

Secondary analysis of the Labour Force Survey (LFS) EU disability module:

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Secondary analysis of the Labour Force Survey (LFS) EU disability module

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June 2015

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1. Summary

1.1 Introduction

This report presents findings from the 2011 EU disability module of the UK Labour Force Survey (LFS). It follows a series of secondary data analyses of the LFS on the employment experiences of people in the UK identified as being long term disabled due to a seeing difficulty (Hewett and Keil, 2015).

The EU disability module is an additional module of questions which was attached to the standard LFS survey in 2011, to focus in particular on those with disabilities based within the labour force. This survey was standardised for use across the EU, and 55,365 respondents in the UK completed this series of questions.

1.2 Definition of vision impairment

For the EU module of the LFS, people with vision impairment were defined as those people identified with **functional limitations** to the type or number of hours of work they could do, or in how they travelled to work that resulted from the person's **sight difficulty**. **We have therefore used the term 'sight difficulty' throughout this report to describe people with a work limiting difficulty due to their sight.**

1.3 Number of people with sight difficulties

People who took part in the survey were asked to identify their **main** and their **second most important** work limiting difficulty.

- In total, **152,552** people of working age in the UK were identified with a sight difficulty as their **main** work limiting difficulty (that limited the amount or type of work they could do, or how they travelled to work)
 - An additional 33,000 people were identified with a sight difficulty as their **second most important** work limiting difficulty
- In total, **185, 653** people of working age in the UK were identified with a sight difficulty as their **main or second most important work limiting difficulty** (that limited the amount or type of work they could do, or how they travelled to work)

1.4 Additional, long standing health conditions

Of the **185, 653** people with a sight difficulty as their **main or second most important** difficulty:

- **74.1%** of this group had additional longstanding health conditions compared to **30.5%** of the general working population
- **25.9%** of this group had **no** additional longstanding health conditions, compared to **69.5%** of the general working age population
- The most commonly occurring health conditions for people with a sight difficulty as their **main or second most important difficulty** were:
 - Problems with back or neck: **8.2%** compared to **4.1%**
 - Progressive illnesses such as MS or Alzheimers: **7.8%** compared to **0.6%**
 - Diabetes: **5.9%** compared to **1.3%**
 - Problems with arms or hands: **4.7%** compared to **2.0%**
 - Problems with legs or feet: **4.5%** compared to **3.2%**
 - Depression: **4.3%** compared to **1.7%**
 - Mental, nervous or emotional problems (other than depression): **4.2%** compared to **1.2%**
 - Other longstanding health problems: **15.5%** compared to **2.4%**

1.5 Additional, long standing health conditions that also caused limitations in work

Of the **152,552** people with a sight difficulty as their **main work limiting** difficulty:

- 56.2% had additional health problems **that also limited their ability to work in some way**
- 43.8% had **no** additional health problems **that limited their ability to work**
- Of the **185, 653** people with a sight difficulty as their **main or second most important** work limiting difficulty:
 - 59.8% of had additional health problems **that also limited their ability to work in some way**
 - 40.2% had **no** additional health problems **that also limited their ability to work in some way**
 - **The main conditions were:**
 - Problems with back or neck (including arthritis or rheumatism): **6.7%**

- Other progressive diseases such as MS or Alzheimers: **6.2%**
- Diabetes: **4.8%**
- Problems with legs or feet (including arthritis or rheumatism): **4.0%**
- Mental, nervous or emotional problems (other than depression): **3.7%**
- Depression: **3.6%**
- Other longstanding health problems: **10.6%**

In the remainder of this summary, findings only for people whose **main work limiting difficulty** (with or without additional work limiting health conditions) are presented.

1.6 Ages of people with people with sight difficulty as main work limiting difficulty

The age distribution of people with sight difficulty was different to that of the general working age population - people with a sight difficulty were more likely to be in the older age groups

- One in 10 people with a sight difficulty were aged 15-24 compared to two in 10 in the general population
- One in 3 people with a sight difficulty (including those with an additional work limiting health condition) were aged 55-64 compared to fewer than one in five in the general population

1.7 Types of work limitations on people with seeing difficulty as their main work limiting difficulty

While people with a sight difficulty as their main difficulty were more likely than the general working age population to be limited in employment (through one or a combination of number of hours they could work; type of work they could do; and getting to and from work), the group that included people with a health condition in addition to a sight difficulty were even more limited

- However, people with a sight difficulty and a work limiting health condition were more likely to say that that their limitation was caused by a combination of these two factors (the sight difficulty and the health condition), than by the sight difficulty or the health condition alone

1.7.1 Limitations in the number of hours that can be worked

When asked whether they were limited in the number of hours they could work, the proportions that said 'yes' were:

- Sight as the main difficulty (includes people with a work limiting health condition): **64.7%**
 - **44.9%** said the sight difficulty combined with the health condition was the reason for the limitation
 - **15.4%** said the sight difficulty alone was the reason for the limitation
 - **4.3%** said the health condition alone was the reason for the limitation
- Sight as the main difficulty and no additional health conditions: **38.7%**
 - **35.1%** said their sight difficulty was the reason for the limitation
- General working age population: **26.7%**

1.7.2 Limitations in getting to and from work

When asked whether they were limited in getting to and from work, the proportions that said 'yes' were:

- Sight as the main difficulty (includes people with a work limiting health condition): **58.1%**
 - **42.6%** said the sight difficulty combined with the health condition was the reason for the limitation
 - **13.4%** said the sight difficulty alone was the reason for the limitation
- Sight as the main difficulty and no additional health conditions: **36.1%**
 - **30.7%** said their sight difficulty was the reason for the limitation
- General working age population: **18.0%**

1.7.3 Limitations in the type of work

When asked if they were limited in the type of work they could do, the proportions that said 'yes' were:

- Sight as the main difficulty (includes people with a work limiting health condition): **91.3%**
 - **53.9%** said the sight difficulty combined with the health condition was the reason for the limitation
 - **35.9%** said the sight difficulty alone was the reason for the limitation

- Sight as the main difficulty and no additional health conditions: **84.6%**
 - **81.8%** said their sight difficulty was the reason for the limitation
- General working age population: **35.5 %**

1.7.4 Main reason for limitation in work

The main reason that people gave for the limitation in finding work was a **lack of appropriate job opportunities**. The proportions giving this as their main reason were:

