

Chapter 3

How Do Front-Line Supervisors in Business Perceive the Performance of Workers with Disabilities?

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Front-line supervisors often have responsibility for assessing employee work performance and addressing productivity issues. Yet, much of the findings regarding employers' perceptions of individuals with disabilities in the workforce are derived from workplace personnel who have little or no experience with actual employees with disabilities. In this study, 255 supervisors of employees with known disabilities were surveyed about their experiences with employees with disabilities in their work units. Findings indicated that supervisors were quite satisfied with the work performance of employees with disabilities and that their performance was similar to that of their nondisabled coworkers. However, supervisors' perceptions of employees work performance differed based on the perceived functional limitations of the employee and their personal experiences with disability.

Employers' attitudes toward people with disabilities in the workforce have been extensively studied (Kregel & Unger, 1993). The results indicate that the expressed attitudes of employers toward applicants or workers with disabilities are often contradictory (see e.g., Fuqua, Rathburn, & Gade, 1984; Levy, Jessop, Rimmerman, & Levy, 1992; Phillips, 1975). Some investigators have reported that employers rate the work performance of employees with disabilities quite favorably, while other studies have found just the opposite; employees with disabilities are sometimes rated poorly in comparison to other employees. Despite an abundance of research, there is uncertainty surrounding employers' perceptions of the ability of applicants or workers with disabilities to contribute to organizational productivity and profitability.

The differences in the expressed attitudes of employers can be attributed to the variety of research

methodologies utilized to investigate their perceptions of people with disabilities in the workplace (Unger, 2001). Prior research in this area has identified a variety of organizational, respondent, and worker characteristics that may influence employer attitudes. One of the most critical factors impacting the results of employer attitudinal research focuses on characteristics of respondents representing participating organizations, specifically, their previous experiences and degree of contact with people with disabilities in their organizations. The manner in which "previous experience" has been defined varies widely across studies, making it difficult to compare results.

Furthermore, in some studies, organizational representatives were questioned about their perceptions of hypothetical employees or applicants with disabilities as opposed to their direct experiences with workers whose disabilities have been disclosed. The fact that much of the existing research examines employers' attitudes based on hypothetical applicants with disabilities (see e.g., Bricourt & Bentley, 2000; Christman & Slaten, 1991; Millington, Szymanski, & Hanley-Maxwell, 1994; Smith, Edwards, Heinemann, & Geist, 1985) or their perceptions of persons with disabilities in the workforce in general (see e.g., Diksa & Rogers, 1996; Levy et al., 1993) contributes to conflicting information regarding the employment potential of people with disabilities.

Similarly findings often reflect the views of executives, human resource professionals, or workplace personnel who do not interact on a daily basis with employees with disabilities (e.g., Diksa & Rogers, 1996; Levy, Jessop, Rimmerman, Francis, & Levy, 1993; Levy et al., 1992; Phillips, 1975) as opposed to supervisors or managers with direct experience in managing or support-

ing workers with disabilities. Surveying human resource professionals or workplace personnel who lack direct experience or interaction with employees with disabilities may also result in a variety of myths and misconceptions pertaining to the work capabilities or performance of individuals with disabilities.

The front-line supervisor, the person having the most direct and immediate supervisory contact with the worker, is a key determinant of successful long-term performance and retention of all employees. It is usually this person who must resolve interpersonal conflicts, productivity issues, and work habit problems. Findings have demonstrated a critical link between supervisor or managerial behaviors and employee outcomes, such as satisfaction (Church, 1995; Ting, 1997), organizational commitment (Ensher, Grant-Vallone, Donaldson, 2001), and work performance (Mott, 1972). Yet, we know relatively little about how supervisors feel about employees with disabilities. This is further complicated by the fact that not all workers choose to disclose their disability.

Organizational representatives are seldom asked to evaluate the performance or work habits of an actual employee whose disability has been disclosed. Instead, employers are questioned about their willingness to hire or their perceptions of the work potential of people with different disability labels (e.g., Diksa & Rogers, 1996; Levy et al., 1993; Levy et al., 1992; McFarlin, Song, & Sonntag, 1991; Millington et al., 1994). Although respondents may indicate that their organizations have hired people with disabilities in the past, their first-hand experiences may not be reflected in their responses to questions regarding the work performance of employees with disabilities (Johnson, Greenwood, & Schriener, 1988).

Employers who have first-hand experience with working with employees with disabilities report favorable assessments of their work performance and work habits. For example, employers who have hired workers with disabilities through employment support programs were satisfied with work performance of workers with disabilities (Kregel & Unger, 1993; Petty & Fussel, 1997). Additionally, workers with disabilities hired through supported employment programs also received satisfactory supervisory ratings in several work-related areas including attendance (Shafer, Hill, Seyfarth, & Wehman, 1987), dedication (Neitupski, Hamre-Neitupski, Vanderhort, & Fishback, 1996; Shafer, et al., 1987), safety (Shafer, et al.,

1987), work quality (Neitupski, et al., 1996), and job retention (Zivolich & Weiner-Zivolich, 1997).

