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Has the Disability Discrimination Act closed the employment gap?

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Abstract

**Study objective**- To investigate whether the disparity in employment rates between people with a limiting long-term illness or disability and those without has decreased since the implementation of the Disability Discrimination Act in the UK.

**Design**- National cross-sectional data on employment rates for people with and without a limiting long-term illness or disability were obtained from the General Household Survey for a twelve-year period (1990 – 2002; 10 surveys). Representative population samples were analysed. The sample size for the GHS over the study period ranged from 19193 to 24657 and the average response rate ranged from 72% to 82%.

**Main outcome measure**- The relative employment rates of men and women of working age (18-60/65 years). Compares people with a limiting long-term illness or disability (‘disabled’) with people with no limiting long-term illness or disability (‘not disabled’).

**Results**- Age standardised employment rates remained relatively stable from 1990 to 2001 for people defined as ‘not disabled’. However, the employment rates of people defined as ‘disabled’ have decreased since 1990, and were at their lowest following the implementation of the employment aspects of the DDA in 1996 (1998-2002). In addition the gap between the employment rates of people defined as ‘disabled’ and ‘not disabled’ was most marked after the DDA between 1998- 2002 (p<0.05).
**Conclusions**- This appraisal of routine population data pre- and post- the Disability Discrimination Act indicates that the legislation may not have been effective in closing the employment gap that exists in the UK between people with a limiting long-term illness or disability and those without.

**Keywords:** Disability, limiting long-term illness, employment, anti-discrimination, policy.

**Word count:** 3971 (including abstract, main text, references and figures).
Introduction
Disability and limiting long-term illness are associated with poverty and social exclusion (Davy Smith, Bartley & Blane, 1990; Oppenheim & Harker, 1996; Acheson, Barker, Chambers, Graham, Marmot & Whitehead, 1998; Oliver & Barnes, 1998; Burstrom, Whitehead, Lindholm & Diderichsen, 2000; Bartley & Lewis, 2002). One of the main contributory factors to this is low participation in paid employment: the current employment rate for people of working age (18-60/65) with a disability or limiting long-term illness is 49%, compared to 81% for those without (Office for National Statistics, 2003a). Many people with a disability or limiting long-term illness are out of work for long periods of time as around one third of health-related benefit claims last over 5 years (Department of Work & Pensions, 2003a). The high numbers of people out of work and claiming benefits due to limiting long-term illness or disability is a salient policy concern and increasing the employment rates of people with a disability or a limiting long-term illness has been at the centre of successive government approaches to welfare reform (Floyd & Curtis, 2000; Hyde, 2000; Blair, 2002). Policy interventions have largely focused on encouraging the person with a disability or limiting long-term illness to take up employment – via a reduction in health related benefit levels, the tightening up of entitlement criteria, or the increased use of welfare to work programmes such as the New Deal for Disabled People (Department of Work & Pensions, 1998; HMSO, 1999; Smith & Twomey, 2002). The introduction of anti-discrimination legislation, in the form of the 1995 Disability Discrimination Act (DDA), however, focuses instead upon the employment context and the discrimination that people with a disability or a limiting long-term illness face in the employment market (Gardiner, 1997).
The DDA makes it unlawful to “discriminate against disabled persons in connection with employment, the provision of goods, facilities and services, or the disposal or management of premises” (HMSO, 1995). Under the Act a person is regarded as disabled if they have “a physical or mental impairment that has a substantial and long-term adverse effect on his/her ability to carry out normal day-to-day activities” (see Box 1) (HMSO, 1995; Department of Work & Pensions 2003b). The employment provisions of the Act, which came into force in December 1996, make it illegal for a UK employer with 15 or more employees to discriminate unjustifiably against a person on grounds of their disability either in recruitment or in the treatment of existing employees.

There has been much debate about the adequacy of these employment provisions in challenging discrimination and increasing access to paid employment for people with a disability or limiting long-term illness (Barnes & Oliver, 1995; Gooding, C, 2000; Barnes, 2002; Woodhams & Corby, 2003). However, there is little evidence on the actual impact of the DDA on the employment rates of people with a disability or a limiting long-term illness. The few empirical studies that have been carried out have typically examined either the legal implications of the DDA (Delany & Moody, 1999), or the views of people with disabilities and employers regarding the impact of the Act on employment practices (Whitfield, 1997; Jackson, Furnham & Willen; 2000). This study therefore set out to provide a quantitative evaluation of whether the DDA has made an impact on the employment rates of working age men and women (18-60/65 years) with a disability or a limiting long-term illness. Specifically, we were interested in the extent to which the legislation might have decreased the disparity between the employment rates of people defined as (i) ‘disabled’ (people
with a limiting long-term illness or disability), and (ii) ‘not disabled’ (people with no limiting long-term illness or disability).

