

# Understanding employers' hiring intention in relation to qualified workers with disabilities

Robert Fraser<sup>a,\*</sup>, Icek Ajzen<sup>b</sup>, Kurt Johnson<sup>a</sup>, James Hebert<sup>c</sup> and Fong Chan<sup>d</sup>

<sup>a</sup>*Department of Rehabilitation Medicine, School of Medicine, University of Washington – Harborview Medical Center, Seattle, WA, USA*

<sup>b</sup>*Department of Psychology, University of Massachusetts-Amherst, Amherst, MA, USA*

<sup>c</sup>*Hebert Research, Inc., Bellevue, WA, USA*

<sup>d</sup>*Department of Rehabilitation Psychology, University of Wisconsin-Madison, Madison, WI, USA*

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**Abstract.** The present study focused on the intentions of employers to reach out toward qualified workers with disabilities as part of their hiring pool recruitment activity. An employer survey was developed in accord with the theory of planned behavior (Ajzen, 2005). According to the tenets of the model, it was hypothesized that through multiple regression, it would be demonstrated that employer attitudes, subjective norms, and perceived control variables predict the intention to engage in hiring behavior toward qualified workers with disabilities in the next six months.

Overall, the model accounted for 67% of the variance in the survey of Northwest employers ( $n = 92$ ) in relation to hiring intentions with normative influences (CEOs, CFOs, etc.) accounting for the greater proportion of the variance, beta coefficient 0.48,  $p < 0.01$ . Attitudes toward the hiring behavior and perceived control had lesser beta weights, 0.24 and 0.22,  $p < 0.05$ . Implications of these findings and those from the focus groups used to develop the survey are reviewed in detail relative to more effective vocational rehabilitation marketing efforts.

**Keywords:** Employers, hiring intention, disability attitudes

## 1. Introduction

Employment concerns have always been a major challenge for individuals with disabilities in contrast to their non-disabled counterparts. A recent news release by the U.S. Department of Labor, Bureau of Labor Statistics [1] indicated that the unemployment rate for persons with disabilities was 14.5%, higher than the rate for those without disabilities, which was 9%.

Another perspective is the employment to population ratio, which is 19.2% among those with a disability vs. 64.5% for those without a disability. It is also important to note that a marked portion of those with a disability, about eight in 10, were not considered in the labor force in 2009, compared to only three in 10 among those without a disability. A final perspective relates to underemployment: active workers with a disability include 33% who are working part-time as compared to only 19% of workers without a disability. These concerns have been documented in detail by other authors [2], but employment status seems to be worsening for those with disabilities given the current recession [3].

\*Address for correspondence: Robert Fraser, Department of Rehabilitation Medicine, School of Medicine, University of Washington – Harborview Medical Center, Box 359744, Seattle, WA 98104, USA. E-mail: rfraser@u.washington.edu.

Amir, Strauser, and Chan [4] indicated that the low employment rate for people with disabilities can partially be attributed to employer attitudes and the traditional approach for preparing and placing persons with disabilities for employment. Copeland [5] summarizes the current employment dilemma quite well in observing that employers appear conflicted regarding the employability of workers with disabilities. Although positive attitudes towards workers with disabilities are generally expressed, when pressed about actual hiring, employers often indicate reluctance to recommend hiring activities [5–7]. Amir et al. [4] underscore that, although there has been a long-standing interest in employer attitudes toward hiring, most of vocational rehabilitation clinical services and research activity have been focused on the “supply side” approach (i.e., diverse preparatory activity related to improving job access for workers with disabilities) vs. understanding the “demand side” characteristics (i.e., understanding and meeting employer concerns about workers with disabilities within the labor economy). The National Institute of Disability Rehabilitation and Research [8] emphasizes that on the demand side of employment research, the focus shifts to the needs of the employer and the work environment.

Chan et al. [2] urge rehabilitation professionals to move away from the supply side focus in vocational rehabilitation research and develop better understanding of the real concerns of employers in the hiring and retention of workers with disabilities to be better able to address these needs and concerns. With greater focus on demand side research, vocational rehabilitation entities are more likely to increase successful placement outcomes. These authors indicate that the limited research that has been done tends to cluster into three substantive areas of employer concern: a) employers are concerned about safety and productivity standards being met by individuals with disabilities; b) there are concerns about adequate knowledge and experience relating to hiring and retention; and c) employers seem to have the need for supportive assistance in identifying appropriate workplace supports, accommodations, and vocational bridging services related to work return and job retention.

