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**6**

**Canada's employment programme and  
policies for persons with disabilities. A  
study of cost-effectiveness: Qualitative  
and quantitative considerations**

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This document reflects the views of the author  
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## **I. Introduction: Why this report?**

In recent years it has become evident that persons with disabilities represent a hitherto untapped source of human resources. However, historic isolation and low expectations have resulted in persons with disabilities collectively experiencing levels of education and vocational training that do not offer adequate preparation for competitive employment. In addition, disabled persons often experience structural barriers to employment. These obstacles may be physical, in terms of inaccessible job sites and vocational training facilities, or may be due to negative attitudes and stereotypes on the part of both potential employers and non-disabled workers. With the recognition of these hurdles has come the realization the systematic integration of persons with disabilities in the workplace cannot occur without assistance in the form of government programmes and policies.

Since the goal is the inclusion of as many disabled persons as possible in competitive employment, it follows that many more disabled persons could be productively employed if appropriate policy measures were adopted, existing measures were effectively implemented and there was a greater national awareness of the real constraints affecting persons with disabilities.

This report does not offer new research findings. Rather, it presents a sampling of Canada's programmes and policies that target directly, or indirectly persons with disabilities, emphasizing the dimension of cost effectiveness. The objective is to present a descriptive examination of the country's existing programmes, including evaluations that have already taken place, and then make inferences as to what features of Canada's programmes are most effective, so that they might be incorporated elsewhere.

In this paper, all expenditures refer to Canadian dollars, unless otherwise indicated.

## II. Why have special employment programmes and policies for persons with disabilities?

The appreciation has come in recent years that it is not enough to simply provide equality of access to persons with disabilities. "People who have suffered deprivation in the past cannot be expected to compete on equal terms. As far back as Aristotle it has been recognized that it is not equal treatment to treat unequals equally." (Tarnopolsky, 1992, page 4.)

At an international level, these principles were given voice by the International Labour Organization when it adopted the Vocational Rehabilitation and Employment (Disabled Persons) Convention, 1983 (No. 159). The Convention calls upon member States to formulate, implement and review a national policy on vocational rehabilitation and employment of disabled persons. Moreover, it indicates that the policy "shall be based on the principle of equal opportunity between disabled workers and workers generally" and acknowledges that "special positive measures aimed at effective equality of opportunity and treatment between disabled workers and other workers shall not be regarded as discriminating against other workers" (Convention No. 159, Articles 2 and 4).

### Canada's programmes

Canada has responded to these international measures by recognizing that in certain cases, affirmative or positive action is needed to bring disabled persons, as members of a disadvantaged group, to the same starting line (Tarnopolsky, 1992, pages 2-4). These sentiments were most eloquently voiced by Madame Justice Rosalie Silverman Abella in her 1984 Royal Commission report on eliminating systemic discrimination in employment in Canada (Abella, 1984, page 273) when she noted that:

"Equality in employment is not a concept that produces the same results for everyone. It is a concept that seeks to identify and remove, barrier by barrier, discriminatory disadvantages ... Sometimes equality means treating people the same, despite their differences, and sometimes it means treating them as equals by accommodating their differences ... Formerly, we thought that equality only meant sameness and that treating persons as equals meant treating everyone the same. We now know that to treat everyone the same may be to offend the notion of equality ..." (Abella, 1984, pages 2-4).

The adoption of special employment programmes and policies designed for persons with disabilities, therefore, signals recognition that for certain categories of persons, structural, inherent or *systemic* barriers exist to the equitable participation in the workplace, and that these obstacles are beyond the control of the individuals concerned. For persons with disabilities, the causes of these obstacles may be physical, such as not being able to enter a building where the vocational training or the job is located. Or barriers may be based on stereotypical negative attitudes. Attitudes such as fear that the cost of accommodating persons with disabilities in the workplace is too high; that persons with disabilities are not productive; that other vocational trainees or employees will be uncomfortable in the presence of persons with disabilities and that customers or clients will not be comfortable. Still other attitudes relate to the assumed weakness or sickness of persons with disabilities and the impact this has on "their" ability to perform the job and/or complete a vocational training programme or to



succeed in a job. The common element is that they are all founded on assumptions based on one characteristic of a person, the presence of a disability.

Whatever the cause of the barriers faced by persons with disabilities, the result is that, globally, they experience, as noted by the Roehrer Institute, a leading Canadian policy centre on disability issues, employment outcomes that are significantly less favourable than the non-disabled working population (Roehrer Institute, 1992, pages 5-10 and 57) (see below).

To address these negative economic indicators and structural barriers to the equitable employment and integration of persons with disabilities into the mainstream of national life, Canada has instituted a set of policies and programmes that target directly, or provide for the participation of, persons with disabilities. Such initiatives may be divided into two broad categories. Affirmative action (known in Canada as employment equity) programmes and wage subsidy and vocational training measures of the federal Government commonly target four designated groups: women, visible minorities, native persons and persons with disabilities. On the other hand, supported employment, sheltered workshop programmes and disability income support measures directly target persons with disabilities.

However, Canada's programmes, unlike those of some other countries, are not delivered in a coordinated manner via a central agency or department, concerned with the training and employment of persons with disabilities. Rather, current policy and programmes are "splintered" across a myriad of federal and provincial agencies and ministries, that at times overlap in terms of both programme content and intended target group. Moreover, they are piecemeal and lack a guiding principle that recognizes that community based coordinating agencies are an essential element of a delivery structure. In fact, the situation is such that the comment has been made that "there is a tremendous fragmentation of services and very little information on where to go for services. The average person with disabilities doesn't have a clue where to start" (Roehrer Institute, 1992, pages 64 and 182). It is argued that this lack of overall coordination is itself a serious barrier to the cost-effective delivery of Canada's programmes.

While Canada's programmes and policies are fragmented, they all seek to deal with the following six perspectives concerning the problem of low economic outcomes experienced by people with disabilities (Roehrer Institute, 1992, page 15): that discriminatory labour market practices exist and can be remedied; that persons with disabilities face disadvantages in the labour market and that interventions can help remove them; that support services and rehabilitation can assist persons to either overcome personal limitations that affect their labour market participation or can enable individuals to enter the workforce despite these limitations; that providing persons with disabilities with access to needed education and vocational training will help remove barriers to their labour force participation; that contradictory eligibility criteria of the income security system affect the labour force participation of disabled persons.

### III. The importance of determining cost and other effectiveness indicators of programmes and policies for persons with disabilities

#### Government expenditures

A prime motivator for examining the cost-effectiveness of programmes and policies for persons with disabilities is the need to optimize government expenditures. Moreover, the optimization of government expenditures would, inherently, be congruent with the interests of the various stakeholders, such as workers' organizations and groups representing persons with disabilities. This is because such a process would result in more effective programmes, having a greater impact on the target communities.

For example, the *Vocational Rehabilitation of Disabled Persons Programme* (VRDP) is a major federal measure that funds initiatives on a cost sharing basis with the provinces. Total federal payments to the provinces under VRDP for the vocational training and rehabilitation of persons with disabilities in fiscal 1991-92 were Canadian \$149.7 million, an increase of 460 per cent over ten years. Another measure, the *Employability Improvement Programme* (EIP) administered by the federal Government, persons who experience disadvantages in the labour market (including but not limited to persons with disabilities) are assisted in achieving improved employability through wage subsidies and vocational training. Outlays for this measure were during the same period were Canadian \$865 million.

The magnitude of capital expenditures for such programmes is sufficient justification for requiring a careful determination of their cost-effectiveness. Also, in view of the variety of programmes and policies, a determination of effectiveness is necessary to ascertain which measure or mix of measures best equips persons with disabilities to actively participate in the competitive labour market. Cost evaluation from the point of view of economic efficiency tries to indicate whether the value of the outputs of a programme exceeds the inputs, and if so by what ratio. It can also compare the costs and results of alternative measures or of alternative ways of conducting any one programme (Barsby, 1972, page 8).

However, the importance of determining programme and policy effectiveness should not be limited to economic considerations. When the subjective elements are factored into the benefit calculations, either along with the economic factors, or as separate calculations, the analysis may be said to constitute a measure of *cost-effectiveness*. Analysis of cost effectiveness is less common than measures of economic cost benefits, due to their subjectiveness. However, such indices are equally valid points from the perspective of why it is important to conduct a review of programme effectiveness. Cost considerations cannot provide judgements as to the intrinsic worth of a programme. Cost alone cannot measure the personal experiences of programme participants in terms of increased self-esteem, increased absolute and personal academic and vocational skills achievement, whether persons completing the programme go on to be placed in occupations using the skills they acquired during the programme. Finally, cost considerations alone cannot measure the extent to which the programme is well-serving those persons for whom it was designed (Barsby, 1972, pages 9-13).

## Determining programme and policy cost-effectiveness for reasons of increased equity in employment

Essentially, the attainment of an equitable workplace for persons with disabilities is the overall goal; the specific programme and policy measures alluded to above are therefore ways in which this is arrived at. In this regard, it then becomes important to determine the cost-effectiveness of *specific* programmes and policies as a quantifiable measure of whether they contribute to society as a whole in terms of increased employment equity for persons with disabilities. In turn, the level of *how equitable* the workforce is for persons with disabilities can be shown in terms of four indicators (Roehrer Institute, 1992, pages 5-10 and 57; ILO, 1993, pages 1-2):

- *unemployment*: that the levels of unemployment of persons with disabilities should be no higher than the respective rate of the general workforce;
- *occupational representation*: that the presence of disabled persons at all levels of the workforce be equal to their representation in the general population;
- *income*: that income levels for persons with disabilities be equal to those of the non-disabled population;
- *participation*: that persons with disabilities experience a level of workforce participation comparable to the non-disabled population.

However, as discussed below, there is a dearth of studies of the cost-effectiveness of Canada's programmes for persons with disabilities.

The following portrait of the labour force situation of persons with disabilities, both employed in federally regulated industries covered by the federal *Legislated Employment Equity Programme* (discussed below), and in the general population, demonstrates that the creation of an equitable employment environment has yet to be attained.

### Representation and participation

The labour force picture of persons with disabilities is gleaned from the census, Health and Activity Limitation Survey (HALS), the employment equity reports published by the federal Department of Human Resources Development, and the Roehrer Institute. However, in considering these data, it must be recalled that the Employment Equity Regulations and the HALS use two different definitions of disability (Employment and Immigration, 1986, Employment Equity Regulations, section 3).

### Participation and occupational representation

In 1992, persons with disabilities represented 2.54 per cent of the workforce covered by the Employment Equity Act, compared to 2.51 per cent in 1991. This is much lower than 5.4 per cent, which is their share of the Canadian workforce as a whole. But, while disabled persons were under represented in nearly every occupation and in every industrial sector, their occupational patterns were consistent with the general workforce under the legislation.

On the other hand, disabled persons were over represented in clerical positions (20.42 per cent of disabled men were clerical workers compared to 14.91 per cent of all men; 66.17

per cent of women with disabilities were clerical workers compared to 60.45 per cent of all women). They were under represented in blue-collar trades and technical jobs (Human Resources Development Canada, 1993, pages 37-39).

The above data just represent persons with disabilities who are employed under federal jurisdictions in enterprises of at least 100 employees. When considering the total population, persons with disabilities are almost twice as likely as non-disabled persons to have a history of labour force non-participation. The Health and Activities Limitation Survey reports that of the 2,297,135 disabled Canadians between the age of 15 and 64, 56.3 per cent participate in the labour force; this compares to a participation rate of 80.8 per cent for persons without disabilities (Statistics Canada, 1993, page 5).

### **Income**

The salaries of persons with disabilities who were working closely resembled those of all persons in the workforce covered by the Act. Disabled women earned \$31,622, or 95.44 per cent of all women. Disabled men earned on average \$44,235, or 98.24 per cent of all men (Human Resources and Development Canada, 1993, page 39).

However, it must be recalled that the workforce covered by the federal affirmative action legislation accounts for only about 10 per cent of the total Canadian labour force. Moreover, these figures represent employed disabled persons. When the total disabled population is considered, adults with disabilities are just over half as likely as non-disabled adults to have earnings of \$35,000 or better (8 per cent v. 12.1 per cent), and are much more likely to have incomes of less than \$10,000 than non-disabled persons (44.4 per cent v. 55.7 per cent) (Roehrer Institute, 1992, page 9).

**Table 1. Representation of persons with disabilities in full-time hirings by occupational group (percentage)**

Occupational group	1987	1991	1992
Upper-level management	0.37	0.46	0.70
Middle managers	0.74	1.61	1.93
Professionals	0.81	1.23	2.09
Semi-professional and technical	0.42	0.56	0.83
Supervisors	1.13	2.51	1.69
Foremen/women	0.93	0.68	1.55
Clerical workers	0.77	1.60	1.88
Sales workers	0.31	0.57	0.35
Service workers	0.63	0.45	0.62
Skilled craft and trades	0.79	1.23	0.95
Semi-skilled	0.21	0.54	0.65
Other manual	0.88	1.21	1.32
All occupations	0.66	1.13	1.34

Source: Human Resources and Development Canada, 1993, pp. B-10 and B-11.

### **Determining programme and policy cost-effectiveness for reasons of resource limitations**

These budgetary concerns have fuelled a debate as to whether the measures in place on behalf of persons with disabilities are carrying out their role in a cost effective manner. The effectiveness of social assistance measures in general and those specifically targeting persons with disabilities have been criticized. Clearly, given the caveat of reduced spending, if the goal is increased outcomes in the four employment indices for persons with disabilities, then it is incumbent upon the social partners to ensure that the programmes and policies put in place be as effective as possible, from a cost perspective yes, but also from a qualitative indice.

## IV. Methodological issues

It is tempting to look at the measurement of cost-effectiveness of programmes for persons with disabilities strictly from a simple input/output perspective. Cost-effectiveness in such a scenario could be viewed in terms of the number of disabled individuals who obtain gainful employment per unit of currency spent after factoring in total components of programme(s) such as wage subsidies, alterations to worksites, training costs, etc. However, such an approach is unsatisfactory. As it has been noted, cost-effectiveness, by definition, includes qualitative dimensions. And, because of the qualitative elements, which are often not quantifiable, determining cost effectiveness presents a number of methodological dilemmas, both in terms of measuring costs at the input phase as well as measuring benefits at the impact or output stage.

### Input issues

At the input level, a major methodological issue relates to how to allocate costs. This problem of "joint-costs" arises when a given expenditure serves more than one activity. Barsby (1972) notes that there is no "right" way to determine which portions of these costs to allocate to various activities; sometimes the entire issue is ignored, while others base the allocation on the proportional size of the activity (page 14).

Another problem relates to the accurate measurement of disabled persons to be included in certain policies and programmes when developing labour market availability statistics. As explained below, this is due to the subjective nature of the disability determination process. In the Canadian context, this issue is further clouded by problems in determining *who* is disabled in terms of the various programmes because of differing definitions of disability.

### Identifying disabled participants in the context of integrated training and employment

Since the 1940s, there has been a steady movement away from the notion that persons with disabilities should be segregated from the general population. Rehabilitation is now seen to be the process by which disabled persons may integrate into the *mainstream* of national life, with as much financial and personal independence as possible, dependent upon needed family and government support and appropriate employment. However, the movement towards mainstreaming has a direct impact on the identification of persons with disabilities as programme participants. Increasingly, training and other programmes do not contain separate identifiable eligibility criteria for participants with disabilities in an attempt to provide such persons with the same training opportunities as those given to non-disabled individuals in an integrated setting.

As a case in point, clients may participate in the various components of the employability improvement programme if they *are facing serious labour market difficulties* (Employment and Immigration, 1992(a), Appendix A, page 2). The only way disabled participants may be identified is if they agree to self-identify on a voluntary basis. Canada, unlike jurisdictions such as Germany, does not have a system by which persons with disabilities are registered a priori on the basis of degree of disability following a medical examination (Baker, 1992, page 16). The Government's policy recognizes that certain individuals are hesitant about voluntarily agreeing to self identify. It notes that it is the responsibility of the employment office to persuade clients that it is to their advantage to do

so, but that if they refuse, the client's wishes should be respected (Employment and Immigration, 1987, page 1).

Research concerning the representation rates for disabled individuals in the public service of Canada indicates that self-identification statistics tend to understate the true numbers of persons with disabilities. For example, while the self-identification rate in the 1986 Census in all industries for persons with disabilities was 5.2 per cent, and while census coding of the representation of disabled persons in the public service for 1987 was 5.5 per cent, self identification data from the public service indicated a representation rate of only 2.6 per cent in 1987 and 2.8 per cent in 1989 (Hara Associates, 1993, pages 10-12). There are indications that the Employability Improvement Programme (EIP) experiences similar under identification. In this regard, one departmental official has indicated that because of the subjective element, the reported number of persons with disabilities participating in the EIP is a "guesstimate".

### **The self-identification of persons with disabilities and programme cost considerations**

The issue of self-identification of disabled persons directly impacts on the reliability of the database. Although disability for the purposes of the various wage subsidy and vocational training programmes under the EIP is not defined in the programme guidelines, by consensus departmental staff use the definition found in the federal Employment Equity Act. In that definition, persons with disabilities:

- (i) "have any persistent physical, mental, psychiatric, sensory or learning impairment;
- (ii) consider themselves to be, or believe that an employer or a potential employer would be likely to consider them to be, disadvantaged in employment by reason of an impairment referred to in subparagraph (i); and
- (iii) for the purposes of section 6 of the Act, identify themselves to an employer, or agree to be identified by an employer, as persons with disabilities ..." (Employment Equity Regulations, 1986, section 3(b)).

