable expenditure on separate education provisions hitherto borne by the social security system (OECD, 1994b). In Germany for the PES there is a slight financial disincentive to fund further training rather than unemployment.

At the micro level institutional incongruence results in moral hazard, due to identification problems. Related to the severely handicapped and the mentally disabled moral hazard plays no role because these are relatively easy to identify. However, illness and work injury are relative concepts. Moral hazard could be mitigated by providing impaired persons with funds or vouchers to purchase their own rehabilitation from a variety of providers in the private sector.⁴ Moral hazard cannot be avoided in

³ Institutional incongruence means that the autonomy in decision-making and financial responsibility for the consequences of the decision are unevenly balanced.

⁴ Vouchers are to be preferred over deductibles and co-insurance. The introduction of vouchers for services may result in unacceptable segregation between social

social security (Lindbeck, 1994). One can question the extent disabled persons themselves are able to choose the type modality, method and direction of their own rehabilitation.

Unemployment, disability and early retirement benefits are communicating vessels. In the EU and the USA there is a considerable amount of hidden unemployment among disabled workers. All disability programmes are adversely affected by economic downturns: in times of recession applications for disability benefits increase. In assessing the degree of disability the unemployment rate is taken into account. Full disability benefits are used as a form of unemployment compensation (Haveman *et al.*, 1984; Semlinger and Schmid, 1985; Burkhauser and Hirvonen, 1989; Zeitzer, 1994; Delsen and Reday-Mulvey, 1996). Empirical evidence in the EU and the USA shows that gradual retirement prevents unemployment, reduces the sickness absenteeism and the full disability claims (Delsen, 1987; 1995; Delsen and Reday-Mulvey, 1996).

Means-tested social security may imply that there is risk of loss of income and free services for persons entering competitive employment (poverty and unemployment trap). Disability benefits (earnings-related or means-tested) are a disincentive which people discourage to increase their economic independence. Disabled persons may be trapped in a part-time job.⁵ These traps and financial losses should be avoided to promote employment for the disabled. Empirical evidence in North America (Haveman *et al.*, 1984; Harkness, 1993) suggests that a disability pension is not necessarily an important work deterrent. In part this is related to the replacement rates. Harkness (1993) concludes that disability pension serves the socially useful purpose of discouraging the disabled from working an unsuitable and/or undesirable job. Like unemployment benefit disability benefits may actually increase the labour market's efficiency by supporting the disabled individual while he looks for a new more suitable job.

3. Open employment, legal intervention

3.1 Equal opportunity legislation

Discrimination occurs when persons of equal productivity are offered different wages and unequal opportunities for employment. Discrimination may result among other things from prejudice, differential information concerning the average productivity of majority and minority workers, or exploitation of workers. All EU countries apply (a right to) equal and fair treatment as regards access to mainstream vocational training programmes and to employment, as a reference instrument for disabled persons against discriminatory measures and practices. Also in Canada, USA and Australia federal disability discrimination legislation has recently been adopted (Haveman *et al.*, 1984; Lunt and Thornton, 1993). The American with Disability Act (ADA) is the most far reaching legislation. For the formulation of

groups and problems with the low-income groups.

⁵ For instance, in the UK the current welfare benefits system implies that disabled workers would be worse off and prejudice their housing situation if they worked longer hours.

effective public policy it is essential to distinguish the employment and wage effect of health limitations from the limitations resulting from discrimination. The fact that health influences employment more than wages implies that the ADA may be more important as a defense against wage discrimination than as a policy that increases the employment of persons with impairments. Wage discrimination deters disabled people from seeking employment. However, the disincentive effect only accounts for a small part of the differences in employment between non-disabled and disabled people (Baldwin and Johnson, 1994). Epstein (1992) opposes the ADA. He argues that it is simply not a sufficient condition for aid to the disabled to show that the benefits they (or some subgroup) derive from any social expenditure is positive. These benefits must also be larger than the associated costs, and these costs are ignored or systematically belittled under the ADA. The mismatch of cost and benefits is a fatal flaw of any antidiscrimination law for handicapped. Antidiscrimination rules are highly beneficial to some members of the target group, but not to all. It may in fact reduce job opportunities for certain expensive groups of disabled persons. Antidiscrimination legislation is always redistributive. Epstein concludes that the best solution is always to repeal all legislation that interferes with the market operation. Bulow and Summers (1986) argue that affirmative action policies (quota) and subsidizing desirable primary sector jobs for members of disadvantaged groups are likely to raise total welfare. Unequal treatment may result in an inefficient allocation of resources, because prices do not accurately indicate social costs and in a loss of valuable resources. Moreover, from the game theoretical point of view excessive wage differentials may be considered as unfair affecting work incentives. Schotter and Weigelt (1992) show that the effects of affirmative action programmes on output depend on degree of discrimination. This can be explained by the fact that disadvantaged subjects tend to drop out and supply zero effort; a quota system enables promotion, i.e. it becomes worthwhile to do ones utmost and this effect will be greater the bigger the negative position of the workers. Moreover, more competition from the weakest group forces the privileged group to work harder. So it is in the interest of a firm to prevent part of its labour force getting into a position with no prospects, for this will limit employees' effort.

Risk-averse employers, lacking detailed knowledge of the consequences of various disabilities on work capacity, may systematically avoid hiring disabled people. Employers are prejudiced in the sense that they assume disabilities mean limited work capacity or potential trouble or higher costs. There notably is prejudice against disabled persons with psychiatric or cognitive limitations (Semlinger and Schmid, 1985; Delsen and Bemelmans, 1987; Honey *et al.*, 1993; Raskin, 1994; Söder, 1994). Performance on the job depends on ability and workers are heterogeneous in ability. This may result in adverse selection, for if ability and workers' reservation wages are positively correlated, firms with higher wages will attract more able job candidates (Akerlof and Yellen, 1986).⁶ The effi-

⁶ For the adverse selection model to provide a convincing account of involuntary unemployment, firms must be unable either to measure effort or pay piece rates after

ciency priority can be countered by a wage subsidy, while the fear of problems can be reduced by promising support if trouble arises. An appropriate remedy for employer prejudice would be to improve the available information and/or the regulation of hiring practices, backed by penalties for noncompliance. Once a person with disability is hired, much of the de-stereotyping takes place as a natural result of daily interaction. The employer and fellow workers come to know the person with the disability instead of the 'disabled person' (Seyfried, 1992). Here is a paradox. The use of a stereotyped label may be necessary to de-stereotype attitudes towards persons with disabilities (Söder, 1994).

3.2 Quota systems

Since the (re)integration of disabled people in open employment is accepted as a policy aim, two options are available: voluntary employment (USA, Sweden and Denmark) and forced employment (quota) (other EU countries). In part this is related to the 1986 EC recommendation in favour of quota schemes (EC, 1988). Only Portugal has decided against a quota scheme. The quota system is based on the principle of sharing open employment and on the need to provide a short-term answer to the problem of occupational integration of the disabled. In practice most schemes are a form of affirmative action. The quota systems vary concerning the degree of enforcement, the administrative arrangements, the sanction or the levy system and the actual quota percentage and apply in either the public and/or the private sector.