The U.S. Department of Labor recently funded several studies in order to better understand employer demand side concerns with regard to workers with disabilities. The first study [9] involved 26 focus groups and 233 executives and human resource managers at multiple sites around the country. A segment of the focus group activity related directly to perceptions about workers with disabilities which occurred in each

of the first 20 focus groups. On an overview, there appeared to be minimal experience in hiring or working with people having disabilities. The common concern was that people with disabilities cannot perform across both demanding physical and desk occupations. Other concerns related to fear of legal problems, co-worker safety (as a function of an employee's disability), attendance, and negative work attitudes. Cost of accommodations for people with physical disabilities was a prominent concern. It is of interest that within this study, findings were not analyzed by company size.

The second study on employer perspectives in employing workers with disabilities was completed by Domzal et al. [10] under contract from the Office of Disability Employment Policy (ODEP), U.S. Department of Labor. This study was a large interactive telephone survey utilizing a business sector representative weighted sampling. It involved 3,797 respondents, a 51.4% response rate. The sampling method statistically represented 2,469,000 companies. In addition to the 12 sectors of industry, findings were analyzed by company size: small companies (5–14 employees), medium-sized companies (15–249), and large companies (250+). Key findings of interest included the following:

- Less than 20% of the companies reported employing people with disabilities.
- 53% of large companies reported employing people with disabilities; definitely the highest percentage.
- 72% of all companies said the nature of their work is too challenging for people with disabilities – similar to the previous U.S. Department of Labor study [9].
- Health care costs, workers' compensation, and litigation fears were referenced as intimidating by companies designated as small and medium-sized vs. the larger companies.
- Attitudes of co-workers and supervisors were the least frequently cited challenges.
- Companies that did not recruit employees with disabilities stated that persuasive information was needed relative to the productivity of workers with disabilities and the bottom line productivity/incentive options that can benefit a company.
- The larger companies were more likely to be influenced by means of a statistical or research supported presentation as to benefits of hiring workers with disabilities.

In the last year [11], there was a smaller ( $n=411$ ) similar telephone interview study of senior man-

agers representatively weighted of companies with 50+ employees. Findings to some degree paralleled the Domzal et al. study with two-thirds of the respondents indicating that there was a lack of qualified applicants with disabilities. It was also of interest that the majority perceived their disability programs as not particularly effective, and community service providers as unable to supply them with qualified applicants with disabilities. Of most concern was the Harris staff conclusion that, although employees with disabilities were generally valued, recruitment efforts were not there and that the employment of workers with disabilities was, in fact, "off the radar." [11]

There have been recently several targeted demand-side studies focused on understanding the factors that can influence hiring and retention of people with disabilities. Chan et al. [2] surveyed 132 human resource managers in the Midwest. Regression analysis indicated that only knowledge of the Americans With Disabilities Act (ADA) with job accommodation, and inclusion of a disability focus in diversity planning were significantly associated with commitment of a company to hire workers with disabilities. It was concluded that human resources and hiring managers, although not overly enthusiastic about workers with disabilities as reliable and productive employees, could have their attitudes improved if ADA and accommodation training were implemented and senior management made sure that workers with disabilities are included as part of a company's diversity plan.

In the development of the survey in the current study, three focus groups representing small, mid-size, and large companies were utilized in item development and refinement. A number of themes emerged and varied as a function of company size. Small companies (30–100 employees) disclosed a number of positive behavioral beliefs about hiring workers with disabilities, including commitment and loyalty to the company by these workers, and that the hiring of workers with disabilities would have a relatively altruistic value within the company's culture. Conversely, there were concerns about the need for hiring incentives and financial assistance and fears related to loss of potential revenue and possible litigation. There were also a number of negative control beliefs within small companies, including the infrequency of contact by responsible vocational rehabilitation agencies, ineffectiveness in positive recruiting if the contact was made, and difficulties with resources to physically modify a worksite or accommodate workers with disabilities.

Mid-size companies (101–500) had some of the same concerns as did the small companies: lack of contact

and the potential ineffectiveness of contact by state vocational rehabilitation, and the need for financial incentives in hiring. There was also a concern, similar to the small companies, that workers with disabilities would be less productive. Unique to the mid-size companies, however, were normative beliefs or concerns about both mid-level and team managers' negative reactions, as well as co-workers' discomfort with and lack of receptivity to this type of hiring.

For larger companies, the themes were much narrower. There was a normative concern that the departmental and team managers would not feel that hiring people with disabilities is a worthwhile practice; co-worker concerns were not referenced. The salient theme for the larger companies was lack of efficiency and effectiveness of working with vocational rehabilitation. There was the perception that vocational rehabilitation cannot really operate within a business model. It was also of interest that at the larger company level, there were no concerns about litigation and liability, potential loss of revenue, or the need for financial incentives relative to the hiring of qualified workers with disabilities. Although this was a survey "development step" in the current study, an obvious implication was a tailored need for employer marketing and educational efforts as a function of company size.

