

Measuring Disability in the Labour Force Survey

Further investigations into the discontinuity of disabilities reporting as a result of GSS Harmonisation

Executive Summary

The aim of this report is to provide some insight into how the Labour Force Survey questionnaire changes, post GSS harmonisation in April 2013, have altered disability reporting behaviours on the LFS. This should provide users with sufficient understanding to accurately interpret analysis over time and be able to attach relevant footnotes.

General findings:

- The questionnaire changes in April to June 2013 caused an overall drop in the disability rate of people aged 16-64 of 0.9 per cent (391,000 people).
- This overall drop in disabilities reporting was driven by a drop in disabilities reporting among the economically active (0.5 per cent, 204,000).
- Prior to the April to June 2013 question change the rate of disabilities was consistently higher when reported via telephone interviewing as opposed to face-to-face interviewing. Since the change, however, the effect has reversed, with people more likely to report disabilities when asked face-to-face rather than by telephone.
- Results of comparisons with other surveys that also moved to the GSS harmonised questions show that at least one other ONS survey has a step change in responding.

Findings from analysis on changed disability answers among economically active respondents

- Those who changed their response to not disabled after the harmonisation were more likely to suffer from the following types of health problem:
 - i. Heart, blood pressure, circulation.
 - ii. Chest, breathing problems
 - iii. Diabetes.
- Of those who were economically active and changed their answer from 'disabled' in January to March 2013 to 'not disabled' in April to June 2013, 94% were interviewed by telephone in April to June 2013. Overall 61% of LFS interviews gaining a response in April to June 2013 were conducted by telephone.

Conclusion

There has been a drop in reporting of disabilities caused by the questionnaire changes in April to June 2013, with fewer people identifying as disabled under the new harmonised standard definition. This effect was most pronounced in the economically active population. People changing their answers from 'disabled' in January to March 2013 to 'not disabled' in April to June 2013 were more likely to suffer from heart, blood pressure or circulation problems, chest or breathing problems or diabetes. The new questions are more likely to evoke a positive response face-to-face rather than over the phone.

Introduction

The aim of this report is to provide some insight into how the Labour Force Survey questionnaire changes, post harmonisation in April 2013, have altered disability reporting behaviours on the LFS. This should provide users with sufficient understanding to accurately interpret analysis over time and be able to attach relevant footnotes.

The main change in the 2013 wording was a shift from using the terms ‘disabilities or long term health problems’ to ‘physical or mental health conditions or illnesses’. The new questions do not refer to disabilities at all and make specific mention of mental health conditions which was not done previously. Also guidance notes required respondents to consider their health problem without medication. Now respondents are asked to consider their health problem with medication.

The purpose of the 2013 change was to bring the LFS into line with the Government Statistical Service (GSS) Harmonised Standards for questions on disability and to bring the definition of the disability classification in line with the 2010 Equality Act which superseded the Disability Discrimination Act (DDA) 1995.

As expected from past experience, this resulted in a discontinuity in the numbers of people reporting disabilities and also the levels of economic activity amongst those reporting disabilities. It is not possible to state with any certainty the degree of change attributable to the questionnaire change as opposed to real word changes in the numbers of people with disabilities. Observed differences between levels of disability before and after the questionnaire changes must be viewed with caution.

Disability Outcomes and Presentation of disability statistics

Chart 1: Disability levels, people aged 16-64, UK, thousands, non-seasonally adjusted