Problems with quota schemes concern definitions, registration and control. In Denmark and Sweden quota have been refused because of ineffectiveness, execution problems and stigmatization. Quota jobs are procyclical. In the UK only a small (5 per cent) and decreasing proportion of employers fulfils the quota, while in Germany most firms fulfil or surpass their quota because of a fines/subsidy system. However, also the German quota system, targeted at people who are severely disabled, has been progressively less effective in securing the employment of disabled people due to the economic recession. Registration at the PES is encouraged by the belief in the efficacy of the quota scheme. Registration moreover provides several advantages, e.g. special dismissal protection. Fines are put in a special fund aiming at vocational integration of the target group (Semlinger and Schmid, 1985; Burkhauser and Hirvonen, 1989; Sadowski and Frick, 1992; Seyfried, 1992). The British quota system failed because many disabled people see little point in registering at the PES and they do not wish to identify or label themselves 'handicapped' (stigma) and because the obligation on employers to seek a permit is not enforced (Wansbrough and Cooper, 1980; OECD, 1992; Lunt and Thornton, 1993). Also in other EU countries governments are unable or unwilling to enforce their statutory sanctions. In France, many firms would rather pay the levy than employ disabled people (Seyfried, 1992). Although the ineffectiveness of quota is a major issue in the discussion, research on the effectiveness of quota in the various countries is limited. The control mechanism is ineffective. A major

workers are hired or to fire workers whose output is too low (Akerlof and Yellen, 1986).

conclusion is that the effectiveness of the quota scheme depends on the form and the way of execution (Schell, 1991). Because a quota scheme does not differentiate between the various types of disability, it discriminates against severely disabled people. It is most beneficial to the least disabled candidates for employment as companies tend to cream off, i.e. hire the least disabled. Moreover, a problem regarding to quota is that the employer in some cases may influence who is to be classified as disabled (Lunt and Thornton, 1993; OECD, 1992; Raskin, 1994; Wadensjö, 1994).

Employers' attitudes towards retention of existing employees who become disabled are considerably more positive than those towards recruitment (Honey *et al.*, 1993). Hence, a quota system may only safeguard or improve the position of the insiders, preventing a flow out of the labour market (retention), while it may not influence or reduce the chances of the disabled outsiders to be integrated into the labour process (recruitment) (Semlinger and Schmid, 1985; Seyfried and Lambert, 1989; Seyfried, 1992; Sadowski and Frick, 1992).

3.3 Protection against dismissal

Evidence in the UK shows that the Employment Protection Act is designed to safeguard the position of existing workers and hinders people with psychiatric history to get work (Wansbrough and Cooper, 1980). Experience in Germany shows that severely handicapped persons who are employed bear a lower risk of becoming unemployed. Dismissal protection improves the competitiveness of socially disadvantaged persons. However, they also bear a higher risk of remaining unemployed. These findings are in line with the insider-outsider argument. Dismissal protection discriminates against unemployed workers whose productivity is low, including severely handicapped persons and may add to their discrimination in the labour market. Employers can be expected to be, *ceteris paribus*, more reluctant to hire from this group, the more their special rights cause additional dismissal costs (Semlinger and Schmid, 1985; Sadowski and Frick, 1992; Lunt and Thornton, 1993). Employment protection may lead to more stringent screening of applicants, making it harder for youths with disabilities to enter the job market (Wadensjö, 1994). The effects of dismissal protection on job distribution are therefore ambiguous. Assessment depends on whether persons are employed (insiders) or unemployed (outsiders) (Buttler and Walwei, 1993).

4. Open employment, supported services

4.1 Mainstream vocational training

Training activities aim at both the medium and long-term. In all OECD countries measures to enhance the competitive power of individuals with disabilities is a corner-stone of policy. In order to encourage disabled people to participate in mainstream vocational training programmes special support services, special financial arrangements and other provisions have been introduced, notably in Europe. Data on the integration of disabled people in mainstream vocational training are limited to placement rates. Its effectiveness can not be established. In the field of education, decen-

tralization of decision-making, budgetary restrictions and the 'hardening' of the school system will have negative effects on the development of integration (OECD, 1994b). There is a move towards making training more responsive to the needs of employers and the market and to make providers of services more competitive (Lunt and Thornton, 1993). This may lead to important creaming off practices (at the expense of disabled people) (Burkhauser and Hirvonen, 1989) and/or high drop out rates.

The collaboration of schools, parents, state and local agencies, businesses and post-secondary educational institutions is essential for an effective transition from school to adult life. Moreover, in designing new approaches the specific regional or local conditions have to be taken into account, and more flexibility is needed to suit the training interests of certain groups of disabled. Policies, facilities and services for the transition from school to work of young people with disabilities and special needs should be an integral part of policies, facilities and services for all young people (OECD, 1994a). In tune with this new approach based on educational needs and addressing the problems related to labelling and definitions of handicap, the UK and Sweden do not count any more those pupils who traditionally received special education (OECD, 1994b). However, even in ordinary education, pupils may be labelled by the way their needs are addressed. This is certainly the case for special classes within mainstream education. Barriers to integration may be the inconsistencies in diagnosis criteria used to identify students with special needs and the lack of an appropriate database to allow for appropriate planning.

4.2 On-the-job training

Another trend in Europe and the USA in vocational training of disabled is towards more on-the-job training in ordinary work environments as a forerunner to placement. Some EU countries maintain their disabled apprenticeship model. In the USA supported employment is used to encourage integrated employment training (See Section 4.4). On-the-job training not only assures a high standard of training but also a smooth transition to working life in most cases. It gives the employer and the disabled person an opportunity to get to know each other and to overcome prejudices. Most on-the-job training for disabled young people in Germany is provided by smaller firms. Prospects of a permanent job improve (See Seyfried (1992) for evidence).

Experience with employment-cum-training for young people in France and Belgium shows that these contracts failed to promote on-the-job training. In the latter case employment probability as well as wages are negatively affected (Delsen, 1995). Data on the effectiveness of training measures for disabled are limited and many related to number of participants. No follow up studies are available. Although there are examples of programmes of rehabilitation and training of disabled with good results, a number of issues deserve future attention. First, general economic and labour market developments lead to an increasing demand for skilled workers, while changes in the composition (more mental retarded; more severely disabled and diversified disabilities) of the target group make rehabilitation and vocational training increasingly difficult. Second, there is a bias towards persons with primary physical disabilities, and third orientation

towards industrial manufacturing work. For many disabled the major barrier to the labour market may not be the lack of job-related skills, but rather a lack of job-seeking skills. Disabled people have to learn to sell themselves. Programmes for improving job-search skills become a valuable supplement to the traditional rehabilitation and training programmes (OECD, 1992; Seyfried, 1992; Lunt and Thornton, 1993).

4.3 Special education

Legislation providing for special services for disabled is often controversial. Apart from providing services to selected groups there is the countervailing effect of these laws (labelling) (OECD, 1992). The effectiveness of special education for youth is limited. Experience in the USA show that 90 per cent of the students remain dependent after leaving school. In OECD Member Countries employment departments and agencies focus on the re-employment of people who became disabled later in life, rather than on the employment of young persons with disabilities (McLaughlin *et al.*, 1992). This is in line with the insider-outsider argument (See Sections 3.2 and 3.3). The lack of transition programmes for young people with disabilities often results in life-long income maintenance dependants. Transition programmes from school to work should be based on a tripartite relationship among the young person, his or her family, and professionals. Co-ordination and continuity are essential elements of successful transition (OECD, 1992).

Due to high unemployment rates placement is difficult. Co-operation with firms may be an alternative. The German special centres for vocational rehabilitation of disabled seem effective. The majority of their trainees are physically disabled, most having skeleton and motor impairment or internal disorder.⁷ The placement rate of those who complete the courses at the centres is about 75 per cent. Only about 15 per cent is unemployed after one year. Dutch training centres are similarly effective. The success is partly due to the fact that participants are introduced to modern technology, the co-operation with firms to provide training places or practical sessions. Revalidation on the job is based on local labour market analysis. In some cases the special centres establish their own firm. The positive employment prospect contributes to the motivation of the disabled and to a better matching of the centres. Co-operation and the establishment of firms for the disabled imply a direct link between vocational rehabilitation and the creation of jobs. These trends can also be found in other EU countries, e.g. Italy, Ireland, Denmark and Belgium (EC, 1988; Seyfried, 1992; Seyfried and Lambert, 1989; Lund and Thornton, 1993).