- Sight as the main difficulty (includes people with a work limiting health condition): **18.4%**
- Sight as the main difficulty and no additional health conditions: **22.1%**
- General working age population: **7.6%**

Some other reasons given were:

- **Lack of qualifications/experience:**
 - Sight as the main difficulty (includes people with a work limiting health condition): **10.9%**
 - Sight as the main difficulty and no additional health conditions: **15.6%**
 - General working age population: **4.5%**
- **Family/caring responsibilities:**
 - Sight as the main difficulty (includes people with a work limiting health condition): **8.2%**
 - Sight as the main difficulty and no additional health conditions: **10.4%**
 - General working age population: **6.8%**
- **Lack or poor transportation to and from workplace;**
 - Sight as the main difficulty (includes people with a work limiting health condition): **5.3%**
 - Sight as the main difficulty and no additional health conditions: [number too small for statistical reliability]
 - General working age population: **1.3%**
- **Employers' lack of flexibility:**
 - Sight as the main difficulty (includes people with a work limiting health condition): **4.6%**
 - Sight as the main difficulty and no additional health conditions: [number too small for statistical reliability]
 - General working age population: **1.3%**

1.8 Equipment and other access arrangements needed to enable people with sight difficulty as their main work limiting difficulty, to work

Respondents were asked a series of questions about the types of equipment and other types of adaptations and/or support that would be needed to enable them to work. These questions were asked of both those in, and those not in, work.

While for all 3 categories of support (special equipment, personal assistance and special working arrangements) people with sight difficulties (with or without additional health problems) were more likely than the general population to say this type of support was needed, very few of those who were in work appeared to need and/or be receiving such support. The figures are given in 1.8.1 to 1.8.3 below.

1.8.1 Needs or uses special equipment to enable him/her to work

The proportions of people who said they needed and/or used special equipment to enable them to work were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **37.1%**
 - Sight as main difficulty (includes people with a work limiting health condition) who were in employment: **approx 13% ***
- All people with sight as the main difficulty and no additional health conditions: **25.7%**
 - Sight as main difficulty and no additional health conditions who were in employment: **approx 6% ***
- All working age population: **8.6%**
 - Working age population in employment: **4.2%**

***Approximate percentages only given as the actual number was too small for statistical reliability**

1.8.2 Needs or uses personal assistance to enable him/her to work

The proportions of people who said they needed and/or used personal assistance to enable them to work were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **31.7%**

- Sight as main difficulty (includes people with a work limiting health condition) who were in employment: **approx 7% ***
- All people with sight as the main difficulty and no additional health conditions: **19.5%**
 - Sight as main difficulty and no additional health conditions who were in employment: **approx 6% ***
- All working age population: **7.0%**
 - Working age population in employment: **1.2%**

***Approximate percentages only given as the actual number was too small for statistical reliability**

1.8.3 Needs or uses special working arrangements to enable him/her to work

The proportions of people who said they needed and/or used special working arrangements to enable them to work were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **37.2%**
 - Sight as main difficulty (includes people with a work limiting health condition) who were in employment: **approx 11% ***
- All people with sight as the main difficulty and no additional health conditions: **19.4%**
 - Sight as main difficulty and no additional health conditions who were in employment: **approx 6%**
- All working age population: **11.7%**
 - Working age population in employment: **4.4%**

***Approximate percentages only given as the actual number was too small for statistical reliability**

1.9 Economic activity of people with seeing difficulty as their main work limiting difficulty

People with a seeing difficulty as their main work limiting difficulty were far less likely to be employed compared to the general population.

People with a seeing difficulty as their main work limiting difficulty were also more likely to be unemployed (not employed and seeking work), and more likely to be 'inactive' (not employed but not seeking work) compared to the general population.

The group that included people with additional, work limiting health problems were the least likely to be employed, and most likely to be inactive. In comparison, the group of people with a sight difficulty but no additional health conditions had the highest unemployment rate.

1.9.1 People in employment

It is notable that the percentage in employment of people with a sight problem as their main difficulty but with no health problems* is very similar to the proportion in employment of people disabled due to a seeing difficulty that were identified in the analysis of the main LFS (Hewett with Keil, 2015).

The proportions in employment were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **28.1%**
- All people with sight as the main difficulty and no additional health conditions: **45.8%***
- All working age population: **69.2%**

1.9.2 Unemployed

While both groups of people with sight difficulties were more likely than the general working age population to be unemployed (not employed but seeking work), the group of people with a sight difficulty but no additional health conditions had the highest unemployment rate. **This group was twice as likely as the general working age population to be unemployed..**

The proportions unemployed were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **9.8%**
- All people with sight as the main difficulty and no additional health conditions: **12.4%**
- All working age population: **6.2 %**

1.9.3 Economically inactive (neither employed nor unemployed)

People with a seeing difficulty as their main work limiting difficulty were far more likely to 'inactive' (not employed but not seeking work) compared to the general population.

The group of people with seeing difficulties that included those with additional, work limiting health problems were more than twice as likely as the general population to be inactive.

Reasons for inactivity can include being long term sick or disabled, early retired, and looking after the family/caring responsibilities.

The proportions economically inactive were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **62.1%**
- All people with sight as the main difficulty and no additional health conditions: **41.8%**
- All working age population: **24.6%**

1.10 People with seeing difficulty as their main work limiting difficulty who were in employment

A series of further questions explored the circumstances of people who were in employment at the time of the survey. These questions included the length of time the person had been in their current job, and whether they were self-employed or an employee, full or part-time.

The findings indicated that people with sight difficulties (whether or not they had additional health conditions) were more likely than the general population to be self-employed, and to have been with their current employer (or self-employed) for three or more years.

They were also slightly more likely to be on a temporary contract of employment and to be in part-time work. With these two variables, some differences were found between the group of people with sight difficulties that included those with additional health problems, and those with a sight difficulty and no health problems.

1.10.1 Employment type: employed or self-employed

People with sight as the main difficulty were twice as likely as the general working age population to be self employed.

