

Chapter 4

Employers' Knowledge and Utilization of Accommodations

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Despite the recognition among employers that providing accommodations to applicants or employee with disabilities has been a wise business decision, little is know about the resources that employers access to identify and develop effective accommodations in the recruitment, hiring and retention of employees with disabilities. Human resource professionals and supervisors were studied to determine the extent to which businesses were aware of the vast array of workplace supports available to assist people with disabilities to participate in the workforce. The results of these findings indicate that these business professionals were confident in their ability to meet and support the needs of employees with disabilities. Yet, despite this strong level of confidence a large majority of supervisors indicated that they did not have the authority to secure accommodations for workers with disabilities.

In 1990, Congress enacted the Americans with Disabilities Act (ADA) in an effort to break down barriers to community and workplace participation for individuals with disabilities. However, many have questioned the effectiveness of the legislation in helping to advance the labor force participation of people with disabilities. There is little empirical evidence that ADA mandated measures have resulted in larger number of qualified individuals with disabilities entering the labor force (Hall & Hall, 1994; Johnson & Baldwin, 1993; Rosen, 1991; U.S. Commission on Civil Rights, 2001; Wells, 2001). The employment rate of individuals with disabilities (32%) has not increased since the law's inception and continues to lag far behind that of people without disabilities (81%) (N.O.D./Harris, 2000). Yet, Blanck (1998) maintains that other measures of the effectiveness

of the ADA are also needed, such as employers increased use of workplace supports and accommodations as business strategies to attract and retain qualified workers with disabilities.

Increasingly, employers have demonstrated their capacity to provide accommodations to workers with disabilities. Results from several studies have provided descriptions of the types and costs of accommodations employers have implemented in the workplace to address the support needs of workers with disabilities (Blanck, 1994; Blaser, 1999; Buckhauser & Daly, 1996; Collignon, 1986; Electronic Industries Foundation, 1992; Granger, Barron, & Robinson, 1997; Harlan & Robert, 1998; Harris, 1987; McFarlin, Song, & Sonntag, 1991; Olson, Cioffi, Yovanoff, & Mank, 2001; SHRM/Cornell, 1999). Table 1 on the following page contains descriptions of the variety of workplace accommodations that employers have provided to workers with disabilities. Overall, these findings indicate that employers appear willing to grant accommodations that are perceived as straight forward, inexpensive, one-time only, not time consuming, or easy to make as opposed to requests for accommodations that require a sustained effort or permanent change in work arrangements (Granger et al., 1997; Harlan & Robert, 1998; Michaels, Nappo, Barrett, Risucci, & Harles, 1993).

Initial fears expressed by many representatives from business and industry regarding the costs of implementing the ADA, and specifically costs associated with providing reasonable accommodations, have not been substantiated. The consistent finding from multiple surveys of employers has been that expensive job modification or accommodations are rarely needed by

workers with disabilities (Blanck, 1994; Collignon, 1986; Granger, et al., 1997; Olson, et al., 2000; Pitt-Satsouphe & Butterworth, 1995). For many employers, the costs of making accommodations have proven to be extremely reasonable. According to the Job Accommodation Network (JAN), about one-half (52%) of the accommodations made by employers cost less than \$500 to implement (JAN, 1995). The data were collected between July of 1994 and June of 1995, a period in which JAN received a total of 79,860 calls, with the vast majority of calls originating from private employers (61%).

Table 1: Factors Investigated in Employer Attitudinal Research

Coworkers	Blaser, 1999; Granger et al., 1997; McFarlin et al., 1991
Adapting or altering the workplace	Granger et al., 1997; Harlan & Robert, 1998; McFarlin et al., 1991; SHRM/Cornell, 1999
Making changes to employees' schedules	Blanck, 1994; Burkhauser & Daly, 1996; Electronic Industries Foundation, 1992; Harlan & Robert, 1998; McFarlin et al., 1991; SHRM/Cornell, 2000
Restructuring job duties or changing job descriptions	Burkhauser & Daly, 1996; Granger et al., 1997; Harlan & Robert, 1998; SHRM/Cornell, 2000
Providing specialized training and orientation	Blanck, 1994; McFarlin et al., 1991
Purchasing equipment	Burkhauser & Daly, 1996; Electronic Industries Foundation, 1992; Harlan & Robert, 1998; SHRM/Cornell, 2000
Transportation or parking	Collignon, 1986; Harlan & Robert, 1998

Interestingly, many reports indicate that employers efforts at providing accommodations exceed mere compliance with the reasonable accommodation

provisions of the ADA (e.g., Blanck, 1994, 1998; Granger et al., 1997). Some employers are increasingly recognizing that providing accommodations for workers with disabilities often brings other unintended benefits to organizations (Blanck, 1994; Collignon, 1986; Johnson & Baldwin, 1993; Magill, 1997; Montvale, 1988, Weaver, 1991). For instance, providing accommodations for employees with disabilities contributes to an increasingly diverse workforce whose composition mirrors the American population. When an employee is injured on the job or needs some type of additional support to perform the job, accommodations assist in retraining productive and qualified employees.

Similarly, accommodations enhance the economic value of the organization through savings in workers' compensation and other insurance costs (Hall & Hall, 1994; JAN, 1995). For instance, the cost of an employee's, health-related absence is estimated to be 150 percent of that employee's daily compensation, plus any type of wage replacement benefit such as salary continuance and disability payments (Watson & Wyatt, 2001). Lastly, oftentimes accommodations provided to workers with disabilities are utilized to assist non-disabled coworkers to better perform the duties of their jobs (Blanck, 1998; Blaser, 1999, Hall & Hall, 1994; Pitt-Catsouphe & Butterworth).

Despite the recognition by employers that providing accommodations to applicants or employees with disabilities has been a wise business decision, little is known about the resources that employers call upon to identify and develop effective accommodations in order to recruit, hire, and support applicants with disabilities or to assist individuals who become disabled while employed. Furthermore, there are numerous types of workplace supports that have been successfully utilized in assisting people with disabilities in obtaining and maintaining employment. For instance, agency-mediated, business mediated, government mediated, and applicant or employee mediated supports represent broad categories of support available to assist individuals with disabilities in accessing and maintaining employment (see Table 2 on the following page) (Wehman, 1998). Yet, we know very little about employers' knowledge and utilization of these supports or even their own organizational resources utilized to integrate people with disabilities into their workforce.