However, the reliability of the database, and hence the cost/participant measurement, is affected by the aforementioned subjectivity of the self-identification process itself. If the number of disabled participants is underestimated, then the reported programme cost per disabled participant is higher than it would be if a reading of the true participation rate was available.

Because the database of disabled persons is based on a subjective measurement, two persons with the same physical impairment might not necessarily both consider themselves disabled for the programme. Remember, the criterion for admissibility to the Employability Improvement Programme is to be facing serious labour market difficulties, not disability; persons with disabilities may be eligible to participate under other criteria. This would have serious implications when *allocating costs* to measures that are used by both disabled and non-disabled persons. Moreover, the reliability of the participant database would adversely impact on the output phase when assessing whether the programme has met its objectives on behalf of persons with disabilities (Employment and Immigration, 1987, page 1). Such "undercounting" also affects how an enterprise subject to the federal affirmative action legislation would be assessed as to the effectiveness of its programmes.

### **Cost allocation problems associated with issues of worksite modification (reasonable accommodation)**

In order to allow persons with disabilities to participate in integrated training or employment, it is sometimes necessary to modify the worksite, either through physical alterations, or by changing working conditions in some manner.

Reasonable accommodation can be understood as a means of removing the barriers which prevent persons with disabilities from enjoying equality of opportunity in vocational training and employment in a way that is sensitive to their *individual* circumstances, in order that the community at large can benefit from their active participation. Lepofsky (1992) notes the core of accommodation is the "tailoring of a work rule, practice, condition or requirement to the specific needs of an individual or group. ... The litmus test of the accommodation's necessity is whether such a measure is needed to ensure that the worker can fully and equally participate in the workplace" (page 3).

Certain worksite modifications such as installing access ramps, adding Braille markings on elevators or installing accessible toilets are clearly meant to be utilized by persons with disabilities. From a methodological perspective, there is no doubt that these expenses should be allocated towards the cost of the programme or policy for persons with disabilities. However, the modifications to the worksite, especially those involving policy change as opposed to physical alterations, can sometimes benefit all employees, or categories of employees other than persons with disabilities. How to allocate costs in such situations is problematic. For example:

- flexible work hours and telework can often be a way in which organizations can reasonably accommodate persons with disabilities who experience mobility or transportation limitations. But, such accommodations may also be used on an ongoing basis by employees who must alter their work schedules to accommodate other members of the family for reasons of child care, etc.;
- many organizations provide employee assistance plans (EAPs) to their employees. Traditionally, employee assistance plans have been used by persons who have substance abuse dependencies for purposes of rehabilitation. However, EAPs are increasingly being accessed by non-disabled workers in order that they might receive counselling for various, non-disability related situations (such as financial advice);
- persons with certain disabilities may be accommodated through the use of modular office furniture. However, this same furniture may be used by non-disabled persons as aids to prevent injury.

### **Output or impact issues**

At the output phase, there are a number of *qualitative* issues that impact on cost-effectiveness considerations. We want to know whether measures such as the affirmative action programmes are increasing the employment equity experienced by persons with disabilities as measured by the four indices noted above. Moreover, wage subsidy schemes affect employment in a number of ways; the duration and number of jobs created, as well as the impact of changing labour market conditions are methodological issues that are subject to varying interpretations. It is equally important to know the impact of such factors as self-confidence, optimism, the work ethic, belief in success, aspiration and motivation on the



success of programme interventions. However, there is often a lack of data for measuring these qualitative issues (Morrison, 1994, page 2; Barsby, 1972, page 19).

### Are programme impacts a cost or benefit?

From a methodological perspective, it is sometimes difficult to determine whether the impact of a programme should be considered a cost or a benefit. As Thornton and Maynard (1986) note, impacts that are perceived as benefits by some may be seen to be costs by others (page 165).

An illustration of this is the change in receipt of income support payments. A reduction in the average payments made to participants represents a savings to the Government; the same impact will be perceived as a cost to those who had received a reduced pension. From the social perspective, this change will be a benefit, cost, or neither according to how society regards the change in the distribution of resources and that if the evaluation seeks to determine economic efficiency or equity, "a more complex strategy is required". Such a complex strategy is hypothesized to identify three perspectives:

- the *social perspective* includes those impacts that could affect the "aggregate value of social resources" and can judge economic efficiency;
- the *participant perspective* would show whether participants benefit on average from the programme and whether they could be expected to enroll voluntarily;
- the *taxpayer perspective* indicates whether a subsidy would be necessary to operate the programme.

The participant and taxpayer perspectives can assess the magnitude of equity or redistributive effects. If it is presumed that a dollar of benefit or cost is equal for all persons in society, then the sum of the participant and taxpayer perspectives will equal the social perspective; i.e. all transfers between the two groups will cancel out. For example, a *supported employment* programme may be defined as competitive, employer paid work in integrated settings where ongoing assistance is provided for severely disabled individuals who have previously not traditionally received rehabilitation or experienced competitive employment. Using this approach to analyse the costs and benefits of the components of a supported employment measure would show, with reference to the impact on project operations, that there was a cost to the taxpayer but there was no monetary outlay on the part of the participant. Therefore, there was a cost to society. On the other hand, the same approach employed to examine the impact on the reduced use of other programmes (such as sheltered workshops) would demonstrate that there was a benefit (reduced expenditure) to the taxpayer, and again no monetary outlay by the participant, yielding a benefit to society. Finally, to look at the same supported employment programme from a different perspective, transfer payments and taxes, the cost effectiveness analysis would show that there was a benefit to the taxpayer in the form of reduced transfer payments, but a cost to the participant due to reduced disability pension or other passive income benefit. Therefore, the benefit to the taxpayer cancels out the benefit to the participant and there is a neutral benefit to "society" as a whole (Thornton and Maynard, 1986, pages 165-166). Of course, this "neutral" benefit excludes the social and participant perspectives.

### **Intangible considerations**

A limitation of the foregoing (or for that matter any) analysis is the difficulty in putting a quantitative measure on qualitative issues. Intangible considerations include the participants' preference for remunerative employment as opposed to receiving passive income support, and changes measures of personal independence and increased or decreased stress levels. These issues are very important in evaluating employment programmes, especially when the programmes are being assessed on the basis of equity levels. Typically, if these indices are included in the accounting framework, they are left unmeasured (Thornton and Maynard, 1986, page 167).

### **Accessibility as a function of measure of programme cost-effectiveness**

Another methodological problem is how the accessibility of the ambient environment impacts on the measurement of cost effectiveness of programmes for persons with disabilities.

It is expected that training programmes designed to enhance the employability skills of persons with disabilities would be delivered in an accessible environment. However, if following the programme, the disabled person cannot get to work because the public transportation system is not accessible; if the disabled person cannot enter the place of work because the building doors do not accommodate wheel chair users; if outreach programmes are not put in place to address the negative stereotypes and attitudes persons with disabilities face when seeking employment; if the educational system does not provide the necessary training adapted to the needs of the disabled individual, then the practical result is to limit the effectiveness of the programme's impact. There are costs involved to overcome these structural barriers; from a methodological perspective, the question, essentially unanswerable, is how they should be accounted for?

Related to this issue is the question of how to apportion costs (or benefits) for ancillary programmes that impact on persons with disabilities. For example, it is known that persons with disabilities globally have lower levels of education than the non-disabled population. If the goal of a specific programme is to raise literacy levels and disabled persons participate, thereby allowing them to raise their skills to compete equitably with non-disabled persons, then the measure of the programme success would be the increased literacy level per programme dollar spent. Such a programme would not measure how many disabled persons were subsequently placed in employment as a result of increased abilities.

### **Methodological concerns of the Government of Canada**

As this paper concerns the cost-effectiveness of government programmes on behalf of persons with disabilities, one would be remiss if the methodological concerns as published by the Canadian Government were not presented.

The Office of the Comptroller General, Treasury Board of Canada (1991) notes that the specification, measurement and valuing of costs and benefits raises two problems; the identification and measurement of all costs and benefits and their reduction to a common denominator. Problems relating to measurement and identification stem from the fact that many programme effects (social, psychological, etc) cannot be isolated and measured. For example, in the cost-benefit evaluation of a treatment programme for persons with mental

disabilities, evaluators were unable to obtain impact data on the burden that such patients impose on neighbours and co-workers. The second concern is that all benefits and costs cannot be changed into monetary values. The Treasury Board notes (pages 5-37 and 5-38) that:

"To place dollar values on educational results, health results (the value of human life or its quality), or equity and income distributional results, is difficult, and any such valuations are highly debatable. As well, government accounting systems may make it difficult to identify costs. If not all relevant benefits and components are included in the cost-benefit analysis, or if they are discarded because they cannot be converted into monetary values, the results of the analysis may be very misleading. Furthermore, once converted into monetary values, the costs and benefits have to be discounted to a common point in time in order to be added and compared. ... Cost effectiveness analysis allows for the comparison and ranking of programs. However, since the benefits are not converted to the same common denominator, it is impossible to determine the net worth of a program, or to compare programs in different areas."

## V. Evaluation studies of various major programmes for persons with disabilities

In this section, a sampling of evaluations of Canada's programmes and policies that target directly, or indirectly, persons with disabilities are presented, highlighting to as great an extent as possible, cost-effectiveness considerations.

However, an observation as to the lack of evaluative studies is in order. The OECD has noted, concerning wage subsidies, that "the lack of evaluative efforts is striking." Crude evaluations in some instances consist of noting that a wage subsidy programme exists, and the number of subsidized disabled persons in employment increased during the period (OECD, 1992, page 39). Regretfully, this observation concerning the dearth of cost-effectiveness studies for wage subsidy programmes holds true equally for Canada's myriad initiatives on behalf of persons with disabilities. As is indicated in this section, very few evaluations from a cost-effectiveness perspective have been carried out; those that specifically target persons with disabilities are even less common.

The fragmentation of the nation's programmes, and the division of delivery between federal and sometimes duplicated provincial initiatives can, in large measure, be explained by the nature of Canadian federalism, with the provinces ever guarded against what is perceived as the encroachment of the federal Government into matters of provincial concern. As an example, the entire issue of vocational training (including the programmes alluded to in this paper) are now the object of intense negotiations between levels of government. Federal programmes are deemed by some provinces to be an unwarranted intrusion into what is felt to be an area of their control; the result is that, in some cases, there are now competing federal and provincial initiatives. Moreover, the fragmentation of the country's programmes and policies hinders looking at, or even cataloguing, all the country's measures in place; even the "experts" are not sure what all the programmes and policies are. In this regard, speaking with reference to the extent of mainstream vocational training programmes in place, this author was told quite bluntly that, "there is no Canadian database of such programmes, and frankly it is doubtful there ever will be one". The fragmented and jurisdictionally divided nature of Canada's programmes and policies are themselves systemic barriers to their cost-effective delivery.

Although the Canadian approach is, as previously noted, splintered between various levels of jurisdiction, the overall policy framework has been operationalized by a number of individual federal and provincial programmes, such as human rights (anti-discrimination) legislation; the employment equity (affirmative action) legislation; the Vocational Rehabilitation of Disabled Persons Act and Agreements; the Canada Jobs Strategy and the Labour Force Development Strategy; employability enhancement agreements for social assistance recipients; workers' compensation legislation; provincial programmes for education and training (Roehrer Institute, 1992, page 16). To the above list must be added the affirmative action programme for the Government's own employees, and the disability support measures under the Canada Pension Plan.

Because of this programme fragmentation, this report examines the evaluations of various individual measures, without giving a sense of the "global picture". Moreover, not all programmes have been presented herein. For example, the human rights legislation is not a "programme" as such, rather, legislation that addresses discrimination in employment on the ground of disability. That said, it is noted that programmes cannot be compared against one another for cost-effectiveness indicators, because their immediate goals are different, albeit that, as noted, the overall objective is the enhancement of the four measures of equity for

persons with disabilities. However, this report does make proposals as to which elements, *within* each programme or policy, seem most effective.

### **Affirmative action**

A major government employment initiative on behalf of persons with disabilities are the federal affirmative action measures. These programmes are officially referred to in Canada as *employment equity*, but the term *affirmative action* is more commonly understood internationally, and is used in this study. Although from an expenditure perspective, other government programmes are more costly, affirmative action is probably the best known and most controversial initiative.

The affirmative action programmes at the federal level cover workers who work in enterprises that come under the jurisdiction of the federal (central) Government. The federal initiative is one of many (federal, provincial, municipal and voluntary measures) in effect across Canada, but is the only one that is uniformly applicable across the country, and has been subject to an extensive review process. As such, it is the initiative that is examined in this report.

The Canadian Government has utilized three approaches to encourage affirmative action. First, the federal anti-discrimination legislation, the *Canadian Human Rights Act* contains a section that authorizes enterprises not subject to the Employment Equity Act to establish voluntary Employment Equity Programmes. Secondly, the Government has implemented uniform legislation, the *Employment Equity Act* requiring the enterprises employing more than 100 persons under federal jurisdiction to commit themselves to employment equity. Finally, under the *Federal Contractors Programme*, companies with more than 100 employees who wish to do business with the federal Government must, in exchange for being awarded contracts exceeding \$200,000, agree to develop and implement an Employment Equity Programme (Kelly, 1991, pages 235-236). This paper examines the programme under the Employment Equity Act and the Federal Contractors Programme. The provisions of the Canadian Human Rights Act merely authorize individual enterprises to engage in positive measures; they are not organized "programmes" as such.

To assist in an understanding of the cost effectiveness issues surrounding employment equity, the historical considerations for the introduction of these programmes are presented.

### **Legislative overview and historical evolution**

In Canada, the concept of affirmative action was first introduced in the Canadian Human Rights Act (CHRA), enacted in 1978.

The CHRA bans individual acts of discrimination in the employment as well as the pursuit of discriminatory employment policies and practices (CHRA, 1978, sections 7 and 10) based on ten grounds: age, sex, religion, marital status, family status, national or ethnic origin, colour, race, pardoned conviction and disability. The Act also *allows* organizations to adopt or carry out what are deemed to be "special programmes" designed to prevent or eliminate disadvantages that may be suffered by any group of individuals when those disadvantages are related to one of the ten grounds of discrimination found in the Act (CHRA, section 16(1)). The CHRA, then, provides for a kind of "voluntary" affirmative action.

Despite the anti-discrimination legislation in place, it became clear that the existing anti-discrimination statute could not deal with the structural or "systemic" discrimination in the Canadian workplace experienced by women, visible minorities, disabled persons and

aboriginal peoples. Following recommendations contained in the report of the 1984 Royal Commission on Equality in Employment chaired by Judge Rosalie Abella and of the Parliament of Canada's Standing Committee on Justice and Legal Affairs which reviewed the equality section of the Charter of Rights and Freedoms, the *Employment Equity Act* was passed in 1986.

### **Requirements of the current Canadian affirmative action legislation**

The legislation mandates the institution of *positive policies and practices* to ensure that persons in designated groups (women, aboriginal peoples, persons with disabilities and persons who are visible minorities in Canada) "achieve a degree of representation in the various positions of employment with the employer that is at least proportionate to their representation (i) in the workforce, or (ii) in those segments of the workforce that are identifiable by qualification, eligibility or geography and from which the employer may reasonably be expected to draw or promote employees" (Employment Equity Act, section 4). In Canada, then, there is no quota scheme on behalf of persons who are members of designated groups. Rather, the Canadian programme seeks the attainment of an "equitable" workforce. In other words, if it is determined that 5 per cent of qualified computer programmers in the general population are disabled, 5 per cent of the computer programmers XYZ company employs should also be disabled. Organizations are required to report the percentage of disabled persons employed in the enterprise as a whole as well as in specific occupational categories. If the percentage is below what is determined to be available based on labour force data, the offending organization may be subjected to a formal complaint to the *Canadian Human Rights Commission*.

The Canadian affirmative action legislation calls upon employers:

- to eliminate practices that result in systemic or structural employment barriers;
- to institute measures that will ensure that persons who belong to one of the four designated groups subject to the employment equity law achieve a degree of representation in the various positions of employment with the employer that is proportionate to their representation in the workforce;
- to prepare yearly plans that outline the employment equity goals that they propose to achieve as well as timetables for implementing them.

Covered by the legislation are organizations of 100 or more employees under federal jurisdiction, the exceptions being private works in the Yukon and Northwest Territories, or a government department (Employment Equity Act, section 3). There are in Canada 345 employers under federal jurisdiction subject to the Employment Equity Act that in 1993 encompassed 603,000 jobs (Canadian Human Rights Commission, 1992(a), page 8; Human Resources Development Canada, 1993, page 3). The Government has a separate Employment Equity Programme for its own employees, known as the "special measures programme," referred to elsewhere in this paper.

Under the legislation, employers are required to submit annual reports indicating the industrial sector in which employees of the employer are employed; the occupational groups of the employer and the degree of representation of persons in designated groups in each occupational group; the salary ranges of employees and the degree of representation of persons in designated groups in each range and prescribed subdivision thereof; and the

number of employees hired, promoted and terminated and the degree of representation in those numbers of persons in designated groups (Employment Equity Act, section 6).