The proportions self-employed were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **27.6%**
- All people with sight as the main difficulty and no additional health conditions: **25.9%**

- All working age population: **13.4%**

The proportions of employees were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **69.8%**
- All people with sight as the main difficulty and no additional health conditions: **70.4%**
- All working age population: **86.4%**

1.10.2 Length of time in current employment

People with sight as the main difficulty were slightly more likely than the general working age population to have been in their current employment for 3 years or more when the survey was carried out in 2011. Around 7 in 10 people with sight difficulty (with or without an additional health condition) had been in their current job for 3 years or more compared to around 6 in 10 of the general population.

1.10.3 Working hours

The group of people with sight difficulties that included those with additional health problems were more likely than the general population to be in part-time employment. There was little difference for people with a sight difficulty and no health problems compared to the general population.

The proportions in part-time work were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **36.5%**
- All people with sight as the main difficulty and no additional health conditions: **28.3%**
- All working age population: **25.3%**

1.10.4 Permanency of current job

Most people with sight difficulty as their main difficulty who were employed were in permanent employment. However, the group of people with sight difficulties and no additional health problems appeared slightly less likely than the general working age population to be in permanent employment. There was little difference for the group of people with a sight difficulty that included those with additional health problems compared to the general population.

The proportions in permanent work were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **89.4%**
- All people with sight as the main difficulty and no additional health conditions: **85.4%**
- All working age population: **94.6%**

1.11 People with seeing difficulty as their main work limiting difficulty who were not in employment

As previously noted, people with sight as their main difficulty were far less likely than the rest of the working age population to be in employment. A further series of questions explored the length of time they had been out of work, how long they had been seeking work, the main reason for leaving their last job, whether they were looking for work and if not, the reasons for this.

The findings indicated that people with sight difficulty were far more likely than the general working age population to have been out of work for ten years or more, to have left their last job because of illness or disability, and to have been seeking a job for more than a year. However, they were also less likely to have been seeking employment during the past four weeks and the main reason given was their illness or disability. Nevertheless, compared to the general population of people who were not actively seeking work, people with sight difficulty were more likely to say that they would like to work.

1.11.1 Length of time since person last worked

The group of people with sight difficulties that included those with additional health problems were twice as likely as the general population to have been out of work for ten years or more at the time the survey was carried out in 2011. People with sight difficulty as their main difficulty but with no additional health conditions were also far more likely than the general population to have been out of work for at least a decade.

The proportions of people who last worked 10 or more years ago were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **52.7%**
- All people with sight as the main difficulty and no additional health conditions: **45.2%**

- All working age population: **26.5%**

The proportions of people who had been seeking work for a year or more were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **33.8%**
- All working age population: **28.0%**

1.11.2 Main reason for leaving last job

Over a third of people with sight difficulties (including those with additional health problems) left their last job due to illness or disability. They were more than twice as likely as the general population to have left their last job for this reason: **36.2%** compared to **15.1%**.

1.11.3 Availability for work

People with sight difficulty were less likely than the general working age population to have been seeking employment in the four week period prior to the date that the survey was carried out, and more likely to say this was due to their health problem or disability.

The proportions not seeking employment during the past 4 weeks were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **62.0%**
 - **74.3%** said this was due to illness or disability
- All people with sight as the main difficulty and no additional health conditions: **41.1%**
 - **50.2%** said this was due to illness or disability
- All working age population: **23.9%**
 - **23.0%** said this was due to illness or disability

1.11.4 Willingness to work

It is notable that although the majority of people with sight difficulty had not been seeking employment during the past 4 weeks, the proportion that **was** seeking employment was higher than the general working age population. People with sight difficulty also expressed a greater willingness to work, even though they weren't actively seeking it.

The proportions that were seeking employment during the past 4 weeks were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **9.8%**
- All people with sight as the main difficulty and no additional health conditions: **13.1%**
- All working age population: **6.8%**

The proportions that were willing to work, although not actively seeking employment were:

- All people with sight as the main difficulty (includes people with a work limiting health condition): **27.1%**
- All people with sight as the main difficulty and no additional health conditions: **29.7%**
- All working age population: **18.5%**

1.12 Factors that made it more or less likely that a person with sight difficulty would be employed

Further analysis was carried out to identify the factors that would make it more or less likely that a person with sight difficulty as their main or second most important difficulty would be employed. The factors that were considered were: gender; presence or absence of an additional work limiting health condition; age; and qualification level.

The most important factors were health and qualification level – people with an additional work limiting health condition and those with qualifications GCSE level or below were far less likely to be employed

- The main findings were:
 - **Gender** – men are more likely to be employed than women
 - **Age** – those aged 16-24 are less likely to be employed than those aged 55-64, but those aged 25-54 are more likely to be employed than those aged 55-64
 - **Qualification level** – those with qualifications below degree level are less likely to be employed than those with a degree and above. The lower the qualification level the more likely it is for the person to not be employed.
 - **Additional health problems** – those without additional health problems are more likely to be employed than those with

2. Introduction

This report follows a series of secondary data analyses of the UK Labour Force Survey for information which is available on the employment experiences of people in the UK with vision impairment. The UK Labour Force Survey is a quarterly survey of a representative sample of people in the UK Labour Force. Each quarter a consistent series of questions are posed to the respondents, and the results are used to monitor employment trends. An initial analysis of the Labour Force Survey was conducted for RNIB by Meager and Carta (2008), and subsequent analyses have been conducted by VICTAR, University of Birmingham (e.g. Hewett (2015)).

2.1 Background to the Labour Force Survey EU Disability module

The EU disability module is an additional module of questions which was attached to the standard survey in 2011, to focus in particular on those with disabilities based within the labour force. This survey was standardised for use across the EU, and 55,365 respondents in the UK completed this series of questions. The UK dataset was made publicly available in April 2015.

3. Method

3.1 Identification of people with sight loss

As different questions were used within the EU Disability module when compared with the quarterly UK Labour Force Survey, an alternative method was required for identifying those within the survey who have vision impairment which impacts upon their daily life. The available variables were evaluated by researchers at Visual Impairment Centre for Teaching and Research and Royal National Institute of Blind People, before deciding on the most suitable approach.

In the standard UK Labour Force Survey, those with vision impairment were identified through the question 'do you have any health problems or disabilities that you expect will last more than a year'. Those who responded 'yes' were asked to identify their main health problem, or disability, of which 'difficulty in seeing (while wearing spectacles or contact lenses)' was an option. They were then asked whether these health problems or disabilities limit their ability to carry out normal day-to-day activities, and also whether it

would affect the type of work they could do, or the amount of paid work they could do.