Employers with direct experiences with workers with disabilities have also rated the work performance of these employees the same as or better than the performance of nondisabled employees (DuPont, 1990; Graffam, Smith, Shinkfield, & Polzin, in press; Marcouiller, Smith, & Bordieri, 1987; Reisman & Reisman, 1993). For instance, the DuPont Corporation has surveyed managers or supervisors of employees with disabilities on four separate occasions, commencing in 1958, regarding the work performance of employees with disabilities. The results of their research efforts in 1958, 1973, 1981, and 1990 have consistently demonstrated that employees with disabilities are equivalent to other DuPont employees in job performance, attendance, and safety. Findings from the most recent study (DuPont, 1990) indicated that the majority of employees with disabilities were rated average or above average in safety (97%), attendance (86%), and performance of job duties (90%).

Existing myths and misconceptions pertaining to the work potential of individuals with disabilities may be derived from the fact that little research exists that describes the experiences of workplace personnel who have direct interaction with workers with disabilities on a frequent basis. Supervisors play an increasingly important role in assisting employees with disabilities in the workplace. Therefore, the purpose of the investigation was to address shortcomings in prior employer attitudinal research by surveying a national sample of employers and by examining:

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- 1) supervisors' assessment of the work performance of employees with known disabilities and comparing their work performance to coworkers without known disabilities;
 - 2) the relationship between supervisor characteristics (e.g., prior experience with workers with disabilities and length of time as a supervisor of the employee with a disability) and their assessment of employee work performance; and
 - 3) the relationship between functional characteristics of workers with disabilities and supervisors' assessments of employee work performance.
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METHOD

This analysis is part of a larger study of employers' experiences with workers with disabilities and their knowledge and utilization of accommodations in which both human resource professionals and supervisors within the same business were surveyed (Unger, 2001). A total of 43 businesses participated in the larger research. The sample for this study represents responses from 255 supervisors employed by 35 of the businesses that participated in the larger study.

Sample

A purposeful 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 might be willing to participate in the research. 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 discrimination legislation.

The first step was contacting the organizational representative and describing the purpose of the study, what would be required of employers, and the criteria for participation. Each business was asked to identify 10 supervisors who at the time of the research supervised an employee with a known-disability or had supervised an employee with a disability within six months of the survey. In some instances, referral was made to a more appropriate individual in the organization who possessed greater knowledge about workplace disability. The contact person was responsible for identifying supervisors, disseminating and collecting Supervisor Questionnaires, and returning questionnaires to the researcher.

Initially, 43 employers agreed to participate in the research. However, after Supervisor Questionnaires were

disseminated, 8 of the 43 employers were unable to participate. Reasons cited by employer representatives included the organizational contact persons' inability to identify employees with disabilities; workplace policies; time commitment; supervisors' unwillingness to complete the questionnaire; and mergers or some type of workforce restructuring. The mean number of Supervisor Questionnaires returned per business was 5.93 surveys.

Instrumentation

The Supervisor Questionnaire was completed by supervisors or managers who were responsible for supervising employees with known-disabilities and designed to assess supervisors' perceptions of the work performance of employees with disabilities, as well as their knowledge and utilization of accommodations. The 11-page instrument consists of 45-items categorized into the following areas: respondent demographics, employee with a disability characteristics, work performance, accommodations provided for employees with disabilities, and supervisors awareness and utilization of accommodations. Response format for questionnaire items included forced-choice, likert-scale type, and open-ended.

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 experiences with the employee whom they had supervised the longest. A detailed description of the development of the questionnaire appears in Chapter 1 of this monograph.

Procedure

Within each business, the organizational contact person, typically a designated human resource professional, was 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. Once completed questionnaires were collected, the organizational contact person routed the surveys to the researcher in a pre-addressed, postage paid envelope.

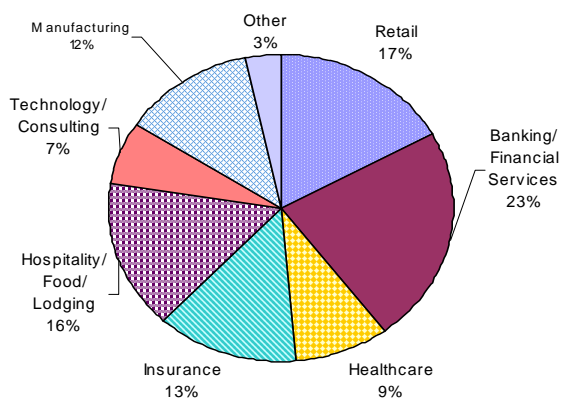
RESULTS

Information was gathered from 255 supervisors of employees with known disabilities within 43 large businesses. The results provide a description of supervisor characteristics, functional characteristics of their employees with disabilities, supervisors' assessment of work performance, and the work performance of employees with disabilities as compared to their nondisabled coworkers. The results also provide a description of the relationship between: a) the functional level of employees with disabilities and supervisors' ratings of work performance; and b) supervisors' personal experience relating to disability and their ratings of employee work performance.

Employers

The participating businesses were diverse in terms of types of industry and geographic location. The percentages of supervisors per industry are contained below in Figure 1. Employers were predominately larger employers, with a mean workforce size of 36,168 and a median of 12,000. Only four organizations reported their size of workforce being less than 1000 employees.