Table 2: Types of Workplace Supports

Workplace Support Category	Examples of Workplace Supports
Agency Mediated Supports	Job Coach Assistance Assistive Technology Compensatory Strategies Counseling Substance Abuse Services Medical Services Specialized Transportation Vocational Rehabilitation Counselor
Business Mediated Supports	Job Restructuring Workplace Accommodations <ul style="list-style-type: none">◆ environmental modifications◆ assistive technology◆ schedule modification Coworker Mentoring <ul style="list-style-type: none">◆ job task training and support◆ social support Job Creation
Government Mediated Supports	Social Security Work Incentives Tax Credits
Employee Mediated Supports	Personal Care Attendant Peer Mentors Social Support Needs Civic Associations and Organizations

In addition, many representatives from business and industry have expressed concerns about the ability of their organizations to meet the potential support needs of applicants or employees with disabilities (Callahan, 1994; Casper, 1993; Gilbride, Stensrud, & Connolly, 1992; Pitt-Catsouphes & Butterworth, 1995; SHRM/Cornell, 1999). Human resource professionals have indicated that they have limited knowledge or experience in supporting employees with disabilities in their workforce (Casper, 1993; Curry, 1996; Lewis, 1997; Pitt-Catsouphes & Butterworth, 1995). Yet, human resource professionals are often the primary recipients of ADA and disability related training within organizations (Lewis, 1997; SHRM/Cornell, 1999) and are often viewed as a source of information or assistance by other workplace personnel in

identifying and securing accommodations (Bruyere, 2000). Also, there is uncertainty regarding first-line supervisors' ability to identify and develop accommodations for employees with disabilities (Gates, 1993; Harlan & Robert, 1998; Pitt-Catsouphes & Butterworth, 1995; SHRM/Cornell, 1999).

There is also evidence that employers' willingness or ability to provide accommodations may be related to the support needs of workers with disabilities. For example, employers have indicated their willingness to provide accommodations to address mobility impairments, difficulty with concentration, and personal appearance concerns (Michaels et al., 1993). In contrast, they are less willing to provide accommodations for persons to address support needs in the areas of self-direction, work skills, or work tolerance (1993). Employers have also

expressed difficulty in providing accommodations for employees who have visual or hearing impairments (SHRM/Cornell, 1999).

Despite evidence that many organizations are providing accommodations for employees with disabilities, managers and supervisors within these organizations may possess limited knowledge of disability, accommodations, and the ADA. Subsequently, employee requests for accommodations may go unaddressed or be denied due to the supervisors' limited knowledge of accommodations. Research that describes employers' knowledge and utilization of accommodations and the extent to which organizations are able to provide accommodations to address the support needs of workers with disabilities is lacking. Therefore, the purposes of this investigation were to: 1) describe employers' knowledge and utilization of accommodations to address the support needs of workers with disabilities; and 2) investigate the relationship between functional characteristics of workers with disabilities and supervisors' confidence in providing accommodations.

METHOD

Human resource professionals and supervisors within the same organizations were surveyed to determine the extent to which businesses were aware of the vast array of workplace supports available to assist individuals with disabilities with participating in the workforce. Additionally, the study describes the capacity of organizations to address the support needs of workers with disabilities, as well as the specific accommodations provided to workers with disabilities.

Participants

A purposive sampling procedure was used in order to identify employers who had knowingly employed persons with disabilities or had been recognized for disability-friendly work cultures. Employers were solicited from the Society of Human Resource Management, the U.S. Chamber of Commerce, and the Business Leadership Networks affiliated with the President's Committee on the Employment of People with Disabilities. Representatives from these professional organizations provided names and contact information for employer representatives or

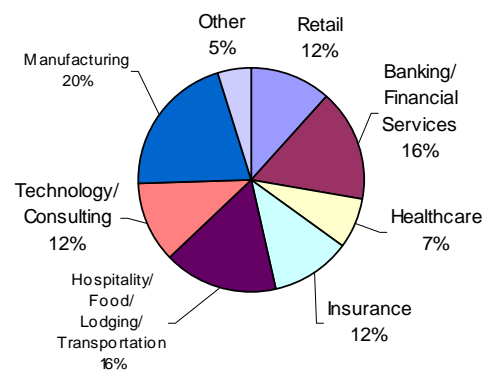
businesses that had indicated a willingness to participate. Potential employer participants were also identified from a report published by the United States Equal Employment Opportunity Commission (1998) that contained a listing of private sector employers who were recognized as effective employers in implementing and complying with employment and discrimination legislation.

Of the 76 businesses contacted, 43 participated in the research, representing a participation rate of 56.58%. Reasons cited by employer representatives for nonparticipation included the inability to secure approval from the organization's legal department, limited organizational resources to devote to collecting the information, and concerns regarding the time it would take to complete the survey. A total of 46 human resource professionals and 255 supervisors, representing 43 businesses, participated in the research.

Employers

The participating businesses were diverse in terms of types of industry and geographic location. The percentage of participation of businesses from each of the seven industry types is depicted below in Figure 1. Employers were predominately larger employers in terms of size of workforce, with a mean size of workforce for participants of 36,168 and a median of 12,000. Only four organizations reported their size of workforce being less than 1000 employees.

Figure 1: Type of Business and Employer Participants
(n = 43)



Human Resource Professionals

Human resource professionals reported being responsible for a variety of human resource functions including compensation, benefits management, health and safety, and organizational development and training. At least one-half of the respondents indicated having responsibilities in the following areas: disability (60.87%); employee relations (58.70%); employment/recruitment (52.17%); and diversity (50%). Human resource professionals also participated in other activities typically associated with an organization's human resources department, but to a far lesser extent. For example, less than one-third reported their responsibilities to include: administrative (28.26%); compensation (26.09%); organizational developmental (19.57%); legal (17.39%); benefits management (15.22%); health/safety and security (17.39%); and industrial relations (13.04%).