The framework utilized in the final survey is based upon Ajzen's [12] Theory of Planned Behavior (TPB), a clinically-based conceptual framework that has been found of significant utility for identifying determinants of many different kinds of behavior – see the review by Armitage and Conner [13]. According to the TPB, the immediate antecedent of a behavior is the intention to perform the behavior. Intention is determined by three components: attitude toward the behavior (the degree of negative or positive evaluation of the behavior), the subjective norm (the perceived social pressure to perform the behavior), and perceived control (perceived ability to carry out the behavior). Although not universally applied in rehabilitation research, there has been some increasing use of the model to predict behavior, e.g., in the prediction of physical activities for individuals with chronic disabilities including those with chronic kidney disease [14], and other behaviors among those with cardiovascular disease [15], and spinal cord injury [16]. TPB is an integral part of Schwarzer's [17] Health Action Process Approach (HAPA) Model of Health Promotion which is receiving increasing research attention.

The present study focused on the intentions of employers to reach out toward workers with disabilities as part of their hiring pool recruitment activity.

According to the TPB, the intention to engage in this behavior should increase to the extent that attitudes towards the behavior are favorable, important others are perceived to be supportive of it, and perceived control over its performance is high.

Attitudes are assumed to be based on beliefs about the likely consequences of the behavior, termed behavioral beliefs. When potential employers believe that hiring people with disabilities produces mainly positive outcomes, their attitude toward this behavior will be favorable. Conversely, if they believe that hiring people with disabilities has mainly negative consequences, attitudes will be unfavorable. Similarly, subjective norms (perceived social pressure to hire persons with disabilities) are based on normative beliefs, that is, beliefs that particular referents (e.g., one's supervisor, upper level manager, co-workers, etc.) do or do not support hiring people with disabilities and one's motivation to comply with the referents in question. Finally the overall level of perceived control depends upon control beliefs which have to do with the perceived availability of resources, facilities, and other factors related to hiring and retaining workers with disabilities.

In accordance with the tenets of the TPB model, in the current study it was hypothesized that in a multiple regression model, attitude, subjective norm, and perceived control predict intention to engage in hiring outreach behavior toward qualified workers with disabilities within six months of the response to this survey. In addition, the study explored the underpinnings of the three major predictors in the TPB, i.e., behavioral, normative, and control beliefs.

## 2. Method

### 2.1. Participants

Participants in the current study were a convenience sample of 92 members of the Seattle and Portland area Rotary Clubs and the human resources special interest group within the Seattle Chamber of Commerce. Surveys were completed at the end of the meetings with each of these groups, over a three month period in the spring of 2009.

### 2.2. Development of the survey

This study was developed in several steps as described below:

- For initial item development, an employment disability outreach elicitation survey was administered to the Business Advisory Council (14 HR representatives) at the University of Washington Project With Industry (a job placement program for people with disabilities). Participants were asked to list the advantages and disadvantages of reaching out to hire workers with disabilities, list the individuals or groups who might approve or disapprove of a hiring outreach effort and, finally, to list the practices which would make it easier or more difficult to reach out to workers with disabilities. To illustrate, an HR representative might indicate that hiring qualified workers with disabilities is good for businesses' tax incentives (behavioral belief), perceive that department managers disapprove of hiring outreach toward these workers (normative belief), and that vocational rehabilitation agencies often provide updated job applicant profiles (a control belief). These elicitation surveys were completed at a quarterly meeting of the council.
  - Hebert Research of Bellevue, Washington was then subcontracted to take the initial items generated, have them rated, discuss the frequency of concerns, and refine concerns through a series of three semi-structured focus groups, utilizing company owners/managers or human resource specialists, across small, mid-size, and large companies in the greater Puget Sound area. All focus group members were randomly selected and were financially incentivized for their involvement. It was believed, relative to the survey's validity, that this final item refinement should not be done by employment representatives who were previously too closely associated with vocational rehabilitation agencies, viz., seeking a more mainstream representation of employers.
- Chief goals of the focus groups were to further refine and qualitatively review the initial items from the elicitation survey with regard to participants' behavior beliefs, people perceived as influencing them, and their perception of control that they may have in hiring activities of this type. The randomized focus group members included six from small companies (30–100 employees), four of whom were company owners. There were eight from mid-size companies (101–500 employees), and six from large companies (501+ employees), all of whom were also HR professionals.

- Since there was a natural categorization of this data according to the TPB model, formal coding was not performed. Fraser (author one) reviewed the participants' frequency rating of the initial items and their subsequent statements and developed an initial slate of items within each category. Johnson (author three) independently completed the same process and validated the final data set. Disagreements were to be resolved by consensus, although this was not found to be necessary

### 2.3. Final survey

In accordance with the TPB [18], the final survey included direct measures of attitudes, subjective norms, perceptions of behavioral control, and intentions as well as measures of behavioral, normative, and control beliefs. The behavior of interest was defined as, "My contacting, within the next 6 months, a centralized vocational rehabilitation service in order to interview qualified workers with disabilities." Attitudes toward this behavior were assessed by asking participants to evaluate it on five 7-point bipolar adjective scales: *pleasant-unpleasant*, *desirable-undesirable*, *good-bad*, *enjoyable-unenjoyable*, and *wise-foolish*. The mean score over these five items served as a measure of attitude, with an alpha reliability coefficient of 0.88.