4.4 Supported employment

Supported employment is competitive employer-paid work combined with the provision of continuous on-the-job support to individual employees with (often severe) disabilities and employer as needed, in order to perform a normal job in open employment. Individual work preferences are emphasized.

⁷ Also in the other EU countries training in specialised establishments is biased towards non mental disabled.

The training-work model is replaced by a work-training model. The emphasis is on a guarantee that the job will be done, with the help of job coaches employed by the placement agency, who train, assist and support the worker in the work situation. The support may be quite intensive and is maintained at the level necessary for the person involved to stay in a job (OECD, 1992). Supported employment could replace the wage subsidies and fill the gap between more conventional, time-limited training programmes and long-term sheltered work (Schell, 1991; Lunt and Thornton, 1993). An important advantages of supported employment may be the reduced transition problems to open employment. It focuses both on the supply and demand side of the labour market. Various types of supported employment can be found (Wansbrough and Cooper, 1980; Lunt and Thornton, 1993; Hardman, 1994): individual placements, enclaves and mobile work crews.⁸

Considering the relative infancy of most supported employment programmes, it is premature to draw any conclusions regarding benefits and outcomes. However, ongoing evaluations indicate that severely disabled are able to succeed in jobs beside their non-disabled peers. Also financial evaluation of the impact of supported employment still is difficult. Research in the USA shows that these programmes are markedly cheaper than traditional day centres, and especially sheltered employment. Continuous on-site training and assistance are more effective than vocational services in segregated setting. About 90 per cent of the supported workers are mentally retarded (OECD, 1992; Lunt and Thornton, 1993; Hardman, 1994). For the UK, Pozner and Hammond (1993) found that supported employment agencies are effective in achieving their aims and objectives, and are supporting large numbers of disabled people into ordinary paid employment: real jobs with real wages in regular work settings, primarily entry-level posts within services industries. Job retention is excellent. Only few difficulties in finding suitable jobs were reported, even in areas of very high unemployment. Many clients are trapped in a part-time job. The majority of agencies are working with people with learning disabilities. There are some indications that the model can also be used for people with other than learning disabilities. Where the clients include severe learning disabilities, this has been achieved within realistic and reasonable programme costs. Agency annual costs range widely between £1,000 and £5,000 per client supported into and within employment. Other research indicates between \$5,000 and \$6,000, the average of other employment provision methods. In the USA, there are some indications of a long-term cost effectiveness of the supported employment model as an alternative to other more traditional approaches such as work preparation programmes, and in reducing people's usage and dependency upon day services (Wehman *et al.*,

⁸ Individual placement refers to intensive one-on-one training by a job coach on specific job tasks and non-work behaviours. Enclave is a group of severely disabled people working under supervision in an ordinary and undifferentiated working environment. Employment for two to eight individuals with disabilities located in an industrial or business setting alongside non-disabled people. Usually supervised by non-disabled persons. Work crews are five or six individuals with disabilities and one crew supervisor, moving from site to site. Work crews generally perform service jobs.

1992). However, longitudinal studies are needed to examine more rigorously the efficacy of supported employment compared with other approaches. Cost-benefit analyses are also needed to clarify the extent to which increased tax revenue and reduced benefits paid at exchequer level might offset or even outweigh agency programmes costs.

5. Open employment, financial support

5.1 Wage subsidies

Wage subsidies apply in all EU Member States and the USA. A common feature of wage subsidy schemes is the imposed time limitation, ranging from a half year in Australia to three years in Norway. Although the size of the subsidies varies between countries, in most cases it is 50 per cent or more. Their aim is to compensate for lower (initial) productivity and/or costs associated with special training and supervision. In the Nordic countries they are seen as a major strategy to assist disabled persons into the open labour market. Considering the dimension, the lack of evaluation efforts is striking. There is indication that the proportion of people with disabilities entering open employment is not lower than for other disadvantaged groups in the labour market. However, wage subsidies may be a disincentive for employers to retain (non subsidized) employees with disabilities (OECD, 1992; Lunt and Thornton, 1993). In Sweden with its active labour market policy an extended scheme of temporary wage subsidies applies. Supported work for the disabled is an integral part of overall employment policy. The wage subsidies for disabled might very well be one of the most cost efficient Swedish labour market policy programmes.

Related to wage subsidies in Europe impact evaluations are almost non-existing. Most examinations do not try to estimate the effect of the programmes on the economic environment, but rather to identify elements in programme design, control, and administration that could be changed in order to increase the administrative effectiveness of the schemes. Most of these evaluations of wage subsidies are based on survey data from participating firms and regression analysis of macro data. In USA more often cost-benefit analyses are used. Firm conclusions on the effectiveness of the wage cost subsidy in Europe and the USA cannot be drawn due to the lack of data and information about appropriate control groups. The wage subsidy policy did not result in an improvement of the labour-market position of the participants. Moreover, the impact of subsidies on recruitment is disappointing, due to deadweight, displacement and substitution effects. The net effect is low and budget costs per net job created are high (Haveman and Palmer, 1982; Haveman *et al.*, 1984). Experience in Europe and the USA shows that there even may be a negative impact on the employment chances, resulting from stigmatizing. The modest earning gains are generally due to longer hours, not higher wages (See Delsen, 1995). Under the present conditions, wage cost subsidies alone are an insufficient incentive to employers to recruit, because of a lack of accompanying specialised services. Follow-up support of both employee and employer by the PES are called for to achieve access to in-company training for persons with disabilities (OECD, 1992). Financial incentives also are an important complement to quota systems.

Only the combination of the two can be regarded as an effective means of achieving additional jobs for disabled people (Seyfried and Lambert, 1989; Seyfried, 1992).⁹

5.2 Grants for workplace adaptation and technical aid

A central feature of the USA disability legislation (ADA) is the requirement on employers to make reasonable accommodations (including modifying the physical lay out or equipment used, job restructuring, part-time or modified work schedules, training material or policy, and providing aids or personal assistance) for the known limitations of disabled individuals, marking a move towards the concept of equality of opportunity (See Section 3.1). Another feature is 'undue hardship' defined as 'an action requiring significant difficulty or expense'. Epstein (1992) opposes the universal access mandated in the ADA, because it imposes losses in dollar terms on employers that are greater than the gains received by the workers involved. The ADA suffers from organizational incongruence. He is in favour of replacing it by federal grants to particular firms to spend in making their facilities accessible to certain classes of disabled persons. Federal grants will imply that Government will choose to concentrate its own resources in the places where they are apt to do greatest amount of good. In Europe the legal requirement to adapt the work and the workplace is framed generally. The adaptation of the workstation and developing technical aid aim at eliminating physical barriers for the disabled to accept jobs or training. The impact of their impairment on their productivity is minimized. Technical and organization modifications to permit the integration of disabled workers may well benefit the firm itself (Seyfried, 1992). Practice shows that the take-up of public provisions for technical aids and workplace adaptations is low (Delsen and Bemelmans, 1987; OECD, 1992; Mullet *et al.*, 1995). Important reasons are the lack of expertise in the agencies involved, lack of co-ordination of effort and the lack of information about the existence of these provisions.