#### **Federal contract compliance programme**

Under the Federal Contractors Programme, established by the federal Government for enterprises with which it does business, suppliers of goods and services who may not necessarily be subject to the Employment Equity Act, (such as employers who come under the jurisdiction of the various provincial governments) but who employ more than 100 employees and bid on contracts of \$200,000 or more must implement employment equity for the four designated groups. Under the programme, companies must agree to a number of activities that promote employment equity, including collecting and compiling information on the workforce, establishing a system to track hiring, promotion, training and termination, establishing goals for designated group employees and developing an employment equity workplan. The programme provides for monitoring and compliance review procedure by the federal Government. Companies that fail to respect their engagements can be subjected to sanctions, including eventual exclusion from bidding on federal government contracts (Employment and Immigration, 1987).

It must be clearly understood that the focus of Canada's positive action programmes is on the detailed reporting of employment data by enterprises. Neither the Employment Equity Act nor the Federal Contractors Programme require the hiring of anyone!

#### **The financial responsibilities of enterprises**

In considering the costs of employment equity measures, it must be recalled that while the federal Employment Equity Programme is based on legislation and government policy, the financial responsibility for the implementation and administration of these measures is borne by individual enterprises. Canada does not have a programme, such as exists in Germany, where firms that do not attain their quota of disabled employees must pay a levy that goes into a fund which can be used to provide disabled persons with technical supports and workplace modifications to allow them to pursue their training in an integrated setting. However, while such public sector fund does not exist in Canada, certain expenses to accommodate persons with disabilities are cost-shareable with the provinces pursuant to programmes funded under the federal *Vocational Rehabilitation of Disabled Persons Act* (see below).

#### **Reasonable accommodation input costs as a function of affirmative action**

Reasonable accommodation, discussed in Part III, is the key element of, and flows as a logical consequence to the affirmative action process. The affirmative action process asks employers to take the positive measures designed to achieve equality. Reasonable accommodation is the requirement for employers and training facilities to look at the different ways in which individuals and categories of persons (such as disabled people) may be accommodated, in order to achieve equity in the workplace.

While the *majority* of costs associated with workplace modifications are borne by the enterprise, this is not to say that organizations must undertake all necessary changes to the workplace to accommodate the disabled worker. Rather, it is not necessary to undertake changes if the accommodation becomes "unreasonable", or, an "*undue hardship*" for an employer when the *costs* would substantially adversely affect the financial viability of the enterprise. While this is a subjective measure, from an effectiveness perspective, such an input cost would not be seen to be an undue hardship, but should rightly be perceived as a benefit, if it results in an improvement in the productivity or efficiency of the enterprise, an

increase in clientele or potential labour pool, an increase in resale value of property or results in tax deductions or other government benefits (Ontario Human Rights Commission, 1989, pages 8-19).

Another perspective on the input costs of enterprises is the notion that affirmative action measures should be seen in the same light as any *business investment*, as opposed to an extraordinary administrative cost burden. If affirmative action is the rationalization of the enterprise's human resources, then the failure to execute a proper affirmative action programme equates to the inefficient use of the organization's workforce. Instituting corrective measures, would imply the existence of moderate or substantial costs. These, however, should not be imputed to the affirmative action programme, inasmuch as they reflect actions the implementation of measures that the company should have performed anyway. On the other hand, costs are incremental or non-existent for organizations with good human resource management systems in place. Based on such an analysis, affirmative action measures could be seen to be almost free. With reference to the Canadian Government's internal affirmative action programme, Hara Associates have noted that: "Departments must hire and train staff to carry out their objectives. If the hiring is allocated to qualified members of designated groups (such as persons with disabilities), this need not increase the total number hired. In the pure case, cost becomes only the administrative cost of monitoring and ensuring equitable hiring practices. ... A portion of the participant dollars is 'free', since it represents funding of activities that would have taken place in any event." (Hara Associates, 1993, page 39; interview Phillips.)

#### **Input costs to the enterprise**

Certain administrative costs enterprises face may be directly attributed to the affirmative action process. Robb and Robb (1993) cite Gunderson (1992) who contends that the "real resource administrative costs" *for the US* of carrying out an affirmative action programme is between \$100 to \$200 per employee; the methodology of how these figures were arrived at was *not* reported. Similar cost figures were reported by the Conference Board of Canada in a 1992 survey of employers (Robb and Robb, 1993, pages 24-25; Benimadhu and Wright, 1992, page 17).

While the above noted survey results give an idea of the amount of resources that are committed to the affirmative action process, they do not provide any insight as to the administrative structures needed to implement these measures. In this regard, Harvey (1993) maintains that affirmative action costs to the individual organization are readily identifiable and visible. On the other hand, benefits are at times intangible and go unmeasured and unnoticed (Harvey, 1993, page 1). He postulates that in a medium-sized enterprise operating two manufacturing plants and one service office in three different locations, costs would include one permanent employment equity coordinator, one-half person-year of support staff plus overhead and office equipment including one dedicated personal computer and appropriate software. Added to this would be consultative and other costs incurred in the development of the affirmative action plan and the workforce data survey collection. Once the plan has been developed and the workforce survey completed, there are costs inherent in the establishment of a labour management task force to oversee its implementation over a three-year cycle. Activities of such a task force would include the review of personnel policies, the adoption of sensitivity training and the establishment of outreach programmes to target communities (i.e. persons with disabilities), the validation of recruitment methodologies and the provision of accommodation measures, such as technical aids, the removal of architectural and other barriers as well administrative costs inherent in the implementation of a flexible hours programme. Additional input costs relate to the



maintenance of the workforce database via annual employee surveys, analysis and internal reporting activities to monitor compliance with the plan and ongoing communications with all personnel. Finally, there are costs involved in preparing the annual workforce report to the Government (Harvey, 1993, pages 1 and 61-63).

Harvey's model represents the ideal administrative steps that should be followed if employment equity is to be integrated into the operations of an enterprise. Naturally, not all businesses will undertake each of these measures, which will reflect upon input costs. In this regard, persons responsible for the application of the federal affirmative action programmes at a large bank and a railroad note that while the salary and other expenditures of the responsibility centre where the affirmative action programme is situation may be accounted, it is otherwise not possible, from an accounting perspective, to cost the myriad other equity activities. This is largely due to the fact that employment equity functions are seen to be integrated into other business activities (interviews White and Tellier).

### **Cost to the Government**

Just as the private sector finds it difficult to assign costs to affirmative action measures due to programme integration, it is similarly not possible to account for all costs to the Government. That said, the expenditures of the two departments that are responsible for the application of the programme are presented.

The *Department of Human Resources Development* is responsible for the legislated employment equity and Federal Contractor Programmes. Approximately 50 per cent of the budgetary resources of both programmes are allocated to promotional activities; 50 per cent are consumed by the administration of the programmes. Moreover, an additional \$2 to \$3 million are expended by other branches in direct and indirect support of the programme (ABT Associates, 1992(a), page 36; ABT Associates, 1992(b), page 43; interview Caron). The *Canadian Human Rights Commission*, is Canada's watchdog anti-discrimination agency at the federal level. For the year ending 31 December 1993, the it expended approximately \$2 million on employment and pay equity activities; about \$1 million are devoted to employment equity. Programme expenditures have not been costed out in greater detail (Canadian Human Rights Commission, 1994; interview Pau).

### **The impact of affirmative action on enterprises and society**

#### **Econometric models of levels of employment and productivity: Theoretical framework**

Most economic analyses begin by assuming perfect market competitiveness. Such an assumption would imply that the allocation of the current workforce was optimal and all were working where marginal products were highest. In this scenario, wage differentials (categorized on the basis of race, gender or disability) would truly reflect productivity differences between workers. Robb and Robb (1993) note that market interference by an affirmative action program would lead to reduced efficiency and would involve real administrative costs. Moreover, because workers are already assumed to be optimally allocated, affirmative action measures in such a scenario would result in lower productivity workers being integrated into higher productivity jobs, with the consequence that overall productivity in the economy would fall. However, as the authors note, such an analysis implying perfect competition is "inappropriate", given the existence of widespread wage differentials and occupational segregation; analyses that allow for discriminatory preferences are more consistent with the true situation (Robb and Robb, 1993, page 8).

In most economic models of labour market where discrimination is assumed to exist, its source is assigned to "tastes" and/or beliefs of some group in the economy. "The two main examples of such models in the literature are (1) the taste models of Gary Becker in which discrimination occurs because of the discriminatory attitude on the part of employers, employees and/or customers; and (2) statistical discrimination models in which discrimination arises because of the beliefs of employers about the productivity of various groups of workers." (Robb and Robb, 1993, page 9.) Discrimination is reflected in the readiness of employers, for example, to employ males as opposed to equally productive females unless the cost saving is greater than a certain threshold. Such a scenario would predict occupational segregation with women slotted into lower paying jobs, referred to as "crowding". With reference to productivity in such a model, this factor is seen to be a "continuous variable"; workers in any given job have a distribution of productivity (Robb and Robb, 1993, page 10).

In such a discrimination-present economy, the presence of affirmative action programmes encourage employers to hire women, visible minorities, aboriginal peoples and persons with disabilities. The economic model assumes that it should be possible to find workers among the designated groups who are equally productive as the existing labour force. If sufficient numbers of designated class workers can be hired, it would result in productivity improvements for the enterprise. At the *level of the economy as a whole*, "to the extent that there is a net movement of workers from jobs and sectors where their marginal productivity was lower, *output in the economy should improve*" (Robb and Robb, 1993, pages 9-10).

### **Affirmative action and enterprise behaviour**

Apart from demonstrating inequitable outcomes for persons with disabilities, the portrait of the situation of persons with disabilities in the workforce noted above could also be used as a tool in determining which elements of the various components of the affirmative action programme are the most cost effective. One measure of cost effectiveness could be how the diverse components of the affirmative action plan, such as workplace vocational training programmes, outreach recruitment programmes to groups representing persons with disabilities, sensitivity training to non-disabled co-workers and the institution of reasonable accommodation policies impact on the four benchmarks of an equitable employment environment (Faundez, 1994, page 42).

Regretfully, there have not been any cost effectiveness studies of the affirmative action programme from the above-noted perspectives. Moreover, there have been no empirical studies to indicate which elements of the affirmative action plan are most cost-effective and there has been little research concerning the relationship between the elements of an affirmative action plan and plan effectiveness; most criteria believed to be essential for the effectiveness of affirmative action plans are based on the *opinions* of researchers and human resource executives. "It has been assumed that if organizations adopt EEPs (employment equity plans) that incorporate all of these characteristics, then the program will be *automatically* (emphasis added) effective, and employment equity will be achieved". Citing Jain and Hackett (1989), Leck and Saunders (1991) indicate that affirmative action effectiveness is operationally defined ... as the extent to which EEPs adhered to the guidelines provided by the federal Government. The argument then becomes circular. How is employment equity achieved? By ensuring that the EEP adopted follows the federal guidelines. What will following the federal guidelines yield? An EEP that is effective and achieves employment equity (interviews Phillips and White; Leck and Saunders, 1991, page 7).

To partially address this lack of research concerning the effectiveness of affirmative action plans, Leck and Saunders (1991) probed the impact of the federal programmes: (1) by

examining enterprise commitment to the affirmative action process; (2) by identifying the relationship between affirmative action plans and the attainment of one measure of an equitable workforce representation as evidenced by equitable hiring, and; (3) by determining whether or not the presence of an affirmative action plan has a significant impact on the organization's ability to attain a representative workforce over the influence of other factors that affect enterprise behaviour, such as the power and influence of the human resource management department, seniority issues and the business environment (Leck and Saunders, 1991, pages 8-11).

Leck and Saunders found that less than half of the organizations surveyed had formalized their affirmative action plans (45 per cent) and timetables for action (43 per cent). Most surprisingly, they found that 18 per cent of the enterprises surveyed did not have any affirmative action programmes in place, notwithstanding the legal requirement to have such a measure. Leck and Saunders also found that only 63 per cent of enterprises integrated their affirmative action plan within the human resource management function by establishing a reporting relationship to an executive level; the authors felt that this negatively impacts on the effectiveness of the affirmative action process and puts into question the commitment of many enterprises to the affirmative action process (Leck and Saunders, 1991, pages 12-17). In other words, organizations may not be serious about achieving employment equity and may only be concerned with fulfilling the reporting requirements. As a consequence, some organizations may be hiring designated group members that maximize public acceptance and minimize hiring costs. In this regard, the legislation itself may be a factor. The authors noted that the slow progress in achieving equity may be due to the failure of the legislation to state clearly the type and magnitude of expected changes as well as what happens if equity is not achieved (Leck and Saunders, 1991, pages 16-17 and 25).

Concerning the relationship between affirmative action plans and the attainment of representative hiring, the authors found that three factors: formalization, comprehensiveness and management commitment and support were the greatest predictors of success. Their research indicated that formalization and comprehensiveness were significantly correlated with the representative hiring of management (ethnic) visible minorities and non-management disabled persons. They also noted that the three dimensions were weaker indicators of representative hiring for persons with disabilities than for (ethnic) visible minorities or women. The reasons why affirmative action plans have a differential impact levels were unclear; the authors opined that it might be that organizations believe they cannot raise representational levels of all groups every year, and concentrate on one or two groups. Alternatively, it may be due to the need to put in place different plans to achieve results for different groups (Leck and Saunders, 1991, pages 17-21). Finally, Leck and Saunders also found that after controlling for other factors, the "total EEP effort" (based on the number of characteristics that describe the organization's EEP) does explain the variance in the hiring of (ethnic) visible minority persons in both management and non-management positions. On the other hand, the study found that after other factors that may effect organizational hiring were controlled, the enterprise's affirmative action plan accounted for variances in the hiring of disabled persons in non-management positions, but did not significantly explain variances in the hiring of disabled persons into management positions. The only significant predictors of representative hiring of disabled persons into management positions were organizational size. It was felt that since large organizations have more resources, they may be better able to adapt the work environment to the needs of persons with disabilities (Leck and Saunders, 1991, pages 21-24).

While the Leck and Saunders findings found that more formal, more comprehensive and better supported affirmative action accounts for increased hiring of disabled persons in non-management positions, ABT Associates in their final report to the Government of Canada on

the evaluation of the legislated Employment Equity Programme noted that, "if, as Leck and Saunders suggest, more formalized employment equity plans promote more positive outcomes, our study shows that it is hard to be specific about the necessary components of such plans" (ABT Associates, 1992(b), page vii).

In their study, ABT Associates determined whether affirmative action programmes had any effect on the representation and hiring of designated groups based on the variables of *employment growth and hiring of members of designated groups*. To do so, they compared the results of enterprises covered by the legislation and those not under its ambit. To account for differences in firm size, regression equations were used. Employment growth was a time variable, while hiring was expressed as a ratio of designated group hirings/total hires. ABT Associates determined that the *employment growth* model produces "positive but statistically insignificant coefficients for all the designated groups except women. "For *hiring*, the coefficients are negative, but the results are not significant at conventional levels of confidence. They summarize that progress was recorded by firms covered under the affirmative action legislation, but comparable progress was also found in firms *not covered* by the legislation. They indicate an inability to detect positive programme impacts on either employment growth or hiring (ABT Associates, 1992(b), page 36).

In addition to the *Legislated Employment Equity Programme*, ABT Associates also evaluated the impact of the *Federal Contractors Programme* (FCP) on enterprise behaviour. It is recalled that the FCP is an initiative that is separate from the legislated programme. It is directed towards enterprises of 100 or more employees wishing to do business with the Government in excess of \$200,000. Such firms must sign a Certificate of Commitment to develop and implement an affirmative action plan.

Based on survey data for FCP participant firms, comparison data from the Statistics Canada (the Government's statistical gathering agency) concerning FCP and non-FCP firms, and case-studies of seven firms in Ontario, the ABT Associates study has determined:

- that employment growth for persons with disabilities during the period 1986 to 1990 has averaged 5.59 per cent;
- that the representation of persons with disabilities in enterprises covered under the FCP programme has increased from 1.57 per cent in 1986 to 2.26 per cent in 1990.

However, when the results for FCP and non-FCP firms were compared, using the same statistical multivariate analyses in table III, it was found that for persons with disabilities, the *employment growth model* produced *negative* but statistically insignificant coefficients. For *hirings*, the results are also negative, but are again statistically insignificant. No significant impacts can be attributed to the FCP. Although there was growth in the FCP firms, the changes in uncovered firms was equivalent (ABT Associates, 1992(a), page 30).

#### **Enterprise commitment**

The Leck and Saunders study also revealed a weak commitment to the affirmative action process (the support factor). "Since only 60 per cent of organizations with an EEP (affirmative action plan) established a reporting relationship to an executive level head, it appears that an efficient and effective use of the resources allocated to the EEP is not an important concern of upper level management. In other words, organizations may not be serious about achieving employment equity and may only be concerned with fulfilling the reporting requirements" (Leck and Saunders, 1991, pages 16-17).

In their study, ABT Associates asked employers about affirmative action initiatives they took within their enterprise. They also found that the majority of organizations had not yet incorporated the more significant initiatives into their programmes; that while the programme has had a considerable impact on human resource planning there has only a limited impact on the budget for human resources and that there has been little effect on the employment practices of the organizations. Specifically:

- 81 per cent had not set goals for promoting designated groups;
- 86 per cent had not set goals for training designated groups;
- 51 per cent had not set goals for the hiring of designated groups;
- while 58 per cent of enterprises had identified systemic barriers to the hiring, training and promotion of designated groups, only 47 per cent had taken actions to eliminate them;
- finally, 80 per cent of enterprises indicated that the affirmative action programmes had very little or no impact on changes to the physical work space.

