

Equality  
Research  
Series

# Disability and Labour Market Participation

*Brenda Gannon and Brian Nolan*

**Equality Studies Unit**

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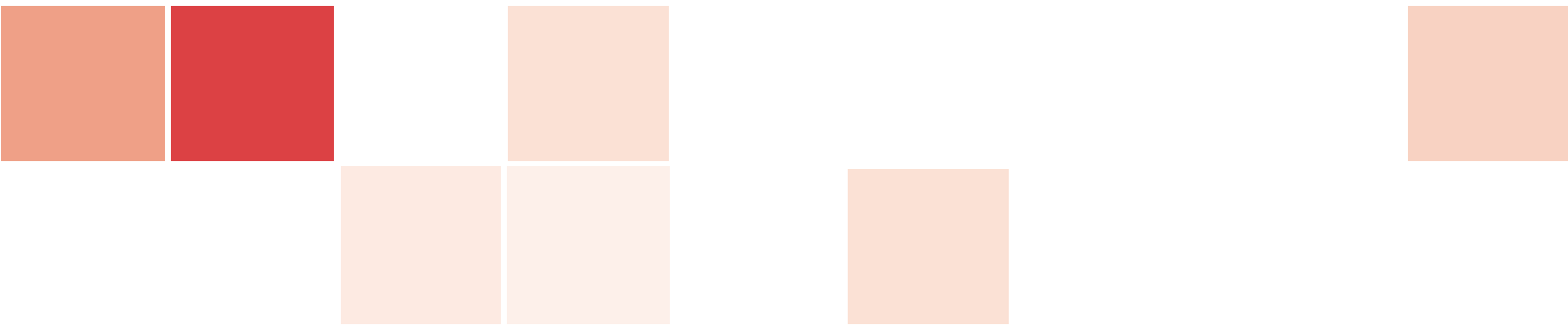
THE EQUALITY AUTHORITY  
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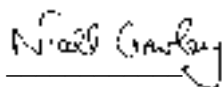
# FOREWORD

The Employment and Human Resources Development Operational Programme is a key element of the National Development Plan. Its emphasis on employment growth, access to employment, addressing skills and labour market shortages and promoting lifelong learning places it at the heart of the development strategy pursued for and by Irish society. As such its focus on gender equality and social inclusion objectives is welcome.

The establishment of an Equality Studies Unit within the Equality Authority and funded by the Operational Programme is a key development in expanding this focus on equality. The Equality Studies Unit has the role of examining and enhancing the capacity of the Operational Programme to address the labour market inequalities experienced by older people, people with disabilities, members of minority ethnic groups (particularly refugees) and members of the Traveller community. It provides the foundations upon which a wider equality focus and practice can be further developed within the Operational Programme akin to the gender equality infrastructure that has been so successfully developed to date.

*Disability and Labour Market Participation* has been prepared as part of the work programme of the Equality Studies Unit. The lack of representative data on the labour market situation of people with disabilities has long been a particular barrier to the development of policy in this area. This study draws on all available nationally representative data including the Central Statistics Office's recent Quarterly National Household Survey module on 'Disability in the Labour Force' and the Economic and Social Research Institute's Living in Ireland Survey. It provides a clear and timely examination of the current labour market situation of people with disabilities, and the dynamics of disability and labour market participation over time. In addition, it provides detailed statistical analysis of the impact of disability on labour market participation, and places the Irish data in a comparative European context.

We are grateful to Brenda Gannon and Brian Nolan of the Economic and Social Research Institute for their thorough and expert work on this report. *Disability and Labour Market Participation* aims to assist policy makers and programme providers to shape a labour market context where people with disabilities are engaged as full and capable participants. It provides a basis for evidence based policy and practice that is capable of achieving a new labour market inclusion for people with disabilities.



Niall Crowley  
Chief Executive Officer  
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January 2004

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# INTRODUCTION

## 1.1 Background to the Study

Recent equality legislation (the Employment Equality Act 1998 and the Equal Status Act 2000) has introduced disability as a ground on which direct and indirect discrimination, harassment and sexual harassment are prohibited in employment, vocational training, access to employment and conditions of employment, accommodation service provision and educational establishments. The legislation requires employers, educational and training bodies, service providers and educational establishments to provide reasonable accommodation for people with disabilities unless it costs more than nominal cost. The Employment Equality Act 1998 allows positive action measures which help integrate people with disabilities into employment and which provide training or work experience for disadvantaged groups (as certified by the Minister). The Equal Status Act allows positive action measures in relation to disadvantaged groups or measures which cater for the special needs of persons. Both Acts contain a number of exemptions (see Appendix).

The way issues relating to disability are approached depends on the assumptions held about the nature of disability. In recent years there has been a major shift in this regard, away from what has been termed the medical model of disability towards what has been termed a social model. The medical model of disability focuses on people's specific impairments. Its underlying assumptions are that people with a disability are different from the norm and that they need to be helped and if possible cured so that they might conform to that norm. Starting from the early 1970s, this way of thinking about disability was increasingly challenged and rejected by people with a disability, in favour of what has been termed the social model of disability. The central shift in thinking was that disablement arose from the environment and organisation of society rather than from the individual and their impairment. Disability is seen as a consequence of social, attitudinal and environmental barriers that prevent people from participating in society. The focus is then on the need to change societal conditions to accommodate the needs of the disabled person. Failure to adjust to or to 'reasonably accommodate' the needs of the person with a disability can be viewed as a form of discrimination. Those with disabilities should be able to participate in such activities as education, employment and leisure along with everyone else.

People with disabilities face many barriers to full participation in society, not least in the labour market. The extent and nature of participation in the labour market has a multitude of direct and indirect effects on living standards and quality of life, and is thus a critical area for investigation and policy concern. The aim of this research for the Equality Authority is to provide a detailed description of the labour market situation of people with disabilities in Ireland and an analysis of the factors associated with participation or non-participation in the labour market. This entails analysis of data from nationally representative surveys which provide individual level data on disability and on labour market status, as well as other demographic and contextual characteristics.

The measurement of disability in a survey context poses considerable definitional and methodological difficulties. These issues are the subject of widespread debate, not least in respect of the implications of the shift from a medical to a social model of disability. The study is based on analysis of information from existing datasets rather than attempting to gather new data. At the outset it must be acknowledged that the available datasets have some serious limitations in this context, particularly in the way disability is captured. Nevertheless much can be learned from them about disability and labour market participation, and exploiting them fully will also help to highlight information gaps and thus inform future efforts to improve the statistical base in the area of disability.

## **1.2 Structure of the Report**

Datasets such as the Quarterly National Household Survey and, in particular, the special module on disability (Central Statistics Office, 2002) and the Living in Ireland Survey (Economic and Social Research Institute, 2002) and its counterparts for other European Union countries in the European Community Household Panel Survey (Eurostat, 2002) are described in some detail in Chapter 2. In Chapter 3, an overview of disability and labour force participation from available labour force statistics is provided. In Chapter 4 the pattern of chronic or long-standing illness or disability revealed by the information obtained in the special module of the Quarterly National Household Survey and in the Living in Ireland Survey is looked at.

Chapter 5 reviews the labour market situation of people who state in those surveys that they have a long-standing illness or disability. This presents and comments on a set of detailed cross-tabulations. In Chapter 6 an exploratory regression-based analysis is undertaken, which estimates models aimed at identifying the impact of disability on labour market participation and how this is affected by other individual and household characteristics. In Chapter 7 we broaden the focus beyond a snap-shot of disability and labour force participation at a point in point in time, to make use of data obtained from the Living in Ireland Survey by following the same individuals over a 6 year period. The overall extent of labour force participation over that whole period can thus be measured and related to reported health status at various points over the period, including any changes in the presence and nature of chronic illness or disability. Chapter 8 seeks to provide a comparative perspective on patterns found for Ireland, by making use of data for other EU member states which allows disability and labour force participation to be studied. Finally, Chapter 9 brings together the main findings of the study.

## DATA SOURCES

### 2.1 Introduction

To obtain an accurate and comprehensive picture of the relationship between disability and labour force participation, ideally one would like information for a large nationally-representative sample on impairment and disability and on involvement in the labour market and its nature, each in considerable detail. The present study aims to analyse information from existing datasets rather than attempting to gather new data, and these datasets fall short of that ideal, particularly in the way disability is captured. As the objective of this study is to look at what can be learned from such data sources and to highlight key gaps in information it is important to start with a detailed description of the data used and that is provided in this chapter. Each dataset is considered in turn and concentrates on the nature of the information obtained about labour force participation and that relating to disability.

### 2.2 Quarterly National Household Survey

The Quarterly National Household Survey (QNHS) is conducted by the Central Statistics Office (CSO) and replaced the Labour Force Survey from 1997. It is the key source on national labour force and labour market developments, including overall numbers at work and unemployed. It is based on a large nationally-representative sample of households throughout the country, with the main questionnaire gathering personal data and the employment circumstances of each individual aged 15 or over and usually resident in the household.

The QNHS thus seeks detailed information about labour force status via a number of questions. Respondents are initially asked about their 'usual situation with regard to employment', and about their situation with regard to paid work for the reference week. This provides the basis for categorisation by what is known as Principal Economic Status. A sequence of questions relating to availability for work and job search activity is also used in measuring unemployment on what is known as an 'ILO basis' – that is the guidelines on measuring employment and unemployment issued by the International Labour Organisation (1982).

The QNHS is not designed to obtain information about disability per se, but in probing labour force status and what lies behind it, it does provide some window on why people are not working, or not working full-time. Thus one of the possible responses to the question about usual situation with regard to employment is 'unable to work due to permanent sickness or disability'. Similarly if the respondent has been absent from their job in the reference week, one of the reasons given may be 'own illness or injury'. Respondents at work are asked whether their job is full-time or part-time, with one of the possible reasons for working part-time as 'been ill or disabled'. They are then asked usual hours of work and actual hours worked in the reference week. If they work less than the usual amount, they may state they did so due to 'own illness or injury'.

Respondents at work are questioned about satisfaction with their work hours, and are asked if they would work less and if so why. They are then asked the reason for wishing to work less, with one response being 'you have a health issue that makes you want to work less'. Respondents not at work are asked about their availability for work, and if that is less than full-time they may answer that this is due to 'own illness or incapacity'. If they are not seeking work, the reason may be recorded as 'own illness or disability'.

This means that the regular QNHS can provide some interesting information about overall labour force participation, particularly about people whose availability for work is affected by permanent illness or disability. As we shall see in Chapter 3, the value of this information is enhanced by the fact that it is collected and produced regularly, so stability or change over time can be studied. However, for more satisfactory data on disability we have to employ other sources.

### 2.3 Quarterly National Household Survey: Disability Module 2002

While the core QNHS itself is firmly focused on the labour market, special additional modules are attached covering different issues from time to time. A special module on disability was included with the QNHS in the second quarter of 2002 focusing on the extent and nature of restriction of activities for both working and non-working people with disabilities. Respondents were asked: 'Do you have any longstanding health problem or disability?' Those who positively replied were asked to provide a detailed description of any long-standing health problem or disability, how long the person has been affected, and the cause of that condition or disability (distinguishing conditions that the person was born with, accident or injury, and disease).

To investigate how people's health problems interfere with work, respondents were also asked a number of questions regarding restrictions on the work they can do or are able to do. Respondents who were working, unemployed or inactive answered either 'yes, considerably', 'yes to some extent' or 'no' to the following:

'Does (would) your health condition or disability restrict the **kind** of work that you can (could) do?'

'Does (would) your health condition or disability restrict the **amount** of work that you can (could) do?'

'Does (would) your health condition cause any difficulty getting to and from work that you can (could) do?'

In addition, those in work were asked whether any form of assistance was provided to facilitate their work. Response categories distinguished between assistance with the kind of work, assistance with the amount of work, assistance getting to and from work, assistance with mobility at work, or support and understanding from superiors and colleagues. Those at work were also asked whether they worked in sheltered or supported employment. Those not in work were asked whether there was any form of assistance they would need in order to work, and if so what type.

Information from this special module can be combined with the data collected in the core QNHS for the same people; on individual characteristics, employment status, type of work, hours worked, level of education and so on. This permits in-depth analysis of the extent and nature of restriction of activities due to disability, and their impact on the extent and nature of economic activity by, for example, age, sex and type of employment. This represents a significant addition to the data available.

### 2.4 Living in Ireland Survey

The Living in Ireland Survey was conducted by the Economic and Social Research Institute (ESRI) each year from 1994 up to 2002. The design was longitudinal and so followed the same sample from one year to the next. Where possible each adult in the household was interviewed, and the sample design aimed to produce a nationally representative sample. The survey thus provides not only a cross-sectional picture for each year but also data that permits the analysis of changes over time as they

affect a representative set of individuals and households (those living in institutions such as hospitals, nursing homes, convents, monasteries and prisons, were excluded from the target population). The size of the initial sample was substantially augmented in 2000 and this provides the best basis for an up-to-date picture (data from 2001 onwards was not available for analysis at the time of the study).

The Living in Ireland Survey obtained in-depth information about the current labour force status of each adult in sample households, following a similar approach to the QNHS. This allows inter alia people who are not at work due to illness or disability be identified, although in a manner that is not identical to the QNHS.

The Living in Ireland Survey also included some questions directly focused on illness or disability. Respondents were asked:

‘Do you have any chronic physical or mental health problem, illness or disability?’

Those who positively replied were then asked:

- to describe the nature of this illness or disability
- whether it hampered them in their daily activities (severely, to some extent, or not at all)
- whether they were confined to bed, a wheelchair user, had other mobility problems, or had no mobility problems

Respondents were also asked if they had to cut down or stop any of the things normally done about the house, at work or in free time due to (1) illness or injury or (2) emotional or mental health problems.

## 2.5 European Community Household Panel

The Living in Ireland Survey is the Irish component of a harmonised survey carried out throughout the EU, organised by Eurostat, called the European Community Household Panel (ECHP). This focuses on income and living conditions, employment, education, health, household characteristics, and a variety of other topics. In the first wave in 1994 a sample of some 60,500 households, with approximately 130,000 adults aged 16 years and over, were interviewed across 12 member states. By 1996, 2 of the other 3 members had joined. Sweden was the exception, but data from an existing Swedish survey has been added to the ECHP dataset. The ECHP survey ran from 1994 to 2001 but, for this study, the latest data available for analysis covering all the participating countries is for 1998.

The ECHP obtained detailed information on the labour force participation of respondents at the time of the survey, as in the Living in Ireland Survey. Questions on health status in the ECHP are also the same as those already described in the Living in Ireland Survey. This allows one to distinguish in particular those who say they are limited in their daily activities severely, to some extent or not at all. The great advantage of the ECHP is that the same questions were asked across all the countries, whereas very often comparative analysis of disability, in particular, faces the severe obstacle of differences in the underlying information. As seen with the comparative analysis in Chapter 8, the fact that the same questions were posed does not necessarily mean that the answers can be interpreted in exactly the same way, but it does remove one significant source of bias in the analysis.

## 2.6 Conclusions

This study aims to exploit existing datasets to learn about the relationship between disability and labour force participation in Ireland, and so this chapter has provided a detailed description of those datasets – the regular QNHS, the special module on disability attached to the QNHS in 2002, the Living in Ireland Survey and the ECHP of which it forms part. The analysis of these datasets in the remainder of the study will bring out their strengths and weaknesses.

It is worth emphasising at the outset though that the key strength of the available datasets lies in the sophistication and depth with which they capture labour force participation; their weakness, on the other hand, is in terms of disability. Disability is a highly complex notion, and the rather summary and limited sets of questions in the 2 surveys could not hope to capture the gradations and nuances associated with the spectrum of possible impairments and their implications. As we bring out later, this could only be done in a specially-designed in-depth survey, which has disability as its central focus, which has not yet been carried out in Ireland though examples from other countries show how it can be done successfully.