Figure 1: Supervisor Participants Per Type of Industry
(n = 255)



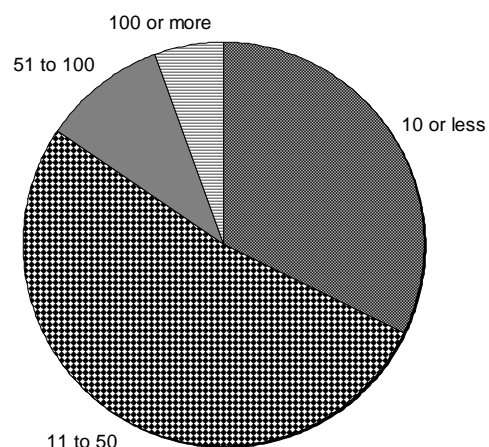
Supervising of Employees with Disabilities

Slightly more than half (56.08%) of the supervisors reported being employed by their company 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. As depicted in Figure 2, less than one-third (32.14%) of the supervisors were responsible for managing 10 or less employees, with approximately 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 did 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.

Figure 2: Number of Employees Directly Reporting to Respondent
(n = 255)



Supervisors' personal experiences relating to disability. Almost two-thirds of the respondents (61.5%) reported either sharing a disability or having an immediate family member, relative, or friend with a disability. As illustrated in Figure 3 below, more than one-third of supervisors reported having a friend (33.73%) or neighbor or community member (36.08%) with a disability. Interestingly, about one-fourth of the respondents reported having an immediate family member (23.92%) or relative (27.06%) 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 they supervised. The functional characteristics of employees with disabilities were defined by seven measures that describe the extent to which employees with disabilities required assistance in completing certain activities (see Figure 4). Over one-half of the supervisors indicated their employees with disabilities required some level of support in performing the essential functions of the job (57.25%), managing his or her work day (52.96%), or making decisions on the job (51.76%).

Work Performance of Employees with Disabilities

Employee performance assessment. The 255 supervisors indicated they were satisfied with the work performance of the worker with a disability in the areas of timeliness of arrival and departure, punctuality, attendance, and consistency in task (see Figure 5). However, supervisors reported less favorable ratings regarding the individual's work speed. Additionally, work performance measures that reflected general worker behavior (e.g., timeliness, punctuality, attendance) were rated higher than items that reflected characteristics associated with specific job functions such as work speed and task consistency.

Employee performance assessment compared to coworkers. Mean scores were also calculated and ranked for six measures of employee work performance in relation to the performance of their nondisabled coworkers. Supervisors indicated that the work performance of employees with disabilities was the same as or better than coworkers on almost all of the measures of work performance (see Figure 6). In the areas of punctuality, attendance, work quality, task consistency, and overall proficiency, supervisors rated the work performance of employees with disabilities the same or better than coworkers. In the area of work speed, supervisors

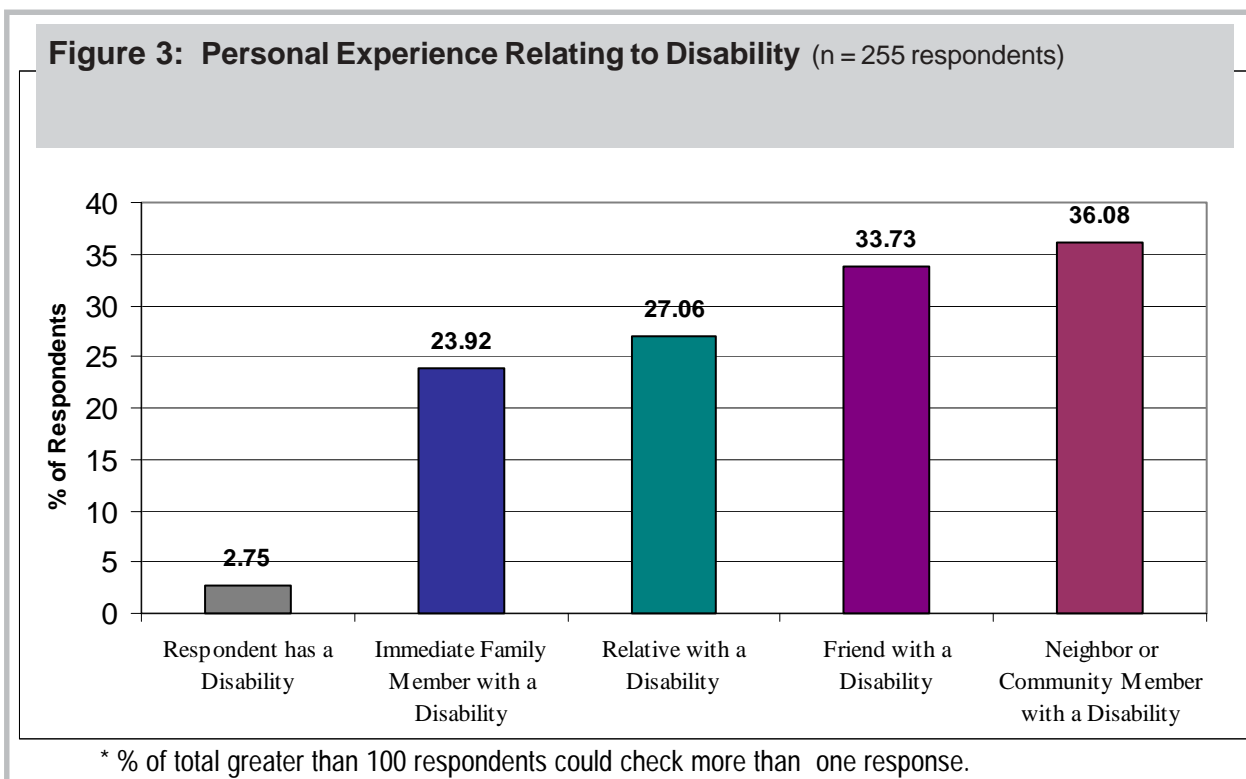
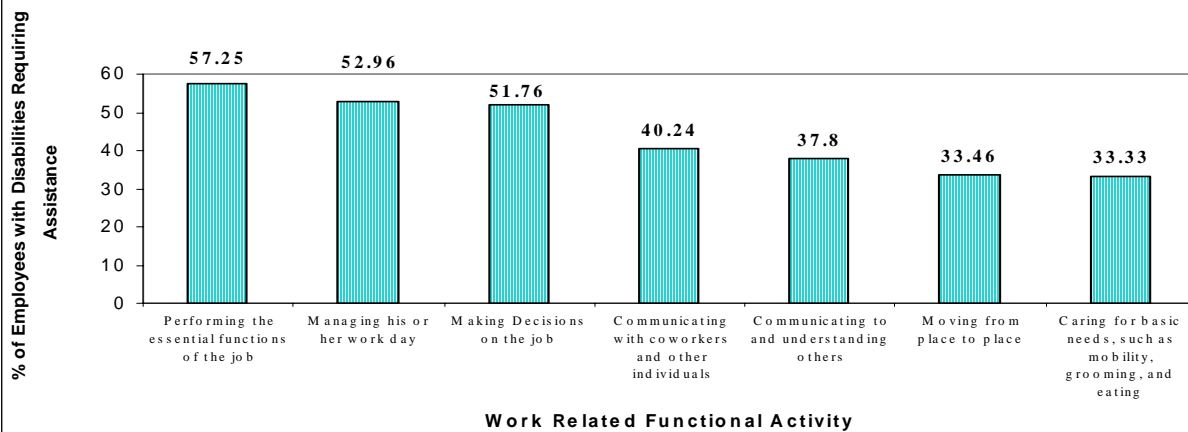