**Methods**

*Data extraction*

This study utilised data from the annual General Household Survey (GHS) over a twelve year period, 1990 – 2002. The GHS is a multi-purpose continuous cross-sectional survey carried out by the Social Survey Division of the Office for National Statistics (ONS) that collects information on a range of topics from households in the UK (Office for National Statistics, 2003b). Topics include personal, demographic, household, employment, health and income data. The GHS is administered as a face-to-face interview and during the period of analysis the sample size ranged from 19193 to 24657 with response rates ranging from 72% to 82%.

Before and after data relating to the DDA definition of disability is not available and therefore in this study we have used the definition of disability adopted in the GHS (see Box 2). The utilisation of the GHS definition ensures that a continuous definition of disability is used for both before and after the DDA and that the definition is robust against changes to the definition of disability that the DDA may have created (for example, from 1997 the Labour Force Survey definition of disability was changed to reflect that of the DDA). Data from 10 surveys were used (the GHS was not conducted in 1997 and 1999) to provide employment information both before and after the DDA.
For the purpose of analysis for the current study we extracted information from the GHS relating to disability, employment status and various demographic details including age. Disability was defined as “any long-standing illness or disability that has resulted in limited activity” (‘disabled’). We compared these people with those with no activity limiting long-term illness or disability (‘not disabled’). Employment status, as in the GHS, was defined as ‘working’ (in current paid employment) or ‘not working’ (not currently in paid employment). The proportion of people defined as ‘disabled’ according to the definition used in the GHS was similar over the 12 year study period ranging from 17.5% to 20.5%. Only data pertaining to people of working age were selected (aged 18-60 years in women and 18-65 years in men).

Data analysis

Employment rates for the 10 years of GHS data collection were calculated for ‘disabled’ and ‘not disabled’. The rates were then directly standardised for age using the European Standard Population to take account of differences in age structure of the groups (prevalence of long-term illness and disability tends to increase with age). 95% confidence intervals were calculated for the standardised employment rates using a normal approximation and standard errors obtained using the method described by Breslow and Day (1987). Differences in employment rates between the ‘not ill/disabled’ group and the ‘disabled’ group were then calculated and plotted for the 10 years of GHS data collection (employment rate for ‘not/ill disabled’ minus employment rate for ‘disabled’). To ascertain whether there was a significant difference between employment rates before and after the DDA in people defined as being ‘disabled’, the average employment rate from 1991 to 1996 was compared to the average employment rate from 1998 to 2001 using the Mann-Whitney U test for
nonparametric data. The analysis was repeated for differences in employment rates between ‘disabled’ and ‘not disabled’ groups. SPSS v11 statistical software was used to carry out the analysis.

Results

Age standardised employment rates over the 12 year period are shown in Figure 1. For people defined as ‘not disabled’ there appeared to have been a slight increase in the proportion of people employed from 1990 (78.3%) to 2001 (82.4%), although there was a dip in employment rate from 1993 to 1995 which perhaps reflects a period of economic recession in the UK. For people defined as ‘disabled’ the picture was quite different. The highest employment rate was recorded for 1990 (54.3%) and over the 12 year period rates declined reaching 45.9 per cent in 2001 (Figure 1).

The differences between employment rates between the ‘disabled’ and the ‘not ill’ groups over the 12 years of data collection are shown in Figure 2.

From 1990 up to 1996 the percentage difference in age standardised employment rates fluctuated between 21.1% in 1994 and 36.5% in 2001. However, from 1998 the disparity between employment rates increased steadily from 34.8% in 1998 to a 12 year peak of 36.5% in 2001 (p<0.05).

Table 1 shows the average employment rate of ‘disabled’ people pre and post the full application of the DDA after December 1996. The average employment rate for ‘disabled’ people for the 7 years prior to the DDA (1990-1996) was found to be slightly higher than for the period following the Act; 1998 to 2001 (49.4%; 95% CI =
47.4%-51.4% vs 46.3%; 95% CI = 44.1%-48.5% respectively) although this was not found to be statistically significant. The average difference between employment rates (‘not disabled’ minus ‘disabled’) was, however, found to be significantly lower between 1990 and 1996 (27.8%; 95% CI = 26.2%-29.4%) than between 1998 and 2001 (35.4%; 95% CI = 33.7%-37.2% respectively; p<0.05).

