

Optimising employee ability in small firms: Employing people with a disability

KEVIN HINDLE

Professor of Entrepreneurship Research, Centre for Entrepreneurship, Innovation and Community, Deakin University, Burwood Campus, Melbourne VIC, Australia

BRIAN GIBSON

Director of Research and Curriculum Development, TOP Education Institute, Sydney, NSW, Australia

ALISON DAVID

Graduate School of Business, University of New England, Armidale, NSW, Australia

ABSTRACT

The axiom that workers with a disability are less productive is not tenable. It is exposed by the results reported here as a myth. In this paper we outline from a practitioner perspective the benefits to be gained by employing people often regarded as poor employees because of a disability. The paper initially presents a range of normative suggestions in support of the proposition that employees with disabilities are not detrimental to a small firm and indeed offer more positive benefits than negative outcomes. We then confirm the validity of the suggestion – that people with disabilities may make better workers – by outlining research findings that support that proposition. These suggestions may impact on employment policies; researchers are encouraged to challenge the assumptions we make and provide more concrete evidence to support or refute our suggestions. Enhanced employment of workers with a disability can and will create a more diversified, harmonious and productive workforce where sustainable business, sustainable ecology and sustainable human relations are indivisible components of the same necessity.

Keywords: employment productivity; disabled employees; employee ability; employment policy

INTRODUCTION

Hindle, Anderson and Gibson (2004) argued for the 'possibility and value of turning the findings of entrepreneurship research into action guidelines that can help practitioners improve performance' (p.96). In this paper we follow that suggestion by outlining from a practitioner perspective the benefits to be gained by employing

people often regarded as poor employees because of a disability. The paper initially presents a range of normative suggestions in support of the proposition that employees with disabilities are not detrimental to a small firm and indeed offer more positive benefits than negative outcomes. In this respect it builds on the recent publication in this journal of a paper on the broader issue of

employee diversity (Ash 2007). We then confirm the validity of the final and potentially most contentious suggestion – that people with disabilities may make better workers – by outlining research findings that support that proposition. These suggestions warrant further research and we hope that as well as giving practitioners food for thought in respect of their employment policies, researchers will be encouraged to challenge the assumptions we make and provide more concrete evidence to support or refute our suggestions.

THE LITERATURE ON EMPLOYING PEOPLE WITH A DISABILITY

According to Hindle, Noble and Phillips (1999), the use of American and Australian data usefully demonstrates the extent to which workers with a disability are an under-utilised resource in developed countries. In the USA in 1998 for example, there was a 13.4% unemployment rate among jobseekers with a disability compared to 5.6% unemployment rate for people without disabilities (LaPlante, Kennedy, Kaye and Wenger, 1998). In Australia, the workforce participation rate of people with a disability is 53% compared to the participation rate of 81% of people without a disability and the unemployment rate is 8.6% amongst workers with a disability and 5.0% amongst workers without a disability (Australian Bureau of Statistics [ABS], 2004).

These results exist despite some established international corporations such as Walgreens (Wells, 2008) and the DuPont Corporation (Australian Public Service Commission [APSC], 2007) having long histories of expressing and acting on a commitment to a strong belief in the capacities of workers with disabilities. For example, DuPont Corporation's descriptive studies span 40 years and indicate that diversity of impairment does not adversely affect safety, job duties or attendance (DuPont 1993). There is also a small volume of academic research that supports the faith of such pro-disability employers (Reisman and Reisman, 1993; Zemans and Voelckers, 1994; Rusch, Wilson, Hughes and

Heal, 1994; Zivolich, 1997; Hendricks, Batiste, Hirsh, Schartz and Blank, 2005; Graffam,, Shinkfield, Smith and Polzin, 2002). A clear theme to emerge from this research is that 'you have to try it to appreciate it' or, in other words, the ability to judge the capacities and productivity potential of workers with a disability is a function of actually experiencing their performance in the work environment. In the absence of such experience, the assumed axiom of lower productivity takes over and neither existing research nor comforting corporate chronicle is powerful enough to dispel the associated risk aversion (Johnson, Greenwood and Schriener, 1988).