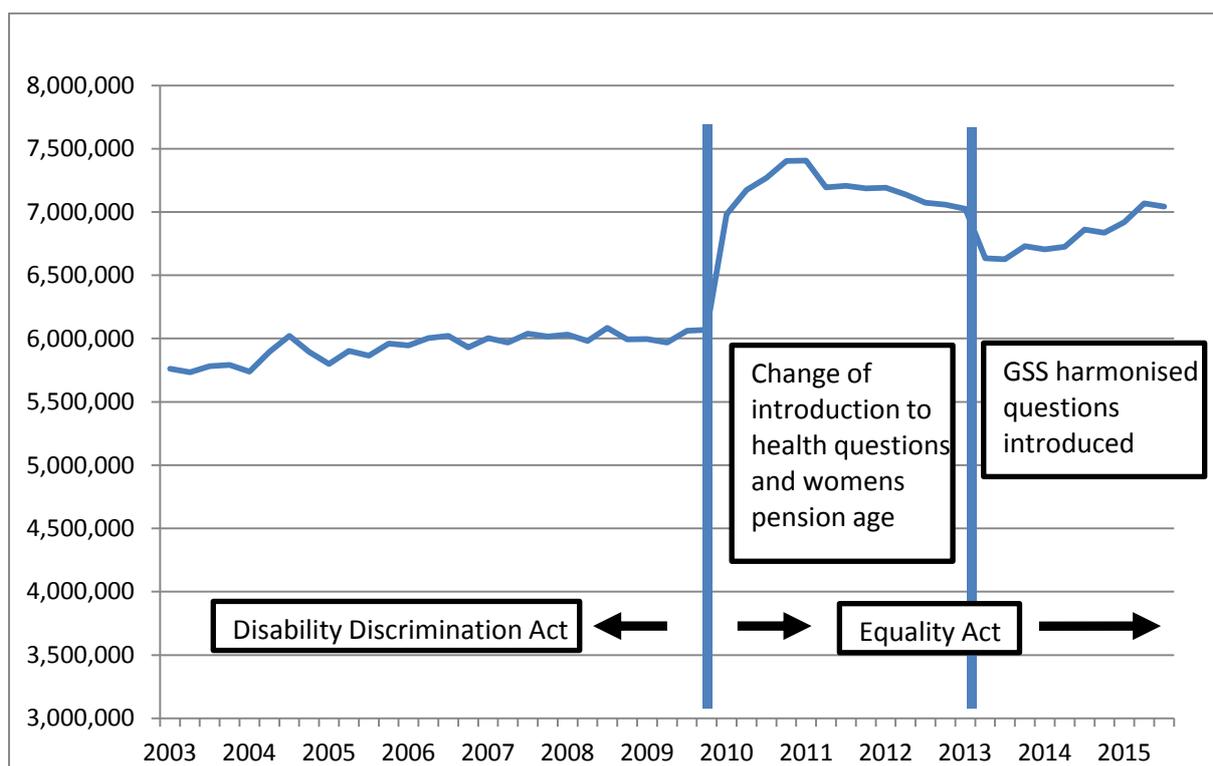