They note that there has been an impact on affirmative action activities that are "relatively easy to do and cost little" (ABT Associates, 1992(b), pages 22-24 and 26).

### **Cost perceptions**

In addition to the Leck and Saunders and ABT Associates studies, Jain and Hackett (1991) looked at the similarities and differences between organizations in Canada with affirmative action programmes and those without with reference to a number of factors, including *perceptions* concerning costs and benefits of implementing such measures (Jain and Hackett, 1991, page 1). The Jain and Hackett study was based on a sample of 648 organizations from five industrial sectors that were sent questionnaires on two occasions; in the summer of 1985 and in 1987. With reference to cost considerations, Jain and Hackett reported that most organizations with affirmative action programmes were likely to see them contributing to a rational human resource system. However, most organizations, both those with and without affirmative action programmes in place did *not* see higher productivity or savings in legal or recruitment costs as a benefit of affirmative action. Rather, most perceived that such measures have an inflationary impact on recruitment and training costs (Jain and Hackett, 1991, page 7).

### **The Federal Contractors Programme**

That compliance activities are having a beneficial impact on enterprise behaviour from the perspective of increasing equity in the workplace can be seen by examining the aforementioned Federal Contractors Programme (FCP).

FCP firms must sign a Certificate of Commitment to develop and implement an affirmative action plan in exchange for the right to bid on federal contracts; firms that agree to sign certificates are subject to a government compliance review against set criteria. ABT Associates note that the compliance review process has had a profound effect on the level of affirmative action initiatives taken by FCP firms. The following table demonstrates that the level rises significantly from those firms that have been certified but have not been reviewed to those reviewed or under review and found in compliance. Certified firms that are not

contractors and contractors below the 100 employee threshold have done relatively little. However, only 35 per cent of firms have been monitored (ABT Associates, 1992(a), pages 1, 8, 18, 20, 37, 46).

**Table 2. Percentage of FCP firms undertaking employment equity initiatives by programme status**

Criteria	FCP certificate	FCP not under review	FCP review	FCP complaint
Informed employees	45	72	94	98
Determined number of disabled employees in firm	49	62	84	100
Eliminate barriers	36	41	50	61
Goals for hiring	13	26	68	87
Established plan to implement affirmative action	24	41	60	64
Committee including senior management	9	18	36	25

### **Barriers to programme effectiveness**

In view of the results reported in the preceding studies concerning the levels of employment equity attained by persons with disabilities, the efforts enterprises have made to comply with the legislation, employers' perceptions about cost/benefits of the programme, and the impact of programme, environmental and enforcement factors, one must ask if employer weak commitment is due, in part, to preconceived negative perceptions concerning costs/benefits and the impact of affirmative action on economic concerns about the competitiveness and productivity and negative stereotypes of persons with disabilities, or is it due to other issues such as ideological questions whether the Government should be involved in affirmative action activities, or methodological problems. And, do such assumptions yield self-fulfilling prophecies with reference to the cost-effectiveness?

In this regard, it must be recalled that reports (such as the 1993 employment equity report of the labour force portrait of persons with disabilities cited above) have demonstrated little progress in the establishment of equitable employment for persons with disabilities since the inception of the affirmative action legislation in 1986. To attempt to draw some inferences in this respect, this paper looks at certain attitudinal studies and focus group reports.

### **Conclusions concerning the cost-effectiveness of the federal affirmative action programme**

The results of the attitudinal focus groups do demonstrate the existence of negative stereotypes and attitudes concerning image, accommodation and productivity issues with reference to the capacity of persons with disabilities to integrate into the mainstream workforce. They are all *assumptions* based on one characteristic of a person, the presence of a disability. Moreover, the "debate" as to whether affirmative action should be mandatory or voluntary points to a failure to grasp an understanding of the essential rationale of the programme and why it has been put in place.

Ignorance, personality problems and uneasiness and discomfort in the presence of persons with disabilities have all been advanced as reasons why these attitudes persist. In this

regard, it has been suggested that what appears to some people to be prejudice and negative attitudes are really feelings of discomfort caused by an unfamiliar situation for the non-disabled person, and that increased sensitivity and awareness training, including heightened contact with persons with disabilities, and increased corporate support are ways to effect attitudinal change (Daniels, 1985, pages 31-44). Interestingly enough, these approaches confirm the research alluded to in this paper and point to ways in which affirmative action programmes can be more cost effective.

The studies reported herein indicate that employers do not place much emphasis on awareness activities, yet it is precisely these measures that yield the most qualified candidates. Moreover, while a strong commitment at the senior level of enterprises is necessary to effectively launch an affirmative action programme, statements and policy directives will not ensure that the programme filters down to the general employee population. In addition, only approximately one-fourth of firms that responded to a Conference Board survey on employment equity report that line managers are held accountable for the success of their organization's affirmative action programme. "Accountability is critical in ensuring successful implementation of employment equity plans. ... Strategies that facilitate a 'business case' approach, typically requiring operational units to integrate employment equity into their workplans are effective. The results and initiatives can then be measured and tied to existing performance-reward systems. This not only ensures that equity is taken seriously, but helps integrate into the normal business process." (Benimadhu and Wright, 1992, pages 10-16.) However, one cannot legislate true commitment; this must come from a change in corporate culture.

While corporate commitment cannot be mandated, a refocusing of government resources towards expanded monitoring activities would, as research has shown, yield increased equity outcomes. With reference to the Federal Contractors Programme, it has been shown that there is a significant difference in equity activities between firms that have been monitored as opposed to those that have not.

It is apparent, then, that no one component of the affirmative action process will by itself increase the cost-effectiveness of this programme. Rather, the mere existence of the programme creates an environment that is propitious for change. That said, augmented outreach, sensitivity and monitoring functions will together yield heightened equity outcomes, but the single most important factor, employer commitment, must come from within.

### **Creaming**

Another obstacle to more effective employment outcomes under the current affirmative action programme results from the lumping of all persons with disabilities in one category, "disability" as opposed to tracking different categories of disabilities (sensory, motor and psycho-social). The current Canadian system of not differentiating the various types of disabilities has been most beneficial to the least disabled candidates. Companies tend to engage in "creaming" or the hiring of the least disabled (Baker, 1992, page 66). Differentiating the various types of disabilities would also stem criticism of the present process whereby some employers count as disabled people who have no real disadvantages (Roehrer Institute, 1992, page 58). While establishing sub-categories of persons with disabilities for reporting and monitoring purposes would result in increased programme costs, research into the effects of the monitoring function indicate that an increase in equity outcomes could be one result.

### **Other government initiatives**

The federal affirmative action initiative is the best known government programme in place that is directed towards persons with disabilities as one of the target groups. However, other government programmes, while enjoying a lower profile, nevertheless constitute major expenditure elements.

### **Wage subsidy and vocational training programmes of the federal Department of Human Resources Development**

One such programme initiative is the series of employment programmes offered by the federal Department of Human Resources Development, previously known as the Department of Employment and Immigration. The majority of the federal programmes evaluated in this section are delivered via wage subsidies, with classroom training as an added component. One programme component presented herein was delivered by community based projects.

Before reviewing the specific federal programmes, a discussion of wage subsidies is presented.

#### **Theoretical considerations**

Wage subsidies theoretically stimulate employment in two ways; they lower the price of labour relative to other costs in the production process, thus encouraging the use of more labour. Secondly, lower labour costs result in lower prices which, if passed on to the consumer, should cause increased demand and increased production (Hamermesh, 1978, page 97).

The effectiveness of wage subsidy programmes should be gauged not only by whether the subsidy results in increased hires in the short run, without displacing others, but also what the long-term equity impact is on the target group (Employment and Immigration Canada, 1982, page 41; Garfinkel and Palmer, 1978, page 4; Smith, 1983, page 6). In this regard, four kinds of employment effects have been identified as a result of wage subsidy programmes. The *deadweight effect* results from a subsidy claimed for jobs that would be created irrespective of the subsidy; the *substitution or displacement effect* results from targeted employment at the expense of non-targeted groups; the *net incremental effect* is the true job creation as a result of the effects of the subsidy; the *domino effect* results from employers claiming the subsidy to minimize the advantage gained by other employers already using the subsidy (Rajan, 1985, page 28).

The above noted factors are significant when analyzing the long-term effects of wage subsidies. Results from a number of studies concerning the effectiveness of subsidy programmes in redistributing employment opportunities in favour of the target group indicate mixed results. Subsidy programmes are apt to stimulate the employment of "low-wage" workers (such as school drop-outs or persons with disabilities) however, this may not reduce this group's observed overall unemployment rates. The length of the subsidy also influences success. Employers are unlikely to respond to temporary wage subsidies if corollary adjustment costs are high. Moreover being categorized as eligible for a wage subsidy may, depending upon the target group, negatively impact on the individual's chances for employment, if the potential employer perceives labour market deficiencies. In addition, subsidies that are based on total employment can create windfall profits for employers on that part of employment that would exist anyway, in the absence of the subsidy. Finally, problems may arise when drawing inferences as to the effectiveness of certain subsidy programmes that pay the expenses of training new employees. Unless the programme calls for retaining newly



hired workers, such a subsidy would encourage firms to "churn" workers through the firm. Hammermesh notes that such a practice results in persons whose initial experience with employment is tinged with failure to be retained. Moreover, in terms of cost effectiveness: "The return on investment in on-the-job training depends on the nature of the production function in the training. Returns may be constant with respect to time spent on the job, or they may be first increasing and then decreasing. If, as seems plausible, there are increasing returns in the early phases of job tenure, churning could lower the average amount of training of the labour force ... the induced increase in turnover can be beneficial or detrimental depending upon the nature of production of on the job training. Increased turnover need not imply an improvement in the functioning of the labour market; a hiring subsidy can lower average tenure and reduce labour market efficiency." (Hamermesh, 1978, pages 87-101).

The design of the subsidy programme also impacts on equity hiring. *Flow* programmes where employers qualify when recruiting target group members irrespective of whether the total workforce increases encourage the hiring of the intended group (Rajan, 1985, page 5).

### **Wage subsidies and persons with disabilities**

Wage subsidies are often put in place by governments as an incentive to the private sector to increase the training and employment opportunities for persons with disabilities. Wage subsidy programmes all provide a percentage amount of salary or wages to the employer and most provide the subsidy for a fixed period of time (although in certain jurisdictions, wage subsidies do not have a time-limit).

It has been advanced that wage subsidies are needed in order to overcome employer reluctance to offer disabled persons wages that are comparable to their non-disabled colleagues because of perceptions that they are *less productive* (Johnson, 1986, page 246). Whatever the cause of the perception, the effect is that in the private sector, the decision whether or not to hire a disabled person and to incur the associated costs is influenced by the same factors that decide whether a non-disabled person will be engaged. Wheelchair ramps, job coaches, interpreters, etc. will be provided if they are mutually cost beneficial. "The critical determinant is the relationship between expected benefits and expected costs, which determines expected returns. In competitive markets, firms cannot incur the expense of an accommodation (or pension plan or on the job training) unless they expect to recoup enough extra output or sales in the future to make the investment worthwhile." (Weaver, 1991, pages 8-9). Based on this perspective, enterprises have historically excluded disabled persons from the workplace as they are perceived to be less productive than the mainstream of society. "Alternatively, they will be encouraged to hire only if there are labour shortages, they can under employ disabled workers, pay them less than non-disabled employees in the same or similar work, *or be subsidized in some way* (emphasis added)." (Epstein, 1988, page 30.)

Economic models indicate that in labour markets distinguished by unemployment and inflexible wages, a wage subsidy targeted on behalf of persons with disabilities will result in increased employment outcomes for such individuals. However, such a subsidy could result in the displacement of non-disabled workers at a one-for-one rate. This displacement would represent a social cost and must be counted against the gains to disabled persons when evaluating a programme from its social perspective (Smith, 1986, pages 193-194).

And, the effectiveness of wage subsidy programmes must be also analysed on the basis of qualitative as well as quantitative considerations; do such programmes also increase motivation, self-esteem and independence amongst participants?

### **Historical overview of government programme**

The Canadian Jobs Strategy (CJS) was begun in 1985 as a way to coordinate the federal Government's role in skills training, an activity that comes under provincial jurisdiction) and job development. Disabled persons, and others who were deemed to need "special attention" accessed the programme primarily via two of the six components: job development, conceived to assist persons who experienced chronic unemployment; and job entry, a measure designed to help persons entering the labour market after an extensive absence.

Job Development Programme, which was the major programme utilized by disabled clients, had four subsidy components. *General projects option* (GP) combined formal and on-the-job training to provide labour market training and experience through *incremental workplace-oriented jobs* by either private or non-profit sector employers. *Individually subsidized jobs* (ISJ) provided employment and training in existing job opportunities for employment-disadvantaged persons. *Subsidized projects for severely employment-disadvantaged* (SED) provided employment on *community-based projects* involving links with community resources and support services designed to make severely employment-disadvantaged persons ready for employment or further training. There was a fourth programme component, *direct purchase option*, where occupational training was purchased in provincial educational institutions (Employment and Immigration, 1989(b), pages 2-7, 42 and 46).

In 1989, CJS was replaced by the *Labour Force Development Strategy* (LFDS). The LFDS incorporated many of the elements of the CJS, but it is more comprehensive. It includes three major components, a new programme structure and a new role for the private sector. In this regard, the Government created the *Canadian Labour Force Development Board* in 1991 to ensure that the social partners could arrive at a coherent approach to skills training and upgrading. The LFDS identified four programme areas into which the six former CJS programmes have been incorporated. Among the new measures, the *Employability Improvement Programme* (EIP) assists persons, including persons with disabilities, who face serious labour market disadvantages gain access to the labour market (Roehrer Institute, 1992, pages 23-25; Human Resources Development, 1993(b), page 3; Employment and Immigration Canada, 1992(a), Appendix A).

Being a new measure, no studies of the cost-effectiveness of the programme components of EIP have as yet taken place, but, there has been a major evaluation of its CJS predecessor (interview Kingwell). Inasmuch as the programme delivery components (wage subsidies and vocational training) are essentially the same for both the EIP and the former CJS programmes, an overview of the job development as a representative evaluation is presented as it had the highest participation rate of disabled persons.

### **The evaluation of the Job Development Programme**

In 1989, Job Development Programme was evaluated; during the review period, from September 1985 to August 1987, there were 72,584 participants. It is noted that 13 per cent of participants (9,606) participated in the severely employment-disadvantaged (SED) option; persons with disabilities constituted 7 per cent of the SED population; 54 per cent of programme participants (38,887 persons) participated in general projects of which 2 per cent of GP participants were disabled. Finally, approximately 33 per cent of Job Development Programme participants (24,091 persons) participated in ISJ during the evaluation period; persons with disabilities constituted 15 per cent of the individualized subsidized job (ISJ) population. The high percentage of persons with disabilities in the ISJ was due to the availability of \$10,000 funding to provide for facilities or equipment for the employment of persons with disabilities. The fourth programme component, direct purchase option, was not

evaluated and is not commented upon in this paper (Employment and Immigration, 1989(b), pages 5, 42 and 46).

The evaluation of the Job Development Programme focused on the impacts of the programme components in terms of improved employability and earnings directly attributable to programme participation. The evaluation methodology relied upon varied sources of information, including (Employment and Immigration, 1989(b), page 3):

- a survey of 3,983 programme participants;
- a survey of 1,500 comparison group subjects;
- a survey of 1,530 employers/sponsors;
- interviews with selected sponsors, employers and programme officials; and administrative data files and literature reviews.

In addition, an econometric model was constructed to determine the incremental impact of the three programme components that were evaluated.

### **Characteristics of participants and employers**

Before examining the impact of the cost-effectiveness of the Job Development Programme and inferences that may be drawn concerning persons with disabilities, the following parameters are presented concerning participants, employer/sponsors and the programme.

#### **The long-term unemployed**

CJS did not specifically target disabled persons, but rather the long-term unemployed, defined usually as a period of at least one year without work. In this regard, the long-term unemployed, while not being a homogeneous group, tend to be poorly educated and low skilled workers. Most importantly, when considering the effectiveness of programmes on behalf of persons with disabilities, is the notion that the likelihood of a person finding a job depends upon two factors: the characteristics and background of the person, known as the heterogeneity, and the period of time spent unemployed. With reference to length of unemployment, "there is convincing evidence of a long-term unemployment trap. Employers may reject applicants who have been out of work for a year or more simply because they are long-term unemployed. ... During a prolonged absence from work, an individual's skills, knowledge and productivity may often deteriorate. Long-term unemployment appears to weaken workers' motivation. It may also have severe psychological and physiological effects". (Employment and Immigration, 1989(a), pages 20-21 and 29.)

Finally, from the perspective of training long-term unemployed persons, it is recognized that the best way to help individuals facing labour market difficulties is to furnish a mix of formal classroom and job experiences. It was found that classroom training on its own was a relatively ineffective way to improve labour market performance; it was especially true for young men. On the other hand, classroom training in combination with hands-on, on-the-job training was effective (Employment and Immigration, 1992(c), pages 36-37).