In the EU disability module, health problems and difficulties were divided into “longstanding health conditions” and “difficulties” and captured in four different variables.

3.1.1 Health problems

In a set of questions, “health conditions”, participants were asked to select from a list, any medical conditions that they suffer from, such as heart problems, diabetes, learning difficulties and depression. Health problems related to sight or hearing are not specified so if a participant wanted to record their sight condition as a “health condition” they would have to select the “other conditions” option.

The “health conditions” variable therefore, does not enable us to identify participants with vision impairment on the basis of their health condition alone.

3.1.2 Difficulties

This series of questions relate to any functional difficulties that the participant might have. There were 11 possible responses (relating to different types of functional difficulty) of which “seeing, even if wearing glasses” was one.

This variable does, therefore, enable us to identify participants with vision impairment – i.e. those people with “difficulty seeing, even if wearing glasses”.

There were two variables in which the participants could identify that they had a seeing difficulty:

- AHM2011_DIFFICMA – 1st basic activity difficulty (the **most important** difficulty)
- AMH2011_DIFFICSE – 2nd basic activity difficulty (the **second most important** difficulty).

- **1,224 described “seeing, even if wearing glasses” as their most important difficulty**
- **81 described “seeing, even if wearing glasses” as their second most important difficulty**

A separate variable “LIMACTDIFF” was created by merging together the responses to three variables on work limitations. These possible work limitations covered:

- Type of work the respondent can do; and/or
- Getting to and from work; and/or
- Number of hours they can work in a week

The possible responses to each of the three questions above were:

1. Yes, the health conditions is the cause of work limitations
2. Yes, the activity difficulties is the cause of work limitations
3. Yes, both health and activity difficulties are the cause of work limitations
4. No, neither health condition or activity difficulties are the cause of work limitations
5. Not applicable (i.e. no work limitations)

3.1.3 Four groups of participants with seeing difficulty

By taking the newly constructed variable “LIMACTDIFF” and the variables describing activity difficulties, we identified those participants who:

- Described sight as their main difficulty, and were limited by this activity difficulty, or by this activity difficulty **and** a health condition = **221 (Group 1)**
- Described sight as their main or second most important difficulty, and were limited by their activity difficulties, or by these activities difficulties **and** a health condition = **269 (Group 2)**
- Described sight as their main difficulty, and were limited by this activity difficulty = **95 (Group 3)**
- Described sight as their main or second most important difficulty, and were limited by this activity difficulty = **106 (Group 4)**

The participants in all four groups therefore, all had a seeing difficulty which limited the type and/or number of hours of work they could do, and/or getting to and from work. Participants in two of the groups (**Group 1 and Group 2**) also had a health condition (not necessarily sight related) that placed additional limitations on their work capability.

In total, 71% (490) participants with a seeing difficulty had additional health problems (figure prior to weighting). The types of health condition are detailed in table 1.

Using the variable "COEFF", which provided a weighting value for each respondent, this gave weighted values of:

- Described sight as their main difficulty, and were limited by this activity difficulty, or by this activity difficulty **and** a health condition = **152,553 (Group 1)**
- Described sight as their main or second most important difficulty, and were limited by their activity difficulties, or by these activities difficulties **and** a health condition = **185,653 (Group 2)**
- Described sight as their main difficulty, and were limited by this activity difficulty = **66,876 (Group 3)**
- Described sight as their main or second most important difficulty, and were limited by this activity difficulty = **74,665 (Group 4)**

3.1.4 Exploring respondent limitations

Whilst the three variables which described work limitations were combined into a single variable, the responses were also explored for each individual variable.

3.1.5 Those with an activity difficulty, or activity difficulty *and* health condition (Groups 1 and 2)

- Weighted totals for difficulties with **type** of work they can do are:
 1. **Group 1:** seeing difficulty main difficulty = **136,613**
 2. **Group 2:** seeing difficulty main or second most important difficulty = **165,470**
- Weighted totals for difficulties with **getting** to work:
 1. **Group 1:** seeing difficulty main difficulty = **85,485**
 2. **Group 2:** seeing difficulty main or second most important difficulty = **105,915**
- Weighted totals for difficulties with **number of hours** able to work:
 1. **Group 1:** seeing difficulty main difficulty = **91,786**
 2. **Group 2:** seeing difficulty main or second most important difficulty = **115,393**

3.1.6 Those with an activity difficulty only (Groups 3 and 4)

- Weighted totals for difficulties with **type** of work they can do are:

1. **Group 3:** seeing difficulty main difficulty = **54,712**
 2. **Group 4:** seeing difficulty main or second most important difficulty = **59,615**
- Weighted totals for difficulties with **getting** to work:
 1. **Group 3:** seeing difficulty main difficulty = **59,615**
 2. **Group 4:** seeing difficulty main or second most important difficulty = **21,820**
 - Weighted totals for difficulties with **number of hours** able to work:
 1. **Group 3:** seeing difficulty main difficulty = **23,461**
 2. **Group 4:** seeing difficulty main or second most important difficulty = **28,230**

In summary, four different groups were constructed:

- Group 1: seeing difficulty as main difficulty and limited by this activity difficulty, or by this activity difficulty **and** an additional health problem which limits work activities
- Group 2: seeing difficulty main or second most important difficulty and limited by this activity difficulty, or by this activity difficulty **and** an additional health problem which limits work activities
- Group 3: seeing difficulty as main difficulty only and limited by this activity difficulty, no additional health problem
- Group 4: seeing difficulty main or second most important difficulty and limited by this activity difficulty, no additional health problem

The findings of the analysis in this report are presented according to the four groups, along with a comparison to the general population. The Official for National Statistics has previously provided guidance of minimum publication figures of 6,000 in a cell for aggregated data from four quarters, and therefore this is the figure adopted for this report. Where the estimated figure for a cell in a table is not sufficient for publication, the value has been replaced by an asterisk.