5.3 Prevention and early intervention

Supervision during sick leave can give people a more positive insight into prospects within the organization. Experience from prevention and early intervention shows that many people who develop a disabling condition and subsequently enter the income support population could remain in the workforce given adequate help and follow up while still in employment. Research also shows that early information - preferable while the person

⁹ There is much less evidence of financial support payable to the disabled employee rather than the employer. Exception are Belgium (cost of transport to work, of working clothing and of tools) and Ireland (support of the blind) (Lunt and Thornton, 1993). Also the provision to encourage or sustain self-employment of disabled people is little developed, despite the wider international trend towards self-employment (Lunt and Thornton, 1993). Like sheltered employment, also self-employment does not aid integration of disabled people with other non-disabled workers, and yet may be seen as a highly suitable form of employment. The UK seems to be the country which has most systematically explored these possibilities. Rough estimates indicate that their success rate is as high as that of their non-disabled peers (OECD, 1992).

still has a work contract - is cost-effective and an efficient strategy for rehabilitating people back into working life. The economic benefits from prevention and early intervention could therefore be considerable. However, at present there is a general lack of data about the effectiveness of prevention at enterprise level (Delsen, 1987). Improvements in statistics and research are necessary. Attempts to promote retention in Europe and the USA by means of legislation show mixed results. The lack of an accompanying sanction and enforcement system is a problem. Also the unclarity of the law and employers' interpretation of what is reasonable undermine these laws (OECD, 1992). In many countries there are no real incentives for employers to retain their marginalized workers. There are few comprehensive public programmes in place with the objective of encouraging employers and employees to improve the working environment and to initiate early rehabilitation measures. The Netherlands and Sweden subsidize employers who initiate systematic routines for prevention and early rehabilitation. There is little information from Europe about services aimed at retention of work and at career promotion. This gap possibly reflects the overriding service and policy emphasis on recruitment rather than retention (Delsen, 1987; OECD, 1992; Lunt and Thornton, 1993).

For a major part of the disabled, part-time work is the only way to take part in the labour process. Moreover, part-time work allows those who have not had work experience or who have been out of work for a considerable time to become acquainted with the world of work, and possibly move on to a full-time job. Thus, the promotion of part-time employment can contribute to the integration of disabled workers into open employment. Moreover, the introduction of part-time work is preventive, it reduces the risk of becoming disabled. Experience in Europe and the USA shows that adapted work is of importance for limiting prolonged absenteeism and the working disability (Delsen, 1989; 1995; Mul *et al.*, 1995). As disability expenditure increase, increasing public awareness might stimulate the willingness to allocate larger sums to prevention. Labour market opportunities depend upon employer attitudes and the conditions under which disabled persons have access to work. Job redesign and accommodation can serve to prevent disability and reduce the social costs of disability just as much as advancement in medical science and technology can reduce impairments and help eliminate consequent disability.

6. Sheltered employment

For those disabled persons who cannot (yet) be integrated into the open labour market in all EU Member States sheltered employment has been introduced. In most EU countries the mentally retarded are the largest group in sheltered employment. Exceptions are Austria, the Netherlands, Sweden and the UK. Workers with a severe handicap find it increasingly difficult to get access to sheltered jobs. A solution could be a quota system for severe disabled (Samoy and Waterplas, 1992; Lunt and Thornton, 1993). Also long-term unemployed have access to sheltered employment, making evaluation focusing on our target group more difficult.

The sheltered workshops are expected to prepare disabled people for

transition to jobs in the open labour market. Nowhere is this transition the primary aim, although a number of countries now is actively promoting transition. However, higher exit rates may not be in the interest of the sheltered workplace. Organizations may not be willing to let go of the most productive workers (Schell, 1991; Seyfried, 1992; Samoy and Waterplas, 1992; Delsen and Klosse, 1992; Lunt and Thornton, 1993). In Austria the replacement in open employment is relatively high (5-7 per cent). The sheltered employment schemes in Belgium, France, Sweden, the Netherlands and the UK show low (<5 per cent) replacement in open employment. In France, the Netherlands and Sweden this is partly related to the sheltered work wages equal to labour market wages. Other sheltered employment schemes are criticized for not offering market level wages, poor working conditions, causing segregation and not encouraging integration with non-disabled workers. Hence, sheltered workshops fail to facilitate the entry of severely disabled individuals to open employment. Often sheltered employment is a dead end. On the other hand sheltered employment remains an important alternative for individuals with disabilities for those that the labour market is not open, even in a situation of shortage. Moreover, some groups simply cannot work under normal conditions (OECD, 1992; Lunt and Thornton, 1993).

German experience shows that 100 per cent subsidy of public service sector jobs is cheaper than funding places in sheltered workshops (Seyfried, 1992). Cost-benefit analysis in Sweden shows that wage subsidies are favourable investments and in Norway that sheltered employment are lucrative investments for public authorities (OECD, 1992). Cost-benefit calculations of sheltered workshops (comparing real resources used and produced output) in the UK, the Netherlands and Sweden show that the unmeasured benefits to society (e.g. social and psychological wellbeing and freeing of care time of other family members) must be substantial to compensate for the measures net social costs attributed to the enterprise activities. However, the regular sheltered workshops in the USA generate substantial benefits (Haveman *et al.*, 1984).

To bridge the gap between sheltered and open employment new institutions have developed in the EU (Seyfried and Lambert, 1989; Lunt and Thornton, 1993): independent firms, co-operations of disabled people and special departments for the employment of disabled. For instance self-help and social firms in Germany, 'inside firms' in Sweden, Grandfos (non-subsidized enclave) in Denmark, enclave (Fiat Turin) and co-operations in Italy, enclaves (Daf Trucks) and external jobs in the Netherlands, contracts with sheltered workshops to fulfil the employment obligation in France. Semi-sheltered employment has a number of advantages over sheltered workshops (Wansbrough and Cooper, 1980; Seyfried and Lambert, 1989; Seyfried, 1992): cheapness to the exchequer; enclaves can be operated with a sheltered workshop as a base so that people may progress from the workshop to the more open conditions of the enclave and eventually open employment; employers are required only to pay for the value of work performed and are exempted from employment protection. These workers are hired out, relieving the financial burden of the firm. An advantage of enclaves relative to individual placement is that it is easier to create adapted work processes and organi-

zational structures. They moreover show to be cost-effective. Another advantage of enclaves, where the workers are not employees of the firm, compared to sheltered employment is that disabled workers are more involved in the enterprise (See also Section 4.4). The semi-sheltered jobs represent a springboard to open employment. Co-operations are successful in which disabled and non-disabled co-operate. Compensation of certain impairments is possible and social integration is established.

7. Conclusions, policy recommendations and research agenda

Inter country differences in institutional and policy mixes to create employment opportunities for disabled people can be explained from differences in economic conditions and in culture. Tables 2 and 3 summarize the main contents and results of the policies applied in the EU Member States and the USA. Firm conclusions on the effectiveness of the policies applied and the various instruments supporting the integration of the disabled in the countries under review cannot be drawn (OECD, 1992; Lunt and Thornton, 1993; Mul *et al.*, 1995). There is the identification problem of policy objectives. It is only where legislation is recent that policy aims are clearly stated. Even in the latter case priorities shift with implementation. In certain countries policy is incremental, shifting with the social and economic context. A second problem is the apparently low importance attached to ongoing evaluation. In part this problem relates to the absence of clear-cut policy goals. Evaluation studies with clear results are rare for all approaches and policies applied. Literature mentions large numbers of factors that may be of influence on the effectiveness of the approaches, although these statements mostly are based on impressions from practice and not on empirical quantitative research. There are no empirical scientific testing studies concerning the exact course of reintegration processes and the way these processes are influenced by various factors. In general there is insufficient information on the quality of the methods applied. Also information on cost and benefits is hardly available. Not only quantitative data also qualitative data on aspects of work participation (contents and conditions of work and labour relations) are lacking. That is why, firm conclusions about the effectiveness of present policy approaches in meeting the needs of persons with disabilities can not be drawn. Moreover, most research does not consider those disabled people that are covered, but not selected. A systematic exclusion is suspected. The least productive (least healthy) will not be selected (adverse selection; creaming off process of programmes and in recruitment). Only those with relatively high chances are covered.

