Disability prevalence and disability-related employment gaps in the UK 1998-2012: different trends in different surveys?

Ben Baumberg, Melanie Jones and Victoria Wass

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http://business.cardiff.ac.uk/people/staff/victoria-wass
Disability-related employment gap

Percentage point difference between employment rate for disabled and non-disabled individuals

Key indicator of progress towards inclusion of disabled people in the workplace

Black Review (2008)
Policy evaluation - Equality Act, New Deals under New Labour, Work Programme from 2011, workplace disability equality polices

Conservative Party Manifesto 2015

We will fight for equal opportunity. Last year alone 140,000 disabled people found work. But the jobless rate for this group remains too high and as part of our objective to achieve full employment we will aim to halve the disability employment gap. We will transform policy, practice and public attitudes so that hundreds of thousands more disabled people who can and want to be in work find employment.

BUT conflicting evidence in the literature relating to trends in the disability-related employment gap.
Disability trends in the literature

Studies based on GHS

Decrease in prevalence rates

No trend in employment gap

Studies based on LFS

Increase in prevalence rate

Decrease in employment gap
Three large scale surveys and one disability definition


Definition of disability is a long standing illness or impairment which limits activity (LLSI)
Question wording

LSI
Do you have any long-standing illness, disability or infirmity? By long-standing I mean anything that has troubled you over a period of time, or that is likely to affect you over a period of time?

Do you have any health problems or disabilities that you expect will last for more than a year?

LLSI
Does this illness or disability/do any of these illnesses or disabilities limit your activities in anyway?

Do these health problems or disabilities, when taken singly or together, substantially limit your ability to carry out normal day to day activities? If you are receiving medication or treatment, please consider what the situation would be without the medication or treatment.
Sources of difference

1. Definitions of disability and/or employment
2. Survey methods
3. Sample composition
Harmonisation procedure

Stage 1 *sample 1* control for definitions

Stage 2 *sample 2* control for survey methods - select common geographic coverage (England) and first face-to-face interviews

Stage 3 *sample 2* regression-adjusted employment gaps (sample composition) (control for influence of characteristics)

Stage 4 *sample 3* LFS matched to GHS and LFS matched to HSE using propensity score matching (ensure similar characteristics) and regression-adjusted employment gaps (control for influence of characteristics)
Figure 2. LLSI Employment Gap by Survey
(*Sample 1*) (1998-2012)

Notes: All data are unweighted. *Sample 1* contains all respondents of working age. A discontinuity occurs in the LFS between 2009 and 2010.
Figure 1. LLSI Prevalence by Survey (*Sample 1*) (1998-2012)
## Trends in prevalence and employment gaps using Sample 1

<table>
<thead>
<tr>
<th></th>
<th>LFS</th>
<th>GHS</th>
<th>HSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trend in prev rate</td>
<td>0.002***</td>
<td>-0.002***</td>
<td>-0.002**</td>
</tr>
<tr>
<td>Wald Chi² trends</td>
<td>LFS=GHS ***</td>
<td>GHS=HSE ns</td>
<td>GHS=HSE=LFS ***</td>
</tr>
<tr>
<td></td>
<td>LFS=HSE ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emp gap</td>
<td>0.407***</td>
<td>0.331***</td>
<td>0.297***</td>
</tr>
<tr>
<td>Trend in emp gap</td>
<td>-0.006***</td>
<td>-0.001 ns</td>
<td>-0.001 ns</td>
</tr>
<tr>
<td>Wald Chi² trends</td>
<td>LFS=GHS ***</td>
<td>GHS=HSE ns</td>
<td>GHS=HSE=LFS ***</td>
</tr>
<tr>
<td></td>
<td>LFS=HSE ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>914,492</td>
<td>136,158</td>
<td>92,435</td>
</tr>
</tbody>
</table>
Figure 4. LLSI Employment Gap by Survey (Sample 2) (1998-2012)
Figure 3. LLSI Prevalence by Survey (Sample 2) (1998-2012)

Notes: See notes to Figure 1. Sample 2 restricts coverage to England and excludes proxy responses and also requires that individuals are in their first interview and are interviewed face-to-face.
Figure 6. Regression Adjusted LLSI Employment Gap by Survey (Sample 3) (1998-2012)
Figure 5. LLSI Prevalence by Survey (*Sample 3*) (1998-2012)

Notes: *Sample 3* is a matched subsample of *Sample 2*. 
## Trends using regression-adjusted matched samples (sample 3)

<table>
<thead>
<tr>
<th></th>
<th>LFS to GHS</th>
<th>GHS</th>
<th>LFS to HSE</th>
<th>HSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trend in prev rate</td>
<td>0.003***</td>
<td>-0.002***</td>
<td>0.004***</td>
<td>-0.001***</td>
</tr>
<tr>
<td>Wald Chi^2 trends</td>
<td>LFSmatchedGHS =GHS ***</td>
<td></td>
<td>LFSmatchedHSE =HSE***</td>
<td></td>
</tr>
<tr>
<td>Emp gap</td>
<td>0.421***</td>
<td>0.318***</td>
<td>0.408***</td>
<td>0.290***</td>
</tr>
<tr>
<td>Trend in emp gap</td>
<td>-0.007***</td>
<td>-0.001 ns</td>
<td>-0.006***</td>
<td>-0.001 ns</td>
</tr>
<tr>
<td>Wald Chi^2 trends</td>
<td>LFSmatchedGHS =GHS ***</td>
<td></td>
<td>LFSmatchedHSE =HSE***</td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>69,306</td>
<td>69,758</td>
<td>74,204</td>
<td>74,712</td>
</tr>
</tbody>
</table>
Figure O1.9. The association of disability prevalence and the disability employment gap in the LFS, GHS and HSE 1998-2009

Notes: Data refer to Sample 2 which restricts coverage to England and excludes proxy responses and also requires that individuals are in their first interview and are interviewed face-to-face.
Differences remain after controlling for disability definitions, survey methods and sample composition.

The conclusion must be that caution is needed in drawing inference results based on a single survey.

We cannot be confident that the disability-related employment gap has fallen.
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