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# Factors Associated with Employer Hiring Decisions Regarding People who are Blind or Visually Impaired

Michele C. McDonnall, Ph.D., CRC

Mississippi State University

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Correspondence concerning this article should be addressed to Michele McDonnall, NRTC on Blindness and Low Vision, P.O. Box 6189, Mississippi State, MS 39762. Email: m.mcdonnall@msstate.edu

## Factors Associated with Employer Hiring Decisions Regarding People who are Blind or Visually Impaired

Negative employer attitudes are considered one of the biggest barriers to employment for people who are blind or visually impaired (Coffey, Coufopoulos, & Kinghom, 2014; Crudden & McBroom, 1999; Crudden, Williams, McBroom, & Moore, 2002; Kirchner, Johnson, & Harkins, 1997; Salomone & Paige, 1984). These negative attitudes are believed to influence employers' hiring decisions, thus an extensive amount of research has been conducted on employer attitudes towards people with disabilities (see Burke et al., 2013; Hernandez, Keys, & Balcazar, 2000; Ju, Roberts, & Zhang, 2013 for comprehensive literature reviews). These studies have provided information about employers' attitudes and documented factors that are associated with these attitudes (e.g., exposure to people with disabilities, type of disability), but have not documented a direct link between attitudes and hiring decisions. Other factors thought to influence hiring decisions regarding people with disabilities are (a) assistance from vocational rehabilitation (VR) and other organizations that support the employment of people with disabilities, (b) qualifications of the applicant, and (c) having an organizational commitment to hiring people with disabilities (Boni-Saenz, Heinemann, Crown, & Emanuel, 2006; Gilbride, Stensrud, Vandergoot, & Golden, 2003; Graffam, Shinkfield, Smith, & Polzin, 2002; Henrandez et al., 2008).

A recent scoping review of the literature identified three factors that can potentially improve hiring of people with disabilities (provision of information and support for employers, relationship building with employers by disability organizations, and hiring practices that invite people with disabilities), but acknowledged that little research exists that evaluates the effectiveness of these approaches (Gewurtz, Langan, & Shand, 2016). As no empirical research has been conducted in this area specific to people who are blind or visually impaired, the purpose

of the present study was to identify factors that are associated with employers' hiring decisions regarding this population.

## Method

Data utilized for this study were part of a research project with the primary goal of measuring employer attitudes. The Institutional Review Board of Mississippi State University approved this research project and informed consent was obtained from participants. Hiring managers (i.e., people employed by a company that make hiring decisions for that company) were identified by SurveyMonkey (SM) Audience to participate in the study. This is a fee-based service provided by SM to identify participants that meet specific requirements for online surveys. SM has identified a large number of people who have agreed to complete surveys, with a small donation given to a charity for their participation. SM participants who were thought to likely make hiring decisions (e.g., managers, executives, and human resources personnel) were invited to participate in the study. A screening question was used to determine if the individuals identified did have hiring authority, and those who did were invited to complete the survey. Data were collected online through a survey in the author's SM account. SM Audience sent the invitation to participate to 2,476 people who were employed in one of the job categories previously mentioned, and 845 people responded to the survey (a 34.1% response rate[1]).

### Independent Variables

Four variables were included in the study based on previous research or theory associating them with hiring decisions (employer attitudes, employer knowledge about how blind people can perform work tasks [considered necessary to have knowledge to determine whether applicant is qualified for the job], communication with VR, and relationship with VR). An additional two variables thought by the researcher to potentially be related to hiring decisions

were also included (belief in knowledge and personal relationship). Because research is very limited regarding characteristics of employers who hire people with disabilities, four employer demographic variables and employer size were included in the models to evaluate their relationship to hiring decisions.

*Employer attitudes* were measured with the Employer Attitudes toward Blind Employees Scale (EABES; McDonnall, 2014, 2016). The EABES is an 11-item instrument that consists of two subscales: productivity and challenges. It specifically focuses on attitudes towards people who are blind or visually impaired as employees. Items consist of statements that respondents are asked to rate using a 7-point scale ranging from Strongly Disagree to Strongly Agree. Higher scores indicate more positive attitudes, with a potential score range of 0 to 66. Two studies with unique samples have confirmed the appropriate psychometric properties of the instrument. The first study provided initial evidence for its reliability and validity, utilizing exploratory factor analysis (McDonnall, 2014). The instrument was then administered to the SM Audience sample and confirmatory factor analysis (CFA) was utilized to further document the reliability and validity of the measure (McDonnall, 2017). Adequate CFA goodness of fit statistics (i.e., CFI of .976, SRMR of .047, RMSEA of .059) and Cronbach's alpha coefficients of .90 (productivity subscale) and .84 (challenges subscale) provided this evidence.