The vast majority of all studies in the disability-productivity literature come from large corporations and are either qualitative or descriptive. Apart from the examination of affirmative businesses in which people with disabilities establish and operate small firms (Easterly and McCallion, 2007), the literature does not identify any examples of the willingness on the part of small, early-stage or entrepreneurial businesses to try using workers with a disability. This is unfortunate because it is well established that the majority of job growth in an economy will come from entrepreneurship through high-growth-potential new ventures (Audretsch, 2002). As Hindle et al. (1999) suggest, it is a reasonable inference that entrepreneurs may be making the judgment that, with so many risk factors already militating against new venture success, it would be foolhardy to add *any* risk of lower employee productivity. So, under-utilisation of disability workers might be explained by entrepreneurial employers' lack of willingness to take the assumed risk of employing people with a disability. Other than the empirical study to be reported in this paper, research to date has seldom provided truly hard, tested evidence of the desirability of 'taking the plunge'. Existing research does not encourage the entrepreneur to be entrepreneurial or the small firm owner manager to be innovative in respect of employment policies. Entrepreneurs are attracted to challenges not risks. Small firm owners feel that they are bearing

the burden of quite enough risk already, so the entrepreneur or owner-manager may very well think that it seems safer to hold it as axiomatic that workers with a disability are less productive. Finally, no study until the one discussed later in this paper has formally challenged this suspect axiom. A successful challenge might have profound consequences for future employment attitudes, behaviour and productivity.

REASONS TO EMPLOY PEOPLE WITH A DISABILITY

In the absence of a complete empirical analysis there are strong normative arguments and some (weaker) empirical support for seven reasons to employ people with a disability:

1. *To reflect the customer base of a business*
 - Almost 20% of the Australian work force population (representing over 2 million people) have a disability (Australian National Training Authority [ANTA], 2000; Waghorn, Chant, White and Whiteford, 2005)
 - In the USA, people with a disability have an aggregate income expected to exceed \$1 Trillion by 2001 (Young and Rubicam, 1998)
2. *To increase sales*
 - Hiring employees with disabilities is likely to attract customers who have associations with family or friends with disabilities, For example, in Australia 20% of the population has a reported disability (ABS, 2004) meaning 1 in 5 customers potentially have family members with a disability
3. *To develop a culture of inclusion*
 - Recognising the diversity of modern culture and seeking to encompass an inclusive approach that reflects that diversity
 - For example, in Australia today
 - 1.5% of the population is Aboriginal
 - Nearly 25% of the workforce are from a non English speaking background
 - 68% of married women are now working
4. *To recruit from the biggest pool of skills*
 - 14% of Australians of working age have a disability
 - This represents 980,000 people, yet only half of these (490,000) are working,
 - Of people with a disability in employment 37% are professionals managers and administrators (APSC, 2007)
 - This represents a considerable resource of skilled and keen people ready and willing to work
5. *To benefit from innovation*
 - Through making adjustments for a person with a disability, a progressive employer is generally making it safer and more comfortable for all staff and customers of the firm
 - Necessity is often the mother of invention
 - Widening access routes and removing physical barriers for people with a mobility disability can also assist suppliers with trolleys and customers with baby pushers
 - Improving lighting to accommodate people with a visual impairment can increase overall employee performance, improve efficiency and cut down on workplace accidents
 - Providing clear simple signage for staff with an intellectual disability will also mean you are communicating better with staff and customers from non-English speaking backgrounds
 - Ensuring employees know basic ‘sign language’ so they can communicate with deaf staff members, increases their effectiveness in assisting hearing impaired customers
6. *To minimise legal exposure*
 - Infringing the Disability Discrimination Act 1992 in Australia or its equivalent in other

- countries can lead to heavy penalties, compensation claims and bad publicity
- Disability discrimination cases generally lead to bad media publicity, having an adverse affect on sales and staff morale, which is many times greater than the direct cost of settlement
- Employers seen as discriminatory can earn a reputation of ‘last choice’ amongst candidates

7. *People with a disability often make better employees*

- Surveys conducted by DuPont Corporation in the USA indicate:
 - 90% of people with disabilities rated average or better on job performance (APSC, 2007)
 - 86% of people with disabilities rated average or better on attendance (DuPont, 1993)
- A study of Australian employers (Graffam *et al.* 2002) suggests
 - Employees with a disability rated higher on attendance, sick leave and recruitment, safety and insurance costs (APSC, 2007)

AN EMPIRICAL COMPARISON OF THE PRODUCTIVITY OF DISABILITY AND NON-DISABILITY WORKERS

To test the latter assertion that people with a disability often make better employees, Hindle *et al.* (1999) analysed data from a large Australian employer, Telstra Australia (which, as acknowledged by the authors, provided the raw data without which the study could not have been conducted but were not otherwise associated with the research). In a non-random selection, Telstra Australia nominated its Burwood (Victoria) call centre (population 400 workers including a substantial minority with a disability) as a sample frame, calling it a ‘typical, large, metropolitan call centre’. Within the Burwood call centre, three samples were drawn at random. Taking three samples instead of one was motivated in part by the ethical considerations of Telstra management to help ensure respondents’ anonymity and in part

by sheer convenience given the normal reporting cycle of the centre. A sample of 230 names was drawn to supply data for the first variable, ‘length of service’. This resulted in 196 useable cases (‘with a disability’, $n=30$; without, $n=166$). A separate sample of 200 names was drawn to supply data for the second variable, ‘absent days’. This resulted in 188 useable cases (‘with a disability’, $n=30$; without, $n=158$). Finally, a sample of 65 employees was used to provide data for the final four variables. This resulted in 63 useable cases (‘with a disability’, $n=21$; without, $n=43$).