### Age of participants

Participants in the Job Development Programme were in the following age ranges (Employment and Immigration, 1989(b), page 35). The programme had an emphasis on younger people at the expense of older workers: youth (15-24) 22.4 per cent; prime age (25-44) 50.5 per cent; older (45+) 27.1 per cent.

### Size of employers

For each programme option, the majority of employers were quite small, having less than nine employees (Employment and Immigration, 1989(b), page 49).

**Table 3. Education levels of participants**

Highest level of participant education attained	Long-term unemployed		Job development		
	Unemployed 27+ week (%)	Unemployed 53+ week (%)	GP (%)	ISJ (%)	SED (%)
Grade 0-8	19.4	25.9	15.6	8.2	10.0
Grade 9-12	56.0	52.4	45.1	58.0	60.1
Grade 13+	24.6	21.7	37.5	31.7	27.8
Other	—	—	1.8	2.2	2.1

Job development participants were better educated than the long-term unemployed, in general (Employment and Immigration, 1989(b), pages 35 and 37).

### Why did employers participate in the Job Development Programme?

There were substantial variations between the various options concerning the reasons why employers participated in this programme (Employment and Immigration, 1989(b), pages 55 and 56).

- In the ISJ option, where the majority of sponsors were in the private sector and where sponsors with the likelihood of offering long-term employment were targeted, 44 per cent said the *need to fill specific jobs* was their prime motivation, whereas 29 per cent cited the *availability of low cost labour*.
- In the SED option, where most employers came from the non-profit sector, 84 per cent of sponsors indicated they participated *because of a desire to help people*.
- In the GP option, where employers were from both the public and private sectors, there was no one dominant reason why employers participated. The *need of staff, equipment or funds* was cited by 47 per cent; 18 per cent said they saw the need for trained persons and proposed a project to the local labour exchange (known in Canada as the Canada Employment Centre); 16 per cent were motivated by the desire to *assist a particular group of long-term unemployed*; 6 per cent said they were long-term users of government programmes; 5 per cent said they wanted to continue a project that was either finishing or being cut under another government programme; 5 per cent said they developed the project in response to a job creation opportunity.

**Table 4. Average programme costs per participant/programme option**

Option	Total contracted costs (000)	Contracted jobs (n)	Cost per participant (\$)	Number of projects (n)	Cost per project (n)
GP	395 356	42 304	9 346	8 142	48 558
ISJ	97 418	24 889	3 914	24 968	3 902
SED	68 052	11 506	5 914	238	285 933
Total	560 826	78 699		33 348	
Average			7 126		16 817

**Table 5. Regression results for disabled persons  
Dependent variable is employability (5 times employed)**

Option	Female		Male	
	Participant	Non-participant	Participant	Non-participant
GP	-3.07	-29.35	-5.79	35.15
ISJ	-5.02	-11.92	-8.35	-17.98
SED	-44.57	-13.49	-9.85	-28.80

**Table 6. Regression results for disabled persons  
Dependent variable is expected earnings**

Option	Female		Male	
	Participant	Non-participant	Participant	Non-participant
GP	-28.14	-135.20	-62.77	-0.77
ISJ	8.16	-52.30	-52.80	-133.00
SED	-138.87	-14.41	-16.92	-122.41

**Table 7. Regression results for disabled persons  
Dependent variable is % calendar time on unemployment insurance**

Option	Female		Male	
	Participant	Non-participant	Participant	Non-participant
GP	-17.10	-19.30	-15.60	-7.22
ISJ	-2.80	-6.73	-2.09	-23.60
SED	16.50	11.30	3.89	4.66

### The employability and earnings impacts of the three programme components

*The variables.* In examining the impacts, it is noted that *non-participants* were matched to participants in terms of characteristics such as age, sex, geographical region, etc. and were only eligible for selection if they were qualified to enter the programme in terms of employment history. Participants and the comparison sample were matched in two cohorts; those who entered the programme between 1 September 1985 and 31 August 1986 (cohort 1) and those who entered between 1 September 1986 and 31 August 1987 (cohort 2). *Employability* is defined as the percentage of calendar time employed since the programme ended. For comparison group, the equivalent time periods were the most recent 12 months (cohort 2) or 20 months (cohort 1). These are *median times* since completing the programme. *Expected earnings*, on the other hand, were the product of the employment rate and the average weekly earnings for the current or most recent job. *Unemployment insurance rate* is defined as the percentage of calendar time that an individual received unemployment insurance benefits during the six months ending 31 March 1988. With reference to this variable, it is noted that the time frame was removed from the actual programme completion, so the results would not be eclipsed by transitory situations, such as the tendency of participants to immediately seek unemployment insurance. Moreover, the interpretation of this variable is complex, since labour market success was not the only benchmark; unemployment insurance eligibility and personal values also enter into the picture (Employment and Immigration, 1989(a), pages G6-G9).

*General projects.* The *general projects* option combined formal and on-the-job training to provide labour market training and experience through *incremental* workplace-oriented jobs by either private or non-profit sector employers. It provided formal classroom and on-the-job-training. GP provided subsidies for staff, training, capital and operating costs. It also provided wage subsidies for clients up to 60 per cent (maximum 350/week) in the private sector and up to 100 per cent (maximum \$350/week) in the non-profit sector. The maximum project duration was 52 weeks.

This option had mixed results. Female *employability* overall was 48.4 per cent; this represented a 14.9 per cent gain over what the participants would have achieved if they had not followed the programme. On the other hand, males overall have not gained from the programme. Their employability of 50.5 per cent was 25.5 per cent lower than its value would have been if they had not participated. That said, it is likely that many of these candidates had objectives other than vocational training when they self-selected. Apart from persons who experienced long-term unemployment, the Job Development Programme was open to seasonal workers (such as fishermen) who had not otherwise worked the requisite number of weeks to qualify for unemployment insurance. They may have self-selected in order to qualify for unemployment insurance payments; evaluation found that such an explanation was consistent with the findings. In terms of *earnings*, this programme option has not impacted positively on the participants with females having post-programme wages of \$21.80 less than they would have achieved without the programme. As for males, their expected earnings are almost 50 per cent lower than what would have been achieved with the programme.

With reference to *disabled persons*, there are varying results. In terms of employability, disabled participants fared slightly less well than their non-disabled similarly situation counterparts (-3.07 per cent for females and -5.79 for males). Participation in the GP programme was clearly beneficial for disabled females when comparing employability and expected earnings outcomes to non-participant disabled individuals. On the other hand, it can

be seen that disabled male participants experienced employability and income outcomes that were inferior to those who did not participate in the programme.

In general, 32 per cent of GP participants were retained by the sponsor after the project ended; the specific statistic for disabled participants is not available. The preceding noted, the GP option was used extensively as a temporary job creation measure in depressed labour markets, and minimal training was provided to participants (66 per cent of GPs said they received on-the-job training and 57 per cent indicated they were provided training in the classroom). More cost effective alternatives are available for consideration (Employment and Immigration, 1989(b), pages 63-64 and 72; Employment and Immigration, 1989(a), pages G5-G27; Employment and Immigration, 1992(c), page 4).

*Individually subsidized jobs.* The *individually subsidized jobs* component involved preparation of a comprehensive proposal *tailored to the specific requirements of individual trainees*. In this option, 79 per cent of participants said that they received on the job and 17 per cent were given classroom training. Clients were eligible to participate in the ISJ if they met the general projects criteria and were *deemed to have a social or cultural barrier to employment* through a disability or membership in a group normally considered to have difficulty with employment, such as native persons, ex-inmates, social assistance recipients, or persons with language problems or attitudinal difficulties. The wage subsidy began at 80 per cent and declined to 25 per cent over the life of the project. The maximum project duration was 52 weeks and the maximum subsidy could not exceed \$350/week.

This option was very successful, largely due to the direct contact participants had with the employer, who were 95 per cent from the private sector (unlike the GP and SED components). This increased the likelihood that participants would be retained after the project was terminated (46 per cent were so retained). In terms of *employability*, 65 per cent of females and 63.9 per cent of males have been employed since the end of the programme. However, for females, the modelling indicates that they would have performed better *without* the programme (70.5 per cent employability); this is not the case for men, where they experienced a 13.1 per cent gain in employability in comparison to their situation without the programme. As to *earnings*, non-disabled women experienced outcomes 33 per cent higher than what they could have achieved without the programme; males experienced approximately a 15 per cent gain in earnings.

The employability outcomes for *disabled* men and women were respectively -8.35 per cent and -5.02 per cent compared to non-disabled persons who were similarly situated. However, when compared to the employability outcomes of -17.98 per cent (male) and -11.92 per cent (female) for non-participants, it can be seen that the ISJ component provided very beneficial outcomes for persons with disabilities.

In terms of earnings for persons with disabilities, the ISJ programme was also beneficial. Disabled female participants experienced wage gains 8.16 per cent higher than their similarly situated non-disabled counterparts; this compares to outcomes of -52.30 per cent for disabled non-participants. On the other hand, while disabled males had expected earnings lower earnings (-52.80 per cent) when compared to non-disabled persons similarly situated to themselves, they still had higher outcomes than disabled non-participants (-133.00 per cent) when they were compared to non-disabled persons (Employment and Immigration, 1989(b), pages 71-76; Employment and Immigration, 1989(a), tables G5-G27).

*Severely employment disadvantaged.* This option provided employment on *community-based projects* involving links with community resources and support services. It was designed to make severely employment disadvantaged persons ready for employment or further training.

Persons eligible for this option were defined as "having one or more of the following traits: problematic work habits; attitude and motivation problems; serious lack of education/training; prolonged period of institutionalization; or a long period of drug or alcohol abuse". SED participants surveyed indicated that 75 per cent had received on the job training and 72 per cent said they had received training in the classroom. The subsidy was much higher than the other programme components for start up, capital and operating costs. Projects could run for up to three years, however, individuals were limited to 52 weeks maximum participation. The wage subsidy was 100 per cent to a maximum of \$350/week.

Participants in the *severely employment disadvantaged* component had lower pre-programme employment rates than participants in other options. Moreover, they were less likely to be retained by their sponsoring organization (15 per cent) than the other two options. However, on a positive perspective, SED participants experienced levels of *employability* of 59.1 per cent (males) and 57.3 per cent (females) of the time since completing the programme, representing a gain of 19.9 per cent for males and 14.5 per cent for females compared to estimates of their employability without the programme. On the other hand, *expected earnings* were not higher than would have been expected without the programme.

For *disabled persons*, the SED option offered mixed results. In terms of *employability*, disabled females who were non-participants had outcomes that were superior to persons who participated (-13.49 per cent versus -44.57 per cent), but both were less than those obtained by non-disabled persons who were similarly situated. Disabled males, on the other hand, clearly benefited from the programme. While their employability was lower (-9.85 per cent) compared to their non-disabled counterparts, this figure still demonstrates gains compared to non-participants who were compared to non-disabled persons (-28.80 per cent) (Employment and Immigration, 1989(b), pages 76-80; Employment and Immigration, 1989(a), tables G5-G27).

### Other impacts

*Displacement.* One issue was whether, apart from the ISJ and direct purchase options, the Job Development Programme was *incremental*. In other words, would employers have undertaken the activity in the absence of the programme? Surveys of employers indicated (Employment and Immigration, 1989(b), pages 124-125) that:

- 48 per cent of employers indicated that they *would have hired an employee* even if they had not participated in the programme;
- 65 per cent of employers said that project participants *would have met their normal hiring standards* while 31 per cent indicated they would not;
- 60 per cent said they *had other employees performing similar work to the participants*;
- 62 per cent said they provided formal training to employees *before their involvement in the Job Development Programme*;
- 32 per cent indicated they had laid off some non-JD programme employees within the past two years.

*Substitution.* The other issue concerns *substitution*. In other words, *did the Job Development Programme result in the substitution of trainees for other workers who would have been*



*engaged in the absence of the programme?* Surveys conducted during on-site visits indicated that:

- 59 per cent said that the project was *incremental*. These employers indicated that the project had the leave of the union, and that no other funds were available to hire other staff;
- 18 per cent said all workers were subsidized;
- 11 per cent said that the Job Development Programme did result in substitution.

Moreover, 43 per cent of government officials felt that employers/sponsors use the programme to fill training positions that would have otherwise been staffed. While there is evidence of job substitution, it must be recalled that persons who recently have become jobless are more likely to secure a new position sooner than an individual who has experienced long-term unemployment. It is advanced that, contextually, such behaviour from an effectiveness perspective is actually beneficial (Employment and Immigration, 1989(b), page 126).

*Adequacy of wage subsidies to employers and sponsors.* Surveys of employers/sponsors indicated that 62 per cent felt that participants were equally productive to similarly situated non-programme individuals. On the other hand, while 23 per cent felt that JDP participants were less productive, they felt that the subsidy adequately compensated. Only 15 per cent of employers felt that the wage subsidy was insufficient to compensate for the lower productivity outcomes (Employment and Immigration, 1989(b), page 115).

In the discussion of wage subsidies and persons with disabilities (above), it was noted that many employers view the wage subsidy as necessary to compensate what is *perceived* to be lower productivity outcomes for persons with disabilities. In this regard, the above noted survey did not differentiate between persons with disabilities and other programme participants.

*Impact of training.* The evaluation indicated that neither the length of classroom training nor the use of on-the-job training had an impact on the labour market performance of participants. However, it was felt that *longer* projects were more successful and that across all options, 86 per cent of sponsors felt that the *individualized* (emphasis added) training plans were effective (45 per cent said very effective). In summary, the actual amount of training is not a predictor of success. "These results are consistent with the view that these programmes are successful primarily because they socialize the participants to the work environment, rather than they impart specific skills." (Employment and Immigration, 1989(b), pages 88-89.)

*Qualitative issues.* Sponsors reported that participants experienced improvements of self-esteem, self-confidence and motivation (52 per cent of sponsors in GP and 84 per cent of sponsors in SED); improvements in attitudes and work habits (39 per cent of SED sponsors, 21 per cent of GP); learned how to use community support services to solve problems (20 per cent of SED sponsors) and learned marketable skills (42 per cent of GP and 16 per cent of SED sponsors) (Employment and Immigration, 1989(a), pages 64 and 78).

*Recourse to unemployment insurance benefits.* For participants in the GP option, they increased the percentage of time receiving unemployment insurance benefits by 18.26 per cent

compared to what they would have been expected to experience without the programme. Similarly, ISJ participants showed an increase of 13.2 per cent. On the other hand, SED showed a reduction (down 13.1 per cent) in the time spent on unemployment insurance as a result of the programme. For *disabled persons* there are mixed results. Disabled SED participants as well as non-participants accessed unemployment insurance benefits more than their similarly situated non-disabled counterparts, whereas disabled persons in the other programme components drew unemployment benefits less frequently than non-disabled individuals, although the results were varied (Employment and Immigration, 1989(b), pages 69, 76 and 82).

As noted in the section of this paper that addressed methodological issues, what can be perceived as a benefit for one group of society can be seen to be a cost to another. Such would be the situation with reference to the utilization of unemployment insurance benefits. From a cost-effectiveness perspective, the increased utilization of unemployment insurance is clearly a cost to the taxpayer and a benefit to the job development participant. However, while the Job Development Programme had the effect of helping individuals establish eligibility to receive unemployment insurance benefits, "there was evidence that the programme reduced dependency on income support from social assistance (welfare) (as distinct from unemployment insurance). Most participants who had been social assistance recipients prior to the programme were no longer dependent upon social assistance after the programme" (Employment and Immigration, 1992(c), page 5).

*Private company placement.* Placing participants in a private company for training purposes as opposed to a public employer was associated with greater post-training labour market success. For the GP, private placements yielded 15 per cent-20 per cent additional employability and \$30-\$50 gains in weekly earnings. For female SED participants, the increase in employability was 40 per cent and \$171 weekly in wages. However, this represented only 13 women and may represent only one or two successful projects; for male SEDs, there was no difference between public or private employers. Approximately 95 per cent of the ISJ placements were in the private sector; the high success rates of post-training employability speak for themselves (Employment and Immigration, 1989(b), page 87).

### Observations

While results for specific components for disabled and non-disabled participants are mixed, there is no doubt that, *overall*, the Job Development Programme was beneficial to participants. That said, from the perspective of this study, the issue then becomes which programme component offered the most cost-effective approach, and more importantly, what inferences can be made to other programmes concerning persons with disabilities?

Table IV concerning the costs of the various programme components clearly demonstrates that on a per participant and per project basis, the individually subsidized job (ISJ) was most cost-effective. However, it is suggested that this assessment not only is true for the quantitative element (cost/benefit) but also for the qualitative dimensions. The individually subsidized job component, in that it consisted of training options tailor made to the needs of individuals, was also the one most closely linked to the private sector. It was successful in terms of employability and earnings outcomes for persons with disabilities. Moreover, the ISJ, in being tailored to the needs of the individual, was the most specialized.

The "tailor made" feature of the ISJ has particular ramifications for the design of programmes for persons with disabilities. It is recalled that the ISJ option had the highest representation of persons with disabilities (15 per cent) or almost three times their level in the general population. While the evaluation did not draw any conclusions between the

individualized nature of the placements and successful outcomes for disabled participants, it is advanced that such specialization would, by definition, result in assignments that meet the particular needs of the disabled candidate, that the accommodation of the worksite to meet the individualized needs of the participant would flow logically from such activities, and that would, inevitably, result in more effective programme outcomes.