*Employer knowledge* was measured with five questions that asked about awareness of ways in which someone who is blind or visually impaired can (a) access pre-printed material (i.e., documents printed out on paper); (b) access a computer to use the internet, email, or utilize standard computer software; (c) use general office equipment, such as a multifunction document center or multi-line telephone system; (d) utilize standard industrial equipment or machinery (e.g., sewing machines or production equipment); and (e) handle a cashier position (including

taking money, making change, and managing a cash register). If respondents indicated they were aware of how these tasks could be performed, they were asked to specify how a blind or visually impaired person could perform the task. The open-ended responses to this "how" portion of the question were scored for accuracy. Extensive pilot coding was conducted in a previous study to develop a coding scheme for determining accuracy of descriptions of how each job task could be performed by an employee who is blind or visually impaired (McDonnall, O'Mally, &Crudden, 2014). Using the previously devised coding scheme, two researchers independently coded the data for this study. The researchers discussed all inconsistencies and reached a consensus for scoring discrepant items. Each correct response received one point, for a possible range of scores between 0 and 5.

Many employers indicated that they knew how a person could perform the given task, but did not provide an accurate answer in their "how" response. If the participant provided a "how" response that was incorrect, indicating that they thought they knew how a person could perform a job task, they were given one point for the *belief in knowledge* measure. It was thought that just believing one knows how a blind person could perform a task might be sufficient to encourage consideration of hiring someone, even without the exact knowledge. The possible range of scores was 0 to 5.

*Communication with VR* was assessed with the participants' response to the following question: "Have you ever communicated with your state vocational rehabilitation (VR) agency about employment of people with disabilities?" If a participant indicated that they had communicated with their state VR agency, they were asked two follow-up questions: "Which best describes your relationship with the VR agency?" and "Has this included talking about people who are blind or significantly visually impaired?" The first question had four response

options: (a) Spoke to someone once, (b) Had several interactions in the past but not currently, (c) Have occasional contact with someone from the agency, and (d) Have an ongoing relationship with someone at the agency. For this study, we were primarily interested in whether having an ongoing relationship that includes talking about people who are blind or visually impaired was associated with hiring decisions. Therefore, if a respondent indicated that they had an ongoing relationship with VR and that communications included talking about people who are blind or visually impaired, *relationship with VR* received a value of one.

*Personal relationship* was measured with this question: "Have you ever had a personal relationship with anyone who is blind or significantly visually impaired, such as a friend, family member, or neighbor?" The three demographic variables included in the study were *gender*, *education level*, and *income*. Each was a dichotomous variable, with education dichotomized by having obtained a college degree or not and high income dichotomized at a salary of $100,000 or more per year. *Employer size* was dichotomized by large employer (500 or more employees) or not.

**Dependent Variable**

Hiring decision was defined by participants' response to this question: "Have you ever hired someone for your business who is blind or significantly visually impaired?"

**Statistical Analyses**

Dichotomous variables were coded one if the participant responded "yes" or if the condition applied to the person, and zero if the person answered "no" to the item or if the condition did not apply. Descriptive statistics were obtained for all variables and are presented in Table 1. Logistic regression was the statistical technique used to analyze the data. SAS Version 9.4 was used for all statistical analyses.

## Results

### Participants

Of the 845 responses to the online survey invitation, 605 were eligible to participate (i.e., employed in hiring positions). The online survey was completed by 579 of these respondents. Data were carefully screened to ensure respondents took adequate time to complete the survey (more than 5 minutes was required), answered the screener question correctly (i.e., a question that asks the person to select a specific response), and did not provide nonsensical answers to any write-in items. Respondents who did not meet these requirements were dropped from the analyses to ensure integrity of the data. This screening resulted in a usable sample of 379 participants with no missing data on variables of interest to this study. The majority of participants were female, between the ages of 35 and 54, held a Bachelor's or graduate degree, and had an annual income of $75,000 or more. See Table 1 for additional participant demographic information.

### Logistic Regression Model

The ten independent variables were included in the logistic regression model to predict employer hiring decisions. The model was statistically significant, Wald $\chi^2$ (10, $N$=379) = 104.06, $p < .0001$, Nagelkerke $R^2 = .62$. Only two of the ten variables significantly predicted hiring decisions: communication with VR and employer attitudes (see Table 2 for full results).

## Discussion

Communication with VR was an extremely powerful predictor of hiring decisions; employers who had communicated with VR had odds 24.1 times higher of having hired a person who is blind or visually impaired in the past compared to those employers who had never communicated with VR. These results indicate that having contact with a VR professional is

incredibly important to employer hiring decisions regarding people who are blind or visually impaired! Of those who reported communicating with VR, 71.2% had hired someone.

We do not know if the importance of this contact comes from the education that the VR professional can provide about blindness/visual impairment, support that can be offered to the employer (such as assistance with accommodations), or something else. Greater levels of knowledge and belief in knowledge were not associated with hiring decisions in the model, which may indicate that the communication with a VR professional is providing some other kind of benefit to the employer. Additionally, we must consider whether contact with VR acts as a proxy for opportunity to hire someone who is blind or visually impaired. In other words, it is possible that those employers that did not make a hiring decision never had a qualified applicant who is blind or visually impaired, making it impossible for them to consider hiring. Regardless of the opportunity issue, the results make clear the importance of VR professionals communicating with employers about people who are blind or visually impaired.