Supervisors of Employees with Disabilities

Supervisor demographic information.

Slightly more than half (56.08%) of the 255 supervisors reported relatively long tenures with their respective organizations (employed for at least 10 years). The majority of supervisors indicated they had been employed in their current position for at least one year but less than five (54.12%). Respondents have also spent considerable time in a supervisory position as the vast majority (75.10%) reported having five or more years experience as a supervisor and more than half (54.12%) reported at least 10 years experience as a supervisor.

Employees responsible for supervising. Approximately one-third (32.14%) of the supervisors were responsible for managing 10 or less employees, with one-half of the respondents (52.38%) supervising a unit consisting of 11 to 50 workers. More than two-thirds of the supervisors (69.17%) indicated that they either do not have an employee with a disability or they have one employee with a disability that they presently supervise. Due to the criteria for employer participation, it is possible to have supervisors who do not presently supervise an employee with a disability. However, all supervisors had supervised an employee with a disability within the last six months. Slightly more than one-fourth of the respondents (26.72%) reported having supervised the employee referenced in their survey responses for less than one

year, with the greatest number of supervisors (42.91%) indicating they have been the supervisor of the referenced employee for at least one year but less than three years.

Supervisors' personal experiences relating to disability. Interestingly, a majority of the supervisors expressed having personal experiences with disability outside of the workplace. Almost two-thirds of the respondents (61.57%) reported either having a disability, or having an immediate family member, relative, or friend with a disability. The data indicate that supervisors may have frequent contact, or interactions, with individuals with disabilities outside of the workplace.

Employees with Disabilities

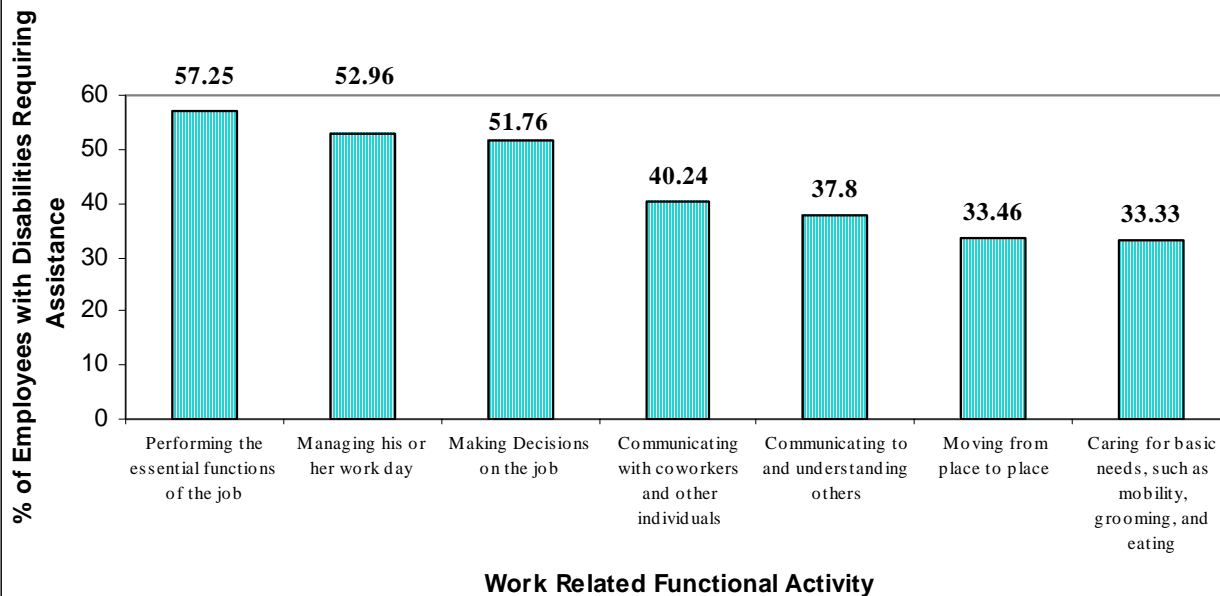
The 255 supervisors responded to items that addressed the functional characteristics of a specific worker with a disability whom they supervised at the time the survey was completed or within six months of the date of completing the survey. The functional characteristics of employees with disabilities were defined by seven measures that described the extent to which employees with disabilities required assistance in completing certain activities. The activities included in the seven measures consisted of: (1) caring for basic needs, such as mobility, grooming, and eating; (2) communicating to and understanding others; (3) moving from place to place; (4) managing one's work day; (5) making decisions on the job; (6) performing the essential functions of the job; and (7) communicating with coworkers and other individuals. The variable is divided into two levels with one level indicating that the employee needs assistance in the functional area and the other level indicating that no assistance is needed. Figure 2 on the following page reports the frequencies for supervisors who indicated that their employee with a disability required assistance with the specific functional activity. Slightly more than half of the employees with disabilities required some level of assistance in performing the essential functions of the job (57.25%), managing their work day (52.96%), or making decisions on the job (51.76).

INSTRUMENTATION

The Human Resource Questionnaire was used to provide a measure of the degree to which businesses or

Figure 2: Functional Characteristics of Employees with Disabilities

(n = 255 supervisors)



organizations were proactive in including individuals with disabilities in their workforce, as well as employer resources available to address the support needs of employees with disabilities. For example, the questionnaire addressed employer characteristics, such as the existence of disability-related training activities, organizational adherence to the American's with Disabilities Act, commitment from top or senior level management, visible activities that contribute to an inclusive organizational culture and knowledge and utilization of workplace accommodations. The designated human resource professional within each organization was responsible for the completion of this instrument through a structured-telephone interview conducted by the researcher.

The Supervisor Questionnaire was completed by supervisors or managers who were responsible for supervising employees with known disabilities and was designed to assess supervisors' perceptions of the work performance of employees with disabilities, as well as their knowledge and utilization of accommodations. The instrument contained items that addressed supervisor characteristics, employee work performance, functional characteristics of employees with disabilities, workplace

integration, and accommodations provided to employees with disabilities.