In the same vein, one representative of a group representing persons with disabilities felt that non-disability specific programmes are not effective; that programmes must be very specific with measurable outcomes. He gave the analogy that the lowering of sidewalk curbs, while being beneficial for mobility impaired individuals, actually made the environment less safe for blind persons to demonstrate that "if the goal is training and placement, it must be specialized and disability specific" (interview Sanders). A criticism of the existing, non-disability targeted government programmes (such as the Canadian jobs strategy) is the poor level of representation of persons with disabilities. The Roeher Institute noted that in 1989, only 2.1 of the participants in programmes offered by employment and immigration had disabilities (Roeher Institute, 1992, page 94). Moreover, the non-disability specific nature of the eligibility criteria of measures such as the CJS results in programming that does not recognize that mobility impaired individuals have different employment outcomes and hence different training needs than persons who are sensory impaired (Raskin, 1994, page 84). In fact, persons with visual impairments are among the least represented in the Canadian labour force (Roeher Institute, 1992, page 10).

In view of the preceding, from a cost-effectiveness perspective *concerning persons with disabilities*, it is argued that wage subsidy measures that emphasize the individualized needs of the participant may be the most successful. This does not mean that training for persons with disabilities in integrated settings should be replaced by more traditional specialized settings. Nor is it being suggested that broad based eligibility criteria for programmes such as the Canadian jobs strategy be replaced by those that would specifically indicate disability as a criteria. Rather, as noted in a published summary of the evaluation outcomes entitled "Lessons learned, it is emphasized that key elements in effective programmes are the need to have well planned initial specifications and training objectives; the labour market and the participant's problem must be clearly understood and solutions planned; and that there must be cooperation and coordination among the various stakeholders in the implementation and delivery of the programmes" (Employment and Immigration, 1992(c), pages 5 and 40). And, that as an essential feature of this cooperation and coordination, that there is the need to engage in those ancillary activities such as pre-training outreach *that directly target groups of persons with disabilities* to ensure participation levels that are representational.

### **The special measures programme of the Government of Canada: Wage subsidies delivered in an affirmative action context**

The federal affirmative action programmes and the wage subsidy measures are two different initiatives; it cannot be said that one is "more cost effective" than another. On the other hand, it has been shown that in order to maximize the effectiveness of each measure, those dimensions that result in the most effective qualitative and quantitative impacts must be identified and resources reoriented in towards these approaches.

In view of these presumptions, it is useful to examine an evaluation of the Special Measures Programme (SMP) the Government of Canada has put in place for its own employees. This initiative is a wage subsidy measure, but it is delivered in an affirmative action framework where the goal is the representative *recruitment* of designated groups. As

noted previously, the purpose of affirmative action is the removal of systemic or structural barriers to employment, which would result in a more equitable workplace, and that there are four indicators of equity: income; unemployment rates; rates of participation; and levels of representation (or notions of occupational segregation). In this regard, the SMP is examined, not so much to determine whether the SMP itself is intrinsically cost-effective, but rather to look at the interrelationship between wage subsidies and systemic barriers to employment of persons with disabilities.

### Historical overview

The *Special Measures Programme* (SMP), a series of measures designed to increase employment equity in the public service of Canada, were begun in 1983. Of the six separate programmes that form the SMP, ACCESS is concerned with persons with disabilities (including the Technical Aids Loan Bank), and is the only element examined (Hara Associates, 1993, pages 1-2).

ACCESS was originally conceived to furnish funding for training periods when appointing persons with disabilities and having no job experience to *existing indeterminate (not fixed-term) positions*. A Technical Aids Loan Bank was also established. In 1986, the definition of disability was widened to include persons with mental, psychiatric and learning disabilities, in order that the definition might be congruent with that of the Canadian Human Rights Commission. In 1988, the programme's mandate was altered to increase flexibility. Where previously only indeterminate positions were eligible, subsidies could heretofore be secured for *fixed-term* positions, if the hiring department made a commitment to hire the individual on an indeterminate basis after the subsidy period ended. Funding could also be applied for training and development of disabled persons already in the public service (Hara Associates, 1993, page 3).

### Criteria for evaluation

The underlying policy mandate of the Special Measures Programme is whether it is successful in achieving employment equity. This is based on two standards, the *removal of systemic or structural barriers to employment* and the *achievement of staffing actions proportionate to labour market availability*. It is noted that these two standards are not independent. On one hand, the removal of all systemic employment barriers should result in the fair hiring of persons with disabilities, reflecting their qualifications and availability. On the other hand, if the recruitment of persons with disabilities is less than their availability in the labour market for a given occupation, then this would be evidence that systemic barriers continue to be present. However, as it was noted in the evaluation, success in recruiting may not necessarily mean that barriers have been removed, if recruitment is maintained only by providing wage subsidies. "*While labour market availability provides the benchmark for success, it does not define success. ... The need for continuous (wage) subsidy to obtain a fair result would be evidence of an ongoing systemic barrier. It might be preferable to identify and remove the cause of the barrier instead of continuing to offer special salary subsidies.*" (Hara Associates, 1992, pages 7-8.)

From the perspective of this paper, the question then becomes whether it is more cost-effective to continue subsidies or to allocate programme resources towards the removal of systemic barriers. While this evaluation concerns the public service, inferences may be made about wage subsidies in general. In order to make such an assessment, the impact of the ACCESS programme must be determined.

### **Impact of ACCESS on achieving target levels of recruitment**

The 1986 census determined that of persons in the labour force who would be qualified to enter the public service, 4.5 per cent were persons with disabilities. To meet equitable hiring targets, 4.5 per cent of hiring should be disabled individuals. During the period under review (1988-90), 2.6 per cent of recruits were persons with disabilities. Of those, 1 per cent (40 per cent of the 2.6 per cent) were placed through the ACCESS programme. If it is assumed that none of the disabled individuals would have been hired without the programme, then the recruitment of persons with disabilities would fall from 2.6 per cent to 1.6 per cent. It is apparent, then, that the public service of Canada experiences difficulties in maintaining the representation of persons with disabilities, and that the ACCESS programme has had an important impact on the recruitment of disabled individuals (Hara Associates, 1992, pages 16-17).

### **Presence of systemic barriers**

If recruitment rates are below labour market availability, and if these rates should otherwise be representative, then there exist systemic or structural barriers to the equitable recruitment of persons with disabilities. In this regard, the evaluation determined that three barriers were important obstacles: cost of job adaptation; information for managers on how to adapt jobs and attitudes towards persons with disabilities (Hara Associates, 1992, page 20). And, it is noted that these obstacles are the same as the previously alluded to focus groups and employer surveys in the section concerning affirmative action.

### **An example of the cost-effectiveness of removing a systemic barrier**

The Government's SMP provided that the cost of necessary technical aids for persons with disabilities must be assumed by the hiring department's budget and not charged back to some central fund. This, in microcosm, is the same situation that enterprises that come under the ambit of the federal affirmative action programme face. Such a scenario results in systemic obstacles to the employment of persons with disabilities.

However, it can be shown that removal of a systemic barrier is an economic investment, rather than a social cost. There may be a direct positive impact on government expenditures from employing persons with disabilities, as opposed to continuing the wage subsidy. For example, if the hiring of three persons with disabilities reduces unemployment by one person (implying the other two are displaced); if the position pays \$45,000 annually, the total federal taxes paid in Canada at that income level are 30 per cent; if the federal share of social programme support payments were \$6,000 (the cost per placement in the ACCESS programme was \$17,404 annually with administrative costs of \$6,311 for the 633 participants in 1988-92), and the lifespan of technical aids is three years, then an expenditure of \$19,500 for job accommodation once every three years is *self-financing* for each of the three people. This does not include gain in provincial revenues through reduced welfare payments, thereby reducing federal transfer payments, or the long-term impact on older persons with disabilities by increasing private savings (Hara Associates, 1992, pages 21 and 41).

### **Other systemic barriers**

With reference to attitudinal barriers, the Hara Associates study of the public service noted that "by increasing the placement of persons with disability within the workplace, even on a temporary basis, managers and co-workers are able to learn about how jobs may be reasonably accommodated to persons with disability. ..." (Hara Associates, 1992, page 22). Note that these stratagem are similar to the approaches Daniels advances to overcome stereotypical negative attitudes on the part of employers. However, this is an example of

qualitative systemic barrier; the impact on cost effectiveness would be not be easily measurable.

### **Observations concerning subsidized recruitment and equity**

This evaluation has made three observations: that affirmative action means more than recruitment; that the need to have recourse to subsidies is an indication that there still exist systemic barriers to employment; that the removal of systemic barriers defines success in affirmative action; and that the use of wage subsidies to counteract barriers to recruitment is less preferable than the alternative of identifying and removing these systemic barriers (Hara Associates, 1992, page 35).

The evaluation of the Special Measures Programme in the public service noted that the focus on *subsidized recruitment* "represents a less-developed understanding of employment equity"; that recruitment alone does not mean equity. In this regard, it is again recalled that there are four indices of an equitable workplace. As Agocs, Burr and Somerset note, "numbers are a necessary but not sufficient measure of equality — it is not just a matter of increasing the numbers ... but also a matter of changing the systems and culture of the workplace ... to be present but unable to progress in organizational careers is not equality ..." (Agocs, Burr and Somerset 1992, pages 11-12).

From a cost-effectiveness perspective, the observation that the use of wage subsidies is less preferable than attacking the systemic causes of inequality via the use of corrective measures, such as attitudinal training and proactive outreach that address systemic barriers should be used, (Hara Associates, 1992, pages 49-5) has important ramifications for policy-makers faced with decisions as to how to commit resources. It is inferring that wage subsidies are a "band-aid", masking true solutions and that resources should be reallocated towards other activities. Clearly, the systemic barrier caused by the requirement of departments to pay for the technical aids of persons with disabilities they propose to hire is a case in point. The wage subsidy is there to counteract the cost to the employer of the accommodation requirements of the disabled candidate. Inasmuch as the cost of accommodation has been shown to be self-financing, its removal would be much more cost-effective than relying upon a wage subsidy.

However, as in most matters involving equality, things are not black and white. It is again recalled that wage subsidies are used because employers perceive that persons with disabilities are less productive than other members of society. In most cases, this perception is not true; that the reasonable accommodation of the job duties and worksite, if needed, will create the conditions needed allow the disabled employee to perform as productively as his or her non-disabled colleague; that a wage subsidy in such a scenario essentially underwrites negative stereotypical behaviour.

However, there are situations where the disabled employee *is* less productive. Often, such persons are clients of sheltered employment workshops, are participating in a rehabilitation programme, or are otherwise in a situation where they are not yet considered fully "work ready". With this in mind, the following sections of this study examine measures in place that target these clients. Programmes reviewed include supported employment initiatives, the cost-shared measures under the federal *Vocational Rehabilitation of Disabled Persons Act* and a representative cost-shared measure, the Ontario *Vocational Rehabilitation Services*. Also reviewed are the programmes of the *Worker's Compensation Board*, of the Province of Ontario, an evaluation of *supported employment programmes* and a new programme aimed at *encouraging persons receiving disability pensions to undertake vocational rehabilitation*.

## **Cost-shared programmes under the Vocational Rehabilitation of Disabled Persons Act (VRDP)**

Pursuant to the federal Vocational Rehabilitation of Disabled Persons Act, (VRDP), the federal Government can enter into agreements with the various provincial governments to meet 50 percent of eligible costs incurred by the provinces in providing comprehensive programmes for the vocational rehabilitation of persons with disabilities. Eligible shared costs include assessment; counselling; restorative goods and services; vocational training and employment placement; maintenance or training allowances, tools and equipment, technical aids, modifications to homes and vehicles that allow persons with disabilities to earn a living. Also cost-shareable are modifications to privately owned places of training and employment, provided that such modifications "are required on an individual basis to enable an eligible client to have access to a training place of employment and provided that the owner/operator is under no obligation to (otherwise) make them". In 1992, more than 200,000 persons of working age received cost-shared services under a VRDP agreement (Health and Welfare, 1993, page 7; Health and Welfare, 1993(a), pages 8-14).

It is important to note that the federal Government does not actually deliver any programmes pursuant to the VRDP; its role is solely limited to funding programmes on a cost-shared basis with the provinces. In this regard, there have not been any evaluations of the cost-effectiveness of the VRDP. However, one observes that the very structure of the cost-shared programme must have an impact on the ability to conduct an evaluation of cost-effectiveness, at least at the federal level. In accordance with the VRDP, the sole determination of eligibility for disabled clients rests with each of the various provinces. And, while the definitions and criteria outlined in the VRDP Act must be taken into consideration, it is the province that establishes the organization that administers and coordinates all activities relating to the vocational rehabilitation of disabled persons. That means that there are 12 different provincial and territorial administrations that deliver 12 different sets of programmes, which are based on 12 different criteria for eligibility (albeit based on the guidelines established pursuant to the legislation). Moreover, the provinces are not obliged and, in fact, are very hesitant to reveal precise information to the federal authorities concerning the way in which the funds are expended (interviews Caudle and Meek; Health and Welfare, 1993(a), page 1).

### **Ontario vocational rehabilitation services**

Another one of the many programmes that are cost-shared pursuant to the federal VRDP is the vocational rehabilitation services (VRS) provided by the Ministry of Community and Social Services, in the Province of Ontario. This programme has been chosen for presentation in this paper, as it deals directly with clients, rather than funding third-party agencies, and the statistics concerning programme impact are more readily available (interview Doubelaar).

Pursuant to the legislation, the objective of Ontario VRS is to provide goods and services "to enable a disabled person to become capable of pursuing a substantially gainful occupation". In this regard, a disabled person is an individual who, "because of a physical or mental impairment is incapable of pursuing any substantially gainful occupation" (Ministry of Community and Social Services, 1993, page 1).

Ontario VRS offers individualized programmes to persons with disabilities, delivered at 51 offices across the province; in 1992-93, 12,522 persons were provided with service. The type of services provided by Ontario VRS are (ibid., pages 7-10):

- *assessment* to determine eligibility and feasibility for rehabilitation;
- *training plans*, which are individualized and are provided at colleges, universities, private business, technical schools and workshops, and include work adjustment, job readiness, academic and remedial training and on the job training in competitive work settings;
- *assistive devices and technical aids* such as modifications to homes and vehicles, computer equipment, wheelchairs, etc.;
- *job placement* including job search expenses such as transportation and initial tools for employment;
- *follow-up* to allow current and former VRS clients to adjust to employment or to prevent job loss, for 36 months from the start of employment. These include attendant care and workplace modifications and medication;
- *vocational crisis* funds to prevent a situation where a disabled person is in jeopardy of losing their gainful employment due to a disability;
- *support for disabled* targets persons with disabilities in receipt of social assistance to secure and maintain employment.

#### **Cost-effectiveness of VRS**

It must again be reported that there have not been any studies with reference to analysis of success in job placement on a comparative basis, based upon which programme the disabled client completes. In fact, statistics concerning the success rates of the individual programme measures clients follow *would not be meaningful*, inasmuch as the average client will, in the course of his/her participation in the VRS, utilize a number of the above noted initiatives, and success cannot therefore be attributed to one measure over another (interview Doubelaar). That said, there are cost-benefit outcome indices available.

In 1992-93, a total of \$20.7 million was expended on the VRS programme. Of those clients that received vocational training or restorative services, 56.4 per cent were employed when their cases were closed by the VRS. Of the remaining 43.6 per cent, 4.5 per cent were unable to find work; 14.4 per cent had withdrawn from the programme; 14.4 per cent had disabilities too severe to be employed; the whereabouts of 5.5 per cent were unknown; 3.8 per cent were no longer eligible and 0.8 per cent were either deceased or institutionalized.

For those consumers employed when their cases were closed, their employment status, income and the average expenditure incurred by VRS to prepare the client were as follows (Ministry of Community and Social Services, 1993, page 14):



**Table 8. Average expenditure incurred by VRS to prepare the client**

Employment status	% employment	Average annual wage (%)	Average VRS expenditure (%)
Full-time employment	41	20 983	7 507
Maintained in employment	23	18 661	3 543
Part-time employment	19	9 646	7 459
Sheltered employment	8	1 602	2 606
Home-makers	9	0	5 955

As a point of comparison, the direct cost to the Government of Ontario to maintain a single disabled person on welfare for one year in 1992-93 was \$11,160.

Not counting homemakers (although their earned outside income is \$0, there have been various reports in the popular press that the value of a year of homemaking services is approximately \$16,000), the above statistics clearly show that, except for sheltered employment, the outlay for vocational rehabilitation services is clearly cost beneficial when compared to the wages the client earns, and is cost beneficial in all cases when compared to the option of maintaining persons with disabilities on social assistance. While it would be instructive to analyse effectiveness outcomes of the VRS programme in greater depth, it must be reported that the necessary data are unavailable. As reported by the ministry: "Other data, for example, applicant's level of education, length of unemployment at application, successful completion of training programmes, are collected but currently are not generated for analysis." (Ministry of Community and Social Services, 1993, page 15.)

An example of one of the VRDP programme components are community-based *supported employment* measures; these are funded both on a cost-sharing basis with the provinces under the Vocational Rehabilitation of Disabled Persons Act (VRDP) and the CJS-LFDS programmes of Department of Human Resources Development. In the following section, an evaluation of the supported programmes is examined. However, in view of the survey methodology, the results are not divided according to which agency or agencies provided funding, but rather on an overall basis.