**Discussion**

This study is the first to investigate the influence of the DDA in relation to the employment rates of people with a disability in the UK. It has also considered whether the DDA has reduced the disparity in employment rates between people with a disability or limiting long-term illness and those without. By utilising national population based data from the GHS we found no evidence of a positive effect of the DDA on employment rates. In fact, the disparity between employment rates of people with and without a disability has increased.

These results are consistent with criticisms levied against the DDA by both academics and disability activists (Barnes & Oliver, 1995; Gooding, C, 2000; Barnes, 2002; Woodhams & Corby, 2003). Since its enactment in 1995, the DDA has been compared unfavourably with its American counterpart (1990 Americans with Disabilities Act), the employment quota systems of some European countries, and other UK anti-discrimination legislation such as the 1975 Sex Discrimination Act or the 1976 Race Relations Act (Goss, Goss & Adam-Smith; 2000). The most frequently noted shortcomings of the Act are the exemption of small firms (under 15 employees) (Floyd & Curtis, 2000), the ‘reasonable adjustment’ clause that enables employers to justify some non-adherence (Jackson, Furnham & Willen, 2000), the monitoring of
compliance by employers (Woodhams & Corby, 2003), and the narrow definition of
disability that it utilises (Oliver, 1998). The Act also places the burden of proof upon
the individual with a disability as they are required to show that they are (i) disabled
under the terms of the Act and (ii) that they were discriminated against on this basis.
It has been argued that, in its present form, the DDA is inadequate and that further
legislation is essential to improve the employment situation of people with a disability
in the future (Barnes & Oliver, 1995; Oliver & Barnes, 1998; Barnes, 2002).

More widely, the study also raises questions about the utility of anti-discriminatory
legislation, such as the DDA, in increasing the employment rates of people with a
disability. Internationally, such legislation has become an increasingly popular policy
option: the USA introduced the Americans with Disabilities Act (ADA) in 1990,
Australia enacted a Disability Discrimination Act in 1992, and in Europe, Sweden
(1999) and the Netherlands (2003) have also begun to adopt anti-discriminatory
legislation. A large motivation behind the development of anti-discriminatory
legislation has been the concern about low employment rates amongst people with a
disability and associated social security costs (OECD, 2003). The results of our study,
reinforced by other research such as that on the ADA (DeLeire, 2000; Russell, 2002),
suggests that such legislation may not achieve this goal. Anti-discriminatory and civil
rights based legislation may have other important effects, such as enabling access to
services, but in terms of increasing employment rates, the research evidence suggests
that legislation may not be the most effective means of increasing employment
amongst people with a disability or limiting long-term illness (DeLeire, 2000; Russell,
2002). Other policy interventions, such as return to work (Bloch and Prins, 2001),
vocational rehabilitation or welfare to work (Bambra et al., in press) may be more successful alternatives.

Limitations

One limitation of using survey data for this analysis is that it relies on self-reported health and employment status and such self-reports can be subject to some inaccuracy. For example, research on self-reported limiting long-term illness has suggested that answers are most strongly associated with physical rather than psychological health (Cohen, Forbes & Garraway, 1995) and with more serious health conditions as opposed to less serious conditions (Manor, Matthews & Power, 2001). The reliance on self-reported health status in the GHS may then have resulted in an underestimation of the number of people with a limiting long-term illness or disability. This would only result in bias if the same people were to also inaccurately report their employment status. Unfortunately, it was not possible to investigate whether this was the case.

‘Disability’ is defined in different ways by various studies (Smith & Twomey, 2002; Oliver, 1998; OECD, 2003). The definition used in the current study was based on questions used by the GHS relating to a long-term illness or disability that had resulted in limitation of daily activity (see Box 2). Unfortunately this does not fully incorporate the definition of disability specifically utilised by the DDA. Since 1997 the UK Labour Force Survey (LFS) has used the DDA definition to frame its question about limiting long term illness and disability. We compared age standardised rates of self-reported disability using the GHS definition with those in the LFS (incorporating the DDA classification of ‘disability’) for the years 1998, 2000 and
2001. In both surveys approximately 1/5 of respondents reported a disability for the three time periods. Upon examination of self-reported employment status by people reporting a disability we observed similar rates between the GHS and LFS (1998 = 45.8% vs 45.6%; 2000 = 47.2% vs 47.0%; 2001 = 45.9% vs 47.9% respectively). It is therefore likely that the definition of disability used in the GHS includes the majority of people defined as being disabled by the DDA.

It has only been possible for the data in this study to cover a short time period (1998 – 2001) post- the implementation of the employment aspects of the DDA in December 1996. It is difficult to assess the impact of a macro-level policy like the DDA in such a time span and it may be the case that the Act needs longer in order to make a detectable effect on the employment rates of people with a disability or limiting long-term illness and, indeed to close the long-standing employment gap between this group and those without a disability or limiting long-term illness.