In concluding this discussion of datasets, it is worth highlighting a data source shortly to come on stream and which will have significant new information on disability and labour market participation. The Census of Population carried out in April 2002 included the regular Census and labour force survey question about the labour force status of each adult in the household, with one of the response categories being 'unable to work due to permanent sickness or disability'. In addition, though, it included for the first time specially-designed questions on disability. These were as follows:

'Do you have any of the following long-lasting conditions:

- (a) Blindness, deafness or a severe vision or hearing impairment?
- (b) A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting or carrying?'

'Because of a physical, mental or emotional condition lasting 6 months or more, do you have any difficulty in doing any of the following activities:

- (a) Learning, remembering or concentrating?
- (b) Dressing, bathing or getting around inside the home?
- (c) Going outside the home alone to shop or visit a doctor's surgery?
- (d) Working at a job or business'

Initial results from these questions in the Census show that, on the basis of these questions, 6.4% (171,000) of those aged 15-64 are recorded as disabled, of whom 43,000 are at work. More detailed results are not available at the time of this study, but they will clearly be important in capturing the labour force participation of people with disability in a full population rather than in a sample context.

# DISABILITY AND CONVENTIONAL MEASURES OF LABOUR FORCE STATUS

## 3.1 Introduction

What information can the datasets available for Ireland, described in the previous chapter, provide on the relationship between disability and labour force participation? Conventional measures of labour force status do not seek to capture disability per se, but they do allow people to identify permanent illness or disability as the reason they are not working. While this is only one aspect of the overall relationship, it is of interest both in itself and in being the only information regularly produced as part of the official labour market statistics. This chapter firstly looks at the extent to which respondents to the Quarterly National Household Survey (QNHS), in describing their own labour force status, state that they are not working due to permanent illness or disability. The characteristics of these individuals, notably gender, age and education are also looked at. Next the Living in Ireland Survey is analysed to see whether it shows a similar picture. This survey also sheds some further light on those whose participation is affected by chronic illness or disability but who are not captured by conventional labour force measures.

## 3.2 Disability and Conventional Measures of Labour Force Status in the Quarterly National Household Survey

As revealed in Chapter 2, the QNHS provides the basis for statistics on national labour market developments by surveying a large nationally representative sample. Respondents aged over 15 are initially asked 'What is your usual situation with regard to employment?' One of the possible responses to that question is that the person was 'unable to work due to permanent sickness or disability'. The overall number of adults in the sample giving that response in 2002, grossed up to the implied total for the population as a whole, was about 75,000. This represents 2.5% of the adult population. As the most readily available statistic relating to disability and the labour force, this merits careful investigation and interpretation.

To begin with, Table 3.1 shows how this has varied over time. Data from the Labour Force Survey is used from 1994 – 1997 and then the QNHS from the end of 1997 onwards by each quarter (q) period. The overall number saying they were 'unable to work owing to permanent sickness or disability' has risen with the adult population from 1994 to 2002, but the proportion of adults this represents has fluctuated from 2.3% to 2.7% without a clear trend as in the 1980's (Watson, 1996).



**Table 3.1: Prevalence of Principal Economic Status 'Unable to Work Due to Permanent Sickness or Disability', Persons 15 and Over, LFS and QNHS 1994-2002**

Year	Number Unable to Work (000s)	% of Population Aged 15+	Total Age 15 and Over (000s)
1994	65.3	2.4	2687.3
1995	62.4	2.3	2723.4
1996	64.5	2.3	2766.7
1997	66.3	2.4	2815.1
1997q4	75.8	2.7	2839.8
1998q1	68.9	2.4	2856.2
1998q2	68.7	2.4	2869.6
1998q3	69.7	2.4	2884.0
1998q4	70.5	2.4	2897.7
1999q1	71.1	2.4	2908.0
1999q2	71.9	2.5	2915.5
1999q3	73.2	2.5	2928.4
1999q4	72.7	2.5	2947.8
2000q1	69.6	2.4	2957.8
2000q2	69.2	2.3	2962.6
2000q3	69.7	2.3	2975.0
2000q4	71.7	2.4	3003.6
2001q1	70.3	2.3	3013.2
2001q2	72.9	2.4	3017.3
2001q3	76.4	2.5	3034.0
2001q4	78.5	2.6	3058.0
2002q1	75.6	2.5	3071.1
2002q2	74.1	2.4	3074.7
2002q3	77.0	2.5	3085.3

The most recent QNHS data, for the 2002 third quarter, is used to look at the characteristics of those people involved. An overall comparison between men and women is revealing. The proportion saying they are unable to work due to permanent sickness or disability turns out to be more than twice as high for males as females, 3.5% of adult men versus 1.5% of women. This illustrates the nature of the response involved. People are not being asked about illness or disability per se, they are being asked about their labour force status. Someone who regards their customary status as working in the home or retired probably will not say they are 'unable to work due to permanent illness or disability' even if they have such an illness or disability. Therefore only those who regard participation in the paid labour force as their current alternative if they did not have an illness or disability are likely to give that response and this varies with other characteristics, notably gender and age.

Table 3.2 shows how the percentage 'unable to work due to permanent illness or disability' rises as people get older up to normal age of retirement, from only 0.7% for the 15-24 age group up to a peak of 6.3% by age 55-64. It then declines to 1.9% for the 65 and over age group, as many people would have stopped working by then. Among those aged 15-64, for whom the concept is most relevant, the overall percentage was 2.6%.

**Table 3.2: 'Unable to Work Due to Permanent Sickness or Disability' (%) by Age Group, Persons 15 and Over, QNHS 2002, Third Quarter**

Age Group	%
15-24	0.7
25-34	1.8
35-44	2.2
45-54	4.1
55-64	6.3
65+	1.9
All	2.5

Overall the official labour force data from the QNHS data shows that a significant number of persons at any one point in time, currently about 75,000, regard themselves as unable to work due to permanent illness or disability. These are disproportionately between 45-64 and much more likely to be men than women. No information is available on the extent of impairment, if any, or on the nature of the illness or disability.

### 3.3 Disability and Conventional Measures of Labour Force Status in the Living in Ireland Survey

The Living in Ireland Survey, like the QNHS, devotes considerable effort to measuring labour force status. By following a sequence of responses to questions on work and labour market status in the survey, it is possible to identify a group who have said they are unable to work due to illness or disability. The specific questions employed are similar but not identical to those used in this context in the QNHS. Respondents are first asked if they are working 15 or more hours a week. Those not at work or working less than 15 hours a week are asked what is their main activity. They are then asked if they are seeking work and if not, what is the reason? If they respond 'personal illness or disability', they are then coded as 'unable to work due to personal illness or disability'.

In 2000, 3.6% of all working-age adults were unable to work due to personal illness or disability, slightly higher than the corresponding figure from the QNHS. As in the QNHS, the Living in Ireland Survey shows a considerably higher proportion of males than females, with 5.2% of working-age men versus 2% of working-age women giving that response. The Living in Ireland Survey for 1994 shows 2.3% giving that response, with a similar differential between men and women. So the consistent picture is that about 3% of those of working age would be categorised in this manner by conventional labour force statistics, with men much more likely than women to be recorded as 'unable to work due to personal illness or disability'.

The relationship with age is once again similar to the QNHS, Table 3.3 shows that the proportion saying they are unable to work rises steadily with age in both 2000 and 1994.

**Table 3.3: 'Unable to Work Due to Illness or Disability' (%) by Age Group, Persons 15-64, Living in Ireland Survey 1994 and 2000**

Age Group	1994	2000
15-24	0.6	1.5
25-34	1.2	2.1
35-44	2.0	2.2
45-54	4.1	5.7
55-64	5.5	8.8
All	2.3	3.6

The Living in Ireland Survey can also be used to explore some other aspects of the individual and household situation of those reporting inability to work. The pattern revealed in terms of education is particularly interesting. Table 3.4 illustrates that the proportion falls sharply as educational attainment rises. While one in 10 of those with no educational qualifications report being 'unable to work due to personal illness or disability', the proportion with third-level education reporting that labour force situation is very small indeed. Those with no educational qualifications are on average older than those with third-level education, given the expansion in educational participation over time, but this does not account for most of the differential.

**Table 3.4: 'Unable to Work Due to Illness or Disability' (%) by Education Level, Persons 15-64, Living in Ireland Survey 2000**

Education Level Attained	%
No Qualifications	11.5
Primary	3.7
Secondary	1.2
Third Level	0.3
All	3.6

Variation across the regions in the numbers reporting inability to work is also of interest. Given the size of the sample only the Border Midlands West (BMW) region was distinguished from the rest of the country. In the 2000 Living in Ireland Survey, the percentage reporting inability to work was 5.4% in the BMW versus 2.9% elsewhere and a similar differential was seen in the 1994 Living in Ireland Survey.

It is also useful to look at the frequency with which different adults within the household report inability to work. It is conventional practice in statistical analyses to categorise households by, among other things, the characteristics, for example the age, gender, marital status or occupation, of what is termed the 'household reference person'. This may be defined in different ways, but Eurostat, for example, take the owner or tenant of accommodation, and if 2 or more people are equally responsible for the accommodation they take the older one as the reference person. It turns out that about 4% of household reference persons would be categorised as 'unable to work due to personal illness or disability' compared with only 1% of their spouses. For other adults in the household, the overall percentage categorised was also high at 4%.

### 3.4 Comparative Profile of Those Unable to Work in the Living in Ireland Survey in 1994 and 2000

The gender and age profile of those categorised in labour force terms as 'unable to work due to personal illness or disability' is illustrated in Table 3.5 with approximately three quarters male and over 60% aged 45 or over, in both 1994 and 2000.

Table 3.6 shows that a very high proportion of the group has no educational qualifications, with only 12% having completed secondary schooling or third level.

Table 3.7 shows that a majority of those reporting inability to work are the reference person in their household, while most of the remainder are categorised as 'other' with only about 10% being the spouse of the reference person.

**Table 3.5: 'Unable to Work Due to Illness or Disability' by Sex and Age Group, Persons 15-64, Living in Ireland Survey 1994 and 2000**

	1994 %	2000 %
Total	100	100
<b>Sex</b>		
Male	77.4	72.3
Female	22.6	27.7
<b>Age Group</b>		
15-24	6.2	9.2
25-34	11.7	14.0
35-44	19.3	13.1
45-54	31.8	30.1
55-64	31.0	33.6

**Table 3.6: 'Unable to Work Due to Illness or Disability' by Education Level, Persons 15-64, Living in Ireland Survey 1994 and 2000**

Education Level	1994 %	2000 %
No Qualifications	79.6	60.1
Primary	10.0	27.2
Secondary	6.5	10.8
Third Level	3.8	1.9
Total	100	100

**Table 3.7: 'Unable to Work Due to Illness or Disability' by Relationship to Household Reference Person, Persons 15-64, Living in Ireland Survey 1994 and 2000**

Relationship to Household Reference Person	1994 %	2000 %
Household Reference Person	60.1	57.6
Spouse	8.5	10.2
Other	31.4	32.1
Total	100	100

### 3.5 Others Not Seeking Work Due to Permanent Illness or Disability

To be categorised as 'unable to work due to permanent illness or disability' in a survey such as the QNHS or the Living in Ireland Survey a respondent, in effect, has to identify that as their principal economic status. There may well be others not at work whose ability to participate in the labour force is constrained in the same way, but who see their status differently. They will categorise themselves as unemployed, retired, or in 'home duties', and their permanent illness/disability will be missed by the conventional labour force statistics. The Living in Ireland Survey can shed some light on this because such respondents were also asked if they were looking for work, and if not were given an opportunity to say this was due to permanent illness or disability.

In the 2000 survey, 1.9% of individuals of working age are not at work, are not categorised as 'unable to work due to personal illness or disability' in terms of principal economic status, but when asked why they are not seeking work say it is because of such illness/disability. One-fifth of these individuals categorised themselves as unemployed, 31% categorised themselves as 'in home duties', 14% as retired, and most of the remainder as in education or training. The profile of this group differs in some respects from those

**Table 3.8: Categorised as Unemployed, in Home Duties, Retired or in Education but ‘Not Seeking Work Due to Illness or Disability’ by Sex, Age and Education, Persons 15-64, Living in Ireland Surveys 1994 and 2000**

	1994 %	2000 %
All	2.3	1.9
<b>Sex</b>		
Male	1.9	1.6
Female	2.6	2.2
<b>Age Group</b>		
15-24	0.5	0.4
25-34	1.1	1.9
35-44	2.7	2.3
45-54	2.2	2.1
55-64	6.7	3.4
<b>Education</b>		
No Qualifications	5.1	6.0
Primary	1.1	1.8
Secondary	1.0	0.8
Third Level	0.0	0.2

whose principal economic status is ‘unable to work due to personal illness or disability’ notably in terms of gender. Table 3.8 shows that the probability of being in this situation is very similar for men and women, whereas men were much more likely than women to be categorised as ‘unable to work due to personal illness or disability’. The percentage in this situation does again rise with age though and once again is much higher for those with low levels of education.

This group therefore is not very much smaller in size than that captured by the conventional labour force statistics as ‘unable to work due to personal illness or disability’ yet is usually invisible in those statistics.

### 3.6 Conclusions

This chapter has concentrated on conventional measures of labour force status, which do not seek to capture disability per se but do allow people to identify permanent illness or disability as the reason they are not working. In the QNHS, 2.5% of the adult population describe their own labour force status as ‘not working due to permanent illness or disability’, representing about 75,000 people in the country as a whole. These are disproportionately between 45-64 and much more likely to be men than women. A similar figure and profile was seen in the 2000 Living in Ireland Survey, and their levels of educational attainment were strikingly low. The percentage reporting such inability to work was 5.4% in the Border, Midlands and Western region versus 2.9% elsewhere.

A further group which is not very much smaller in size but usually invisible in conventional labour force statistics regard their customary status as unemployed, working in the home or retired but when asked why they are not seeking work say this is due to permanent illness or disability. These are also disproportionately older and poorly educated, but are more evenly split between men and women.

No information is obtained in the conventional approach to measuring labour force status on the extent of impairment if any or on the nature of the illness or disability for either of these groups. In addition, many of those affected by disabilities may be at work, and this will be invisible. So we move on in the next chapter to the very different perspective offered when we focus on information in the existing survey datasets relating to health and disability among the working age population, irrespective of labour force status.

# DISABILITY IN EXISTING SURVEY DATASETS

## 4.1 Introduction

The overall aim of this study is to relate disability and labour force status and it is apparent from the previous chapter that conventional measures of labour force participation only give a partial picture. However, several existing survey datasets which measure labour force participation do also have some information relating directly to health and disability among the working age population, as noted in Chapter 2. This information is now used to look at the pattern of impairment and disability, before moving on in the rest of the study to investigate its relationship with labour force participation.

## 4.2 Reported Disability and Illness in the Quarterly National Household Survey Special Module

A special module on disability was included with the Quarterly National Household Survey (QNHS) carried out in the second quarter of 2002. Respondents aged between 15 and 64 were asked 'Do you have any longstanding health problem or disability?', and the nature of that problem/disability was probed for those who replied that they did. This provides the most in-depth information currently available on the extent and nature of disabilities among the working-age population, and is worth some considerable discussion.

Almost 11% of all persons aged 15 to 64, implying a gross total of approximately 287,000, indicated that they had a longstanding (over the past 6 months or likely to affect respondent for at least 6 months) health problem or disability (note that here and throughout the report the base number on which percentages are calculated excludes non-responses. Thus percentages reported here may differ slightly from those reported in the Central Statistics Office's release (CSO, 2002).) In Table 4.1 we see that slightly more men than women reported having such a health problem or disability. That proportion was also a good deal higher for separated and widowed persons than for married or single ones, and it rose steadily with age with the percentage reporting such a health problem or disability being one in 4 for those aged between 55 and 64 compared with only one in 20 for those aged between 15 and 24. The percentage reporting a longstanding illness or disability in the Border, Midlands and Western region is similar to elsewhere, though when disaggregated these figures are highest in the South East (12.2), South West (11.5%) and Border regions (11.8%).