Additionally, the Supervisor Questionnaire was designed to insure that when supervisors responded to items pertaining to an employee with a disability, they reflected on the items as they pertained to one specific employee. In instances where the supervisor managed more than one employee with a disability, the supervisor was instructed to respond to the survey questions based on his or her experiences with the employee whom he or she has supervised the longest.

Questionnaire Development

Item generation and selection. The initial items included in the instruments were developed by a review of the literature pertaining to: 1) employers' perceptions of Title I of the Americans with Disabilities Act and organizational efforts directed toward implementing the ADA; and 2) employer attitudes toward people with disabilities in the workforce. From a preliminary review of the literature, several categories emerged that provided guidance in the development of questions or specific sub-scales that were used in instrumentation.

The draft surveys were then reviewed by a panel of experts, modified, and then pilot-tested. Representatives from the VCU Charter Business Roundtable, Presidential Task Force on the Employment of People with Disabilities, President's Committee on the Employment of Adults with Disabilities, U.S. Chamber of Commerce, Society of Human Resource Management, National Institute on Disability Rehabilitation and Research, American Telecommuting Association, and employers were mailed a draft of the instruments and asked to provide recommendations on the content. Participants were also provided with a description of the proposed study and asked to provide feedback on the survey items and recommend changes or additions to the instruments.

Additionally, the panel of experts and individuals with disabilities, advocates for people with disabilities, and representatives from business and professional trade associations met in Washington, DC to thoroughly review and provide comment on the content and format of the items included in the questionnaires. As a result of the meeting, the instruments were revised until there was agreement on the format and content of the instruments and to insure that they appropriately addressed the purpose of the research. The instrumentation and procedures were pilot-tested with a large employer located in central Virginia.

Pilot-test. Following the pilot-test, minor changes were made to the content and format of the Human Resource Questionnaire. The final 11-page Human Resource Questionnaire consisted of 48 items categorized into the following areas: respondent demographics (2-items); organizational characteristics and workplace culture (9-items); disability-awareness employer characteristics (21-items); ADA characteristics (10-items); and employees with disabilities (6-items). Response format for the survey items included forced-choice, Likert-scale type, and open-ended.

Minor changes were also made to the content of the Supervisor Questionnaire. The final 11-page instrument consisted of 45 items categorized into the following areas: respondent demographics; employee with a disability characteristics; work performance; accommodations provided for employees with disabilities; and supervisor awareness and utilization of accommodations. Response format for questionnaire items included forced-choice, Likert-scale type, and open-ended.

PROCEDURE

Once commitment was obtained from employer representatives, a human resource professional within each organization was identified in order to participate in a 30-45 minute structured-telephone interview to respond to questions on the Human Resource Questionnaire. Then, the researcher mailed the designated human resource professional a letter containing a brief description of the study, a Human Resource Questionnaire and the corresponding number of Supervisor Questionnaire.

Human resource professionals were also responsible for identifying supervisors who at the time of the study supervised an employee with a disability or had supervised an employee with a disability within the previous six months. The human resource professionals were able to identify supervisors who met this criteria because employees from supervisors' work units had either requested accommodations or self-disclosed their disabilities. A total of 255 completed Supervisor Questionnaires and were returned to the researcher.

Structured-telephone interviews were completed with 46 human resource professionals representing 43 businesses. One organization had three human resource professionals participate and another organization had two human resource professionals participate in the research. Overall, the duration of the interviews ranged from 30 minutes to 1-hour and 45 minutes. The length of the interviews varied depending on whether the respondent had reviewed or completed the survey prior to the structured-telephone interview.

RESULTS

The results provide a description of employers' perceptions of the ability of their organizations to address the support needs of workers with disabilities, their knowledge and utilization of accommodations, and accommodations provided to employees with disabilities. The results from each respondent type, human resource professionals and supervisors, are described independently. Human resource professionals identified sources of organizational assistance in the accommodation process. Supervisors' knowledge and utilization of

accommodations and the accommodations provided to employees with disabilities are also presented. Additionally, inferential statistics were used to investigate the relationship between supervisors' confidence in identifying and developing accommodations and the functional characteristics of employees with disabilities.

Data describing human resource professionals' knowledge of resources to assist in the accommodation process, organizational contact for identifying accommodations, and role in the accommodation process were collected from items contained in the Human Resource Questionnaire. Data describing supervisors' awareness and utilization of accommodations, sources of assistance with identifying and implementing accommodations, and accommodations provided to employees with disabilities were drawn from responses to items contained on the Supervisor Questionnaire.

Employers' Perceptions of Their Organizations' Ability to Support Workers with Disabilities and Provide Accommodations

Human Resource Professionals

Human resource professionals rated their organizations' performance quite favorably on several aspects of employee relations pertaining to employees with disabilities. For instance, the majority of human resource professionals indicated that their organizations were successful in: negotiating reasonable accommodations (82.6%); assigning individuals to jobs that match their abilities (69.57%); implementing return-to-work procedures (60.87%); training employees with disabilities (60.87%); and handling performance problems (60.87%). Additionally, more than three-fourths of the human resource professionals (80.43%) did not view the costs of providing accommodations as a major barrier to employment for people with disabilities in their organizations.

Organizational sources of assistance in the accommodation process. In a majority of the organizations (84.78%), human resource staff were available to assist supervisors in providing accommodations for workers with disabilities. However, several additional organizational resources were also available to assist with the accommodation process. More than half of the human resource professionals (54.35%) claimed that safety or ergonomic staff could assist supervisors with identifying accommodations. To a lesser extent, disability manage-

ment and benefits staff, unit managers, legal counsel, and occupational health were also identified as organizational resources that could assist supervisors with the accommodation process.

Organizational contact for identifying accommodations. Despite having several sources of assistance available to supervisors, human resource professionals in more than three-fourths (78.26%) of the organizations indicated that supervisors should contact the organization's human resource staff (see Figure 3 on the following page). In less than one-third of the organizations, human resource professionals identified occupational health or medical clinic staff (32.61%), safety or ergonomic staff (30.43%), and disability management or benefits staff (30.43%) as other organizational contacts for supervisors when assistance is required in identifying accommodations.