It is hard to draw any definitive conclusions from this study regarding the impact of the DDA because we are restricted to data concerning employment rates and have no other information directly concerning the implementation or experience of the DDA. Furthermore, as the GHS is a cross-sectional survey, it has not been possible to identify the impact of the DDA on people’s individual employment histories. This study has also only examined the aggregate impact of the DDA on the employment rates of people with a disability or limiting long-term illness, it has not examined any differential impact that the Act may have had by such variables as age, gender or socio-economic class. Future studies to investigate these aspects are planned.
Conclusion

This investigation has analysed routine population survey data pre- and post- the implementation of the employment provisions of the Disability Discrimination Act. We have shown that this legislation has not yet increased the employment rates of people with a limiting long-term illness or disability or been effective in closing the gap that exists between their employment rates and those of people without limiting long-term illness or disability. It seems likely that additions to the legislation are required if the Act is to be a more effective policy tool in increasing the employment rates of people with limiting long term illness or disability.

Acknowledgements

We would like to thank the UK Data Archive for access to data from the General Household Surveys. We would also like to thank colleagues from the University of Liverpool Department of Public Health for their comments on earlier drafts of the manuscript.
References


   http://www.statistics.gov.uk/ssd/surveys/general_household_survey.asp


Box 1: Who is protected by the DDA?

Anyone with “a physical or mental impairment that has a substantial and long-term adverse effect on his/her ability to carry out normal day-to-day activities”.

- Physical impairment: a “weakening” of any part of the body caused through illness, by accident or congenitally” e.g. blindness, paralysis or heart disease.
- Mental impairment: a “clinically well-recognised” mental illness e.g. schizophrenia, anxiety or depression; or a learning disability.
- Substantial: the impact on normal day-to-day activity must be “more than minor or trivial” but not necessarily severe.
- Long-term: “the effect must have lasted, or is expected to last, for at least 12 months”.
- Adverse effect: manual dexterity, physical co-ordination, ability to lift or carry everyday objects, continence, speech, hearing or eyesight, memory or ability to concentrate, learn or understand, or perception of risk of physical danger.
- Normal day-to-day activity: activities that are carried out on a regular basis such as catching a bus or turning on a television.
**Box 2: Questions relating to employment, disability and long term illness in the UK General Household Survey (1990-2002)**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>1. Working: Did you do any paid work in the 7 days ending Sunday the (n), either as an employee or as self-employed?</td>
<td></td>
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</tr>
<tr>
<td>2. Illness: 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?</td>
<td></td>
<td></td>
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<tr>
<td>3. Limited Activity: Does this illness or disability (Do any of these illnesses or disabilities) limit your activities in any way?</td>
<td></td>
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</tr>
</tbody>
</table>

1. Working
Did you do any paid work in the 7 days ending Sunday the (n), either as an employee or as self-employed?

<table>
<thead>
<tr>
<th>Response</th>
<th>Yes</th>
<th>No</th>
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<td></td>
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<tr>
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<td></td>
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2. Illness
[*]

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<th>Response</th>
<th>Yes</th>
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<td>Yes</td>
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<td>No</td>
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3. Limited Activity
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<th>No</th>
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<td>Yes</td>
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<tr>
<td>No</td>
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</tbody>
</table>
Figure 1  Age standardised employment rates from 1990 to 2002 in people defined as “not disabled” and “disabled”
Figure 2  Difference between age standardised employment rates (‘not disabled’ minus ‘disabled’), 1990 to 2002

% difference in employment rates ('not disabled' - 'disabled')

Year

<table>
<thead>
<tr>
<th>Pre-DDA implementation 1990-1998</th>
<th>Average employment rate</th>
<th>Average difference in employment rate ('not disabled' minus 'disabled')</th>
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<tbody>
<tr>
<td></td>
<td>%</td>
<td>95% CI*</td>
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<tr>
<td></td>
<td>49.4</td>
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<td></td>
<td>27.8</td>
<td>26.2 – 29.4</td>
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<td>0.42</td>
<td>0.017</td>
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<thead>
<tr>
<th>Post-DDA implementation 1998-2002</th>
<th>Average employment rate</th>
<th>Average difference in employment rate ('not disabled' minus 'disabled')</th>
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<tbody>
<tr>
<td></td>
<td>%</td>
<td>95% CI*</td>
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<td></td>
<td>46.3</td>
<td>44.1 – 48.5</td>
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<td></td>
<td>35.4</td>
<td>33.7 – 37.2</td>
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* 95% Confidence Interval
+ P value ascertained by Mann Whitney U-test