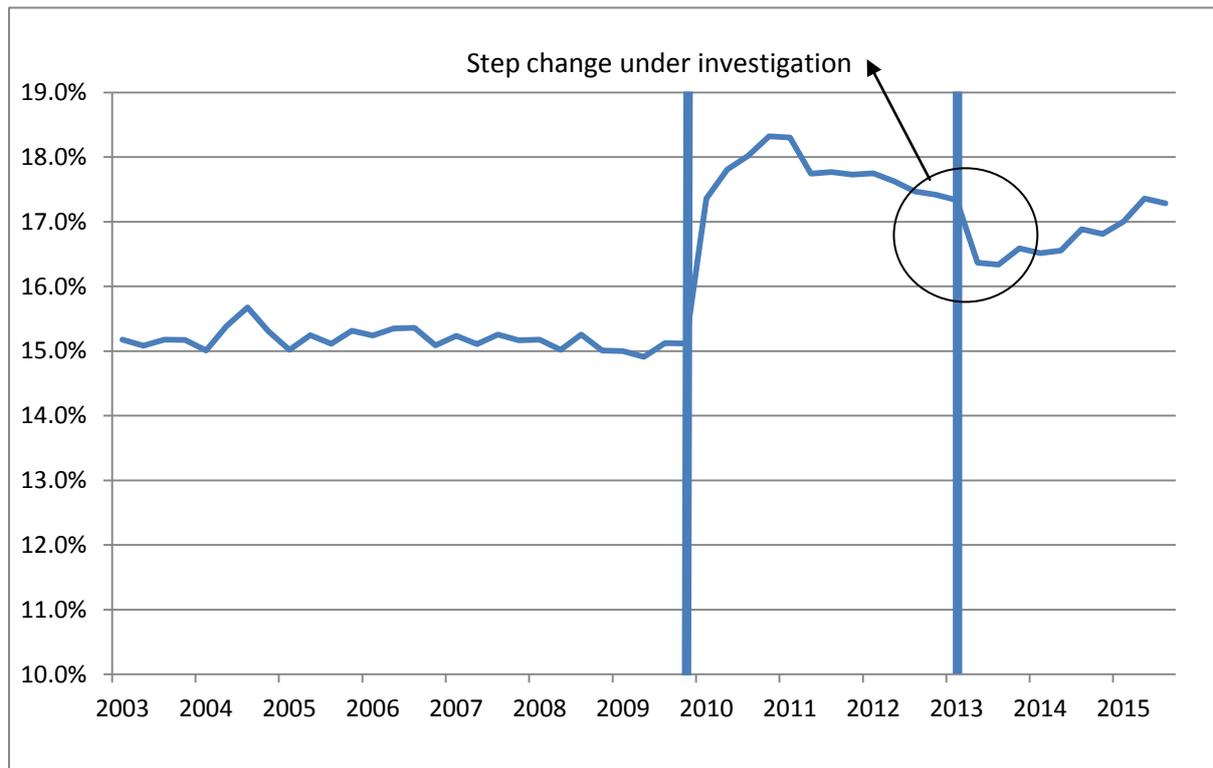