In the QNHS module, those with a longstanding health problem or disability were asked what was the nature of their condition and were provided with a range of categories that would best describe their condition, where only one response was allowed. The key word is longstanding, as it is important to distinguish between long-term and short-term problems i.e. between chronic conditions such as

**Table 4.1: Longstanding Health Problem or Disability by Sex, Age and Marital Status, All Persons 15-64, QNHS 2002**

	%
All	10.8
<b>Sex</b>	
Male	11.4
Female	10.3
<b>Age</b>	
15-24	4.9
25-34	6.9
35-44	9.4
45-54	15.0
55-64	25.7
<b>Marital Status</b>	
Single	8.6
Married	11.8
Separated	21.9
Widowed	23.5
<b>Region</b>	
BMW	10.7
S & E	10.9

**Table 4.2: Type of Condition, Persons 15-64 Reporting a Longstanding Health Problem or Disability, QNHS 2002**

Type of Condition	%
Arms or Hands	5.5
Back or Neck	14.0
Chest or Breathing	15.4
Diabetes	4.5
Epilepsy	2.2
Hearing Difficulty	2.1
Heart, Blood Pressure/Circulation	14.5
Legs or Feet	7.7
Mental, Nervous or Emotional	10.5
Seeing Difficulty	1.8
Skin Conditions	1.7
Speech Impediment	0.5
Stomach, Liver, Kidney or Digestive	4.3
Other Progressive Illness	5.7
Other Longstanding Problem(s)	9.7
Total	100

diabetes, epilepsy, schizophrenia and acute conditions, for example a sprained ankle, a broken leg, appendicitis or a respiratory tract infection. The term longstanding refers to 6 months or more so, for example, at the time of interview the problem may have already existed for 6 months or more, or at the time of interview the problem had been present for less than 6 months but is likely to continue for at least that duration. Table 4.2 shows that the most commonly reported longstanding health problems or disabilities were chest or breathing problems (15%), followed by heart, blood pressure or circulation problems (14%) and back or neck problems (14%). Over 10% reported mental, nervous or emotional health problems. A substantial proportion of individuals were in the residual categories 'other progressive illness' or 'other longstanding problem (s)'.

To investigate the extent to which people's health problems or disabilities interfere with work, respondents were asked a number of questions regarding restrictions on the work they could do or were able to do. Respondents who said they had a longstanding health problem or disability were asked the following:

'Does (would) your health condition or disability restrict the kind of work that you can (could) do?'

'Does (would) your health condition or disability restrict the amount of work that you can (could) do?'

'Does (would) your health condition cause any difficulty getting to and from work that you can (could) do?'

Responses were either 'yes, considerably', 'yes to some extent' or 'no'. The choice of wording allows the question to be asked irrespective of whether the person is working or not working, unemployed or economically inactive. The definition of 'work' given to the respondents was paid work or employment rather than housework. The variable kind of work then covers, for example, the quality of work, heavy compared with light work, being able to work outdoors as well as indoors, needing to sit down and so on. The term, amount of work, includes number of hours, amount that is/can be earned, and attendance at work.

Table 4.3 presents the responses and reveals that 4.8% say that they are restricted considerably in the kind of work they can do and 2.3% are restricted to some extent. Overall 3.6% say they are not restricted in the kind of work they can do, despite having a longstanding illness or disability. When we look at restrictions on the amount rather than the kind of work that can be done, similar figures are reported. There is a very high degree of overlap with almost all those saying they were restricted in the amount of work also having said they were restricted in the type of work. So grossed up to the implied figure for the population as a whole, this means that almost 190,000 working-age adults report being restricted in the kind or amount of work they can do, due to longstanding illness or disability.

**Table 4.3: Extent of Restriction of Longstanding Health Problem or Disability, All Persons 15-64, QNHS 2002**

Extent of Restriction	Kind of Work %	Amount of Work %
Restricted Considerably	4.8	4.5
Restricted to Some Extent	2.3	2.3
Not Restricted	3.6	3.9
All	10.8	10.8

In respect of those who reported a longstanding illness or disability, Table 4.4 shows about 45% reported being considerably restricted in the kind of work they can do, more than one in 5 said they were restricted somewhat, and one-third said they were not restricted at all. A breakdown is seen in terms of being restricted in the amount of work they could do. Therefore by simply capturing whether someone has a longstanding illness or disability will not in itself be enough to know whether they see themselves as restricted in the world of paid work. This will be important later on when we come to the relationship between different measures of disability and labour force participation.



**Table 4.4: Extent of Restriction, Persons 15-64 Reporting a Longstanding Health Problem or Disability, QNHS 2002**

Extent of Restriction	Kind of Work %	Amount of Work %
Restricted Considerably	44.7	42.0
Restricted to Some Extent	21.6	21.5
Not Restricted	33.7	36.5
Total	100	100

**Table 4.5: Type of Condition by Extent of Restriction, Persons 15-64 Reporting a Longstanding Health Problem or Disability, QNHS 2002**

Type of Condition	Restricts Kind of Work			Restricts Amount of Work		
	Considerably %	Some Extent %	No %	Considerably %	Some Extent %	No %
Arms or Hands	46.8	28.7	24.5	44.4	30.2	25.4
Back or Neck	53.4	30.9	15.7	49.9	29.4	20.7
Chest or Breathing	20.0	22.9	57.1	18.3	19.3	62.4
Diabetes	16.7	20.1	63.1	16.2	23.0	60.7
Epilepsy	44.7	17.1	38.2	39.6	16.9	43.4
Hearing Difficulty	33.7	30.2	36.1	22.1	17.9	59.4
Heart, Blood Pressure/Circulation	42.2	20.2	37.6	40.6	21.4	37.8
Legs or Feet	54.6	22.8	22.6	50.1	23.9	26.2
Mental, Nervous or Emotional	72.4	14.5	13.1	69.4	16.2	14.4
Seeing Difficulty	43.1	25.3	31.7	34.5	21.3	44.2
Skin Conditions	18.8	13.9	67.3	15.0	13.3	71.6
Speech Impediment	51.5	20.4	28.1	45.3	0.0	40.4
Stomach, Liver, Kidney or Digestive	32.0	18.7	48.7	30.9	19.7	49.0
Other Progressive Illness	60.0	15.0	24.7	58.8	17.5	23.4
Other Longstanding Problem(s)	52.9	16.2	30.7	50.6	17.2	32.0

Table 4.5 compares level of restriction by type of illness or disability. The illnesses or disabilities with high levels of restriction include problems with arms, back or neck, epilepsy, and mental, nervous or emotional problems. On the other hand chest or breathing problems, skin conditions and diabetes are less likely to be restrictive. The pattern is almost identical for how the condition affects the kind of work versus the amount of work.

In the QNHS module, those reporting a longstanding health problem or disability are also asked the cause of their disability or illness, to which they may respond that they were born with it, that it is the result of an accident (distinguishing work-related accident or injury, non-work-related traffic accident or injury, and sport/household accident or injury), or that the cause is disease (either work or non-work related). Table 4.6 shows that 28% stated they were born with the condition and a further 18% acquired it as a result of an accident, with the majority being disease-related.

To look at the distribution of restriction of activity in terms of type and amount of work, Table 4.7 presents the proportions in each of these categories saying that their condition restricts them considerably, to some extent, or not at all in relation to work. Of those who have had the condition or impairment since birth, approximately half say they are restricted considerably in either the type or amount of work they can do. Two-thirds of those with accident-related health problems are restricted considerably, while approximately 50% of those with work-related disease and two fifths of individuals with non work related diseases are restricted considerably in work amount or type.

**Table 4.6: Cause of Disability, Persons 15-64 Reporting a Longstanding Health Problem or Disability, QNHS 2002**

Cause of Disability	%
Born with Disability	27.4
Accident Work Related	7.4
Accident Non-Work	7.6
Accident Sports Related	3.5
Disease Work Related	10.9
Disease Non-Work	43.2
Total	100

**Table 4.7: Cause of Disability by Extent of Restriction, Persons 15-64 Reporting a Longstanding Health Problem or Disability, QNHS 2002**

Cause of Disability	Restricts Kind of Work			Restricts Amount of Work		
	Considerably %	Some Extent %	No %	Considerably %	Some Extent %	No %
Born with Disability	50.3	18.3	31.3	45.7	15.3	39.0
Accident Work Related	61.9	27.1	11.1	57.2	28.3	14.5
Accident Non-Work	60.5	21.8	17.7	57.6	20.3	22.1
Accident Sports Related	42.9	25.4	31.7	37.4	24.1	38.4
Disease Work Related	50.1	27.5	22.5	47.8	27.3	24.9
Disease Non-Work	40.9	22.6	36.5	38.3	24.2	37.4

It is worth exploring whether there are obvious differences in profile between those with a health problem or disability since birth and those who acquire such a condition later on, and between those affected by accident versus disease. Table 4.8 shows an even distribution among men and women, except that three-quarters of those reporting work-related accidents and diseases as the cause of their condition are men. Of those who have had their condition or impairment since birth, almost 60% are aged under 34. On the other hand, of those affected by work-related accidents and diseases, the majority are aged over 34. It is particularly interesting to note that almost half those who have had their condition since birth have no educational qualification beyond primary level, which is higher than those with conditions with later onset.

Finally, looking at the relationship between the type of condition and its cause, the QNHS results show that among those born with their condition a relatively high proportion have chest or breathing conditions (26%) or mental, nervous or emotional conditions (20%). Among those affected by accidents, a very high proportion reported back or neck injuries as the condition. Among those reporting diseases as the cause, the most common conditions were heart or blood pressure/circulation.

**Table 4.8: Profile of Respondents (%) by Cause of Disability, Persons 15-64 Reporting a Longstanding Health Problems or Disability, QNHS 2002**

	From Birth	Accident Work	Accident Non-Work	Accident Sports	Disease Work	Disease Non-Work
Total	100	100	100	100	100	100
<b>Sex</b>						
Male	55.9	73.4	58.0	48.8	73.9	46.4
Female	44.1	26.6	42.0	51.2	26.1	53.6
<b>Age Group</b>						
15-24	29.7	6.3	9.9	12.7	1.0	7.2
25-34	28.3	17.0	21.3	15.5	8.4	12.0
35-44	18.1	24.7	21.8	22.8	17.8	16.7
45-54	13.4	28.3	25.3	23.9	34.3	27.2
55-64	10.5	23.8	21.7	25.1	38.5	37.0
<b>Education</b>						
No formal/primary education	46.3	31.3	26.1	26.8	41.0	41.8
Lower Secondary	14.8	21.6	23.3	20.0	19.1	18.8
Upper Secondary	18.3	19.4	21.2	24.5	13.3	16.7
Third Level	11.4	21.6	17.0	16.6	19.2	14.3
Degree	5.7	3.7	10.0	10.1	7.0	7.5
Other/not stated	3.6	2.3	2.4	2.0	0.4	1.0

### 4.3 Reported Disability and Illness in the Living in Ireland Survey

The Living in Ireland Survey does not offer the in-depth level of detail on longstanding illness or disability which the dedicated module attached to the QNHS provides, but does have some useful information in that regard. Specifically, as we saw in Chapter 2 all respondents were asked:

‘Do you have any chronic, physical or mental health problem, illness or disability?’

In the 2000 survey, 16.6% of all respondents aged 15-64, implying a gross total of approximately 441,000, responded that they did. This is considerably higher than the 10.8% in the QNHS special module who reported a longstanding health problem or disability. This difference will be discussed below. First we look at how the pattern of responses varies by a range of characteristics and what types of individuals are reporting chronic illness or disability in the survey.

Table 4.9 shows how the percentage reporting chronic illness or disability varies by age, gender and marital status. The percentage saying they had such a chronic problem or disability is quite similar for males and females, and as expected it increases with age. The percentage reporting a chronic illness or disability is the same for single and married respondents, but very high for those who are widowed or separated.

Looking at the profile of the individuals reporting a chronic illness or disability Table 4.10 reveals that about half were male and half female, half were aged under 45 and half 45 or over, and more than half were married.

In the Living in Ireland Survey those who said they had a chronic illness or disability were asked to describe its nature, and their responses were coded into 22 different categories distinguished in the World Health Organisation International Classification of Diseases system (World Health Organisation, 1992). This is not ideal in the disability context, where the WHO International Classification of Functioning, Disability and Health would be preferable (World Health Organisation, 2001). In Table 4.11 the most common conditions were associated with the respiratory system (13%), circulatory system (9.7%) or musculo-skeletal system (13%), while about 12.5% reported multiple conditions.

**Table 4.9: Respondents Reporting a Chronic Illness or Disability (%) by Sex, Age and Marital Status, Persons 15-64, Living in Ireland Survey 2000**

	%
All	16.6
<b>Sex</b>	
Male	16.9
Female	16.2
<b>Age</b>	
15-24	8.6
25-34	12.7
35-44	15.6
45-54	21.1
55-64	31.5
<b>Marital Status</b>	
Single	16.1
Married	16.0
Separated	33.3
Widowed	22.0
<b>Region</b>	
BMW	16.3
S&E	16.7

**Table 4.10: Breakdown of Individuals Reporting a Chronic Illness or Disability by Sex, Age and Marital Status, Living in Ireland Survey 2000**

	%
Total	100
<b>Sex</b>	
Male	51.2
Female	48.8
<b>Age</b>	
15-24	11.3
25-34	18.1
35-44	20.6
45-54	24.0
55-64	26.0
<b>Marital Status</b>	
Single	39.0
Married	53.5
Separated	5.3
Widowed	2.2

**Table 4.11: Type of Condition, Persons 15-64 Reporting a Chronic Illness or Disability, Living in Ireland Survey 2000**

Types of Conditions	%
Infectious and Parasitic Diseases	0.6
Neoplasms	2.6
Endocrine Disorders	5.3
Blood Disorders	0.6
Mental Disorders	1.1
Nervous System Disorders	5.0
Circulatory System Disorders	9.7
Respiratory System	12.9
Digestive System	3.7
Genito-urinary System	2.1
Skin	0.6
Musculo-skeletal System	13.2
Congenital Anomaly	0.7
Accident	4.3
Headache, Pain Cause Not Specified	1.4
Nerves, Cause Not Specified	1.0
Bad Back, Cause Not Specified	6.7
Other	7.0
Multiple	12.4
Depression	5.4
Physical Impairment	1.1
Intellectual Disability	2.5
Total	100

On responding positively to the question on chronic illness or disability, respondents in the Living in Ireland Survey are also asked:

‘Are you hampered in your daily activities by this physical or mental health problem, illness or disability?’

In the 2000 survey, 17% of those reporting a chronic illness or disability said they were severely hampered, 55% said they were hampered to some extent, and the remaining 28% said they were not hampered at all. This pattern differs from the responses of those reporting longstanding illness or disability in the QNHS, where a substantially higher proportion said they were ‘considerably restricted’ than restricted ‘to some extent’ but that related to restrictions in terms of work rather than everyday activities.

Table 4.12 reveals how the extent of restriction in daily activities varies by the nature of the reported condition. There is a great deal of variation across conditions in the extent to which people reported being hampered, ranging from only 3-6% for those with an endocrine disorder, a digestive or respiratory problem up to 44% for those who had an accident.

