

# Employment Equity Data Program

Programme statistique sur l'équité en matière d'emploi

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SOURCES OF INCOME OF PERSONS WITH DISABILITIES IN CANADA

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# SOURCES OF INCOME OF PERSONS WITH DISABILITIES IN CANADA

(5.14)

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A STUDY PREPARED FOR

EMPLOYMENT EQUTY DATA PROGRAM HOUSING, FAMILY AND SOCIAL STATISTICS DIVISION STATISTICS CANADA

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## **EXECUTIVE SUMMARY**

The purpose of this study is to describe the different sources of income received by persons with disabilities, indicate their amounts and relative importance to the total income received, and where possible, compare the appropriate categories of income receipts with those received by persons without disabilities.

The study utilizes the 1986 Health and Activity Limitation Survey (HALS) data set as well as the 1989 Labour Market Activity Survey (LMAS) data set. Both data sets are one-point-in-time surveys which permit us to examine different aspects of persons with disabilities in Canada. The two surveys contain different degrees of detail for persons with disabilities in Canada and the information does not refer to the same sample of individuals. However, by employing different data sources focussing upon the same population, our understanding of income sources for persons with disabilities in Canada should be enhanced. This is because the HALS provides good data on a variety of income sources relevantly classified for persons with disabilities. On the other hand, the LMAS is a general survey focussing upon labour market activity; consequently, it is able to provide detail of income receipts from this perspective.

The report finds that employment income is a substantial source of income for persons with disabilities. It is not the case that disability status implies a lack of earnings or a substantially complete reliance on non-employment income sources. As expected though, the number of persons with a disability receiving employment income is inversely related to the severity of disability, and this pattern is present for men and women both. Indeed, this pattern is exactly opposite to that observed for the income category "other", which tends to increase with the degree of severity.

More men than women have employment income as a source of income; not surprisingly therefore, we find more men than women receiving C/QPP as an income source as current C/QPP income simply reflects, by and large, past historical patterns of earnings and labour market participation by men and women. For similar reasons, we also find more men than women receiving worker compensation payments as an income source, as well as veterans pensions and allowances.

An examination of data from LMAS reveals some interesting features, especially concerning the amount of income received by individuals who have a disability and are limited at work, and the income amounts available to families having a member with a disability who is limited at work. Annual earnings are much less for persons with disabilities who are limited at work (PWDLW) compared to persons without disabilities (PWOD), and decline as the degree of disability is judged more severe. Average annual earnings for persons without disabilities is \$15,723 compared with an average annual amount of only \$5,809 for those with a disability who are limited at work. For those with a disability considered mild, the average annual earnings is \$7,808; those with a moderate disability, the amount is \$4,506; and those whose disability is severe, the amount is only \$1,589. On the other hand, family earnings of those without disabilities is \$37,528, compared to \$28,142 for those who have a disability and are limited at work. In other words, family earnings decline less when comparing family units without and with a member with a disability, and this pattern is evident when examining the degree of severity as well.

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#### 1. INTRODUCTION: SCOPE AND PURPOSE OF STUDY

There is too little research concerning Canadians with disabilities. This is especially true of those capable of participating in the labour market, whether in the competitive wage sector or the sheltered workshop employment sector. This neglect is slowly changing however, as Canadians increasingly accept the need for employment equity programs, and those who deliver various services rethink the best way to integrate persons with disabilities into the work world. Recently, Hum and Simpson (1993) examined the economic well being and labour supply of persons with disabilities in Canada. However, one aspect given insufficient emphasis in this study was the employment earnings and other sources of income available to Canadians with disabilities.

More specifically, Hum and Simpson (1993) compared the population of persons with disabilities identified by the set of questions asked in the 1986 Health and Activity Limitation Survey (HALS) with the population identified by a slightly different question set in the 1989 Labour Market Activity Survey (LMAS). Although the HALS data are extremely useful in identifying persons with disabilities in Canada, they are less helpful for exploring the labour market activity of those with disabilities since there are no detailed questions concerning their hours of work or earnings. On the other hand, the master 1989 LMAS file not only identifies 11 potential disabilities which may affect labour market activity but not restrict it entirely, there are also 5 questions which indicate whether, in the respondent's opinion, the disabilities limit employment opportunities. Thus Hum and Simpson (1993) were able to study wages, hours, earnings, etc. of persons with disabilities. Furthermore, Hum and Simpson were able to estimate rudimentary labour supply functions and earnings functions using traditional econometric techniques and to compare these results with those obtained for the population segment without disabilities. The primary purpose of the Hum and Simpson (1993) study was to establish the feasibility of investigating persons with disabilities in Canada employing the HALS and LMAS data sets in conjunction, and this has now been sufficiently demonstrated.

The present study investigates employment earnings as well as other sources of income received by persons with disabilities. It utilizes the 1986 HALS data set as well as the 1989 LMAS data set. Both data sets are one-point-in-time surveys which permit us to examine different aspects of persons with disabilities in Canada, affording increased understanding of their situation with respect to disability and employment experience. It must be emphasized, however, that HALS and LMAS are independent surveys conducted at two separate times; the two surveys also contain different degrees of detail for persons with disabilities in Canada but the information do not refer to the same sample of individuals. In other words, the HALS and LMAS data sets cannot be merged or linked together. Still, by employing different data sources focussing upon the same population, it is our belief that our understanding of income sources for persons with disabilities in Canada will be enhanced. This is because the HALS provides good data on a variety of income sources relevantly classified for persons with disabilities. On the other hand, the LMAS is a general survey focusing upon labour market activity; consequently, it is able to provide detail of income receipts from this perspective.

Little attention is paid to the overall labour market participation or earnings of Canadians with disabilities. Given lower levels of labour market participation by persons with disabilities, it is instructive to know what sources of income besides earnings are received. This information is extremely important for public policy purposes such as the design of income transfer for persons with disabilities, and the like.

It is obvious that there exists a relationship between disability status and labour market activity and earnings. The economic literature also establishes that age-earning profiles are informative. With respect to persons with disabilities, several profiles of Canadians with disabilities are available. Nessner (1990)

provides a profile of persons with disabilities by age groups, reporting, as expected, that the incidence of disability increases with age, with 5 percent of people under 24 years of age having a disability but, among those aged 85 and over, 82% have a disability. Cohen (1989) considers Canadian workers with disabilities but reports no results by age categories. However, he provides a profile of three populations, distinguished by their ability to work, and disaggregated by age, elsewhere (Cohen 1990). All of the above studies employ data from the Health and Activity Limitations Survey (HALS). Understandably, there is less detail on such items as wage rates, hours of work, earnings and income sources available from HALS than is possible from a source whose main purpose is to capture labour market activity in general, and on an on-going basis through time. Such a survey is the Labour Market Activity Survey (LMAS). A more detailed portrait of persons with disabilities, and their labour market behaviour and income status, is therefore possible using the 1989 LMAS master file. Employing data from HALS and LMAS, Hum and Simpson (1994) provide a description of persons with disabilities within a life cycle framework, thereby outlining the incidence of disability by age categories. Additionally, they describe the incidence of disability by gender, type and severity of disability as well as investigate rudimentary labour supply functions.

The purpose of this study is to describe the different sources of income received by persons with disabilties, indicate their amounts and relative importance to the total income received, and where possible, compare the appropriate categories of income receipts with those received by persons without disabilities. We shall pay special attention to employment earnings. Very little is known about the sources of income available to persons with disabilities. For the United States, Lingg (1977) has examined lifetime covered earnings of workers with disabilities, and Yeas (1986) has looked at the extent of asset holdings for the "newly disabled". In Canada, the Report of the Canadian health and disability survey, 1983-1984 reports individual income from all sources of persons with disabilities but not in a disaggregated fashion.

#### **Definition and Measures of Disability**

This study examines data from the HALS as well as the LMAS. As well, we employ different measures of disability, depending upon the focus of inquiry, and particular questions available on either the HALS or LMAS. Hum and Simpson (1993) established that a disability score and severity index based on the HALS methodology but using only the responses to a smaller set of questions (13 questions) in the LMAS provided a very good indication of the degree of disability in comparison to the HALS data. At the same time, there is a necessity to employ a definition of disability which conforms to that designated under the *Employment Equity Act*. Therefore, we distinguish persons with disabilities employing the following definitions:

**PERSONS WITH DISABILITIES (PWD):** This definition is based upon the full set of questions asked in the HALS or on the smaller set of thirteen questions in the LMAS (see Appendix A). As with the population for persons without disabilities, the population for persons with disabilities includes persons aged 15 and over.

PERSONS WITH DISABILITIES LIMITED AT WORK (PWDLW): This definition is employed for employment equity purposes, and is used to identify persons indicating a limitation in the amount or kind of work they can do, as indicated by response to a special subset of questions in the 1986 HALS or the 1989 LMAS (see Appendix A). The population for persons with disabilities who are limited at work includes persons aged 15 to 64.

Appendix A provides detail concerning the definition of a person with a disability, the definition of "limited at work" within the meaning of the *Employment Equity Act*, particular questions underlying the construction of these definitions and a discussion of the economic variables.

#### 2. SOURCES OF INCOME FOR PERSONS WITH DISABILITIES

#### 2.1 Income data from HALS and LMAS

This section presents a general overview of the relevant data concerning income sources available in the HALS and LMAS surveys as background. Those familiar with the HALS and LMAS surveys may skip this section.

The HALS survey provides for each respondent:

- (1) personal income by category, and a breakdown of pension and disability benefits income by category as follows: disability pension from CPP/QPP, workers' compensation, unemployment insurance sickness benefits, provincial automobile insurance, private disability insurance, social assistance, veteran's disability pension, war veteran's allowance, veteran's pension from another country, and other disability or pension benefits;
- (2) some information on the general nature of the job, types of labour income (wages, self employment income, etc.) and job transitions.

For earnings from labour market sources however, only rough categorical information was collected. Since a substantial proportion of persons with disabilities work, it would be helpful to know the sources and exact amounts of labour market income by severity of disability category, where possible.

The LMAS 1989 (master file) provides the following information on sources of income which can be associated with disability status:

- total annual family earnings; including such details as the number of family members who worked, number of family members with paid worker jobs, number of family members with self employment, number of family members working full time and full year, number of family members working at a low wage job;
- (2) whether any family member experienced unemployment, received unemployment insurance benefits or social assistance, and the number of months during which social assistance was received;
- (3) annual and weekly earnings for each job held by the respondent in 1989;
- (4) whether the respondent received worker's compensation and the number of weeks such benefits were received, and whether the respondent received group or automobile insurance for an absence of work.

There is no information on disability and pension income in the LMAS however. Social assistance benefits are common to both data sets, but in the LMAS, they apply only to persons reporting a previous job. Other common indicators include the receipt of worker's compensation and automobile insurance, but these also apply only to those previously employed in the LMAS.