4. Findings

Table 1: Main longstanding health problems which cause limitation in work for participants who identified themselves as having a sight difficulty as their main or second most important difficulty

| | Participants with a sight difficulty as main or second most important difficulty who are restricted in work |
|--|---|
| Problems with arms or hands (including arthritis or rheumatism) | 3.8% |
| Problems with legs or feet (including arthritis or rheumatism) | 4.0% |
| Problems with back or neck (including arthritis or rheumatism) | 6.7% |
| Cancer | * |
| Skin conditions | 3.1% |
| Heart, blood pressure or circulation problems | * |
| Chest or breathing problems | * |
| Stomach, liver, kidney or digestive problems | 3.6% |
| Diabetes | 4.8% |
| Epilepsy | * |
| Severe headaches such as migraine | * |
| Learning difficulties | * |
| Chronic anxiety | * |
| Depression | 3.6% |
| Other mental, nervous or emotional problems | 3.7% |
| Other progressive illnesses (incl. MS, HIV, Alzheimers) | 6.2% |
| Other longstanding health problems | 10.6% |
| No longstanding health conditions or diseases which cause limitation in work | 40.2% |
| Total | 185,653 |

Note: See also table in Appendix 1 which lists **all** health problems for participants who identified themselves as having a sight difficulty as their main or second most important difficulty. This includes health problems that do not cause limitation in work.

4.1 Explanation of Tables

Each table (data permitting) presents the results for five groups, weighted to be representative of the UK labour market.

Group 1: seeing difficulty as main difficulty and limited by this activity difficulty, or by this activity difficulty **and** an additional health problem which limits work activities

Group 2: seeing difficulty main or second most important difficulty and limited by this activity difficulty, or by this activity difficulty **and** an additional health problem which limits work activities

Group 3: seeing difficulty as main difficulty only and limited by this activity difficulty, no additional health problem

Group 4: seeing difficulty main or second most important difficulty and limited by this activity difficulty, no additional health problem

Whole population

Table 2: Age band

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|-------|--|--|---|---|------------------|
| 15-24 | 10.0% | 8.7% | 9.9% | 8.9% | 19.7% |
| 25-44 | 21.2% | 21.2% | 28.3% | 27.4% | 41.3% |
| 45-54 | 35.0% | 34.5% | 33.8% | 34.3% | 21.2% |
| 55-64 | 33.8% | 35.7% | 28.0% | 29.4% | 17.8% |
| Total | 152,552 | 185,653 | 66,877 | 74,665 | 40,853,923 |

Table 3: Labour status during week when respondents were interviewed

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|---|--|--|---|---|------------------|
| Paid work during reference week/did not work during reference week, but had job | 28.1% | 27.5% | 45.8% | 47.8% | 69.2% |
| Neither worked, nor had a job | 71.9% | 72.5% | 54.2% | 52.1% | 30.8% |
| Total | 152,554 | 185654 | 66,876 | 74,665 | 40,853,925 |

Table 4: Professional status: employee, self-employed, family worker

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|---------------|--|--|---|---|------------------|
| Self-employed | 27.6% | 24.3% | 25.9% | 22.2% | 13.4% |
| Employee | 69.8% | 73.5% | 70.4% | 74.7% | 86.4% |
| Family Worker | * | * | * | * | 0.2% |
| Total | 42,796 | 50,990 | 30,627 | 35,743 | 28,227,714 |

* not sufficient for publication

Table 5: Year in which person started working for this employer or as self employed

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|-------------------------------|--|--|---|---|------------------|
| 2010-2011 (year of interview) | 15.2% | 13.9% | * | * | 20.9% |
| 2007-2009 | 14.1% | 13.7% | * | * | 17.1% |
| 2008 or earlier | 70.7% | 72.4% | 73.8% | 75.0% | 62.1% |
| Total | 42,796 | 50,990 | 30,626 | 35,742 | 28,279,350 |

* not sufficient for publication

Table 6: Full time/part time

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|---------------|--|--|---|---|------------------|
| Full-time job | 63.5% | 63.7% | 71.7% | 71.3% | 74.7% |
| Part-time job | 36.5% | 36.3% | 28.3% | 28.7% | 25.3% |
| Total | 42,796 | 50,990 | 30,627 | 35,743 | 28,209,924 |

Table 7: Permanency of the job (permanent/temporary)

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|---|--|--|---|---|------------------|
| Person has a permanent job or work contract of unlimited duration | 89.4% | 91.6% | 85.4% | 88.2% | 94.6% |
| Person has a temporary contract because of limited duration | * | * | * | * | 5.4% |
| Total | 29,882 | 37,491 | 21,573 | 26,689 | 24,331,535 |

* not sufficient for publication

Table 8: Year in which person last worked

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|-----------------|--|--|---|---|------------------|
| 2011 | 7.6% | 6.2% | * | * | 12.6% |
| 2007-2010 | 25.5% | 26.5% | 36.2% | 33.8% | 42.4% |
| 2002-2006 | 14.3% | 12.6% | * | * | 18.5% |
| 2001 or earlier | 52.7% | 54.7% | 45.2% | 48.8% | 26.5% |
| Total | 88,024 | 108,166 | 28,591 | 30,613 | 8,037,037 |

* not sufficient for publication

Table 9: Main reason for leaving last job or business

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Whole population |
|--|--|--|------------------|
| Dismissed or made redundant | * | 14.8% | 20.3% |
| Job of limited duration ended | * | 8.6% | 9.3% |
| Looking after children or incapacitated adults | * | 5.7% | 13.8 |
| Other personal or family responsibilities | * | 3.2% | 6.3 |
| Own illness or disability | 36.2% | 37.7% | 15.1 |
| Early retirement | * | 9.9% | 7.6 |
| Normal retirement | * | 7.3% | 7.4 |
| Other reasons | * | 12.8% | 20.1 |
| Total | 40,064 | 47,382 | 5,487,217 |

* not sufficient for publication

Table 10: Seeking employment during previous four weeks

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|---|--|--|---|---|------------------|
| Has a job which they have not started yet | * | * | * | * | 0.2% |
| Not seeking employment | 62.0% | 63.7% | 41.1% | 40.4% | 23.9% |
| Seeking employment | 9.8% | 8.8% | 13.1% | 11.8% | 6.8% |
| Not applicable | 28.2% | 27.6% | 45.8% | 47.9% | 69.2% |
| Total | 151,888 | 184,988 | 66,876 | 74,665 | 40,853,925 |