**Table 4.12: Extent Hampered in Daily Activities by Type of Condition, Persons 15-64 Reporting a Chronic Illness or Disability, Living in Ireland Survey 2000**

Type of Condition	Hampered in Daily Activities		
	Severely %	Some Extent %	No %
Infectious and Parasitic Diseases	16.9	66.2	16.9
Neoplasms	35.6	18.4	45.9
Endocrine Disorders	2.9	38.5	58.6
Blood Disorders	28.7	49.5	21.8
Mental Disorders	17.1	43.2	39.7
Nervous System Disorders	16.4	59.6	24.0
Circulatory System Disorders	8.2	55.3	36.5
Respiratory System	6.5	32.3	61.2
Digestive System	6.8	59.2	34.0
Genito-urinary System	14.3	51.6	34.1
Skin	-	19.5	80.5
Musculo-skeletal System	23.7	61.6	14.7
Congenital Anomaly	23.0	48.4	28.6
Accident	43.3	47.2	9.5
Headache, Pain, Cause Not Specified	11.8	78.2	9.9
Nerves, Cause Not Specified	32.3	67.7	-
Bad back, Cause Not Specified	16.3	71.7	11.9
Other	11.0	79.2	9.8
Multiple	23.2	63.7	13.1
Depression	9.0	68.7	22.3
Physical Handicap	56.4	41.5	2.1
Mental Handicap	29.1	42.6	28.3
All	16.8	55.3	27.9

The extent of restrictions in everyday activities also varies by gender and age for those who report a chronic illness or disability, see Table 4.13. The proportion reporting being severely hampered is higher for men than women but for being hampered 'to some extent' the opposite is true, so the proportion reporting no restrictions is the same. While we saw earlier that the proportion reporting a chronic illness or disability rises steadily with age, among those with such a condition the proportion reporting severe restrictions in terms of daily activities is actually very similar across the age groups. The proportion of them reporting some restriction is however lower for those aged under 25, and then rises slightly as one moves up the age range to 45.

Finally, in addition to information about chronic illness or disability the Living in Ireland Survey also includes a measure of health status that is quite widely used in health interview surveys, where respondents are asked to rate their own health. The specific question employed is as follows:

'In general, how good would you say your health is? Would you say it is very good, good, fair, bad or very bad?'

In the 2000 survey, 85% of working-age respondents perceived their health as very good or good, about 11% said it was fair, and only 2% said it was bad or very bad. Table 4.14 shows the relationship between self-rated health and the presence of a condition that respondents said restricts their daily

**Table 4.13: Extent Hampered in Daily Activities by Gender and Age, Persons 15-64 Reporting a Chronic Illness or Disability, Living in Ireland Survey 2000**

	Hampered in Daily Activities		
	Severely %	Some Extent %	No %
All	16.8	55.4	27.9
<b>Sex</b>			
Men	22.0	50.2	27.7
Women	11.1	60.9	28.0
<b>Age</b>			
15-24	16.6	45.8	37.5
25-34	17.5	52.9	29.6
35-44	17.1	56.1	26.8
45-54	14.7	57.1	28.2
55-64	17.8	59.1	23.1

**Table 4.14: Self-Rated Health by Extent Hampered in Daily Activities, Persons 15-64 Reporting a Chronic Illness or Disability, Living in Ireland Survey 2000**

Self-Rated Health	Hampered in Daily Activities		
	Severely %	Some Extent %	No %
Very Good	3.2	51.8	45.0
Good	9.9	46.6	43.5
Fair	17.8	64.3	17.9
Bad	36.6	57.1	6.3
Very Bad	61.2	26.5	12.3
All	16.4	55.6	28.0

**Table 4.15: Extent Hampered in Daily Activities by Self-Rated Health, Persons 15-64 Reporting a Chronic Illness or Disability, Living in Ireland Survey 2000**

Self-Rated Health	Hampered in Daily Activities		
	Severely %	Some Extent %	No %
Very Good	1.7	8.0	13.7
Good	21.0	29.2	54.1
Fair	49.8	52.9	29.2
Bad	19.3	8.9	1.9
Very Bad	8.2	1.1	1.2
Total	100	100	100

activities, for those reporting a chronic illness or disability. The proportion reporting that they are severely restricted in their daily activities is very high for those who regard their own health as 'very bad' as more than 4 out of 5 of this group were severely restricted. However, a substantial proportion of those who regard their health as good or very good said they were restricted to some extent in their daily activities.

The looseness of this relationship is illustrated by Table 4.15, where column rather than row

percentages are tabulated, in other words, how each of the 'hampered' categories rates their health rather than how much each of the health categories is 'hampered'. This shows that only 28% of those who report being severely hampered in their daily activities and 10% of those who report being hampered to some extent say that their health is bad or very bad.

Respondents clearly see a difference between their general health and the extent of restriction in daily activity, as noted by Watson (1996) in relation to similar results from the 1994 Living in Ireland Survey. People generally seem to evaluate their health against a 'customary' or expected level in responding to such questions, so that presence of a longstanding condition may simply be taken for granted. Furthermore, the presence of an impairment or restriction in functioning may not be regarded as a 'health problem'. The implication is clearly that measures of self-assessed health are going to convey a rather different, complementary, type of information to measures of chronic or longstanding illness or disability.

#### **4.4 Differences Between the Quarterly National Household and Living in Ireland Surveys**

It was noted earlier that the percentage of individuals reporting a chronic illness or disability in the Living in Ireland Survey is rather higher than the percentage reporting a longstanding illness or disability in the QNHS special module – at 16.6% versus 10.8%. While the general pattern of the results is similar, the differences between the surveys are highest among those aged under 44, with the Living in Ireland Survey showing much higher rates in the lower age groups. The first and most obvious reason why the numbers reporting illness or disability is that the questions themselves were different – the Living in Ireland Survey referring to 'any chronic, physical or mental health problem, illness or disability', and the QNHS to 'any longstanding health problem or disability'.

The use of the term 'longstanding' in the QNHS versus 'chronic' in the Living in Ireland Survey could be a significant difference. In the QNHS module the use of the term longstanding is intended to capture chronic conditions such as diabetes, epilepsy, and schizophrenia while excluding acute conditions such as a sprained ankle, a broken leg, appendicitis or a respiratory tract infection. However, respondents in the Living in Ireland Survey may well include such acute conditions, despite the use of the term 'chronic'. If we restrict attention in the Living in Ireland Survey to those whose illness or disability has already lasted 6 months or more, then the percentage saying they have such an illness or disability does fall, but only to 15%. In addition, this could indeed be an over-adjustment, since someone who has only recently become ill or disabled could still expect that to be 'longstanding'.

The specific mention of mental health in the Living in Ireland Survey question might also have encouraged people to include such conditions, although the proportion of the total who fall in that broad category is not strikingly higher than in the QNHS (the categorisation itself not being identical in the 2 surveys). A further difference is that the Living in Ireland Survey includes those aged 16 and above as adult respondents whereas the QNHS survey includes those aged 15 and over. With those aged 15 having very low rates of chronic illness or disability, this might in itself produce a difference of up to half a percentage point in the percentage reporting long-term illness/disability between the 2 surveys. Finally, there could of course be differences between the 2 surveys in the extent to which they accurately represent the population as a whole as they could be disproportionately capturing, or missing, the type of people most likely to report a longstanding illness and so on. For example, 12% of those responding directly report a longstanding health problem compared with only 9% of those for whom responses were by proxy.

The QNHS is a much larger survey than the Living in Ireland Survey, but both have been carefully validated and a weighting scheme applied to maximise representativeness, and no obvious areas of difference between the 2 (for example, in the age profile of respondents) is to be seen. There is however one potentially important difference in the way the 2 surveys were administered. The Living in Ireland Survey sought to interview each adult, and had only a relatively small proportion (14.4% in the 15-64 age group) where 'proxy' responses provided by another household member had to be accepted instead. In the QNHS survey module, on the other hand, 40% of the individual questionnaires



were answered by proxy. Those responding directly about themselves appear to be more likely to report a longstanding health problem or disability than those answering on a proxy basis in respect of another family member, which is perhaps not surprising. This apparently innocuous difference could contribute significantly to the gap between the 2 surveys in the overall percentage seen as having a chronic illness or disability.

More broadly, the difference between the surveys in the numbers showing up as having a long-term illness or disability highlights that the underlying concept of disability is itself an imprecise one. It encompasses a range of heterogeneous conditions and variation in the precise details of how a survey seeks to capture them can make a significant difference to the outcome. This should be kept in mind as other measures are used in the remainder of this study. The results from the special questions included in the Census of Population will shed some further light on these issues for Ireland, but a full-scale dedicated disability prevalence and impact survey would be the only way to adequately capture the extent and nature of disability in Ireland. Such a survey was called for by the Commission on the Status of People with Disabilities, and a pilot exercise funded by the National Disability Authority is underway at the time of this study. In the context of the present study, it is worth emphasising that such a disability survey should devote considerable attention to measuring labour force participation and the barriers facing those affected by disability in seeking to access work.

## 4.5 Conclusions

This chapter has looked at information on health and disability among the working age population available in existing Irish survey datasets which also measure labour force participation in depth. About 10.8% of working-age respondents in the special module on disability included with the QNHS in 2002 said they had a longstanding illness or disability. This rose with age, from only one in twenty for those aged between 15 and 24 to one in four for those aged between 55 and 64. Close to half these persons, or almost 5% of all working-age adults, said that this condition meant that they were considerably restricted in the kind or amount of work they could do, while 2.3% said they were restricted to some extent. Grossed up to the implied figure for the population as a whole, almost 190,000 working-age adults reported being restricted in the kind or amount of work they could do, due to longstanding illness or disability. On the other hand close to 4% of the sample said they had a longstanding illness or disability but were not restricted in the kind or amount of work they could do.

In the 2000 Living in Ireland Survey, a higher number – 16.6% of the working-age sample – reported the presence of a chronic illness or disability. Of these, 17% said they were severely restricted in terms of daily activities as a result, 55% said they were restricted to some extent, and the remaining 28% said they were not restricted at all. The differences between the 2 surveys illustrate the sensitivity of the results to what can seem insignificant or innocuous differences in wording or focus of the questions.

In addition, it is apparent that the relationship between self-rated health and the presence of a condition restricting daily activities among those reporting a chronic illness or disability is rather loose. Most of those who regard their health as ‘very bad’ say they are severely restricted in their daily activities, but so do a substantial proportion of those who regard their health as good or very good.

Having looked at the pattern of impairment and disability in existing survey datasets, the next stage is to investigate its relationship with labour force participation in the following chapters.

# THE OVERALL RELATIONSHIP BETWEEN LABOUR FORCE STATUS AND DISABILITY

## 5.1 Introduction

The information described in the previous chapter on reported longstanding or chronic illness and disability in existing survey datasets is now used to investigate the relationship between this type of illness or disability and labour force participation. In this chapter the nature of that relationship is described through a series of cross-tabulations from both the Quarterly National Household Survey (QNHS) special module on disability and the Living in Ireland Survey, moving on in Chapter 6 to employ more sophisticated statistical techniques to see what underlies it.

## 5.2 Labour Force Status and Disability in the Quarterly National Household Survey

In classifying individuals by labour market status the QNHS adopts a number of distinct approaches, but a core classification distinguishes 3 broad categories namely: in employment, unemployed or economically inactive. Being in employment is defined as having worked in the week before the survey for at least one hour for payment or profit, including work on the family farm or business, or having such a job but not having worked in that week due to illness, holidays and so on. Unemployment is defined on what is known as an 'ILO basis' (International Labour Office, 1982) and includes those who in the week before the survey were without work, were available for work, and had taken specific steps in the preceding 4 weeks to find work. Economic inactivity covers those who are not in the labour force, such as the retired or those working in the home, and on an ILO basis will include those who have become unemployed and are not actively seeking work. We first look at the distribution across these 3 labour force categories of the individuals in the QNHS special module who reported the presence of a longstanding illness or disability.

Table 5.1 shows that 40% of those reporting a longstanding health problem or disability were employed, 57% were not economically active, and 2.8% were unemployed. Unemployment rates are defined here and throughout the report as the ratio of unemployment to population. To provide some perspective on these figures, of those without a chronic illness more than two-thirds were in employment and 28% were inactive, while the unemployment rates for the 2 groups were similar. So the employment rate for those reporting a long-standing illness or disability is well below that for the remainder of the sample. The 40% in employment is however a substantial group with a longstanding illness or disability who will be invisible in the conventional presentation of labour force statistics, for the reasons discussed in Chapter 2.

**Table 5.1: Labour Force Status for Those With and Without a Longstanding Illness or Disability, Persons 15-64, QNHS 2002**

Labour Force Status	With %	Without %
Employed	40.1	68.3
Unemployed	2.8	3.0
Not Economically Active	57.1	28.7
Total	100	100

**Table 5.2: Type of Condition by Labour Force Status, Persons 15-64 Reporting a Longstanding Health Problem or Disability, QNHS 2002**

Type of Condition	Employed %	Unemployed %	Inactive %
Arms or Hands	4.7	6.0	5.5
Back or Neck	14.9	14.9	13.4
Chest or Breathing	19.3	23.5	12.2
Diabetes	6.6	4.6	3.1
Epilepsy	2.4	5.1	1.9
Hearing Difficulty	2.4	6.7	1.6
Heart, Blood Pressure/Circulation	14.6	3.2	15.0
Legs or Feet	6.8	5.4	8.5
Mental, Nervous or Emotional	5.8	11.6	13.8
Seeing Difficulty	1.7	2.6	1.8
Skin Conditions	2.5	1.7	1.1
Speech Impediment	0.5	-	0.5
Stomach, Liver, Kidney or Digestive	5.2	6.0	3.6
Other Progressive Illness	4.0	1.8	7.1
Other Longstanding Problem(s)	8.7	6.9	10.5
Total	100	100	100

**Table 5.3: Labour Force Status for Men and Women With and Without a Longstanding Illness or Disability, Persons 15-64, QNHS 2002**

Labour Force Status	With		Without	
	Men %	Women %	Men %	Women %
Employed	46.0	33.5	78.9	57.9
Unemployed	3.5	2.0	3.7	2.2
Not Economically Active	50.5	64.5	17.3	39.9
Total	100	100	100	100

For those who report a chronic illness or disability, Table 5.2 looks at the type of condition involved by the 3 different labour force status categories. Across all 3, the most common conditions are back or neck, chest or breathing, heart, blood pressure/circulation. Among those who are employed and unemployed, a relatively high proportion have chest or breathing problems. Within the inactive group, on the other hand, a relatively high proportion has either heart or mental, nervous or emotional conditions.

**Table 5.4: Labour Force Status by Age for Those With and Without a Longstanding Health Problem or Disability, Persons 15-64, QNHS 2002**

Age	With			Without		
	Employed %	Unemployed %	Inactive %	Employed %	Unemployed %	Inactive %
15-24	36.3	5.9	57.7	46.0	3.8	50.2
25-34	55.6	5.3	39.1	83.2	3.7	13.1
35-44	50.2	2.7	47.1	79.6	2.6	17.8
45-54	41.7	2.1	56.3	76.0	2.3	21.7
55-64	27.0	1.1	71.9	56.2	1.2	42.6

**Table 5.5: Labour Force Status by Region for Those With and Without a Longstanding Health Problem or Disability, Persons 15-64, QNHS 2002**

Region	With			Without		
	Employed %	Unemployed %	Inactive %	Employed %	Unemployed %	Inactive %
BMW	35.8	3.2	61.0	65.8	3.9	30.3
Other	41.6	2.6	55.8	69.2	2.7	28.1

**Table 5.6: Labour Force Status by Marital Status for Those With and Without a Longstanding Health Problem or Disability, Persons 15-64, QNHS 2002**

Marital Status	With			Without		
	Employed %	Unemployed %	Inactive %	Employed %	Unemployed %	Inactive %
Single	39.7	4.4	55.9	63.8	4.1	32.1
Married	42.5	1.5	56.1	73.2	1.8	25.0
Separated	33.8	4.9	61.3	72.4	4.1	23.5
Widowed	23.9	1.0	75.1	52.6	1.6	45.8

Table 5.3 shows that, among those reporting such an illness or disability like the rest of the population men are more likely to be in employment or unemployed while women are more likely to be inactive. Half of all men and two-thirds of all women reporting a longstanding illness or disability are categorised as not economically active.