## 2.2 Sources of Income Information from the Health and Activity Limitation Survey (HALS)

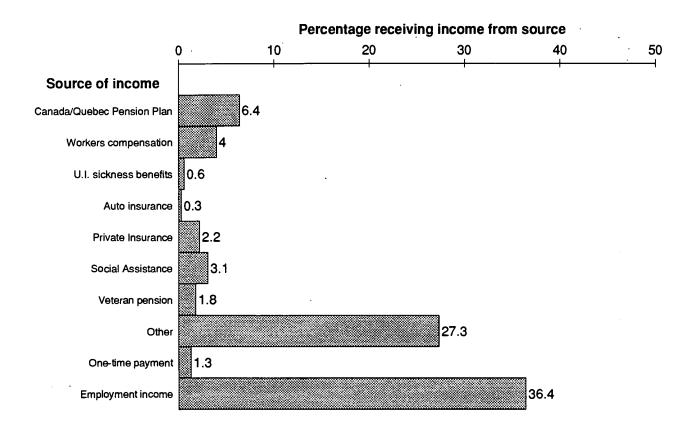
We shall adopt the following convention for labelling tables and charts. We distinguish between tables constructed from the HALS data (prefixed by the letter H), and comparable tables constructed from the LMAS data (prefixed by the letter L). Furthermore, we shall highlight the main features of our findings by presenting selected charts summarizing certain tables, and labelling each chart with the same identifier as its source table or tables; for example, Chart H4 is constructed from Table H4, Chart L2 is constructed from Table L2, Chart L(1+2) is constructed from Table L1 and Table L2 combined, etc. This means that charts will not be numbered consecutively, since we do not provide a chart for every table.

We begin by presenting the sources of income for persons with disabilities in Tables H1, H2 and H3. Table H1 presents information for all persons with a mild, moderate or severe disability. Graph H1 (next page), taken from Table H1, presents the sources of income for all persons with disabilities. Tables H2 and H3 present the same information as Table H1 for males and females, respectively. Information in Tables H2 and H3 is depicted in Charts H2 and H3.

Several points are worth noting. First, it is clear that employment income is a substantial source of income for persons with disabilities. It is not the case that disability status implies a lack of earnings or a substantially complete reliance on non-employment income sources. As expected however, the number of persons with a disability receiving employment income is inversely related to the severity of disability, and this pattern is present for men and women both. Indeed, this pattern is exactly opposite to that observed for the category "other", which tends to increase with the degree of severity. A finer breakdown of the income category "other" would have been most interesting as we do not know whether this category comprises many small items or a few large items.

By and large, more men than women have employment income as a source of income; not surprisingly therefore, we find more men than women receiving C/QPP as an income source as current C/QPP income simply reflects, by and large, past historical patterns of earnings and labour market participation by men and women. For similar reasons, we also find more men than women receiving worker compensation payments as an income source, as well as veterans pensions and allowances. Both reflect again the past historical participation patterns in the labour market and combative roles during the wars. These findings reflect the combination of past patterns of labour market participation as well as design of transfer programs for men and women.

Chart H1. Sources of income for persons with disabilities, Canada, 1986



Source of data: Statistics Canada, 1986 Health and Activity Limitation Survey, unpublished data.

## 2.3 Sources of Income Information from the Labour Market Activity Survey (LMAS)

The LMAS, as noted, is another source of information concerning the earnings and income receipts of persons with disabilities in Canada. Tables L1 through L6 below present details on work-related income receipts and other sources of income for Canadians with disabilities in general (PWD), persons with disabilities who are limited at work (PWDLW), and those without disabilities (PWOD). Furthermore, for those classified as either PWD or PWDLW, the pattern of income sources is presented according to the degree of severity of disability within the categories of mild, moderate or severe, and these patterns are reported separately for men and women.

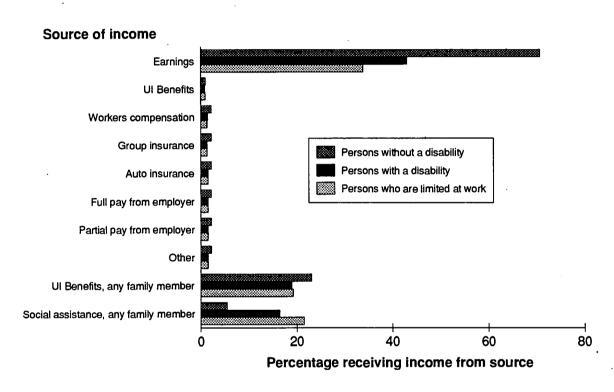
A wide variety of information concerning amount and sources of income receipts as well as indicators of work patterns is presented. In addition to annual earnings from paid employment, family annual earnings from paid employment, and percentage of respondents with reported earnings, Tables L1 through L6 also report the following: percentage of respondents who received unemployment insurance benefits during their last absence from their last current job of record as at January 1, 1989 (UIB) as well as the duration of receipt of these benefits (WEEKS UIB), and percentage of respondents who received workers compensation during their last absence from their last current job of record (WC) and the duration of receipt of these benefits (WEEKS WC). GROUP INSURANCE, AUTO INSURANCE, FULL PAY, PARTIAL PAY, and OTHER COMPENSATION in the various tables refer to the receipt of benefits or income from these sources during the last absence from the current job. Note that these categories are not strictly comparable to the corresponding categories in the HALS since UISB, WC, AUTO INS, PRIV INS, and OTHER reported in HALS refer to the receipt of these benefits within the 1985 calendar year regardless of employment status on January 1, and regardless of any reported absence from work. In sum, it is important to remember that HALS and LMAS surveys provide different information on patterns of income receipts for persons with disabilities in Canada; the two surveys should not be interpreted as asking identically worded questions or as capturing the same measured concept on two separate survey occasions<sup>1</sup>.

The measures Family UIB in Tables L1 through L6 below refer to the receipt of unemployment insurance benefits by any family member during 1989. Likewise, Family Social Assistance refers to the receipt of social assistance benefits by any family member during 1989. Hence, these last two categories are not comparable to UISB and SOCIAL ASST in the HALS survey, which refer to the receipt of these types of benefits by the individual respondent in HALS. However, these differences are enlightening rather than bothersome since the LMAS adds information on the total family resources available to persons with disabilities rather than limit its attention to resources attributed to the individual person.

Table L1 and Table L2 compare amounts and sources of income for all persons (male and female combined) without disabilities (PWOD) and those having a disability (PWD) or those having a disability who are limited at work (PWDLW) by degree of severity of disability. These patterns are depicted in Chart L1 (next page), which is constructed from information from Tables L1 (PWD) and L2 (PWDLW) combined. Among the noteworthy findings is the fact that annual earnings are much less for those with disabilities (either definition PWD or PWDLW), and the fact that earnings decline as the degree of disability is judged more severely. Compare, for example, those who have a disability and are limited

For a copy of the questions, please refer to <u>Health and Activity Limitation Survey - User's Guide, June 1988</u> for the 1986 HALS questionnaire, and <u>Overview of Special Surveys 1989</u> for the 1989 LMAS questionnaire.

Chart L1 (from Tables L1 and L2). Sources of income for persons without disabilities, persons with disabilities and persons with disabilities who are limited at work, Canada, 1989



Source of data: Statistics Canada, 1989 Labour Market Activity Survey, unpublished data.

at work (PWDLW) and those without a disability (PWOD), as depicted in Table L2. Average annual earnings from paid employment for persons without disabilities (see Figure 1 below) is \$15,723 compared with an average annual amount of \$5,809 for persons with a disability who are limited at work. For those with a disability considered mild, the amount is \$7,808; those with a moderate disability, the amount is \$4,506; and those whose disability is severe, the amount is only \$1,589. On the other hand, family earnings of those without disabilities is \$37,528, compared to \$28,142 for those with a disability who are limited at work. In other words, family earnings decline less when comparing family units without and with a member with a disability, and this pattern is also evident when examining the degree of severity as well.

A more complete analysis of the effect of disability on individual earnings employing multiple regression techniques is provided in Appendix B. These results are summarized in Table R5. We simply note here that the results substantiate the findings that earnings decline with increasing severity of disability for both men and women, although men whose disability is moderate in severity seem to suffer a greater relative decrease in income than do women whose disability is moderate in severity.

Tables L3 through L6 provide details of income amounts and sources of income separately for men and women by degree of severity of disability but focussing on the limited at work definition. Chart L2 and Chart L3 depict these patterns for men and women respectively. Women earn about roughly one half the amounts of their male counterparts, whether we consider persons without or with disabilities, or their degree of disability severity. Thus it is clear that women are disadvantaged in comparison to men in society, whether they have a disability or not, with respect to labour market activity. In other words, the issue of gender inequality in the labour market is independent of disadvantage arising from disability resulting in limitations at work, although this does compound their income disadvantages; women do not earn less simply because they suffer disproportionately more from limitations at work arising from disabilities. In this sense, women with disabilities are "doubly disadvantaged" with respect to labour markets.

Figure 1. Annual earnings from wages and salaries for persons without disabilities, persons with disabilities, and persons with disabilities who are limited at work, by gender, Canada, 1989

	Persons	s without disabilities		Persons with disabilities			Person with disabilities who are limited at work		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Annual earnings from wages and salaries	15,723	20,486	11,134	8,807	12,475	5,204	5,809	7,980	3,738

The populations for persons without disabilities and for persons with disabilities include persons aged 15 and over. The population for persons with disabilities who are limited at work includes persons aged 15 to 64.

Source: Statistics Canada, 1989 Labour Market Activity Survey, unpublished data.

#### 3. SUMMARY AND CONCLUSIONS

This study investigates employment earnings as well as other sources of income received by persons with disabilities. It utilizes the 1986 HALS data set as well as the 1989 LMAS data set. Both data sets are one-point-in-time surveys which permit us to examine different aspects of persons with disabilities in Canada, affording increased understanding of their situation with respect to employment experience. It must be emphasized, however, that HALS and LMAS are independent surveys conducted at two separate times; the two surveys also contain different degrees of detail for persons with disabilities in Canada but the information does not refer to the same sample of individuals. Still, by employing different data sources focussing upon the same population, it is our belief that our understanding of income sources for persons with disabilities in Canada will be enhanced. This is because the HALS provides good data on a variety of income sources relevantly classified for persons with disabilities. On the other hand, the LMAS is a general survey focusing upon labour market activity; consequently, it is able to provide detail of income receipts from this perspective.

This report examines various sources and amounts of income received by persons with disabilities. The report finds that employment income is a substantial source of income for persons with disabilities. It is not the case that disability status implies a lack of earnings or a substantially complete reliance on non-employment income sources. As expected however, the number of persons with a disability receiving employment income is inversely related to the severity of disability, and this pattern is present for men and women both. Indeed, this pattern is exactly opposite to that observed for the source of income category "other", which tends to increase with the degree of severity.

More men than women have employment income as a source of income; not surprisingly therefore, we find more men than women receiving C/QPP as an income source as current C/QPP income simply reflects, by and large, past historical patterns of earnings and labour market participation by men and women. For similar reasons, we also find more men than women receiving worker compensation payments as an income source, as well as veterans pensions and allowances.