* not sufficient for publication

Table 11: Reasons for not seeking employment

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|--|--|--|---|---|------------------|
| Own illness or disability | 74.3% | 75.9% | 50.2% | 52.6% | 23.0% |
| Looking after children or incapacitated adults | 8.3% | 8.2% | * | * | 20.2% |
| Other personal or family responsibilities | * | * | * | * | 3.2% |
| Education or training | * | * | * | * | 30.5% |
| Retirement | 6.7% | 7.5% | * | * | 16.2% |
| Belief that no work available | * | * | * | * | 0.6% |
| Other reasons | * | * | * | * | 6.2% |
| Total | 93,439 | 116,960 | 26,654 | 29,327 | 9,708,077 |

* not sufficient for publication

Table 12: Duration of search for employment

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Whole population |
|---------------------------------------|--|--|------------------|
| Search not started/less than 6 months | 42.6% | 40.8% | 53.9% |
| 6-11 months | * | * | 18.1% |
| 1 year or longer | 33.8% | 32.1% | 28.0% |
| Total | 19,068 | 21,723 | 5,046,419 |

* not sufficient for publication

Table 13: Willingness to work, for person not seeking employment

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|----------------------------|--|--|---|---|------------------|
| Would like to work | 27.1% | 27.3% | 29.7% | 27.0% | 18.5% |
| Does not want to have work | 72.9% | 73.0% | 70.3% | 73.0% | 81.5% |
| Total | 93,440 | 116,962 | 26,655 | 29,328 | 8,965,459 |

Table 14: Student or apprentice in regular education during the past four weeks

| | Sight main health difficulty (Group 1) | Sight main or second difficulty (Group 1 & 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 3 & 4) | Whole population |
|---|--|---|---|---|------------------|
| Has been a student or apprentice | 7.2% | 5.9% | 11.5% | 10.3% | 16.0% |
| Has not been a student or apprentice | 91.9% | 93.3% | 86.4% | 87.8% | 85.6% |
| Person in regular education, but on holiday | * | * | * | * | 0.7% |
| Total | 152,554 | 185,654 | 66,876% | 74,665 | 40,853,925 |

* not sufficient for publication

Table 15: Highest level of education or training attained

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|--|--|--|---|---|------------------|
| No formal education or below ISCED 1 | * | * | * | * | 0.3% |
| ISCED 2 | 28.1% | 28.7% | 23.3% | 20.9% | 12.5% |
| ISCED 3c (shorter than 2 years) | 11.9% | 11.6% | 11.4% | 11.2% | 12.5% |
| ISCED 3 (without distinction a, b or c possible, 2 y+) | 6.1% | 7.5% | * | * | 5.6% |
| ISCED 3c (2 years and more) | 19.8% | 19.5% | 13.8% | 16.2% | 18.4% |
| ISCED 3a,b | 9.8% | 9.0% | 12.3% | 11.0% | 17.8% |
| ISCED 4a,b | * | * | * | * | 0.1% |
| ISCED 5b | 11.6% | 11.2% | 13.7% | 14.0% | 13.5% |
| ISCED 5a | 11.8% | 11.2% | 19.1% | 18.1% | 18.6% |
| ISCED 6 | * | * | * | * | 0.8% |
| Total | 151,796 | 184,895 | 66,876 | 74,664 | 39,460,093 |

* not sufficient for publication

Table 16: Main work status

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|------------|--|--|---|---|------------------|
| Employed | 28.1% | 27.5% | 45.8% | 47.9% | 69.2% |
| Unemployed | 9.8% | 8.8% | 12.4% | 11.1% | 6.2% |
| Inactive | 62.1% | 63.7% | 41.8% | 41.0% | 24.6% |
| Total | 152,554 | 185,654 | 66,876 | 74,665 | 40,853,923 |

Table 17: Occupation

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Whole population |
|---|--|--|------------------|
| Armed forces | * | * | 0.4% |
| Legislators, Senior officials, and managers | * | * | 11.2% |
| Professionals | 30.3% | 29.0% | 26.5% |
| Technicians and Associate Professionals | * | * | 13.7% |
| Clerks | 15.5% | 13.0% | 11.1% |
| Service workers and shop and market sales | 16.4% | 19.5% | 21.2% |
| Skilled agricultural and fishery | * | * | 1.1% |
| Craft and related trade | * | * | 9.3% |
| Plant and machine operators and assemblers | * | * | 5.6% |
| Total | 39,843 | 47,322 | 25,621,941 |

Table 18: Duration of unemployment

| | Sight main or second difficulty, includes those with health conditions (Group 2) | Whole population |
|---|--|------------------|
| Search not yet started, or less than 6 months | 36.6% | 50.1% |
| 6 months+ | 63.5% | 49.9% |
| Total | 16,402 | 2,531,050 |

Table 19: Duration without employment

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Whole population |
|-------------------------|--|--|------------------|
| Five months or less | * | * | 12.7% |
| Six to seventeen months | 10.8% | 11.1% | 15.0% |
| 18 months + | 83.9% | 84.6% | 72.3% |
| Total | 88,024 | 108,165 | 8,037,034 |

* not sufficient for publication

Table 20: Person's limitation in the number of hours they can work

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|--|--|--|---|---|------------------|
| Yes, the health condition(s) or diseases | 4.3% | 5.6% | * | * | 13.3% |
| Yes, the activity difficulty(ies) | 15.4% | 15.2% | 35.1% | 37.8% | 2.8% |
| Yes, both the health condition(s) and the activity difficulty(ies) | 44.9% | 47.1% | * | * | 10.5% |
| No | 35.3% | 32.1% | 61.6% | 58.3% | 73.3% |
| Total | 152,030 | 185,130 | 66,877 | 74,665 | 12,683,135 |

* not sufficient for publication

Table 21: Main reason for limitation in work

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|---|--|--|---|---|------------------|
| Lack of qualifications/ Experience | 10.9% | 11.4% | 15.6% | 15.7% | 4.5% |
| Lack of appropriate job opportunities | 18.4% | 17.3% | 22.1% | 21.0% | 7.6% |
| Lack or poor transportation to and from workplace | 5.3% | 5.6% | * | * | 1.3% |
| Employers' lack of flexibility | 4.6% | 4.8% | * | * | 1.3% |
| Affects receipt of benefits | * | * | * | * | 0.3% |
| Family/caring responsibilities | 8.2% | 7.7% | 10.4% | 9.3% | 6.8% |
| Personal reasons | 14.8% | 15.5% | * | * | 2.6% |
| Other reason | 11.9% | 13.5% | * | * | 3.1% |
| No limitation in work | 24.7% | 23.2% | 34.7% | 35.8% | 72.5% |
| Total | 147,946 | 181,046 | 65,993 | 73,781 | 39,874,589 |