Table 5.4 shows that in terms of age, individuals with a longstanding illness or disability are more likely to be employed in the 25-34 age range, where their employment rate peaks at 55%, than in other age groups. Their rates of employment are much lower than for the rest of the sample in all age groups, and their inactivity rate reaches 72% for those aged between 55 and 64.

Table 5.5 shows that the employment rate is lower in the BMW region than elsewhere, both for those reporting a longstanding illness or disability and for others.

Table 5.6 reveals that the employment rate is higher for married persons than others, both among those reporting a longstanding illness or disability and others. That gap is however much narrower among those reporting a longstanding illness or disability, and the employment rate within each category is much higher for those without such an illness or disability. Inactivity rates are particularly high for those who are separated or divorced and for widows.

**Table 5.7: Labour Force by Education Level for Those With and Without a Longstanding Health Problem or Disability, Persons 15-64, QNHS 2002**

Education Level	With			Without		
	Employed %	Unemployed %	Inactive %	Employed %	Unemployed %	Inactive %
None/Primary	24.1	2.2	73.7	46.9	4.6	48.5
Secondary	44.1	3.7	52.3	63.5	3.1	33.4
Third Level	63.9	2.4	33.7	85.3	2.1	12.6

**Table 5.8: Labour Force Status by Extent of Restriction in Kind of Work, Persons 15-64 Reporting a Longstanding health problem or Disability, QNHS 2002**

Extent of Restriction	Male			Female		
	Employed %	Unemployed %	Inactive %	Employed %	Unemployed %	Inactive %
Yes, Severely	18.0	2.5	79.4	14.9	0.9	84.1
Yes, Some Extent	65.6	6.3	28.1	38.3	3.3	58.5
No Limitations	79.4	3.2	17.4	50.1	2.4	47.5

Table 5.7 demonstrates that the rate of employment increases as the level of educational attainment rises, once again both among those reporting a longstanding illness or disability and for others, but with a consistently lower rate for the former group. Almost three-quarters of those reporting a longstanding illness or disability and with only primary education are economically inactive. By contrast, for those with such a condition but with third-level education, 64% are in employment – though this is still considerably lower than the 85% employment rate for those with third-level education and no longstanding illness or disability.

Chapter 4 revealed that by no means all those reporting a longstanding illness or disability say they are restricted in terms of the kind or amount of work they can do. In Table 5.8 it is apparent that, among those reporting a longstanding illness or disability, those who say they are limited in the kind of work they can do are much more likely to be inactive than those who say they face no such restriction. Among men the employment rate is almost 80% for those who are not restricted whereas it is only 18% for those who are severely restricted. This means that the employment rate for men who have a longstanding illness or disability but who are not restricted in the kind of work they do is as high as that for men with no such illness or disability (see Table 5.3). The employment rate for women who have a longstanding illness or disability but are not restricted is 50%, compared to 15% of those who are severely restricted. This is slightly lower than the 58% we saw earlier for women with no such illness or disability. For those who say they are restricted to some extent, both the employment and unemployment rates are much higher for men than for women, with a high proportion of the latter inactive.

**Table 5.9: Labour Force Status by Age and Extent of Restriction in Kind of Work, Persons 15-64 Reporting a Longstanding Health Problem or Disability, QNHS 2002**

Age	Employed		Unemployed		Inactive	
	Severe %	Some %	Severe %	Some %	Severe %	Some %
15-24	17.3	40.6	5.5	10.1	77.3	49.3
25-34	27.2	67.9	3.8	8.8	68.9	23.3
35-44	22.4	58.8	1.8	4.4	75.9	36.7
45-54	17.4	57.3	1.6	3.1	81.1	39.6
55-64	9.3	38.1	0.5	2.5	90.2	59.4

**Table 5.10: Occupation of Individuals at Work for Those With and Without a Longstanding Health Problem or Disability, Persons 15-64, QNHS 2002.**

Occupation	With %	Without %
Managers and Admin	14.8	15.7
Professionals	6.7	10.3
Associate Professional	7.2	8.5
Clerical and Secretarial	10.8	13.2
Craft	12.2	12.5
Personal and Protective Services	12.3	10.4
Sales	7.5	9.1
Plant and Machinery	12.7	10.8
Other	15.8	9.6
Total	100	100

**Table 5.11: Cause of Disability by Labour Force Status, for Persons 15-64 Reporting a Longstanding Health Problem or Disability, QNHS 2002**

Cause of Disability	Employed %	Unemployed %	Inactive %
Born with Disability	39.9	3.3	56.8
Accident Work Related	46.5	4.6	48.9
Accident Non-Work	40.1	3.8	56.2
Accident Sports Related	43.8	3.2	53.0
Disease Work Related	50.6	2.6	46.8
Disease Non-Work	38.9	2.5	58.6
Total	41.3	3.0	55.7

In Table 5.9 this pattern varies by age. Focusing again on those who are restricted in the kind of work they can do, this shows a consistently lower employment rate for those who are severely restricted rather than restricted to some extent, but with the employment rate also being particularly low for those aged 55 or over.

For those who are in employment, Table 5.10 shows the breakdown by occupational group for those with and without a chronic illness or disability. Interestingly, the pattern is in fact rather similar, although an above-average proportion of those reporting a long-standing health problem or disability are in the 'other occupations' category (this includes non-stated) .

**Table 5.12: In Work and Need Assistance by Limitations in Amount or Type of Work, QNHS 2002**

In Work, Need Assistance	Limited in Amount of Work			Limited in Type of Work		
	Considerably %	Some Extent %	No %	Considerably %	Some Extent %	No %
Considerably	67.3	20.9	11.8	74.6	16.6	8.7
Some Extent	33.2	50.0	16.8	47.3	49.8	2.9
No	12.2	25.7	62.1	14.7	27.3	57.9

**Table 5.13: Assistance at Work by Occupation, Persons 15-64 Reporting a Longstanding Health Problem or Disability, QNHS 2002**

Occupation	Assistance Provided to Facilitate Work?		
	Considerably %	Some Extent %	No %
Managers and Admin	8.7	12.4	18.8
Professionals	2.1	5.1	8.6
Associate Professional	9.2	16.4	8.3
Clerical and Secretarial	11.0	7.3	11.8
Craft	10.5	10.9	11.4
Personal/Protective Services	11.8	13.2	11.1
Sales	5.1	4.9	7.6
Plant and Machinery	15.9	13.4	10.6
Other	25.7	16.3	11.8
Total	100	100	100

It is also interesting to see if there is much difference in labour market status, among those reporting a longstanding health problem or disability, between those who have had the problem since birth, acquired it as a result of accident or injury, or as a result of disease. Table 5.11 shows that the employment rate is higher for those affected by a work-related accident or disease or a sports-related accident than for those born with the condition or affected by non-work-related accident or disease, but the variation across these groups is perhaps less than might have been expected.

We now explore the information available from the QNHS in relation to assistance for those at work or for those who would like to work. Table 5.12 explains how those receiving assistance at work rate their disability in terms of the amount of work they can do. This shows that over two thirds of those provided with considerable assistance say they are restricted considerably in the amount of work they can do, and three-quarters are restricted considerably in kind of work they can do.

Information on assistance provided by occupation is shown in Table 5.13. This shows that the group receiving most assistance is in the 'other' category. Associate professionals also require more assistance to some extent compared to all other occupations. Managers or those in administration require the least assistance.

Data on the perceived need for assistance among those not working is also available and this enables us to look at the relationship between the need for assistance and the cause of the health problem or

**Table 5.14: Not in Work and Would Need Assistance to Work by Cause of Disability, QNHS 2002**

Cause of Disability	Would You Need Assistance to Work?		
	Considerably %	Some Extent %	No %
Born With Disability	22.8	52.5	24.6
Accident Work Related	23.8	51.8	24.4
Accident Non-Work	18.4	53.5	28.1
Accident Sports Related	14.5	56.4	29.1
Disease Work Related	17.7	59.5	22.7
Disease Non-Work	13.2	65.1	21.6
All	17.5	59.0	23.5

disability. Table 5.14 reveals that of those born with a disability or who had a work-related accident, almost one quarter would require considerable assistance. For all types of causes, approximately 25% would require no assistance at all.

The results discussed so far in this chapter illustrate that the labour market status of those reporting a longstanding illness or disability differs systematically from the rest of the QNHS sample, but that within this group labour force participation also varies by gender, age and the extent of restrictions associated with the illness or disability. These inter-relationships are explored systematically in the next chapter using the appropriate statistical techniques, but firstly overall patterns in the Living in Ireland Survey are analysed.

### 5.3 Labour Force Status and Disability in the Living in Ireland Survey

Information obtained in the Living in Ireland Survey provides the basis for constructing the same 3 broad labour force status categories – in employment, unemployed and inactive – used in the previous section (the sequence of questions regarding current work and job search activities is similar though not identical to that used in the QNHS). These categories are now used to look at the labour force status of those reporting in the survey that they had a chronic illness or disability, taking into consideration that the precise question on illness or disability differs from that used in the QNHS special module.

**Table 5.15: Labour Force Status, Persons 15-64 Reporting a Chronic Illness or Disability, Living in Ireland Survey 2000**

Labour Force Status	%
Employment	44.3
Unemployed	4.7
Inactive	51.0
Total	100

Table 5.15 shows that the pattern of labour force participation for this group in 2000 is similar to that seen in the previous section for those reporting a longstanding illness or disability in the QNHS. Over half are inactive, 44% are in employment, and almost 5% are unemployed.

The economically inactive category here includes those who are retired or working full-time in the home, but also those who categorised themselves as ‘unable to work due to permanent illness or disability’ the conventional labour force category discussed in some detail in Chapter 2. It is worth noting that 95% of those who are categorised in this way also report the presence of a chronic illness or disability. On the other hand, simply focusing on that labour force category would miss 80% of those who have a long-standing illness or disability. Even if the additional information in the Living in Ireland Survey is used to also include those who are in another labour force category (such as home duties) but say that is because of illness, as also described in Chapter 2, over 70% of those reporting a longstanding illness or disability would be missed. So independent information on the presence of

**Table 5.16: Labour Force Status by Extent Hampered in Daily Activities, Persons 15-64 Reporting a Chronic Illness or Disability, Living in Ireland Survey 2000**

Labour Force Status	Severely Hampered %	Hampered to Some Extent %	Not Hampered %	No Illness or Disability %
Employed	23.9	41.4	64.1	71.7
Unemployed	3.9	5.7	2.8	3.4
Inactive	72.3	52.9	33.2	25.0
Total	100	100	100	100



disability, independent of labour force status, is indispensable. Indeed as already made clear, ideally this information in relation to disability would be much more extensive than that actually available in the datasets currently available.

Labour force status varies with gender and age for those reporting a chronic illness or disability in the survey, in a manner similar to that seen in the previous section for the QNHS. It also varies with the extent to which the person says they are hampered in their everyday activities by the chronic illness/disability, as shown in Table 5.16. Three-quarters of those who report being severely hampered are inactive, compared with only one-third of those who say they are not hampered at all. The employment rate for those reporting a chronic illness or disability but not hampered by it is 64%, much higher than those who say they are hampered but below the 72% rate for those with no such condition. While those who report being hampered by a chronic illness or disability have high inactivity rates, their unemployment rate is below rather than above average.

Results from the Living in Ireland Survey also suggest that labour force status may be associated with some other individual characteristics not available from the QNHS 2002, notably the age of the youngest child in the family if any. In particular, for women with young children and reporting a hampering chronic illness or disability, the employment rate is particularly low.

## 5.4 Conclusions

The figures presented in this chapter show that the labour market status of those reporting a longstanding illness or disability differs systematically from the rest of the sample, in both the QNHS special module and the Living in Ireland Survey. About 40% of those reporting a longstanding/chronic illness or disability are in employment, while most of the remainder are inactive rather than unemployed. This compares with an employment rate of close to 70% for those not reporting such a condition.

Among those reporting such a condition labour force participation varies substantially by gender, age, and educational attainment as it does for the general population. It also seems to depend very much on the extent of restrictions in work or in daily activities associated with the illness or disability. For example, in the QNHS the employment rate for men who said they were severely restricted in the kind of work they could do was only 18%, and for women in that situation it was only 15%. In the Living in Ireland Survey, the employment rate for those who said they were severely hampered in their daily activities by a chronic illness or disability was only 24%, compared with 64% for those who were not hampered.

To disentangle these inter-relationships systematically, in the next chapter appropriate statistical techniques are applied to see if the influence of the presence of chronic illness or disability, and the extent to which it hampers the individual, can be distinguished more precisely.

# STATISTICAL ANALYSIS OF DISABILITY AND LABOUR MARKET PARTICIPATION

## 6.1 Introduction

The presence of chronic illness or longstanding disability is only one of a number of factors that appear to be systematically related to labour force participation, others include gender, age, level of education, and family status and composition. In addition, it is clear that it is not simply the presence of such an illness or disability that matters, but the extent to which it restricts or hampers the individual. Only limited progress can be made in teasing out these relationships using simple cross-tabulations, so this chapter undertakes multivariate analysis applying regression techniques to the data from both the Living in Ireland Survey and the Quarterly National Household Survey (QNHS). This chapter outlines the key results and their implications.

## 6.2 Data and Methods

This statistical analysis focuses first on individuals of working age in the Living in Ireland Survey 2000, which provides a sample of 3,968 men and 4,088 women. Data is then drawn from the QNHS data drawn from the special module on disability which provides a much bigger sample of 35,116 men and 35,495 women aged between 15 and 64.

The aim of this chapter is to model statistically and explain whether the individual is currently participating actively in the labour force. Specifically, the dependent variable in the statistical model is a simple dichotomy which takes a value of 1 if the individual is either working or has been seeking work in the last four weeks, and a value of 0 otherwise. What is termed a probit regression model is then estimated, relating the probability of being in the labour force to a set of explanatory variables. The explanatory variables employed here include first a range of characteristics known to be associated with higher or lower levels of labour force participation generally, such as age, education, family status and composition. An explanatory variable is also included to compare those living in the Border, Midlands, West region with the rest of the country. Because the patterns for men and women may be rather different, separate equations are estimated for each.

The explanatory variables also include, critically in terms of the focus of this study, a measure of longstanding illness or disability. In the case of the Living in Ireland Survey this captures first whether the individual reported having a chronic illness or disability, and in the QNHS whether they reported having a longstanding illness or disability. However, since the tabulations presented in Chapter 5 suggest that it is not simply the presence of such an illness or disability but the extent to which an illness/disability hampers or restricts the person that may be important in this context, 3 distinct explanatory variables are included in each case.

When analysing the Living in Ireland Survey, these identify:

- those reporting a chronic illness or disability and saying that it hampers them severely in their daily activities
- those who report such an illness or disability and say it hampers them to some extent
- those who report such a condition but say it does not hamper them at all in their daily activities

The measure of the restrictions associated with the condition is in this case not directly related to capacity to work, unlike in the QNHS, but similar measures have been shown to have significant discriminatory power in research elsewhere. When analysing the QNHS the 3 variables identify:

- those reporting a longstanding illness or disability that restricts them severely in the kind of work they can do
- those reporting a longstanding illness or disability that restricts them to some extent in the kind of work they can do
- those reporting a longstanding illness or disability but saying it does not restrict them in the kind of work they can do

### **6.3 Key Results From the Living in Ireland Survey**

The results of this statistical analysis, using the Living in Ireland Survey data, show quite clearly that someone with a chronic illness which hampers them severely in their daily activities has a much lower likelihood of being a participant in the labour force than an otherwise similar person who does not have such a condition. Results are presented for men and women separately.