Figure 4: Extent to Which Employees with Disabilities Required Assistance in Completing Certain Activities (n = 255 supervisors)



indicated that workers with disabilities performed about the same as coworkers. Performance measures that directly pertained to job duties or tasks (e.g., work speed) were rated less favorably than measures pertaining to general work habits or characteristics (e.g., attendance, punctuality).

Supervisors' Personal Experiences Relating to Disability and Perceptions of Employees Work Performance.

For the purpose of data analysis, all respondents who reported having any personal experience with persons with disabilities, or having a disability, were grouped together as were respondents who reported no personal experience related to disability. This resulted in two categories for the variable personal experience relating to disability. Work performance was analyzed on an individual basis, with five measures pertaining to employee work performance (Figure 5) and six measures pertaining to employee work performance in comparison to coworkers (Figure 6). Additionally, an index of employee work performance was developed which consisted of the five individual work performance measures.

The data indicate that supervisors with no experience relating to disability were more satisfied with the work performance of workers with disabilities in each of the five work performance areas when compared to supervisors reporting a personal experience relating to disability. However, only the attendance measure produced a statistically significant finding ($t = .018, df = 231, p < .05$). Supervisors with no personal experience relating

to disability indicated greater satisfaction with the attendance of employees with disabilities than supervisors reporting a personal experience relating to disability.

The Employee Work Performance Index was created using the five-individual work performance measures. Cronbach Alpha computation for index reliability indicated that the work performance measure of speed was inconsistent with other work performance measures and therefore was eliminated. The Cronbach Alpha computation for the subsequent index produced a reliability coefficient of .86. A mean Employee Work Performance Index score was computed for each respondent by summing the scores for the four individual work performance measures and then computing a mean score.