### **Supported employment**

As noted in the section concerning methodological issues, the trend in recent years has been towards the integration of persons with disabilities in the mainstream of both vocational training and employment. This tendency has impacted on the way in which persons with severe disabilities, often those with mental impairments, have received vocational training. Traditionally, such individuals, who were viewed as lacking the skills to be "job ready" in competitive employment, were kept in segregated facilities such as sheltered workshops with the hope that they would eventually acquire the skills that would allow them to engage in competitive employment in the open market. However, the advent of mainstreaming has fostered supported employment model, where disabled persons receive their vocational training after having been placed on the job; such training based on "place-train" instead of

"train-place" has challenged the need for specialized segregated facilities (Annable, 1989, page 5).

Because sheltered workshop programmes are being phased out as part of the movement towards integration, and due to the fact that there have not been any in-depth cost-effectiveness surveys of sheltered workshops (interview Porter), they are not reported as a separate policy option in this paper.

Supported employment may be defined as real work in integrated settings where ongoing assistance is provided for severely disabled individuals who have previously not traditionally received rehabilitation or experienced competitive employment by a social service agency. The support is provided by the "job coach", an employment specialist. This individual's function is to collaborate with other specialists, the employer client, parents and family of the disabled person in order to develop and implement an *individualized* plan; the role of job coach is paramount to the success of supported employment strategies. Much supported employment activities have so far been directed towards persons with intellectual impairments. However, supported employment programmes are also relevant for other disabling situations.

There are four features common to supported employment: (1) job placement; (2) job site training and advocacy, including behavioural training, job duties, social skills and employer/coworker training; (3) ongoing monitoring, including feedback from the employer and, (4) gradual withdrawal from the job-site while maintaining periodic monitoring.

Support may be provided via the placement of groups of disabled persons involving mobile work crews or work stations, or placements on an individualized basis. A mobile crew consists of a small number of disabled clients and a job coach supervisor who travel to the worksite to perform the work, most often being janitorial services and/or grounds keeping. Work stations consist of "enclaves" of disabled persons who work in competitive employment, but situated away from non-disabled co-workers; such work usually involves assembly, packaging or other piecework. However, in terms of the goal of integrating persons with disabilities into the mainstream, work crews and enclaves do not offer opportunities for clients to interact with non-disabled co-workers.

Rather, the most successful types of supported employment programmes, and the ones that offer the greatest opportunity for disabled persons to truly integrate into the work setting, involve *individualized* placements. Such individualized placements usually involve intense vocational training and assistance from the job coach at the beginning of the placement, until the client learns the job as well as the social requirements of the workplace. As the client becomes more adept, the job coach "fades away", returning on an as-need basis, often only weekly, depending upon the individual client's circumstances (Annable, 1989, pages 5-15).

Supported employment measures have been shown to be cost effective in reducing social welfare payments and other costs to the taxpayer.

In 1988, the Canadian Council of Rehabilitation and Work, a bipartite (business and labour) non-governmental organization dedicated to the integration of persons with disabilities in employment conducted a comprehensive survey of the 324 enterprises in Canada then thought to be providing supported employment services. While the report dates from 1989, it is still the most comprehensive overview of the state of supported employment in Canada available (interview McInnes). It was found that 75 per cent, or 208 organizations replied, of which 169 (81 per cent) were furnishing supported employment. Of the 169, 152 (73 per cent) provided the individual placement model of supported employment. The results of the survey findings of these 152 community-based programmes, including cost-effectiveness issues, are highlighted, and then a discussion of the results is presented.

## Highlights

### *The client-workers*

- The *main disability groups* served by supported employment programmes are persons with mental disability (85 per cent) and psychological disabilities (6 per cent).
- *74 per cent of client workers supported in jobs are reported being mildly to moderately disabled*, and in many programmes such individuals are given preference. Only 12 per cent were severely or profoundly disabled; this goes against one of the underlying principles of supported employment, that it is intended for persons with severe disabilities.
- *52 per cent of client workers attended a sheltered workshop or similar segregated facility* immediately prior to entering the supported programme. This may be explained by the fact that 39 per cent of the supported employment programmes are operated by sheltered workshops.
- Survey results indicated that most client workers worked at jobs that furnished good (34 per cent) or excellent (46 per cent) integration with non-disabled workers. However, this must be interpreted with caution, since this was based on a very small number of visits to job sites; on-site visits to supported employment placements indicated that *less than 80 per cent of jobs provide good to excellent integration*.
- *Levels of support* required by client workers varied; 20 per cent needed continuous on-site support; 19 per cent required daily contact; 24 per cent are able to work with only weekly contact with support worker; 11 per cent needed bimonthly contact; 17 per cent worked with monthly support and 9 per cent required no regular support at all.
- Motivation of the individual (84 per cent) and social skills (68 per cent) are the criteria which best *influence the selection of a client worker and predict success at supported employment*.

### *The employment*

- *Most supported employment employers were small locally owned businesses* (59 per cent), followed by large businesses (18 per cent), non-profit community organizations (11 per cent) and governments (8 per cent).
- *Most supported employment* (48 per cent) consisted of janitorial or housekeeping help (22 per cent); kitchen or busperson (16 per cent), or groundskeeping or outdoor maintenance (11 per cent).
- *Pay for supported workers varies*; 28 per cent of programmes will not place a client worker if the employment does not pay the minimum wage; 28 per cent consider minimum wage desirable but not essential and will place a client below the minimum

wage; 14 per cent of supported employment programmes consider the minimum wage an ideal to strive for, but most of the client workers are earning the minimum wage; 25 per cent consider the minimum wage secondary to other benefits, such as meaningful work experiences and contacts with non-disabled persons; 6 per cent of programmes negotiate wages on the basis of the productivity of the individual relative to the competitive rate for the job.

- The *average weekly salaries* earned by client workers varied greatly; 46 per cent earned less than \$50/week; 10 per cent from \$50 to \$100; 11 per cent from \$101 to \$150; 22 per cent from \$151 to \$200 and 11 per cent earned more than \$200/week.

#### *Cost-effectiveness issues*

- 26 per cent of supported employment positions end when the government *wage subsidy terminates*.
- 90 per cent of client workers were dependent upon social assistance at the time they entered the supported employment programme; (b) 45 per cent of client workers are *less dependent* on social assistance since entering; 55 per cent of client workers' dependence on social assistance has not been affected; 21 per cent of client workers no longer require social assistance (48 per cent of client workers who are less dependent on social assistance actually no longer receiving any benefits at all).
- For *annual programme expenditures*; 5 per cent are less than \$20,000; 27 per cent cost between \$20,000-\$50,000; 24 per cent were between \$50,001-\$100,000; 30 per cent \$100,001-250,000; 12 per cent 250,001-\$500,000; 3 per cent \$500,001-\$1 million.\$
- The *annual cost of supporting a client worker* has implications for the cost-effectiveness of the programme vis-à-vis benefits to disabled persons, and to society and taxpayers. The cost was related to the level of support provided to the client. The mean cost for client workers most intensively supported was \$8,596; clients receiving 25 per cent of intensive support, the cost was \$4,297; clients receiving little or no intensive support cost \$4,016. However, the results of this and the preceding paragraph must be interpreted with caution. Less than one-half of supported employment programmes responded to these elements. Moreover, questions concerning this issue were not all completed, thus limiting the ability of the survey from comparing costs and benefits (Annable, 1989, page 57).

#### **Discussion**

The above-noted highlights have raised several cost-effectiveness implications. Firstly, a qualitative effectiveness indicator that must be addressed is the degree of integration experienced by the disabled client-worker. The survey indicated that less than 80 per cent of placements resulted in clients being provided good or excellent integration. The stated goal of supported employment is the integration of persons with disabilities in the mainstream of working life. However, this should not be interpreted as meaning importing disabled persons to work continuously in segregated enclaves or work crews, without their being given the opportunity to interact with non-disabled colleagues. Such an approach, it is argued, could

increase the degree of social isolation experienced by mentally disabled clients, with the resultant negative impacts on self worth. It was noted in the section on methodological issues that however well designed a programme or policy is, it does not function in isolation to the ambient environment. When only 46 per cent of client-workers are full participants in the social interaction and organization of the enterprise (Annable, 1989, page 38), it means that increased resources must be devoted to sensitivity training and outreach activities, in order to foster interactions and relationship building between disabled and non-disabled coworkers, which could lead to relationships outside the work environment.

The questions of pay levels and productivity of client workers are controversial. Essentially, the cost-effectiveness of any given supported employment programme is a function of how the specific programme goal is defined in the first place. Certain programmes will not accept placements that are below the minimum wage; others tie wages paid to client-workers to their level of productivity; still other programmes put the emphasis on providing an integrated work experience, irrespective of pay and productivity considerations. Annable argues that those supported employment programmes whose placements do not tie workers' pay to productivity or the receipt of minimum wages are not really supported employment, but rather *supported work or supported work experiences*; "... for a true market *employment* relationship to exist, the client-worker must be paid *no less* than the market value of the work he/she does ..." (Annable, 1989, pages 73 and 76).

As the definition of supported employment is the eventual attainment of real, competitive employment leading to social integration in the community, then pay and productivity must play a role in defining effectiveness. "Many of our social activities cost money; a person with little money is more likely to watch television than go out with friends to see a movie, have dinner, drinks or go to a hockey game. ... Community integration cannot be considered in isolation from money; money buys access to many of the valued activities that foster integration." (Annable, 1989, pp. 68-69.) As noted, the survey results indicate that almost 50 per cent of supported workers earn less than \$50/week, and that most (55 per cent) are still dependent upon social assistance to the same extent as when they started the programme. The goal of financial independence for many such clients remains elusive. On the other hand, 21 per cent of client workers are no longer dependent upon social assistance, due to their participation in supported employment programmes.

The issue of productivity and pay leads to a discussion of wage subsidies and the systemic barriers that the design of such subsidy policies cause to the effective delivery of supported employment programmes. The survey results indicate 26 per cent of supported employment placements end when the government wage subsidy ceases. However, as noted in the discussion of the Government's wage subsidy programmes (see Part B above), it was reported that the maximum period of participation for a client was 52 weeks (on the other hand, persons may be subsidized under VRDP programmes for a maximum of three years). In this regard, the Government's wage subsidy policies are predicated on the idea that short-term training leads to long-term rehabilitation; "the system demands that people be entirely independent or entirely dependent." However, such an approach has been discredited. "A person who needs job support is not likely to magically be able to work independently when that support ends after three years". Such wage subsidy limitations naturally result in it being less likely for more severely disabled clients to be selected for training in the first place; the survey confirms such an analysis by noting that three-quarters of client workers are classified as being only moderately to mildly disabled. On the other hand, the ideological focus of supported employment has always been the most severely disabled clients. While it is true that many mildly disabled individuals might not otherwise receive an opportunity to engage in integrated employment, the fact remains that such practices result in "creaming" the least

disabled clients. If cost-effectiveness looks at the benefits of a programme against a measurable goal, and if the goal is the integration of persons with the most severe disabilities, then supported employment programmes must change their emphasis to be inclusive to such individuals (Annable, 1989, pages 66-67 and 82-83). However, it is recognized that such a change in emphasis is dependent on the availability of resources to accomplish this. In this regard, while many government wage subsidy programmes target not just persons with disabilities, but persons who face labour market difficulties, and while many such non-disabled (and less severely disabled) persons may become independent within the wage subsidy timeframes, it may, nevertheless, be time to make the necessary programme accommodations for severely disabled persons to allow for on-going wage support for as long as needed, even indefinitely.

With reference to cost-benefit of supported employment, it was noted in the survey highlights that incomplete data precluded an accurate analysis. In this regard, there were broad cost variations. Some programmes with annual expenditures of more than \$100,000 supported less than ten client-workers. Conversely, other programmes that supported between 25 and 49 clients had expenditures less than \$100,000. However, in view of the lack of data generated in this survey, Annable cites Wehman, et al. based on studies in the United States, at Virginia Commonwealth University, to the effect that "the benefits to disabled persons and to society/taxpayers exceed the cost of support" (Annable, 1989, page 58).

Finally, with reference to the issue of cost-benefits, Annable reports that many supported employment programmes do not document the output of their programmes (such as wages earned by clients, hours of support provided compared to hours worked, etc). This impacts on the level of innovative programming. Without hard data concerning programme impacts, policy-makers tend not to innovate, but to retain the status quo. Also, Annable notes that adequate information on cost-benefits allows programmes to demonstrate the financial cost-benefits to funding agencies, thus resulting in less precarious financial relationships (Annable, 1989, page 85). Such lack of data again confirms what has been found in other evaluations and surveys reported in this paper; that there is a dearth of information which would allow stakeholders to make programme decisions with reference to the cost-effectiveness of programmes for persons with disabilities.

## **The Workers' Compensation Board of Ontario**

### **Overview of the functions of the Workers' Compensation Board**

The programme administered by the Workers' Compensation Board of Ontario is one of the largest providers of disability benefits in the province. Its prime purpose is to furnish income replacement benefits to persons whose earnings ability is impaired due to a work related accident or industrial disease. It is an insurance scheme and covers only those disabilities that are work related, the vast majority of which are accidents. In Ontario, the Workers' Compensation System handles more than 400,000 new claim registrations yearly; in 1991, there were 160,000 active pension claims. The plan is, in theory, self-funded by employers, who participate in the plan on a mandatory basis. However, employer assessments were not adequate during the current recession and the plan is now operating with more than a \$10 billion deficit. It is a no-fault system of eligibility and benefits; employers are protected against suit for work-related injuries and negligence in return for paying for the system. Implicit in this approach is the notion that employers are responsible for safety in the workplace. In addition, there is an incentive for employers to improve occupational health and safety conditions through the premium pricing system. Assessment premiums are

generally set to reflect the underlying injury risk associated with various industries or types of employment (Workers' Compensation Board, 1993, pages 1, 6-9 and 20).

Under the Workers' Compensation System, injured workers receive 90 per cent of pre-injury net earnings (earnings after deduction of income taxes), up to a ceiling which is now set at 175 per cent of the average industrial wage (in 1994 the maximum amount was \$54,200). The benefit structure provides for almost full compensation for lost earnings for close to 90 of covered workers. Apart from income replacement, Ontario, as does every other jurisdiction in Canada, offers injured workers medical and vocational rehabilitation (Workers' Compensation Board, 1993(a), pages 5 and 10; interview Lamanna).

### **Cost-effectiveness considerations**

In order to discuss the cost-effectiveness of the Workers' Compensation System, it is first necessary to have an understanding of its goals and objectives.

The goal of the Workers' Compensation Board programme is the restoration of the earnings profile of the worker, in other words the return of the worker to gainful employment. The objective is to return the injured worker to an occupation that most closely approximates what he/she could have experienced in the absence of the accident or industrial illness. The "hierarchy" of objectives is to return the worker to the pre-injury job with the pre-injury employer; by law, the employer must, in cases where the employer has at least 20 employees, save the injured worker's job for one year after full recovery or two years after the date of the accident. If that is not possible, the next objective is to place the employee in a different job with the same employer, or finally, another occupation suitable to the employee's post-injury situation (Allingham and Hyatt, 1993, page 1; interview Lamanna).

In 1992, there were 377,019 accident claims submitted to the Workers' Compensation Board; approximately 43,000 (13 per cent of claims) were not allowed and another 33,000 abandoned. Forty-three percent of the claims involved time lost from work. Of the 43 per cent, 87 per cent have a disability that lasts less than 12 weeks; approximately 5 per cent to 7 per cent of claimants are still in the system more than one year after the accident. And, by law, the claimant must be contacted by the Board within 45 days of claim registration to determine whether vocational rehabilitation would be useful. Any worker who, after six months, has not returned to work, nor is participating in a vocational rehabilitation programme, must be offered a vocational rehabilitation assessment. In 1992, 28,704 persons, or 7.6 per cent of claimants were referred for vocational rehabilitation; 13,247 or 46.1 per cent were completely rehabilitated, mostly by returning to work with the enterprise that employed the disabled worker at the time of the accident (Workers' Compensation Board, 1993(b), tables 1, 2, 14, 19 and 20; interview Lamanna).

The above statistics indicate that the vast majority of claimants receive workers' compensation benefits for a relatively short period of time. The focus, then, is on the small percentage of the population of claimants for whom the choice is continuing to receive a passive income pension or being referred for vocational rehabilitation. *The question, from a cost-effectiveness perspective is whether vocational rehabilitation results in increased return to work outcomes for claimants.* In this regard, Allingham and Hyatt (1993) note that, "From a cost burden perspective, despite comprising a relatively small proportion of all workplace injuries, workers who experience permanent disabilities account for a relatively large proportion of compensation costs. ..." Citing Burton (1983), the authors indicate that, "although permanent partial disabilities account for less than 25 percent of all cases paying cash benefits, they account for more than 60 percent of all dollars expended on cash benefits" and that in times of growing compensation costs, "it becomes increasingly economic to return injured workers to productive employment as soon as possible and at the highest wage

possible, thereby reducing benefit and other related social costs". The expenditures for the Workers' Compensation Board of Ontario support these assertions. In 1992, it paid \$1,797 million in long-term disability benefits, \$364 million in short-term benefits and \$561 million for rehabilitation (Workers' Compensation Board, 1991, page 18; Workers' Compensation Board, 1993(c), page 30; Allingham and Hyatt, 1993, pages 1-2).