It is interesting to first look at estimation results, including as explanatory factors only the 3 variables capturing chronic illness or disability and its effects in hampering the individual. The results summarised in Table 6.1 would then suggest that men with a chronic illness or disability which hampers them severely in their daily activities have, on average, a probability of being in the labour force that is 58 percentage points lower than men without a chronic illness or disability. Men with a chronic illness which hampers them in their daily activities 'to some extent' also have a substantially reduced probability of being in the labour force though the reduction, about 36 percentage points, is a good deal less than for those who are severely hampered. Finally, men with a chronic illness which does not hamper them in their daily activities have a probability of being in the labour force which is only one percentage point lower than those without a chronic illness or disability. The figures for severe and some limitation are statistically significant, but take no account of the fact that those reporting a chronic condition may also be different from the rest of the sample in other ways which could influence their labour force participation. They could for example be older or less well educated on average and that could help to explain their lower levels of labour force participation.

Therefore the second column of Table 6.1 shows the key estimation results when the full set of explanatory variables is included in the estimated model, in effect controlling for differences in age, education and so on between those with and without such a condition. The presence of a severely hampering chronic condition now decreases the probability of labour force participation by 61 percentage points compared to someone with no disability. So almost all of that average effect is in fact attributable not to the age or education profile of those with such a hampering condition, but to the condition itself.

This turns out not to be the case for the other 2 variables capturing chronic illness or disability. The reduction in the probability of labour force participation associated with being hampered to some extent by a chronic condition is now 29 percentage points, compared with 36 percentage points before the control variables were introduced. This is still a substantial reduction, but the gap between those hampered severely versus to some extent is now a good deal wider. For those with a chronic

**Table 6.1: Key Results from Probit Model of Labour Force Participation, Men, Living in Ireland Survey 2000**

	Marginal Effect With No Controls	Marginal Effect Controlling for Age, Education, Family Status, Region
Chronic Illness or Disability Severely Hampering	-0.58	-0.61
Chronic Illness or Disability Hampering to Some Extent	-0.36	-0.29
Chronic Illness or Disability Not Hampering	-0.01	-0.01
	(Not Significant)	(Not Significant)

**Table 6.2: Key Results from Probit Model of Labour Force Participation, Women, Living in Ireland Survey 2000**

	Marginal Effect With No Controls	Marginal Effect Controlling for Age, Education, Family Status, Region
Chronic Illness or Disability Severely Hampering	-0.51	-0.52
Chronic Illness or Disability Hampering to Some Extent	-0.26	-0.22
Chronic Illness or Disability not Hampering	-0.13	-0.07
		(Not Significant)

condition which does not hamper them at all, not only is the effect considerably reduced when the control variables are included but that effect is in fact no longer statistically significant. So men with such a non-hampering illness or disability have a labour force participation rate that is indistinguishable from men of a similar age and educational background without a chronic illness or disability.

Table 6.2 presents the corresponding results for women in the Living in Ireland Survey, and the overall pattern is rather similar to that seen for men. On average women with a chronic illness or disability which hampers them severely in their daily activities have a probability of being active in the labour force that is 51 percentage points lower than women with no chronic illness or disability. Even when controlled for age, education and so on that reduction is almost as sizeable at 52 percentage points. So although the reduction for women is less than for men with a severely hampering condition, it is still substantial. Women with a condition which is hampering ‘to some extent’ have 22 percentage points reduction in their probability of participation, having controlled for other factors. This is again lower than the effect for men in the same illness/disability situation and, as for men, the inclusion of the controls makes more difference than it did for the severely hampered. Women with a chronic illness or disability that does not hamper them face the same probability of being in the labour force as women with no such condition when taking their age, education and so on into account.

The models on which these results are based also produce estimated effects for the other variables such as age, education and family composition, but are not discussed here. It could also be the case that the impact of having a chronic condition itself varies not just with gender, which has been taken into account by estimating separate effects, but with the age or education level of the individual. This can be tested in the statistical model by including what are called interaction terms and a variety of such interactions between each of the 3 illness/disability variables and other variables in the model were tested. The results suggested that any such interactions were very limited and did not affect the overall pattern of the results described.

## 6.4 Probit Model of Labour Force Participation in the Quarterly National Household Survey

This section describes the results obtained when a similar analysis was carried out with the data from the QNHS. The variables used to capture illness or disability now reflect what the respondent said about the impact on their capacity to work as opposed to their daily activities, as already described.

**Table 6.3: Key Results from Probit Model of Labour Force Participation, Men, QNHS 2002**

	Marginal Effect With No Controls	Marginal Effect Controlling for Age, Education, Family Status, Region
Longstanding Illness or Disability Severely Limiting	-0.62	-0.66
Longstanding Illness or Disability Limiting to Some Extent	-0.11	-0.12
Longstanding Illness or Disability not Limiting	-0.01 (Not Significant)	-0.01 (Not Significant)

The other explanatory variables are similar to the previous analysis except those relating to the age of the youngest child were not available in this dataset.

As shown in Table 6.3, men with a longstanding illness or disability which restricts them severely in the amount of work they can do have on average a probability of being in the labour force that is 62 percentage points lower than men without an illness or disability. Controlling for age, education, marital status and region actually increases that impact slightly, to 66 percentage points. This is of the same order of magnitude as the reduction seen in the Living in Ireland Survey for men severely hampered in their daily activities.

The reduction for men with a longstanding illness which limits the amount of work they can do to some extent is very much less than for those who are severely restricted. That reduction is only 12 percentage points after controlling for age, education and so on, and the inclusion of those controls once more increases rather than reduces the estimated impact. So there is an even sharper divergence between those restricted severely versus to some extent than with the illness/disability measures in the Living in Ireland Survey.

Finally, for men reporting a longstanding illness which does not limit the amount of work they can do, there is no estimated impact on labour force participation with or without the inclusion of the other control variables.

Turning to the results for women, Table 6.4 shows that women with a longstanding illness or disability which restricts them severely in the amount of work they can do have a probability of being in the labour force that is 43 percentage points lower than men without an illness or disability. Controlling for age, education and marital status makes little difference to that effect, and it is once again of the same order of magnitude as the reduction seen in the Living in Ireland Survey for women severely hampered in their daily activities.

Women with a longstanding illness which limits the amount of work they can do to some extent have a reduction of 14 percentage points in the probability of labour force participation after controlling for age, education and so on. This is little different to the impact for men of that level of illness or disability. Finally, for women reporting a longstanding illness which does not limit the amount of work they can do, the estimated impact without the inclusion of control variables is a modest reduction of only 7 percentage points in labour force participation. After the inclusion of the control variables this impact is even lower.

**Table 6.4: Key Results from Probit Model of Labour Force Participation, Women, QNHS 2002**

	Marginal Effect With No Controls	Marginal Effect Controlling for Age, Education, Family Status, Region
Longstanding Illness or Disability Severely Limiting	-0.43	-0.42
Longstanding Illness or Disability Limiting to Some Extent	-0.17	-0.14
Longstanding Illness or Disability not Limiting	-0.07	-0.03

In addition, the possibility that cause of disability, as distinguished in the QNHS, would have a significant relationship with labour force status was tested by including it as an explanatory variable. However, categorising these causes into Work, Non-Work or From Birth and including this variable in the probit model showed no significant results for men. The variable was then re-constructed with 3 categories, Accident, Disease or From Birth, and included this as an explanatory variable but once again found no significant impact.

## 6.5 Conclusions

This chapter has presented the key results from statistical analysis applying regression techniques to data from both the Living in Ireland Survey and the Quarterly National Household Survey to investigate more formally the relationship between reported longstanding/chronic illness or disability and labour force participation. The results summarised here show that those in the Living in Ireland Survey reporting a chronic illness or disability which hampers them in their daily activities have a significantly reduced probability of labour force participation. For men who report being severely hampered, that reduction is as much as 60 percentage points, while for those who report being hampered to some extent it is smaller but still substantial at 29 percentage points. For men reporting a chronic illness or disability which did not hamper them in their daily activities, the probability of being in the labour force was similar to others of the same age, gender and educational attainment and not report any such condition. For women the estimated effects were smaller in size but similar in pattern. Analysis of data from the QNHS special module on disability yielded results that had a similar pattern.

# THE DYNAMICS OF DISABILITY AND LABOUR MARKET PARTICIPATION

## 7.1 Introduction

The analysis so far has focused on labour force status and disability at a point in time, as captured in a cross-section of the population. Such a snap-shot will include people who have had a disability since birth, people who are temporarily impaired, and people who have recently developed a condition which will in all likelihood have a long-term effect. Current labour market status at a point in time could be the same for individuals who have had very different experiences in the labour market in the previous one, 5 or 10 years. It is therefore important to complement a cross-sectional picture with the analysis of different trajectories over time, both as far as disability and labour force participation are concerned, and at their interaction.

For this purpose longitudinal data obtained in the Living in Ireland Survey is used which tracked a set of individuals from 1994 to 2000. This panel dataset, which is unique in an Irish context, enables this chapter to focus on looking at trajectories in disability for individuals and to follow their changing labour market status over time.

## 7.2 Trajectory of Chronic Illness or Disability 1995-2000

A framework developed by Burchardt (2000) is used to look at trajectories of chronic illness or disability. Those reporting chronic illness or disability when surveyed in a particular year are coded as 1 and those not reporting such an illness or disability as 0 for each year between 1995 and 2000 (the question posed about illness or disability in the initial 1994 survey was slightly different so that year's results are not used). Different types of trajectories may then be distinguished as shown in Table 7.1.

It would be interesting to combine the analysis of data on disability trajectories with data on the limitations of disabilities on work capacity to examine the respective effects of these on labour market participation. However, the Living in Ireland Survey data does not provide enough cases for such analysis.

The results of the distribution of working-age respondents in the sample across these trajectory types are presented in the Table 7.2. Working age is defined as being 15 and over and less than 65 throughout the panel, therefore the oldest members in 1995 and 2000 are 59 and 64 respectively. Likewise the youngest person in 2000 will be 20.

Over two-thirds of the sample did not report chronic illness or disability in any year between 1995 and 2000, while 6% reported such an illness or disability in all 6 years. About 10% reported a chronic illness or disability in just one year, 9% reported a chronic illness or disability in 2 or 3 years, either

**Table 7.1: Framework for Disability Trajectory Types for a 6-Year Period**

	Pattern
No Chronic Illness in Any Year	000000
Chronic Illness in just One Year	010000 000010
Chronic Illness in 2 or 3 Years, Not Consecutively	010100 101100
Chronic Illness in 2 or 3 Years, Consecutively	001100 001110
Chronic Illness in 4 or 5 Years, Not Consecutively	010111 101111
Chronic Illness in 4 or 5 Years, Consecutively	011110 011111
Chronic Illness in All 6 Years	111111

**Table 7.2: Trajectory of Chronic Illness or Disability, Age 15-64, 1995-2000**

Trajectory of Chronic Illness or Disability	%
No Chronic Illness in Any Year	69.6
Chronic Illness in just One Year	10.1
Chronic illness in 2 or 3 Years, Not Consecutively	4.0
Chronic Illness in 2 or 3 Years, Consecutively	4.1
Chronic Illness in 4 or 5 Years, Not Consecutively	3.4
Chronic Illness in 4 or 5 Years, Consecutively	2.9
Chronic Illness in all 6 Years	5.9
Total	100

**Table 7.3: Comparison of Cross Sectional and Longitudinal Chronic Illness or Disability, Age 15-64, 1995-2000**

	1995		2000	
	Ill/Disabled %	Not ill/Disabled %	Ill/Disabled %	Not ill/Disabled %
Cross Sectional Measure	12.6	87.4	18.8	81.2
Longitudinal Measure				
No Chronic Illness in Any Year		79.6		79.6
Chronic Illness in just One Year	8.6	10.3	19.1	10.3
Chronic Illness in 2 or 3 Years, Not Consecutively	11.9	2.9	14.1	2.9
Chronic Illness in 2 or 3 Years, Consecutively	8.5	3.5	9.0	3.5
Chronic Illness in 4 or 5 Years, Not Consecutively	20.8	0.9	15.2	0.9
Chronic Illness in 4 or 5 Years, Consecutively	3.8	2.8	11.4	2.8
Chronic Illness in all 6 Years	46.5		31.1	
Total	100	100	100	100



consecutively or not, while a further 6% did so in 4 or 5 out of the 6 years covered by the panel survey. These patterns are similar to those shown by Burchardt (2000) using data from the British Household Panel Survey from 1991-1997.

This framework allows us to look at the stock of people with a chronic illness or disability in any year compared to the kind of trajectory they experience. In Table 7.3 of all those who report a chronic illness or disability in 1995, over two-fifths will do so in all 6 years. Conversely over 20% of those who do not report chronic illness or disability in 1995 will do so at some point over the period. Focusing on those reporting a chronic illness or disability in 2000, almost one-third have done so for all 6 years, and 19% did so in 2000 only. Of those who are not reporting chronic illness or disability in 2000, over 20% have done so at some other time.

One problem with using this trajectory approach is that some spells of disability are ‘censored’ in the data. This arises because as people are only observed over a specific period or observation ‘window’. Someone interviewed in 1995 and stating that they have a chronic illness or disability could well have had that condition before the panel survey started (so this is a case of what is called ‘left censoring’). Similarly for those reporting such a condition in 2000 we cannot observe when this spell of disability finishes (a case of ‘right censoring’). Table 7.4 shows that a substantial proportion of the disability spells in the various trajectory types have been left or right censored in this sense. Obviously those who did not report chronic illness or disability in any year do not represent a censored spell, and those who do so in all 6 years are both left and right censored by definition but a significant amount of censoring is seen for those in the other categories.

**Table 7.4: Percentage of Left or Right Censored Cases in Each Trajectory Type**

	Neither %	Type of Censoring		Both %
		Left %	Right %	
Chronic Illness in just One Year	53.7	10.7	35.6	0
Chronic Illness in 2 or 3 Years, Not Consecutively	13.2	20.1	49.3	17.4
Chronic Illness in 2 or 3 Years, Consecutively	33.2	25.9	40.9	0
Chronic Illness in 4 or 5 Years, Not Consecutively	11.3	4.4	11.6	72.7
Chronic Illness in 4 or 5 Years, Consecutively	10.4	16.2	73.4	0

**Table 7.5: Duration of Chronic Illness or Disability for Those Reporting Chronic Illness or Disability in 1995, Age 15-64**

	%
<=1 Year	11.4
>1 Year and <=2 Years	8.2
>2 and <=3 Years	6.2
>3 and <=4 Years	5.3
>4 and <=5 Years	5.3
>5 and <=6 Years	7.2
>6 and <=7 Years	3.7
>7 and <=10 Years	9.5
>10 and <=16 Years	17.3
>16 and <=20 Years	5.6
>20 and <=30 Years	10.1
>30 and <=40 Years	5.4
>40 and <=50 Years	2.4
>50 and <=60 Years	2.3

The problem of left-censored data may be overcome by the use of additional information obtained in the Living in Ireland Survey. Those reporting the presence of a chronic illness or disability were also asked about the date of onset. Responses to this question in 1995 are particularly useful in establishing the actual length of spell of disability for those who state they are disabled in 1995. Using this information Table 7.5 shows that only 11% of those with a reported illness in 1995 had been ill for one year only, and the average duration of the illness/disability for these individuals was 6 years.