The role of human resource professionals in the accommodation process. Human resource professionals described a variety of activities they engaged in to identify and provide accommodations for workers with disabilities in their organizations. The majority of respondents reported working with supervisors (93.48%) and employees with disabilities (86.96%) to identify potential accommodations. Additionally, human resource professionals referred individuals to appropriate internal (76.09%) or external resources (60.87%), and provided counseling (63.04%).

Supervisors of Employees with Disabilities

Supervisors' confidence in identifying and developing accommodations. Supervisors also expressed confidence in their ability to identify and develop accommodations for workers with disabilities (see Table 3). Almost two-thirds (60.39%) of the supervisors were confident in their ability to identify and provide accommodations for employees with disabilities. Although a small percentage of supervisors still expressed reservations about their ability (15.29%) or authority (6.27%) to identify or develop accommodations. Interestingly, despite supervisors confidence in identifying and developing accommodations, less than one-fourth (22.75%) of the supervisors had the authority to secure accommodations for employees with disabilities.

Figure 3: Supervisor Contact if Assistance is Needed with Accommodations (n = 46 HR Professionals)

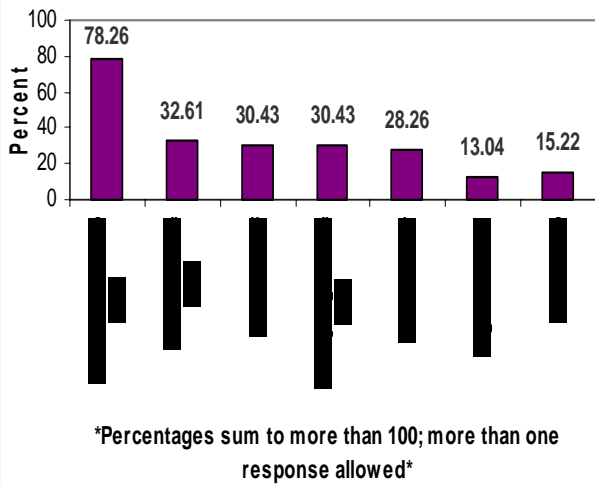


Table 3: Supervisors' Confidence in Identifying and Developing Accommodations (n = 255 Supervisors)

Confident in Ability to Identify and Develop Accommodations	60.39%
Authority to Identify and Develop Accommodations	22.35%
Reservations in Ability to Identify and Develop Accommodations	15.29%
Other	7.84%
Reservations Regarding Authority to Identify and Develop Accommodations	6.27%

More than one response allowed; percentages sum to more than 100

Supervisors' confidence in providing accommodations and functional characteristics of employees with disabilities. For each of the seven functional characteristic measures pertaining to employees with disabilities, a Chi Square Analysis was performed to compare the two levels of assistance to the two levels of

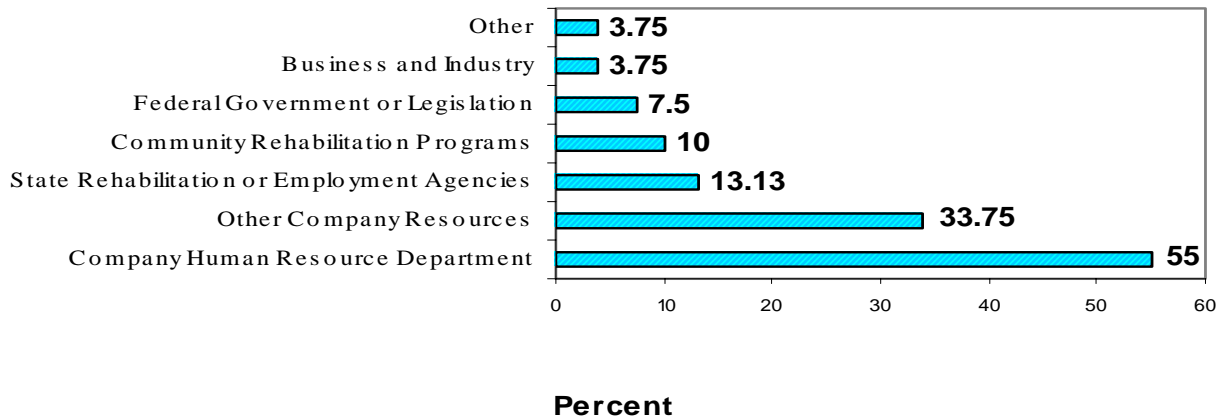
supervisors' confidence in identifying and developing accommodations. Statistically significant effects were found for the functional characteristics of communicating to and understanding others ($\chi^2 = 5.88, p < .05$); making decisions on the job ($\chi^2 = 4.50, p < .05$); and communicating with coworkers and other individuals ($\chi^2 = 4.95, p < .05$). There were no statistically significant effects found when the functional measures of caring for basic needs, moving from place to place, managing the work day, and performing the essential functions of the job were compared to supervisors' confidence in identifying and developing accommodations. The results of the Chi Square analyses indicated that supervisors of employees who are perceived as needing assistance with communicating to and understanding others, making decisions on the job, and communicating with and understanding coworkers are more likely to feel confident in their ability to identify and develop accommodations for employees with disabilities than supervisors who indicated that employees with disabilities did not require assistance in the three functional areas.

Supervisors awareness of accommodations.

Almost two-thirds of the supervisors (62.74%) indicated that they were aware of resources to contact or sources of assistance when accommodations were needed for employees with disabilities. Yet, the 160 supervisors who indicated an awareness of resources to contact most often identified resources within their organization as a source of assistance when seeking information on making accommodations (see Figure 4 on the following page). Sources of assistance in the accommodation process that were external to the organization, such as the State Department of Rehabilitation Services, were also identified by supervisors as a source of information but to a lesser extent than their own company resources.

Sources of assistance in providing accommodations. Supervisors indicated they sought assistance from several organizational representatives or external agencies in arranging accommodations for employees with disabilities. Supervisors most often cited their human resource professionals (78.43%), and to a lesser extent the disability coordinator (24.31%), or other supervisors (22.35%). Resources external to the organization identified by supervisors included ADA and disability-focused websites, community employment programs, and state Department of Rehabilitation Services. The

Figure 4: Resources Identified by Supervisors when Accommodations are Needed (n = 160 supervisors)



Percentages sum to more than 100; more than one response allowed

finding that supervisors most often identified human resource professionals as a source of assistance in the accommodation process is consistent with the finding from human resource professionals that identifies members of the human resource staff as the designated organizational contact for arranging accommodations.