In 1993, Allingham and Hyatt measured one outcome, the impact of vocational rehabilitation (VR) the probability of post-injury return to work. In prefacing their report, the authors confirm what has been reported elsewhere in this paper with reference to the existence of evaluative studies, that "despite the importance of vocational rehabilitation in the strategies of workers' compensation ... there has been little research on the effectiveness of VR ..." (pages 2-3).

For their research, Allingham and Hyatt hypothesize that vocational rehabilitation "reduces the expected negative impact of the worker's residual disability on the post injury return to work". They examined cases from the permanently impaired population of Ontario injured workers. Their data were extracted from the Board's administrative files and were merged with a Survey of Ontario Workers with Permanent Impairments (SOW), conducted between July 1989 and August 1990 that provided demographic data. Additional information concerning economic loss, the nature of the worker's injury and the disability rating were extracted from the Board's system. However, *data concerning the type of vocational rehabilitation intervention the claimant received was not available*. The sample consisted of 6,613 persons; 3,478 who participated in a VR programme and 3,135 who did not (Allingham and Hyatt, 1993, pages 8, 11, 13 and 14).

In their study, Allingham and Hyatt constructed a number of regression variables, including age, marital status, level of education, the ability to speak English, union membership, nature of injury, occupation and earnings at the time of disability and municipality where the individual experienced the injury. The authors found that of the 6,613 individuals, 63.6 per cent returned to work. Of those *not* participating in a VR programme, 90.6 per cent returned to work. *Only 39.3 per cent of those participating in a VR programme returned to work*. Expanding on their findings, they note that: "Evaluated at the mean probability of returning to work (0.636), and the mean permanent disability rating (0.12) participation in a VR reduces the probability of return to work by 68 percent." They suggest that these findings indicate that participation in VR, as a result of various barriers "is simply a signal that the individual has been chronically unable to return to work since the injury". However, the change in the probability of return to work, given a 1 percent change in the permanent disability rating is  $-1.4$  for individuals who did not participate in a VR programme. ... For those who did participate in VR, the probability of return to work, given a 1 percentage point increase in the disability rating falls, in absolute terms to  $-0.09$  percent. *Thus, it appears that vocational rehabilitation is having its intended effect — it is reducing the negative impact of residual disabilities on the return to work of injured workers* (emphasis added). In other words, the following of VR programme is cost-effective. However, an analysis of the different categories of claimants shows different outcomes for certain categories. For example, persons with at least high school education were more likely to return to work if they had received VR, but the education variable was not significant in the no VR regression. On the other hand, non-English speakers were less likely to return to work whether they had followed a VR programme or not. And, pre-injury vocational training was a positive indicator of the probability of returning to work for those that had and had not received VR (Allingham and Hyatt, 1993, pages 14-17).

Allingham and Hyatt have examined the impact on one outcome, return to work. However, with reference to the Workers' Compensation Board programmes, there has yet to



be any research concerning other effectiveness indicators, such as employment stability and what type of vocational rehabilitation would be most effective. That said, it is hoped that recently compiled databases may facilitate such studies (Allingham and Hyatt, 1993, pages 19-20).

### Canada Pension Plan National Vocational Rehabilitation Project

The fact that vocational rehabilitation is associated with effective return to work outcomes in workers' compensation cases has important implications for the final programme reviewed in this paper, the Canada Pension Plan *National Vocational Rehabilitation Project (NVRP)*. It is presented, from a cost-effectiveness perspective, not to demonstrate what the socio-economic impacts *have been*, because it is too new to make such an appraisal, but rather to give an example of an innovative approach to assist in returning persons with disabilities to the mainstream of working life.

The Canada Pension Plan (CPP), funded by mandatory contributions from employers, employees and the self-employed, provides protection against loss of earnings due to retirement, death or disability. The *disability* provision of the CPP provides for the payment of benefits to eligible contributors and their dependent children (Graham, 1994, page 2).

Pursuant to the Canada Pension Plan legislation, "a person shall be considered to be disabled if he/she is determined to have a severe and prolonged mental or physical disability", and "is incapable regularly of pursuing *any* substantially gainful occupation", and the disability "is likely to be long continued and of indefinite duration or is likely to result in death. ..." (Health and Welfare Canada, 1989, page 1). In January 1994, a total of 258,211 persons were receiving Canada Pension Plan disability benefits at a cost of \$205 million. The average monthly pension benefit was \$652.28.

Because the disability benefit programme under the Canada Pension Plan requires persons to be incapable of pursuing an occupation, the CPP has been criticized for discouraging persons with disabilities from attempting to seek either vocational rehabilitation or to otherwise return to work, even for trial periods (interview Wills). In fact, vocational training in these circumstances meant loss of CPP benefits. Apart from a benefit loss, the process of labelling someone as "unemployable" in order to gain benefits has the tendency of lowering expectations and self-esteem on the part of the recipient. Finally, ancillary benefits such as payment of prescription drugs or health insurance may depend upon continuing eligibility under the main passive scheme (interview Graham; OECD, 1992, pages 44-45). Persons receiving Canada Pension Plan disability benefits would, therefore, remain fixed in a permanent state of dependency, notwithstanding their own motivation for training, or the existence of job possibilities.

Desirous of assisting disabled beneficiaries in returning to work, a limited pilot project was begun in 1990 to examine the possibility of offering rehabilitation services to persons receiving CPP benefits; this pilot project was expanded to a five year initiative, to conclude in 1996 (Graham, 1994, page 5). Eligible candidates were under age 50; not terminally ill; medically stable; resident in Canada; and were motivated and willing to participate. CPP pays the costs of rehabilitation assessment, tuition, books and any other rehabilitation expenses related to the programme. Another important element of the project is that *the assessment, rehabilitation plan and education process are individualized, i.e. tailor made with the participation and approval of the client who signs an undertaking to complete the provisions of the agreement* (emphasis added) (Graham, 1994, page 4). The important feature of this initiative is that the client continues to receive his/her disability benefits during the

rehabilitation period. When the disabled person is assessed to be job ready and has found a job, disability benefits continue for a three-month period after the client has returned to work. Moreover, if following return to work, the client again becomes incapacitated within one year, the Canada Pension Plan will accept a letter indicating the beneficiary has failed to return to work and will recommence benefits without the need of a formal reapplication and full documentation and assessment (Health and Welfare Canada, 1989, page 3).

Successful clients: 21

Rehabilitation costs: \$8,960.09

Projected savings after three years: \$498,995.41

Projected savings after five years: \$761,335.25

Projected savings after ten years: \$1,419,220.73

Projected savings at age 65: \$3,339,153.33

Canada Pension Plan officials have conducted a cost-benefit analysis of rehabilitation costs versus a *projection of savings* based upon successful clients during the period November 1990-January 1994. The total number of referrals has been 165, of which 124 were in rehabilitation as of January 1994. The target goal is to provide rehabilitation services to 1,000 recipients of Canada Pension Plan benefits by April 1996. From a cost-effectiveness perspective, "it is now recognized by all levels of government and private insurers alike that effective rehabilitation serves to realize significant cost savings as well as to contribute to the improved well-being and lifestyle enhancement of the disabled" (Graham, 1994, pages 3 and 5).

## VI. The views of stakeholders

This paper ends with the perspectives of stakeholders concerning the effectiveness of Canada's programmes for persons with disabilities. To secure these views, interviews were obtained with representatives of two large employers that come under the ambit of the federal Employment Equity Programme, representatives of two national federations of workers' organizations, as well as groups that represent persons with disabilities. In addition, consultations in 1991 and 1992 were held by a Parliamentary Committee reviewing the federal employment equity legislation and the Office of the Commissioner of Employment Equity of Ontario, as part of the planning of the affirmative action programme in that province. Written submissions from stakeholders and reports of the consultations were reviewed. Finally, as of this writing, a Committee of the Parliament of Canada is reviewing all Canada's social programmes. Certain stakeholders provided the Committee with briefs, which form the basis of their views of the effectiveness of programmes.

Many of the stakeholder comments concerning *affirmative action* effectiveness reflect the fact that programme concerns four designated groups; comments do not just concern disability issues.

A significant issue is whether the components of such programmes should be mandatory. Employer groups have mostly favoured allowing the business organization to determine and establish employment equity plans without the external imposition of quotas, targets or guidelines, citing the need to take into account their own business realities and circumstances in the goals and timetables they develop. Mandatory numerical goals and timetables were seen to negatively impact on programme cost-effectiveness by creating hostility in the workplace if they replace employee qualifications as the most important hiring criteria, employers cautioned (Employment and Immigration, 1991, page 19). The Vice-President, Employment Equity, of Canada's national railway system echoed these comments by noting that present affirmative action programming are not truly individualized to the needs of each enterprise (interview Tellier). On the other hand, workers' organizations have felt that only mandatory, externally imposed numerical goals and timetables would enhance programme effectiveness by ensuring that obligations under the law were fulfilled. In addition, these organizations have also recommended that proactive enforcement provisions be inserted in the legislation (Redway, 1992, page 12; Canadian Union of Public Employees, 1993, page 3; Canadian Labour Congress, 1992, page 10; Office of the Employment Equity Commissioner of Ontario, 1992, page 59).

It is argued earlier on in this report that no matter how well a programme is designed, its effectiveness will be influenced by ambient conditions. For persons with disabilities, this is especially true in matters relating to levels of education. In this regard, the Canadian Council of Rehabilitation and Work, in testimony before the Parliamentary Committee studying changes to the affirmative action legislation, expressed the view that the ineffectiveness of the affirmative action legislation was not *as much* the result of the failure to change employers behaviour as it is the failure to address other factors that limit the ability of disabled persons to compete effectively. The Council noted the lower educational attainment of disabled persons, job accommodation costs for severely disabled individuals, detrimental societal attitudes towards persons with disabilities and disincentives to employment inherent in disability pension programmes as barriers to programme effectiveness. He noted that if employers are to be held accountable for outcomes, as measured by workforce participation, the other factors of disadvantage should be factored in (McInnes, 1992, pages 11:21 to 11:22).

Another effectiveness issue, and one also echoed in this paper, was the failure to evaluate Canada's programmes, especially those for persons with disabilities. Submissions to the Parliamentary Committee noted that "the long-term (and in some cases, the short term) achievement of employment equity is being jeopardized by the lack of a coordinated analysis of the impact of government initiatives, policies and programmes. Some of the programmes ... for example, ... the Vocational Rehabilitation of Disabled Persons Plan were put in place decades ago and should obviously be evaluated against current changes in Canada's economy and society" (Redway, 1992, page 34).

Cost factors have most often been raised by employers and organizations representing employers, especially as they relate to the collection and reporting of workforce data (Canadian Chamber of Commerce, News Release, 14 May 1992; Bishop, 1992, page 5). Workers' organization representatives, on the other hand, have a different perspective to cost issues. For example, a spokesperson from the Canadian Labour Congress felt that the issue is always raised as a "red-herring", and is used by detractors to try and keep out affirmative action programmes (interview Onyalo).

For its part, the Parliamentary Committee noted that "research has indicated that the most effective Employment Equity Programmes contain formalized plans, goals and timetables that focus on all facets of the employment process, that have demonstrated management commitment, that contain regular monitoring systems and that are communicated throughout the organization ... to ensure that all employees have a common understanding of the process". The Committee felt that a reason for the uneven performance under the current legislation was the law's failure to clearly identify the changes expected of employers (Redway, 1992, pages 11-13). Other programmes and policies, apart from affirmative action, were more apt to be commented on if the individual interviewed was directly involved in their application. A possible explanation of the reticence of many workers' and employers' organizations to remark on other programmes is that different initiatives do not have as high a profile as affirmative action.

## VII. Summary and conclusions

Canada and its provinces have an extensive system of programmes and policies that seek to enhance the vocational training and integrated employment opportunities of persons with disabilities. And, in this paper, the issues surrounding these measures that target directly, or indirectly persons with disabilities have been presented, with an emphasis on cost-effectiveness concerns. Included has been an analysis of what cost-effectiveness indices include, and why it is important to have an idea of what the effectiveness of programmes are, from the aspects of the magnitude of expenditures, dwindling government resources, as well as wanting to know how they impact on qualitative concerns, such as the self-esteem and independence of participants.

Methodological issues have also been explored. In this regard, there is a link between the methodological concerns and the need to optimize government expenditures. It is not possible to optimize or target expenditures without having a perspective as to what your goals are. But, this can be problematic, since as it has been shown, what is a cost to one segment to society may very well be a benefit to another. Moreover, some programmes that ostensibly target persons with disabilities actually benefit the non-disabled population as well. How these costs should be allocated is problematic.

In this report, qualitative and quantitative evaluations of a number of these measures have been presented. The most controversial, and the most widely known, are the series of initiatives popularly known as affirmative action. Other measures include wage subsidy programmes, supported employment initiatives, individualized vocational rehabilitation services, workers' compensation programmes and new scheme that is designed to encourage persons who are receiving passive income support through disability pensions to pursue vocational rehabilitation.

From a cost-effectiveness perspective, it is very difficult to say that one measure is preferable over another. There are a number of reasons for this. Firstly, programme designs may be conceived for a variety of reasons. Moreover, the availability of evaluative studies is very limited. However, research presented in this paper indicates that Canada's various programmes have an impact on the economy at the macro level, as well as enterprise behaviour. Moreover, a number of recurrent themes in the research that is available point to ways in which programme resources may be oriented to enhance effectiveness.

At the macro level, instituting affirmative action measures has a positive effect on economic productivity. In terms of the effects on enterprise behaviour, it has been found, in the Canadian context, that affirmative action on behalf of disabled persons impacts greatest on the hiring of non-managerial positions. It has also been found that programme effects on organizations are most effective when they are integrated into the business activities of the firm, when managers are held accountable for its success and when enterprises know that government enforcement agencies are serious about monitoring compliance with the legislation.

Evaluations of government wage subsidy programmes have found, with reference to effects on the employment, certain measures have had an incremental effect on the employment of persons with disabilities, and that there has been some evidence of a substitution effect, or the replacement of workers who would have been employed with wage subsidized trainees. Concerning the effectiveness of various types of wage subsidy and supported employment programmes, evaluations indicate those that emphasize individualized placements in the private sector that are designed to meet the personal requirements of each trainee, and which provide participants with an opportunity to interact with non-disabled co-workers and to form relationships offer the best prospects for success. On the other hand, it

is suggested that wage subsidies, in cases where productivity concerns are not an issue, only mask the continued existence of structural or systemic barriers to employment faced by persons with disabilities; that the most cost-effective approach is to attack the barriers.

The cost-effectiveness issues concerning workers' compensation and disability pension measures are of a fundamentally different nature than the other programmes considered. Here, the issue is whether it is more cost-beneficial for taxpayers and society to encourage pension recipients to pursue vocational rehabilitation as opposed to remaining on benefit. Qualitative issues aside, the evidence reported in this paper is clearly in favour of policies that encourage programme beneficiaries to pursue vocational rehabilitation.

With all these policies and programmes in place, disabled persons in Canada should be experiencing employment outcomes that are equitable to the non-disabled population, yet clearly they are not. The labour force picture of persons with disabilities indicates disabled Canadians are far from attaining an employment situation that would be considered equitable when compared to the non-disabled population as measured by levels of participation, representation, income and unemployment. Moreover, government equity reports indicate little long-term progress, despite stated good intentions of all concerned. Why is this so?

In the Canadian context, the impact of design considerations only partly explains negative effectiveness outcomes. Rather, as noted, Canada's programmes and policies are delivered in fragmented manner by various levels of government, with the result that there is overlap, lack of coordination, and most important, a lack of guiding principles. As noted by the Roeher Institute: "Current policy is splintered across departments and programmes. A comprehensive, proactive approach on the part of government is needed to reconcile the discrete policy and programme domains, which must be coordinated if greater equity in the labour force is to be achieved. Responsibility for actualizing the policy needs to be clearly vested, and effective accountability mechanisms should be established." (Roeher Institute, 1992, page 182.) Finally, policy design and coordination of efforts can only go so far in influencing the cost-effectiveness of programmes. Research indicates that a number of environmental factors negatively impact on the cost-effectiveness of Canada's measures on behalf of persons with disabilities. Programme effectiveness is influenced greatly by the existence of systemic or structural barriers to equitable opportunities for persons with disabilities. Lower educational attainments, problems of accessibility, negative stereotypical attitudes on the part of employers and facially neutral employment policies that have a discriminatory impact are all issues that must be addressed when considering where and the extent of commitment of financial resources to each programme. These barriers must be removed, if ever Canada's disabled population is to hope for a chance to fully participate in the economic life of the nation in an equitable way.

However, the preceding analysis admittedly leaves unanswered the question of which programme is best from a cost-effective perspective. While not wishing to belabour the issue, it cannot be overstated that there are just too many policy variables at play to make such a clear cut choice of one measure over another. On the other hand, programmes should be designed so that the majority of direct administrative costs are borne not by the Government, but by the organizations and enterprises that benefit from them. One must acknowledge that when correctly designed and instituted, affirmative action programmes result in a rational utilization of human resources, a clear benefit to the organization, at the least direct programme costs to the Government. At the same time, affirmative action measures result in enhanced equity outcomes for society at large.

## Personal contacts

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