To obtain a direct measure of subjective norms in relation to the same behavior, participants rated – again on 7-point scales – the likelihood that most people whose opinions they value would approve of their performing the behavior; that most people who are important to them think they should perform it, that they feel social pressure to perform the behavior; that most people in their position would perform it, and that most people who are important to them expect it of them that they perform the behavior. The mean score over these five items served as a measure of subjective norm; its alpha reliability coefficient was 0.77.

A set of five items was also used to measure perceived behavioral control. The items asked participants to rate on 7-point scales whether, if they wanted to, they could perform the behavior of interest; the extent to which performing the behavior is up to them; how difficult it would be for them to perform the behavior; the extent to which it would be possible for them to do so; and the extent to which doing so is under their control. The alpha reliability of the composite score was 0.81.

Finally, intentions were by assessed by asking participants to indicate, on 7-point scales, the extent to which they intended to, are ready to, have decided to, are plan-

ning to, and will perform the behavior of interest. The mean score across these five items had a reliability of 0.96.

Twelve potential outcomes of employing workers with disabilities had been identified in the pilot survey. To assess behavioral beliefs, participants were asked to rate, on 7-point *likely-unlikely* scales, their estimates that each of these outcomes would result from contacting, within the next 6 months, a centralized vocational rehabilitation service in order to interview qualified workers with disabilities. The seven behavioral beliefs that correlated significantly with intentions are shown in Table 3.

Normative beliefs were assessed in relation to the President (CEO, owner) of the company, Human Resources, Senior Management, State/Federal government agencies, my hiring manager, my supervisors, and my coworkers. Participants rated, on 7-point scales, the extent to which each of these referents would *approve-disapprove* of their engaging in the behavior under consideration. The seven normative beliefs that correlated significantly with intentions are shown in Table 4.

Finally, participants rated, on 7-point scales, the likelihood that each of seven control factors will be present. The six control beliefs that correlated significantly with intentions are shown in Table 5.

### 2.4. Analysis

For descriptive purposes, means, standard deviations, and bivariate correlations were calculated for the TPB constructs. Linear regression analyses were used to test the study's hypotheses after confirming that the data met the assumptions of regression analysis (i.e., normality, linearity, and homoscedasticity [19]). T tests and ANOVAs were used to assess response differences as a function of respondent and company variables.

## 3. Results

Eighty-nine of the 92 surveys were "usable," with respondent characteristics shown in Table 1. It is of interest that 60% of the respondents were female, 75% were over age 35, and 78% were college graduates – consistent with the relatively high educational level in Northwestern urban cities. The business sectors represented were diverse with a significant percentage (25.6%) in finance – typical for downtown business areas. A third were in the "other" category and quite widespread, although manufacturing companies were

Table 1  
Respondent demographic and employment related variables (n variable, 74-84)

Variables	n	Percentage
Gender		
Men	33	41.8
Women	46	58.2
Age		
20-35	19	23.2
36-50	26	31.7
51+	37	45.1
Educational Level		
High school or less	5	6.4
Some college	12	15.4
Bachelor's level	31	39.7
Post-bachelor's level	30	38.5
Industry Type		
Non-profits	7	8.5
Finance/Business	21	25.6
Health care	9	11.0
Retail/Wholesale	13	15.9
Education	5	6.1
Other	27	32.9
Job Title		
Human resource specialist	33	40.2
President/Owner/CFO	24	29.3
Manager	6	7.3
Other professional	19	23.2
Company Size		
Large (501+)	35	39.2
Medium (101-500)	12	13.5
Small ( $\leq 100$ )	32	36.0
Missing	10	11.2
Hiring Authority		
Yes	48	59.3
No	33	40.7
Company Employs Workers With Disabilities		
Yes	54	67.5
No	26	32.5
Experience with Workers Having Significant Disability		
Yes	46	56.8
No	35	43.2
Received ADA Training		
Yes	36	45.0
No	44	55.0

underrepresented. This is a function of both the "offshore" manufacturing movement and factory/manufacturing activity not being prevalent in Northwestern urban cores at this time.