Table 2: Definition of disability, legal interventions and financial support of open employment in selected OECD countries; contents and results.

Country	Definition of disability	Legal intervention			Financial support	
		Equal opportunity legislation	Quota system	Dismissal protection	Wage subsidies	Grants for workplace adaptation and technical aid
Belgium	Any person whose effective employment capacity is reduced by at least 30% as a result of a physical disability or by at least 20% as a result of a mental disability.	Social Rehabilitation Act of 1963 establishes the principle of equal treatment in the area of vocational and social integration.	Act of 1963 states that private employers with a workforce of ≥ 20 have the obligation to employ disabled people. Quota not fixed. In public sector a number of posts is reserved for disabled people, e.g. 1,200 in civil services, 90 in public service bodies and one for each 55 workers in local and regional authorities. Targets exceeded.	No explicit reference to disability in legislation.	Act of 1963. In private and public sector, wage cost subsidies 1 year up to 100% while employee adapts to the job. Little use. Collective Agreement no. 26 of 1975. Private employers are compensated for diminished performance (1 year). 1989 2,553 employees subsidized.	Financial aid to recompense for the cost difference between standard equipment and an adapted model. Little use: in 1988 31 grants, involving BF 3,202,000.
Denmark	There is no official definition of disability.	No explicit reference in legislation.	No mandatory quota.	No explicit reference to disability in legislation.	Wage support to employers who take on elderly, slightly disabled persons. Results are promising. '60-40%-system: wage support up to 40% for those who are not entitled to early retirement pension. 'One-third'-system: for retired persons, support up to 1/3 of minimum wage. Results: 1987: 1,937 employees.	Financial support for adaptation of work station and acquisition of tools and equipment. No data on use available.
France	Any person whose possibility of obtaining or keeping employment is effectively reduced as a result of an impairment or reduction in his physical or mental capacities.	The Disability Act of 1975 states that the integration of disabled persons in the educational system and in professional and social life is a national obligation.	Act of 1987. 6% quota for firms ≥ 20 employees. Fines and subsidies. Results: 1991 3%. Employer may fulfil quota by sub-contracting with sheltered workshop.	No explicit reference to disability in legislation. Measures to help the worker keep his job where he is threatened with dismissal.	Recruitment subsidy of FF 30,000 pro rata to every company; 50% of subsidy on recruitment in permanent job and 30% on fixed-term contract. Supplement only paid when converted into permanent job. No data.	Financial support for adapting work station and premises. Aid is limited to 80% of the costs. No data on use.

Germany	Severely Disabled Persons Act, 1974: persons who are limited in their capacity for integration into society because of the effects of a physical, mental or psychological condition which is contrary to the norm, and where limitation of this capacity for integration is not merely of a temporary nature.	According to Social Code any person who is physically, mentally or psychologically disabled has a 'social right' to assistance needed to establish equal treatment.	Act of 1974 on Severely Disabled Persons: 6% quota for firms > 16 employees; beneficiaries: severely disabled persons; levy per job not filled; one-off grant for meeting quota. Levies put in fund for employment promotion of target group. Results: 1982 5.6%; 1989 4.7%.	Severely disabled persons may be dismissed only after authorization from the competent institution which examines the various possibilities of maintaining employment. Favours insiders.	Subsidy by PES to employer up to 80% of wage paid to the severely disabled person and up to 100% of training allowance up to 3 years on a sliding scale. Continued employment for at least 1 year. 1986-1988 10,350 persons financed from levies.	Employers are required to provide severely disabled persons with the necessary technical aids, unless this would involve unreasonable demands or disproportionate expense. Levy revenues are used to assist employee and employer. In 1988 DM 4.5 million for technical aids.
Greece	People with special needs: people between the age of 15 and 65 who have limited capacity for occupational activity deriving from any permanent impairment or deficiency of a physical, mental or psychic nature.	The Constitution of 1975 lays down that people with special needs have a right to specific care from the state.	Law of 1986. 5% quota for firms > 50 employees in public and private sector. There are no penalties or other type of enforcement. No data available.	Dismissal within the quota system are governed by special laws.	Subsidy of DR 2,600 by Manpower Employment Organization (OAED) per day for 1 year per recruited disabled person. About 550 persons in 1988.	Financial support (max. DR 120,000) by OAED of workplace adaptation. In 1987 workplaces for 200 disabled persons.
Ireland	People who are at a disadvantage as a result of an impairment or disability which limits or prevents the accomplishment of a role that is normal for the individual concerned.	No explicit reference in legislation.	Since 1977 public sector 3% quota for registered severely disabled persons. Results: 2% in 1991.	No explicit reference to disability in legislation.	Employment Support Scheme: National Rehabilitation Board (NRB) supplements of wage to increase employment opportunities for severely disabled people (80-50% work productivity). In 1991 95 employees.	Financial support by NRB (max £5,000) to adapt workplace and to provide special equipment. In 1993 £30,000 was spent on 16 jobs.
Italy	Act of 1992: those persons whose working capacity is permanently reduced as a result of physical, psychological or sensory impairment.	The Constitution of 1947 explicitly establishes that disabled persons are entitled to education and integration at work.	Law of 1968. 15% quota for firms > 35 employees; beneficiaries: disabled people, widows, orphans and refugees. Fines used to train disabled people. 1987: 98,743 disabled under quota.	Under quota system dismissal is only permitted if the disability endangers health or safety, or if there are no other possibilities of employment.	No measures at national level. Certain regions contribute to wage costs or social charges.	No measures at national level. Certain regions provide financial support for adapting work stations.

Luxembourg	Act of 1991: people disabled through accident or work or war and people with a physical, mental or sensory disability. Capacity for work reduction >30%.	No explicit reference in legislation.	Act of 1991. 5% quota for public bodies. 2% quota for private firms >50 employees; 4% >200 employees. Beneficiaries: recognized and registered disabled people. Exemption of social security contributions if quota is exceeded. Penalty 50% of minimum wage per month. No data.	No explicit reference to disability in legislation.	Wage costs subsidy by Office for Recruitment and Vocational Retraining of Disabled Workers (OTH) depends on severity of disability: 40-60% of gross pay for 3 years.	Compensation by OHT for adaptation of workplace. In 1988 LFr 83,000. Provision is retained in the 1991 Act.
Netherlands	Those whose prospects of earning their living are substantially restricted by reason of infirmity, sickness or mental or physical differences. WAGW: those who receive an invalidity pension and those who benefit from special measures in order to carry out their work.	There is no specific legislation protecting disabled people from discrimination. The law (WAGW) imposes the obligation for employers and unions to encourage equal opportunities for everyone, as regards to occupational (re)integration.	Act of 1-7-1986 (WAGW). 3-7% quota depending on industry. Beneficiaries: persons receiving invalidity allowance. Results: 2-3% in 1989.	Employment contract may not be broken during first 2 years of disability due to sickness. In principle lay-offs will not be authorized by the Regional Employment Offices even after 2 years of disability in case the employer is still in a position to offer adapted employment.	All employers who take on a person who has been declared unfit to work can apply for a wage costs subsidy of maximum 20% of salary up to 4 years.	Financial support for adapting work station and equipment.
Portugal	Any individual who, because of limited physical or mental capacity, encounters difficulty in obtaining or holding a job suited to his/her age, qualification or professional experience.	Under the Constitution of 1976 physically and mentally disabled enjoy full rights as all citizens. The State should act to ensure the transportation of these rights in practical terms.	No obligation.	Obligation to keep an employee who suffers an industrial accident for firms > 10 employees and if the incapacity is temporary and <50%. In case of collective dismissal disabled workers are given preferences to keep job.	Lump sum compensation for lower performance of disabled worker during adaptation phase. Initial sum is gradually reduced to 25% after 9 months. Extension to 3 years. In 1991 425 people. Reduction (50%) of employers' social security contribution; 200 persons in 1991.	Subsidy for adapting work station and removing physical barriers to a maximum of 12 x minimum wage.