Accommodations Provided to Employees with Disabilities

Supervisors responded to five items pertaining to the provision of accommodations for a specific employee with a disability. The survey items solicited information on accommodations made to employees in five training areas: job duties, schedules, work assignments, and work area. When supervisors reported providing an accommodation for an employee with a disability in a specific area, they were asked to respond to additional questions that focused on the reasons accommodations were needed, types of accommodations provided, and the cost of accommodations.

Work-Related Areas Where Accommodations Were Needed for Employees with Disabilities

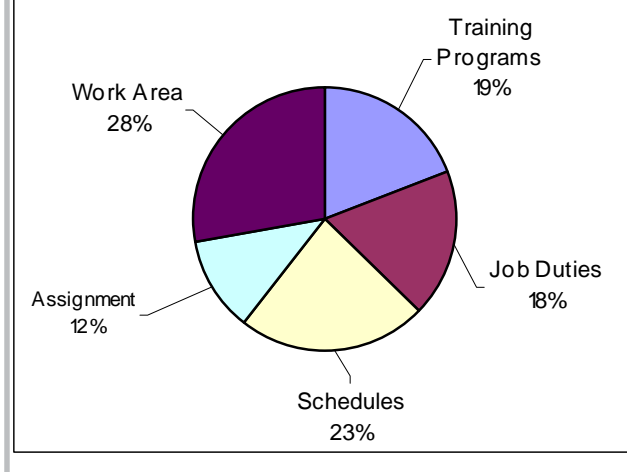
Supervisors reported providing a total of 402 accommodations to the 255 employees with disabilities

across five employment areas: training programs, job duties, schedules, work assignments, and work area. The greatest number of reported accommodations were made to employees' work areas, including existing facilities, equipment, or work stations, followed by changes to employees' schedules (see Figure 5 on the following page).

Reasons Accommodations Were Needed by Employees with Disabilities

Employees with disabilities most frequently needed accommodations to address functional limitations associated with performing work skills. This finding was consistent across four of the five employment categories including job training (54.55%); job duties (57.53%); work assignments (51.06%); and work area, equipment, or workstation (29.46%). When employees with disabilities needed some type of modification or change in their work schedules, employees most often needed the accommodation to address work tolerance concerns (34.41%), which was described as requiring employees to sustain work activities for designated periods of time. Supervisors often indicated that employees with disabilities needed accommodations to address issues related to work tolerance, as it was the second most identified reason

Figure 5: Area Where Accommodations Were Needed for Employees with Disabilities
(n = 402 accommodations provided)



overall. Supervisors perceived employees with disabilities as needing accommodations in the area of work tolerance because they had difficulty staying on task or employees had physical or mental conditions (e.g., carpal tunnel, back problems) that made working for sustained periods of time difficult.

Costs of Accommodations

Across all five categories of accommodations made to employees, supervisors indicated that accommodations were relatively inexpensive. In a majority of the instances (77.90%) of providing accommodations within each of the five categories, supervisors reported the costs of accommodations to be less than \$100.00. The data indicate that in a small number of incidences, employers had to make structural changes to their offices or buildings that drove up the costs of the accommodations in the work area category. Many supervisors were also fairly accurate in assessing the potential cost of accommodations, as the majority (65.5%) indicated that the costs of accommodations were about the same as they had expected. Additionally, accommodations were most often paid for by the organization or the employees' work units. In rare instances, accommodations were paid for by the employee or external sources, such as the Department of Rehabilitative Services.

DISCUSSION

Organizational representatives are confident in their ability to meet the support needs of employees with disabilities. Both groups of respondents, human resource professionals and supervisors, indicated that they believed their organizations had the capacity to address the support needs of employees with disabilities. For instance, human resource professionals identified several resources within their organizations that could assist with identifying and developing accommodations for workers with disabilities. Likewise, supervisors acknowledged the fact that workplace personnel such as representatives from the disability management program, safety or ergonomics department or legal counsel were available to assist in the accommodation process. It is believed that the presence of disability management programs helps to address the lack of supervisor knowledge regarding disability (SHRM/Cornell, 1999). It is also encouraging that the majority of human resource professionals (82.6%) rated the performance of their organizations quite favorable in relation to providing accommodations to employees with disabilities.

Additionally, the majority of supervisors (60.39%) expressed confidence in their ability to identify and develop accommodations to address the support needs of workers with disabilities. Supervisors' confidence in identifying and developing accommodations may increase the likelihood of effective accommodations being identified and implemented. For the supervisors in this study, the vast majority were extremely confident in their ability to address the support needs of workers with disabilities and felt comfortable in doing it.

This finding is encouraging in light of the results of previous investigations completed with workplace personnel regarding supervisors' ability to accommodate people with disabilities. For example, human resource professionals have indicated that supervisors' limited knowledge of accommodations represent a barrier to employment for people with disabilities in their workforce (Presidential Task Force on Employment of Adults with Disabilities, 1999; SHRM/Cornell, 1999). Supervisors have also indicated that even though they were able to assess employee performance problems and identify

potential solutions, they were often unsuccessful in securing needed accommodations (Pitt-Catsouphes & Butterworth, 1995)

Despite supervisors' confidence in identifying and developing accommodations for employees with disabilities, an alarming majority of supervisors indicated that they did not have the authority to secure accommodations for workers with disabilities. Oftentimes, supervisors may be the initial point of contact for an employee who requests an accommodation. If supervisors do not have the authority to obtain necessary accommodations for members of their work unit, than employees' requests for accommodations may go unaddressed by supervisors. As a result, the organization may encounter a number of issues involving work performance and employee relations. For instance, failing to respond promptly to an employee's need for accommodation may contribute to coworker perceptions that the worker with a disability is hurting the performance of their work unit. Supervisors' knowledge of a variety of workplace accommodations, their confidence in identifying effective supports, and having the authority to secure accommodations that adequately address the support needs of workers with disabilities are several factors that may impact the inclusion, retention, and advancement of employees with disabilities.