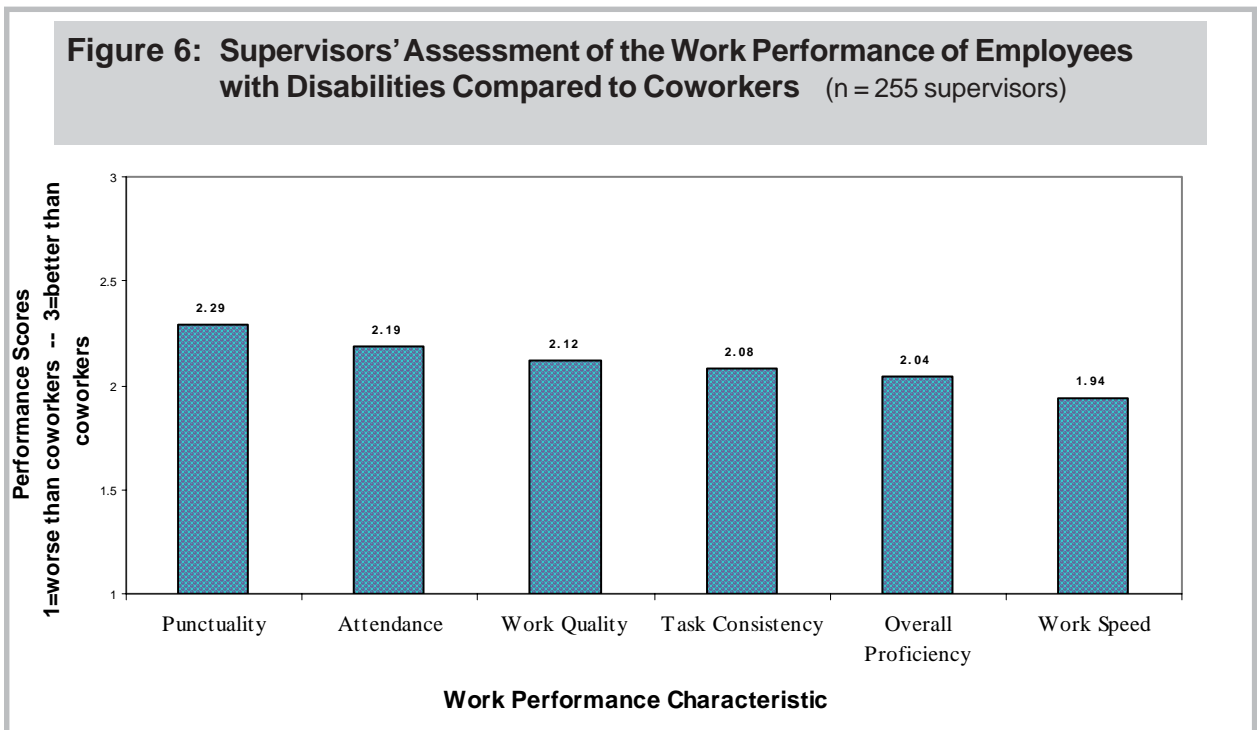
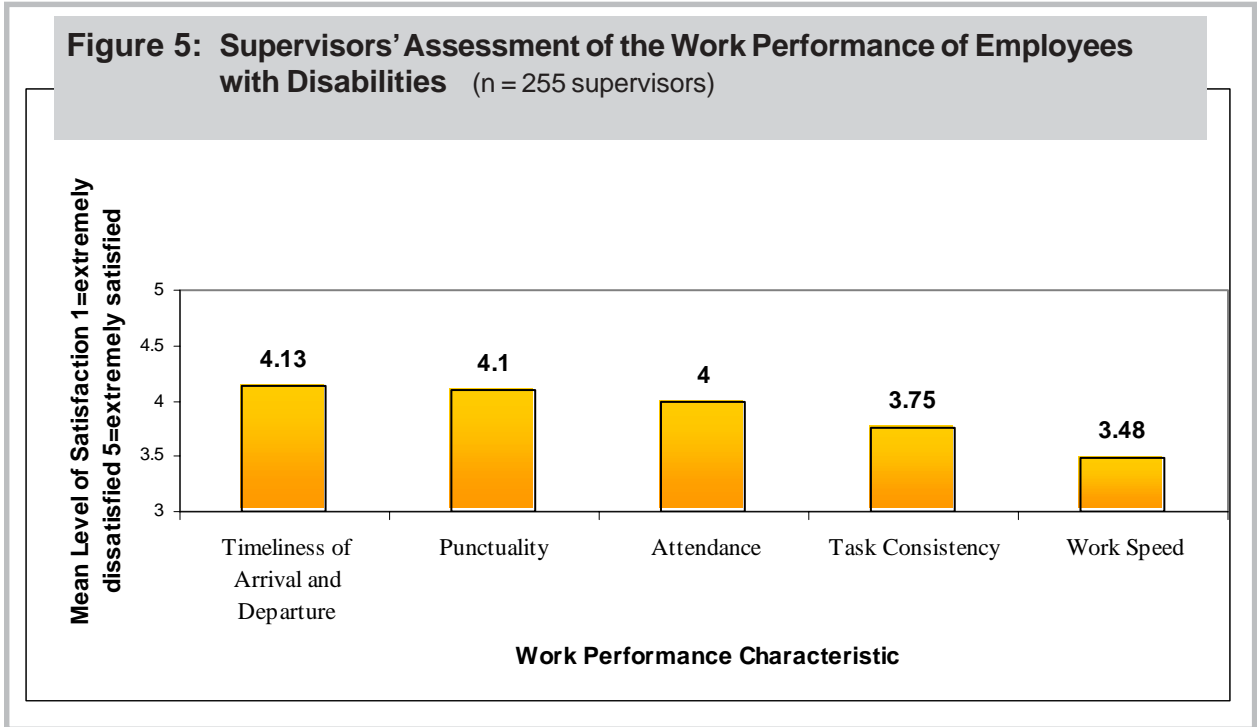
Using the means of the Work Performance Index for each group of supervisors, significant differences were also found ($t = .0288, df = 225, p < .05$) between supervisors with personal experiences relating to disability and supervisors with no personal experiences relating to disability regarding their perceptions of the work performance of employees with disabilities. Interestingly, supervisors with no personal experiences relating to disability were more satisfied with the work performance of employees with disabilities in comparison to supervisors who reported a personal experience with disability.