Spain	Any person whose possibilities of participation in education, work or social activity are reduced as a result of physical, mental or sensory impairment whether congenital or not, which is likely to be permanent.	Under the Constitutions of 1978 the public authorities are obliged to implement a policy of rehabilitation and integration to guarantee disabled people the rights extended to all citizens (right to work, training and occupational rehabilitation).	Law of 1983: 2% quota for firms with >50 employees. Decree of 1987: 3% in civil service. Beneficiaries: registered disabled persons with capacity for work reduction \geq 33%. Financial sanction possible when actions are taken by the National Employment Institute (INEM). Quota is not met.	Dismissal from a sheltered workshop must be confirmed by the National Social Services Office.	Recruitment subsidy (max. PTA 500,000) from INEM for stable employment. Reduction of employers' social security contribution for disabled persons (70% for persons aged under 45 and 90% for others). 3,469 beneficiaries in 1987. Reduction of tax bill (PTA 700,000) for each open-ended contract for disabled.	Subsidies for adapting work station and removing physical barriers up to PTA 15,000. No data available.
Sweden	Disability is a relationship between the person and the environment.	No general law aimed at securing the rights of disabled people. Integration is secured by inserting special paragraphs in provision.	No mandatory quota.	Disabled people are entitled to special protection under 1974 Security of Employment Act. Priority for further employment to be granted to disabled people.	Flexible wage subsidy for employer depending on work capacity of employee in relation to demands of the job. In 1991 44,500 employed with wage subsidy.	Grants for technical aids and services up to SEK 50,000. In 1989/90 4,600 grants: 77% for established employees and 23% for newly recruited employees.
United Kingdom	The Disabled Person (Employment) Act 1944: a person who, on account of injury, disease or congenital deformity, is substantially disabled in obtaining or keeping employment, or in undertaking work on his own account of a kind which, apart from that injury, disease or deformity, would be suited to his age, experience and qualifications.	No explicit reference in legislation.	Act of 1944. 3% quota for firms \geq 20 employees. Beneficiaries: registered disabled persons. Fines, but employers can obtain a permit. Results: 106,743 in 1987; 97,000 in 1988; about 1%.	The Act of 1994 provides that committees for the employment of the disabled can be required to report on any allegation of the dismissal of a registered disabled person without reasonable grounds. Favours insiders.	Weekly wage subsidies during the introductory phase. In 1986/87 1,636 new participants.	Subsidy (max. £6,000) for adapting equipment and premises. Loans for equipment and technical support services. In 1987/88 about 4,200 disabled persons benefited from Special Aids to Employment Scheme.

United States	American with Disabilities Act 1990 (ADA): a disability is a physical or mental impairment that substantially limits one or more of the major life activities, a record of such impairments or being regarded as having an impairment.	Section 503 of the Rehabilitation Act 1973 requires every employer doing business with the federal government to take affirmative action. ADA extends section 504 of the 1973 Act to private firms with > 15 employees: reasonable accommodation for the known limitation of the disabled individuals unless this imposes undue hardship. ADA also requires unbiased recruitment.	No obligation.
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Sources: EC, 1988; Emerson, 1988; Grammenos, 1991; Lunt and Thornton, 1993; OECD, 1992.

<p>No explicit reference to disability in legislation (see equal opportunities).</p>	<p>Targeted Jobs Tax Credit up to 1 year to employer of 40% of the wage paid to an employee. 6.9% of total targeted people (39,448 in 1987) were disabled. Can be used for supported employment.</p>	<p>Tax credit and tax deductions for small (<30 full-time employees) businesses and tax deductions for big firms to change barriers to the handicapped and elderly.</p>
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Table 3 Open employment support services for disabled persons and sheltered employment in selected OECD countries, contents and results

	Mainstream vocational training	On-the-job training	Special education	Supported employment	Sheltered employment
Belgium	Financial aid to encourage integration in the mainstream training system and help with cost of teaching aids in advanced courses. Cover of the cost of training and granting of allowance to replace wages during training.	Special in-firm apprenticeship contracts for vocational rehabilitation. In 1991 361 persons were involved. About 70% of the cases lead to real employment. Semi-sheltered employment established by Entreprise d'Apprentissage Professionel: small firms providing on-the-job training in manual skills for young people. In 1988 of the 863 young people around 25% got a job.	Special training centres recognized by the National Fund for the Social Resettlement of Disabled People. In 1991 756 persons were involved in special training centres.	Supported employment in the open labour market is not available.	Aims to provide useful and remunerated work, occupational rehabilitation and progress to open employment. In 1989 19,049 employees in 157 sheltered workshops. 80% are mentally retarded. Most receive a wage of 50% of the minimum guaranteed monthly income. Transfer to open employment 2.2%.
Denmark	In principle vocational education and training takes place within the normal framework. When this is impossible it takes place at special rehabilitation centres. Integrated placement is cheaper than separate education.	Wage subsidies for disabled persons taking part in retraining in the normal employment market. Training as part of a rehabilitation course may be paid from public funds (4000-5000 persons involved).	Training in special centres is often organized in tandem with sheltered employment. Cooperation with private and public firms to transfer practical training. Larger centres have their own enterprise.	Since 1988 personal assistance for disabled persons to help him do the job in the open labour market. Sheltered enclave at private company Grandfos; an incentive for sheltered enclaves in other enterprises.	Aims at people who are not able to find or retain a job in open employment. In 1991 7,664 employees in 120 sheltered workshops. About 30% are physically disabled. Most receive wage of 10-15% of minimum wage + disability benefit.
France	Training in normal centres is assisted by financial support from the Integration Fund. Pilot initiatives are making links with higher education.	Training plans have been adopted to meet the needs of existing disabled employees and internal training arrangements have been opened to disabled workers from outside. One of the objectives of the law of 1987 in favour of employment of disabled workers is to bring vocational rehabilitation into the economic domain.	Certain training services are only open to disabled workers who have been recognized as such by 'Commission Techniques d'Orientation et de Reclassement Professionel (COTOREP). There is a reported trend away from specialized centres, towards training in employment. There are 77 specialist centres with 9,500 places.	Supported employment in open labour market is not available.	Centres for home work (CDTD) for people with work capacity $\geq 1/3$ of normal capacity + sheltered workshops (76,800 in 1992). Centre d'aide par le travail (CAT) for people with $< 1/3$ of normal capacity (11,600 in 1992). Subject to same legal regulations as ordinary employees. About 70% are mentally disabled. Transition to open employment $< 1\%$.