* not sufficient for publication

Table 22: Persons limitation in getting to and from work

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|--|--|--|---|---|------------------|
| Yes, the health condition(s) or diseases | * | * | * | * | 7.2% |
| Yes, the activity difficulty(ies) | 13.4% | 11.8% | 30.7% | 29.2% | 1.7% |
| Yes, both the health condition(s) and the activity difficulty(ies) | 42.6% | 45.3% | * | * | 9.1% |
| No | 41.9% | 41.0% | 63.9% | 65.0% | 82.0% |
| Total | 152,554 | 185,654 | 66,877 | 74,666 | 12,692,047 |

* not sufficient for publication

Table 23: Persons limitation in the type of work

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|--|--|--|---|---|------------------|
| Yes, the health condition(s) or diseases | * | * | * | * | 16.3% |
| Yes, the activity difficulty(ies) | 35.9% | 32.1% | 81.8% | 79.8% | 5.1% |
| Yes, both the health condition(s) and the activity difficulty(ies) | 53.9% | 57.0% | * | * | 14.1% |
| No | 8.7% | 8.8% | 15.4% | 15.9% | 64.5% |
| Total | 152,553 | 185,653 | 66,877 | 74,665 | 12,665,834 |

* not sufficient for publication

Findings relating to Access to Work

Table 24: Needs/uses special equipment to enable him/her to work: All respondents

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|-------|--|--|---|---|------------------|
| Yes | 37.1% | 38.2% | 25.7% | 24.9% | 8.6% |
| No | 62.9% | 61.8% | 74.3% | 75.1% | 91.4% |
| Total | 149,157 | 181,674 | 66,876 | 74,665 | 12,603,742 |

* not sufficient for publication

Table 25: Needs personal assistance to enable him/her to work: All respondents

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|-------|--|--|---|---|------------------|
| Yes | 31.7% | 32.3% | 19.5% | 20.2% | 7.0% |
| No | 68.3% | 67.7% | 80.5% | 79.8% | 93.0% |
| Total | 149,157 | 181,674 | 66,876 | 74,665 | 12,603,740 |

* not sufficient for publication

Table 26: Needs special working arrangements to enable him/her to work: All respondents

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|-------|--|--|---|---|------------------|
| Yes | 37.2% | 39.5% | 19.4% | 19.2% | 11.7% |
| No | 62.8% | 60.5% | 80.6% | 80.8% | 88.3% |
| Total | 149,157 | 181,674 | 66,876 | 74,665 | 12,603,741 |

* not sufficient for publication

Table 27: Needs/uses special equipment to enable him/her to work: Respondents in employment

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|-------|--|--|---|---|------------------|
| Yes | * | 16.9% | * | * | 4.2% |
| No | 87.1% | 83.1% | 93.3% | 92.2% | 95.8% |
| Total | 42,796 | 50,990 | 30,627 | 35,742 | 7,435,299 |

* not sufficient for publication

Table 28: Needs personal assistance to enable him/her to work: Respondents in employment

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|-------|--|--|---|---|------------------|
| Yes | * | * | * | * | 1.2% |
| No | 92.3% | 93.5% | 96.1% | 96.6% | 98.8% |
| Total | 42,796 | 50,990 | 30,627 | 35,743 | 7,435,299 |

* not sufficient for publication

Table 29: Needs special working arrangements to enable him/her to work: Respondents in employment

| | Sight main difficulty, includes those with health conditions (Group 1) | Sight main or second difficulty, includes those with health conditions (Group 2) | Sight main difficulty, no health problems (Group 3) | Sight main or second difficulty, no health problems (Group 4) | Whole population |
|-------|--|--|---|---|------------------|
| Yes | * | 12.4% | * | * | 4.4% |
| No | 88.5% | 87.6% | 93.3% | 94.2% | 95.6% |
| Total | 42,796 | 50,990 | 30,627 | 35,743 | 7,435,299 |

* not sufficient for publication

5. Multivariate analysis

In order to investigate further the effect of particular factors which are believed to impact upon the success of a person with a visual impairment successfully finding employment, an additional multivariate analysis was conducted. This took the form of a logistic regression and a model was constructed using the following variables.

Table 30: Overview of variables included in multivariate analysis

| Dependent variable | Independent variables |
|--|---|
| Employment status: 1) Employed 0) Not employed | Gender 1) Female 0) Male |
| | Limited in some way due to additional health condition 1) Yes 0) No |
| | Age 1) 16-24 2) 25-44 3) 45-54 4) 55-64 |
| | Highest qualification level 1) GCSE level/equivalent and below 2) A-level to below degree level 3) Degree or above |

Following initial exploration of the data, it was decided to include within the analysis all those participants from Group 2: those who described sight as their main or second most important difficulty, and were limited by their activity difficulties, or by these activities difficulties **and** a health condition. Due to missing data for one of the respondents, the responses of 268 participants were included within this analysis.

Initial analysis explored building a model to explain three types of economic status: employed; unemployed and inactive. However the resulting models were unsuccessful in predicting outcomes for

those who were inactive. Therefore the decision was made to combine 'unemployed' and 'inactive' into one category.