Supervising Employees with Disabilities

Slightly more than one-third (34.90%) of the supervisors believed they provided more supervision to

employees with disabilities than they did to nondisabled employees. Of the 89 supervisors who indicated that employees with disabilities required additional supervision, almost half indicated that employees with disabilities had difficulty staying on task (44.94%). Supervisors also suggested that employees with disabilities required

additional supervision in order to complete work on time (34.83%), remember all of the required job duties (29.21%), and not be disruptive to coworkers (17.98%). Other reasons identified were increased reporting requirements and the employee's need for assistance and feedback.



Relationship Between Functional Characteristics of Employees with Disabilities and Their Supervisors' Perceptions of Work Performance

In order to investigate the relationship between employees' functional characteristics and supervisors' perceptions of the work performance of employees with disabilities, t-tests were completed for each of the seven functional characteristics measures with each of the five individual measures of work performance. No significant relationships were found between four of the functional characteristic measures and any of the five measures of supervisors' perceptions of the work performance of employees with disabilities. These functional characteristics included the extent to which employees with disabilities required assistance or help in: (1) caring for basic needs (e.g., mobility, grooming, eating); (2) communicating to and understanding others; (3) moving from place to

place; and (4) communicating with coworkers and other individuals.

However, the results of t-tests for the functional characteristics of managing the work day, making decisions on the job, and performing the essential functions of the job revealed significant relationships with each of the work performance measures. Table 1 below contains the mean scores of supervisors' perceptions of the three categories of functional characteristics of employees with disabilities for each work performance measure. As the data indicate, supervisors who did not perceive employees with disabilities as needing assistance in managing work day, making decisions on the job, and performing the essential functions of the job, rated the work performance of employees with disabilities higher than supervisors who perceived employees with disabilities as needing assistance in the three functional areas.

Table 1: T-Tests for Functional Characteristics of Employees with Disabilities and Supervisors Perceptions of Work Performance (n = 255 supervisors)

Functional Characteristics	Needs Assistance	INDIVIDUAL WORK PERFORMANCE MEASURES				
		Timeliness of Arrival & Departure	Attendance	Punctuality	Consistency in Task	Work Speed
Managing Work Day	No	4.47*	4.37*	4.38*	4.25*	3.96*
	Yes	3.87	3.73	3.89	3.30	3.05
Making Decisions on the Job	No	4.43*	4.31*	4.35*	4.21*	3.88*
	Yes	3.86	3.72	3.87	3.33	3.11
Performing Essential Functions of the Job	No	4.38*	4.34*	4.33*	4.24*	4.01*
	Yes	3.95	3.76	3.93	3.89	3.09

NOTE: * = For all items -- $p < .0001$ and all degrees of freedom are at least 242, $p < .05$

DISCUSSION

It is widely believed that many employers are reluctant to hire persons with disabilities due to their lack of knowledge about disability or their fears and apprehension regarding persons with disabilities (Hall & Hall, 1994; Macy, 1996; Pati & Bailey, 1995; Peck & Kirkbride, 2001).

Various misconceptions or conflicting information regarding the work performance of individuals with disabilities are often based on beliefs about the capabilities of persons with disabilities, not first-hand experiences. The purpose of this investigation has been to provide a description of the work performance of employees with known disabilities from the perspective of their supervi-

sors, the individuals who are in the most appropriate position to evaluate their performance.

In this study, the 255 supervisors of employees with disabilities were quite satisfied with the work performance of employees with disabilities. The investigation also identified relationships between specific supervisor characteristics, employee characteristics and work performance. A discussion of five key findings, as well as the implications for vocational rehabilitation and supported employment providers, and future research follows.

Supervisors View Workers with Disabilities as Capable and Productive Employees

Supervisors are satisfied with the overall work performance and productivity of employees with disabilities. They describe these workers as conscientious, consistent, dependable, and prompt employees. Workers with disabilities perform as well as, or better than, their nondisabled coworkers. Additionally, supervisors perceptions of the work performance of employees with disabilities were not affected by the length of time they were responsible for supervising employees with disabilities.

These findings should assist in addressing the widespread myths and misconceptions pertaining to the work potential of employees with disabilities. In these large, national businesses, workers with disabilities are viewed as exceedingly capable employees whose work performance contributes to organizational productivity and profitability. The reported experiences of the 255 supervisors of workers with disabilities reinforce the positive findings from prior research on employers' direct assessment of the work performance of employees with disabilities (see e.g., Blanck, 1998; DuPont, 1990; Graffam et al., in press; Kregel & Unger, 1993; Shafer et al., 1987).

Facing Productivity Issues of Workers with Disabilities

Though the overall assessment of the work performance of employees with disabilities was quite favorable, there is some evidence that supervisors may have reservations about the ability of employees with disabilities to complete job duties and responsibilities in a timely manner. In all of the analyses conducted in the area of work performance, work speed was consistently rated lower than other measures of work performance, despite supervisors' general satisfaction with the work speed of employees with disabilities.