There was one variable of experience – *Length of service*. This measured the amount of time the respondent had been employed at Burwood. There was one variable of attendance – *Absentee days*. This was the number of absentee days the respondent had logged in the calendar year preceding July 8, 1999. Raw data for the months of May and June 1998 were used to construct four composite variables. There was one variable of task engagement – *Logon ratio*. This was the subject’s total hours spent logged on (ie. actually making phone calls) for the months of May and June as a percentage of the total paid hours of every worker in the sample. There was one variable of efficiency – *Contact efficiency*. This was the subject’s percentage of total customer contact hours for the period. There were two variables of effectiveness – *Upgrade effectiveness index* and *Newsale effectiveness index*. An ‘upgrade’ was defined as the sale of additional features of a service to a client already subscribing to that service at a more basic level. A ‘newsale’ was defined as the sale of a completely new service or product to someone not currently using it. Each index consisted of the subject’s average sales-per-100-calls in May and June divided by the averaged total of sales-per-100-calls for May and June of the whole group.

The non-directional independent samples *t*-test using pooled variance estimates was used for analysis because, providing certain assumptions are met, it can effectively measure whether difference in the *means* of two groups is significant, even when sample sizes are relatively small. After normality test-

ing, the non-parametric Mann-Whitney U test for independent samples was also used in all cases as a precaution against any possible violation of the t -test assumptions. The normality tests applied were based first on skewness then on kurtosis and finally combined into an overall test statistic of normality (Stata 1997; D'Agostino, Balanger and D'Agostino Jr, 1990). Levene's test for equality of variances was used. The final four variables were also analysed in combination using a multivariate test. The authors (Hindle et al. 1999) will supply detailed descriptive statistics, analysis and data plots upon request. The following represents a summary of the major findings.

Length of service. The means were significantly different, $t = 3.442$ on 224 df, $p = 0.0007$. The non-parametric results supported the t -test findings, $U = 1773.5$, $z = 3.516$, $p = 0.00044$. This suggested a significant difference. Workers with a disability serve longer.

Days absent. The means were significantly different, $t = 2.181$ on 186 df, $p = 0.0305$. The non-parametric results did not support the t -test findings, $U = 1940.5$, $z = 1.573$, $p = 0.116$. This different result may have been due to the t -test assumptions not being satisfied and/or the large differences in sample sizes, 158 and 30. Thus, conservatively, it is safer to infer no difference in average performance than be tempted by the t -test finding.

Logon ratio. The means were not significantly different, $t = 1.164$ on 62 df, $p = 0.249$. The non-parametric results supported the t -test findings, $U = 389$, $z = 0.894$, $p = 0.372$.

Contact efficiency. Means were not significantly different, $t = 0.0664$ on 62 df, $p = 0.947$. The non-parametric results supported the t -test findings, $U = 446$, $z = 0.0787$, $p = 0.937$.

Upgrade sales effectiveness. Means were not significantly different, $t = 0.376$ on 62 df, $p = 0.7086$. Non-parametric results concurred $U = 427.5$, $z = 0.3432$, $p = 0.731$.

In summary. Workers with a disability were significantly longer serving. There was no difference between the measured productivity of disability and non-disability workers in attendance, task engagement, efficiency or effectiveness.

Hindle et al. (1999) indicate that, as far as they have been able to ascertain, their study is the first empirical test of the proposition that there are no productivity differences between workers with or without a disability. Of course, the temptation to over-claim must be resisted on at least four obvious grounds. (1) Perhaps the convenience choice of Burwood introduced unknown biases. (2) There was no distinction of the type, magnitude and variability of disabilities among affected workers. (3) Perhaps Telstra is an atypically sensitive and astute employer. (4) Maybe the cost of sensitive management (in supervision, higher-standard facilities etc) should be brought to measurement. However, for all its limitations, this study has achieved what others have not. It has effectively destroyed the credibility of any universal assumption that workers with a disability are less productive. The only difference found through a rigorous regime of inferential statistical analysis was *in favour* of workers with a disability. The study was conducted in a test environment of high illustrative value because call centres constitute one of the fastest growing industries in the world and the features of the call centre work environment are similar irrespective of nation, language or culture.

CONCLUSIONS

The axiom that workers with a disability are less productive is not tenable. It is exposed by the results reported above as a myth.

The role of future research should have two principal components. First, there does need to be a post mortem inquiry into the *reasons* that there was no productivity differences demonstrated in a rigorous empirical investigation. Second, there should be the preparation of a prognosis for making more employers more willing to take the initial critical decision to employ workers with a disability.