It was of interest that 40% of respondents were human resources specialists, but almost a third of the respondents were at a senior management level. In relation to company size, although there were 11% missing data, representation was mostly from large companies (501+ employees) and smaller companies, those less than 100 employees. In relation to actual function at the job site, approximately 60% indicated direct line hiring authority and activity. Approximately two-thirds had

Table 2  
Regression analyses for the prediction of intentions to contact a centralized vocational Rehabilitation Service

Predictors	M	SD	$\beta$	R <sup>2</sup>
Attitude	3.06	1.21	0.24*	
Subjective norm	4.28	1.27	0.48**	
Perceived behavioral control	3.25	1.53	0.22*	0.67**
Criterion				
Intention	4.43	1.89		

\* $p < 0.05$ , \*\* $p < 0.01$ .

experience in employing workers with disabilities with about 10% less having experience with workers having significant disability. Finally, it is of interest, especially during the 20th anniversary year of the Americans with Disabilities Act's implementation, that less than half of the survey respondents had actual training related to the Act and its implications.

### 3.1. Attitude, subjective norm, and perceived control predicting intention

Multiple regression analysis was used to test whether attitude, subjective norm, and perceived behavior control predict intention to engage in hiring outreach activity to qualified individuals with disabilities. The correlation matrix and the means and standard deviations of all variables are presented in Table 2.

Intention was regressed onto attitude, subjective norm, and perceived control. Overall the model accounted for 67% of the variance in relation to hiring intentions,  $F(3, 73) = 48.80$ ,  $p < 0.01$ . As seen in Table 2, the subjective norm accounted for the greatest proportion of the variance, with a beta coefficient of 0.48, significant at the  $p < 0.01$  level, while attitude and perceived behavior control had beta weights of 0.24 and 0.22 respectively, significant at the  $p < 0.05$  level.

### 3.2. Behavioral beliefs – intention correlations

Although attitudes had less influence on intentions than subjective norms, examination of specific behavioral beliefs revealed a number of significant findings. As can be seen in Table 3, among the behavioral beliefs that correlated significantly ( $p < 0.01$ ) with intentions were beliefs that hiring workers with disabilities would improve the company's workforce, provide the company with loyal and appreciative employees, and increase the company's diversity profile. Other strong associations related to a company's bottom line concerns, such as receipt of tax credits and employer

Table 3  
Significant behavioral belief-intention correlations  
My contacting, within the next 6 months, a centralized vocational rehabilitation service in order to interview qualified workers with disabilities would . . .

Behavioral belief	Mean	SD	<i>r</i>
make available a pool of qualified workers with disabilities	4.55	1.88	0.40**
provide the company with loyal and appreciative employees	5.42	1.48	0.44**
increase the company's diversity profile	5.85	1.55	0.33**
establish a working collaboration with centralized vocational rehabilitation agencies	5.57	1.45	0.32**
result in increased cost or loss of revenue	3.08	1.61	0.28*
result in receiving tax credits and employer incentives	4.64	1.62	0.32**
help to avoid disability discrimination lawsuits	4.78	1.78	0.29**

Note: Belief scales range from 1 (unlikely) to 7 (likely). \* $p < 0.05$ , \*\* $p < 0.01$ .

incentives and helping to avoid potential litigation, both significant at the  $p < 0.01$  level. On the negative side was the belief that outreach to qualified workers with disabilities would result in increased costs or loss of revenue ( $p < 0.05$ ).

### 3.3. Normative beliefs – intention correlations

The correlations of individual normative beliefs with intentions are presented in Table 4. It is of significant interest that senior ownership, management, hiring level managers, HR personnel, and co-workers were all major influences in relation to the intended hiring behavior,  $p < 0.01$ . This is important information relative to hiring of qualified workers with disabilities. Although the influence of state/federal government agencies reached significance ( $p < 0.05$  level), it was not as strong as normative influences within one's company. Influences within the company culture seem to be of extreme importance.

Table 4  
Significant normative belief-intention correlations

Normative belief	Mean	SD	<i>r</i>
The President (CEO, Owner) of my company	5.71	1.53	48**
Human resources	5.74	1.58	44**
Senior management	5.51	1.50	41**
State/Federal government agencies	6.15	1.19	28*
My hiring managers	5.22	1.54	37**
My supervisors	5.41	1.48	48**
My co-workers	5.41	1.33	45**

Note: Belief scales range from 1 (disapprove) to 7 (approve). \* $p < 0.05$ , \*\* $p < 0.01$ .

### 3.4. Control beliefs – intention correlations

Table 5 summarizes the significant correlations between control beliefs and hiring intention. Four of these correlations were significant at the  $p < 0.01$  level. Two of the control beliefs were related to personal control: knowing whom to contact in the vocational

Table 5  
Significant control belief-intention correlations

Control belief	Mean	SD	<i>r</i>
Senior management is not committed to hiring workers with disabilities	4.81	1.86	-0.23*
I know who to contact in the vocational rehabilitation field	3.70	2.35	0.36**
I am consistently contacted by centralized rehabilitation agencies with updated applicant profile lists	2.26	1.88	0.34**
I receive supportive communications from senior management or human resources about outreach programs, such as hiring qualified workers with disabilities	3.90	2.15	0.47**
Our company can receive tax credits or incentives for hiring workers with disabilities	4.51	1.74	0.30**
Training in accommodation of workers with disabilities is available for human resources personnel and hiring managers	4.89	1.96	0.22*

Note: Belief scales range from 1 (unlikely) to 7 (likely).  $p < 0.05$ , \*\* $p < 0.01$ .