Businesses continue to remain concerned about the productivity of workers with disabilities. However, this should not be surprising since the 1990s were clearly the decade of enhanced business productivity. There is increasing pressure for businesses to get the most work output per unit of employee. Why should this be any different for employees with disabilities? This concern could be viewed positively in the sense that businesses are growing increasingly "color blind" to the type of disability, race, or color of a given person if they can be productive and get the job done in an effective and efficient manner. Businesses are under pressure to maximize their profits and this often translates into either reducing expenses or getting the most out of each worker in a 40 to 50 hour week. For qualified individuals with disabilities, who are matched to appropriate jobs, there may be a very attractive long-term relationship between the business and individual. However, the burden remains on the individual with a disability, the supporting agency, and to a certain extent the business to capitalize on this opportunity.

Supervisors Have Different Perceptions of the Work Performance of Employees with Disabilities Based on the Perceived Functional Limitations of These Employees

Despite employers' satisfaction with the work performance of workers with disabilities, employees with different functional limitations were rated less favorably on work performance measures. Supervisors who perceived employees with disabilities as needing assistance with specific job-related tasks, such as managing one's work day, making job-related decisions, and performing the essential functions of the job, were less satisfied with the work performance of employees with disabilities. In contrast, employees with disabilities with functional limitations in the areas of mobility or communication received more satisfactory work performance ratings.

These findings may suggest that supervisors are more effective in meeting the support needs or accommodation requests of employees with less severe disabilities. For employees whose support needs might not be readily apparent (e.g., individuals with cognitive disabilities or mental illness), or involve overcoming communication or workplace environmental barriers versus specific job-related functions, supervisors may experience difficulty in recognizing that a job performance problem exists and

then identifying and securing effective accommodations. The inability of organizational personnel to adequately address the support needs of workers with disabilities may result in substandard work performance and possible termination.

Personal Experiences of Supervisors Dramatically Effect Their Perceptions of Employees with Disabilities

The majority of supervisors participating in this study had some level of contact with persons with disabilities outside of the work setting. Many indicated having a family member or relative with a disability or knowing someone within their community with a disability. Thus, it is not surprising that supervisors' contacts and experiences with persons with disabilities were related to their assessment of employee work performance.

However, it is interesting that supervisors with no personal experience relating to disability were more satisfied with the work performance of employees with disabilities than supervisors who reported personal experiences relating to disability. The perceptions of supervisors with no personal experiences relating to disability may reflect a tendency to respond to politically sensitive items in a socially desirable manner. In contrast, supervisors who have a history of experiences with persons with disabilities were rigorous in their assessment of the work performance of employees with disabilities and may have higher expectations based on their personal experiences.

Employees with Disabilities are Committed and Dependable Employees

Surprisingly, many supervisors were not involved in the hiring of employees with disabilities, as many employees were already working in their current positions prior to the supervisors' arrival in the department or unit. It is reasonable to assume that employees with disabilities in this study may have relatively stable work histories with their specific departments or work units. The majority of supervisors (73%) report supervising employees with disabilities within their organizations for at least one year, with almost one-third (30%) of supervisors reporting that they supervised employees with disabilities for at least three years but less than 10 years. Additionally, supervisors indicated that employees with disabilities appear to

be committed and reliable employees. Thus, the employees with disabilities in this study may have experienced less frequent job changes due to promotion, reassignment, transfer, or termination in comparison to other workplace personnel.

On one hand, this finding could be viewed favorably in that employers value the commitment and dedication of their workers with disabilities and may not view workers with disabilities as "job hoppers". As employers attempt to recruit potential employees from a shrinking labor market and control the costs of turnover, employers have increasingly viewed employee retention as a top priority. Employers have identified the organizational commitment of employees with disabilities as a benefit of hiring persons with disabilities (Graffam et al., in press; Neitupski et al., 1996; Shafer et al., 1987). Further, employers may be willing to accept less than maximum productivity from an employee in exchange for other work behaviors or traits that are valued by the employer, such as dedication, employee commitment, and job retention (Graffam et al., in press; Shafer, et al., 1987; Zivolich & Weiner-Zivolich, 1997).

However, the fact that workers with disabilities are committed and dedicated employees may not result in increased opportunities for career advancement, promotions, and job transfers. For instance, Mank and colleagues (1997) found no relationship between longevity on the job and higher outcomes in terms of wages and socialization for employees with disabilities. Employers have also indicated that workers with disabilities possess limited skills, which limited the possibility of future advancement (Bolton & Roessler, 1985). Further, the existence of a "glass ceiling" for women and other minorities has been well documented (Gallese, 1991; Morrison & VonGlinow, 1990). Yet, little is known about the extent to which employees with disabilities pursue career advancement opportunities or encounter barriers to advancement similar to other minority populations in the workforce.

IMPLICATIONS

The findings of this study have several implications for vocational rehabilitation and employment support providers. These implications are related to capitalizing on the personal experiences of workplace personnel in

identifying accommodations and supporting employees with disabilities, and in addressing employers' concerns about people with disabilities in the workforce.

Vocational rehabilitation and employment support providers should recognize the fact that many supervisors and other workplace personnel have personal experiences with individuals with disabilities outside of the workplace. Therefore, workplace personnel may be an important resource for job-specific accommodation information and in facilitating the use of natural supports. With the increased emphasis on the use of natural supports in the workplace, supervisors play a pivotal role in integrating and supporting workers with disabilities. Further, it has been argued that employees with disabilities who have more typical work experiences as compared to coworkers without disabilities in the same workplaces have higher wages and increased workplace socialization than employees who receive extensive support from human service professionals in the work setting, regardless of one's disability (Mank, Cioffi, & Yovanoff, 1997a; 1997b; 1998; 1999). Vocational rehabilitation and employment support providers should maximize the use of supervisors and other workplace personnel who have personal experiences with people with disabilities outside of the workplace in an effort to improve employment outcomes for workers with disabilities.