Germany	No information available. Mental retarded and hearing impaired are in special schools.	A disabled person has the right to rehabilitation measures in line with his requirements. Preference is given as far as possible to firm level training measures. On-the-job training is often made possible by subsidies to employers. December 1989, 25,000 disabled people were involved in training within companies; 6,500 were receiving further training or retraining.	Vocational training centres organize preparatory vocational training for young disabled persons. Most have learning difficulties. There are 37 centres with 10,100 places. Occupational assistant centres organize retraining for adult disabled persons. Most are physically disabled. In 1987 21 centres with 12,000 places. After completion 70% finds a job.	Many companies maintain special departments which employ severely disabled people (semi-sheltered employment). There is financial support to create 'self-help firms'. 90 firms employing 900 workers.	Aims at people who are unable to enter open employment to improve ability to work, to train. In 1991 626 workshops with 140,00 employees. 83% are mentally disabled. Wage about DM 220 per month + assistance benefits. No data on transition to open employment.
Greece	10% of the training places are reserved for the disabled in apprentice schools and in accelerated training programmes. Financial support by OAED for private organizations offering training. In 1989 560 disabled persons were trained.	The mainstream Manpower Employment Organization (OAED) supports training in the workplace.	The OAED encourages the establishment of specialized programmes for those who are unable to fit into the ordinary network.	There is no provision for continued support once in employment.	Despite lack of institutional framework, there are private sheltered and semi-sheltered workshops, linked to occupational centres, self-help firms. Growth of cooperations aimed at training.
Ireland	Although encouraged to use it, access of disabled people to mainstream training programmes organized under the control of the National Training and Employment Authority (FAS) is limited (lack of flexibility in the duration). There are no minimum target figures. In 1986 200 disabled persons involved.	No information available.	In 1986 the National Rehabilitation Board's (NRB) vocational service dealt with 3,906 cases, 1,856 were placed in training/education. Most are nonphysically disabled. The Rehabilitation Institute (RI) is the principle voluntary organization providing vocational rehabilitation for disabled persons (40 centres). Job Clubs are successful. Co-operative workshops are established.	There are few references to supported employment, e.g. the Open Road project in Dublin for severely mental disabled; 28 people entered the workforce.	Community workshops provide vocational training to achieve access to open employment. In 1989 39 units with 3,887 disabled workers established by the RI. 20% have physical disabilities. Sheltered work offered in long-term training centres (67 in 1989 with 3,363 people). Occupational therapy centres (928 persons in 1989). They receive no salary. 2% transition to open employment.

Italy	Virtually all children are placed in ordinary classes. This results in the presence in mainstream schools of multi-handicapped on several handicapped children who would be placed in special schools in any others country.	Regions organize training courses in firms. Related to on-the-job training financial aid is available.	Regions are required by law to act to adapt the annual plans for special courses for disabled people not capable of attending ordinary courses. Regions ensure the integration of disable people in vocational training centres.	The Genoa project creates open employment for young people leaving compulsory schooling; (severely mental retardation). 300 persons are placed. 95% job retention rate first 3 years. Net saving relative to sheltered workshops. Financial support for integrated cooperatives aiming at vocational training on permanent employment. Fiat in Turin has an enclave for employees who are partially disabled.	Provision is made for sheltered employment by law of 1971, but it is little used. There are around 300 workshops. Most employees are mentally handicapped; no employment contract. The organizations for disabled prefer open employment. In the 1970s integrated cooperatives developed. Other alternatives are enclaves and supported employment.
Luxembourg	Financial incentives are provided for disabled persons participating in preparatory training up to 3 years.	Vocational introduction and guidance courses in firms. The employment fund encourages practical training in firms.	Practical training courses in line with local employment opportunities. There is a mismatch between traditional training for disabled people and the requirements of the labour market. In 1986 14 trainees attended specialized training centres.	Sheltered jobs in industry for physically disabled. Follow up support in open employment.	The ateliers protégés are part of larger training centres. The sheltered workshops are structured like normal companies. Financial support by the state. Cooperatives deal with commercial aspects. Some employees are under contract and receive minimum wage. 250 employed people in 1989. Work-aid centres (centre d'aide par le travail) are also part of training centres and offer work experience and training and therapy. Most workers receive minimum wage paid by the government. In both centres most have a mental handicap.

Netherlands	Disabled persons are being integrated into ordinary schools. Grants are available for adaptation of buildings, teaching materials, and transportation measures. Integration is frustrated by the parallel school system for special and regular education. A goal set to double the intake of disabled persons.	Apprenticeships combining training and practical experience are promoted. More flexibility is introduced in module based course.	Occupational training is provide in 2 special centres. The replacement rate is about 80%. Special schools are by type of disability. The typical transition for a young disabled person from a special school is to a sheltered workshop.	Initiatives mainly located in care sector. No evaluation studies available.	"Social employment" (WSW) provides employment for those whom an opportunity to work under normal condition has not (yet) risen. In 1988 78,366 employees; 80-90% are physically disabled. Category A employees (those with a work capacity $\geq 1/3$ of normal productivity) receive at least minimum wage. Others (B category) receive less than minimum wage + invalidity benefit. Recently a more market oriented approach is applied. The number of employees is reduced, notably in the B category. Exit to open employment $< 1\%$.
Portugal	Special arrangements to encourage access for the disabled. The Institute of Employment and Vocational training (IEFP) provides that on each training course 3 places should be set aside for disabled people. In 1986/87 109 (0.9%) of pupils attending technical and vocational courses in ordinary education were disabled persons.	Financial assistance is available for in-firm vocational training. The Community Based and Integrated Programmes of Training and Employment serves about 500 disabled people. The aim is to use ordinary education/training structures to promote involvement of the community and on-the-job training.	Private non-profit making institutions participate in the pre-vocational and vocational preparation measures alongside the official rehabilitation centres and private state-subsidized centres. In 1991 660 disabled people were served by these centres.	No supported employment available.	Aims to provide training, to promote transfer to open employment and to enable the right to work. Is available for disabled people with $> 1/3$ normal productivity who cannot be integrated (1,034 workers in 1991). Special employment centres in which at least 75% of employment must be disabled. Enclaves and work at home. IEFP gives technical and financial assistance.

Spain	The National Institute for Social Services (INERSO) and the National Employment Institute (INEM) cooperate in provision of training for disabled people. The national training plan promotes the integration of the disabled in programmes along with other groups. Grants are awarded to certain groups of participants. Integrated placement is cheaper than separate education.	No age limit for in-firm training.	Courses reserved for disabled persons who cannot be integrated in normal courses are provided by the National Employment and Social Security Office. In 1987 1,656 trainees were registered.	No supported employment available.	Sheltered workshops (Centros Especiales de Empleo) provide remunerated employment for disabled workers and to promote transfer to open employment. Minimum incapacity of 33%. Workshops are structured like normal companies. Employees receive a contract under the same conditions as open employment contract. Wage costs subsidies apply. Grants for adjusting job and architectural barriers. In 1992 7,915 employees. About 80% are mentally disabled.
Sweden	Most disabled children are in ordinary schools. In the last quartile of 1992 14,073 disabled people participated in mainstream labour market training. The AMU group, the labour market training centres, organizes most mainstream training courses. Participation of disabled in ordinary labour market training was 22% in 1988.	No information available.	The AMU centres provide specialist provision. 47% of the disabled participants are in employment after one year. Deaf and severely mentally retarded are placed in special schools as a matter of principle.	Experiments on built-in workshops in ordinary industry, while still employed by SAMHALL and by transferring regular employment to SAMHALL in rural areas.	In 1988/89 6,100 persons with socio-medical disabilities were in public sheltered work. Government subsidizes up to 75% of total wage costs. SAMHALL provides employment to occupationally disabled under normal market terms. Wages are comparable with ordinary enterprises. Almost half are mentally retarded. In 1993 29,938 disabled employees. Rate of transfer to open employment 3.5%. The aim is 3%.