An examination of data from LMAS reveals some interesting features, especially concerning the amount of income received by individuals who have a disability and are limited at work, and the income amounts available to families having a member with a disability who is limited at work. Annual earnings are much less for those with disabilities who are limited at work (PWDLW), and decline as the degree of disability is judged more severe. Average annual earnings for persons without disabilities is \$15,723 compared with an average annual amount of \$5,809 for those with a disability who are limited at work. For those with a disability considered mild, the amount is \$7,808; for those with a moderate disability, the amount is \$4,506; and for those whose disability is severe, the amount is only \$1,589. On the other hand, family earnings of those without disabilities is \$37,528, compared to \$28,142 for those with a disability who are limited at work. In other words, family earnings decline less when comparing family units without and with a member with a disability, and this pattern is also evident when examining the degree of severity as well.

#### **DEFINITIONS**

#### **Persons with Disabilities**

The definition of disability used in the 1986 Health and Activity Limitation Survey (HALS) was taken from the World Health Organization. It is as follows:

In the context of health experience, a disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.<sup>2</sup>

A framework has been developed within which one can measure functional limitations. It is commonly known as the "Activities of Daily Living". This framework was operationalized in HALS through the use of a modified version of these activities for persons with physical limitations. Additional questions were asked to identify those with learning disabilities, and/or mental/psychological disabilities. A person is not considered to have a disability if a special aid completely eliminates the limitation or if the limitation has not lasted (or is not expected to last) six months.<sup>3</sup>

## Persons with Disabilities Who Are Limited at Work

A refinement of the definition of persons with disabilities was used to identify persons with a disability who were designated under the *Employment Equity Act*. The Employment Equity Regulations state:

- 3 (b) persons with disabilities are considered to be persons who
  - (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) ...

<sup>&</sup>lt;sup>2</sup> <u>International Classification of Impairments, Disabilities, and Handicaps.</u> World Health Organization, 1980, page 143.

<sup>&</sup>lt;sup>3</sup> For a copy of the questions, please refer to Health and Activity Limitation Survey - User's Guide.

For employment equity purposes, any person who indicated that they were limited in the kind or amount of work they could do were included in tabulations; i.e., a positive response to one or more of the following questions in the 1986 HALS:

# HALS Question #20 (ii) - (Work limitation due to condition)

Because of a long term physical condition or health problem, that is, one that is expected to last six months or more, are you limited in the kind or amount of activity you can do at school or work?

## HALS Question #23 (ii) - (Work limitation due to mental health condition)

Because of a long-term emotional, psychological, nervous, or mental health condition or problem, are you limited in the kind or amount of activity you can do at school or work?

## HALS Question #D19 (asked of the employed)

Are you limited in the kind or amount of work you can do at your present job or business because of your condition or health problem?

## HALS Question #D55 (asked of the unemployed)

Are you limited in the kind or amount of work you could do at a job or business because of a condition or health problem?

#### HALS Question #D69 (asked of persons not in the labour force)

Does your condition or health problem completely prevent you from working at a job or business?

#### HALS Question #D73 (asked of persons not in the labour force)

Does your condition or health problem limit the kind or amount of work you could do at a job or business?

# A COMPARISON OF THE HALS AND LMAS QUESTIONS ON PERSONS WITH DISABILITIES

Since our concern in this study is the labour market activity of persons with disabilities, we shall examine the Labour Market Activity Survey (LMAS) because of its excellent coverage of labour force behaviour. In the 1989 LMAS there are also a number of questions which identify various types of disability. In this section we document the specific questions on disability contained in the 1989 LMAS and their correspondence with the HALS.

## Questions on disability in LMAS and HALS

Each question on disability in LMAS involves two parts: (i) Does the respondent have this functional disability? and (ii) if so, is the respondent completely unable to perform this function? Thus, we are able to determine not only the nature of the disability but also, to some extent, its severity. The questions in both the LMAS and HALS specify that the respondent is only to consider problems which have lasted or are expected to last six months or more.

# "DISABILITY 13" refers to the following 13 questions

## LMAS Question #163 (Hearing)

Does ... have any trouble hearing what is said in a group conversation with at least three other people (with a hearing aid if normally used)? If so, is ... completely unable to do this?

This question is identical to questions A2 and A2b in the HALS.

#### LMAS Question #164 (Reading)

Does ... have any trouble reading ordinary newsprint (with glasses if normally worn)? If so, is ... completely unable to do this?

This question is identical to questions A4 and A4b in the HALS.

#### LMAS Question #165 (Speaking)

Does ... have any trouble speaking and being understood? If so, is ... completely unable to do this?

This question is identical to questions A7 and A7b in the HALS.

## LMAS Question #166 (Walking)

Does ... have any trouble walking 400 yards/400 metres without resting (about three city blocks)? If so, is ... completely unable to do this?

This question is identical to questions A8 and A8b in the HALS.

## LMAS Question #167 (Stairs)

Does ... have any trouble walking up and down a flight of stairs (about 12 steps)? If so, is ... completely unable to do this?

This question is <u>identical</u> to questions A9 and A9b in the HALS.

## LMAS Question #168 (Carrying)

Does ... have any trouble carrying an object of 10 pounds for 30 feet/ 5 kilograms for 10 metres (Example: carrying a bag of groceries)? If so, is ... completely unable to do this?

This question is identical to questions A10 and A10b in the HALS.

## LMAS Question #169 (Standing)

Does ... have any trouble standing for long periods of time, that is, more than 20 minutes? If so, is ... completely unable to do this?

This question is <u>identical</u> to questions A12 and A12b in the HALS.

#### LMAS Question #170 (Bending)

Does ... have any trouble bending down and picking up an object from the floor (for example, a shoe)? If so, is ... completely unable to do this?

This question is <u>identical</u> to questions A13 and A13b in the HALS.

#### LMAS Question #171 (Fingers)

Does ... have any trouble using his/her fingers to grasp or handle? If so, is ... completely unable to do this?

This question is <u>identical</u> to questions A17 and A17b in the HALS.

## LMAS Ouestion #172 (Reaching)

Does ... have any trouble reaching in any direction (for example: above his/her head)? If so, is ... completely unable to do this?

This question is identical to questions A18 and A18b in the HALS.

## LMAS Question #173 (Learning)

From time to time, everyone has trouble remembering the name of a familiar person or learning something new, or they experience moments of confusion. However, does ... have any ongoing problems with his/her ability to remember or learn?

This question is identical to questions A22 in the HALS.

## LMAS Question #174 (Physical limitation)

Because of a long-term physical condition or health problem, that is, one that is expected to last 6 months or more, is ... limited in the kind or amount of activity he/she can do .. (a) at home? (b) at school? (c) at work? (d) in other activities such as travel, sports, or leisure?

This question is identical to questions A20 in the HALS.

## LMAS Question #175 (Mental limitation)

Because of a long-term emotional, psychological, nervous, or mental health condition or problem, is ... limited in the kind or amount of activity he/she can do .. (a) at home? (b) at school? (c) at work? (d) in other activities such as travel, sports, or leisure?

This question is identical to questions A23 in the HALS.

# Questions referring to limitations or difficulties at work

## LMAS Question #177 (When work limitation began)

When did ...'s condition begin to limit the kind or amount of work he/she could do at a job or business?

This question has <u>no counterpart</u> in the HALS. There are questions to determine the age at which the disability began, but the disability may affect the kind or amount of work the respondent could do at a later age. There are a number of questions in the Employment section

of the HALS (D17-D23 in particular) to find out whether the condition has developed only since the respondent worked for his/her current employer and whether the condition inhibits job mobility, but these are not directly comparable to Question #177 in the LMAS.

## LMAS Question #180, Question #181 (Work limitation complete)

Does ...'s condition or health problem completely prevent him/her from working at a job or business? If so when?

Question #180 is identical to question D69 in the HALS. There is no question corresponding to question #181.

## LMAS Question #182, Question #183, Question #189, Question #190 (Limited in work)

Is ... limited in the kind or amount of work he/she could do at a job or business because of his/her condition? If so when?

Question #182 is very similar to questions D55 and D73 in the HALS for unemployed and those not in the labour force respectively. The questions are worded a bit differently, however. D55 asks: "Are you limited in the kind or amount of work you could do at a job or business because of a condition or health problem?" D73 asks: "Does your condition or health problem limit the kind or amount of work you could do at a job or business?" This difference in wording may be inconsequential. There is no question corresponding to Question #183. Question #189 is very similar to question D19 in the HALS for employed respondents. D19 is similar to D55: "Are you limited in the kind or amount of work you can do at your present job or business because of your condition or health problem?" There is no question corresponding to question #190.

#### LMAS Question #184 (Limited looking for work)

Does ...'s condition affect his/her ability to look for work?

This question corresponds to question D58 in the HALS for unemployed workers. This question is only asked of persons who were not working at a job or business at the end of 1989 in the LMAS. Hence, the questions should be <u>directly comparable</u>.

## LMAS Question #185 (Facilities limitation)

Because of ...'s condition or health problem, do any of the following make it difficult for him/her to find work .. (a) physical access to buildings? (b) lack of special aids, equipment or assistance? (c) inadequate transportation? (d) lack of suitable employment?

This question corresponds to question D61 in the HALS for unemployed workers and question D72 for those not in the labour force, except that the HALS survey adds two categories, "Other (specify)" and "None of the above." The question is only asked of persons who were not working at a job or business (that is, unemployed or not in the labour force) at the end of 1989 in the LMAS. These questions should be <u>directly comparable</u>, but question D61 is not on the public version of the HALS data tape.

# LMAS Question #187, Question #188 (Chances in getting job)

What are ...'s chances of getting a job in the next six months? Are they ... (a) excellent? (b) good? (c) fair? (d) poor? Are ...'s chances of getting a job fair/poor because of his/her condition?

This question is <u>identical</u> to questions D45 and D46 for the unemployed and D61 and D62 for those not in the labour force in the HALS.

## LMAS Question #191 (Job mobility)

Does the condition ... now has make it difficult for him/her to change jobs or get a better job?

This question is identical to questions D18 in the HALS for employed respondents. Question #191 is asked for persons who were working at a job or business at the end of 1989. Hence, the questions should be <u>directly comparable</u>.

#### LMAS Question #192, Question #193 (Job security)

In terms of ...'s most recent job, would ... describe his/her job security as ... (a) excellent? (b) good? (c) fair? (d) poor? Is ...'s job security fair/poor because of his/her condition?

This question is <u>identical</u> to questions D31 and D32 in the HALS for employed respondents. They are asked for persons who were working at a job or business at the end of 1989 in the LMAS.

#### Economic and demographic variables in LMAS and HALS

Comparable variables in the LMAs and HALS include: province, census metropolitan area, sex, age, marital status, education completed, language (English, French, both, or neither), family size, presence of children. However, the LMAS contains a much richer set of questions concerning labour market activity which can be used to calculate a summary of labour market activity for respondents in 1989. On the other hand, the HALS contains some useful information on household income not available in the LMAS.