The findings also suggest that supervisors may have difficulty in effectively remedying performance problems of workers with more significant support needs. Supervisors are an invaluable resource in describing work processes and procedures within their business units, but they may have limited knowledge about the variety of accommodations available to assist employees with disabilities in performing the essential functions of their jobs and completing their job duties in an efficient manner. Human service professionals should work collaboratively with supervisors to identify strategies for identifying disability-related performance problems and then securing and implementing effective accommodations.

The findings from this investigation also provide valuable information about the employment capabilities of persons with disabilities. When conducting job development or marketing activities, supported employment professionals should be able to more convincingly address employer concerns about hiring persons with disabilities. The findings provide evidence to address

employer concerns about having to make productivity concessions for an applicant with a disability.

Directions for Future Research

This study also has a number of implications for future research regarding both the work performance and career advancement of employees with disabilities and the employers' knowledge and utilization of workplace supports. This investigation highlighted the fact that supervisors of employees with disabilities in these 43 employers are satisfied with the work performance of employees with disabilities. Yet, there is also a need to validate the findings that pertain to supervisors' perceptions of the work performance of employees with disabilities in comparison to the work performance of their nondisabled coworkers. Though supervisors participating in this study indicated that employees with disabilities perform the same as, or better, than their nondisabled coworkers, direct comparison of the work performance of employees with disabilities with nondisabled coworkers is warranted. For example, findings generated from a study that compares the work performance of employees with disabilities to the performance of non-disabled employees, in the same job, on objective work performance measures, may further substantiate the results of this investigation.

Additionally, the findings from this study describe the work performance of employees with disabilities as rated by their supervisors. Undoubtedly, there is a great deal of information available in these large businesses regarding the work performance of all employees. In many organizations extensive evaluations of employee work performance are conducted on an annual basis and often information is gathered from a variety of organizational sources such as coworkers, supervisors and middle management. Analyzing the evaluations of employees with disabilities and comparing their evaluations with that of their non-disabled workers should assist in determining the extent to which employees with disabilities contribute to organizational productivity and profitability.

There is also a need to investigate if a relationship exists between supervisors' knowledge about disability and accommodations and their assessment of work performance. This study provides evidence that supervisors gave less favorable ratings to the work performance of employees with disabilities who needed

assistance in managing one's work day, performing the essential functions of the job, and making job-related decisions as compared to the ratings of employees who did not need assistance in these areas. We do not know the extent to which accommodations were needed or provided to address the perceived functional limitations of workers with disabilities in these areas and the relationship of these accommodations to work performance. Future research on employers' knowledge and utilization of accommodations is warranted

Study Limitations

There are possible limitations in this research that should be noted. First, the sample of 43 businesses, which was not randomly chosen, may not be representative of all employers or supervisors of employees with disabilities. For instance, the self-selected nature of employers who indicated having employed workers with disabilities may have identified employers who were more proactive in their approach to supporting people with disabilities than other employers. Similarly, selection is also a concern in regards to human resource professionals having to identify supervisors or managers to participate in the study. Human resource professionals may have chosen supervisors or managers that they believed would report more favorable experiences with supervising workers with disabilities.

A second limitation focuses on the confidential nature of disability disclosure. Initially, during the construction of the instruments and consultation with members of the expert panel, it was decided that human resource professionals or supervisors should not disclose the disability of employees who would be referenced for the study. Despite having data that describes the functional limitations of employees with disabilities, the lack of precise diagnostic information on the disabilities of employees referenced in this study limits the generalizability of the findings.

Further, the confidentiality and disability disclosure factor presents another limitation in that human resource professionals were required to identify employ-

ees with disabilities within their organizations so that they could then identify supervisors. It is likely that human resource professionals were able to identify employees with disabilities because the employees had either self-disclosed their disability, requested accommodations, or received workers' compensation or short-term or long-term disability.

However, there may be some discrepancies between supervisors and human resource professionals regarding disability in the workplace and the functional limitations of employees with disabilities. Though both human resource professionals and supervisors were instructed to use the ADA's definition of disability, not knowing the specific disabilities of employees referenced in this study remains a limitation.

Lastly, the inability to control the response set of social desirability represents another limitation. This is especially true in this study when supervisors were responding to questions regarding a potentially sensitive area, such as employing individuals with disabilities, as well as one in which there exists potential for litigation due to non-compliance with the employment regulations of the Americans with Disabilities Act.

CONCLUSIONS

Findings from this research demonstrate that employees with disabilities are capable and productive employees whose work performance contributes to organizational productivity and profitability. The favorable work performance assessments from supervisors with direct experience in managing workers with disabilities should assist in addressing the various myths and misconceptions pertaining to the work capabilities of individuals with disabilities. However, the findings also raise additional questions about the capacity of organizations and workplace personnel to address potential performance issues of employees who may have more challenging support needs.

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