If the research basis (the raw material) is supplied and made available to them in effective channels of communication, it is reasonable to hope that employers at the leading edge of new venturing in this new century will be willing to replace reliance upon a dead myth with a vibrant entrepreneurial approach to the planning of human resource management. In doing so, they will both reap self-interested benefits and enrich society. Enhanced employment of workers with a disability can and will create a more diversified, harmonious and productive workforce befitting a planet that however belatedly is now realizing that sustainable business, sustainable ecology and sustainable human relations are indivisible components of the same necessity. It can no longer, ever, be 'us and them'. We are all in it together.

References

- Ash, S (2007) 'Why should small businesses care about employee diversity? Five areas of research that influence organizational results' *Small Enterprise Research* 15(1), 77-89.
- Audretsch, D B (2002) 'The dynamic role of small firms: Evidence from the US' *Small Business Economics*, 18(1), 13-40.
- Australian Bureau of Statistics [ABS] (2003) *Disability ageing and carers: Summary of findings* Canberra: Commonwealth Government Printer.
- Australian National Training Authority [ANTA] (2000), Bridging Pathways, National Strategy. Available at: <http://www.anta.gov.au/publications.asp?qsID=74> [accessed 12 December 2004]
- Australian Public Service Commission [APSC] (2007) *Ability at work: Tapping the talent of people with disability* Canberra: Commonwealth of Australia.
- D'Agostino, R B, Balanger A and D'Agostino, R B Jr (1990) 'A suggestion for using powerful and informative tests of normality' *The American Statistician* 44(4), 316-321.
- Dupont (1993) *Equal to the Task II – 1990 DuPont Survey of Employment of People with Disabilities* Wilmington, DE: EI du Pont de Nemours, Hallis.
- Easterly, L and McCallum, P (2007) 'Affirmative business: examining the relevance of small business research' *Journal of Rehabilitation*, 73(1), 13-21.
- Graffam, J, Shinkfield, A, Smith, K and Polzin, U (2002) 'Employer benefits and costs of employing a person with a disability', *Journal of Vocational Rehabilitation*, 17(3), 251-263.
- Hindle, K, Anderson, R B and Gibson, B (2004) 'From what we know to how we use it: five principles for turning entrepreneurship research into practitioner action guidelines' *Small Enterprise Research*, 12(1), 93-97.
- Hindle K, Noble J and Phillips B (1999), 'Are workers with a disability less productive? An empirical challenge to a suspect axiom' ANZAM 99 Conference, University of Tasmania.
- Hendricks, D J, Batiste, L C, Hirsh, A, Schartz, H and Blank, P (2005) 'Cost and effectiveness of accommodations in the workplace: preliminary results of a nationwide study' *Disability Studies Quarterly*, 25(4), available at <http://www.dsqsds.org/article/view/623/800> [accessed Dec 2008].
- Johnson, VA, Greenwood, R. and Schriener, KF (1988) 'Work performance and work personality: employer concerns about workers with disabilities' *Arkansas Rehabilitation Counseling Bulletin* 32(1), 50-57.
- LaPlante, M P, Kennedy, J, Kaye, H S and Wenger, B L (1998) 'Disability and Employment' *Abstract 11, Disability Statistics Centre*, San Francisco: University of California.
- Reisman, E. S. & Reisman J.I. (1993) 'Supervision of employees with special needs' *Journal of Learning Disabilities* 26, 199-206.
- Rusch, F R, Wilson, P G, Hughes, C and Heal, L (1994) 'Matched pairs analysis of co-worker interactions in relation to opportunity, type of job, and placement approach' *Mental Retardation* 32(2), 113-122.
- Stata (1997) *Stata Reference Manual Volume 3* College Station, TX: Stata Press.
- Waghorn, G, Chant, D, White, P and Whiteford, H (2005) 'Disability, employment and work performance among people with ICD-10 anxiety disorders' *Australian and New Zealand Journal of Psychiatry*, 39(1), 55-66.
- Wells, S J (2008) 'Counting on workers with disabilities' *HR Magazine*, 53(4), available at <http://culture.cfsbny.org/Docs/Counting%20on%20Workers%20with%20Disabilities-SHRM.pdf> [accessed Dec 2008].
- Young & Rubicam Inc. (2008) Brand futures group, *The Futurist*, Dec. 2008. Y&R, New York.
- Zemans, J R and Voelckers, G (1994) 'The long-term benefits of employing the disabled' *The Journal of Long-Term Care Administration* 22(1), 14-15.
- Zivolich, S J (1997) 'A national corporate employment initiative for persons with severe disabilities: a 10-year perspective' *Journal of Vocational Rehabilitation*, 8, 75-87.