#### Economic variables of interest from LMAS

#### **EARNINGS**:

Total annual and weekly earning for jobs 1-5 and all jobs in 1989

#### **HOURS:**

Hours worked (annual or by month) at jobs 1-5 and all jobs in 1989

#### WEEKS WORKED/UNEMPLOYED:

Weeks worked and weeks unemployed in 1989

#### **UNEMPLOYMENT SPELL:**

Duration of most recent spell of unemployment (if any)

#### TENURE:

Job tenure for latest full-time and/or part-time job

#### JOB MOBILITY

Whether individual changed jobs or employers in 1989

#### ADDITIONAL HOURS:

Additional hours of work desired by respondent.

These variables allow us to assess the labour market activity of respondents and to compare the activity of persons with and without disabilities.

Aspects of labour market activity will vary among respondents according to age, education and other factors listed above. In addition the LMAS contains information on union status, on-the-job training, etc. which are useful factors to consider in the determination of differences in labour market activity between persons with and without disabilities.

#### **Severity of Disability**

We also examine the severity index constructed from the HALS data and construct a comparable index from the information available in the LMAS. This index can then provide us with a useful summary statistic of the extent of each individual's disability. We can then introduce this variable to explain differences in labour market activity between persons with and without disabilities.

#### Economic variables of interest from HALS

Some of the labour market activity variables have counterparts in the HALS:

EMPIN: Employment income in 1985

HOURS: Hours worked in reference week

WORKACT: Work activity in 1985

However, each of these variables is less precise than its counterpart in the LMAS. Employment income is only available as grouped data (0, 1-999, 1000-1999, ..., 30000-34999, 35000+) which makes comparisons between the population with disabilities and the population without disabilities more difficult and prone to error since some assumption must be made about the distribution of values within each group. Hours worked refer to the reference week only, which may not be typical of hours worked during the month or year. Also, work activity only indicates whether a respondent worked in 1985 and, if so, whether the person worked full-time or part-time and the number of weeks by category (1-13, 14-26, 27-39, 40-48, 49-52). On the other hand, the LMAS provides precise responses of full-time and part-time work by job, and the number of weeks worked during the year.

Nonetheless, these variables in the HALS data set can be used to draw some preliminary comparisons of the labour market activity of persons with disabilities and persons without disabilities along the lines suggested above for the LMAS. This exercise will facilitate comparison of the results with the LMAS.

In addition, the HALS contains information on household and family income not available in the LMAS:

CFINC: Census family total income

EFINC: Economic family total income

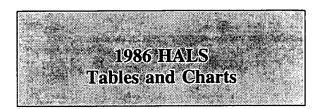
TOTINC: Total income 1985 LOINC: Low-income status

Again, these variables are grouped data which are more difficult to evaluate. We attempt, however, to draw comparisons between the family/household income circumstances of families/households with and without disabled persons.

# **APPENDIX B:**

Tables and Charts from the 1986 Health and Activity Limitation Survey and 1989 Labour Market Activity Survey

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# Tables H1 to H3 Charts H2 and H3

# Notes:

The source of data for these tables and charts is the 1986 Health and Activity Limitation Survey Microdata File.

All figures are rounded to the nearest 0 or 5. As a result, totals may not equal the sum of parts.

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Table H1. Incidence of disability by age group for three definitions of disability(1), Canada, 1986

Age group	Disability	Percentage	Disability13	Percentage	Work limitation	Percentage
15-19	75,510	4.0	69,950	3.7	44,385	2.4
20-24	105,815	4.8	97,090	4.4	63,020	2.8
25-29	123,780	5.4	120,005	5.3	82,545	3.6
30-34	164,920	7.6	161,220	7.4	102,525	4.7
35-39	169,805	8.6	167,950	8.5	108,995	5.5
40-44	165,285	10.0	164,740	10.0	111,395	6.8
45-49	163,030	12.5	162,075	12.4	116,345	8.9
50-54	207,050	17.3	206,465	17.3	149,305	12.6
55-59	263,470	22.6	259,120	22.2	206,585	17.9
60-64	328,975	28.7	325,815	28.4	270,050	23.8
65-69	291,705	32.7	289,775	32.4	n.a.(2)	n.a.
70-74	276,880	38.6	274,175	38.2	n.a.	n.a.
75-79	214,335	45.7	213,090	45.4	n.a.	n.a.
80-84	142,540	53.7	141,740	53.4	n.a.	n.a.
85+	101,455	72.9	99,060	71.2	n.a.	n.a.
Total	2,794,555	14.3%	2,752,270	14.1%	1,255,155	7.6%

Source: Statistics Canada, 1986 Health and Activity Limitation Survey (HALS), and the 1989 Labour Market Activity Survey (Master File), unpublished data.

<sup>(1) &</sup>quot;Disability" refers to the HALS disability indicator;
"Disability 13" refers to Labour Market Activity Survey disability indicator;
"Work limitation" refers to those identified by the HALS as limited at work, 15-64 years of age only.

<sup>(2)</sup> n.a. = not applicable.

Table H2. Incidence of disability by age group for three definitions of disability(1), males, Canada, 1986

Age group	Disability	Percentage	Disability13	Percentage	Work limitation	Percentage
15-19	40,100	4.1	35,070	3.6	21,080	2.2
20-24	53,590	4.9	48,685	4.4	30,430	2.8
25-29	63,255	5.7	61,590	5.5	45,495	4.1
30-34	85,670	7.9	83,095	7.7	49,585	4.6
35-39	86,900	8.7	85,285	8.6	56,540	5.7
40-44	78,670	9.5	78,415	9.5	47,830	5.8
45-49	81,675	12.3	81,000	12.2	57,700	8.7
50-54	110,520	19.1	110,140	19.0	77,465	13.4
55-59	130,090	21.9	128,085	21.5	98,440	16.5
60-64	158,225	30.2	155,740	29.7	130,960	25.0
65-69	147,055	35.4	145,840	35.1	n.a.(2)	n.a.
70-74	130,225	41.3	128,670	40.8	n.a.	n.a.
75-79	78,735	41.4	78,180	41.1	n.a.	n.a.
80-84	50,130	48.0	49,670	47.6	n.a.	n.a.
85+	31,470	67.1	31,365	66.9	n.a.	n.a.
Total	1,326,305	13.9%	1,300,840	13.7%	615,525	6.7%

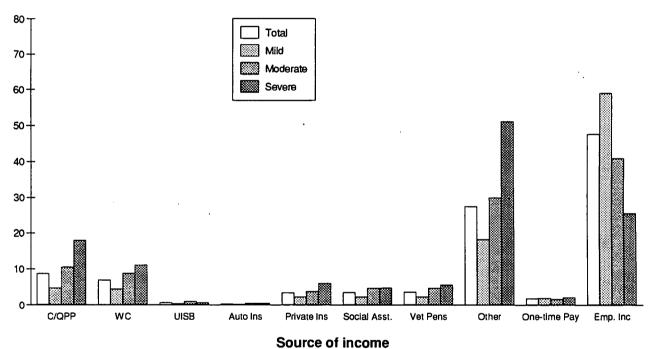
Source: Statistics Canada, 1986 Health and Activity Limitation Survey (HALS), and the 1989 Labour Market Activity Survey (Master File), unpublished data.

<sup>(1) &</sup>quot;Disability" refers to the HALS disability indicator;
"Disability 13" refers to Labour Market Activity Survey disability indicator;
"Work limitation" refers to those identified by the HALS as limited at work, 15-64 years of age only.

<sup>(2)</sup> n.a. = not applicable.

Chart H2. Sources of income for persons with disabilities, by severity of disability, males, Canada, 1986

## Percentage receiving income from source



\* See Table H2 for full source and income variable names.

Source of data: Statistics Canada, 1986 Health and Activity Limitation Survey, unpublished data.

Table H3. Incidence of disability by age group for three definitions of disability(1), females, Canada, 1986

Age group	Disability	Percentage	Disability13	Percentage	Work limitation	Percentage
15-19	35,415	3.9	34,880	3.8	23,300	2.6
20-24	52,225	4.7	48,400	4.3	32,595	2.9
25-29	60,525	5.2	58,415	5.0	37,050	3.2
30-34	79,245	7.3	78,125	7.2	52,940	4.9
35-39	82,905	8.5	82,660	8.4	52,455	5.4
40-44	86,620	10.5	86,320	10.5	63,565	7.7
45-49	81,350	12.6	81,070	12.6	58,645	9.1
50-54	96,530	15.7	96,325	15.6	71,840	11.7
55-59	133,380	23.4	131,035	23.0	108,145	18.9
60-64	170,750	27.4	170,075	27.3	139,085	22.4
65-69	144,650	30.3	143,935	30.1	n.a.(2)	n.a.
70-74	146,650	36.5	145,505	36.2	n.a.	n.a.
75-79	135,600	48.6	134,910	48.3	n.a.	n.a.
80-84	92,410	57.4	92,065	57.1	n.a.	n.a.
85+	69,985	75.9	67,695	73.4	n.a.	n.a.
Total	1,468,245	14.8%	1,451,430	14.6%	639,630	7.7%

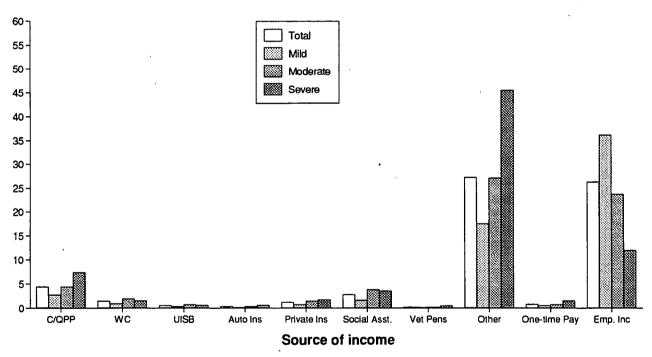
Source: Statistics Canada, 1986 Health and Activity Limitation Survey (HALS), and the 1989 Labour Market Activity Survey (Master File), unpublished data.

<sup>(1) &</sup>quot;Disability" refers to the HALS disability indicator;
"Disability 13" refers to Labour Market Activity Survey disability indicator;
"Work limitation" refers to those identified by the HALS as limited at work, 15-64 years of age only.

<sup>(2)</sup> n.a. = not applicable.

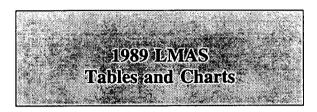
Chart H3. Sources of income for persons with disabilities, by severity of disability, females, Canada, 1986

# Percentage receiving income source



<sup>\*</sup> See Table H3 for full source of income variable names.

Source of data: Statistics Canada, 1986 Health and Activity Limitation Survey, unpublished data.



Tables L1 to L6 Charts L2 and L3

## Notes:

The source of data for these tables and charts is the 1989 Labour Market Activity Survey Person Master File.

All figures are rounded to the nearest 0 or 5. As a result, totals may not equal the sum of parts.