Chart 2: Disability rates, percentage of 16-64 population, UK, non-seasonally adjusted

Since the economically inactive disabled group did not show an increase post harmonisation, this suggests the proportion of the population who previously reported disabilities did not flow into inactivity, rather they ceased to report any disabilities. The graph below shows a step up in the number of economically active non-disabled people. One possible reason that the economically active disabled population flowed into economically active non-disabled post harmonisation is because the questions evoked a more stringent classification of 'disabled' and since economically active people are more likely to have less severe disabilities, the effect of the tightening up of the definition was most pronounced in this group.

The graphs above show two distinct points of discontinuity in the disability statistics resulting in three non-comparable series. Following the second step change post harmonisation, the publication of the disabilities table (A08) was suspended while investigations were carried out. The table was then reinstated in a format that emphasised the discontinuity and provided footnotes advising caution when comparing data across the time series.

The main derived disability variable was DISCURR, subsequently in April to June 2013, an interim derived variable DISCURR13 was introduced which used the same basic derivation as DISCURR but using the new questions. The reinstated table A08 then included the new main derived disability variable DISEA as well as DISCURR13 and historic data for DISCURR.

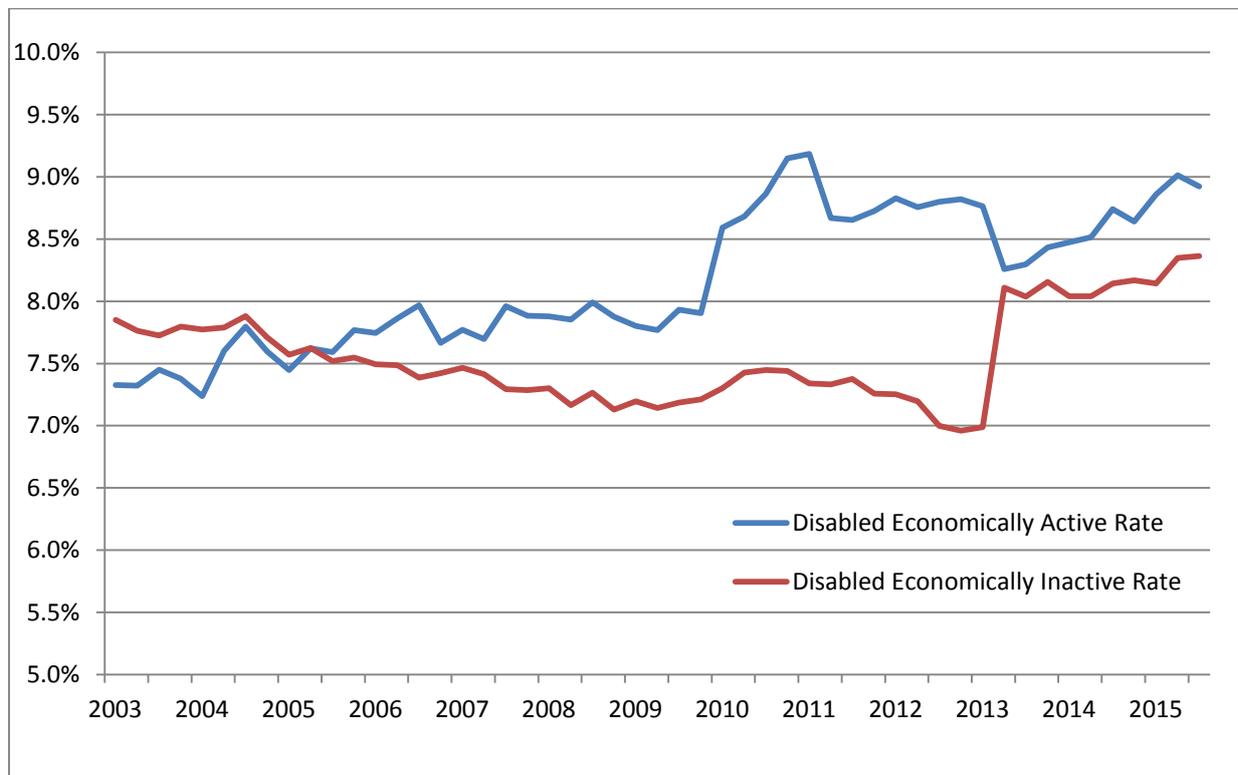
The presentation of the data from 2013 to 2016 did not acknowledge that the Equality Act 2010 is applicable to GB only (The Disability Discrimination Act 1995 still applies in Northern Ireland). In addition the combined Equality Act and/or work limited disabled category was confusing for users.

The latest version of the disabilities table is aimed at resolving these issues. A Harmonised Standard Definition of disability is now the lead statistic for employment status of disabled people covering the UK. The Equality Act statistics are now limited to GB to reflect the coverage of the Equality Act legislation. In addition, a broad self-reported definition of ill-health is presented at UK level – this statistic includes anyone who says they have a physical or mental health condition or illness lasting or expected to last 12 months or more regardless of the impact it may or may not have on their ability to work or carry out day-to-day activities. None of these three definitions can be compared across the full time series, they can only be compared post April to June 2013.

Analysis and Main findings

1. Field test findings
 2. General findings – characteristics of those who identified as disabled prior to the changes compared to the characteristics of those who identified as disabled after the changes.
 3. Analysis of characteristics of economically active respondents who prior to the questionnaire change reported having a disability or long term health problem who subsequent to the change no-longer reported having a disability or long-term health problem.
 4. Analysis of Life Opportunities and Family Resources Survey which also introduced the harmonized disability questions at around the same time.
2. Field test
 - Despite lack of interviewer instructions to guide respondents on what consideration to give to their medication when answering the harmonised questions, respondents less likely to mention controlled illness to the new harmonised questions than they were to the old.
 - There were more ‘yes’ answers (i.e. reported disabilities) to the old questions than to the harmonised questions although this result was not found to be statistically significant.
3. General findings – characteristics of those who identified as disabled prior to the changes compared to the characteristics of those who identified as disabled after the changes.