### 7.3 Sustained Chronic Illness or Disability and Work

So how does the experience of chronic illness or disability relate to employment over a number of years, rather than simply at a point in time? It is clear from the outset that both are strongly related. Analysis of the Living in Ireland Survey data shows first that the mean number of years in work from 1995 to 1999 declines steadily as the number of years in which chronic illness or disability is reported rises. Table 7.6 shows that those who do not report chronic illness or disability at any point spent an average of 3.5 years in employment over the period. This falls to under 3 years for those reporting chronic illness or disability in 2 or 3 of the survey years, down to under 2 for those reporting such a condition in 4 of the 5 years, and only 1.5 years in work where the individual reports such a condition in all 5 surveys.

**Table 7.6: Chronic Illness or Disability and Employment, 1995-1999**

Number of Years Reporting Chronic Illness or Disability	Mean Number of Years Employed
None	3.5
1	3.0
2	2.9
3	3.2
4	1.8
5	1.6

So it is important to try to capture both the impact of sustained chronic illness or disability, and the ‘dynamics’ of how movements in and out of disability are related to labour force participation. This is an extremely complex area for analysis and here the aim is to present some initial findings to illustrate the value of further intensive investigation.

In order to focus on illness or disability that is more than transitory, it may be useful to look at individuals who report a chronic condition for 2 consecutive years in the panel (see Bardasi, Jenkins and Rigg, 2000). A total of 14.5% of working-age respondents in the Living in Ireland Survey reported such a sustained spell of chronic illness or disability. Looking at the labour market experience of these individuals versus others in the sample, a set of labour market outcomes can be defined where ‘employed’ now means in employment for (at least) 2 consecutive years, ‘unemployed’ means in unemployment for at least 2 consecutive years, and ‘inactive’ means not active in the labour market for (at least) 2 consecutive years.

Table 7.7 reveals how labour market experience over the period differed for those who experienced 2 consecutive years of chronic illness or disability and those who did not. Only 46% of those with sustained illness/disability experienced 2 consecutive years of employment, and almost the same proportion experienced 2 consecutive years of inactivity, compared to 68% and 25% respectively for those without that experience of sustained illness or disability.

### 7.4 Disability and Employment Transitions

The data from the Living in Ireland Survey illustrates not just how frequently individuals report chronic illness or disability and different employment statuses over the survey period, but also tracks what happens to their employment status as they start to report chronic illness. Following Burkhauser and

**Table 7.7: Labour Force Status for Individuals Experiencing Consecutive Years of Chronic Illness or Disability Versus Others, 1995-1999**

	Disability %	Others %	All %
Employed	45.9	68.5	63.6
Unemployed	5.3	6.6	6.0
Inactive	48.8	24.8	30.4
Total	100	100	100

Daly (1998) it is helpful to define the onset of a disability as occurring when an individual has at least 2 consecutive responses interviews reporting no illness/disability followed by at least 2 consecutive annual responses with such a condition. This is quite a conservative measurement approach, but allows us to be reasonably sure that a sustained illness/disability has begun, which can then be related to employment status.

Table 7.8 demonstrates the employment status of individuals 2 years before the onset of illness/disability, one year before, during the year of onset, and in the years following onset of the illness/disability. This shows that 60% or more of those who become ill or disabled are in employment in the years before onset. Their employment rate falls to about 55% in the year of onset of the illness or disability. Two years after onset the employment rate remains well below what it was before the onset of a chronic illness or disability, and the inactivity rate is considerably higher.

**Table 7.8: Labour Force Status for Those Becoming Ill or Disabled, Age 15-64, 1995-1999**

	2 Years Before Onset %	1 Year Before Onset %	Year of Onset %	1 Year After Onset %	2 Years After Onset %
Employment	61.5	73.6	54.7	48.7	53.3
Unemployed	17.3	3.6	12.9	9.4	0.4
Inactive	21.2	22.8	32.4	41.9	46.3
Total	100	100	100	100	100

## 7.5 Duration of Illness/Disability as a Predictor of Labour Market Participation

It is evident that duration of illness varies a good deal among those reporting a longstanding condition however, it is worth exploring whether there is a systematic relationship between duration and labour force participation. Firstly data from the QNHS disability module (Central Statistics Office, 2002) is used and Table 7.9 presents employment, unemployment and inactivity rates by duration of illness from that source. The employment rate generally falls as the duration of the condition lengthens, with those who have had the health problem or disability for 5-10 years or from birth having employment rates of under 40% compared with 55% or above for those affected for under a year.

**Table 7.9: Duration of Illness or Disability by Labour Force Status, QNHS 2002**

Duration of Illness or Disability	Employment Status		
	Employed	Unemployed	Inactive
	%	%	%
<6 Months	57.3	3.7	39.0
6-12 Months	55.2	2.9	41.8
1-2 Years	43.6	2.1	54.2
2-3 Years	45.0	4.7	50.2
3-5 Years	40.6	4.0	55.5
5-10 Years	37.1	1.9	60.9
From Birth	39.0	3.4	57.7

The role of duration is then investigated econometrically by including a set of duration dummy variables, distinguishing disabled from birth, 1-2 years, 2-3 years, 3-5 years, and 5-10 years, in the probit model as extra explanatory variables in predicting the probability of being in employment. The results are presented in Table 7.10. These show that some of the variation in employment rates seen in Table 7.9 is associated with differences in severity, age, gender, education and the other explanatory variables included in the model. However, there are some significant additional negative effects associated with longer durations, which are in general more pronounced for men than women but interestingly this does not apply to having had the condition since birth.

A similar model was also estimated, using Living in Ireland Survey 2000 data and including as extra explanatory variables the duration trajectories described earlier, using durations of 2-3 years and 4-5 years both consecutively and non consecutively. The results were quite similar to the model using QNHS data. For women, a disability lasting 6 years or more reduces labour force participation by 19 percentage points, while for men any disability over 2 years consecutively reduces participation by approximately 10 percentage points.

**Table 7.10: Effect of Duration of Illness or Disability on Labour Market Participation, QNHS 2002**

	Marginal Effects	
	Men	Women
Not Disabled (Reference)		
Disabled with Severe Limitation	-0.5128	-0.3223
Disabled with Some Limitation	-0.2113	-0.0438 (not significant)
Disabled with No Limitation	-0.0521	0.0466 (not significant)
Not Disabled/Less Than One Year Disabled (Reference)		
1-2 Years	-0.0987	-0.0795 (not significant)
2-3 Years	-0.0478 (not significant)	-0.0718 (not significant)
3-5 Years	-0.1110	-0.0744 (not significant)
5 to 10 Years	-0.1697	-0.1283
Disabled from Birth	-0.0289 (not significant)	-0.0905
Pseudo R <sup>2</sup>	0.2951	0.1567
N observations	33780	34256

Note: Explanatory variables also include BMW, marital status, age and education

## 7.6 Conclusions

This chapter has sought to complement the cross-sectional picture of disability and labour force participation with an analysis of different trajectories over time, both as far as disability and labour force participation are concerned, and at their interaction. This was based on the unique longitudinal data obtained in the Living in Ireland Survey, which tracked a set of individuals from 1994 to 2000. Of the working-age adults in that panel throughout, 69% did not report a chronic illness or disability in any year, while 6% reported such a condition in each year. About 10% reported a chronic illness or disability in just one year 9% did so in 2 or 3 years, and 6% did so in 4 or 5 years. Of those reporting a chronic illness or disability in the first survey year, two-fifths did so in all 6 years. For those reporting such a condition in 1995, the average duration up to that point had been 6 years. So there is both a good deal of persistence in reported disability and a good deal of movement.

There was a stark difference in labour force participation between those who reported disability throughout the period of the panel survey and those who did not. Those reporting such a condition consistently throughout spent an average of only 1.5 years in work over the period, whereas those who never reported such an illness or disability spent 3.5 of the years in work. Tracking individuals from before the onset of disability through the period of onset and beyond, a substantial and sustained decline in their employment rate was seen.

# DISABILITY AND LABOUR FORCE PARTICIPATION IN IRELAND: A COMPARATIVE PERSPECTIVE

## 8.1 Introduction

Having investigated in some depth the relationship between disability and labour force participation in Ireland, this study concludes by seeking to provide some comparative perspective in this chapter. This is usually particularly difficult to achieve in the context of disability because the available measures of disability itself often vary across countries and it is not clear that like is being compared with like. Thus it is very difficult to obtain a reliable picture of the extent and nature of disability in one country compared with another before turning to the implications for labour force participation at all.

Data is used for EU countries from the European Community Household Panel (ECHP) Survey (Eurostat, 2002) which has the advantage that the same set of questions about longstanding illness or disability were asked in each country. Labour force status can also be measured in the same way and in the same dataset. The focus is therefore on the employment status of people in these countries reporting such a longstanding illness or disability. As will become apparent, however, there remain serious problems which it is beyond the scope of this study to tackle.

## 8.2 Data

The ECHP is a survey on household income and living conditions organised by Eurostat and covers a very wide arrange of topics including employment, education, household composition, life-style and deprivation and, to a limited extent, health. It is a longitudinal survey, seeking to follow the same people from one year to the next. The survey ran from 1994 to 2001, but the latest data available for analysis for all the countries at present is for 1998. In the first wave in 1994 a sample of some 60,500 households, with approximately 130,000 adults aged 16 years and over, were interviewed across 12 member states and by 1998 data was available for all 15 EU member states.

The Living in Ireland Survey constituted the Irish element of the ECHP and the questions on health status in the ECHP are the same as those from that survey already described and used in earlier chapters. This allows analysis of how many people report a longstanding illness or disability and to distinguish between those who say they are hampered in daily activities severely, to some extent or not at all.

While some results from the analysis of these responses in the ECHP have been published elsewhere (Malo and Garcia-Serrano, 2001) results presented here are from analysis of the ECHP micro-data. For

this purpose data is used from 1998 and focuses on the working age population aged between 16-64 (although the retirement age varies across countries).

### 8.3 Chronic Illness or Disability in the European Community Household Panel Survey

Overall percentages reporting longstanding illness or disability in each country in 1995 and 1998 are presented in Table 8.1. There is a very wide range from under 10% in Italy up to 30% in Denmark and 38% in Sweden. Ireland, with over 16%, is similar to countries such as France, Belgium and Spain.

**Table 8.1: Self Reported Disability Rates, Age 16-64, EU Countries, ECHP 1998**

Country	%
Germany	33.3
Denmark	30.2
The Netherlands	22.9
Belgium	17.8
France	16.3
UK	32.0
Ireland	16.3
Italy	9.3
Greece	11.4
Spain	16.3
Portugal	19.4
Austria	14.4
Sweden	37.9
Finland	33.2

Table 8.2 shows the how the prevalence of longstanding illness or disability in each country varies by gender. In most countries, there is not much of a gender differential, but women have a higher incidence more often than men.

Table 8.3 illustrates the pattern by age. Within each country the numbers reporting a chronic illness or disability rises as we move up the age groups. When comparing countries there are some remarkably high percentages reporting chronic illness or disability in the older age ranges in certain countries, for example more than half of all those in the 55-64 age group in Germany, Sweden, Finland and the UK. Even in the lowest age group, where only 8% report a chronic illness or disability in Ireland, more than twice that many do so in Denmark and Finland, and Sweden is once again even more of an outlier.

In Table 8.4 the percentage reporting a chronic illness or disability varies by education level, distinguishing 3 educational attainment categories, which are less than secondary, secondary and third level. There is a higher prevalence of reported illness or disability in the lower educated group. In Ireland the reported rate for those who did not complete secondary schooling is twice that of those with higher levels of educational attainment and that differential, though relatively wide, is also seen in a number of other countries.

**Table 8.2: Self Reported Disability Rates by Gender, Age 16-64, EU Countries, ECHP 1998**

Country	Men %	Women %
Germany	30.7	36.0
Denmark	27.4	33.1
The Netherlands	21.1	24.7
Belgium	16.9	18.7
France	16.2	16.3
UK	30.5	33.3
Ireland	16.3	16.4
Italy	8.7	9.8
Greece	10.4	12.3
Spain	15.9	16.8
Portugal	17.8	21.0
Austria	14.7	14.1
Sweden	34.7	41.3
Finland	31.7	34.7

**Table 8.3: Self Reported Disability Rates by Age, EU Countries, ECHP 1998**

Country	Age 15-24 %	25-34 %	35-44 %	45-54 %	55-64 %
Germany	11.5	20.5	26.5	40.4	60.0
Denmark	21.7	23.4	28.3	35.2	43.3
Netherlands	14.5	16.1	21.7	27.4	38.2
Belgium	7.8	11.0	17.1	23.0	31.3
France	7.6	9.7	14.1	20.9	31.1
UK	14.6	23.4	29.2	38.7	54.8
Ireland	8.3	13.4	15.5	20.0	31.0
Italy	2.6	4.3	6.3	11.7	21.4
Greece	2.5	4.9	6.2	15.0	27.8
Spain	7.0	10.1	12.8	21.3	38.1
Portugal	8.0	13.0	14.4	25.2	42.8
Austria	3.8	7.1	11.8	22.7	30.6
Sweden	28.4	27.7	37.1	43.5	61.4
Finland	18.0	23.7	27.1	39.5	58.9



**Table 8.4: Self Reported Disability Rates by Education Level, Age 16-64, EU Countries, ECHP 1998**

Country	Less than Secondary %	Secondary %	Third Level %
Germany	33.2	34.3	29.9
Denmark	38.0	28.5	26.6
Netherlands	23.3	12.5	13.5
Belgium	22.6	17.6	13.7
France	23.7	14.5	10.5
UK	38.7	37.0	27.2
Ireland	23.0	10.9	10.6
Italy	12.4	6.0	4.2
Greece	18.5	5.2	5.0
Spain	22.4	8.7	8.3
Portugal	22.8	7.4	10.5
Austria	16.2	14.2	9.6
Sweden	42.9	38.4	32.2
Finland	42.6	29.8	28.3

The earlier analysis of the results for Ireland revealed the value of the additional information obtained in the survey about the extent to which those reporting chronic illness or disability were hampered in their daily activities. Table 8.5 shows the percentage of those reporting chronic illness or disability in each country who said they were hampered in their daily activities severely, to some extent or not at all. With the exception of Sweden a majority stated they were hampered to some extent. France and the UK clearly administered the question with 2 response categories rather than 3, since no respondents stated to some extent in the UK and none in the not hampered category in France. Compared with the other countries, Ireland has a relatively low proportion of those reporting a chronic illness saying they are severely hampered in daily activities. There is no obvious relationship between the overall proportion in the sample reporting a chronic illness or disability and the proportion of these saying they are severely hampered.

The nature of the responses to the question on chronic illness or disability in the ECHP is such that one could not be confident that they are in fact capturing the same phenomenon from one country to the next. In particular, the extent of variation across countries within age groups is difficult to accept as an accurate picture of the underlying prevalence of disability, even when the additional information about the impact on daily activities is taken into account. The response pattern across countries can be affected by a variety of other factors, including cultural and linguistic differences and differences in institutional structures, in particular social transfers for those affected by disability, which can influence the way people see themselves and respond to such questions.

It is useful in this context to estimate and compare econometric models for each country relating the probability of reporting a chronic illness or disability to gender, age, marital status, education, household size and household type as explanatory variables. These show for example that differences between men and women in the probability of reporting disability are statistically significant in only four countries; Germany, Denmark, the Netherlands and Spain. Although there are large difference in crude disability rates between men and women in Italy and Portugal, there turns out to be no significant effect of being female on the probability of reporting disability in those countries when controlled for other factors such as age, education and household type.