Table 6  
Effects of company size on control beliefs

Control belief	Company size			F
	Small Mean	Medium Mean	Large Mean	
Senior management is not committed to hiring workers with disabilities	4.00	2.80	2.77*	4.28*
A one-stop service center for hiring qualified workers with disabilities is available	4.30	5.27	3.63	4.09*
Our company has few or no job openings	5.57	4.00	4.34	3.66*
Our company can receive tax credits or incentives for hiring workers with disabilities	3.83	4.25	5.15*	4.77**
Training in accommodation of workers with disabilities is available for human resources personnel and hiring managers	4.10	4.42	5.63*	5.70**
Our company lacks insurance coverage or confronts potential legal liabilities when hiring workers with disabilities	3.42	2.33	1.91*	6.56**

Note: Belief scales range from 1 (unlikely) to 7 (likely). \* $p < 0.05$ , \*\* $p < 0.01$ . \*Differences between small and large companies are significant at  $p < 0.05$ .

rehabilitation community for hiring, and being contacted consistently by a centralized rehab agency. Two additional control beliefs had to do with the receipt of supportive communication from senior management or human resources relative to hiring, and benefits related to tax credits and other hiring incentives. Although not as strong, there was a significant effect on intentions of having prior training in accommodation strategies for HR and line managers ( $p < 0.05$ ). Finally, there was a significant negative effect on hiring intentions if senior management was seen as not committed.

### 3.5. Effects of company size and employment of disabled workers

Comparison of companies varying in size and in their history of employing workers with disabilities in terms of the TPB constructs revealed few significant differences except in relation to control beliefs. As can be seen in Table 6, employees in small companies generally held more negative control beliefs than employees in large companies, while employees in mid-sized companies generally fell between the other two. Specifically, employees in small companies were *more* likely to believe that senior management is not committed to hiring workers with disabilities, that their company has few or no job openings, and that their company lacks insurance coverage or confronts potential legal liabilities when hiring workers with disabilities; and they were *less* likely to believe that their company can receive tax credits for hiring workers with disabilities or that training in accommodation of workers with disabilities is available. On the

other hand, they believed more strongly that a one-step center for hiring qualified workers with disabilities is available.

The significant effects of employing workers with disabilities on four control beliefs are shown in Table 7. Interestingly, participants in companies that employ workers with disabilities perceived *less* control in certain respects than did participants in companies that do not employ workers with disabilities. Specifically, they were more likely to believe that management is not committed to hiring workers with disabilities, they were less knowledgeable about whom to contact in the vocational rehabilitation field, they indicated that were less likely to be contacted by centralized rehabilitation, and they

Table 7  
Significant differences in control beliefs between companies employing and not employing workers with disabilities

Control belief	Company employs workers with disabilities		t
	Yes Mean	No Mean	
Senior management is not committed to hiring workers with disabilities <sup>1</sup> .	4.37	3.60	4.14**
I know whom to contact in the vocational rehabilitation field.	3.79	5.20	2.67**
I am consistently contacted by centralized rehabilitation agencies with updated applicant profile lists.	5.30	6.63	2.62**
Training in accommodation of workers with disabilities is available for Human Resources personnel and Hiring Managers.	2.60	4.32	3.74**

Note: Belief scales range from 1 (unlikely) to 7 (likely); \*\* $p < 0.01$ ;  
<sup>1</sup> Scoring on this item reversed.



were less likely to believe that training in accommodation of workers with disabilities is available for HR personnel.

#### 4. Discussion

Unemployment and underemployment have been a persistent concern for people with disabilities – a situation that has only worsened with the present recession [3]. Although there is generally a positive perspective on workers with disabilities, there has been some continuing reluctance in terms of actual hiring of workers with disabilities [5, 6, 7]. Several recent national studies [9, 10] suggest that employers feel workers with disabilities don't have the qualifications to perform their jobs or that the available work would be too challenging. Chan et al. [2] emphasize that research on the "supply side" must be complemented by research that focuses on the demand side in order to obtain a better understanding of employer concerns and needs and thus increase actual hiring outcomes. The demand side research has been dramatically lacking.