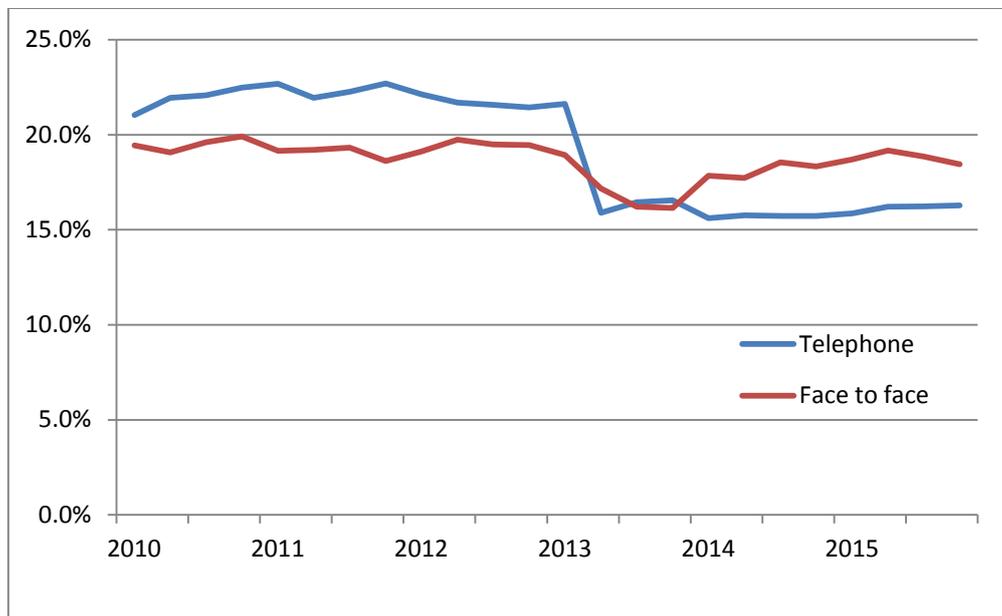
Chart 3: Proportion of people aged 16-64 who are disabled and either economically active or economically inactive, UK



This graph shows a step down in the number of economically active non-disabled people and a step up in the number of economically inactive disabled people. Overall there are more economically active than inactive people, hence despite the inactive step up being larger than the active step down, the net effect is a decline in disabilities reporting.

One possible reason for the effect on economically active is because the questions evoked a more stringent classification of 'disabled' and since economically active people are more likely to have less severe disabilities, the effect of the tightening up of the definition was most pronounced in this group.

Chart 5: Disability reporting rate, DISCURR January to March 2010 – January to March 2013, DISEA post April to June 2013, UK, thousands, non-seasonally adjusted



The LFS uses a combination of interview modes, namely telephone and face-to-face interviewing. Prior to the April to June 2013 question change the rate of disabilities was consistently higher when reported via telephone interviewing as opposed to face-to-face interviewing. Since the change, however, the effect has reversed, with people more likely to report disabilities when asked face-to-face rather than by telephone.

4. Analysis on changed disability answers among economically active respondents

As shown in chart 3 above, the effect of the discontinuity is more pronounced in the economically active disabled population than in the inactive population. Analysis was conducted to find out why the economically active may have been more likely to report disabilities under the old questions than the new harmonised GSS questions.

LFS respondents answer the survey 5 times, there are 5 'waves' to the survey, this facilitates analysis of characteristics of those who changed their answers from 'disabled' prior to the questionnaire changes to 'not disabled' after the changes.

Findings yielded two conclusive findings:

- Those who changed their response to not disabled after the harmonisation were more likely to suffer from the following types of health problem:
 - i. Heart, blood, pressure circulation
 - ii. Chest, breathing problems
 - iii. Diabetes
- Of those who were economically active and changed their answer from 'disabled' in January to March 2010 to 'not disabled' in April to June 2013, 94% were interviewed by telephone in April to June 2013. Overall 61% of LFS interviews gaining a response in April

to June 2013 were conducted by telephone. Hence the 'switch' for the mode effect was largely due to fewer disabilities being reported by telephone.