Descriptive statistics

Table 31: Descriptive statistics for variables used within multivariate analysis

| | | Total (N) | Marginal Percentage (%) |
|---|------------------------------------|-----------|-------------------------|
| Main work status | Employed | 50,990 | 27.5% |
| | Not employed | 134,664 | 72.5% |
| Gender | Male | 97,760 | 52.1% |
| | Female | 88,894 | 47.9% |
| Limited in some way due to health condition | Yes | 115,292 | 62.1% |
| | No | 70,361 | 37.9% |
| Age | 16-24 | 16,130 | 8.7% |
| | 25-44 | 39,269 | 21.2% |
| | 45-54 | 64,015 | 34.5% |
| | 55-64 | 66,239 | 35.7% |
| Highest qualification level | GCSE level or equivalent and below | 125,681 | 68.0% |
| | A-level and below degree | 37,929 | 20.5% |
| | Degree or above | 21,287 | 11.5% |
| Total | | 185,653 | |

Table 32: Respondents employment status by Gender, Additional health conditions, Age and Highest qualification level (Unweighted)

| Variable | Category | Employed (%) | Not Employed (%) |
|---|------------------------------------|--------------|------------------|
| Gender | Male | 17.8% | 34.3% |
| | Female | 9.7% | 38.2% |
| Limited in some way due to health condition | Yes | 8.2% | 53.9% |
| | No | 19.3% | 18.6% |
| Age group | 16-24 | 1.1% | 7.6% |
| | 25-44 | 8.9% | 12.3% |
| | 45-54 | 9.5% | 24.9% |
| | 55-64 | 8.0% | 27.7% |
| Highest qualification level | GCSE level or equivalent and below | 10.1% | 57.9% |
| | A-level and below degree | 10.1% | 10.4% |
| | Degree or above | 7.3% | 4.2% |

Binary logistic regression

Table 33: Binary logistic regression estimation of respondents in the UK Labour Force Survey who identified themselves as having a seeing difficulty who are currently in employment versus those currently unemployed and economically inactive – model predicts those who are not employed

| Variable | Coefficient | Standard error | Wald statistic | Odds ratio |
|---|-------------|----------------|----------------|------------|
| Constant | 1.178* | .021 | 3261.5 | 3.247 |
| Gender (Male) | -.726* | .013 | 3210.8 | .484 |
| Age (16-24) | .556* | .028 | 390.4 | 1.744 |
| Age (25-44) | -.852* | .016 | 2675.8 | .426 |
| Age (45-54) | -.225* | .015 | 215.7 | .796 |
| Qual (GCSE level/equiv or below) | 1.902* | .018 | 11151.3 | 6.700 |
| Qual (A-level and below degree) | .420* | .019 | 464.1 | 1.522 |
| Additional health problems (not present) | -1.681* | .013 | 17388.7 | .186 |
| -2 Log Likelihood = 159612.6 | | | | |
| Cox and Snell R ² = .270 | | | | |
| Hoshmer and Lemeshow test = 7333.709 | | | | |
| % of cases correctly predicted: 81.6 (Employed = 55.2%, Not Employed = 91.6%) | | | | |

Note: * = p ≤ 0.001

Reference categories: aged between 55-64; has a degree or above

The fitted model

Overview of the model

The binary logistic regression looked to develop a model to predict, using a number of variables, whether a person with a seeing difficulty which they believed limited them in employment was likely to be either not employed (either unemployed or inactive) or employed.

A final model was fitted which included the following variables:

- Gender
- Age (16-24, 25-44, 45-54 compared to the reference category 55-64)
- Qualification level (GCSE level/equivalent or below, A-levels to below degree compared to the reference category degree and above)
- Additional health problems which impact on ability to work mean that a participant is less likely to be employed

Goodness of fit

- The final model correctly classifies 81.6% of cases. However, we note that whilst it classifies 91.6% of cases for respondents who were not employed correctly, it only classifies 55.2% of cases of those who were employed
- The log-likelihood statistic of 159612.6 also provides indication of goodness of fit – with a lower figure demonstrating a better fit. This large value indicates a poorer fitting statistical model. However, we do note that all the variables in the model are statistically significant, and therefore do all contribute to explaining the variation in the dependent variable, as is confirmed by the Hosmer and Lemeshow test
- The Cox and Snell R^2 statistic indicates that the model explains just over a quarter of the variation in the dependent variable (27%)

Interpretation of the final model

In order to understand the contribution of each individual independent variable, it is necessary to look at the odds ratio. This can be described as “the ratio of the odds an event occurring in one group compared to another” (Field, 2009). For example in the case of this analysis, it examines for each variable the odds of a person ‘not employed’ compared to being ‘employed’. An odds ratio below 1 would suggest that if a person has that characteristic they are more likely to be employed.

- Gender – men are more likely to be employed than women
- Age – those aged 16-24 are less likely to be employed than those aged 55-64, but those aged 25-54 are more likely to be employed than those aged 55-64
- Qualification level – those with qualifications below degree level are less likely to be employed than those with a degree and

above. The lower the qualification level the more likely it is for the person to not be employed.

- Additional health problems – those without additional health are more likely to be employed than those with

References

Field, A (2009) *Discovering statistics using IBM SPSS statistics*. Sage.

Hewett, R. and Keil, S (2015) *Investigation of data relating to blind and partially sighted people in the Quarterly Labour Force Survey: October 2010 – September 2014*

Meager, N. and Carta, E. (2008), *Labour market experiences of people with seeing difficulties*. Institute for Employment Studies, London: RNIB.

Appendix 1

Main longstanding health problems (including many which caused limitation in work) for participants who identified themselves as having a sight difficulty as their main or second most important difficulty

| | Participants with a sight difficulty who are restricted in work | Whole population |
|---|---|------------------|
| Problems with arms or hands (including arthritis or rheumatism) | 4.7% | 2.0% |
| Problems with legs or feet (including arthritis or rheumatism) | 4.5% | 3.2% |
| Problems with back or neck (including arthritis or rheumatism) | 8.2% | 4.1% |
| Cancer | 1.1% | 0.3% |
| Skin conditions | 3.6% | 0.9% |
| Heart, blood pressure or circulation problems | 2.1% | 3.2% |
| Chest or breathing problems | 2.8% | 3.1% |
| Stomach, liver, kidney or digestive problems | 3.8% | 1.7% |
| Diabetes | 5.9% | 1.3% |
| Epilepsy | 1.4% | 0.5% |
| Severe headaches such as migraine | 2.4% | 0.9% |
| Learning difficulties | 1.6% | 0.6% |
| Chronic anxiety | 0.3% | 0.5% |
| Depression | 4.3% | 1.7% |
| Other mental, nervous or emotional problems | 4.2% | 1.2% |
| Other progressive illnesses (incl. MS, HIV, Alzheimers) | 7.8% | 0.6% |
| Other longstanding health problems | 15.5% | 2.4% |
| No longstanding health conditions or diseases | 25.9% | 69.5% |
| Total | 185,653 | 40,853,924 |