United Kingdom	Special arrangements to encourage access for the disabled. The Youth Training Scheme has more relaxed entry requirements, extension of the training period and technical aid for disabled. In 1986/87 9,439 disabled persons were involved (3%) in YTS, and 12% in Employment Training (ET). The number of disabled adults on mainstream training courses in 1986-87 was 3,097.	The Individual Total Training With Employer allows for a period of training and work experience with an employer lasting for 12 months. Following training, a period of at least 6 months employment is guaranteed. Supported training in the workplace has developed over the past few years.	The national training programmes take account of the local labour market, new technologies and flexible programmes are used which allow for individualized arrangements.	Supported employment involves about 1,600 people; most have learning disabilities. It seems effective. The Sheltered Placement Scheme (1985) provides financial assistance to employers and support from an outside agent. About 7,000 places, wages equal to host company. Host pays according to output, sheltered enterprise or workshop supplements to 100%. 2% leave the programme for ordinary work. More cost effective than sheltered employment. Attractive for young disabled people.	Aims at those who, because of disablement cannot realize their full potential on the open labour market. Productive output between 30-80%. By the end of 1987/88 there were about 18,900 severely disabled people in sheltered employment. Wage and working conditions are the same as for similar work in open employment. Average earning is about half the national wage for manual workers. 16% are mentally disabled. The placement rate in open employment is about 1%.
United States	United States federal law obliges states to provide handicapped youngsters with a free and appropriate education. Integrated placements are cheaper than special schools.	Financial support to employers of on-the-job training for disabled persons. For instance, the Job Training Partnership Act funds can set up on-the-job training and reimburse employers for 50% of the first 6 months of wages for each employee. Aims at a permanent full-time job. Most are placed in community jobs. In 1989/90 37,103 disabled adults (10.2% of total adults) and 43,088 young people with disabilities (14.2% of total youth) participated.	4% of total school population is in special education. Most children with special learning difficulties are in special schools or classes. Vocational services are federally funded. The Vocational Rehabilitation (VR) Service Program offers services including vocational training and training in work activity centres targeted on the most severely disabled. In 1991 202,831 persons participated.	Since 1987 supported work programmes have been eligible for federal funding under the Rehabilitation Act (\$290 million for 74,657 participants by 2,647 agencies in 1990). About 90% have mental retardation. Performance is encouraging. Most jobs are at the entry level in service industry. It is considered an alternative for sheltered employment. Some programmes have evolved co-operative companies of disabled people.	Sheltered employment takes place in public or non-profit organizations that are certified by the Labour Department to pay 75% or 50% of minimum wage to people of diminished earning capacity. About 25,000 people are employed in 5,000 sheltered workshops. The transition to open employment of 10% is considered too low and costs are high. There is a move away from sheltered employment into assistance and supported employment.

Sources: Delsen and Klosse, 1992; EC, 1988; Grammenos, 1991; OECD, 1992; 1994a; 1994b; Lunt and Thorton, 1993; Mul, de Winter, Nijboer and de Haan, 1995; Pozner and Hammond, 1993; Samoy and Waterplas, 1992.

Neither about these selection mechanisms, nor about the characteristics of the whole group that is covered and reached information is available. That is why conclusions on the various measures as well as on experience with disabled people may be biased and incorrect.

The optimal policy mix is greatly affected by economic conditions in general and the strength of the labour market demand in particular. Previous sections have shown that (special) training and schooling alone are insufficient to prepare participants for the regular labour market and that sheltered employment is a dead end. Integrated projects of training and employment are more appropriate. Under present conditions quota systems and wage subsidies are no longer enough to ensure a lasting improvement in the integration prospects of disabled people. There is need for practical assistance within firms. Apart from the high unemployment rates also the changing structure of the population of disabled people make semi-sheltered and supported employment more important in addition to the traditional instruments. These policies aim both at the supply and demand side of the labour market. Some disabled persons may prefer intensive support, other do not need this support, and others do not want a regular job and prefer voluntary work or meaningful day spending. So it is relevant for those who want a regular job and who need intensive support. Notably psychiatric patients and mentally impaired need counselling and support. Taking into account the heterogeneity of the target group, the best option for improving employment opportunities for the disabled is a differentiated mix of policies and programmes for different groups of disabled based on local labour market analysis. The policy mix includes vocational training and rehabilitation, job creation measures, support at the job, job seeking assistance and sheltered employment as well as part-time employment.

Related to future developments of supply-side measures for people with disabilities, the emerging 'skill gap' in the labour market is of importance. An active labour market policy may be considered to be the overall framework. An active labour policy may also be of importance to retain workers in the workforce. Another major barrier to the integration of people with disabilities is the lack of co-ordination and collaboration. There is no coherent disability employment policy. The latter is aggravated by decentralization. Solutions are to be found in centralization of responsibilities in one agency and in new patterns of co-operation to achieve integration of the range of services needed. Co-ordination is needed to avoid opposition and duplication of effort, to establish concerted action and to assure (cost) effectiveness.

The starting point for a successful integration of disabled workers into the market sector ought to be the individual worker. Successful integration means matching the supply of labour by the disabled worker and the demand of labour by the firm. Information on the wants of the disabled worker, his capacity and preferences and on the physical and mental requirement of the jobs on offer, is thus needed. The lack of information at the level of disabled individuals, at enterprise level, and at the level of society as a whole, is one of the major barriers to the integration of disabled workers into open employment. But this information is not enough

for the realization of permanent jobs for the disabled workers in the market sector. In all cultures attitudes towards people with disabilities are a major barrier to integration and changing these attitudes is vital to achieving the placement of a disabled worker within an enterprise (Delsen, 1989). Employers are not informed about the employability of people with impairments. Disabled people are considered to be a risk for the firm. Overcoming attitudinal barriers does not require large numbers of disabled persons hired in an enterprise. The provision of information on best practices, on-the-job training, semi-sheltered and supported employment may clear the decks. A general lack of demonstrable results and economic benefits may be one of the main barriers for the future expansion of employment promotion programmes for people with disabilities. More emphasis on evaluation and on the public accountability of rehabilitation and employment programmes is therefore essential for future policy development (OECD, 1992). Because of the competition in the labour market people with limitations often find bad jobs with high labour turn over. Raskin (1994) proposes an occupational-oriented quota system designed to encourage the representation of disabled persons in the occupational groups where they are known to be generally under-represented.

The available data on the labour market situation of people with disabilities are inappropriate, and do not provide a basis for policy development or evaluation of strategies and programmes. Areas that deserve more research attention are (OECD, 1992): possibilities for adjusting national surveys in order to gather more comparable data on the labour market situation of people with disabilities. Cross-national research projects focusing on the reasons for the differences in labour market participation could be launched to provide a better base for further policy development. More priority must be given to investigations into the relationship between the spending on cash transfers versus spending on active measures directed to greater involvement in the workforce.

Most research on special education and on handicap has been too restricted. Research has concentrated too heavily on studies of handicapped people and their characteristics and different kinds of treatments given to these pupils. Most studies on integration have too short a time perspective. Very little is said about the integration process as such. To make it possible, one must have studies on a broader design, including process-oriented effect studies on the whole group and educational settings (OECD, 1994b).

How can evaluation be improved? In the evaluation studies the focus has been on monitoring the costs and dimensions of the programmes, rather than on programme performance and programme outcomes (OECD, 1992). Apart from more adequate data it is of importance to distinguished programme effects from non-programme effects, for instance by using control groups. A problem is how to take into account the changing economic climate of changing labour market conditions when analyzing and interpreting evaluation results. Also clear-cut goals are a prerequisite for meaningful evaluation of programme outcomes. Programmes often have multiple objectives posing problem for the evaluation of programmes. More emphasis

on precise definitions of programme goals and more singleness of purpose is called for. Moreover, taken into account the institutional complexity and the multiplicity of programmes, co-ordination of evaluation and research activities is essential.

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