5. Results from other ONS Social Surveys:

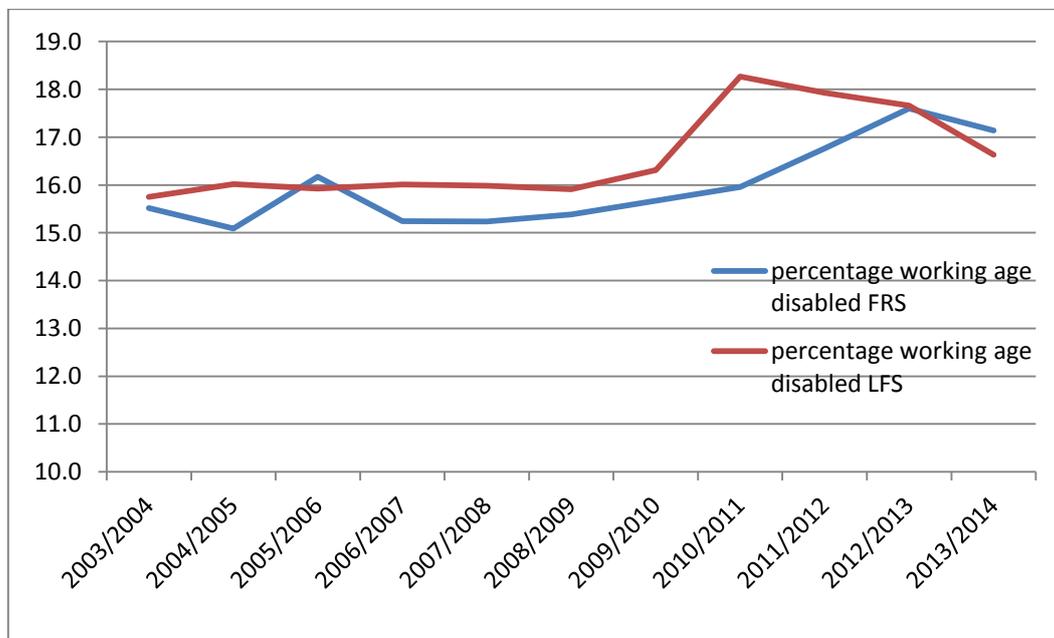
One way to gauge the validity of a given data source is to compare it to alternative sources that measure the same concepts. Unfortunately there is no other survey with as large a sample as the LFS with the primary aim of measuring Labour Market status. There are, however, several other ONS surveys that introduced the GSS harmonised questions at a similar time to the LFS.

Disability prevalence trends were compared across LFS, the Family Resources Survey (FRS) and the Life Opportunities Survey (LOS). This analysis was intended to show whether the discontinuity in the time series resulting from the introduction of the new harmonized disability questions observed in LFS data was also observed in other surveys that introduced these harmonized questions or whether this is an effect specific to the LFS.

The aims and objectives as well as the methodologies of these other surveys are different, so comparisons of LFS results with FRS/LOS results are only intended to give an indication of the general trends in disability prevalence observed in other surveys rather than to provide an exact comparison.

Family Resources Survey

Chart 6: A comparison of Labour Force Survey Disability Rate and Family Resources Survey Disability Rate



The FRS provides statistics about the living conditions of people in the UK and the resources available to them, among other uses. These data are used by the Department of Work and Pensions, Office for Disability Issues to produce estimates of disability prevalence in the UK.

The chart above shows how similar the trends of disability were between the two surveys prior to the introduction of the harmonised questions on either survey.

The FRS introduced the harmonised questions in the 2012/2013 survey. The percentage working age disabled figure for the harmonised questions was 17.6% (the figure for the previous year was 16.8%). The harmonisation, therefore has coincided with an increase in disabilities reporting on the FRS. The harmonised questions on the LFS were introduced in April to June 2013 when the percentage working age disabled was 16.5% (the figure for the previous quarter was 17.3%). While a 0.8% movement in the data is not unusual on the FRS, it may indicate that harmonisation has had an effect on the data all be it in the opposite direction to the LFS.

These figures are quoted to show that the harmonisation may have impacted other surveys in addition to the LFS.

Life Opportunities Survey

This survey compares how disabled and non-disabled people participate in society in a number of areas. The LOS questions on disability were harmonised in 2012, but unlike FRS and LFS, the old questions were retained and all respondents were asked both sets of questions. This provides the unique opportunity to see how the same group of people asked during the same interview respond to the two different sets of questions.