In the current study, the theory of planned behavior (TPB) successfully predicted intentions to engage in outreach activities relative to hiring qualified workers with disabilities, accounting for 67% of the variance. Although both attitude and perceived behavioral control made significant contributions to the prediction, subjective norms were found to be of greatest importance. This implies that vocational rehabilitation entities, particularly in coalition, need to target their marketing and educational efforts to both senior and mid-line management in order to establish normative expectations supportive of vocational rehabilitation hiring activities. Avenues to management might be through Chambers of Commerce, Rotary Clubs, Societies for Human Resources Managers, State Business Leadership Networks, etc., but these management "gatekeepers" must be reached or it appears that major hiring advances will not be made. In addition, these marketing and educational efforts would also target/accenuate positive attitudinal beliefs as identified in this study (e.g., provide loyal employees, increase the company's diversity profile, avoid lawsuits) and perceived control beliefs (e.g., receiving supportive communication from senior management, tax credits/hiring incentives, etc.) in order to ease this hiring process. Dealing with these control beliefs, to include legal and insurance concerns, appears to be especially important with small companies.

It was of interest that perceived control was related to lack of senior management commitment in companies

that had hired workers with disabilities. These company representatives were also less knowing as to whom to contact in vocational rehabilitation (VR), having less access to accommodation training, and being less frequently contacted by VR. This appears to be a function of company size as larger companies appeared to maintain the commitment and were more aware of tax credits and available accommodation training. It may also be that hiring workers with disabilities is "off the radar" at this recessionary time, as congruent with the Harris Interactive Survey [11], more so for smaller companies. Although not concerned about insurance coverage and having more job openings than smaller companies, large company respondents perceived lower availability of a one-stop service center when they do want to hire qualified workers with disabilities.

Findings from both this study and the preliminary focus group work support the need for education/marketing approaches that are tailored to company size. Smaller companies, perhaps with more intimate management contact with workers having disabilities, might be appealed to with the more human "commitment and loyalty" on the part of workers with disabilities and the positive feelings related to this type of hiring. Smaller company owners and administrators actually have more contact with their workers to include those with disabilities such as in the De Paul study [20]. Concerns that need to be addressed, however, relate to their perceived loss of revenue, fears of litigation, and difficulties with physical accommodation at the facilities. They need to review offsetting data that negates the productivity, litigation, and incapacity to accommodate concerns.

Both small and mid-sized companies were concerned about the ability of workers with disabilities to perform their work and were desirous about hiring incentives. With mid-sized companies, the concern about reactions from mid-level managers and co-worker receptivity tends to emerge. It appears that both small and mid-sized companies might profit from presentations related to the "bottom line benefits" in regard to hiring workers with disabilities [20] and information about available tax credits (e.g., currently up to \$6,000 first-year for a worker with a disability), on-the-job training monies, the 1993 U.S. Department of Labor waiver [21] for unpaid job tryouts, etc. This information should be of interest to both senior management and lower rung supervision. Larger companies had more limited incentives concerns, but still need educational information to better positively influence mid-level management.

Across all companies, however, was the consistent concern about the efficacy/efficiency of contact with Vocational Rehabilitation. The most salient and pervasive finding in the study seems to be a lack of trust in the viability of the contact process. In essence, where is the Vocational Rehabilitation marketing team (especially salient in focus group comments from big business)? As also reflected in the study by Domzal et al. [9], persuasive information is needed from a professional resource/contact center on the performance of workers with disabilities and how this type of hiring benefits the bottom line. Can State VR provide this type of professional marketing and brokering unit for qualified workers with disabilities? If an employer desires to proactively hire a qualified worker with a disability, there is no easy web access to recruitment. If an employer is fortunate enough to link to a state vocational rehabilitation agency, the hiring path remains unclear.

Presently, a review of State vocational rehabilitation websites nationally reveals a range of scenarios as to receptivity to engaging employers. In some cases, as an employer, there would be no clear manner in order to contact the state agency for purposes of hiring or understanding the benefits to hiring qualified workers with disabilities. In other cases, there is a summary of employer hiring benefits with no VR liaison listed, a job posting link with no further information, or a single contact person for a particular city or area (often a very large city or area). In sum, the contact employer linkage ranges from non-existent to frequently inadequate for an area, with no accessible centralized job bank of available qualified workers with disabilities.

This is an important area of concern because results from the present study indicate that if the effort is made to reach the "hiring gatekeepers" (the CEOs, HR Directors, line management, etc.), there needs to be a central marketing staff and workers with a disability database in order to implement a viable employment relationship. Presently, it appears that the skew of effort is markedly out of balance in relation to the employer "demand side" focus in vocational rehabilitation. This will need to be recalibrated if the state/federal vocational system is to achieve positive vocational rehabilitation outcomes in a challenging economy – the employer is not yet truly "a customer." Otherwise, as currently described by Harris Interactive [11], employer outreach for qualified workers with disabilities will remain "off the radar."