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Table L1. Sources of income for persons without disabilities and persons with disabilities by severity of disability, Canada, 1989

	Persons without	Persons with	Sava	.,	
Source of Income (1)	disabilities	Disabilities	Mild	rity of disabilit  Moderate	Severe
Annual earning from wages and salaries	\$15,722.60	\$8,806.55	\$11,086.70	\$5,054.65	\$1,795.32
Percent with earnings from wages and salaries	70.8%	43.1%	51.6%	29.5%	14.4%
Family earnings from wages and salaries	\$37,527.60	\$31,123.90	\$32,975.50	\$26,851.20	\$24,279.00
Percent received UIB	. 1.1%	0.9%	1.0%	0.8%	0.3%
Weeks UIB	20.0	20.0	19.0	26.1	23.5
Percent received WC	2.3%	1.5%	1.8%	1.0%	0.4%
Weeks WC	16.4	42.0	45.4	31.3	-
Percent received group insurance	2.3%	1.4%	1.7%	1.1%	0.4%
Weeks group insurance	15.4	27.4	27.1	28.5	· -
Percent received auto Insurance	2.3%	1.6%	1.9%	1.2%	0.4%
Weeks auto Insurance	10.1	8.3	8.0	10.0	-
Percent received full pay from employer	2.3%	1.6%	1.9%	1.2%	0.4%
Weeks full pay	10.3	9.8	9.5	14.0	-
Percent received partial pay from employer	2.3%	1.6%	1.9%	1.2%	0.4%
Weeks partial pay	13.0	12.6	12.1	17.0	-
Percent received other compensation	2.3%	1.6%	1.9%	1.2%	0.4%
Weeks other compensation	18.2	13.0	8.0	25.0	-
Percent received family UIB	23.1%	19.0%	20.6%	16.8%	12.8%
Percent received family social assistance	5.5%	. 16.5%	13.7%	21.3%	24.6%

The populations of persons without disabilities and persons with disabilities include persons aged 15 and over.

<sup>&</sup>quot;UIB" refers to the receipt of unemployment insurance benefits during the last absence from the current job (that is, the job of record on January 1, 1989);

<sup>&</sup>quot;WC" refers to the receipt of workers compensation during the last absence from the current job;

<sup>&</sup>quot;Group insurance", "Auto insurance", "Full pay from employer", "Partial pay from employer", and "Other compensation" refer to the receipt of those benefits during the last absence from the current job; hence, these categories are not strictly comparable to corresponding categories in the HALS (e.g., UISB, WC, AUTO INS, PRIV INS and OTHER) which refer to the receipt of these benefits in the calendar year of 1985 regardless of employment status on January 1, and regardless of any reported absence from work;

<sup>&</sup>quot;Family UIB" refers to the receipt of unemployment insurance benefits by any family member during 1989;

<sup>&</sup>quot;Family Social Assistance" refers to the receipt of social assistance benefits by any family member during 1989; hence, these last two categories are not comparable to UIB and SOC ASST in the HALS which refer to the receipt of benefits by the respondent;

<sup>&</sup>quot;Weeks UIB", "Weeks WC", "Weeks group insurance", "Weeks auto ins", "Weeks full pay", "Weeks part pay" and "Weeks other", refer to the duration of receipt of those benefits.

Table L2. Sources of income for persons without disabilities and persons with disabilities who are limited at work by severity of disability, Canada, 1989

	Persons without	Persons with disabilitles who	Cavar	its of disabilit	
Source of income (1)	disabilities	are limited at work	Mild	ity of disabilit	Severe
Annual earning from wages and salaries	\$15,722.60	\$5,808.99	\$7,807.53	\$4,505.99	\$1,589.09
Percent with earnings from wages and salaries	70.8%	33.9%	44.0%	26.5%	13.4%
Family earnings from wages and salaries	\$37,527.60	\$28,141.60	\$29,890.40	\$26,522.00	\$23,539.10
Percent received UIB	1.1%	1.0%	1.2%	0.8%	0.3%
Weeks UIB	20.0	17.6	15.0	27.4	21.3
Percent received WC	2.3%	1.4%	2.0%	1.0%	0.4%
Weeks WC	16.4	44.2	49.2	32.2	-
Percent received group insurance	2.3%	1.4%	1.9%	1.0%	0.4%
Weeks group insurance	15.4	29.7	30.0	28.6	-
Percent received auto insurance	2.3%	1.6%	2.3%	1.2%	0.4%
Weeks auto insurance	10.1	8.0	8.0	na	-
Percent received full pay from employer	2.3%	1.6%	2.3%	1.2%	0.4%
Weeks full pay	10.3	24.3	28.0	14.0	-
Percent received partial pay from employer	2.3%	1.6%	2.3%	1.2%	0.4%
Weeks partial pay	13.0	-	-	-	-
Percent received other compensation	2.3%	1.6%	2.3%	1.2%	0.4%
Weeks other compensation	18.2	8.0	8.0	-	-
Percent received family UIB	23.1%	19.3%	22.8%	16.7%	13.0
Percent received family social assistance	5.5%	21.6%	20.0%	22.5%	25.2%

The population of persons without disabilities includes persons aged 15 and over. The population of persons with disabilities who are limited at work includes persons aged 15 to 64.

<sup>&</sup>quot;UIB" refers to the receipt of unemployment insurance benefits during the last absence from the current job (that is, the job of record on January 1, 1989);

<sup>&</sup>quot;WC" refers to the receipt of workers compensation during the last absence from the current job;

<sup>&</sup>quot;Group insurance", "Auto insurance", "Full pay from employer", "Partial pay from employer", and "Other compensation" refer to the receipt of those benefits during the last absence from the current job; hence, these categories are not strictly comparable to corresponding categories in the HALS (e.g., UISB, WC, AUTO INS, PRIV INS and OTHER) which refer to the receipt of these benefits in the calendar year of 1985 regardless of employment status on January 1, and regardless of any reported absence from work;

<sup>&</sup>quot;Family UIB" refers to the receipt of unemployment insurance benefits by any family member during 1989;

<sup>&</sup>quot;Family Social Assistance" refers to the receipt of social assistance benefits by any family member during 1989; hence, these last two categories are not comparable to UIB and SOC ASST in the HALS which refer to the receipt of benefits by the respondent;

<sup>&</sup>quot;Weeks UIB", "Weeks WC", "Weeks group insurance", "Weeks auto ins", "Weeks full pay", "Weeks part pay" and "Weeks other", refer to the duration of receipt of those benefits.

Table L3. Sources of income for persons without disabilities and persons with disabilities by severity of disability, males, Canada, 1989

	Men without	Men with	Severity		
Source of income (1)	disabilities	disabilities	Mild	Moderate	Severe
Annual earning from wages and salaries	\$20,485.80	\$12,474.80	\$15,634.40	\$6,981.06	\$2,154.17
Percent with earnings from wages and salaries	76.1%	48.6%	57.9%	32.7%	13.6%
Family earnings from wages and salaries	\$38,412.70	\$31,104.80	\$33,597.50	\$24,674.30	\$23,384.20
Percent received UIB	1.2%	1.2%	1.4%	0.7%	0.7%
Weeks UIB	18.9	17.3	16.8	22.3	24.0
Percent received WC	2.8%	2.1%	2.7%	0.9%	0.9%
Weeks WC	11.7	44.4	45.0	38.6	-
Percent received group insurance	2.8%	2.0%	2.6%	0.9%	0.9%
Weeks group insurance	14.2%	28.4	28.5	28.0	-
Percent received auto Insurance	2.8%	2.3%	3.0%	1.0%	0.9%
Weeks auto insurance	10.2	8.0	8.0	-	-
Percent received full pay from employer	2.8%	2.3%	2.9%	1.0%	0.9%
Weeks full pay	9.0	9.7	9.5	14.0	
Percent received partial pay from employer	2.8%	2.3%	3.0%	1.0%	0.9%
Weeks partial pay	10.6	4.2	4.2	-	
Percent received other compensation	2.8%	2.4%	3.0%	1.0%	0.9%
Weeks other compensation	18.3	8.0	8.0	-	-
Percent received family UIB	24.6%	19.9%	22.5%	14.1%	17.5%
Percent received family social assistance	4.9%	15.6%	11.7%	22.7%	26.6%

The populations of persons without disabilities and of persons with disabilities include persons aged 15 and over.

<sup>&</sup>quot;UIB" refers to the receipt of unemployment insurance benefits during the last absence from the current job (that is, the job of record on January 1, 1989);

<sup>&</sup>quot;WC" refers to the receipt of workers compensation during the last absence from the current job;

<sup>&</sup>quot;Group insurance", "Auto insurance", "Full pay from employer", "Partial pay from employer", and "Other compensation" refer to the receipt of those benefits during the last absence from the current job; hence, these categories are not strictly comparable to corresponding categories in the HALS (e.g., UISB, WC, AUTO INS, PRIV INS and OTHER) which refer to the receipt of these benefits in the calendar year of 1985 regardless of employment status on January 1, and regardless of any reported absence from work;

<sup>&</sup>quot;Family UIB" refers to the receipt of unemployment insurance benefits by any family member during 1989;

<sup>&</sup>quot;Family Social Assistance" refers to the receipt of social assistance benefits by any family member during 1989; hence, these last two categories are not comparable to UIB and SOC ASST in the HALS which refer to the receipt of benefits by the respondent;

<sup>&</sup>quot;Weeks UIB", "Weeks WC", "Weeks group insurance", "Weeks auto ins", "Weeks full pay", "Weeks part pay" and "Weeks other", refer to the duration of receipt of those benefits.

Table L4. Sources of income for persons without disabilities and persons with disabilities who are limited at work by severity of disability, males, Canada, 1989

*	Men with Men without disabilities who		Severity of disability			
Source of income (1)	disabilities	are limited at work	Mild	Moderate	Severe	
Annual earning from wages and salaries	\$20,485.80	\$7,979.79	\$10,772.50	\$6,065.17	\$2,079.83	
Percent with earnings from wages and salaries	76.1%	37.6%	48.8%	29.0%	13.0%	
Family earnings from wages and salaries	\$38,412.70	\$27,077.20	\$29,771.00	\$23,837.20	\$23,336.10	
Percent received UIB	1.2%	1.4%	2.0%	0.7%	0.7%	
Weeks UIB	18.9	14.7	13.4	22.2	24.0	
Percent received WC	2.8%	2.2%	3.4%	1.0%	0.9%	
Weeks WC	11.7	47.4	48.8	38.6	-	
Percent received group insurance	2.8%	2.0%	3.1%	0.9%	0.9%	
Weeks group insurance	14.2	29.8	30.0	28.0	-	
Percent received auto insurance	2.8%	2.5%	4.0%	1.1%	0.9%	
Weeks auto insurance	10.2	8.0	8.0	-	-	
Percent received full pay from employer	2.8%	2.5%	4.0%	1.1%	0.9%	
Weeks full pay	9.0	24.3	28.0	14.0	na	
Percent received partial pay from employer	2.8%	2.5%	4.0%	1.1%	0.9%	
Weeks partial pay	10.6	-	-	-	-	
Percent received other compensation	2.8%	2.5%	4.0%	1.1%	0.9%	
Weeks other compensation	18.3	8.0	8.0	-	-	
Percent received family UIB	24.6%	19.7%	24.7%	14.3%	17.7%	
Percent received family social assistance	4.9%	20.8%	16.3%	24.7%	26.8%	

The population of persons without disabilities includes those aged 15 and over. The population of persons with disabilities who are limited at work includes those aged 15 to 64.