The broad pattern with respect to age is similar across countries, with the probability of reporting disability being higher for older age groups. However, this probability is much higher across all age

**Table 8.5: Self-Reported Disability Rates and Extent Hampered in Daily Activities, Age 16-64, ECHP 1998**

Country	Severely Hampered %	Hampered to Some Extent %	Not Hampered %
Germany	20.9	75.2	3.9
Denmark	10.8	46.2	43.0
Netherlands	25.3	57.3	17.4
Belgium	21.2	56.9	22.0
France	41.1	58.9	-
UK	30.7	-	69.3
Ireland	14.9	60.5	24.7
Italy	23.2	56.9	19.9
Greece	34.6	51.5	13.9
Spain	21.5	42.9	35.6
Portugal	36.8	52.3	10.8
Austria	22.1	59.5	18.4
Sweden	25.2	28.4	46.3
Finland	16.9	50.9	32.1

groups in certain countries, notably Germany and the UK. Single individuals are significantly more likely to report disability than married people in the UK, Ireland, Italy, Greece, Spain and Portugal. In most countries the lower educated individuals show a higher probability of disability than those with secondary education, whereas those who are educated to third level are much less likely to be disabled. The relationship between household type and disability is less consistent across countries. Individuals in households comprising one adult with children have an increased probability of disability compared to two adults with children, in Ireland and Denmark but in Spain, Portugal and Austria the opposite is true.

Econometric analysis is also helpful in assessing the scale of the differences across countries in the numbers reporting disability and the factors behind those differences. Instead of estimating a separate model for each country, the same model is estimated for the whole ECHP sample to look at the level of disability predicted for each country. Differences in these predicted rates will then reflect differences in the composition of the samples in terms of age and gender profiles, education, household type, and the extent to which this would be expected to give rise to variation in the prevalence of disability. The predicted rates of disability produced in this manner are in fact very similar across countries, ranging only from 18% to 22%. The very much greater variation in actual reported rates of disability, which we saw ranged from 9% to 38% (see Table 8.1) is thus not explained by the composition differences. In seeking to explain that variation across countries one must thus look primarily towards reporting behaviour and the way it is influenced by the cultural and linguistic differences and differences in institutional structures (notably disability-related benefits) already mentioned.

## 8.4 Chronic Illness and Disability and Economic Status

The labour force status of those reporting chronic illness or disability in different countries in the ECHP is analysed here using the detailed information obtained in the survey on labour market activities to distinguish 3 groups, namely those who are in employment, unemployed and inactive. Missing information for Germany and the UK in the ECHP means that they cannot be included in this stage of the analysis.

**Table 8.6: Self Reported Disability Rates and Labour Market Status, Age 16-64, ECHP 1998**

Country	In employment %	Unemployed %	Inactive %
Denmark	68.4	6.5	25.1
Netherlands	52.5	2.9	44.5
Belgium	45.8	3.6	50.6
France	48.4	6.5	45.1
Ireland	42.4	5.1	52.5
Italy	36.0	5.8	58.2
Greece	36.1	2.4	61.5
Spain	35.3	8.1	56.6
Portugal	53.9	2.8	43.3
Austria	53.0	2.5	44.5
Sweden	60.2	13.8	26.0
Finland	57.0	6.4	36.6

Table 8.6 presents the proportions of those reporting a chronic illness or disability in each of these labour market statuses for the other countries in the ECHP. The overall employment rate for those reporting a chronic illness or disability of about 40% in Ireland is similar to Belgium and higher than the Southern European countries, though lower than Denmark, the Netherlands, and Sweden. Like Ireland, inactivity rather than unemployment accounts for most of the remainder in the other countries except Sweden.

As shown previously, in the Irish case the extent to which the individual is hampered in daily activities was strongly related to the likelihood that they were in work rather than inactive. Table 8.7 shows that this is also the case in the other countries covered by the ECHP. The differential in employment rates between those hampered severely versus to some extent is substantial everywhere, and is no wider in Ireland than elsewhere, and the same is generally true for the differential between those hampered to some extent versus not at all.

**Table 8.7: Self-Reported Disability Rates by Employment Rates and Extent Hampered in Daily Activities, Age 16-64, ECHP 1998**

Country	Severely Hampered %	Hampered to Some Extent %	Not Hampered %
Denmark	27.5	63.4	84.1
Netherlands	34.7	54.8	71.2
Belgium	26.0	44.60	66.5
France	37.3	56.1	Missing
Ireland	18.0	42.1	60.6
Italy	23.4	36.8	47.6
Greece	24.0	38.0	59.1
Spain	17.1	32.9	49.4
Portugal	38.1	61.9	69.0
Austria	32.3	55.0	70.1
Sweden	33.2	63.6	72.7

The estimation of similar statistical models on the ECHP data confirmed that reporting a chronic illness or disability which severely hampers the individual consistently reduces labour force participation, and such a condition hampering them to some extent reduces participation but by less. These effects are statistically significant and are seen when a range of explanatory variables controlling for age, gender, education and household type are included. However, the size of these effects vary among countries. The results suggest that the impact of a severely hampering condition in reducing the employment rate is greater in Ireland than in a number of the other countries, but the caveats around the measure of disability mean that it would be premature to place much weight on this finding.

## **8.5 Conclusions**

This chapter has aimed to provide some comparative perspective on the findings for Ireland by using data for EU countries from the European Community Household Panel survey. This has the advantage that the same set of questions about longstanding illness or disability was asked in each country. However, the results showed a very wide variation across countries in the percentage reporting a chronic illness or disability. This was the case even within age groups to such an extent that one would have severe doubts about whether the responses were capturing the same underlying phenomenon. Nonetheless, it was interesting that the overall employment rate of about 40% for those reporting a chronic illness or disability in Ireland is similar to Belgium and higher than the Southern European countries, though lower than Denmark, the Netherlands, and Sweden. Like Ireland, inactivity rather than unemployment accounts for most of the remainder in most of the other countries. Consistently across countries, as in Ireland, there was a substantial differential in employment rate between those reporting that their chronic illness or disability hampered them severely versus to some extent in their daily activities.

## CONCLUSIONS

This study set out to provide a detailed description of the labour market situation of people with disabilities in Ireland and analyse the factors associated with participation or non-participation in the labour market. It has been based on analysis of information from existing datasets rather than attempting to gather new data. These have been the regular Quarterly National Household Survey (QNHS), the special module on disability attached to the QNHS in 2002, the Living in Ireland Survey and the European Community Household Panel Survey of which it forms part. This concluding chapter summarises the key findings and highlights lessons in relation to the available information on which such analysis has to be based at present.

Conventional survey-based measures of labour force status do not seek to capture disability per se, but they do allow people not in work to identify permanent illness or disability as the reason they are not working. In the QNHS 2.5% of the adult population describe their own labour force status as not working due to permanent illness or disability. These people are disproportionately aged between 45-64, and are much more likely to be men than women. A similar figure and profile was seen in the 2000 Living in Ireland Survey, where the levels of educational attainment of those involved were seen to be strikingly low. Analysis of the latter survey also revealed a further group who are identified in the labour force statistics as either unemployed, working in the home or retired, but when asked why they are not seeking work say this is due to permanent illness or disability. This group is also disproportionately older and poorly educated, but is evenly split between men and women.

In the QNHS special disability module about 10.8% of working-age respondents said they had a longstanding illness or disability. This rose from only one in 20 for those aged between 15 and 24 to one in 4 for those aged between 55 and 64. About half these persons, or almost 5% of all working-age adults, said that this condition meant that they were considerably restricted in the kind or amount of work they could do, while 2.3% said they were restricted to some extent. In the 2000 Living in Ireland Survey, a higher number, 16.6% of the working-age sample, reported the presence of a chronic illness or disability. Of these 17% said they were severely restricted in terms of daily activities as a result, and 55% said they were restricted to some extent. The differences between the two surveys illustrate the sensitivity of measures of disability to what can seem innocuous differences in the questions posed.

The labour market status of those reporting a longstanding or chronic illness or disability in these surveys differs systematically from the rest of the population sample in both the QNHS special module on disability and the Living in Ireland Survey. About 40% of those reporting a longstanding/chronic illness or disability were in employment, with the remainder mostly counted as inactive rather than unemployed, compared with an employment rate of close to 70% for those not reporting such a condition. Among those reporting such a condition, as among the general population, labour force participation varies substantially by gender, age, and educational attainment. It also varies strikingly with the extent of restrictions in work or in daily activities associated with the illness or disability. For

example, in the QNHS the employment rate for men who said they were considerably restricted in the kind of work they could do was only 18% and for women in that situation it was only 15%. In the Living in Ireland Survey, the employment rate for those who said they were severely hampered in their daily activities by a chronic illness or disability was only 24% compared with 64% for those who were not hampered.

To disentangle these inter-relationships systematically, regression techniques were applied to identify the influence of the presence of chronic illness or disability, and the extent to which it hampers or restricts the individual, on labour force participation. The results showed that those reporting a longstanding/chronic illness or disability which hampers them in their daily activities or restricts the kind of work they can do have a significantly reduced probability of labour force participation. For men who report being severely hampered or restricted that reduction is as much as 60 percentage points or more while, for women, it is about 50 percentage points. For those who report being hampered or restricted to some extent rather than severely the effect is much smaller but still substantial. On the other hand, for those reporting a longstanding/chronic illness or disability which did not hamper or restrict them, the probability of being in the labour force was similar to others of the same age, gender and educational attainment and not reporting any such condition.

The unique longitudinal data obtained in the Living in Ireland Survey, which tracked a set of individuals from 1994 to 2000, was then used to look at disability and labour force participation over time rather than in a single snap-shot. Almost 70% of working-age adults in that panel did not report a chronic illness or disability in any year whereas 6% reported such a condition in every year. Two-fifths of those reporting a chronic illness or disability in the first survey year went on to do so in all 6 years. There was a stark difference in labour force participation between such people and those not reporting chronic illness or disability. Those reporting such a condition consistently throughout the panel spent an average of only 1.6 years in work over the period, whereas those who never reported such an illness or disability spent 3.5 of the years in work. Tracking individuals from before the onset of disability through the period of onset and beyond, a substantial and sustained decline in their employment rate was also seen.

A comparative perspective on the findings for Ireland was made by making use of data for EU countries from the European Community Household Panel Survey, which asked the same set of questions about longstanding illness or disability in each country. However, the results showed a very wide variation across countries in the percentage reporting a chronic illness or disability, giving rise to severe doubts about whether the responses were capturing the same underlying phenomenon. Nonetheless, it was interesting that the overall employment rate of about 40% for those reporting a chronic illness or disability in Ireland is similar to Belgium and higher than most of the Southern European countries, though lower than Denmark, the Netherlands, and Sweden. Like Ireland, inactivity rather than unemployment accounts for most of the remainder in most of the other countries. Consistently across countries, as in Ireland, there was a substantial differential in employment rate between those reporting that their chronic illness or disability hampered them severely versus to some extent in their daily activities.

This brings out the value, indeed the necessity, of having information not just on the presence of a chronic condition but on the impact this has on the individual's capacity to function effectively in work and daily life. The key message of this study, over and above its specific findings about the significant and substantial impact of measured disability on labour force participation, is that a full understanding of this relationship and its implications requires a much more comprehensive data base which seeks to measure disability much more fully. This would require a dedicated large-scale survey, and experience elsewhere has amply demonstrated both the feasibility and value of such data collection exercises. A pilot survey of this sort is currently being carried out for the National Disability Authority, which should contribute towards its evolution in Ireland.



## REFERENCES

- Bardasi, E, Jenkins, S and Rigg, J (2000) 'Disability, Work and Income: a British Perspective' *ISER Working Paper*, No. 36
- Burchardt, T (2000) 'The Dynamics of Being Disabled' *Journal of Social Policy*, Vol. 4, pp645-668
- Burkhauser, R and Daly, M (1998) Disability and Work: The Experiences of American and German Men' *Economic Review*, Vol. 2, pp17-28
- Central Statistics Office (2002) *Quarterly National Household Survey: Disability in the Labour Force, Second Quarter 2002*. CSO: Ireland
- Economic and Social Research Institute (2002) *Living in Ireland Survey:(1994-2001)*, ESRI: Dublin
- Eurostat (2002) *European Community Household Panel (1994-2001)*, Eurostat  
[<http://www.europa.eu.int/comm/eurostat>]
- International Labour Organization (1982) *Guidelines on Measuring Employment and Unemployment*. ILO  
[<http://www.hamburg.emb-japan.go.jp/infojp/wussten/dilo.html>]
- Malo, M and Garcia-Serrano, C (2001) *An Analysis of the Employment Status of the Disabled Persons Using ECHP Data – Second Draft*, Unpublished [<http://www.employment-disability.net>]
- Watson, D (1996) *An Analysis and Evaluation of Statistical Information on People with Disabilities in Ireland – Report for the Commission on the Status of People with Disabilities*, Dublin
- World Health Organization (1992) *International Statistical Classification of Diseases and Related Health Problems: The Tenth Revision (ICD-10)*, WHO
- World Health Organization (2001) *International Classification of Functioning, Disability and Health A54/I8*, WHO



## APPENDIX

### Legislative Context

Individuals and organisations responsible for the provision of labour market initiatives have certain obligations under the Employment Equality Act, 1998 and the Equal Status Act, 2000 as employers, educational and training bodies and service providers. These Acts aim to promote equality of opportunity and prohibit discrimination on nine specified grounds in employment, vocational training, training or experience, access to employment and conditions of employment, service provision and educational establishments. The nine discriminatory grounds are gender, marital status, family status, sexual orientation, religion, age, disability, race and membership of the Traveller community.

### The Employment Equality Act, 1998 and the Equal Status Act, 2000:

- prohibit direct and indirect *discrimination* (and discrimination by association by service providers and educational establishments)
- prohibit *sexual harassment and harassment* on the discriminatory grounds
- require employers, educational and training bodies, service providers and educational establishments to *provide reasonable accommodation for people with disabilities* unless it costs more than nominal cost
- allow *positive action* measures
  - (i) under the Employment Equality Act, 1998 in relation to:
    - a) the gender ground
    - b) people over 50
    - c) people with a disability
    - d) members of the Travelling community
    - e) training or work experience (provided by or on behalf of the State) for any disadvantaged group (if the Minister certifies that it is unlikely that the group would otherwise receive similar training or work)
  - (ii) under the Equal Status Act, 2000 in relation to disadvantaged groups or measures which cater for the special needs of persons
- impose *vicarious liability* on employers and service providers in relation to discriminatory acts of employees and agents unless the employers and service providers took reasonably practicable steps to prevent the discrimination



- contain a number of detailed exemptions

The Employment Equality Act, 1998 and the Equal Status Act, 2000 will have to be amended to implement the EU Race Directive, the Framework Directive and the Gender Equal Treatment Directive.

Provisions of the equality legislation in regard to the disability ground are summarised in the Table below.

#### Equality Legislation Provisions on Disability Ground

	Employment Equality Act, 1998	Equal Status Act, 2000
Ground	Disability is very broadly defined. It covers a wide range of impairments and illnesses. It covers all physical, sensory and intellectual disabilities.	
Reasonable Accommodation	Employers, educational and training bodies and service providers are obliged to provide reasonable accommodation for people with disabilities, if without special treatments or facilities – – the employee would not be competent or capable of undertaking duties – it would be impossible or unduly difficult for the person to avail of the service	
Positive Action	– measures which help integrate people with disabilities into employment – training or work experience for disadvantaged groups (as certified by the Minister)	– positive action measures for disadvantaged persons or measures which cater for special needs
Exemptions	There is no obligation to provide reasonable accommodation if it costs more than nominal costs (or is a disproportionate burden to employers when the EU Framework Directive is implemented)	
Other Exemptions	– defence forces, An Garda Síochána or the prison service – where there is clear statistical or other evidence of significantly increased cost – employment in a private household – if the person is not capable or fully competent	– anything that is required by legislation – ‘public order’ exemption – different treatment in fees and allocation of place by educational establishment as between Irish and EU nationals and non EU nationals – different treatment to a student with a disability where by virtue of the disability the provision of services to others is made impossible or unduly difficult

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