There are several limitations to this study to include a convenience sample of urban Northwest employers, with a lack of sufficient manufacturing and construction

industry representation. Future studies would benefit from random sampling across diverse, nationally representative companies. Findings could then provide a basis for randomized control studies, using significant survey findings as the intervention material, and move past hiring intentions, as utilized in the present study, to actual hiring behaviors as outcome measures. Nevertheless, the findings from this study are of considerable interest and support further use of the TPB model in greater understanding employer behavior and relevant marketing intervention on the demand side of the vocational rehabilitation process.

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### References

- [1] U. S. Department of Labor, Bureau of Labor Statistics. Persons with a disability: labor force characteristics. Retrieved December 22, 2010 from: <http://www.bls.gov/news.release/disable.toc.htm>.
- [2] F. Chan, D. Strauser, P. Maher, E. Lee, R. Jones and E. Johnson, Demand-side factors related to employment of people with disabilities: a survey of employers in the Midwest region of the United States, *J Occup Rehabil* 20 (2010), 412–419.
- [3] N.P. Fogg, P.E. Hernandez and B.T. McMahon, The impact of the great recession upon the unemployment of Americans with disabilities, *Journal of Vocational Rehabilitation* 33 (2010), 193–202.
- [4] Z. Amir, D. Strauser, F. Chan et al., Return to work after cancer in the UK: attitudes and experiences of line managers, *J Occup Rehabil*, 20 (2009, 2010), 435–442.
- [5] J.L. Copeland, The impact of disability in the workplace: an assessment of employer attitudes toward people with disabilities and the Americans with Disabilities Act, unpublished doctoral thesis, Cappella University, 2007.
- [6] B. Hernandez, C. Keyes and F. Balcazar, Employer attitudes toward workers with disabilities and their ADA employment rights: a literature review, *J Rehabil* 66 (2000), 4–16.
- [7] S.M. Bruyère, W. Erickson and J.T. Ferrentino, Identity and disability in the workplace, *William Mary Law Rev* 44 (2003), 1173–1196.
- [8] National Institute on Disability and Rehabilitation Research: Long-range plan for fiscal year 2005–2009. Washington, D.C., 2006.

- [9] J. Rath, L. Ross and W. Child, Focus group with private sector senior executives and human resources professionals re: Employer Assistance Referral Network (EARN): technical report. McLean VA (Prepared under contract to the Office of Disability and Employment Policy U.S. Department of Labor) CESSI 2005.
- [10] C. Domzal, A. Houtenville and R. Sharma, Survey of employer perspectives on the employment of people with disabilities: technical report. McLean (VA). (Prepared under contract to the Office of Disability and Employment, Policy, U.S. Department of Labor) CESSI, 2008.
- [11] Harris Interactive. 2010 Kessler Foundation/National Organization on Disability survey of employment of people with disabilities. Paper presented at the Cornell University Rehabilitation Research and Training Center on Employment Policy for Persons with Disabilities webinar, October 18, 2010.
- [12] I. Ajzen. Attitudes, personality, and behavior. 2nd ed, *Open University Press*, Maidenhead, 2005.
- [13] C.J. Armitage and M. Conner, Efficacy of the theory of planned behaviour: a meta-analytic review, *British Journal of Social Psychology* **40** (2001), 471–499.
- [14] J.J. Eng and K.A. Martin-Ginis, Using the theory of planned behavior to predict leisure time physical activity among people with chronic kidney disease, *Rehabil Psychol* **52** (2007), 435–442.
- [15] C.M. Blanchard, K.S. Corneya, W.M. Rodgers, S.N. Fraser, T.C. Murray, B. Daub et al., Is the theory of planned behavior a useful framework for understanding exercise adherence during Phase II cardiac rehabilitation? *J Card Rehabil* **23** (2003), 29–39.
- [16] A.E. Latimier and K.A. Martin-Ginis, The theory of planned behavior in prediction of leisure time physical activity among individuals with spinal cord injury, *Rehabil Psychol* **5** (2005), 299–305.
- [17] R. Schwarzer, Self-efficacy in the adoption and maintenance of health behaviors: Theoretical approaches and a new model, In R. Schwarzer (Ed.), *Self-efficacy: thought control of action* (pp.217-242). Washington, DC: Hemisphere, 1992.
- [18] I. Ajzen (2006). Ajzen I, Constructing a TPB questionnaire: Conceptual and methodological considerations, September, 2002 (Revised January, 2006).
- [19] B.G. Tabachnick and L.S. Fidell, *Using Multivariate Statistics*. (4th Ed.), New York, Harper Collins, 2001.
- [20] B. Hernandez and K. McDonald (2007), *Exploring the bottom line: a study of the costs and benefits of workers with disabilities*. Chicago, Illinois, De Paul University, 2007.
- [21] U.S. Department of Labor. *Individual vocational rehabilitation programs: transition of persons with disabilities into employment*. Washington, D.C., 1993.

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