Employers have limited awareness of the variety of workplace supports available and rely almost exclusively on internal organizational resources to address the needs of applicants or employees with disabilities. Human resource professionals play a pivotal role in integrating and retaining persons with disabilities in the workforce. The results of this study indicated that many organizations relied heavily on human resource professionals as the primary source of information and assistance in identifying and developing accommodations for employees. For instance, even though supervisors expressed confidence in their ability to identify and develop accommodations, the majority of supervisors (78.43%) also identified human resource professionals as the organizational contact person from whom they sought assistance when accommodations were needed for workers with disabilities. In many organizations, human resource professionals are often the critical contact for other workplace personnel in an effort to secure accommodations (Bruyere, 2000; Unger, Wehman, Yasuda, Campbell, & Green, 2001).

More than three-fourths of the human resource professionals (78.26%) also indicated that supervisors should contact the organization's human resource professionals in instances when accommodations are needed for workers with disabilities, despite the availability of other organizational resources. Interestingly, many of the participating businesses have well-established disability management programs that may contain components related to workplace safety and ergonomics. Yet, neither disability management programs or safety and ergonomic staff were widely viewed as a source of assistance in identifying and developing accommodations for workers with disabilities.

Additionally, it is reasonable to believe that if businesses are not utilizing disability management programs as a resource for employees with disabilities during the accommodation process, than these programs represent an untapped resource when considering feasible accommodations and job modifications for potential applicants with disabilities. It may be alarming that many of the participating organizations have disability management programs, but fail to recognize or utilize these programs in providing accommodations to workers with disabilities.

Similarly, supervisors in this study identified a limited number of supports external to their organization that are available to assist persons with disabilities in the workplace. For example, supervisors rarely identified representatives from the state department of rehabilitation agency or employment agencies as a source of information or assistance in the accommodation process. Very few supervisors identified government tax credits, such as the Work Opportunity Tax Credit, the Disabled Access Credit and the Tax Deduction to Remove Transportation and Architectural Barriers, or ADA and disability-focused websites, as a source of information or assistance in identifying and developing accommodations. Supervisors had limited knowledge of the availability of tax credits as a source of assistance in employing and supporting people with disabilities in their workforce.

Some employers have viewed the disability-related tax incentives as more trouble than they are worth, citing a cumbersome application process and skepticism surrounding the Federal agency (i.e., the Internal Revenue Service) that manages the application process (O'Leary & Dean, 1998). We know from supervisors'

descriptions of accommodations provided to employees with disabilities that they are not using the tax credits to recoup some of the costs associated with making structural changes to the workplace, or collaborating with rehabilitation professionals to identify accommodations to address limitations in work skills.

It is also evident that employers in this study do not view the myriad of government-funded employment and training programs or disability-related technical assistance centers as a source of assistance in supporting persons with disabilities in their organizations. In situations when vocational rehabilitation and supported employment providers have been successful in assisting individuals with disabilities with securing employment, employers still do not view these disability-employment providers as sources of information or assistance on disability and workplace issues such as arranging accommodations, addressing performance problems, or return-to-work.

The majority of employers in this study indicated they could adequately address disability in the workplace relying primarily on organizational resources. Therefore, they may have had little need for any of the services available through the disability-related employment training programs or technical assistance centers. Even still, some employers may not view these programs as sources of assistance in addressing disability in the workplace or may remain unaware of the services these programs offer. For example, employers who have knowingly employed a worker with a disability through the state vocational rehabilitation program reported very limited knowledge of the services offered by the vocational rehabilitation agency (Gilbride, Stensrud, Ehlers, Evans, & Peterson, 2000).

Functional Characteristics of Employees with Disabilities and Accommodations Provided to Workers with Disabilities. In addressing disability in the workplace, organizations provided a number of accommodations to employees with disabilities to address limitations in several employment-related areas, such as employee training, work assignments, work areas and schedules. Overall, these accommodations were relatively inexpensive (e.g., less than \$100) and most often involved changes in job duties, functions, and or work processes or purchasing materials or equipment.

Though a number of organizations have taken a proactive approach to disability in the workplace, it is

unclear the extent to which the breadth and depth of employers' knowledge of accommodations have been tested. Anecdotally, we know from the supervisors' descriptions of accommodations provided to employees with disabilities, that despite providing a number of accommodations, the accommodations appear very limited in scope.

Thus, supervisors may be comfortable in addressing the support needs of employees with disabilities when they are able to readily address employees' need for accommodations or have direct interaction or control in arranging and implementing the accommodations. In contrast, supervisors may be less sure of their ability to address functional limitations of employees with disabilities when it necessitates structural changes to the work environment, providing non-job function related assistance, and altering aspects of jobs or positions resulting in deviations from typical organizational descriptions, standards, or norms. Adding further credibility to this funding is the fact that only a very small percentage of supervisors believed they had the authority to grant necessary accommodations to employees with disabilities, despite the majority of supervisors indicating confidence in their ability to provide accommodations.

IMPLICATIONS

The findings of this investigation have several implications for vocational rehabilitation, supported employment providers, and employers. These implications pertain to increasing employers' knowledge and awareness of the variety of workplace supports that are available to assist persons with disabilities in obtaining and maintaining employment.

Vocational Rehabilitation and Supported Employment Providers

Development of public-private partnerships that assist employers in addressing workplace disability. Rehabilitation professionals and employment support providers have primarily focused on providing services to job seekers and assisting them in accessing employment. The major thrust of vocational rehabilitation services has been entry into the labor market for persons with disabilities. Yet, to employers in this study, they

represent an untapped resource in that regard (see e.g., Unger, et al., 2001) and an even more limited resource in addressing the support needs of existing workers who are injured or become disabled while employed. These findings validate the fact that more effective efforts need to be directed at insuring that business representatives are aware of programs that assist people with disabilities in accessing and maintaining employment (Bush, 2001; Buys & Rennie, 2001; Gilbride, et al, 2000; Presidential Task Force, 1999). The results of this study may also provide evidence that rehabilitation and employment support providers are not effectively marketing the wealth of services they can provide to the business community.