<sup>&</sup>quot;UIB" refers to the receipt of unemployment insurance benefits during the last absence from the current job (that is, the job of record on January 1, 1989);

<sup>&</sup>quot;WC" refers to the receipt of workers compensation during the last absence from the current job;

<sup>&</sup>quot;Group insurance", "Auto insurance", "Full pay from employer", "Partial pay from employer", and "Other compensation" refer to the receipt of those benefits during the last absence from the current job; hence, these categories are not strictly comparable to corresponding categories in the HALS (e.g., UISB, WC, AUTO INS, PRIV INS and OTHER) which refer to the receipt of these benefits in the calendar year of 1985 regardless of employment status on January 1, and regardless of any reported absence from work;

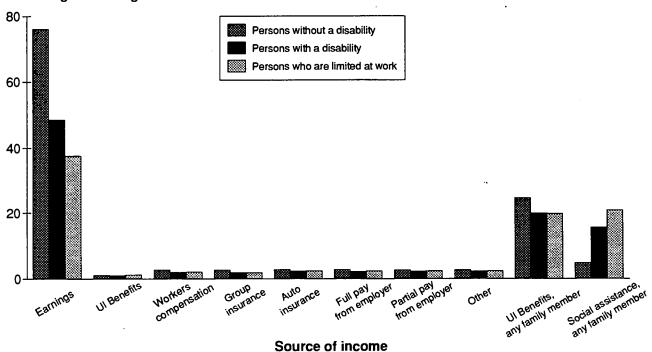
<sup>&</sup>quot;Family UIB" refers to the receipt of unemployment insurance benefits by any family member during 1989;

<sup>&</sup>quot;Family Social Assistance" refers to the receipt of social assistance benefits by any family member during 1989; hence, these last two categories are not comparable to UIB and SOC ASST in the HALS which refer to the receipt of benefits by the respondent;

<sup>&</sup>quot;Weeks UIB", "Weeks WC", "Weeks group insurance", "Weeks auto ins", "Weeks full pay", "Weeks part pay" and "Weeks other", refer to the duration of receipt of those benefits.

# Chart L2 (from Tables L3 and L4). Sources of income by disability status, males, Canada, 1989

## Percentage receiving income from source



<sup>\*</sup> For full variable names see Tables L3 and L4.

Table L5. Sources of income for persons without disabilities and persons with disabilities by severity of disability, females, Canada, 1989

		_				
0	Women without	Women with		of disability	- Caucas	
Source of income (1)	disabilities	disabilities	Mild	Moderate	Severe	
Annual earning from wages and salaries	\$11,134.20	\$5,203.59	\$6,471.40	\$3,231.33	\$1,498.31	
Percent with earnings from wages and salaries	65.8%	37.6%	45.1%	26.8%	15.0%	
Family earnings from wages and salaries	\$36,657.10	\$31,145.10	\$32,260.30	\$29,030.20	\$25,369.80	
Percent received UIB	1.0%	0.6%	0.5%	1.0%	0.1%	
Weeks UIB	22.0	29.3	29.3	29.6	22.4	
Percent received WC	1.8%	0.9%	0.8%	1.2%	0.8%	
Weeks WC	25.4	31.0	60.0	27.3	-	
Percent received group insurance	1.8%	0.9%	7.9%	1.2%	0.1%	
Weeks group insurance	17.8	22.2	15.1	29.1	<del>-</del>	
Percent received auto insurance	1.9%	0.9%	0.8%	1.3%	0.1%	
Weeks auto insurance	9.9	10.0	-	10.0	-	
Percent received full pay from employer	1.8%	0.9%	0.8%	1.3%	0.1%	
Weeks full pay	11.1	14.0	-	14.0	-	
Percent received partial pay from employer	1.8%	0.9%	0.8%	1.3%	0.1%	
Weeks partial pay	14.7	22.5	24.0	17.0	-	
Percent received other compensation	1.8%	0.9%	0.8%	1.3%	0.1%	
Weeks other compensation	18.1	25.0	•	25.0	•	
Percent received family UIB	21.6%	18.1%	18.6%	19.4%	8.9%	
Percent received family social assistance	6.0%	17.5%	15.8%	20.0%	23.1%	

The population of persons without disabilities includes those aged 15 and over. The population of persons with disabilities who are limited at work includes those aged 15 to 64.

<sup>&</sup>quot;UIB" refers to the receipt of unemployment insurance benefits during the last absence from the current job (that is, the job of record on January 1, 1989);

<sup>&</sup>quot;WC" refers to the receipt of workers compensation during the last absence from the current job;

<sup>&</sup>quot;Group insurance", "Auto insurance", "Full pay from employer", "Partial pay from employer", and "Other compensation" refer to the receipt of those benefits during the last absence from the current job; hence, these categories are not strictly comparable to corresponding categories in the HALS (e.g., UISB, WC, AUTO INS, PRIV INS and OTHER) which refer to the receipt of these benefits in the calendar year of 1985 regardless of employment status on January 1, and regardless of any reported absence from work;

<sup>&</sup>quot;Family UIB" refers to the receipt of unemployment insurance benefits by any family member during 1989;

<sup>&</sup>quot;Family Social Assistance" refers to the receipt of social assistance benefits by any family member during 1989; hence, these last two categories are not comparable to UIB and SOC ASST in the HALS which refer to the receipt of benefits by the respondent;

<sup>&</sup>quot;Weeks UIB", "Weeks WC", "Weeks group insurance", "Weeks auto ins", "Weeks full pay", "Weeks part pay" and "Weeks other", refer to the duration of receipt of those benefits.

Table L6. Sources of income for persons without disabilities and persons with disabilities who are limited at work by severity of disability, females, Canada, 1989

		Women with			
Source of Income (1)	Women without	disabilities who		rity of disabili	
Source of income (1)	disabilities	are limited at work	Mild	Moderate	Severe
Annual earning from wages and salaries	\$11,134.20	\$3,737.76	\$4,942.69	\$2,998.22	\$1,169.76
Percent with earnings from wages and salaries	65.8%	30.3%	39.2%	24.3%	13.7%
Family earnings from wages and salaries	\$36,657.10	\$29,262.20	\$30,016.30	\$29,217.00	\$23,802.40
Percent received UIB	1.0%	0.6%	0.5%	1.0%	0.1%
Weeks UIB	22.0	32.2	32.3	33.0	10.0
Percent received WC	1.8%	0.7%	0.6%	1.1%	0.1%
Weeks WC	25.4	32.2	60.0	28.5	-
Percent received group insurance	1.8%	0.8%	0.6%	1.1%	0.1%
Weeks group insurance	17.8	29.2	-	29.2	-
Percent received auto insurance	1.9%	0.8%	0.6%	1.3%	0.1%
Weeks auto insurance	9.9	-	- }	-	-
Percent received full pay from employer	1.8%	0.8%	0.6%	1.3%	0.1%
Weeks full pay	11.1	-	-	-	-
Percent received partial pay from employer	1.8%	0.8%	0.6%	1.3%	0.1%
Weeks partial pay	14.7	-	-	_	-
Percent received other compensation	1.8%	0.8%	0.6%	1.3%	0.1%
Weeks other compensation	18.1	-	-	-	-
Percent received family UIB	21.6%	18.8%	20.9%	19.0%	9.0%
Percent received family social assistance	6.0%	22.4%	23.6%	20.5%	23.9%

The population of persons without disabilities includes those aged 15 and over. The population of persons with disabilities who are limited at work includes those aged 15 to 64.

<sup>&</sup>quot;UIB" refers to the receipt of unemployment insurance benefits during the last absence from the current job (that is, the job of record on January 1, 1989);

<sup>&</sup>quot;WC" refers to the receipt of workers compensation during the last absence from the current job;

<sup>&</sup>quot;Group insurance", "Auto insurance", "Full pay from employer", "Partial pay from employer", and "Other compensation" refer to the receipt of those benefits during the last absence from the current job; hence, these categories are not strictly comparable to corresponding categories in the HALS (e.g., UISB, WC, AUTO INS, PRIV INS and OTHER) which refer to the receipt of these benefits in the calendar year of 1985 regardless of employment status on January 1, and regardless of any reported absence from work;

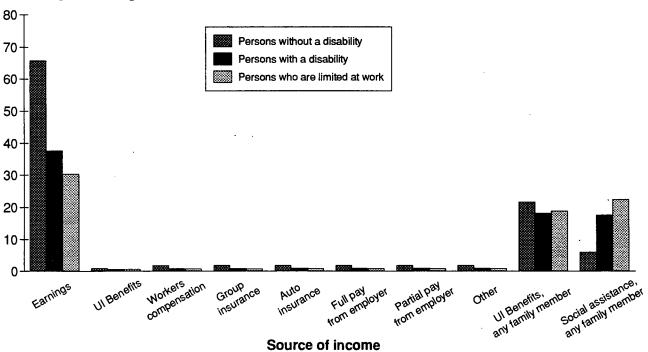
<sup>&</sup>quot;Family UIB" refers to the receipt of unemployment insurance benefits by any family member during 1989:

<sup>&</sup>quot;Family Social Assistance" refers to the receipt of social assistance benefits by any family member during 1989; hence, these last two categories are not comparable to UIB and SOC ASST in the HALS which refer to the receipt of benefits by the respondent;

<sup>&</sup>quot;Weeks UIB", "Weeks WC", "Weeks group insurance", "Weeks auto ins", "Weeks full pay", "Weeks part pay" and "Weeks other", refer to the duration of receipt of those benefits.

# Chart L3 (from Tables L5 and L6). Sources of income by disability status, females, Canada, 1989

### Percentage receiving income from source



<sup>\*</sup> For full variable names see Tables L5 and L6.