The old disability questions yielded 5,413,830 responses that would classify the respondent as disabled. The new harmonised questions yielded 2,506,732 responses classified as disabled, a reduction of 2,907,099 (54%). This is a much larger decrease than that observed on the LFS, but the effect is in the same direction.

At the current time, results of comparisons with other surveys that also moved to the GSS harmonised questions, show that other ONS surveys have a step change in responding which would suggest this is not an effect unique to the LFS.

Conclusions

There are fewer people identifying as disabled under the new harmonised standard definition.

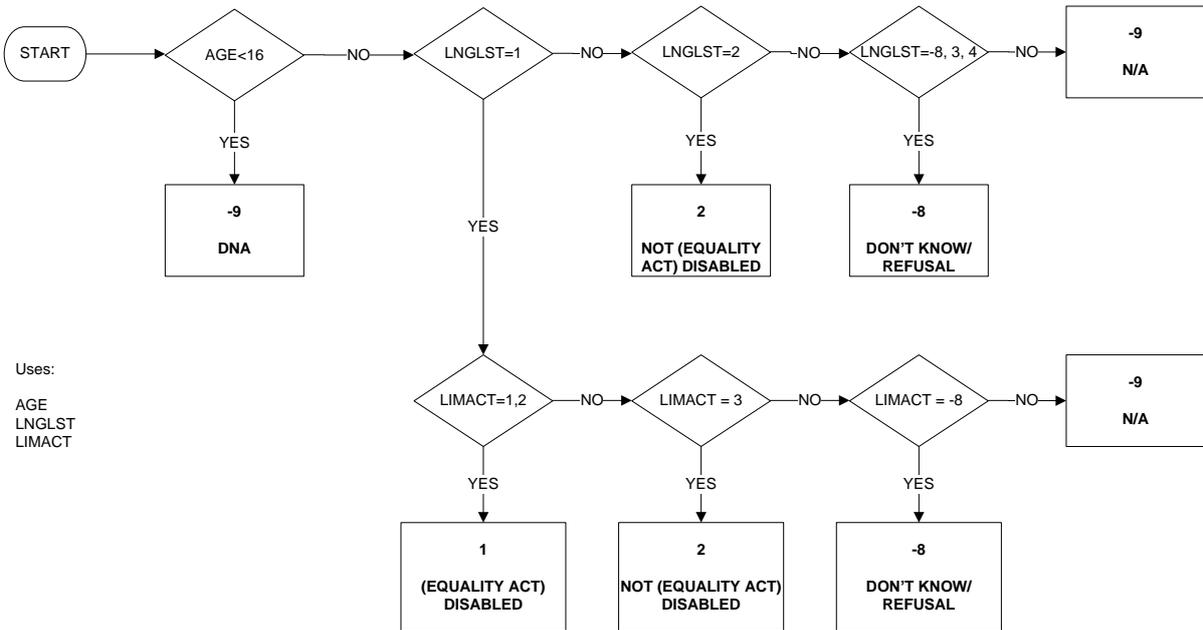
The step change in reporting of disabilities was most evident in those closest to the labour market; the economically active. People in this group are also the most likely to be able to control the effects of their health problems with medication. Since the new questions ask respondents to consider the effects of their health problems after accounting for the effect of medication rather than before the effect of medication, it follows that a drop in disabilities reporting would be evident.

The mode effect is not as easy to explain. Before the changes, people identified as disabled more frequently over the phone than face-to-face. Since the changes the effect has reversed.

Analysis of changed answers, again shows a mode effect, and also a prevalence of certain health problems among people who have changed their answers. These disparate effects do not facilitate a single conclusion to be drawn on the decrease in disabilities reporting.

Results of comparisons with other surveys that also moved to the GSS harmonised questions show that other ONS surveys have a step change in responding. Further comparisons with more data for the annual surveys would be advisable.

DISEA – Disability: equality act (GSS harmonised)



March 2016

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