New service delivery models, consisting of private and public partnerships in which human service agencies focus solely on supporting businesses, need to be developed and implemented. For instance, rehabilitation and employment support providers should work collaboratively with organizational representatives in addressing disability in the workplace. As a result, the focal point of services would shift to managing disability in the workplace in which direct assistance would be provided to employers in addressing the support needs of workers or applicants with disabilities, unlike the existing vocational rehabilitation service model where the primary emphasis is on securing employment.

Efforts to provide comprehensive rehabilitation-related consultation services to the business community should be encouraged. These services need to be viewed by employers as a proactive approach to tapping an underutilized source of labor--people with disabilities (Buys & Rennie, 2001; Gilbride, et al., 1992). Included in these approaches should be an emphasis on marketing rehabilitation services as one method for diversifying a company's workforce, assisting employers in addressing the support needs of workers who are injured or become disabled while employed, and communicating the unintended benefits of accommodations. Most importantly, rehabilitation and employment support providers should be able to convey to employers the business case for hiring individuals with disabilities and returning workers who become injured or disabled back-to-work. The costs (e.g., lost productivity and absenteeism) to employers for not returning employees who become injured or disabled back to work has been well documented (Chelius, Galvin, & Owens, 1992; Hunt, Habeck, Owens, & Vandergoot, 1996; Watson Wyatt, 2001).

Providing technical assistance and training to employers. There is a need for increased employer awareness regarding the variety of services and tax incentives that are available to assist employers with recruiting and retaining individuals with disabilities in their workforce. Typically, representatives from employment support providers or vocational rehabilitation professionals should be able to provide information and resources in this area. However, employers' skepticism surrounding government involvement in business activities have made some employers reluctant to consider using government-sponsored programs such as supported employment, (Owens-Johnson & Hanley-Maxwell, 1999), vocational rehabilitation, or tax incentives for providing accommodations or employing people with disabilities (O'Leary & Dean, 1998). Many employers who have no prior experience with these programs appear to value and give greater credibility in information originating from their own affiliations with professional trade or industry associations, local Chamber of Commerce, or the Society of Human Resource Management (Nietupski, Harme-Nietupsk, Vanderhart, & Fishback, 1996; Owens-Johnson & Hanley-Maxwell, 1999).

Therefore, rehabilitation and employment support providers should work collaboratively with representatives from their local Chamber of Commerce, the Society of Human Resource Management, and other professional business and trade associations to provide information, or training and technical assistance to employers. The dissemination of information, through business and professional organizations, on work supports and assistance in identifying qualified applicants with disabilities should receive increased attention and credibility by employers.

In providing technical assistance and training to business and industry, rehabilitation and employment support providers should also acknowledge the wealth of organizational resources, including workplace personnel and existing disability-related programs, that are available within businesses to address disability in the workplace. In the past, rehabilitation professionals or employment support providers have marketed themselves as being the primary source of information and expertise on workplace assistance as it pertains to the individuals with disabilities to whom they provide services. Increasingly, rehabilitation professionals and employment support providers are working collaboratively with employers to address the

support needs of workers with disabilities, due in part to the emergence of innovative workplace supports such as natural supports and assistive technology.

However, often times they may overlook existing employer or organizational resources, such as disability management programs or occupational health professionals that are available to provide assistance. Vocational rehabilitation and employment support providers need to capitalize on the expertise of these organizational representatives when securing employment and implementing accommodations for people with disabilities.

Though employers in this study indicated that their organizations were handling workplace disability remarkably well, there was some indication they may have difficulty addressing the support needs of applicants or workers who have more significant functional limitations. When employees with disabilities needed assistance in managing their workday or performing job-related tasks, organizations were less confident in their ability to address their support needs. Training and technical assistance should be directed at employers to assist them in meeting the needs of the employees with disabilities that their businesses have expressed the least experience or confidence with in identifying workplace supports.

Employers

Increase workplace knowledge of accommodations. Employers indicated they are quite confident in their ability to identify and develop accommodations for workers with disabilities. Yet, there is some indication that supervisors may have difficulty in providing adequate accommodations for workers with more significant support needs. It is also reported that supervisors make the final decision on accommodations (Presidential Task Force on Employment of Adults with Disabilities, 1999). For these reasons, insuring that the appropriate organizational representatives, whether it is human resource professionals or supervisors or managers, possess the knowledge and capabilities to identify and secure accommodations is critical.

Business and industry representatives need to expand considerably their knowledge of accommodations to address the support needs of workers with significant disabilities and persons who experience difficulty in performing job-specific duties to the employers' expectations. Technical assistance and training activities should

focus on promoting greater awareness of accommodations, knowledge of accommodations that address specific functional limitations, and sources of external assistance in the accommodation process. Within their own organizations, businesses could promote the awareness of accommodations that have been demonstrated to be effective in addressing work performance issues. For example, workplace accommodations that have been successful for employees with disabilities often times result in unintended benefits for other members of the workforce in terms of increasing productivity or improving performance.

Additionally, internal tracking of accommodations, or data pertaining to accommodations, would assist employers in identifying potential problem work areas that may lead to injury or disability. Many businesses lack information systems to track accommodations, disability experience and business impact (Collignon, 1986; McFarlin, et al., 1991; Watson Wyatt, 2001).

Dissemination of effective accommodation practices. Lastly, employers who have successful accommodation strategies need to share their practices and experiences with representatives from other businesses. For instance, organizations should use their affiliations with business, trade and professional organizations, such as the U.S. Chamber of Commerce, and SHRM, to disseminate information to other businesses. Sharing successful business and disability strategies provides an opportunity for other employers to develop or modify existing disability-related practices.

CONCLUSION

The fact that employers are addressing disability in the workplace and believe they have the capabilities and resources to address the support needs of workers with disabilities is especially encouraging. Yet, employers have very limited knowledge of the variety of workplace supports available that could potentially assist them in employing people with disabilities and assisting employees who become injured or disabled in returning to work. The ability of organizations to expand their knowledge of workplace supports and address disability in the workplace will assist them in attracting and retaining valuable human resources in an increasingly competitive global marketplace.

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