Employer attitudes was the only other measure that was significantly associated with hiring decisions. The effect for this measure was also relatively large, with a 10-point higher score on the attitude measure resulting in odds 2.61 times higher of having hired someone. It has long been assumed that more positive attitudes are associated with a greater likelihood of employers hiring people with disabilities, and this research provides support for that assumption. However, due to the cross-sectional nature of the data, we do not know the temporal order of occurrence of these factors. It is not possible to determine if the contact with VR and the attitudes preceded the hiring decision, or if the hiring decision occurred first, resulting in contact with VR and ultimately more positive attitudes. Because the association between hiring decisions and communication with VR is so strong, replication of these results is needed to confirm the

relationships identified in this study, with consideration of whether the employer ever had a blind or visually impaired applicant taken into account.

## Note

[1] Once the targeted number of responses in each company size category was obtained (most within a few days), potential respondents no longer had the opportunity to participate. This truncates the response rate from what it may have been if participants were provided more time to provide a response.

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Table 1

*Sample Demographics, Company Size, and Descriptive Statistics for Model Variables*

| **Variable** | **Percent** | **Frequency** |
|---|---|---|
| Gender (Female) | 58.6 | 222 |
| Age | | |
| 18 to 34 | 23.0 | 87 |
| 35 to 44 | 28.8 | 109 |
| 45 to 54 | 27.7 | 105 |
| 55 or older | 20.6 | 78 |
| Education level | | |
| High school or less | 8.7 | 33 |
| Some college/two-year degree | 27.4 | 104 |
| Bachelor's degree | 41.2 | 156 |
| Graduate degree | 22.7 | 86 |
| Income level | | |
| Less than $25,000 | 3.2 | 12 |
| $25,000 to $49,999 | 15.3 | 58 |
| $50,000 to $74,999 | 23.2 | 88 |
| $75,000 to $99,999 | 23.2 | 88 |
| $100,000 or more | 35.1 | 133 |
| Region | | |
| Northeast | 19.3 | 73 |
| Midwest | 23.0 | 87 |
| South | 36.7 | 139 |
| West | 21.1 | 80 |
| Job title | | |
| Managers/Supervisors | 62.8 | 238 |
| Directors/Chief executives | 15.8 | 60 |
| Human resources personnel | 10.3 | 39 |
| Owners | 7.9 | 30 |
| Other | 3.2 | 12 |
| Company size (number of employees) | | |
| 1 to 14 | 5.0 | 19 |
| 15 to 99 | 33.5 | 127 |
| 100 to 499 | 20.8 | 79 |
| 500 to 1,999 | 22.2 | 84 |
| 2,000 or more | 18.5 | 70 |
| **Model Variables** | **Mean** | **SD** |
| Have hired | 0.33 | 0.47 |
| Employer attitudes | 35.50 | 13.53 |
| Gender (female) | 0.59 | 0.49 |
| High income | 0.35 | 0.48 |
| College graduate | 0.64 | 0.48 |

| | | |
|---|---|---|
| Knowledge | 0.25 | 0.60 |
| Belief in knowledge | 1.16 | 1.42 |
| Communication with VR | 0.38 | 0.49 |
| Relationship with VR | 0.08 | 0.28 |
| Personal relationship | 0.56 | 0.50 |
| Large employer | 0.41 | 0.49 |

*N*=379

Table 2

*Predictors of Employer Hiring Decisions*

| **Variable** | ***B*** | ***SE*** | **Wald $\chi^2$** | **Odds Ratio (95% CI)** |
|---|---|---|---|---|
| Employer attitudes | 0.10 | 0.02 | 30.15* | 1.01 (1.06, 1.14) |
| Gender (female) | -0.54 | 0.33 | 2.72 | 0.58 (0.31, 1.11) |
| High income | 0.07 | 0.35 | 0.04 | 1.07 (0.55, 2.11) |
| College graduate | -0.40 | 0.35 | 1.31 | 0.67 (0.34, 1.33) |
| Knowledge | -0.64 | 0.36 | 3.09 | 0.53 (0.26, 1.08) |
| Belief in knowledge | 0.20 | 0.12 | 3.03 | 1.23 (0.98, 1.54) |
| Communication with VR | 3.18 | 0.38 | 71.71* | 24.10 (11.54, 50.33) |
| Relationship with VR | 0.83 | 0.63 | 1.74 | 2.29 (0.67, 7.83) |
| Personal relationship | -0.53 | 0.37 | 2.14 | 0.59 (0.29, 1.20) |
| Large employer | 0.03 | 0.33 | 0.01 | 1.03 (0.54, 1.98) |
| | | | | |
| Wald $\chi^2$ (10, $N$=379) | | | 104.06* | |
| $R^2$ | | | .62 | |

* $p < .0001$.