### Basic Regression Analysis of the Effect of Disability on Earnings

A wide variety of models are possible to study the labour market activities of persons with disabilities. In this analysis we use the simple regression model from Hum and Simpson (1993) to highlight the impact of disability on earnings found in the 1989 Labour Market Activity Survey data, leaving aside many underlying economic or econometric issues. The basic model may be concisely represented as

- $\log E = \alpha X + \delta \log H + \beta D + \xi$  and  $\log E = \log w + \log H$  so that  $\log w = \log E \log H = \alpha X + [\delta 1] \log H + \beta D + \xi$

where "E" is earnings, "W" is the average hourly wage, and "H" is hours worked. Hence earnings regression (1) immediately yields wage regression (3), which may be more useful for some policy applications (e.g., pay equity). Moreover, the interpretation of earnings and wage regression results is simplified in the form taken by equations (1) and (3). If "D" is a simple dummy variable for disability status, for example, then β is the relative or percentage difference (rather than the absolute difference) in wages or earnings due to disability.<sup>4</sup>

The five earnings equations in Table R1 differ solely in terms of the disability measure included. The first equation (column 1) uses only a dummy variable to identify persons with a disability (PWD=1) and without a disability (PWD=0) and a dummy variable to identify persons with a disability who are limited at work (PWDLW=1). The second equation uses the three disability categories for severity (mild, moderate, and severe) while the third equation uses the four disability categories based on the type of disability (mobility/agility, sensory, mental, multiple). The fourth equation uses both the disability categories based on severity and type while the final equation uses a full set of interaction terms for disability severity and type. In each case the disability measures are generally significant, as are most of the other variables in the regression.<sup>5</sup>

Tables R2 and R3 repeat the regression results for men and women, respectively. In Table R1 differences in earnings between men and women are accounted for solely by a dummy variable (Male), which indicates a pay differential of 24% in favour of men. That is, when other factors affecting earnings are accounted for (specifically, disability status and the other variables listed in the first column of Table R1), the earnings of men are found to be 24% higher than women. This specification implies, however, that the effects of disability on earnings are the same for men and women. Tables R2 and R3 allow us to examine the effects of disability status on earnings among all men and among all women, respectively.

The slope coefficient actually approximates the relative change in earnings or wage; the approximation is less accurate the larger is  $\beta$ .

<sup>&</sup>lt;sup>5</sup> For a brief discussion of the explanatory variables in the regression model and their anticipated results, see Hum and Simpson (1993).

The results of Tables R1-R3, in terms of the effects of disability status on earnings, are summarized in Table R5. Persons with disabilities who are limited at work experience a 14.5% disadvantage in earnings when other factors affecting earnings are accounted for. The disadvantage is similar for men and women. Particularly disadvantaged are those with severe disabilities, who experience a 48.8% earnings disadvantage, and those with mental disabilities, who experience a 13.7% earnings disadvantage.

In the first row of Table R5 we only report the effect on earnings of those reporting a disability that is limiting at work (PWDLW), since only that variable is significant in column 1 of Tables R1-R3. Given that result, we also report without further comment the effect of disability severity and type by limited-at-work status in Table R4.

Another result of interest in Tables R1-R3 concerns the impact of visible minority status, as measured in the LMAS, on earnings. The impact is always statistically significant and negative, indicating that visible minority workers earn less money than other Canadian workers after other factors, including disability status, have been accounted for. Overall, visible minority workers earn about 9% less than other Canadian workers, but the figure is higher for men (13%) than women (6%). These results add a third, and largely unexplored, dimension of disadvantage. In summary, the estimated disadvantages of gender, disability, and visible minority status are: a 24% earnings disadvantage for women, a 15% earnings disadvantage for persons with disabilities who are limited at work, and a 9% disadvantage for visible minorities.

Table R1. Ordinary least squares regression results for earnings<sup>1</sup>, Canada, 1989

	#1:	#2:	#3:	#4:	#5:
	Disability	Severity	Disability	Type and	Type by
	status	category	type	severity	severity
Intercept	0.460*	0.471*	0.463*	0.474*	0.474*
Sex (male=1)	0.240*	0.239*	0.240*	0.239*	0.240*
Age	0.054*	0.054*	0.054*	0.054*	0.054*
Age <sup>2</sup>	-0.0006*	-0.0006*	-0.0006*	-0.0006*	-0.0006*
Student	-0.065*	-0.064*	0.065*	-0.065*	-0.065*
EIC program	-0.063*	-0.069*	0.064*	-0.066*	-0.066*
Training	0.067*	0.069*	0.069*	0.069	0.070*
Persons with disabilities	0.011				
Persons with disabilities					
limited at work	-0.156*				
Mild		0.024*		0.025	
Moderate		-0.166*		0.080*	
Severe		-0.164*		0.488*	
Mobility and agility			0.045*	0.012	
Sensory			0.111*	0.043*	
Mental			-0.070*	-0.137*	
Multiple			-0.105*	0.061*	
Mild: Mobility					-0.009
Mild: Sensory					0.040*
Mild: Mental					-0.151*
Mild: Multiple					0.024
Moderate: Mobility					-0.064*
Moderate: Sensory					-1.356*
Moderate: Mental				·	-0.044
Moderate: Multiple					-0.080*
Severe: Mobility					0.321*
Severe: Sensory	. •				n.a.
Severe: Mental					n.a.
Severe: Multiple					-0.336*
Visible minority	-0.094*	-0.096*	-0.096*	-0.097*	-0.096*
English	0.063*	0.059*	0.062*	0.060*	0.060*
French	0.014	0.013	0.013	0.013	0.013
Born in Canada	0.008	0.005	0.008	0.007	0.007
Some high school	0.127*	0.120*	0.121*	0.117*	0.117*
High school	. 0.213*	0.206*	0.208*	0.203*	0.203*
Some postsecondary	0.280*	0.273*	0.276*	0.271*	0.271*
Postsecondary certificate	0.370*	0.363*	0.365*	0.360*	0.360*
University degree	0.559*	0.553*	0.554*	0.550*	0.550*

... continued

Table R1. Ordinary least squares regression results for earnings<sup>1</sup>, Canada, 1989 (concluded)

	#1: Disability status	#2: Severity category	#3: Disability type	#4: Type and severity	#5: Type by severity
Newfoundland	-0.249*	0.251*	0.251*	0.252*	0.251*
Prince Edward Island	-0.269*	-0.261*	-0.261*	-0.260*	-0.262*
Nova Scotia	-0.207*	-0.207*	-0.207*	-0.207*	-0.207*
New Brunswick	-0.192*	-0.193*	-0.192*	-0.193*	-0.194*
Quebec	-0.053*	-0.055*	-0.054*	-0.054*	-0.054*
Manitoba	-0.112*	-0.113*	-0.114*	-0.115*	-0.114*
Saskatchewan	-0.140*	-0.141*	-0.141*	-0.141*	-0.141*
Alberta	-0.032*	-0.032*	-0.032*	-0.032*	-0.033*
British Columbia	-0.018*	-0.018*	-0.019*	-0.018*	-0.017*
Full-time	0.052*	0.053*	0.051*	0.053*	0.053*
Log hours	1.042*	1.041*	1.042*	1.041*	1.041*
Union job	0.216*	0.216*	0.215*	0.215*	0.215*
Change jobs	0.052*	0.052*	0.056*	0.053*	0.052*
Change employment	-0.087*	-0.087*	-0.091*	-0.089*	-0.088*
R <sup>2</sup>	0.867	0.868	0.867	0.868	0.868
F	8865.05	8617.84	8337.04	7673.56	7111.94
Observations (weighted)	12,277,700	12,277,700	12,277,700	12,277,700	12,227,700

<sup>&</sup>lt;sup>1</sup> The dependent variable is natural logarithm of earnings; observations with zero or negative earnings are excluded. There are a few unexpected positive signs but most are not statistically significant and are not discussed further.

Source: Statistics Canada, 1989 Labour Market Activity Survey (Master File), unpublished data.

<sup>\*</sup> Denotes significance at the 5% level.

Table R2. Ordinary least squares regression results for earnings<sup>1</sup> for men, Canada, 1989

	#1:	#2:	#3:	#4:	#5:
	Disability	Severity	Disability	Type and	Type by
	status	category	type	severity	severity
Intercept	0.559*	0.564*	0.555*	0.566*	0.568*
Age	0.63*	0.063*	0.063*	0.063*	0.063*
Age <sup>2</sup>	-0.0006*	-0.0006*	-0.0006*	-0.0006*	-0.0006*
Student	-0.108*	-0.105*	0.107*	0.106*	0.107*
EIC program	-0.029	-0.034*	0.032*	0.033*	0.034*
Training	0.076*	0.076*	0.076*	0.076*	0.077*
Persons with disabilities	0.023				
Persons with disabilities					
limited at work	-0.169*				
Mild		-0.016		0.006	
Moderate		-0.182*		-0.135*	
Severe	·	0.549*		-0.476*	
Mobility and agility			0.019	-0.003	
Sensory			0.113*	0.050*	
Mental			0.066	-0.129*	
Multiple			-0.087*	-0.030*	
Mild: Mobility					0.011
Mild: Sensory					0.069*
Mild: Mental					-0.117*
Mild: Multiple					-0.034*
Moderate: Mobility					-0.127*
Moderate: Sensory					-1.175*
Moderate: Mental					-1.102
Moderate: Multiple					-0.065*
Severe: Mobility					0.269
Severe: Sensory					n.a.
Severe: Mental					n.a.
Severe: Multiple					-0.252*
Visible minority	-0.128*	-0.133*	-0.133*	-0.133*	-0.133*
English	0.093*	0.091*	0.093*	0.092*	0.094*
French	0.040*	0.039*	0.040*	0.040*	0.043*
Born in Canada	0.054*	0.054*	0.056*	0.056*	0.058*
Some high school	0.120*	0.115*	0.117*	0.114*	0.113*
High school	0.184*	0.179*	0.181*	0.178*	0.178*
Some postsecondary	0.245*	0.241*	0.243*	0.239*	0.239*
Postsecondary certificate	0.310*	0.305*	0.308*	0.304*	0.304*
University degree	0.468*	0.464*	0.467*	0.464*	0.463*

... continued

Table R2. Ordinary least squares regression results for earnings<sup>1</sup>, for men, Canada, 1989 (concluded)

	#1: Disability status	#2: Severity category	#3: Disability type	#4: Type and severity	#5: Type by severity
Newfoundland	-0.223*	-0.224*	-0.223*	-0.224*	-0.223*
Prince Edward Island	-0.319*	-0.311*	-0.313*	-0.312*	-0.314*
Nova Scotia	-0.201*	-0.200*	-0.201*	-0.201*	-0.201*
New Brunswick	-0.173*	-0.174*	-0.173*	-0.193*	-0.176*
Quebec	-0.052*	-0.054*	-0.053*	-0.054*	-0.054*
Manitoba	-0.117*	-0.117*	-0.118*	-0.118*	-0.118*
Saskatchewan	-0.127*	-0.128*	-0.128*	-0.128*	-0.128*
Alberta	-0.020*	-0.022*	-0.021*	-0.022*	-0.022*
British Columbia	0.017*	0.017*	0.016*	0.016*	0.016*
Full-time	0.075*	0.076*	0.074*	0.076*	0.075*
Log hours	1.035*	1.035*	1.036*	1.035*	1.034*
Union job	0.170*	0.171*	0.170*	0.170*	0.169*
Change jobs	0.027*	0.028*	0.031	0.028*	0.028
Change employment	-0.073*	-0.074*	-0.077*	-0.074*	-0.074*
R <sup>2</sup>	0.856	0.856	0.856	0.856	0.578
F	4257.59	4131.93	3996.94	3676.93	3404.19
Observations (weighted)	6,511,530	6,511,530	6,511,530	6,511,530	6,511,530

<sup>&</sup>lt;sup>1</sup> The dependent variable is natural logarithm of earnings; observations with zero or negative earnings are excluded. There ar a few unexpected positive signs but most are not statistically significant and are not discussed further.

Source: Statistics Canada, 1989 Labour Market Activity Survey (Master File), unpublished data.

<sup>\*</sup> Denotes significance at the 5% level.

Table R3. Ordinary least squares regression results for earnings<sup>1</sup> for women, Canada, 1989

	#1:	#2:	#3:	#4:	#5:
	Disability	Severity	Disability	Type and	Type by
·	status	category	type	severity	severity
Intercept	0.586*	0.603*	0.599*	0.610*	0.610*
Age	0.048*	0.047*	0.048*	0.048*	0.047*
Age <sup>2</sup>	-0.0005*	-0.0005*	-0.0005*	-0.0005*	-0.0005*
Student	-0.024*	-0.023*	-0.024*	-0.024*	-0.024*
EIC program	-0.085*	-0.093*	-0.086*	-0.089*	-0.088*
Training	0.062*	0.066*	0.066*	0.068*	0.067*
Persons with disabilities	0.005				
Persons with disabilities					
limited at work	-0.147*				
Mild		-0.036		0.043	
Moderate		-0.154*		0.017	
Severe		0.671*		-0.487*	
Mobility and agility			0.099*	0.059*	
Sensory			0.080*	0.011	
Mental		,	-0.056	-0.123*	
Multiple			-0.141*	-0.114*	
Mild: Mobility	=				-0.019
Mild: Sensory					-0.038
Mild: Mental	-				-0.187*
Mild: Multiple					-0.011
Moderate: Mobility					0.023
Moderate: Sensory					-1.953*
Moderate: Mental					-0.012
Moderate: Multiple					-0.108*
Severe: Mobility			,		-0.560*
Severe: Sensory					n.a.
Severe: Mental					n.a.
Severe: Multiple			'		500*
Visible minority	-0.059*	-0.060*	-0.060*	-0.061*	-0.059*
English	0.015	0.010	0.010	0.008	0.005
French	-0.026	-0.029	-0.032	-0.031	-0.035*
Born in Canada	-0.054*	-0.061*	-0.059*	-0.060*	-0.062*
Some high school	0.185*	0.174*	0.174*	0.167*	0.168*
High school	0.303*	0.293*	0.294*	0.287*	0.288*
Some postsecondary	0.363*	0.353*	0.354*	0.347*	0.348*
Postsecondary certificate	0.476*	0.466*	0.467*	0.460*	0.461*
University degree	0.698*	0.688*	0.688*	0.682*	0.683*

... continued

Table R3. Ordinary least squares regression results for earnings<sup>1</sup> for women, Canada, 1989 (concluded)

	#1: Disability status	#2: Severity category	#3: Disability type	#4: Type and severity	#5: Type by severity
Newfoundland	-0.283*	-0.285*	-0.287*	-0.288*	-0.287*
Prince Edward Island	-0.228*	-0.220*	-0.217*	-0.217*	-0.217*
Nova Scotia	-0.222*	-0.223*	-0.223*	-0.224*	-0.223*
New Brunswick	-0.222*	-0.222*	-0.221*	-0.222*	-0.222*
Quebec	-0.054*	-0.057*	-0.055*	-0.057*	-0.055*
Manitoba	-0.107*	-0.109*	-0.110*	-0.112*	-0.110*
Saskatchewan	-0.158*	-0.159*	-0.159*	-0.159*	-0.158*
Alberta	-0.050*	-0.049*	-0.049*	-0.049*	-0.048*
British Columbia	-0.062*	-0.061*	-0.062*	-0.061*	-0.058*
Full-time	0.024*	0.025*	0.023*	0.024*	0.024*
Log hours	1.042*	1.043*	1.043*	1.042*	1.043*
Union job	0.249*	0.248*	0.247*	0.247*	0.246*
Change jobs	0.092*	0.090*	0.096*	0.093*	0.092
Change employment	-0.121*	-0.121*	-0.126*	-0.124*	-0.123*
R <sup>2</sup>	0.870	0.870	0.870	0.871	0.872
F	4415.52	4295.50	4157.23	3819.81	3550.44
Observations (weighted)	5,766,170	5,766,170	5,766,170	5,766,170	5,766,170

<sup>&</sup>lt;sup>1</sup> The dependent variable is natural logarithm of earnings; observations with zero or negative earnings are excluded. There are a few unexpected positive signs but most are not statistically significant and are not discussed further.

Source: Statistics Canada, 1989 Labour Market Activity Survey (Master File), unpublished data.

<sup>\*</sup> Denotes significance at the 5% level.

Table R4. Ordinary least squares regression results for earnings<sup>1</sup> distinguishing disabilities by limited at work status, severity and type of disability<sup>2</sup>, Canada, 1989

	#1:	#2:	#3:	#4:	#5:
	Disability	Severity	Disability	Type and	Type by
	status	category	type	severity	severity
Intercept	0.460*	0.476*	0.470*	0.478*	0.474*
Sex(male=1)	0.240*	0.239*	0.239*	0.239*	0.240*
Age	0.054*	0.054*	0.055*	0.055*	0.054*
Age <sup>2</sup>	-0.0006*	-0.0006*	-0.0006*	-0.0006*	-0.0006*
Student	-0.065*	-0.065*	-0.066*	-0.065*	-0.065*
EIC program	-0.063*	-0.066*	-0.059*	-0.062*	-0.066*
Training	0.067*	0.068*	0.068*	0.068*	0.070*
Persons with disabilities	0.011				
Persons with disabilities					
limited at work	-0.156*				
Mild		0.014		0.113*	
Moderate		-0.035		0.076	ļ
Severe		-0.217		-0.107	
Mobility and agility			-0.034	-0.102*	
Sensory			0.036	-0.034*	
Mental			-0.028	-0.098*	
Multiple			-0.003	-0.046*	
Mild: limited at work		-0.096*		-0.158	
Moderate: limited at work		-0.158*		-0.220*	
Severe: limited at work		-0.438*		-0.429*	
Mobility and agility: limited at work			0.109*	0.196*	
Sensory: limited at work			-0.049	-0.013	
Mental: limited at wrok			´-0.069	-0.036	
Multiple: limited at work			-0.151*	-0.025	
Mild: Mobility and agility					-0.008
Mild: Sensory					0.040*
Mild: Mental				•	-0.151*
Mild: Multiple					-0.024
Moderate: Mobility and agility				•	-0.064*
Moderate: Sensory					-1.356*
Moderate: Mental					-0.044
Moderate: Multiple					-0.080*
Severe: Mobility and agility					0.321*
Severe: Sensory			·		n.a.
Severe: Mental					n.a.
Severe: Multiple					-0.336*
Visible minority	-0.094*	-0.095*	-0.097*	-0.096*	-0.096*

... continued

Table R4. Ordinary least squares regression results for earnings<sup>1</sup> distinguishing disabilities by limited at work status, severity and type of disability<sup>2</sup>, Canada, 1989 (concluded)

	#1:	#2:	#3:	#4:	#5:
	Disability	Severity	Disability	Type and	Type by
	status	category	type	severity	severity
English	0.063*	0.061*	0.063*	0.061*	0.060*
French	0.014	0.014	0.013	0.013	0.013
Born in Canaa	0.008	0.006	0.009	0.008	0.007
Some high school	0.127*	0.119*	0.119*	0.115*	0.117*
High school	0.213*	0.204*	0.205*	0.201*	0.203*
Some postsecondary	0.280*	0.272*	0.273*	0.268*	0.271*
Postsecondary certificate	0.370*	0.361*	0.361*	0.357*	0.360*
University degree	0.559*	0.551*	0.551*	0.547*	0.550*
Newfoundland	-0.249*	-0.251*	-0.252*	-0.253*	-0.251*
Prince Edward Island	-0.269*	-0.268*	-0.270*	-0.269*	-0.262*
Nova Scotia	-0.207*	-0.207*	-0.207*	-0.208*	-0.207*
New Brunswick	-0.192*	-0.193*	-0.192*	-0.193*	-0.194*
Quebec	-0.053*	-0.055*	-0.052*	0.054*	-0.054*
Manitoba	-0.112*	-0.113*	-0.114*	-0.115*	-0.114*
Saskatchewan	-0.140*	-0.141*	-0.140*	-0.141*	-0.141*
Alberta	-0.032*	-0.032*	-0.032*	-0.032*	-0.033*
British Columbia	-0.018*	-0.017*	-0.017*	-0.017*	-0.017*
Full-time	0.052*	0.053*	0.052*	0.053*	0.053*
Log hours	1.042*	1.040*	1.041*	1.040*	1.041*
Union job	0.216*	0.216*	0.215*	0.215*	0.215*
Change jobs	0.052*	0.051*	0.054*	0.052*	0.052*
Change employment	-0.087*	-0.087*	-0.089*	-0.087*	-0.088*
R <sup>2</sup>	0.867	0.868*	0.868	0.868*	0.868*
F	8865.05	7892.97	7463.15	6444.32	7111.9
Observations (weighted)	12,277,700	12,277,700	12,277,700	12,277,700	12,277,700
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<sup>&</sup>lt;sup>1</sup> The dependent variable is natural logarithm of earnings; observations with zero or negative earnings are excluded.

Source: Statistics canada, 1989 Labour Market Activity Survey (Master File), unpublished data.

<sup>&</sup>lt;sup>2</sup> There are a few unexpected positive signs but most are not statistically significant and are not discussed further.

<sup>\*</sup> Denotes significance at the 5% level.

Table R5. Effect of disability status on earnings by type and severity of disability, based on Tables R1-R3, Canada, 1989

		All	Men	Women
Persons with disabilities Limited at work		-14.5%*	-14.6%*	-15.2%*
	Mild	+2.5	+0.6	4.3
Severity <sup>1</sup> :				
	Moderate	-8.0*	-13.5*	-1.7
	Severe	-48.8*	-47.6*	-48.7*
Type <sup>2</sup> :	Mobility	+1.2	-0.3	+5.9*
	Sensory	+4.3*	+5.0*	+1.1
	Mental	-13.7*	-12.9*	-12.3*
	Multiple	-6.1*	-3.0*	-11.4*
Mobility:	Mild	-0.8	+1.1	-1.9
	Moderate	-6.4*	-12.7*	+2.3
	Severe	+32.1*	+26.9	+56.0*
Sensory:	Mild	+4.0*	+6.9*	-3.8
	Moderate	-135.6*	-117.5*	-195.3*
	Severe	n.a.	n.a.	n.a.
Mental:	Mild	-15.1*	-11.7*	18.7*
	Moderate	-4.4	-110.2	-1.2
	Severe	n.a.	n.a.	n.a.
Multiple:	Mild	-2.4	-3.4*	-1.1
	Moderate	-8.0*	-6.5*	-10.8*
	Severe	-33.6*	-25.2*	50.0*

Accounting also for the type of disability as in regression #4 in Tables R1-R3.

Source: 1989 Labour Market Activity Survey (Master File), unpublished data.

<sup>&</sup>lt;sup>2</sup> Accounting for the severity of disability as in regression #4 in Tables R1-R3.

<sup>\*</sup> Denotes significance at the 5% level.



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